# Study finds liver cancer increasing in low risk countries, decreasing in high risk countries

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A new study finds liver cancer incidence rates continue to increase in some low-risk parts of the world such as North America, and are decreasing in some of the highest risk countries of Asia. Despite this, the incidence rates in Asian countries remain twice as high as those in Africa and more than four times as high as rates in North America. The study will be published in an upcoming issue of *Cancer Epidemiology Biomarkers and Prevention* and appears early online.

Using data from the International Agency for Research on Cancer, American Cancer Society epidemiologists Melissa M. Center, MPH and Ahmedin Jemal, PhD examined recent trends in liver cancer incidence rates from 1993 to 2002 for 32 cancer registries worldwide. They also examined the male to female rate ratios for these and four additional registries, based on the 1998 incidence data.

They found liver cancer incidence rates for both men and women increased from 1993 to 2002 for eight of the 32 cancer registries considered in the analysis. Increases were largely confined to economically developed countries of Western Europe, North America, and Oceania and may be partly due to increased chronic HCV infection as a result of unscreened blood transfusions and contaminated needles used for medical purposes and with widespread intravenous drug use in previous decades. In contrast, rates decreased in both men and women in five registries including three in Asia. Despite this, incidence rates in

Asian countries remain three to four times higher than those in low-risk areas with increasing rates. Male to female rate ratios varied from 0.9 in sub-Saharan African and South American registries to 5.0 (five men for every woman diagnosed) in France and Egypt.

The authors conclude that liver cancer incidence rates continue to increase in some low-risk parts of the world, while they are now decreasing in some of the highest risk countries in Asia. Additional studies looking at causation are needed, they say, to further elucidate factors contributing to these divergent liver cancer incidence trends worldwide.

"We hope our description of international liver cancer incidence trends may stimulate studies to further illustrate etiologic factors associated with these divergent liver cancer incidence trends worldwide," said Ms. Center.

**More information:** International Trends in Liver Cancer Incidence Rates, Melissa M. Center and Ahmedin Jemal, Cancer Epidemiol Biomarkers Published OnlineFirst September 15, 2011; doi: 10.1158/1055-9965.EPI-11-0643

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