

Indigenous people at higher risk of preventable cancers

Lyon, France, 15 October 2015 – A new study led by the International Agency for Research on Cancer (IARC), in partnership with researchers internationally,¹ reveals that Indigenous populations in Australia, New Zealand, Canada, and the USA have higher incidence rates of preventable cancers than the rest of the population.

The study, published today in *The Lancet Oncology*,² shows higher rates of cancers such as lung cancer and cervical cancer in Indigenous people, highlighting the need for better cancer-targeted prevention strategies.

The study

“The poorer general health and lower average life expectancy of Indigenous peoples has already been documented, but this is the first time we have been able to systematically compare cancer incidence rates in Indigenous populations relative to their non-Indigenous counterparts, across these high-income countries,” says Dr Freddie Bray, Head of the Section of Cancer Surveillance at IARC and a lead author of the paper. “Given the global increases in cancer incidence that are projected over the next decades, a greater understanding of the magnitude and profile of cancer among Indigenous peoples provides critical evidence in developing and implementing targeted cancer control policies to reduce the burden in these communities worldwide.”

The study’s results are based on incidence rates from population-based cancer registries in three states of Australia (Queensland, Western Australia, and the Northern Territory); New Zealand; the province of Alberta, Canada; and the Contract Health Service Delivery Areas of the USA. Age-standardized incidence rates by registry, year, sex, cancer site, and ethnicity for 2002–2006 were compared.

Global burden

In both Indigenous and non-Indigenous populations, the most common cancers among men were lung, prostate, and colorectal cancers and among women were breast, lung, and colorectal cancers. The overall cancer burden tended to be lower in Indigenous people than in the rest of the population (the exceptions were in New Zealand and among Alaska Native women in the USA). However, clear disparities and differences were seen in the rates of specific cancers among populations, with Indigenous communities disproportionately affected by cancers related to smoking (such as lung cancer and head and neck cancers) and related to infections (including stomach, liver, and cervical cancers).

“Lung cancer was the most commonly occurring cancer among Indigenous populations in our study,” says Dr Suzanne Moore, the lead author of the study. “Smoking appears to be highly prevalent in Indigenous communities in all four countries compared with their non-Indigenous counterparts. Smoking is a major risk factor for a number of cancers, such as those of the lung, oral cavity, head and neck, oesophagus, stomach, and cervix.”

¹ Menzies School of Health Research, Australia; Alberta Ministry of Health, Canada; University of Alberta, Canada; Alberta First Nations Information Governance Centre, Canada; Massey University, New Zealand; Fred Hutchinson Cancer Research Center, USA; and University of Washington, USA.

² Moore S, Antoni S, Colquhoun A, Healy B, Ellison-Loschmann L, Potter JD, Garvey G, Bray F (2015). Cancer incidence in indigenous people in Australia, New Zealand, Canada, and the USA: a comparative population-based study. *Lancet Oncol*.

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Australia

In Australia, the overall cancer burden was similar or slightly lower in Indigenous populations compared with the rest of the population. However, rates of lung cancer among Indigenous people in Queensland were about 75% higher than those in non-Indigenous people for both men and women. Lung cancer rates were also higher in Indigenous people in Western Australia (by about 40%) and the Northern Territory (by about 60%).

Head and neck cancers, which are known to be associated with smoking, were more common among Indigenous people for both men and women.

Cervical cancer incidence among Indigenous women (in Queensland and the Northern Territory) was more than 2.5 times the rate in non-Indigenous women.

New Zealand

In New Zealand, the overall cancer burden among Māori men was almost 10% higher than that for the rest of the population, whereas among Māori women, the overall incidence rate was 30% higher. This may be due to high rates of smoking combined with high obesity rates among Māori women, which respectively may contribute to an increased risk of commonly occurring lung cancer as well as a number of obesity-associated cancers including female breast cancer. For lung cancer, the incidence rate among Māori women was 4 times that of non-Māori women, and among Māori men was 2.5 times that of non-Māori men.

Canada

In Alberta, Canada, overall cancer incidence rates were similar for Indigenous and non-Indigenous populations. There were no statistically significant differences between the incidence rates for specific cancer sites in First Nations and Inuit men and women compared with their non-Indigenous counterparts. However, there was a tendency towards higher rates of lung cancer in both men and women, and of cervical cancer in the Indigenous population.

USA

In the USA, the overall cancer burden was lower among Indigenous populations, but lung cancer incidence rates among Alaska Natives were about 50% higher than those in Whites for both men and women.

Potential for prevention

“The high incidence rates in Indigenous populations of preventable cancers such as lung and cervical cancers indicate an urgent need for communities and governments to work together to improve cancer surveillance, targeted prevention, early detection, and vaccination programmes,” says IARC Director Dr Christopher Wild.

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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.