

Cancer in four small Pacific island states

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Background: Cancer is a significant and growing problem in the Pacific, as these countries undergo demographic and epidemiological transitions. However, relatively little is known about the magnitude of the problem, the key risk factors, or the potential for prevention.

Methods: Recently, we have established and/or upgraded cancer registries in four Pacific countries (Tonga, Fiji, Cook Islands, and Niue) using IARC's CanReg-4 software. It is planned to extend these standardised cancer registration systems to other Pacific countries. This first report provides an overview of cancer incidence in Tonga (2000-2005), Fiji (2003-2005), Cook Islands (2000-2005) and Niue (2000-2005) and compares the findings with those for Pacific people in New Zealand.

Results: The overall age-standardised cancer incidence rates for Pacific people in New Zealand (315 per 100,000 person-years in females, 379 in males) were similar to those for New Zealand overall (322 in females, 404 in males). However, cancer incidence was markedly lower for Pacific people living in the Pacific with rates of 195 and 151 for females and males respectively in Tonga, 231 and 126 in Fiji, 165 and 142 in the Cook Islands and 228 and 131 in Niue. However, some specific cancers were elevated in the Pacific including cervical cancer (16 in Tonga, 51 in Fiji and 17 in Cook Islands, and 26 in Niue as compared with 10 in Pacific people in New Zealand, and 8 in New Zealand overall), liver cancer (rates of 8, 5, 19, 0, 7, and 2 respectively) and uterine cancer (rates of 24, 18, 47, 29, 38 and 12 respectively).

Conclusions: Cancer incidence in the Pacific is lower than for Pacific people living in New Zealand, with the latter group having similar cancer incidence rates to New Zealand overall. Environmental rather than genetic factors are most likely to explain these patterns, and cancer incidence in the Pacific is likely to increase to rates similar to those in New Zealand as Pacific countries become more 'westernised'. The high rates of cervical cancer and liver cancer in the Pacific indicate an important role of infectious disease (Human Papilloma virus (HPV) and Hepatitis B virus (HBV)) for these cancers in the Pacific.