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Global changes and health in French Polynesia

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French Polynesians are intimately connected to their environment which nourishes their daily life and culture. Over the last decades, islanders had to face major changes in their environment and their society. Dietary changes probably explain the emergence of chronic diseases and their associated risk factors.

In order to evaluate the most important health impacts associated with these global changes, we conducted 3 separate epidemiologic studies over the last 4 years. The first study included 195 adults aged 18 yrs and over from Tahiti and Moorea. The second one aimed to evaluate exposure to toxicants and nutrients from fish consumption during pregnancy and the last and most recent one included 306 participants aged 12 yrs and over from Papeete and the Australes archipelago. From these studies, we learned among other findings, that (i) fish consumption still provides extremely high body burden of key nutrients such as selenium; (ii) that a shift from reef fish to pelagic fish consumption probably due to ciguatera fears and also modernization are responsible for a high exposure to toxic mercury in adults and pregnant women. We also found (iii) that high intakes of natural omega-3 fatty acids found in fatty fishes are now challenged by intake of harmful industrial trans fatty acids, especially among youth. We even observed (iv) an increase in cardiovascular risk factors among the young generation compared to the oldest. Finally, we found (v) that young participants from Rapa are in better health condition than teenagers from other islands.

Polynesians are already in a transition phase characterized by a shift from a traditional diet towards a more western diet, mostly among young people and the emergence of chronic diseases risk factors is already seen. These data raised serious public health concern for future generations if public health policies are not implemented.

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