

Changes in adult blood pressure associated with modernization on islands of Ambae, Aneityum, and Efate in the Republic of Vanuatu: 2007-2011.

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Changes in behavior and lifestyle associated with modernization contribute to health transitions in developing countries. In the Republic of Vanuatu, a developing South Pacific island nation, these behavioral and lifestyle changes are contributing to a rapid shift in health burdens, causing non-communicable disease such as cardiovascular disease, diabetes and obesity to increase in prevalence. This study evaluates the impact of modernization on blood pressure and prevalence of hypertension on three islands of varying economic development in Vanuatu. Data were collected in 2007 (n=568) and 2011 (n=1,246) from adult males and females across the islands of Ambae, a rural island, Aneityum, a rural island with tourism, and Efate, an urban island. Participants answered questions regarding their lifestyle and health, and had biophysical and anthropometric measurements taken including blood pressure, stature, weight, and percent body fat. Analyses indicate that the percentage of individuals with hypertensive diastolic blood pressure values increased significantly between 2007 and 2011 across all three islands. Additionally, in both survey years and among both men and women, mean diastolic blood pressures was significantly greater on Efate, the most modernized island in our sample, than on Aneityum and Ambae. Finally, we observed a positive association between blood pressure and smoking tobacco, body mass index, consuming animal protein, and having access to technological goods. These data highlight the remarkable rapidity with which the prevalence of hypertension can increase during health transition. Our data indicate some behaviors associated with these increases might provide promising targets for prevention and intervention strategies in Vanuatu and similar countries experiencing the rapid increase in non-communicable diseases associated with health transition.

Keywords: Health transition, Vanuatu, hypertension, chronic disease risk, lifestyle risk.

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