

Tale of two extreme worlds –the big and the small

Pacific Island and Indian peoples represent extremes of obesity prevalence but both ethnic groups have a high prevalence of type 2 diabetes mellitus (T2DM) and related traits. For the same BMI they have substantially different fat and fat free masses. We compared the body size, biochemistry and blood pressure variables of Pacific and Indian adolescent boys and girls.

Despite their younger age, Pacific boys and girls were considerably heavier, taller and adipose, and had higher blood pressure and lipid levels. Forty percent of Pacific Island children were obese while more than 40% of Indians were underweight. Measured with whole body dual X-ray absorptiometry Pacific Island adolescents had a substantially higher proportion of body fat and higher bone mineral density than Indian. Despite these differences, Indians had higher glycaemia. Comparison of birth weights suggests that foetal nutrition and growth patterns could have programmed these populations differently for later cardio-metabolic risk.

Lifecourse comparisons of populations with extreme ecological and ethnic characteristics is likely to improve our understanding of factors affecting cardiometabolic risk at either end of nutritional exposures.

Country

New Zealand

Institution

Auckland University of Technology

Author: Prof. RUSH, Elaine (Child Health Research Centre, Auckland University of Technology)

Co-authors: Dr GANPULE, Anjali (Diabetes Unit, KEM Hospital Research Centre, Rasta Peth, India); Prof. YAJNIK, Chittaranjan (Diabetes Unit, KEM Hospital Research Centre, Rasta Peth, India); Mr BHAT, DS (Diabetes Unit, KEM Hospital Research Centre, Rasta Peth, India); Dr SAVILA, Fa'asisila (Child Health Research Centre, Auckland University of Technology)

Presenter: Prof. RUSH, Elaine (Child Health Research Centre, Auckland University of Technology)

Session Classification: Poster session 1

Track Classification: Epidemiology