

## **Mean nutrient intake and foods contributing to selected nutrients among children aged 10 to 12 years: Many Rivers Diabetes Prevention Project**

**Victoria Flood**, NSW Centre for Public Health Nutrition, The University of Sydney, **Josephine Gwynn**, The University of Newcastle, **Jimmy Chun-Yu Louie**, NSW Centre for Public Health Nutrition, The University of Sydney, **Nicole Turner**, Durri Aboriginal Medical Service, **Janine Cochrane**, Biripi Aboriginal Medical Service, **Stephen Cochrane**, **Wayne Smith**, **John Wiggers**, The University of Newcastle

### Background

The incidence of chronic disease, such as type 2 diabetes, continues to develop at an increasing rate among adult Aboriginals and it is likely that dietary habits of childhood influence this disease burden. However, there are little detailed food and nutrient data of Australian Aboriginal children.

### Objective

To assess the food and nutrient intake of the participants of the Many Rivers Diabetes Prevention Project (MRDPP), and identify the main foods contributing to their energy intake.

### Methods

Food intake of 225 children aged 10–12 years were obtained by three 24-hour recalls as part of the MRDPP, collected in the NSW areas of Taree, Kempsey and Newcastle; 40% of participants were Aboriginal children. Nutrient intakes were compared to the national nutrient reference values, in particular reporting the proportion who met the estimated average requirements (EAR) or adequate intake (AI), as appropriate.

### Results

Preliminary analysis showed a mean energy intake of 8904kJ among the boys (n=101) and 8173kJ among the girls (n=124). Nutrients with low intakes in relation to the % meeting EAR (or AI) included: fibre (84% boys and 74% girls consumed less than the AI); calcium (51% boys and 68% girls consumed less than the EAR); and magnesium (15% boys and 17% girls consumed less than the EAR). The main foods contributing to energy intake were: bread (11.2%), milk (9.0%), high fat potatoes (crisps and hot chips) (7.9%), high fat processed meats (7.5%), and sugar-sweetened drinks (6.0%).

### Conclusion

Overall, the participants of this study were consuming diets moderately high in fat with an emphasis on energy dense, nutrient poor foods, in contrast to their traditional diets. This, combined with a low intake of fruit and vegetables, is having an adverse effect on their food consumption habits, which is likely to increase their risk of disease later in life. This paper will explore what practical changes can be made to reduce energy dense foods and improve the quality of foods consumed.