Quality not quantity

Getting a better start in life

In New Zealand many children are living in environments which are not conducive to good nutrition and longer term health.

- Good nutrition is vital for optimal child development
- High energy diets tend to be nutrient-poor

New Zealand’s child nutrition status

- Iron deficiency is prevalent in inner cities
- One in three hospitalisations are potentially avoidable with improved nutrition
- A significant number of children may be Vitamin D deficient
- The pneumonia hospital admission rate in Auckland is up to 5 times greater than in other developed countries
- One in twelve children (aged 2 to 14 years) are obese (8.3%)
- One in five children is overweight (20.9%)

The result: malnutrition during crucial growth periods leading to wider developmental problems and obesity.

Case study

Micronutrient-deficient school children don’t learn as well as other children.

The University of Auckland’s paediatric nutrition team research focus is to look at nutrition strategies to improve the health and development of New Zealand Children. One such strategy is the development of a nutrient-fortified milk for specific populations that has government policy support and will sit alongside other off-the-shelf, fresh, liquid milks.

Coming opportunities

The University is focusing on four key areas:

1. Early childhood community based nutritional intervention
2. Preventing hospital readmission in nutritionally vulnerable children. To determine the effect of nutritional intervention on recurrent disease
3. Vitamin D supplementation during pregnancy and early infancy to determine a safe and efficacious dosing regime
4. Vitamin D concentration in breast milk

The objective: inform the development of maternal and child nutrition policy with practical solutions to improve nutritional status and child health. Such improvements are likely to flow on to improved adult health.

Good child nutrition starts in the womb, moves into breastfeeding and then through weaning to a nutrient-rich diet that will help children reach developmental milestones.
Research and developmental psychology offer answers

Getting the answers

Randomised clinical trials and the new New Zealand cohort study Growing Up in New Zealand form the core components of our work that inform nutrition policy development. The development and design of these projects is refined using descriptive and case-control projects that enroll well children from the community as well as children hospitalised with illnesses that are nutritionally dependent, for example, pneumonia.

Validated measurement tools are used to test the efficacy of products/micro-nutrients, research diet quality, and conduct developmental testing.

Developmental psychology is a key part element of child nutrition. The team has access to the University’s expertise and tools that measure cognitive and motor functioning.

Growing up in New Zealand

Growing Up in New Zealand is New Zealand’s new longitudinal study. During 2009-2010, 6,800 pregnant women and their partners were enrolled in this study. The children born and hence enrolled in this project are a diverse sample that is representative of the diversity of families that make up New Zealand today. The contribution that nutrition makes to health and well being has been a key component of this project since its outset.

Paediatric nutrition – key market implications

• Testing of foods/micro-nutrients to establish efficacy/validate claims.

• Foods designed for interventions to address the lack of specific micro-nutrients in a child’s diet

• Definition of important nutritional determinants of child health

• FDA-standard research protocols that open up the vast US market

Auckland UniServices Ltd

Auckland UniServices Limited is the largest research and development company of its kind in Australasia and a wholly owned company of The University of Auckland.

UniServices manages The University’s intellectual property and is responsible for all research-based consultancy partnerships and commercialisation.

By connecting its clients with The University’s brightest academic minds, UniServices provides commercial organisations the innovative technologies they seek, and governments the national programmes they need. The results can mean huge strides in a company’s international competitive edge, or in a country’s health, education and welfare capability.

UniServices’ open innovation and world-class thinking can change the world.

Contact

innovation@auckland.ac.nz

Auckland UniServices Limited

Level 10, UniServices House, 70 Symonds Street, Auckland
Private Bag 92019 AMC, Auckland 1142, New Zealand
www.uniservices.co.nz