REPORT OF AN AUDIT OF BODY MASS INDEX

Cape York Aboriginal and Torres Strait Islander Children (2 up to 18 years)

Executive summary, March 2018
Healthy growth is important for the health and development of children, and also has long term benefits. Children who grow well - not too thin and not too heavy - are less likely to have chronic disease when they are adults.

Apunipima health teams need information about growth patterns of Cape York children for future service planning and for evaluation of their work. This report shows the findings of an audit of children’s growth in Cape York. The audit used measurements from routine health checks performed between January 2014 and January 2016.

The audit was granted ethics exemption by the chair of the Far North Queensland Human Research Ethics Committee (HREC Reference number: HREC/16/QCH/68 – 1058 QA).

Growth assessment is one of the processes done routinely when children come for their regular child health checks. Each child is weighed and his/her height is measured. Child health staff use those measurements to assess the growth of each child.

As part of this process, the measurements are recorded on the Apunipima electronic record system. Information was downloaded from Apunipima electronic records and included height, weight, date of measurement, date of birth, sex and usual place of residence.

This information was used to calculate Body Mass Index (BMI) (weight in kilograms divided by (height in metres)$^2$). Children were allocated into one of four categories according to their BMI, their age and their sex (Center for Disease Control - BMI percentiles for age and gender). Apunipima clinical service providers use these CDC percentiles in growth assessment of children over two years of age.
KEY FINDINGS

Cape York Aboriginal and Torres Strait Islander children aged from 2 up to 18 years (n = 941)

• Most children (64%) were in the healthy weight range, 15% were under weight, 9% over weight and 12% in the obese range.

• Overweight and obesity is higher among the older children.

• There was little difference between boys and girls.

• There were differences between Cape York communities. In some communities, there were more ‘underweight’ children, while in other communities more children were in the ‘overweight’ or ‘obese’ categories.

The pie graph below show the overall findings.

Figure 1: Cape York Aboriginal and Torres Strait Islander children (941 children, 2 years up to 18 years) in different Body Mass Index categories
LIMITATIONS

This audit does have limitations due to the use of Body Mass Index (BMI) and routine health service information:

- The use of BMI for children is quite new. We don’t really know yet what BMI actually means in terms of ‘health risk’ for children, including Aboriginal and Torres Strait Islander children in Cape York.

- Information was not available for all Aboriginal and Torres Strait Islander children in Cape York - the children included in the audit were not a representative sample of all Aboriginal and Torres Strait Islander children in Cape York.

- There are likely errors in measurements and recording - there is a need for further work to assess how often measurement errors occur.

CONCLUSIONS

This audit found that there are many Aboriginal and Torres Strait Islander children in Cape York who are ‘thin’ or ‘underweight’ but at the same time, there are also many children who are ‘overweight’ or ‘obese’. All of these children (low and high BMI) may be at increased risk of chronic disease as they grow older. This pattern of underweight occurring at the same time as overweight, has been called the ‘double burden of malnutrition’.

Programs are needed to promote healthy growth for both ‘underweight’ or ‘thin’ children and ‘overweight/obese’ children to reduce the risk of future chronic disease in all these children.
RECOMMENDATIONS

The recommendations below have a nutrition-focus – we acknowledge that these need to be developed further to include other factors which contribute to poor growth:

1. Conduct routine population surveillance of growth indicators among Aboriginal and Torres Strait Islander children of the Cape York communities, from birth to age 18 years, to provide information for Apunipima to plan, provide and evaluate services.

2. Include information on anaemia as well as growth in routine surveillance.

3. Continue to provide education and support for good nutrition, healthy weight gain in pregnancy and complementary feeding as part of Apunipima’s maternal child health program and the Baby One Program.

4. Develop an Apunipima Breastfeeding position statement and policy to protect, support and promote breastfeeding for Cape York families.

5. Ensure systems are in place for timely referral to dietetic services for individualised management of children with growth concerns.

6. Trial culturally appropriate family-focused intervention programs for childhood overweight and obesity in Cape York, which align to the Apunipima model of care.

7. Continue work for supportive environments that increase the availability of healthy foods and drinks and decrease the availability of unhealthy food and drinks in Cape York communities. Approaches need to be community driven and focus on priority settings including stores and takeaways, early childhood education and care, schools and sport and recreation facilities.

8. Advocate for an effective food subsidy scheme to address financial barriers and increase affordability and access to healthy foods and drinks in remote Cape York communities. The subsidy should be targeted to provide support the most nutritionally vulnerable – mothers (especially young mothers) and young children (also the elderly).

This audit for quality assurance and evaluation was granted an exemption from ethical review by the Far North Queensland Human Research Ethics Committee HREC/16/QCH/68 – 1058 QA in July 2016