Kids'Cam Tonga:
Exploring the me'akai (food) Tongan children eat using wearable cameras

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Kids'Cam **Tonga**

Aim

- To explore the world of Tongan children, their interaction with it and the impacts on their health

Ethical approval
- To investigate any aspect of public health interest (13/220 (NZ) and 290116 (Tonga))

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Key Public Health Issue

High prevalence of non-communicable diseases (NCD's)

- 81% of all deaths attributable to NCDS

- 76% and 60% female and male aged 25-64yrs obese

- 54% and 36% of girls and boys are either overweight or obese

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Method

Kids'Cam Tonga

- 108 randomly selected children from Tongatapu (n=72) and Ha'apai (n=36)
  - Me'akai in Tonga analysed data collected from the 36 Ha'apai participants only
- Children wore an automated camera (Autographer)
- Three days (Friday – Sunday)
- Autographer took a photo every 7s
- Approximately 18,000 images/child
- In collaboration with Tonga partners: MoH, TongaHealth and MoET

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Me'akai (Food) in Tonga Study

Goal
- to contribute to the prevention and control of diet-related NCDs in Tonga

Aim
- to examine the nature and source of the food Tongan children eat (in Ha'apai).

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Data Analysis

Nature
- Food type
- Eating episode
- Setting
- Purchaser

Source
- Where

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RESULTS

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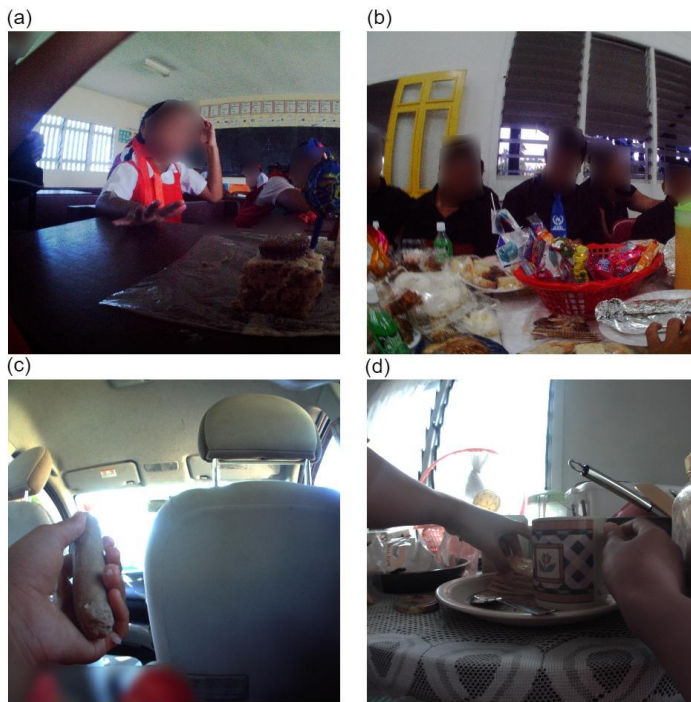# Eating Episode

Snacking most predominant eating episode
- 4.0 non-core food per 10hr day
- 1.8 core food per 10hr day

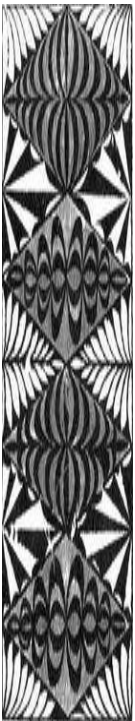Snack on non-core foods at twice the rate of core foods

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(a) (b) (c) (d)

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(a) (b) (c) (d)

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Key recommendations for public health policy and practice

- National NCD strategy

- Implementation of a healthy school food policy

- Maintenance or increases in junk food taxes

- Trade or import restrictions

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Conclusions

- Nutrition transition (WHO, 2003; Pauli et al., 2015)
- No single intervention can tackle obesity and diet-related NCDs.
  - Multi-sectoral
  - Multi-component
  - Various settings
  - Whole of community-based
- Kids'cam method could be useful in other countries for both children and adults

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