

Exploring nutritional attitudes and practices of Rarotongan 13-16 year olds via a population wide school-based survey:

Implications for NCD vulnerability and school-based health-promoting
interventions

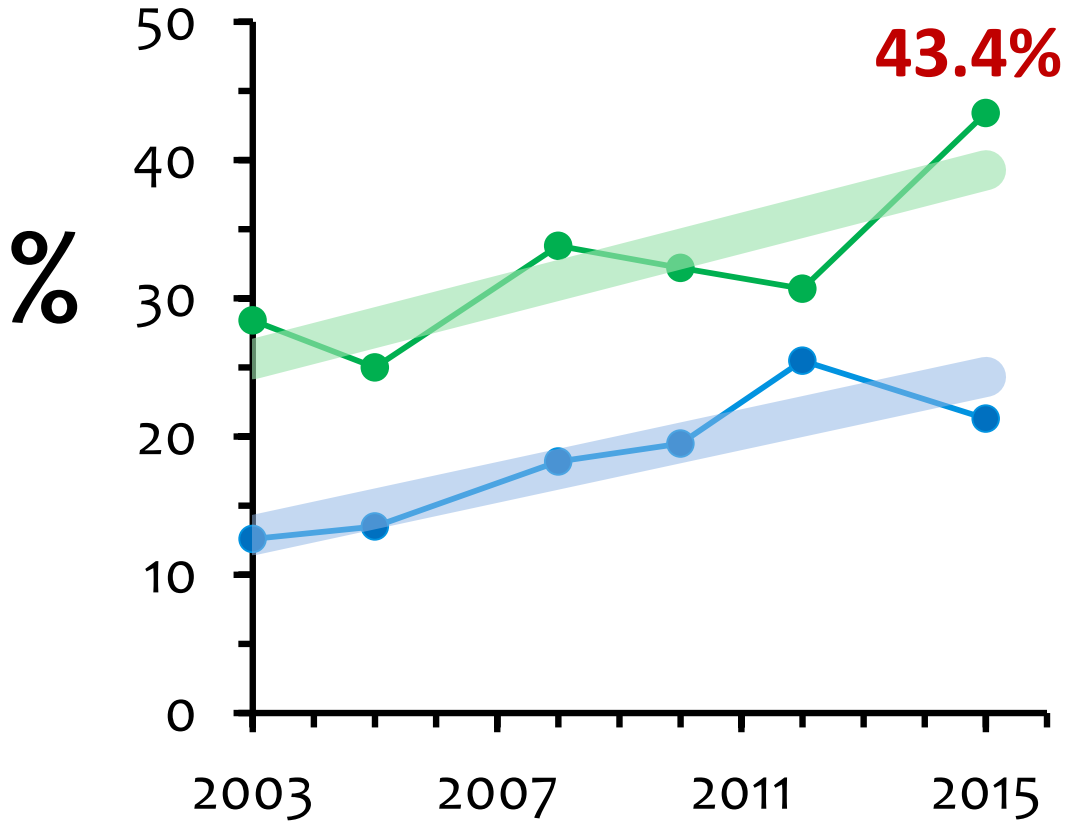
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on behalf of the Cook Islands Pacific Science for Health Literacy Project team

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Overweight Children and Young People in the Cook Islands 2003 to 2015



STEPS: 2015

18-24 Years
Overweight: 87.2%
Obese: 68.5%

13-17 to 18-24 Years
2-fold increase in
overweight

25-64 Years
Overweight: 91.1%
Obese: 72.2%

● Primary School Age ● Secondary School Age

Transgenerational Opportunity:

Adolescence – before the horse has bolted!

- Adolescence is a determining point for nutritional, physical activity and cognitive behaviors that persist into adulthood and influence future health.
- Consequently these behaviors will influence periconceptual environmental exposures, as well as health prior to conception.
- Even if pregnancy is a considerable distance from adolescence, behaviors that develop during adolescence contribute towards later-life NCD vulnerability in offspring.
- ~40% of CI mothers giving birth are age 15-24 years; ~70% <30 years
- Thus, adolescence is a life-stage offering significant potential for transgenerational primary prevention of obesity and NCD risk.

Methods: Knowledge, attitudes and practices survey

- Open, closed and Likert questions | Self-completed with facilitation
- Three schools serving 96.5% of secondary pupils in Rarotonga and 71% of secondary pupils in the Cook Islands
- Year 9 and Year 11 | 2014 and 2015
- 63% of eligible adolescents are participating (n=399)
- Male 50.8%, Female 49.2% | 95.5% Identify as Cook Islands Māori
- 59.5% Year 9 students | Median age 13y10m
- 40.5% Year 11 students | Median age 15y6m

The PSHLP study protocol was approved by the Cook Islands Foundation for National Research (#05/14) and the University of Auckland Human Participants Ethics Committee (011207).

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“How much does it matter...		<i>n</i>	Baseline Survey Responses (%)			
			A lot	Some	Not very much	Not at all
...what you eat?”	Total	399	37.1	53.9	8.3	0.8
	Male	201	34.8	57.7	7.5	0.0
	Female	198	39.4	50.0	9.1	1.5
...whether you are active or exercise every day?”	Total	398	47.0	41.5	9.0	2.5
	Male	200	50.0	38.0	8.5	3.5
	Female	198	43.9	44.9	9.6	1.5
...whether you are healthy?”	Total	395	65.6	27.6	6.1	0.8
	Male	199	63.3	27.1	8.5	1.0
	Female	196	67.9	28.1	3.6	0.5

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“In an <u>average week</u> , on how many days do you eat each food type below?”		n	Number of days per week Baseline survey responses (%)				
			>5 days	4–5 days	2–3 days	1 day	None
Cooked starchy vegetables (e.g. taro, kumara, potato, maniota, etc.)	Total	398	20.4	22.6	28.1	19.6	9.3
Fresh fruit (e.g. pawpaw, mango, banana)	Total	399	18.3	21.8	37.8	17.5	4.5
Raw or salad vegetables (e.g. tomato, lettuce)	Total	398	14.6	18.3	36.9	21.6	8.5
Cooked green vegetables (e.g. rukau, beans)	Total	398	15.9	21.4	24.9	25.2	12.6
Combined green consumption ^a	Total	399	24.3	25.6	32.6	14.5	3.0

^a Calculated as the highest response value to ‘raw or salad vegetables’ and ‘cooked green vegetables’.

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“In an <u>average day when you eat this food</u> , how many servings do you eat of each food type?”		n	Number of Serves per day Baseline survey responses (%)				
			>5 serves	4–5 serves	2–3 serves	1 serve	None
Cooked starchy vegetables (e.g. taro, kumara, maniota, etc.)	Total	394	8.6	14.0	29.7	32.5	15.2
Fresh fruit (e.g. pawpaw, mango, banana)	Total	397	11.1	11.8	40.3	29.0	7.8
Raw or salad vegetables (e.g. tomato, lettuce)	Total	397	5.5	11.1	29.7	39.8	13.9
Cooked green vegetables (e.g. rukau, beans)	Total	394	8.4	9.6	25.9	39.8	16.2
Combined green consumption ^a	Total	398	11.1	14.8	35.2	32.4	6.5

^a Calculated as the highest response value to ‘raw or salad vegetables’ and ‘cooked green vegetables’.

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Recommended fruit and vegetable consumption		<i>n</i>	Baseline survey responses (%)	
			Yes	No
2 fruit and 3 vegetables servings consumed daily Indicated as students who reported eating 2F3V on 5 or more days per week	Total	399	17.8	82.2
	Male	201	20.4	79.6
	Female	198	15.2	84.8

PACIFIC SCIENCE FOR HEALTH LITERACY PROJECT

“In an average week , on how many days do you consume each type of sugar-sweetened beverage?”		n	Number of days per week Baseline survey responses (%)				
			>5	4–5	2–3	1	0
Chocolate or other flavoured milk (e.g. Milo)	Total	396	12.4	11.6	35.1	28.0	12.9
Energy drinks (e.g. Powerade, V, Red Bull)	Total	394	9.4	10.7	26.1	31.2	22.6
Regular fizzy or soft drinks (e.g. Vaiora, Coke)	Total	393	12.0	15.3	33.1	31.0	8.7
Juice and fruit drinks (e.g. Raro, Just Juice)	Total	396	16.7	26.5	30.3	19.4	7.1
Days per week consuming sugar sweetened beverages of any kind <i>This is likely to be an underestimate as it does not take account of different beverages on different days</i>	Total	396	29.8	32.3	27.8	8.8	1.3
Diet fizzy or soft drinks (e.g. Diet Coke)	Total	391	6.4	7.7	20.5	28.9	36.6

PACIFIC SCIENCE FOR HEALTH LITERACY PROJECT

<p>“In an <u>average day</u> when you consume this, how many servings do you consume of each type of sugar-sweetened beverage below?”</p>		<i>n</i>	Number of serves per day Responses (%)				
			≥4 serves	3 serves	2 serves	1 serve	None
Chocolate or other flavoured milk (e.g. Milo, ZAP...)	Total	394	7.6	6.3	24.9	45.9	15.2
Energy drinks (e.g. Powerade, V, Red Bull)	Total	394	6.3	7.9	17.5	41.1	27.2
Regular fizzy or soft drinks (e.g. Vaiora, Coke, Fanta, Sprite...)	Total	384	8.1	11.2	21.9	44.8	14.1
Juice and fruit drinks (e.g. Raro, Keri...)	Total	390	15.1	18.5	30.0	27.9	8.5
Diet fizzy or soft drinks (e.g. Diet Coke, Coke Zero...)	Total	387	5.9	4.7	11.4	37.5	40.6

SNAPSHOTS

- 80% of participants consume doughnuts weekly
- 38% consume doughnuts >2 days per week
- 35%, when eating doughnuts consume > 2 servings
- Weekly consumption of hot-chips is normal for 85% of participants with 42% eating hot-chips >2 days per week
- Breakfast is consumed daily by 22.7% of participants
 - male 27.1%, female 18.3%
- 50% of participants eat an evening meal with family at least 5 days per week
- 95% of participants consume deep-fried takeaways regularly; 55% consuming these more than once a week

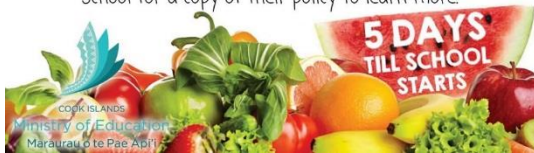
A HEALTHY CHILD MAKES A SUCCESSFUL LEARNER

A growing child needs lots of nutrition to feed the brain and the body so he/she can stay active, motivated, and inspired to learn throughout the day. Make lunch times fun by cutting sandwiches and fruits into fun shapes. Keep food small and manageable and avoid junk food.

Here are some ideas for healthy school lunches.



All schools have Healthy Food Policies so ask your child's school for a copy of their policy to learn more.



A Glimpse at Impacts....

“My family didn’t believe when I said that we were number 1 [for obesity] - because I think my Dad still believes that Cook Islanders are still all fit -. so you have to show them the data.

They were surprised because they did not know about this because back in their time there were no problems with weight. After like I explained this to them they too agreed because one of my parents said they saw one of their friends from when they kids already has diabetes - and so we were like talking about how it is real and that we all need to change and eat more veges and do more exercise.

So like we have been talking about that quite a lot in our house and we are eating more vegetables for our dinners”.



Student E, Year 11

PACIFIC SCIENCE FOR HEALTH LITERACY PROJECT

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