Aim: To assess the potential of school-based DOHaD knowledge translation, linked into core curriculum programmes in Years 9 & 11, to contribute to development relating to education & primary NCD risk reduction in the Cook Islands.

Background

- Adolescence is a period of psychosocial & cognitive development during which behaviour patterns that influence life-long health are established.
- WHO recommends that school-based interventions to support NCD risk reduction in adolescents & their future offspring must link to the core mission of schools & integrate into mainstream curricula.

Context

- The Cook Islands (CI) is a Small Island Developing State in Oceania, population 15,000.
- The study was conducted on the island of Rarotonga, where 75% of the population live.
- Adult overweight/obesity is 91%/72%.
- 29% of adults have type 2 diabetes.
- Significant nutritional transitions have occurred over the past 200 years in the Cook Islands.
- Only 15% of adults and 10% of adolescents meet the target of 3-veg + 2-fruit servings daily.
- The Ministry of Health has identified that due to small population size & land area, & contextual differences between islands, randomised control trials for community-based interventions are neither possible, nor appropriate.

Methods

- Learning programs engaged students in evidence-based analysis of the NCD epidemic, & analysis of potential actions in families, schools, & society.
- Programs linked to existing school science, health & social studies curriculum objectives.
- An individually matched repeated time series design using surveys & focus groups assessed impacts on knowledge, attitudes & behaviour.

Sample

- The study engaged 95% of Year 9 & 11 students on Rarotonga in 2014 & 2015 (n = 492), of which 75% (n = 371) participated in baseline data collection.
- Matched data from pre- to 12-months post-intervention was collected from 66% of evaluation participants (n=246).
- Median age 14y1m; Inter-quartile range [13y8m to 15y3m].
- The study engaged 95% of Year 9 & 11 students on Rarotonga.
- Programs linked to existing school science, health & social studies curriculum objectives.
- An individually matched repeated time series design using surveys & focus groups assessed impacts on knowledge, attitudes & behaviour.

Conclusions

- DOHaD learning programmes integrated into mainstream curricula enabled teachers to contribute to health promotion.
- Participation positively influenced nutritional attitudes, & knowledge of life course perspectives on NCD risk.
- Small, & therefore sustainable, behaviour changes associated with junk-food consumption were observed.
- Behaviour changes associated with health promoting foods (fruit & vegetables), that are beyond the reach of many in the population, were not evident.
- The study supports the notion that knowledge is necessary, but not the sole factor required to facilitate development.

References

- Background

Findings

Relevance of the DOHaD/NCD context for learning in schools

- “The context is relevant because of the high levels of NCDs. But, people are not aware. Raising awareness and promoted improved education attainment.
- Teachers identified that the adaptable programmes were associated with increased engagement in learning and promoted improved education attainment.

Change in attitudes

- “It depends on what we are eating now, because it doesn’t really happen when we are adults. Mostly it is what we are now, like what we are eating now - that will affect our health all our lives…”

Change in knowledge

- “Obesity can come from eating too much & not enough physical activity... but it is also about your family - the way they eat now & the way they ate when your mum was pregnant with you. If mums cannot get a good diet then, the baby could be at higher risk for diabetes or heart disease when it is older”

Behaviour change

- “We need to eat healthier food now for when we are mums. I need to eat more veggies & less fatty foods, but that is not easy... We have learnt to love junk food & it is hard to move away from some things you have learnt.”

Changes in attitudes & professional practice

- “Inviting education to lead intervention design has achieved significantly more than when health has developed & offered interventions to schools.”

References