Healthier reformulation of processed foods: policy opportunities

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National SCIENCE Challenges
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Dietary Interventions: Evidence & Translation

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Benchmarking food environments

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Healthier reformulation of processed foods

- **Recommended**
  - By international health organisations
- **Precedence**
  - > 75 countries have national sodium reduction programmes
- **Effective**
  - UK salt reduction campaign: -7% in sodium in packaged foods & -15% in sodium intake
- **Equitable**
  - Wider changes to the food environment reach all population groups

WHO, 2013
WCRF, 2014
Vandevijvere, 2017
Trieu, PLoS ONE, 2015
Oldroyd, J Epi and Comm Health, 2008

A healthier reformulation programme for NZ

- **Processed foods**
  - Major contributors to NZ diets

- **Data available to develop and monitor**
  - Nutritrack & Nielsen Homescan

- **Three key policy opportunities identified**
  1. Standardised nutrition targets for fast foods
  2. Salt reduction model for NZ
  3. A sugar reduction campaign focused on children's foods

Escaron, Prev Chronic Disease, 2013

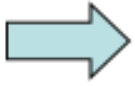
Heddings, UoA Thesis, 2016

1. Nutrition targets for fast foods

Nutritrack data

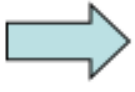
10 Fast food chains
Burger King
Domino's Pizza
Hell Pizza
KFC
McDonalds
Muffin Break
Pizza Hut
St Pierre's
Subway
Tank

12 Food groups
Asian
Beverages
Breakfast
Burgers
Cakes
Chicken
Desserts
Dressings
Pizza
Salads
Sandwiches
Sides



n=5,468 total products

- **Adjusted linear regression**
- **Differences over five years**
- **Overall and by food group and chain**

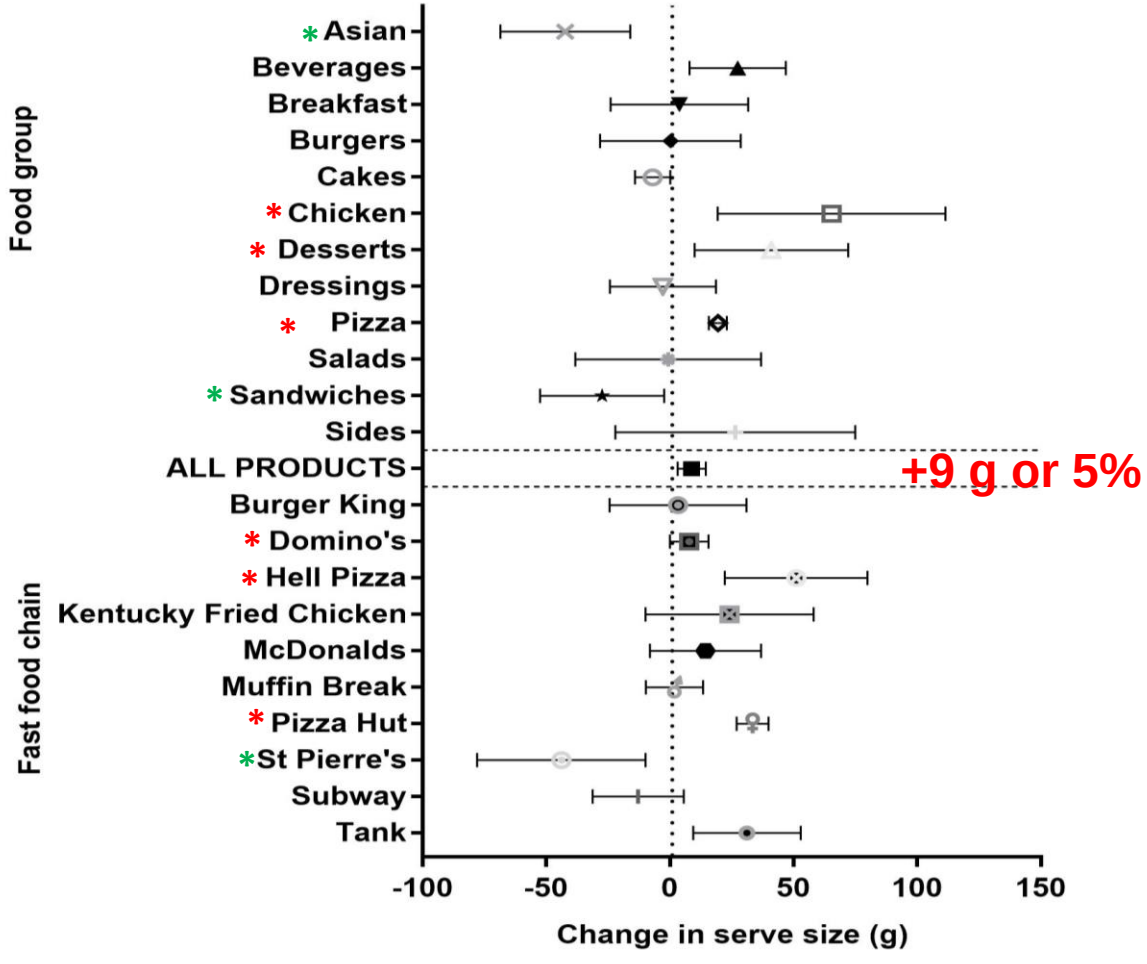


n=1,025 products for sale 2+ years

- **Linear mixed models for random cluster effects**
- **Differences over five years**

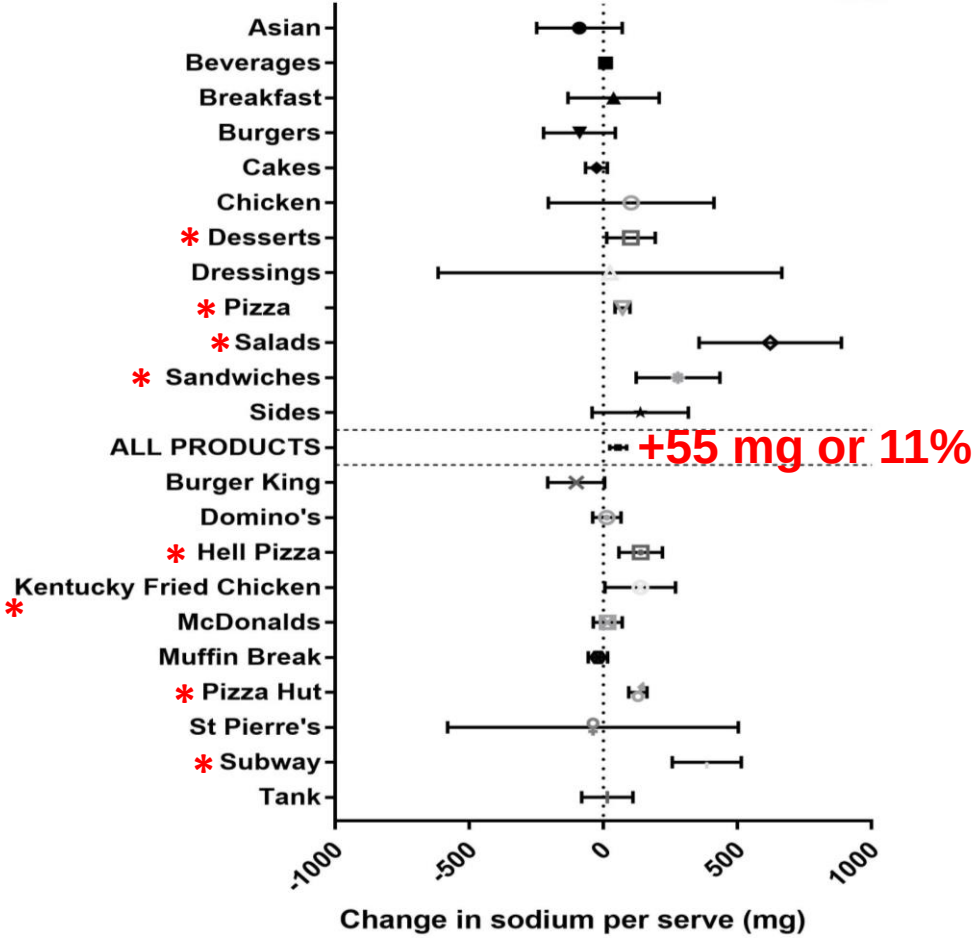
Serve size

Large, significant increases/decreases*



No significant change in serve size of same products available in 2+ years

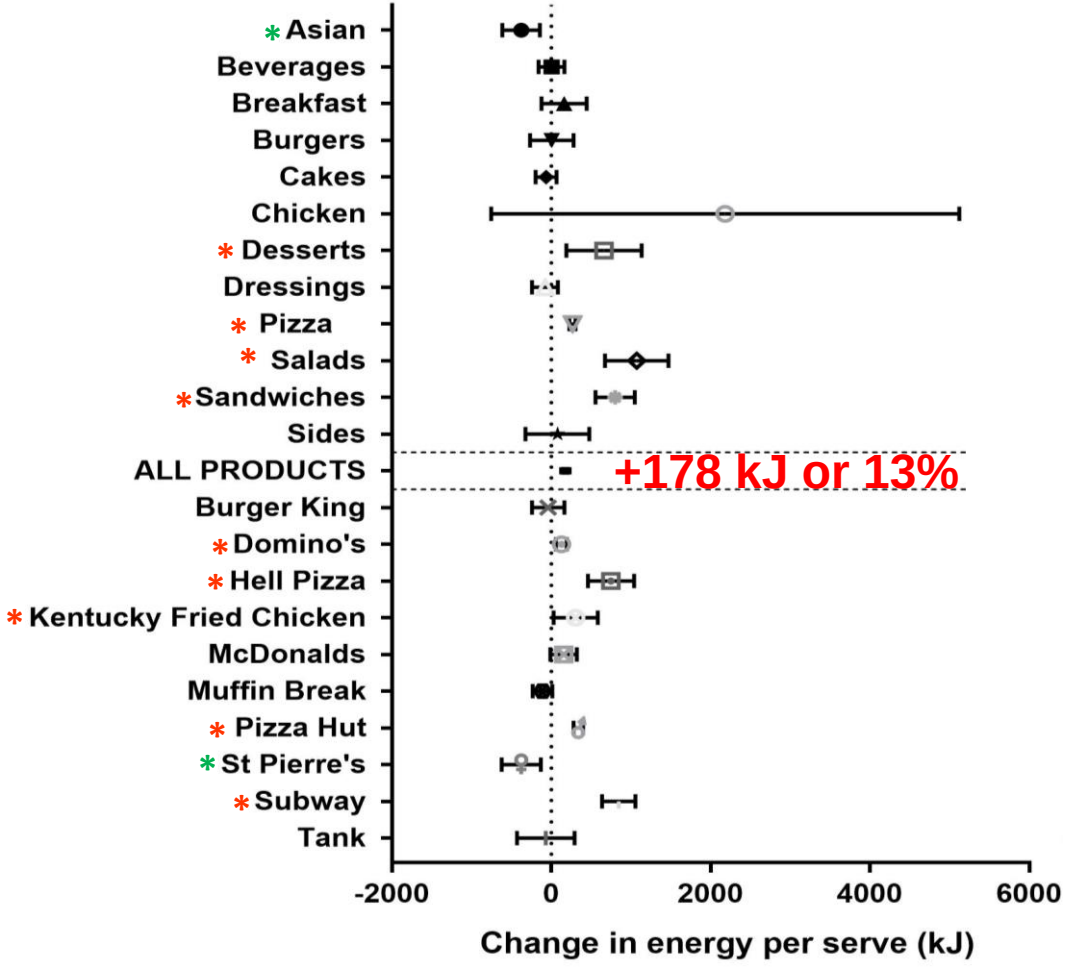
Sodium per serve



No significant change in sodium density across all products

Significant reduction in sodium of same products (reformulation) available in 2+ years (-22mg/100g or -7%)

Energy per serve



Significant increase in energy density across all products of +54kJ or 6%

No significant change in energy of same products available in 2+ years

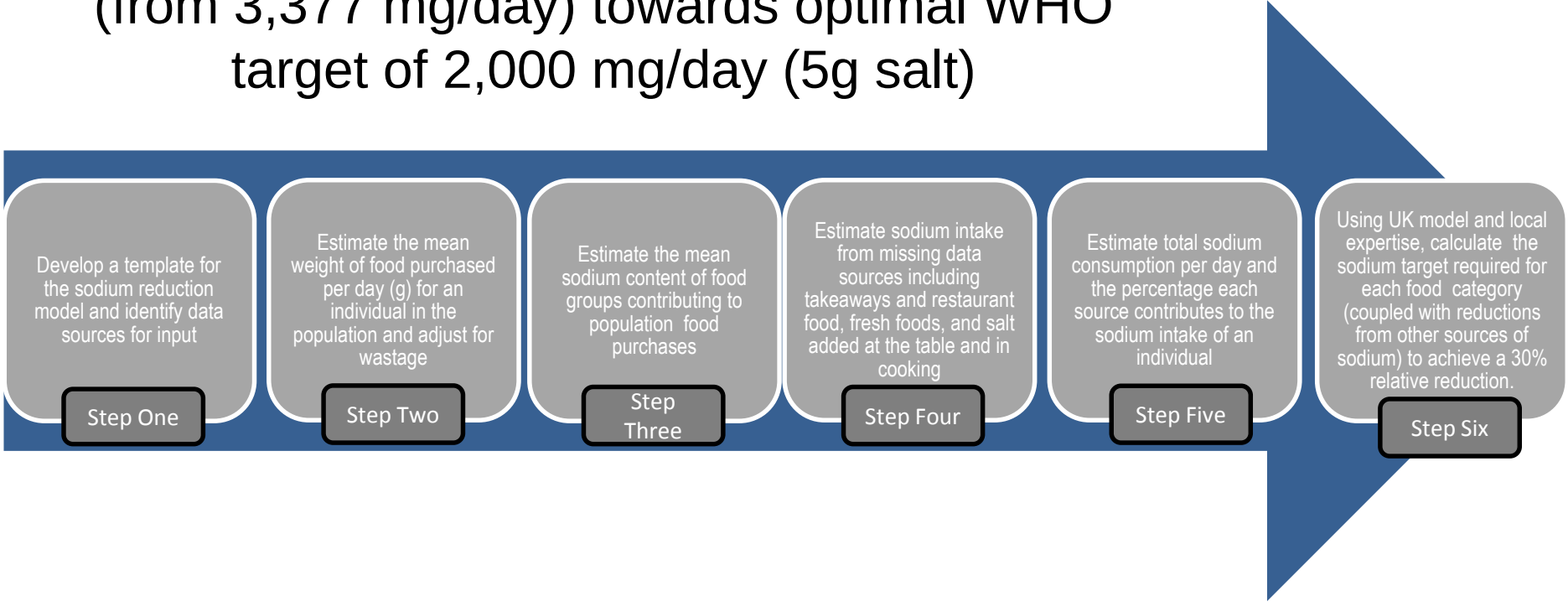
1. Summary

- Serve size and energy density of NZ fast food products increased significantly over past 5 years
- Lower sodium in new and reformulated products off-set by overall increases in serve size
- **Opportunity**: Systematic monitoring and implementation of government-led targets
- Regulation and products marketed to young people should be considered

2. A salt reduction model for NZ

Reductions in the sodium content of packaged foods and other dietary sources of sodium to reduce adult population sodium intake by 30% (from 3,377 mg/day) towards optimal WHO target of 2,000 mg/day (5g salt)

Nutritrack + Homescan data



MODEL SUMMARY

Source	Current mean (mg/100g)	Target mean (mg/100g)
Packaged food	1724	1096 **(36%)**
Fresh F&V	74	74
Fresh meat	152	152
Fresh fish/seafood	34	34
Takeaway/restaurant	887	532 **(40%)**
Discretionary	506	304 **(40%)**
TOTAL sodium	3377	2192 **(35%)**

EXAMPLE TARGETS

Food category	Current mean (mg/100g)	Target mean (mg/100g)
White bread	444	350 **(21%)**
Breakfast cereal	219	100 **(54%)**
Processed cheese	1361	900 **(34%)**
Bacon	1099	700 **(36%)**
Pasta sauce	442	220 **(50%)**

2. Summary

- Achieving the WHO sodium target will take considerable effort
  - Food manufacturers (reformulation)
  - Consumers (habitual change)

- **Opportunity:** Comprehensive government-led sodium reduction strategy
  1. Salt reduction targets for food manufacturers (key)
  2. Clear front of pack labelling
  3. Support for food industry
  4. Consumer awareness

3. Sugar reduction campaign

Nutritrack + Homescan data

- **Aim**
  - Sales-weighted means and reduction targets for NZ processed foods which are major contributors to children's total sugar intakes in NZ (informed by UK campaign)
- **Outcomes**
  - Sales-weighted total sugar contents & 20% reduction targets
  - Sales-weighted serve size and energy contents (single-serve foods/beverages) & 20% reduction targets
- **Timeframe**
  - Analysis by end 2018, publication early 2019
- **Opportunity:** Government-led sugar reduction campaign (child focus)

Included food groups

Contribution to total sugar intake of NZ children

Included food group (≥2% total sugar intake)	CNS02 (5 to 14 yrs)	ANS 97/98 (15 to 18yrs)
Non-alcoholic beverages	24%	27%
Sugar and sweets	15%	13%
Milk	9%	7%
Dairy products	8%	5%
Biscuits	7%	4%
Cakes and muffins	5%	5%
Bread	3%	3%
Sweet spreads	2%	3%
Bread based dishes	-	2%
Breakfast cereals	2%	-
Sauces and condiments	-	3%

Take home messages

1. **Opportunity:** Government-led healthier food reformulation
2. Healthier reformulation of NZ processed foods is feasible
3. Evidence based using NZ-specific data sets
4. Focusing on the serve size, energy, sodium and sugar contents of fast foods and supermarket products
   - Aligns with WHO recommendations and other countries
   - Will improve dietary intakes and health in NZ
   - Likely to be equitable

bode^3 DIET Dietary Interventions: Evidence & Translation INFORMAS Benchmarking food environments

Research funded by HRC. Symposium co-sponsored by Healthier Lives National Science Challenge

Further information

Eyles H, Jiang Y, Neal B, Blakely, Crowley J, Cleghorn C, Ni Mhurchu C. Five year trends in the serve size, energy, and sodium contents of New Zealand fast foods: 2012 to 2016. Nutrition Journal, 2018: https://nutritionj.biomedcentral.com/articles/10.1186/s12937-018-0373-7

Eyles H, Shields E, Webster J, Ni Mhurchu C. Achieving the WHO sodium reduction target: estimation of reductions required in the sodium content of packaged foods and other sources of dietary sodium. American Journal of Clinical Nutrition, 2016: https://academic.oup.com/ajcn/article/104/2/470/4564536

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