ACE–PREVENTION PAMPHLETS

GENERAL POPULATION RESULTS PAMPHLET 15
COST-EFFECTIVENESS OF INTERVENTIONS TO REDUCE SALT INTAKE

1. MAIN MESSAGES

- Targeting the food industry is cost-saving for the health sector. Making salt restrictions mandatory for manufacturers could achieve twenty times the population health benefits of the current effective Tick program to encourage voluntary salt reduction in processed foods.
- Providing dietary advice to everyone in the population at risk will not achieve large improvements in population health and is not a cost-effective strategy for health sector investment.

2. BACKGROUND

High blood pressure is the leading risk factor for cardiovascular disease, with elevated risks of disease with systolic blood pressure as low as 115 mmHg. Diets high in sodium have been linked to high blood pressure levels and reducing blood pressure can lead to a lower incidence of cardiovascular events. Many countries now recommend restricting daily sodium intake to 100 mmol (approximately 6 g of table salt) or less.

3. INTERVENTIONS

1. **Tick program:** National Heart Foundation program targeting food industry reduction of salt in breads (<450mg of sodium per 100g), margarines (<400mg of sodium per 100g) and cereals (<400mg of sodium per 100g).
2. **Mandatory limits:** Legislation and enforcement of the Tick limits for all manufacturers of bread, margarine and cereal products.
3. **Dietary advice (>140mmHg):** Individual and group counselling from a dietitian, targeted at people with systolic blood pressure over 140mmHg (i.e. people with hypertension).
4. **Dietary advice (>115mmHg):** Individual and group counselling from a dietitian, targeted at people with systolic blood pressure over 115mmHg (i.e. everyone at risk of cardiovascular disease due to elevated blood pressure).

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4. CHOICE OF COMPARATOR

The Tick program is current practice in Australia. Cost-effectiveness of the Tick program is evaluated in comparison to a partial null (i.e. no salt intervention) scenario. Cost-effectiveness of all other interventions is evaluated in comparison to the current practice.

5. INTERVENTION COST-EFFECTIVENESS

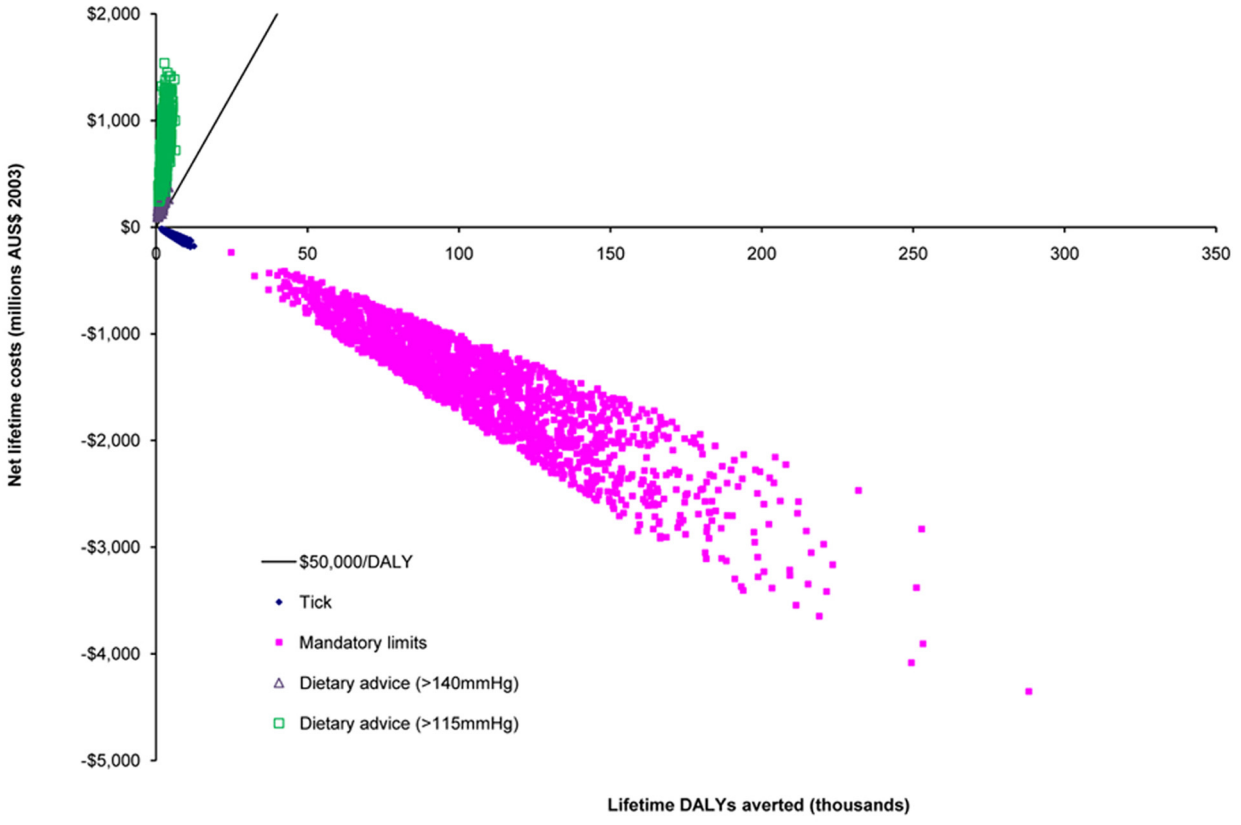
Both the voluntary Tick program and mandatory salt reduction have a 100% probability of being dominant (i.e. cost-saving to the health sector) under all modelled scenarios of discounting, costing and reversal of risk. In contrast, there is zero probability of dietary advice being cost-saving or cost-effective against the AUS$50,000 per DALY threshold, even when targeted at the population that is most at risk (SBP>140mmHg).

Table 1 Cost-effectiveness ratios and probability of being cost-effective for salt reduction interventions

Intervention	Cost per DALY (95% uncertainty range)	Probability of being under $50,000/DALY
Tick program	Dominant (Dominant to Dominant)	100%
Mandatory limits	Dominant (Dominant to Dominant)	100%
Dietary advice (>140mmHg)	$160,000 ($99,000 to $280,000)	0%
Dietary advice (>115mmHg)	$260,000 ($170,000 to $440,000)	0%

NB. Interventions that are 'Dominant' lead to more health and less cost than if no intervention to reduce salt intake is in place.

Figure 1 Cost-effectiveness of salt reduction interventions



6. CONCLUSIONS

For the average individual with elevated blood pressure, visiting the dietitian can be effective in cutting salt intake, but as a population preventive strategy, providing dietary advice to everyone at risk (or even just those at high risk) will not achieve large improvements in population health and is not a cost-effective strategy for health sector investment. Targeting the food industry, on the other hand, is cost-saving for the health sector. The current Tick program to encourage voluntary salt reduction in processed foods is effective, but making salt restrictions mandatory for manufacturers could achieve twenty times the population health benefits.

For more information on this topic area, please visit website **www.sph.uq.edu.au/bodce-ace-prevention**

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7. ABOUT ACE-PREVENTION

To aid priority setting in prevention, the Assessing Cost-Effectiveness in Prevention Project (ACE-Prevention) applies standardised evaluation methods to assess the cost-effectiveness of 100 to 150 preventive interventions, taking a health sector perspective. This information is intended to help decision-makers move resources from less efficient current practices to more efficient preventive action resulting in greater health gain for the same outlay.

PAMPHLETS IN THIS SERIES

Methods:

A. The ACE-Prevention project
B. ACE approach to priority setting
C. Key assumptions underlying the economic analysis
D. Interpretation of ACE-Prevention cost-effectiveness results
E. Indigenous Health Service Delivery

Overall results

1. League table
2. Combined effects

General population results

1. Adult depression
2. Alcohol
3. Blood pressure and cholesterol lowering
4. Cannabis
5. Cervical cancer screening, Sunsmart and PSA screening
6. Childhood mental disorders
7. Fruit and vegetables
8. HIV
9. Obesity
10. Osteoporosis
11. Physical activity
12. Pre diabetes screening
13. Psychosis
14. Renal replacement therapy, screening and early treatment of chronic kidney disease
15. Salt
16. Suicide prevention
17. Tobacco

Indigenous population results

1. Cardiovascular disease prevention
2. Diabetes prevention
3. Screening and early treatment of chronic kidney disease

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