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The Cost-Effectiveness of Prevention

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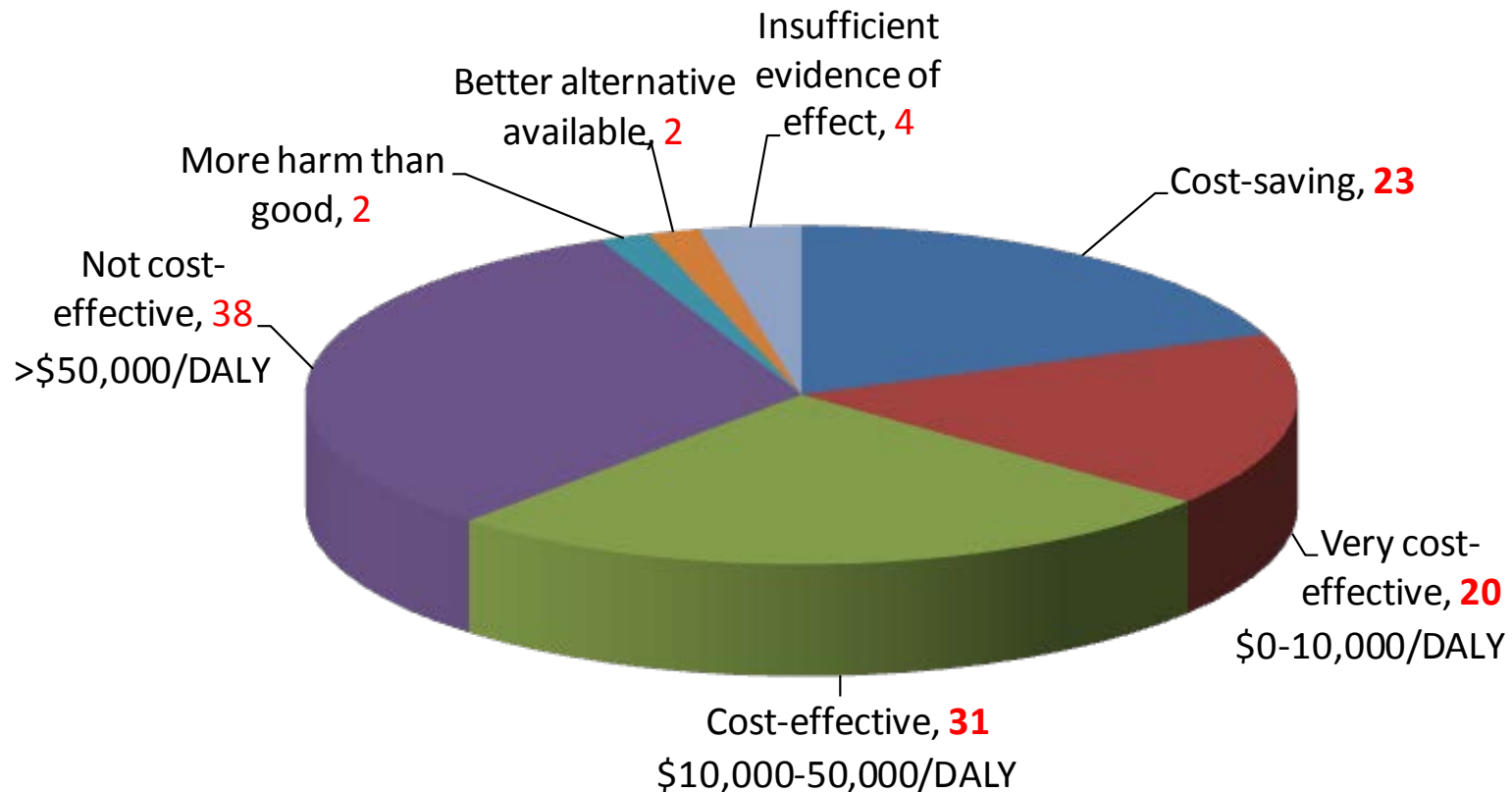
With the support of



ACE Prevention

- 5-year study concluded in 2010
- 150 interventions, 123 in prevention
- Modelled population of Australia, 2003, followed lifetime
- Health sector perspective incl. costs to patients/participants
- Standardised methods
- Acknowledging other criteria in decision making

Results for the 123 preventive measures



Cost-saving and very cost-effective interventions



1. Large health impact

- Tax alcohol, tobacco and ‘unhealthy food’
- Regulation of salt content in bread, cereals and margarine
- Treat blood pressure and cholesterol more efficiently
- Gastric banding for the very obese (but expensive!)

2. Moderate health impact

- Physical activity: pedometers & mass media
- Smoking cessation drugs
- Screen elderly women for osteoporosis & alendronate
- Screen diabetics for chronic kidney disease

3. More modest health impact

- Fluoride drinking water
- Hepatitis B vaccination
- A range of 7 measures to prevent mental disorders or suicide

Other cost-effective measures

- Increased Sunsmart effort to prevent skin cancer
- Cervix cancer: HPV vaccination and Pap smear testing
- Pre-diabetes: screen + drug or lifestyle intervention
- Chronic kidney disease: screen + drug
- Diet and exercise for overweight people (but limited impact on weight loss)

Measures that are not recommended

- PSA testing for prostate cancer (more harm than good)
- Weight watchers
- Drugs for losing weight
- Most fruit and veg interventions
- Aspirin to prevent cardiovascular disease
- School based drug interventions
- Vaccination for shingles
- Dietician for salt reduction

Key results

1. Taxation/regulation interventions tend to be very cost-effective (from health sector perspective) and have large health impact
2. Great potential to improve efficiency in CVD prevention through blood pressure and cholesterol lowering and accelerate CVD decline
3. Untapped potential to address pre-diabetes, chronic kidney disease

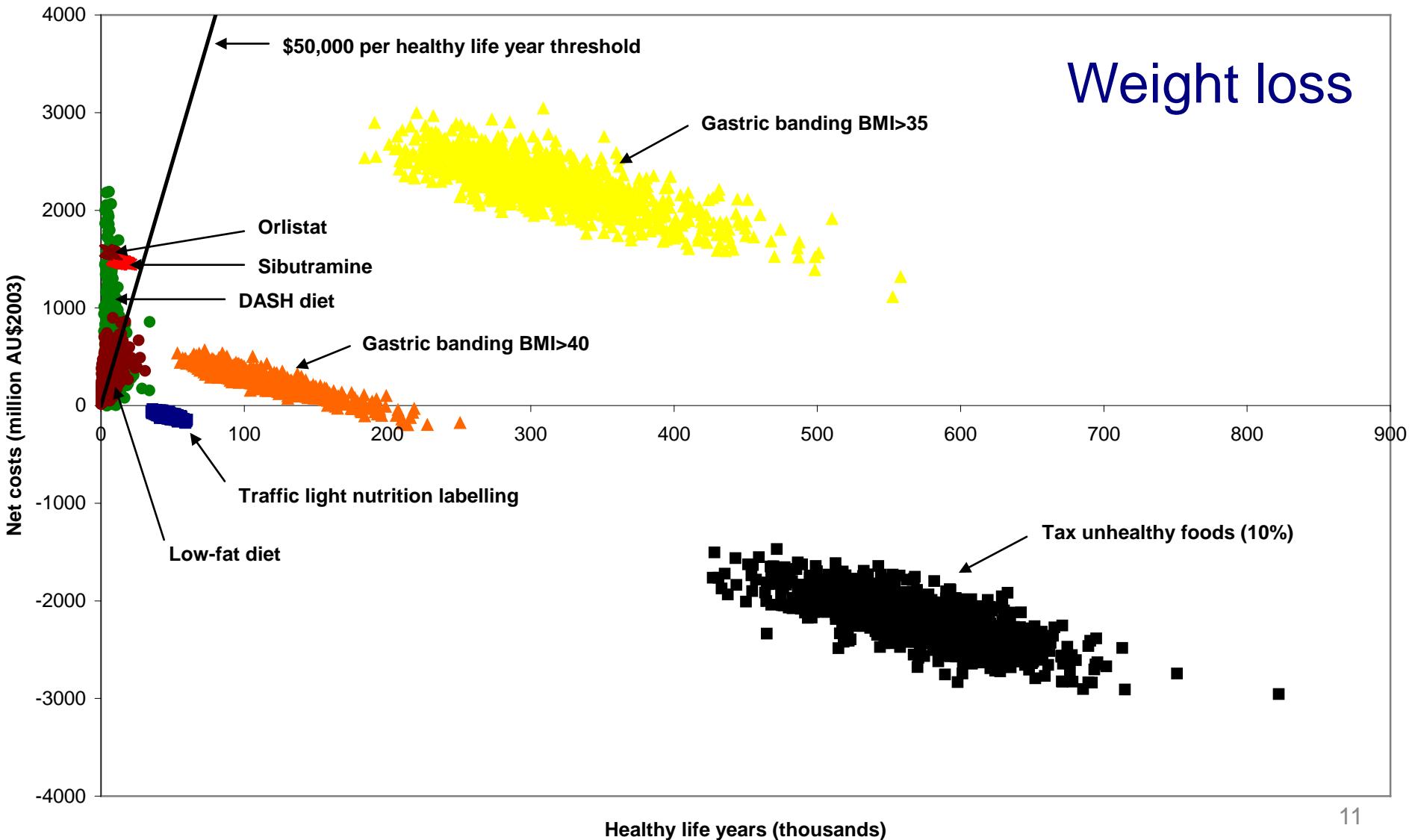
Key results

4. Emerging evidence for a substantial role in prevention of mental disorders
5. Targeted interventions with drug treatments in CVD prevention, pre-diabetes, chronic kidney disease, osteoporosis good credentials
6. Targeted interventions aiming to change behaviour tend not to be cost-effective and if so, have modest impact on population health

Selected results by risk factor

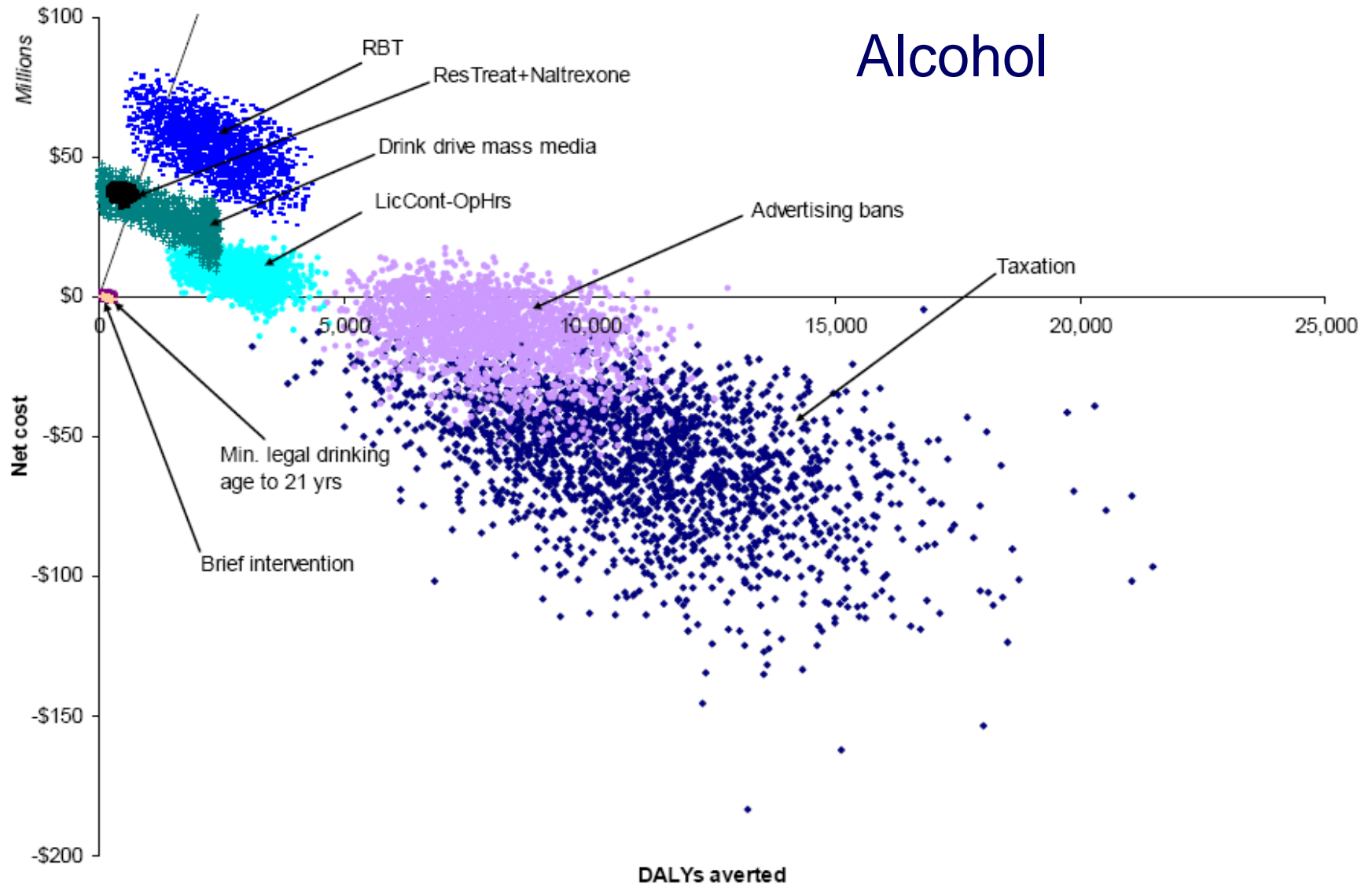
ACE-Prevention

ASSESSING COST-EFFECTIVENESS IN PREVENTION

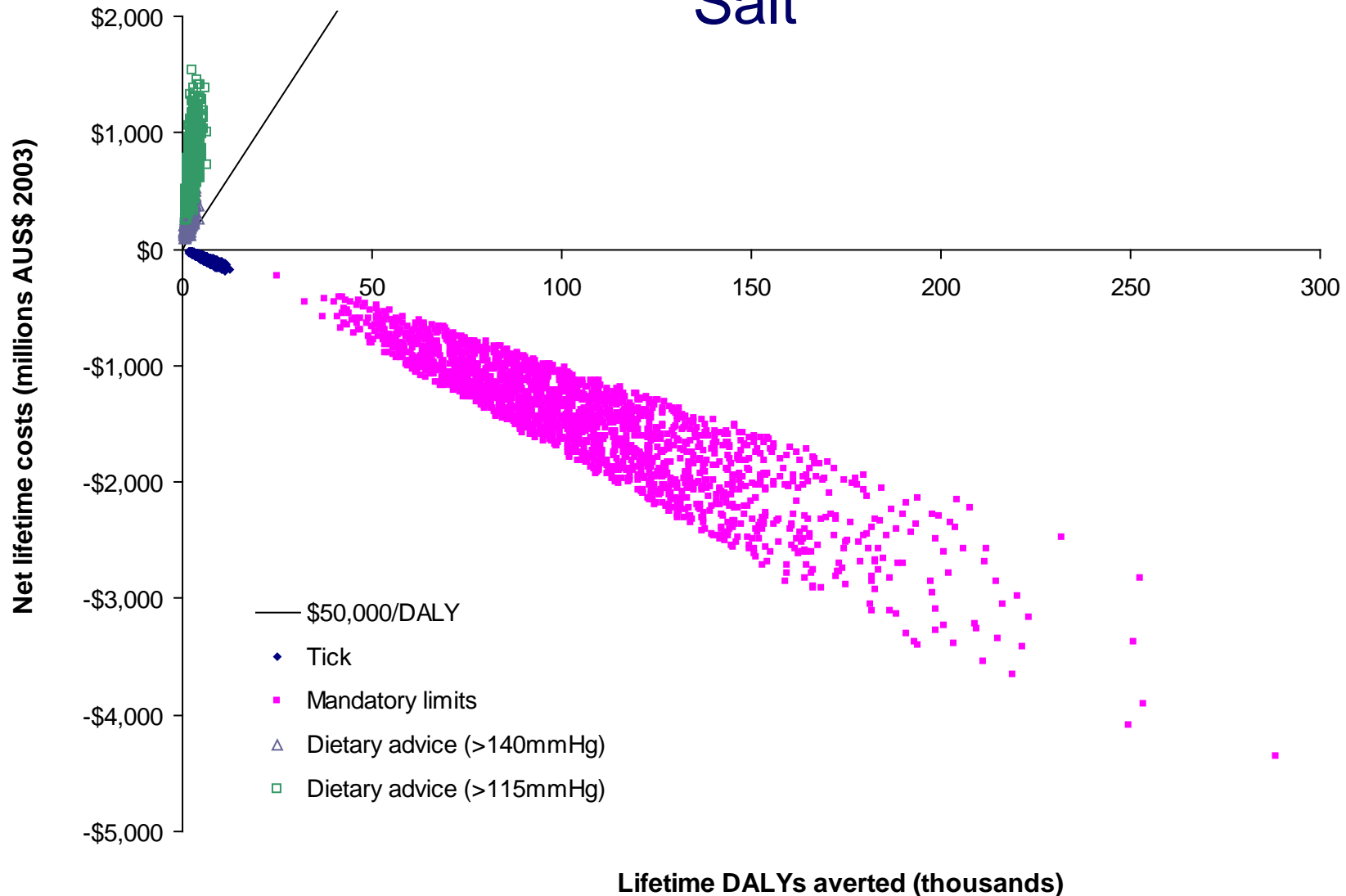


ACE-Prevention

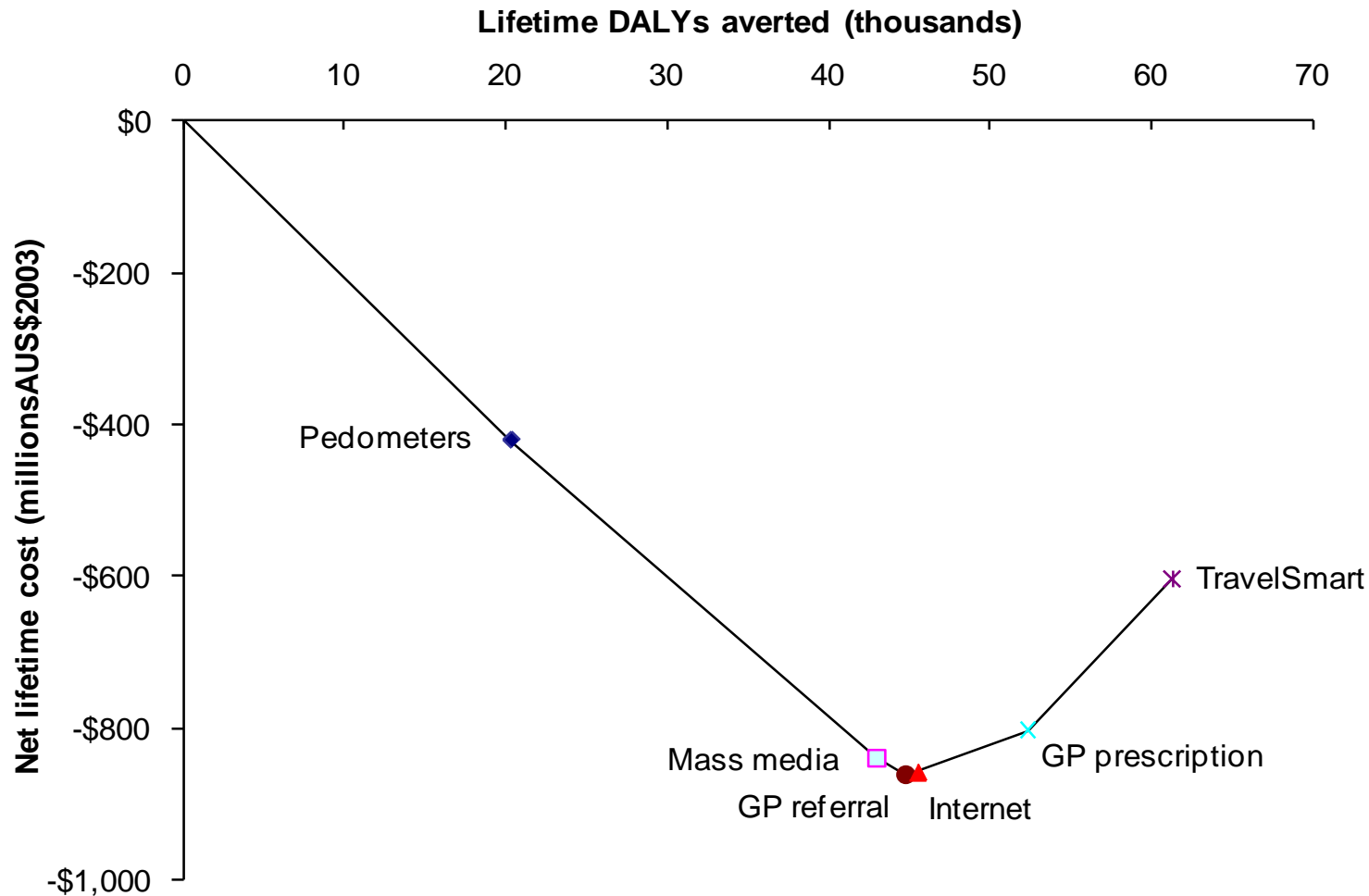
ASSESSING COST-EFFECTIVENESS IN PREVENTION



Salt

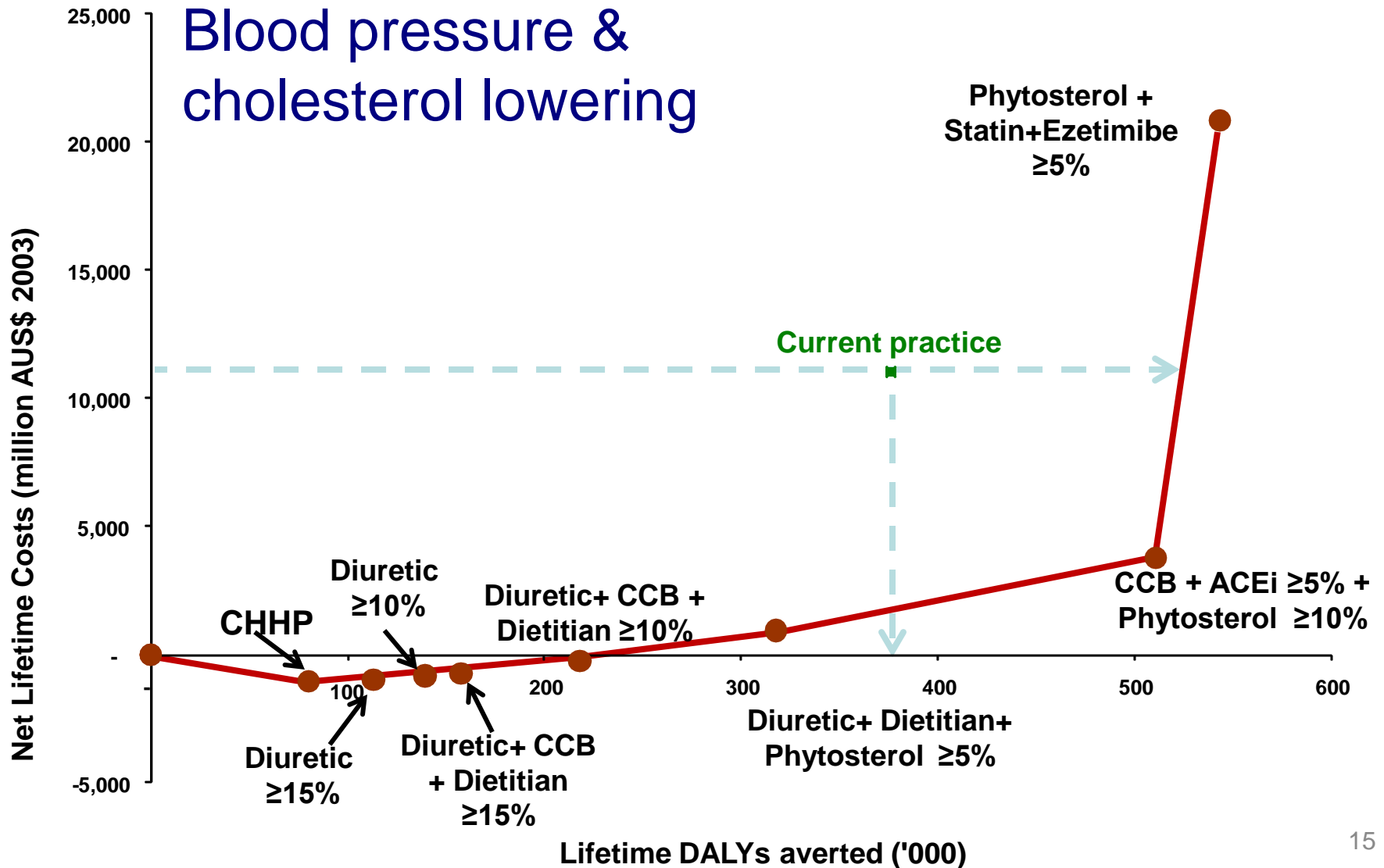


Physical inactivity



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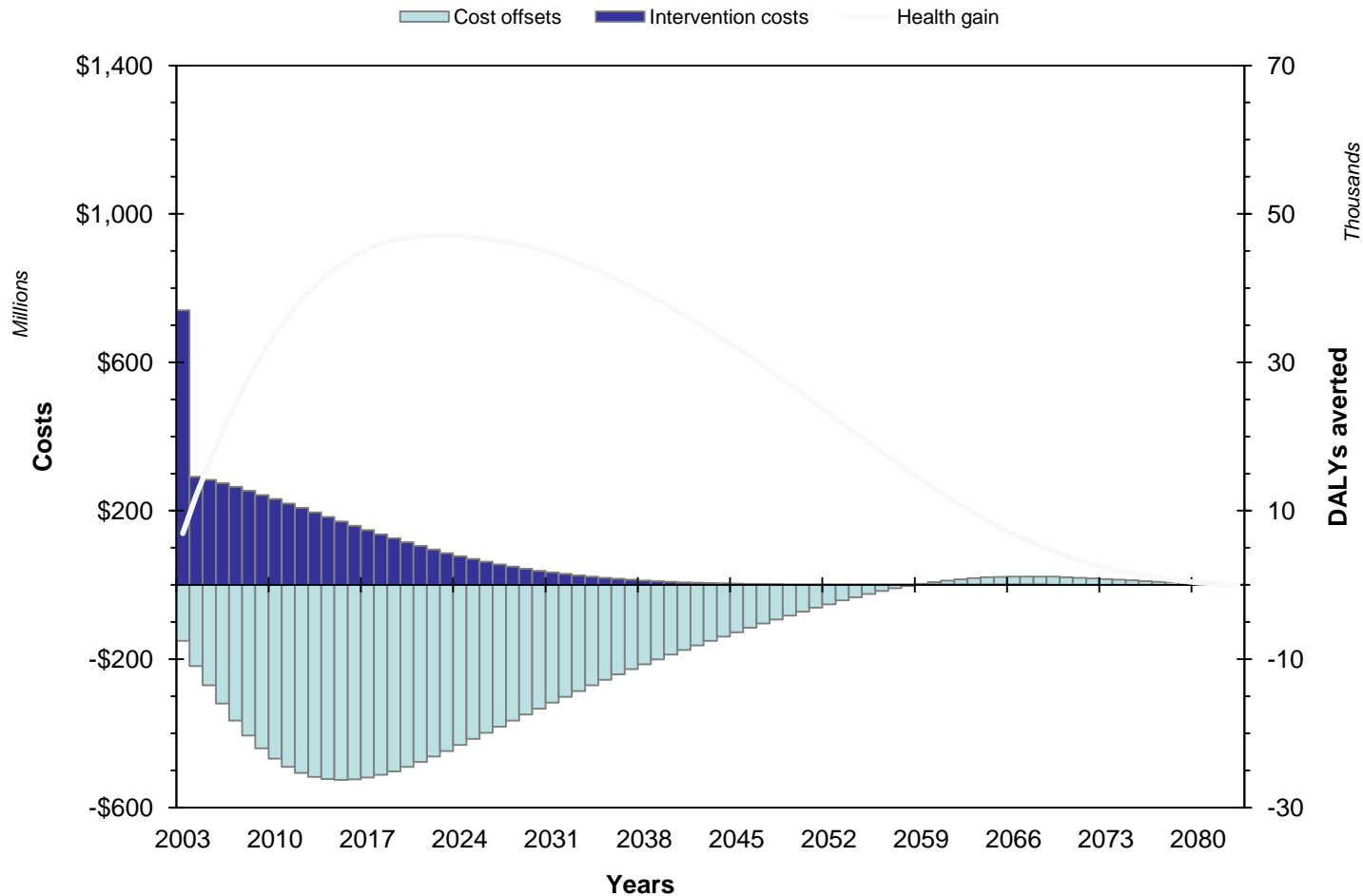
ASSESSING COST-EFFECTIVENESS IN PREVENTION



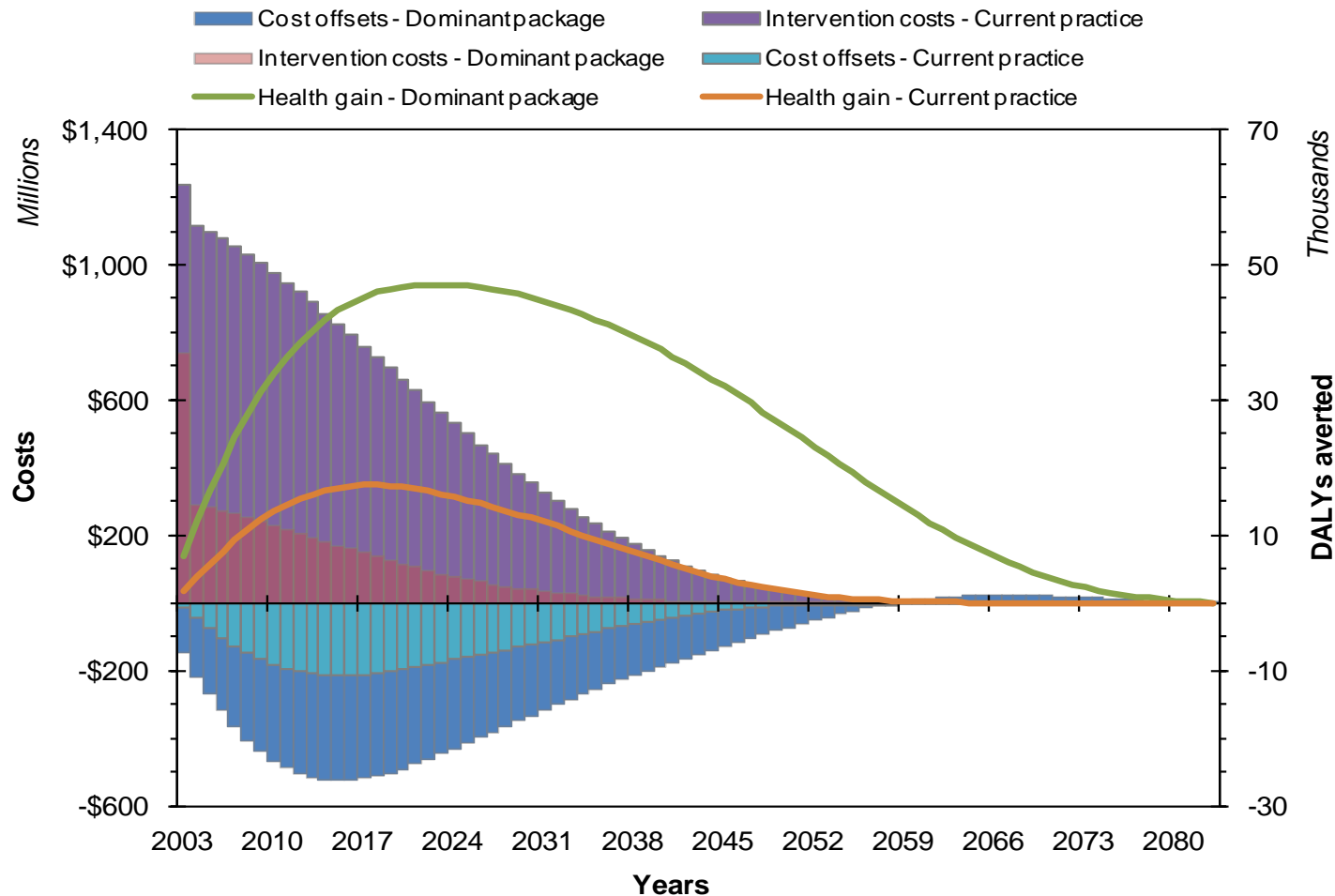
Lifetime health effect of cost-effective packages:

- BP & cholesterol lowering drugs: 500,000 DALYs (+270,000 compared to current practice)
- Obesity: 600,000 DALYs
- Alcohol: 120,000 DALYs
- Salt: 110,000 DALYs
- Physical activity: 60,000 DALYs
- 20 ‘dominant’ interventions: 1 million DALYs
- All <\$10,000/DALY: 1.4 million DALYs

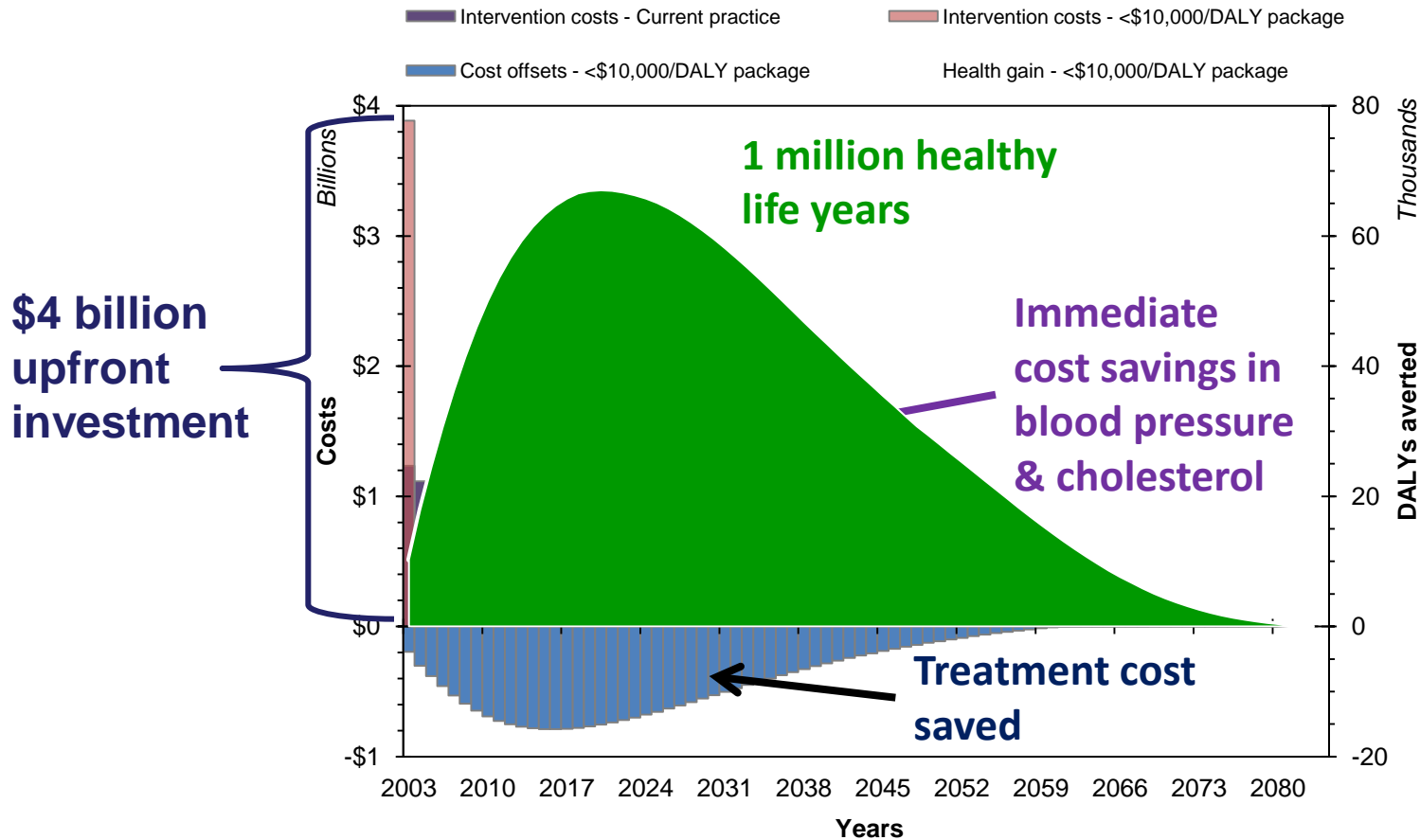
Combined impact of 23 cost saving measures



Combined impact of 23 cost saving measures & current practice



Combined impact 43 very cost-effective measures



Conclusion

Taxation/regulation interventions tend to be very cost-effective (from health sector perspective) and have large health impact

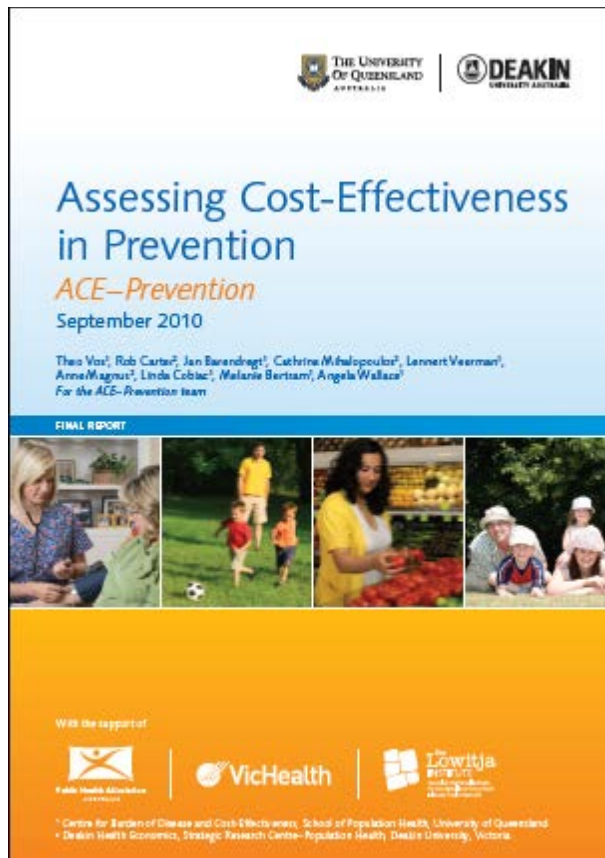
However:

- Considerable uncertainty in effect size
 - quantity of evidence
 - type of evidence
- Politically contested

⇒ Trade-off for policy makers

ACE–Prevention

ASSESSING COST-EFFECTIVENESS IN PREVENTION



Report available at:

www.sph.uq.edu.au/bodce-ace-prevention

Pamphlets on methods and results, and links to published papers available at:

www.sph.uq.edu.au/ace-prevention-results