Comprehensive sector-wide strategies to prevent and control obesity: what are the potential health and broader societal benefits? A case study from Australia – Online supplementary material

Literature search strategy
The research was based on literature produced or published between 2000 and September 2014. A search strategy was defined to capture publications reporting on associations between overweight and obesity, physical activity and the dietary behaviours which are the focus of the review.

Selective literature review with a focus on:

(i) Reviews of reviews
(ii) Systematic reviews of population studies
(iii) Population studies

The first phase of this scan involved a full search of the literature using defined search terms (Medical Subject Headings (MeSH) terms, key words and publication selection processes to identify population studies reporting associations between overweight and obesity and physical activity, nutrition, community awareness and outcomes. The following electronic databases were searched: PreMedline, Medline, and PsychInfo. This search yielded a significant number of returns for search terms relating to overweight and obesity, physical activity, sedentary behaviour and fruit and vegetables. The search was less productive for identifying studies reporting on health outcomes associated with reducing intake of energy dense nutrient poor food and drinks, increasing intake of water in preference to sugar-sweetened drinks (SSB) and increasing community awareness of healthy eating and physical activity as protective factors against chronic disease.

Studies were selected based on assessment of the relevance to identifying health benefits. In defining the evidence base, we included information from reviews of reviews when available, systematic reviews where suitable, and included evidence from population studies and other key studies on the basis of assessment and agreement of their suitability for providing information relevant for the review. To be included, studies were required to quantify the association between overweight, obesity physical activity or nutrition behaviours as a relative risk (odds ratio or hazard ratio). Most evidence was derived from observational epidemiological studies in population-based samples. It was accepted that due to the rapid nature of the review, only key selected studies were included based on assessment of their suitability for providing useful information on an outcome.
Search Terms
Key search terms are listed below.

They were mapped to appropriate MeSH Term: Medical subject heading (Medline medical index term) where available and searched as a key word in the title and abstract. the dollar sign ($) was used for any character(s); the question mark (?) = to substitute for one or no characters.

Limits: Year 2000 to September 2014, humans, English language

HEAL TARGET: Reduction or stabilisation in overweight and obesity rates

Overweight, OR obesity OR obese

HEAL OBJECTIVE 1: A reduction in intake of energy dense nutrient poor food and drinks

Energy dens$ OR Junk food OR packaged food OR processed food OR fast food OR high sugar OR non-core

Search Terms Set 3: HEAL OBJECTIVE 2: An increase in consumption of fruit and vegetables

Fruit AND/OR Vegetable$

Search Terms Set 4: HEAL OBJECTIVE 3: An increase in intake of water in preference to sugar-sweetened drinks

Sugar sweetened OR soft drink or high sugar OR fructose

Search Terms Set 5: HEAL OBJECTIVE 4: An increase in incidental, moderate and vigorous physical activity

Physical activity

Search Terms Set 6: HEAL OBJECTIVE 5: A reduction of time in sedentary behaviour

Sedentary OR sitting OR physical inactivity

Search Terms Set 7: HEAL OBJECTIVE 6: Increase community awareness of healthy eating and physical activity as protective factors against chronic disease

(Mass media campaigns OR communication OR social marketing) AND Physical activity

Search Terms Set 8: Publication type

1. review.pt. and Medline.tw.
2. meta analysis.pt.
3. (systematic$ and (review$ or overview$)).tw.
4. exp Cohort Studies/
5. exp case control studies/
6. exp risk/
7. (odds and ratio$).tw.
8. (relative and risk).tw.
10. meta?analy$.tw.
11. meta analy$.tw.
12. review.pt. and Medline.tw.
13. meta analysis.pt.
14. (systematic$ and (review$ or overview$)).tw.
15. exp Cohort Studies/
16. exp case control studies/
17. exp risk/
18. (odds and ratio$).tw.
20. (case and control$).tw.
22. meta analy$.tw.

4324 articles assessed for eligibility
- energy dense nutrient poor food (635)
- Fruit and vegetable (399)
- Sugar-sweetened drinks (481)
- Physical activity (2360)
- Sedentary behaviour (449)

4220 excluded – did not meet study inclusion criteria

39 excluded – superseded by updated evidence

33 articles identified for overweight and obesity

98 articles included in the review
- energy dense nutrient poor food (7)
- Fruit and vegetable (14)
- Sugar-sweetened drinks (10)
- Physical activity (27)
- Sedentary behaviour (7)
- Overweight and obesity (33)