

Appendix E-2.29b: Search Plan and Results—Schools

Part D. Chapter 4: Food Environment and Settings

1. What is the impact of school-based approaches on the dietary intake, quality, behaviors, and/or preference of school-aged children? (see **Appendix E-2.29a: Evidence Portfolio**)
2. What is the impact of school-based policies on the dietary intake, quality, behaviors, and/or preferences of school-aged children? (see **Appendix E-2.30: Evidence Portfolio**)
3. What is the impact of school-based approaches on the weight status of school-aged children? (see **Appendix E-2.31: Evidence Portfolio**)
4. What is the impact of school-based policies on the weight status of school-aged children? (see **Appendix E-2.32: Evidence Portfolio**)

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Search Strategy

Dates Searched: 1/30/14, 1/31/14, 3/19/14

Databases: MEDLINE, Cochrane, Embase, ERIC, Sociological Abstracts, Web of Science

Year Range: January, 2010 to March, 2014

Search Terms and Date(s):

MEDLINE:

Date(s) Searched: 1/30/14, 1/31/14

Search Terms:

((Schools[mh] OR school*[tiab] OR schools[tiab] OR "school-based"[tiab] OR "school based"[tiab] OR school health services[mh])) AND (child nutritional physiological phenomena[mh:noexp] OR nutrition[tiab] OR diet[mh] OR diet[ti] OR dietary[ti] OR food preferences[mh] OR feeding behavior[mh:noexp] OR nutrition surveys[mh] OR food*[tiab] OR "Food and Beverages"[mh] OR food supply[majr] OR Eating[mh] OR eating behavior*[tiab] OR eating behaviour*[tiab] OR meals[ti] OR meal[ti] OR breakfast[tiab] OR lunch[tiab] OR dinner[tiab] OR snacks[tiab] OR snack[tiab]OR "caloric density"[tiab] OR "caloric intake"[tiab] OR caloric dens*[tiab] OR high calori*[tiab] OR energy dens*[tiab] OR fruit*[tiab] OR vegetable*[tiab] OR food analysis[mh] OR dietary intake*[tiab] OR food intake*[tiab] OR energy intake*[tiab] OR food habits[mh] OR dietary habit*[tiab] OR diet habit*[tiab] OR eating habit*[tiab] OR nutrient intake*[tiab] OR food choice*[tiab] OR portion size*[tiab] OR "diet quality"[tiab] OR dietary choice*[tiab] OR dietary change*[tiab] OR diet records[mh] OR

nutritional status[mh] OR nutritional sciences[mh] OR dietary pattern*[tiab] OR diet pattern*[tiab] OR eating pattern*[tiab] OR food pattern*[tiab] OR eating habit*[tiab] OR dietary habit*[tiab] OR food habit*[tiab] OR dietary profile*[tiab] OR food profile*[tiab] OR diet profile*[tiab] OR eating profile*[tiab] OR dietary guideline*[tiab] OR dietary recommendation*[tiab] OR food intake pattern*[tiab] OR dietary intake pattern*[tiab] OR eating style*[tiab] OR obesity/pc[mh] OR overweight/pc[mh]))

OR

((Schools[mh] OR school*[tiab] OR schools[tiab] OR "school-based"[tiab] OR "school based"[tiab] OR school health services[mh])) AND (Garden*[tiab] OR vending machine*[tiab] OR food dispensers, automatic[mh] OR nutritional sciences/education[mh] OR counseling[mh] OR "farm to school"[tiab] OR "farm-to-school"[tiab] OR child nutrition sciences/education[mh] OR health promotion/methods[mh] OR health education[mh] OR organizational policy[mh] OR policy[mh] OR "Nutrition Policy"[Mesh] OR "Public Policy"[Mesh] OR intervention[ti] OR interventions[ti] OR program[ti] OR programs[ti] OR program development[mh] OR food services[mh] OR "Dietary Services"[Mesh] OR cafeteria*[tiab] OR salad bar*[tiab] OR kitchen*[tiab] OR cooking[mh] OR cooking[ti] OR chef[tiab])

OR

((Schools[mh] OR school*[tiab] OR schools[tiab] OR "school-based"[tiab] OR "school based"[tiab] OR school health services[mh])) AND (body weight[mh] OR child development[mh] OR adolescent development[mh] OR weight[tiab] OR growth[tiab] OR growth[mh:noexp] OR "body size"[tiab] OR "body height"[tiab] OR "Body Height"[Mesh] OR "body weight"[ti] OR "body-weight related"[tiab] OR "weight gain"[ti] OR weight gain[mh] OR "weight loss"[tiab] OR Body Weights and Measures[Majr] OR obesity[tiab] OR obese[tiab] OR obesity[mh] OR overweight [tiab] OR overnutrition[tiab] OR adiposity[tiab] OR adiposity[mh] OR overweight[tiab] OR "Body Composition"[mh] OR "body fat"[tiab] OR adipos*[tiab] OR weight[ti] OR waist[ti] OR "Anthropometry"[Mesh:noexp] OR "body mass index"[tiab] OR BMI[tiab] OR "weight status"[tiab] OR adipose tissue [mh] OR "healthy weight"[tiab] OR waist circumference[mh] OR "body fat mass"[tiab] OR body weight changes[mh] OR "waist circumference"[tiab] OR ideal body weight[mh])

AND (reviews[ptyp] OR systematic[sb])

Cochrane:

Date(s) Searched: 3/19/2014

Search Terms:

'garden* OR garden-based in Title, Abstract, Keywords and nutrition* OR diet* and school* - limited to Cochrane Database of Systematic Reviews

Embase:

Date(s) Searched: 3/19/2014

Search Terms:

'school'/exp OR school*:ab,ti AND ('gardening'/exp OR garden*:ab,ti OR 'garden-based':ab,ti)
AND

'review'/exp OR 'review' OR 'meta analysis (topic)'/exp OR 'meta analysis (topic)' OR 'meta analysis'/exp OR 'meta analysis' OR 'systematic review'/exp OR 'systematic review' OR 'systematic review (topic)'/exp OR 'systematic review (topic)' OR [meta analysis]/lim OR [systematic review]/lim OR [cochrane review]/lim AND [2010-2014]/py

ERIC:

Date(s) Searched: 3/19/2014

Search Terms:

(garden* OR garden-based) AND school* AND (nutrition* OR eating OR food OR diet*) AND review

Sociologic Abstracts:

Date(s) Searched: 3/19/2014

Search Terms:

(garden OR gardening OR garden-based OR gardens) AND (schools OR school) AND review

Web of Scienc:

Date(s) Searched: 3/19/2014

Search Terms:

TITLE: (garden* OR garden-based) AND TITLE: (school OR schools) AND TOPIC: (systematic OR review)
Indexes=SCI-EXPANDED, SSCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, CCR-EXPANDED, IC Timespan=2010-2014

Inclusion/ Exclusion Criteria

Inclusion criteria for the school-based systematic reviews included the following:

- Human subjects
- Subject populations from countries with high or very high human development, according to the 2012 Human Development Index
- School-aged children (kindergarten through 12th grade students)
- Subjects who were healthy or at elevated chronic disease risk
- Systematic reviews and meta-analyses
- The intervention or exposure in the reviewed articles was a school program, policy or practice targeting dietary behaviors and/or weight status
- The comparator in the reviewed articles was different levels of intervention, different types of intervention, or no intervention/policy (a control group)
- The outcome(s) was(were) dietary intake, dietary quality, dietary behaviors, dietary preferences, or weight-related measures

In addition, articles were included if they were published in English in a peer-reviewed journal between January 2010 and March 2014. If an author was included on more than one primary research article contained within a review that is similar in content, the paper with the most pertinent data/endpoints was included. If data/endpoints from both papers were appropriate, it was made clear that results were from

the same intervention. If a primary research article was included in more than one review, the study overlap was noted.

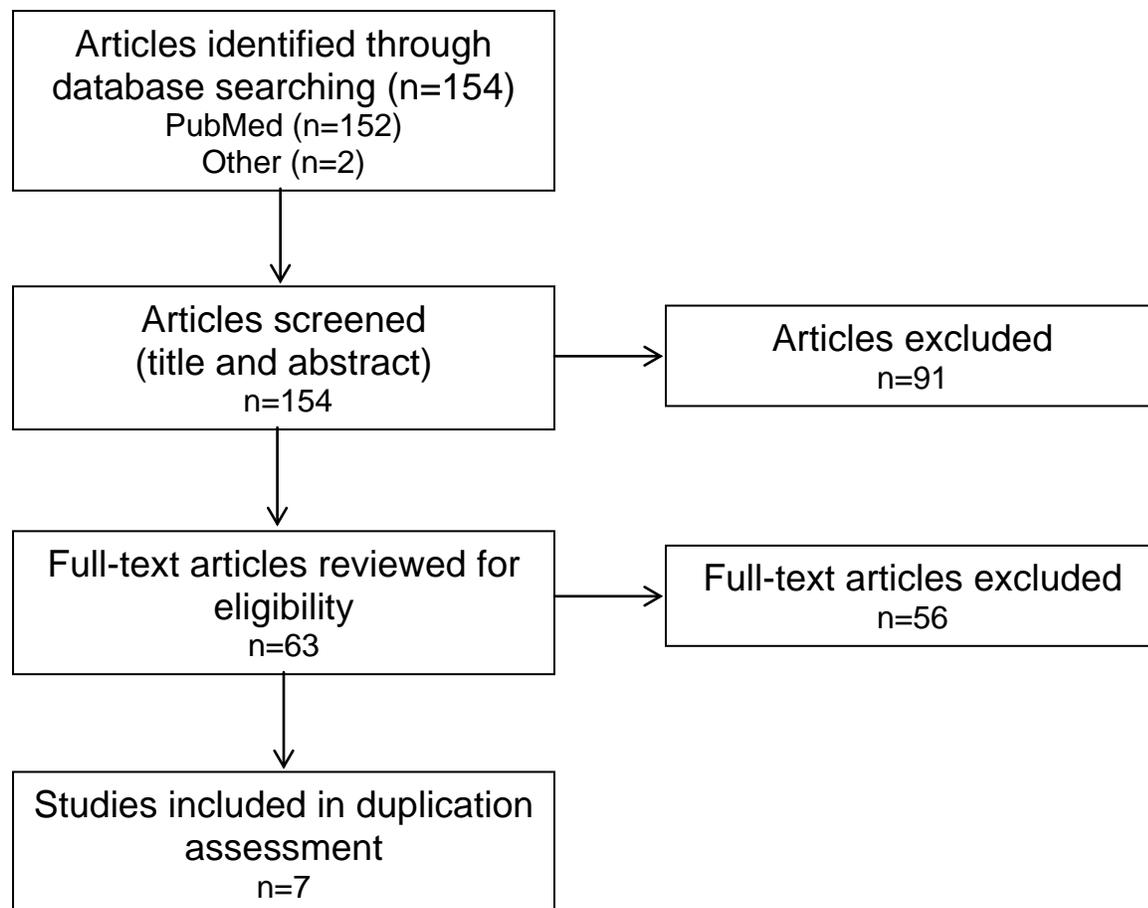
Exclusion criteria for the dietary patterns systematic reviews included:

- Animals and in vitro models
- Subject populations from countries with medium or low human development, according to the Human Development Index
- Adults
- Subjects who were hospitalized, diagnosed with disease, and/or receiving medical treatment
- Literature reviews, editorials, and commentaries

Articles were excluded if they were not published in English, or were published before January 2010. Articles, abstracts, and presentations not published in peer-reviewed journals (e.g., websites, magazine articles, Federal reports) were also excluded. Finally, if an author was included on more than one review article or primary research article that was similar in content, the paper with the most pertinent data/endpoints was included, and others were excluded. If a primary research article was included in more than one review, the study overlap was noted.

Search Results

Date Updated: 12/05/14



Included Articles

The following articles have been determined to be relevant for inclusion in the body of evidence used for the systematic review questions:

Approaches & Diet

1. Evans CE, Christian MS, et al. Systematic review and meta-analysis of school-based interventions to improve daily fruit and vegetable intake in children aged 5 to 12 y. *Am J Clin Nutr* 2013;96(4):889-901. PMID:22952187 <http://www.ncbi.nlm.nih.gov/pubmed/22952187>
2. Jensen JD, Hartmann H, et al. Economic incentives and nutritional behavior of children in the school setting: a systematic review. *Nutr Rev* 2011;69(11):660-74. PMID:22029832. <http://www.ncbi.nlm.nih.gov/pubmed/22029832>
3. Langellotto GA and Gupta A. Gardening increases vegetable consumption in school-aged children: a meta-analytical synthesis. *Horttechnology* 2012;22(4):430-445. <http://horttech.ashspublications.org/content/22/4/430.abstract>

Policies & Diet

1. Chriqui JF, Pickel M, Story M. Influence of school competitive food and beverage policies on obesity, consumption, and availability: a systematic review. *JAMA Pediatrics* 2014;168(3):279-86. PMID:24473632. <http://www.ncbi.nlm.nih.gov/pubmed/24473632>
2. Jensen JD, Hartmann H, et al. Economic incentives and nutritional behavior of children in the school setting: a systematic review. *Nutr Rev* 2011;69(11):660-74. PMID:22029832. <http://www.ncbi.nlm.nih.gov/pubmed/22029832>

Approaches & Weight

1. Wang Y, Wu Y, Wilson RF, Bleich S, Cheskin L, Weston C, Showell N, Fawole O, Lau B, Segal J. Childhood obesity prevention programs: comparative effectiveness review and meta-analysis. Comparative effectiveness review No. 115. AHRQ Publication No. 13-EHC081-EF. Rockville, MD: Agency for Healthcare Research and Quality; June 2013. <http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0057623/pdf/TOC.pdf>
2. Waters E, de Silva-Sanigorski A, Hall BJ, Brown T, Campbell KJ, Gao Y, et al. Interventions for preventing obesity in children. *Cochrane Database of Systematic Reviews*. 2011; (12). Available from: <http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD001871.pub3/abstract>

Policies & Weight

1. Chriqui JF, Pickel M, Story M. Influence of school competitive food and beverage policies on obesity, consumption, and availability: a systematic review. *JAMA Pediatr* 2014;168(3):279-86. PMID:24473632. <http://www.ncbi.nlm.nih.gov/pubmed/24473632>
2. Williams AJ, Henley WE, et al. Systematic review and meta-analysis of the association between childhood overweight and obesity and primary school diet and physical activity policies. *Int J Behav Nutr Phys Act* 2013;10:101. PMID:23965018. <http://www.ncbi.nlm.nih.gov/pubmed/23965018>