

# ASSESSING THE EXISTING EVIDENCE BASE ON SCHOOL FOOD AND NUTRITION POLICIES: A SCOPING REVIEW



World Health  
Organization



**ASSESSING THE EXISTING  
EVIDENCE BASE ON SCHOOL FOOD  
AND NUTRITION POLICIES:**  
A SCOPING REVIEW



**World Health  
Organization**

Assessing the existing evidence base on school food and nutrition policies: a scoping review

ISBN 978-92-4-002564-6 (electronic version)

ISBN 978-92-4-002565-3 (print version)

© World Health Organization 2021

Some rights reserved. This work is available under the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 IGO licence (CC BY-NC-SA 3.0 IGO; <https://creativecommons.org/licenses/by-nc-sa/3.0/igo>).

Under the terms of this licence, you may copy, redistribute and adapt the work for non-commercial purposes, provided the work is appropriately cited, as indicated below. In any use of this work, there should be no suggestion that WHO endorses any specific organization, products or services. The use of the WHO logo is not permitted. If you adapt the work, then you must license your work under the same or equivalent Creative Commons licence. If you create a translation of this work, you should add the following disclaimer along with the suggested citation: "This translation was not created by the World Health Organization (WHO). WHO is not responsible for the content or accuracy of this translation. The original English edition shall be the binding and authentic edition".

Any mediation relating to disputes arising under the licence shall be conducted in accordance with the mediation rules of the World Intellectual Property Organization (<http://www.wipo.int/amc/en/mediation/rules/>).

**Suggested citation.** Assessing the existing evidence base on school food and nutrition policies: a scoping review. Geneva: World Health Organization; 2021. Licence: CC BY-NC-SA 3.0 IGO.

**Cataloguing-in-Publication (CIP) data.** CIP data are available at <http://apps.who.int/iris>.

**Sales, rights and licensing.** To purchase WHO publications, see <http://apps.who.int/bookorders>. To submit requests for commercial use and queries on rights and licensing, see <http://www.who.int/about/licensing>.

**Third-party materials.** If you wish to reuse material from this work that is attributed to a third party, such as tables, figures or images, it is your responsibility to determine whether permission is needed for that reuse and to obtain permission from the copyright holder. The risk of claims resulting from infringement of any third-party-owned component in the work rests solely with the user.

**General disclaimers.** The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by WHO in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by WHO to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall WHO be liable for damages arising from its use.

Designed by minimum graphics

# Contents

---

Acknowledgements	iv
Executive summary	v
1. Background	1
2. Rationale and objectives	5
3. Methods	6
3.1 Inclusion and exclusion criteria	6
3.2 Information sources and search strategy	6
3.3 Study selection and data charting	7
3.4 Assessment of methodological quality	8
3.5 Synthesis of results	8
4. Results	9
4.1 Search results	9
4.2 Description of included studies	10
4.2.1 Study design	11
4.2.2 Number of included primary studies	11
4.2.3 Population and setting	12
4.2.4 Types of interventions	15
4.2.5 Comparators	20
4.2.6 Outcomes	21
4.2.7 Conflict of interests and funding	24
4.2.8 Gaps in the evidence base	24
4.2.9 Implementation reviews	25
5. Discussion	26
6. Strengths and limitations	28
7. Conclusions	29
References	30
Annexes	38
Annex 1. Search strategies	38
Annex 2. Characteristics of included studies	41
Annex 3. Characteristics of excluded studies	70
Annex 4. Systematic reviews awaiting assessment	81

# Acknowledgements

---

This scoping review was prepared by Solange Durão, Jenna Patterson, Tamara Kredo and Eugene Lee Davids from Cochrane South Africa, South African Medical Research Council.

The development and implementation of the search strategies for this scoping review was undertaken by Joy Oliver (Cochrane SA, SA Medical Research Council). Comments on the protocol were provided by Lisa Bero (Senior Editor, Cochrane Public Health and Health Systems Network), Luke Wolfenden (Joint Coordinating Editor, Cochrane Public Health) and Vivian Welch (Editor in Chief, Campbell Collaboration). External peer review was provided by Dr Daniela Küllenberg de Gaudry (Nutritional Scientist, Cochrane) and Prof. Ernesta Kunneke (Head of Department, Department of Dietetics, Faculty of Community and Health Sciences, University of the Western Cape, South Africa). Neither reviewer had any conflicts of interest related to this publication to declare.

The scoping review was commissioned by the Safe, Healthy and Sustainable Diet Unit of the Department of Nutrition and Food Safety (NFS) under the guidance of Dr Chizuru Nishida and Dr Katrin Engelhardt. The review was presented to the WHO Nutrition Guidance Expert Advisory Group (NUGAG) Subgroup on Policy Actions at their second meeting held in December 2019. Subsequent to the NUGAG meeting, and drawing on the scoping review's findings, the Expert Advisory Group developed a set of research questions relating to school food and nutrition policies that remain to be answered by future systematic reviews.

Technical editing of the document was undertaken by Ann Morgan, and cover design and formatting of the document was undertaken by Sue Hobbs.

Solange Durão and Tamara Kredo are partly supported by the Research, Evidence and Development Initiative (READ-It) project. READ-It (project number 300342-104) is funded by the UK government; however, the views expressed do not necessarily reflect the UK government's official policies.

# Executive summary

---

The prevalence of overweight and obesity among children and adolescents is rising globally, with more than two thirds of overweight children now living in low-and middle-income countries (LMICs). School food and nutrition policies that address key areas such as the school community, curriculum, food and nutrition environment and/or nutrition and health services have the potential to address the rise in prevalence of overweight, obesity and diabetes, as well as to prevent and reduce undernutrition.

This report presents the results of a scoping review conducted in 2019 to identify and map existing evidence on the effects of school food and nutrition policies on health-related outcomes in children of school age. For the purposes of this exercise, and in order to align with WHO's Nutrition-friendly Schools Initiative (NFSI) framework, school-based food and nutrition interventions were assessed in terms of the impacts in all four key policy areas, namely – the school community, the school curriculum, the school food and nutrition environment, and school nutrition and health services.

Three electronic databases were searched for systematic reviews meeting the eligibility criteria: the Cochrane Library, Epistemonikos and PubMed. All systematic reviews published since 2012 in English on school food and nutrition policies that promote healthy diets among learners in primary and secondary school through interventions that address either the school community, the curriculum, the food environment or nutrition and health services were considered. Inclusion criteria relating to outcomes were kept deliberately wide and included both health outcomes (e.g. BMI) and non-health outcomes (e.g. consumption and purchasing behaviour). All titles and abstracts of records identified through the database searches were screened by one reviewer against the eligibility criteria. One reviewer was also responsible for screening all the potentially eligible full texts and for charting the data for the included studies using a pre-specified and piloted form. Results were tabulated and described narratively.

After excluding duplicates and obviously irrelevant titles, the titles and abstracts of 2,569 records, and then 258 full texts, were screened. A total of 173 records were excluded at the full-text screening stage, leaving 69 reviews to form the basis of the scoping review – including 64 completed systematic reviews and two systematic review protocols which assessed the effectiveness of policies or interventions, and three completed systematic reviews that focused on strategies for implementing policies or interventions. Most of the effectiveness reviews reported on children aged between 5 and 18 years ( $n = 20/66$ ) or children under 5 up to the age of 18 years ( $n = 17/66$ ), that is, pre-schoolers as well as primary- and secondary-school-aged children. Approximately half of the effectiveness reviews assessed nutrition interventions only ( $n = 28/66$ ), and a roughly equal proportion assessed the impact of a broader set of interventions, for example, interventions which addressed physical activity as well as nutrition ( $n = 31/66$ ). The effectiveness of interventions which addressed the school curriculum was assessed in 48 reviews, while interventions that focused on modifying the school food and nutrition environment were the subject of 39 reviews. The most reported outcomes were anthropometric (in 47 of 66 reviews) and diet-related (in 40 of 66 reviews).

This scoping review identified and mapped the evidence provided by existing reviews on the topic of school food and nutrition policies. This work has helped to outline the scope of new WHO guidelines on school food and nutrition policies, which are currently under development. By identifying the types of interventions that the new guidelines will need to address, the scoping review has fulfilled one of its main aims. It has also identified key gaps in the existing evidence base on school food and nutrition policies, in terms of both primary and synthesized research. The main primary research needs have been identified as: more studies in lower income countries; greater inclusion of theoretical models to support the implementation of interventions; more studies which make comparisons between interventions with and without parental participation, as well as across socioeconomic divides; extension of outcomes of interest beyond physical outcomes to include cognitive and academic outcomes, as well as environmental determinants; and more studies which assess the cost-effectiveness and sustainability of interventions. Longer term follow-up studies were also identified as a research need going forward. Finally, this scoping review identified a set of research questions relating to school food and nutrition policies which remain to be addressed by future systematic reviews.

预览已结束，完整报告链接和二维码如下：

[https://www.yunbaogao.cn/report/index/report?reportId=5\\_23928](https://www.yunbaogao.cn/report/index/report?reportId=5_23928)

