

## Systematic review

Please complete all mandatory fields below (marked with an asterisk \*) and as many of the non-mandatory fields as you can then click *Submit* to submit your registration. You don't need to complete everything in one go, this record will appear in your *My PROSPERO* section of the web site and you can continue to edit it until you are ready to submit. Click *Show help* below or click on the icon to see guidance on completing each section.

This record cannot be edited because it has been rejected

### 1. \* Review title.

Give the working title of the review, for example the one used for obtaining funding. Ideally the title should state succinctly the interventions or exposures being reviewed and the associated health or social problems. Where appropriate, the title should use the PI(E)COS structure to contain information on the Participants, Intervention (or Exposure) and Comparison groups, the Outcomes to be measured and Study designs to be included.

Do the outcomes of interventions for the treatment of obesity and overweight in children aged under ten years, delivered by a health care professional, vary by socio-demographic characteristics? A review of Cochrane reviews.

### 2. Original language title.

For reviews in languages other than English, this field should be used to enter the title in the language of the review. This will be displayed together with the English language title.

### 3. \* Anticipated or actual start date.

Give the date when the systematic review commenced, or is expected to commence.  
12/03/2019

### 4. \* Anticipated completion date.

Give the date by which the review is expected to be completed.  
30/09/2019

### 5. \* Stage of review at time of this submission.

Indicate the stage of progress of the review by ticking the relevant Started and Completed boxes. Additional information may be added in the free text box provided.

Please note: Reviews that have progressed beyond the point of completing data extraction at the time of initial registration are not eligible for inclusion in PROSPERO. Should evidence of incorrect status and/or completion date being supplied at the time of submission come to light, the content of the PROSPERO record will be removed leaving only the title and named contact details and a statement that inaccuracies in the stage of the review date had been identified.

This field should be updated when any amendments are made to a published record and on completion and publication of the review. If this field was pre-populated from the initial screening questions then you are not able to edit it until the record is published.

The review has not yet started: No

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Preliminary searches	No	No
Piloting of the study selection process	Yes	No
Formal screening of search results against eligibility criteria	No	No
Data extraction	No	No
Risk of bias (quality) assessment	No	No
Data analysis	No	No

Provide any other relevant information about the stage of the review here (e.g. Funded proposal, protocol not yet finalised).

Funded proposal, protocol not yet finalised.

Funded proposal, protocol not yet finalised.

**6. \* Named contact.**

The named contact acts as the guarantor for the accuracy of the information presented in the register record.

Tamara Brown

**Email salutation (e.g. "Dr Smith" or "Joanne") for correspondence:**

Dr Brown

**7. \* Named contact email.**

Give the electronic mail address of the named contact.

t.brown@tees.ac.uk

**8. Named contact address**

Give the full postal address for the named contact.

School of Health and Social Care, Teesside University, Middlesbrough, TS1 3BA, United Kingdom

**9. Named contact phone number.**

Give the telephone number for the named contact, including international dialling code.

+44 (0) 1642 342936

**10. \* Organisational affiliation of the review.**

Full title of the organisational affiliations for this review and website address if available. This field may be completed as 'None' if the review is not affiliated to any organisation.

Teesside University

**Organisation web address:**

<https://tees.ac.uk/>

**11. \* Review team members and their organisational affiliations.**

Give the title, first name, last name and the organisational affiliations of each member of the review team.

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Affiliation refers to groups or organisations to which review team members belong.

Dr Tamara Brown. School of Health & Social Care, Teeside University

Professor Louisa Ells. School of Health & Social Care, Teeside University

Ms Margot Neveux. World Obesity Federation, UK

Professor Paulina Nowicka. Department of Food Studies, Nutrition and Dietetics, Uppsala University, Sweden; Department of Clinical Science, Intervention and Technology (CLINTEC), Karolinska Institutet, Sweden

Professor Tim Lobstein. World Obesity Federation, UK; Boden Institute, University of Sydney, New South Wales

#### 12. \* Funding sources/sponsors.

Give details of the individuals, organizations, groups or other legal entities who take responsibility for initiating, managing, sponsoring and/or financing the review. Include any unique identification numbers assigned to the review by the individuals or bodies listed.

Horizon 2020 European Union Funding for Research & Innovation, Grant Agreement 774548: Science and Technology in childhood Obesity Policy (STOP), Principal Investigator professor Franco Sassi, f.sassi@imperial.ac.uk/+442075949157

#### 13. \* Conflicts of interest.

List any conditions that could lead to actual or perceived undue influence on judgements concerning the main topic investigated in the review.

Yes

Louisa Ells is co-author on all five of the Cochrane systematic reviews searched for this review and is seconded to Public Health England as a specialist obesity advisor. Tamara Brown is co-author on one of the Cochrane systematic reviews searched for this review. Louisa and Tamara are co-authors of another overview of reviews PROSPERO 2016 CRD42016053423. Tim Lobstein and Margot Neveux are both staff members of the World Obesity Federation which has received educational grants from commercial sources with interests in the treatment of obesity. Paulina Nowicka has no conflicts of interest.

#### 14. Collaborators.

Give the name and affiliation of any individuals or organisations who are working on the review but who are not listed as review team members.

#### 15. \* Review question.

State the question(s) to be addressed by the review, clearly and precisely. Review questions may be specific or broad. It may be appropriate to break very broad questions down into a series of related more specific questions. Questions may be framed or refined using PI(E)COS where relevant.

To review the evidence from five Cochrane systematic reviews of interventions to treat overweight and obesity in children. Applying a social determinants of health perspective and focusing on interventions delivered by health care professionals, for children aged less than ten years, and the challenging phases of interventions including recruitment, adherence and follow-up. The analysis of the social determinants of health is based on the PROGRESS-Plus approach (place of residence, race/ethnicity, occupation, gender, religion, education, socioeconomic status, social capital, age, disability and sexual orientation).

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The aims are to improve our understanding of the barriers to successful obesity treatment for children, delivered by health care professionals in a setting linked to the provision of health care services, and to identify the characteristics of these children and highlight knowledge gaps.

Overarching question: what are the barriers to successful treatment delivered by health care professionals in a setting linked to the provision of health care services for children aged less than ten years, and do these barriers vary by socio-demographic characteristics?

Sub-questions:

- a. What are the best practices management strategies for recruitment to obesity treatments for children aged less than ten years and do these strategies vary by socio-demographic characteristics?
- b. What are the best practice management strategies for adherence to obesity treatments for children aged less than ten years and do these strategies vary by socio-demographic characteristics?
- c. What are the best practice management strategies for follow-up in obesity treatment for children aged less than ten years and do these strategies vary by socio-demographic characteristics?

#### 16. \* Searches.

Give details of the sources to be searched, search dates (from and to), and any restrictions (e.g. language or publication period). The full search strategy is not required, but may be supplied as a link or attachment.

The five reviews were searched from the Cochrane Database of Systematic Reviews. These five reviews had searched MEDLINE, Embase, PsycINFO, CINAHL and LILACS databases also the ClinicalTrials.gov and WHO International Clinical Trails registries.

#### 17. URL to search strategy.

Give a link to a published pdf/word document detailing either the search strategy or an example of a search strategy for a specific database if available (including the keywords that will be used in the search strategies), or upload your search strategy. Do NOT provide links to your search results.

Alternatively, upload your search strategy to CRD in pdf format. Please note that by doing so you are consenting to the file being made publicly accessible.

Do not make this file publicly available until the review is complete

#### 18. \* Condition or domain being studied.

Give a short description of the disease, condition or healthcare domain being studied. This could include health and wellbeing outcomes.

Overweight and obesity as defined by a growth chart or stated by the study authors.

#### 19. \* Participants/population.

Give summary criteria for the participants or populations being studied by the review. The preferred format includes details of both inclusion and exclusion criteria.

Children with overweight or obesity and a mean age of less than ten years at the start of the intervention.

Exclusion criteria: critically ill children, interventions that treated eating disorders or severe obesity related co-

morbidities. Children with a secondary or syndromic cause of obesity.

## 20. \* Intervention(s), exposure(s).

Give full and clear descriptions or definitions of the nature of the interventions or the exposures to be reviewed.

Any type of intervention including but not limited to behaviour change lifestyle interventions including diet and/or physical activity; pharmacotherapy and surgery. Intervention could be delivered as a single or multicomponent intervention, in any setting described by the study authors as being linked to the provision of health care services, delivered by any person indicated by the study authors to be a health care professional, using any delivery method. Interventions could be targeted to the parent(s) or the child, or both. Follow-up from baseline must be a minimum of six months regardless of the length of active intervention (any drug intervention was given for at least three months from baseline).

## 21. \* Comparator(s)/control.

Where relevant, give details of the alternatives against which the main subject/topic of the review will be compared (e.g. another intervention or a non-exposed control group). The preferred format includes details of both inclusion and exclusion criteria.

Any other type of comparison including no treatment, usual care or a concomitant intervention.

## 22. \* Types of study to be included.

Give details of the types of study (study designs) eligible for inclusion in the review. If there are no restrictions on the types of study design eligible for inclusion, or certain study types are excluded, this should be stated. The preferred format includes details of both inclusion and exclusion criteria.

Randomised controlled trials including individual and cluster trials with a minimum of six months data from baseline. European language publications based in European member states and other countries with widely available paediatric obesity treatment services.

## 23. Context.

Give summary details of the setting and other relevant characteristics which help define the inclusion or exclusion criteria.

The study must be aimed at treating excess weight and must be included within one of the five published Cochrane reviews of interventions for treating overweight and obesity in children.

## 24. \* Main outcome(s).

Give the pre-specified main (most important) outcomes of the review, including details of how the outcome is defined and measured and when these measurement are made, if these are part of the review inclusion criteria.

Change in Body mass index/Body mass index z-score differentiated or stratified by PROGRESS-Plus criteria: Place of residence, race/ethnicity, occupation, gender, religion, education, socioeconomic status, social capital, age, disability, sexual orientation. Any other dimension of disadvantage or inequity for which a health impact might be anticipated.

### Timing and effect measures

From baseline to at least six months.

### 25. \* Additional outcome(s).

List the pre-specified additional outcomes of the review, with a similar level of detail to that required for main outcomes. Where there are no additional outcomes please state 'None' or 'Not applicable' as appropriate to the review

Data will also be collected on recruitment, adherence and drop-out rate, who delivered the treatment, who received the treatment, adverse events, time-to-effect, differential effects by subgroups, sustainability, period of follow-up and costs.

### Timing and effect measures

From baseline to at least six months.

### 26. \* Data extraction (selection and coding).

Give the procedure for selecting studies for the review and extracting data, including the number of researchers involved and how discrepancies will be resolved. List the data to be extracted.

A standardised data collection form will be used to extract the characteristics of each study and the pre-specified outcomes. One author will extract the data which will be checked="checked" value="1" by a second author, with any disagreements resolved by consensus or by a third reviewer. Data extraction will include details of the trial, population baseline characteristics, baseline BMI/BMI-z score, type of intervention and comparator, duration of the study, numbers randomised, details of the health care setting and location. Particular attention will be paid to recruitment, adherence and follow-up rates. The pre-specified outcomes must be differentiated or stratified using at least one of the PROGRESS-Plus criteria.

### 27. \* Risk of bias (quality) assessment.

State whether and how risk of bias will be assessed (including the number of researchers involved and how discrepancies will be resolved), how the quality of individual studies will be assessed, and whether and how this will influence the planned synthesis.

We will report the review authors' assessment of the individual included studies using the Cochrane risk of bias tool and we will not re-assess the risk of bias. We will pay particular attention to how any PROGRESS-Plus criteria are assessed and what measures/tools are applied, in our overall quality assessment. If applicable and appropriate we will assess the quality of the evidence using the Grading of Recommendations Assessment and Evaluation (GRADE) assessment.

### 28. \* Strategy for data synthesis.

Give the planned general approach to synthesis, e.g. whether aggregate or individual participant data will be used and whether a quantitative or narrative (descriptive) synthesis is planned. It is acceptable to state that a quantitative synthesis will be used if the included studies are sufficiently homogenous.

We will provide a narrative synthesis of the findings with particular focus on the type of intervention,

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population characteristics, context of the health care setting, outcome measures and implementation factors.  
If applicable and appropriate we will conduct meta analyses.

#### 29. \* Analysis of subgroups or subsets.

Give details of any plans for the separate presentation, exploration or analysis of different types of participants (e.g. by age, disease status, ethnicity, socioeconomic status, presence or absence or co-morbidities); different types of intervention (e.g. drug dose, presence or absence of particular components of intervention); different settings (e.g. country, acute or primary care sector, professional or family care); or different types of study (e.g. randomised or non-randomised).

We will explore analysis by age and by type of intervention. The main analysis is change in BMI/BMI-z score differentiated or stratified by one or more PROGRESS-Plus criterion and it is anticipated that these will form the subgroups within individual studies.

#### 30. \* Type and method of review.

Select the type of review and the review method from the lists below. Select the health area(s) of interest for your review.

##### Type of review

Cost effectiveness

No

Diagnostic

No

Epidemiologic

No

Individual patient data (IPD) meta-analysis

No

Intervention

No

Meta-analysis

No

Methodology

No

Narrative synthesis

No

Network meta-analysis

No

Pre-clinical

No

Prevention

No

Prognostic

No

Prospective meta-analysis (PMA)

No

Review of reviews

Yes

Service delivery

No

Synthesis of qualitative studies

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No

Systematic review

Yes

Other

No

**Health area of the review**

Alcohol/substance misuse/abuse

No

Blood and immune system

No

Cancer

No

Cardiovascular

No

Care of the elderly

No

Child health

Yes

Complementary therapies

No

Crime and justice

No

Dental

No

Digestive system

No

Ear, nose and throat

No

Education

No

Endocrine and metabolic disorders

No

Eye disorders

No

General interest

No

Genetics

No

Health inequalities/health equity

Yes

Infections and infestations

No

International development

No

Mental health and behavioural conditions

No

Musculoskeletal

No

Neurological

No

Nursing

No

Obstetrics and gynaecology

No

Oral health

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No

Palliative care

No

Perioperative care

No

Physiotherapy

No

Pregnancy and childbirth

No

Public health (including social determinants of health)

Yes

Rehabilitation

No

Respiratory disorders

No

Service delivery

No

Skin disorders

No

Social care

No

Surgery

No

Tropical Medicine

No

Urological

No

Wounds, injuries and accidents

No

Violence and abuse

No

### 31. Language.

Select each language individually to add it to the list below, use the bin icon to remove any added in error.

English

There is not an English language summary

### 32. Country.

Select the country in which the review is being carried out from the drop down list. For multi-national collaborations select all the countries involved.

Australia

England

Sweden

### 33. Other registration details.

Give the name of any organisation where the systematic review title or protocol is registered (such as with The Campbell Collaboration, or The Joanna Briggs Institute) together with any unique identification number assigned. (N.B. Registration details for Cochrane protocols will be automatically entered). If extracted data will be stored and made available through a repository such as the Systematic Review Data Repository (SRDR), details and a link should be included here. If none, leave blank.

### 34. Reference and/or URL for published protocol.

Give the citation and link for the published protocol, if there is one

Give the link to the published protocol.

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Alternatively, upload your published protocol to CRD in pdf format. Please note that by doing so you are consenting to the file being made publicly accessible.

No I do not make this file publicly available until the review is complete

Please note that the information required in the PROSPERO registration form must be completed in full even if access to a protocol is given.

### 35. Dissemination plans.

Give brief details of plans for communicating essential messages from the review to the appropriate audiences.

This review forms work package 8 (out of 11 work packages). Work package 11 is dedicated to the dissemination of findings including presentations, papers, e-newsletters and workshops, in accordance with a published Dissemination Plan.

### Do you intend to publish the review on completion?

Yes

### 36. Keywords.

Give words or phrases that best describe the review. Separate keywords with a semicolon or new line. Keywords will help users find the review in the Register (the words do not appear in the public record but are included in searches). Be as specific and precise as possible. Avoid acronyms and abbreviations unless these are in wide use.

Child, Obesity, Health Care Setting, Socio-economic Position, Inequalities, social determinants of health

### 37. Details of any existing review of the same topic by the same authors.

Give details of earlier versions of the systematic review if an update of an existing review is being registered, including full bibliographic reference if possible.

### 38. \* Current review status.

Review status should be updated when the review is completed and when it is published. For newregistrations the review must be Ongoing.

Please provide anticipated publication date

Review\_Ongoing

### 39. Any additional information.

Provide any other information the review team feel is relevant to the registration of the review.

### 40. Details of final report/publication(s).

This field should be left empty until details of the completed review are available.

Give the link to the published review.