APPENDIX 5

PROTOCOLS AND PRISMA DIAGRAMS
## Protocol for physical activity evidence review

<table>
<thead>
<tr>
<th><strong>Authors:</strong></th>
<th>Sian Price, Dinah Roberts, Teri Knight</th>
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<tbody>
<tr>
<td><strong>Date:</strong></td>
<td>29 May 2014</td>
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<td><strong>Version:</strong></td>
<td>1</td>
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### Publication/ Distribution:
Transforming Health Improvement Programme:
- Physical Activity Expert Advisory Group
- Expert Advisory Group Process Project Management Group

### Review Date:
not applicable

### Purpose and Summary of Document:
To set out *a priori* the review question and methodology to be followed for the evidence review i.e. search strategy, inclusion/exclusion criteria, methodology for critical appraisal, data extraction and synthesis.

### Work Plan reference:
1. **PURPOSE**

   To provide a high level review of the research literature for the Transforming Health Improvement Physical Activity Expert Advisory Group.

2. **METHODS**

2.1 **Review question**

   This research evidence review will address the question:
   
   What interventions are effective in increasing the intensity and duration of physical activity across the life course?

2.2 **Search strategy**

   **Electronic searches**

   Updates of the searches undertaken for the 2012 Health Improvement Review will be undertaken. This covered NICE Guidance, Cochrane Systematic Reviews, Campbell Collaboration Reviews, EPPI Centre Systematic Reviews and US Taskforce Community Guide Recommendations. Supplementary focussed searches will also be carried out as required. Search strategies detailing search terms and sources are set up in the Search Technical Document (available on request from the ES). For the purpose of this search a standardised search filter will be used across the databases. There will be no follow up of reference lists. The search will be limited to English language and will only include sources published after 2003.

2.3 **Reference management**

   A Reference Manager database will be created to manage the search results. References submitted by expert group will be annotated as such on the database.

2.4 **Inclusion/exclusion criteria**

   **Types of studies:**
   Include: Well designed systematic reviews and meta-analyses of interventional studies.
   Exclude: Non-systematic literature reviews and single studies
Types of participants:
Include: Children and adults of all ages who are not meeting current guidelines for physical activity¹. 
Exclude: No exclusions

Types of interventions:
Include: Interventions to increase frequency of activity, interventions to increase intensity of activity, interventions to increase duration of activity 
Exclude: Other interventions

Types of outcome measures
Include: Type of physical activity (gentle, moderate, vigorous), duration of physical activity, frequency of physical activity 
Exclude: Other outcome measures

The Evidence Service will undertake screening of titles. The lead reviewer will screen abstracts for inclusion/exclusion. Decisions should be recorded in the inclusion/exclusion table and PRISMA diagram. A co-reviewer will undertake a repeatability check on a minimum of 10 or 10% of sources screened at abstract. A random number technique or sample every third reference in alphabetical list will be used to draw the sample. The co-reviewers decisions will be recorded in the inclusion/exclusion table. A copy of the completed inclusion/exclusion table should be sent to the Evidence Service Team. Any disagreements should be resolved by discussion. If agreement cannot be reached a member of the Evidence Service will act as third reviewer.

2.5 Critical appraisal

NICE guidance and Cochrane or Campbell systematic reviews will not be subject to critical appraisal. Critical appraisal of full-texts of other included systematic reviews will be undertaken by the lead reviewer using a critical appraisal checklist. If exclusion occurs at this point this should be recorded in the inclusion/exclusion table and PRISMA diagram. Repeatability checks will be undertaken by the co-reviewer (as described above). Copies of the completed critical appraisal checklists should be sent to the Evidence Service team.

Where there is major concern about the quality of studies/reviews these will be discussed by the reviewers and may lead to exclusion. Where there is disagreement this will be resolved by discussion. If agreement cannot be reached, a member of the Evidence Service

¹ http://www.nhs.uk/Livewell/fitness/Pages/physical-activity-guidelines-for-adults.aspx
will act as third reviewer. Any minor concerns about quality should be noted in the RE-AIM framework.

Evidence grading will be undertaken by the lead reviewer using the 'traffic light’ grading scheme. Repeatability checks will be undertaken by the co-reviewer as described above. Additional repeatability checks will be undertaken by the Evidence Service.

### 2.6 Data extraction

The lead reviewer will extract information from included SRs into the RE-AIM framework. It is anticipated that one RE-AIM form will be completed per intervention. Some SRs may only review one type of intervention but others may be outcome focussed and may review more than one type of intervention, therefore more than one RE-AIM form will be completed using information from that SR. Usually the SR will categorise interventions into the different types for analysis and synthesis and this categorisation may be deemed appropriate for the evidence review but if not, then categories will need to be created. Categorisation of interventions should be discussed with the EAG Chair/project management team as this will need to fit within the overall theory of change/approach. Copies of the completed RE-AIM proformas should be sent to the Evidence Service team.

### 2.7 Consistency checks

Consistency checks (of application of methods across review teams) will be undertaken by the Evidence Service.

### 2.8 Review outputs

1. Search results recorded in the Search Technical Document
2. Inclusion/exclusion table
3. Completed PRISMA
4. Completed RE-AIM framework
**PHYSICAL ACTIVITY**

**PRISMA DIAGRAM**

Inclusion of records previously identified through HIR 2012 (n=62)

Records identified after title screening and duplicates removed through database searching during THIW Implementation Programme Phase 1, 2014 for interventions effective in increasing the intensity and duration of physical activity across the life course (n=84)

Additional records identified through other sources during THIW Implementation Programme Phase 1, 2014 (n=10)

Abstracts screened (n=156)

Excluded at abstract screening (n=71)

Full articles screened (n=85)

Excluded at full text screening (n=41)

Included in Intervention Summaries for Outcome 1: Increasing intensity and duration of physical activity in children and young people aged 3 to 18 years (n=25)*

Included in Intervention Summaries for Outcome 2: Increasing intensity and duration of physical activity in working age adults (n=20)*

Included in Intervention Summaries for Outcome 3: Increasing intensity and duration of physical activity in older adults (n=15)*

Studies that were not incorporated in Intervention Summaries (n=13)* †

* The total number of records included in Intervention Summaries exceeds the number of records included after full title screening because several records support more than one Outcome

† Studies were not incorporated in Intervention Summaries if the evidence was not strong enough to demonstrate effectiveness or more recent evidence existed. See Inclusion Exclusion Table (Appendix 6).
# Protocol for tobacco control evidence review

**Authors:** Sian Price, Dinah Roberts, Teri Knight  
**Date:** 25 July 2014  
**Version:** 1  

**Publication/Distribution:**  
Transforming Health Improvement Programme  
- Tobacco Expert Advisory Group  
- Expert Advisory Group Process Project Management Group  

**Review Date:** not applicable  

**Purpose and Summary of Document:**  
To set out *a priori* the review question and methodology to be followed for the evidence review i.e. search strategy, inclusion/exclusion criteria, methodology for critical appraisal, data extraction and synthesis.  

**Work Plan reference:**
1. **PURPOSE**

To provide a high level review of the research literature for the Tobacco Expert Advisory Group of the Transforming Health Improvement Programme.

2. **METHODS**

2.1 **Review question**

This research evidence review will address the questions:

- What interventions are effective in preventing or reducing exposure to environmental tobacco smoke in the home, for children aged 8 to 16 years?
- What interventions are effective in preventing or reducing experimentation with cigarettes in 8 to 16 year olds?
- What interventions are effective in stopping or reducing regular smoking in adults aged 18 to 65 years?

1.2 **Search strategy**

For an unbiased assessment, this search needs to be as comprehensive as possible. A detailed search strategy is set out in the Search Technical Document (Appendix 1). In brief, a sensitive search will be undertaken, using database subject headings – MESH, EMBASE, HMIC and wide ranging free text, keywords and synonyms. For the purpose of this search a standardised search filter will be used across the databases. There will be no follow up of reference lists, the search will be limited to English language and will only include sources published after 2003.

2.3 **Reference management**

A Reference Manager database will be created to manage the search results. References submitted by expert group will be annotated as such on the database.

2.4 **Inclusion/exclusion criteria**

**Types of studies:**
Include: Well designed systematic reviews and meta-analyses of interventional studies.
Exclude: Non-systematic literature reviews, single studies
Where no effective interventions were found in systematic reviews or where included systematic reviews are out of date and new studies may have been published
Include: Well designed primary interventional and observational studies
Exclude: Descriptive studies, studies and other sources that do not evaluate interventions

For question 1: What interventions are effective in preventing or reducing exposure to environmental tobacco smoke (ETS) in the home for children aged 8 to 16 years?

Types of participants:
Include: Children aged 8 to 16 years, parents and carers (or other household members of children aged 8 to 16 years
Exclude: Studies only considering data on subjects outside of this age group

Types of interventions:
Include: Interventions to prevent or reduce environmental tobacco smoke in the home; primary prevention interventions that can be delivered at scale - have the potential to deliver maximum impact at population level (even if, on an individual basis, the effect size is small), rather than those delivering a high effect size delivered for a relatively small population group. This means that these interventions are likely to work through changing policy, practice or environment or, they may be interventions delivered to individuals at low intensity and high volume (for example, brief interventions delivered at scale). They are also likely to be interventions that work through others – not necessarily those which PHW deliver directly alone.
Exclude: Other interventions

Types of outcome measures
Include:
For children; Exposure to ETS; measures of children’s exposure to ETS using air monitoring for levels of nicotine; other measures of ETS (including household member?/parent/carer-reported behaviour change); biochemical measures of children’s absorption of ETS through cotinine in urine, blood, saliva, or hair
For household members/parents/carers;
Behaviour change in relation to children’s exposure to ETS, smoking behaviour, including cessation, reduction or uptake. Biochemically validated measures of smoking behaviour (for example
thiocyanates, cotinine levels in blood, urine or saliva), or self report.
Exclude: Other outcome measures

**For question 2:** What interventions are effective in preventing or reducing experimentation with cigarettes in 8 to 16 year olds?

**Types of participants:**
Include: Children aged 8 to 16 years
Exclude: Studies only considering data on subjects outside of this age group

**Types of interventions:**
Include: Interventions to prevent or reduce experimentation with cigarettes; primary prevention interventions that can be delivered at scale - have the potential to deliver maximum impact at population level (even if, on an individual basis, the effect size is small), rather than those delivering a high effect size delivered for a relatively small population group. This means that these interventions are likely to work through changing policy, practice or environment or, they may be interventions delivered to individuals at low intensity and high volume (for example, brief interventions delivered at scale). They are also likely to be interventions that work through others – not necessarily those which PHW deliver directly alone.
Exclude: Other interventions

**Types of outcome measures**
Include: Self reported smoking behaviour (cigarettes smoked or puffs), non smoking (based on never having had a cigarette), age of initiation of experimentation or smoking, frequency of experimentation with cigarettes,
Exclude: Other outcome measures

**For question 3:** What interventions are effective in stopping or reducing regular smoking in adults aged 18 to 65 years?

**Types of participants:**
Include: Adults aged 18 to 65 years
Exclude: Studies only considering data on subjects outside of this age group

**Types of interventions:**
Include: Interventions to stop or reduce regular smoking; interventions that can be delivered at scale - have the potential to deliver maximum impact at population level (even if, on an individual basis, the effect size is small), rather than those delivering a high effect size delivered for a relatively small
population group. This means that these interventions are likely to work through changing policy, practice or environment or, they may be interventions delivered to individuals at low intensity and high volume (for example, brief interventions delivered at scale). They are also likely to be interventions that work through others – not necessarily those which PHW deliver directly alone.
Exclude: Other interventions

**Types of outcome measures**
Include: Self reported smoking cessation or reduction, biochemically validated measures of smoking behaviour
Exclude: Other outcome measures

The Evidence Service will undertake screening of titles. The lead reviewer will screen abstracts for inclusion/exclusion. Decisions should be recorded in the inclusion/exclusion table and PRISMA diagram. A co-reviewer will undertake a repeatability check on a minimum of 10 or 10% of sources screened at abstract. A random number technique or sample every third reference in alphabetical list will be used to draw the sample. The co-reviewers decisions will be recorded in the inclusion/exclusion table. A copy of the completed inclusion/exclusion table should be sent to the Evidence Service Team. Any disagreements should be resolved by discussion. If agreement cannot be reached, a member of the Evidence Service will act as third reviewer.

### 2.5 Critical appraisal

NICE guidance and Cochrane or Campbell systematic reviews will not be subject to critical appraisal. Critical appraisal of full-texts of other included systematic reviews will be undertaken by the lead reviewer using a critical appraisal checklist. If exclusion occurs at this point this should be recorded in the inclusion/exclusion table and PRISMA diagram. Repeatability checks will be undertaken by the co-reviewer (as described above). Copies of the completed critical appraisal checklists should be sent to the Evidence Service team.

Where there is major concern about the quality of studies/reviews these will be discussed by the reviewers and may lead to exclusion. Where there is disagreement this will be resolved by discussion. If agreement cannot be reached a member of the Evidence Service will act as third reviewer. Any minor concerns about quality should be noted in the RE-AIM framework.

Evidence grading will be undertaken by the lead reviewer using the ‘traffic light’ grading scheme. Repeatability checks will be
undertaken by the co-reviewer as described above. Further repeatability checks will be undertaken by the Evidence Service.

2.6 Data extraction

The lead reviewer will extract information from included SRs into the RE-AIM framework. It is anticipated that one RE-AIM form will be completed per intervention. Some SRs may only review one type of intervention but others may be outcome focussed and may review more than one type of intervention, therefore more than one RE-AIM form will be completed using information from that SR. Usually the SR will categorise interventions into the different types for analysis and synthesis and this categorisation may be deemed appropriate for the evidence review but if not, then categories will need to be created. Categorisation of interventions should be discussed with the EAG Chair/project management team as this will need to fit within the overall theory of change/approach. Copies of the completed RE-AIM proformas should be sent to the Evidence Service team.

2.7 Consistency checks

Consistency checks (of application of methods across review teams) will be undertaken by the Evidence Service.

2.8 Review outputs

1. Search results recorded in the Search Technical Document
2. Inclusion/exclusion table
3. Completed PRISMA
4. Completed RE-AIM framework
### PRISMA DIAGRAM

**Inclusion of records previously identified through HIR 2012 (n=57)**

- Records identified after title screening and duplicates removed through **initial database search** during THIW Implementation Programme Phase 1, 2014 for interventions preventing or reducing exposure to environmental tobacco smoke in the home for children (n=2)*

- Additional search† (n=76)*

- Abstracts screened (n=251)

- Full articles screened (n=114)

- Included in Intervention Summaries for Outcome 1: Preventing smoking uptake (including experimentation and initiation of tobacco use) in children aged 8 to 16 years, leading to a decline in smoking prevalence in this age group. (n=11)

- Included in Intervention Summaries for Outcome 2: Increasing smoking cessation among working age adults who smoke leading to a decline in smoking prevalence in this group. (n=10)

- Included in Intervention Summaries for Outcome 3: Reducing exposure to environmental tobacco smoke (ETS) for infants and children aged 0 to 16 years. (n=0)

- Studies that were not incorporated in Intervention Summaries (n=41)§

**Records identified after title screening and duplicates removed through database search during THIW Implementation Programme Phase 1, 2014 for interventions effective in stopping or reducing regular smoking in adults aged 18 to 65 years. (n=19)*

- Additional search‡ (n=88)*

- Excluded at abstract screening (n=137)

- Excluded at full text screening (n=52)

**Records identified after title screening and duplicates removed through database search during THIW Implementation Programme Phase 1, 2014 for interventions preventing or reducing experimentation with cigarettes in 8 to 16 year olds. (n=5)*

**Records identified through other sources during THIW Implementation Programme Phase 1, 2014 (n=6)*
* The total of records identified in searches exceeds the number of abstracts screened as two records were returned in two searches

† The initial search returned insufficient results to find evidence of effective interventions addressing the outcome. A supplementary search included sources other than systematic reviews such as evaluation studies, meta analyses, observational studies, RCTs, and reviews published between 2003 and 2014.

‡ The initial search returned two key papers dated 2005 and 2008. Due to tobacco policy changes post these reviews an updated search was requested by the expert group. It was also noted to include a search for young people’s access to illegal tobacco. A supplementary search included sources other than systematic reviews such as evaluation studies, meta analyses, observational studies, RCTs, and reviews published between 2003 and 2014.

§ Studies were not incorporated in Intervention Summaries if the evidence was not strong enough to demonstrate effectiveness or more recent evidence existed. See Inclusion Exclusion Tables (Appendix 6).
## Protocol for obesity, diet and nutrition evidence review

<table>
<thead>
<tr>
<th>Authors:</th>
<th>Sian Price, Dinah Roberts, Teri Knight</th>
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**Publication/ Distribution:**

Transforming Health Improvement Programme:
- Obesity Expert Advisory Group
- Expert Advisory Group Process Project Management Group

**Review Date:** not applicable

**Purpose and Summary of Document:**

To set out *a priori* the review question and methodology to be followed for the evidence review i.e. search strategy, inclusion/exclusion criteria, methodology for critical appraisal, data extraction and synthesis.

**Work Plan reference:**
1. **PURPOSE**

To provide a high level review of the research literature to inform the Tobacco Expert Advisory Group (EAG) of the Transforming Health Improvement Programme.

2. **METHODS**

2.1 **Review question**

This research evidence review will address the questions:

- What interventions are effective in preventing overweight and obesity in children aged 4 to 5 years?
- What interventions are effective in preventing overweight and obesity in children aged 8 to 16 years?
- What interventions are effective in supporting achievement of dietary guidelines in adults aged 18 to 65 years?^2^

2.2 **Search strategy**

**Electronic searches**

Updates of the searches undertaken for the 2012 Health Improvement Review will be undertaken. This covered NICE Guidance, Cochrane Systematic Reviews, Campbell Collaboration Reviews, EPPI Centre Systematic Reviews and US Taskforce Community Guide Recommendations. Supplementary focussed searches will also be carried out as required. Search strategies detailing search terms and sources are set up in the Search Technical Document (available on request from the ES). For the purpose of this search a standardised search filter will be used across the databases. There will be no follow up of reference lists. The search will be limited to English language and will only include sources published after 2003.

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^2^ [http://www.nhs.uk/Livewell/Goodfood/Pages/eatwell-plate.aspx](http://www.nhs.uk/Livewell/Goodfood/Pages/eatwell-plate.aspx)
2.3 **Reference management**

A Reference Manager database will be created to manage the search results. References submitted by expert group will be annotated as such on the database.

2.4 **Inclusion/exclusion criteria**

**Types of studies:**
Include: Well designed systematic reviews and meta-analyses of interventional studies.
Exclude: Non-systematic literature reviews and primary research

**For question 1:** What interventions are effective in preventing over weight and obesity in children aged 4 to 5 years?

**Types of participants:**
Include: Children aged 0 to 5 years
Exclude: Studies only considering data on subjects outside of this age group

**Types of interventions:**
Include: Interventions for primary prevention of overweight and obesity
Exclude: Other interventions

**Types of outcome measures**
Include: weight and height, per cent fat content, BMI, ponderal index, skin-fold thickness, prevalence of overweight and obesity
Exclude: Other outcome measures

**For question 2:** What interventions are effective in primary prevention of obesity and overweight in children aged 8 to 16 years?

**Types of participants:**
Include: Children aged up to 16 years
Exclude: Studies only considering data on subjects outside of this age group

**Types of interventions:**
Include: Interventions for primary prevention of overweight and obesity
Exclude: Other interventions

**Types of outcome measures**
Include: weight and height, per cent fat content, BMI, ponderal index, skin-fold thickness, prevalence of overweight and obesity
Exclude: Other outcome measures

**For question 3:** What interventions are effective in supporting achievement of healthy eating dietary guidelines in adults aged 18 to 65 years?

**Types of participants:**
Include: Adults aged 18 to 65 years
Exclude: Studies only considering data on subjects outside of this age group

**Types of interventions:**
Include: Interventions to support or encourage achievement of dietary guidelines
Exclude: Other interventions

**Types of outcome measures**
Include: Measures of achievement of dietary guidelines
Exclude: Other outcome measures

The Evidence Service will undertake screening of titles. The lead reviewer will screen abstracts for inclusion/exclusion. Decisions should be recorded in the inclusion/exclusion table and PRISMA diagram. A co-reviewer will undertake a repeatability check on a minimum of 10 or 10% of sources screened at abstract. A random number technique or sample of every third reference in alphabetical list will be used to draw the sample. The co-reviewers’ decisions will be recorded in the inclusion/exclusion table. A copy of the completed inclusion/exclusion table should be sent to the Evidence Service team. Any disagreements should be resolved by discussion. If agreement cannot be reached, a member of the Evidence Service will act as third reviewer.

**2.5 Critical appraisal**

NICE guidance and Cochrane or Campbell systematic reviews will not be subject to critical appraisal. Critical appraisal of full-texts of other included systematic reviews will be undertaken by the lead reviewer using a critical appraisal checklist. If exclusion occurs at this point this should be recorded in the inclusion/exclusion table and PRISMA diagram. Repeatability checks will be undertaken by the co-reviewer (as described above). Copies of the completed critical appraisal checklists should be sent to the Evidence Service team.

Where there is major concern about the quality of studies/reviews these will be discussed by the reviewers and may lead to exclusion. Where there is disagreement this will be resolved by discussion. If
agreement cannot be reached a member of the Evidence Service will act as third reviewer. Any minor concerns about quality should be noted in the RE-AIM framework.

Evidence grading will be undertaken by the lead reviewer using the ‘traffic light’ grading scheme. Repeatability checks will be undertaken by the co-reviewer as described above. Further repeatability checks will be undertaken by the Evidence Service team.

2.6 Data extraction

The lead reviewer will extract information from included SRs into the RE-AIM framework. It is anticipated that one RE-AIM form will be completed per intervention. Some SRs may only review one type of intervention but others may be outcome focussed and may review more than one type of intervention, therefore more than one RE-AIM form will be completed using information from that SR. Usually the SR will categorise interventions into the different types for analysis and synthesis and this categorisation may be deemed appropriate for the evidence review but if not, then categories will need to be created. Categorisation of interventions should be discussed with the EAG Chair/project management team as this will need to fit within the overall theory of change/approach. Copies of the completed RE-AIM proformas should be sent to the Evidence Service team.

2.7 Consistency checks

Consistency checks (of application of methods across review teams) will be undertaken by the Evidence Service.

2.8 Review outputs

1. Search results recorded in the Search Technical Document
2. Inclusion/exclusion table
3. Completed PRISMA
4. Completed RE-AIM framework
OBESITY, DIET AND NUTRITION

PRISMA DIAGRAM

Records identified after title screening and duplicates removed through database searching during THIW Implementation Programme Phase 1, 2014 for interventions effective in preventing overweight and obesity in children aged 4 to 16 years (n=87)

Records identified after title screening and duplicates removed through database searching during THIW Implementation Programme Phase 1, 2014 for interventions effective in supporting achievement of dietary guidelines in adults aged 18 to 65 years (n=86)

Records identified through other sources during THIW Implementation Programme Phase 1 (2014) (n=8)

Inclusion of records previously identified through HIR 2012 (n=17)

Abstracts screened (n=198)

Excluded at abstract screening (n=100)

Full articles screened (n=98)

Excluded at full text screening (n=33)

Included in Intervention Summaries for Outcomes 1 & 2: Preventing of obesity in children aged 0 to 16 years (n=5)

Included in Intervention Summaries for Outcome 3: Achievement of dietary guidelines among adults of working age (n=11)

Studies that were not incorporated in Intervention Summaries (n=49)*

* Studies were not incorporated in Intervention Summaries if the evidence was not strong enough to demonstrate effectiveness or more recent evidence existed. See Inclusion Exclusion Table (Appendix 6).
Protocol for alcohol and substance misuse evidence review

Authors: Sian Price, Dinah Roberts, Teri Knight

Date: 29 May 2014

Publication/ Distribution:
Transforming Health Improvement Programme:
- Alcohol and substance misuse Expert Advisory Group
- Expert Advisory Group Process Project Management Group

Review Date: not applicable

Purpose and Summary of Document:
To set out a priori the review question and methodology to be followed for the evidence review i.e. search strategy, inclusion/exclusion criteria, methodology for critical appraisal, data extraction and synthesis.

Work Plan reference:
1. **PURPOSE**

   To provide a high level review of the research literature to inform the Alcohol and Substance Misuse Expert Advisory Group (EAG) of the Transforming Health Improvement Programme.

2. **METHODS**

2.1 **Review question**

   This research evidence review will address the questions:
   
   - What is effective in reducing the proportion of adults who drink above the recommended sensible \(^3\) limits?
   - What is the effective in preventing and reducing alcohol consumption in those aged under 18 years?
   - What is effective in reducing the proportion of young people and adults who report binge drinking \(^4\) weekly?
   - What is effective in preventing and reducing problematic drug \(^5\) use across the population?

2.2 **Search strategy**

   **Electronic searches**

   Updates of the searches undertaken for the 2012 Health Improvement Review will be undertaken. This covered NICE Guidance, Cochrane Systematic Reviews, Campbell Collaboration Reviews, EPPI Centre Systematic Reviews and US Taskforce Community Guide Recommendations. Supplementary focussed searches will also be carried out as required. Search strategies detailing search terms and sources are set up in the Search Technical Document (available on request from the ES). For the purpose of this search a standardised search filter will be used across the databases. There will be no follow up of reference lists.

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\(^3\) In the UK for men 3 to 4 units/day; for women 2-3 units per day. 1 unit is 10ml/8gms pure ethanol. For men and women two drink free days per week. For men and women over 65 years 1.5 units per day. For pregnant women, no units

\(^4\) In the UK for men 6 units or more on one occasion; for females 5 units or more. For those over 65 3 units or more

\(^5\) Problematic drug use is defined as any use of illicit drugs, any use of prescription medication other than in accordance with a specific prescription, any use of over the counter medication other than in accordance with the manufacturers or a prescribing clinician’s instruction.
The search will be limited to English language and will only include sources published after 2003.

2.3 **Reference management**

A Reference Manager database will be created to manage the search results. References submitted by the Alcohol and Substance Misuse EAG will be annotated as such on the database.

2.4 **Inclusion/exclusion criteria**

**Types of studies:**
Include: Well designed systematic reviews (SRs) and meta-analyses of interventional studies.
Exclude: Non-systematic literature reviews and primary research

**For question 1:** What is effective in reducing the proportion of adults who drink above the recommended sensible limits?

**Types of participants:**
Include: Adults aged 18 and over
Exclude: Studies only considering data on subjects outside of this age group

**Types of interventions:**
Include: Interventions facilitating sensible (within recommended limits) alcohol consumption
Exclude: Other interventions

**Types of outcome measures**
Include: Alcohol use (yes/no; quantity/frequency), change in amount of alcohol consumed, change in proportion of adults drinking above recommended sensible limits, incidence of drunkenness or other measures which are related to consumption of alcohol above recommended sensible limits
Exclude: Other outcome measures

**For question 2:** What is effective in preventing and reducing alcohol consumption in those aged under 18 years?

**Types of participants:**
Include: Children aged under 18 years
Exclude: Studies only considering data on subjects outside of this age group

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6 Studies conducted outside the UK may use a different definition
**Types of interventions:**
Include: Interventions for primary prevention of drinking/experimentation with alcohol/regular drinking
Exclude: Other interventions

**Types of outcome measures**
Include: Alcohol use (yes/no; quantity/frequency), regular drinking (for e.g. daily, weekly etc.), incidence of drunkenness, alcohol initiation (age), drunkenness initiation (age)
Exclude: Other outcome measures

**For question 3:** What is effective in reducing the proportion of adults and young people who report binge\(^7\) drinking weekly?

**Types of participants:**
Include: Adults and young people aged 15 to 24 years
Exclude: Studies only considering data on subjects outside of this age group

**Types of interventions:**
Include: Interventions to prevent or reduce binge drinking
Exclude: Other interventions

**Types of outcome measures**
Include: Frequency of occasions drinking above sensible limits or at levels defined as ‘binge drinking’, incidence of drunkenness, binge drinking
Exclude: Other outcome measures

**For question 4:** What is effective in preventing and reducing problematic drug\(^8\) use across the population?

**Types of participants:**
Include: Adults and children
Exclude: No exclusions

**Types of interventions:**
Include: Interventions to prevent initiation of drug use, interventions to reduce drug use
Exclude: Other interventions

**Types of outcome measures**
Include: Rates of drug use initiation, prevalence of drug use

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\(^7\) Studies conducted outside the UK may use a different definition

\(^8\) Problematic drug use is defined as any use of illicit drugs, any use of prescription medication other than in accordance with a specific prescription, any use of over the counter medication other than in accordance with the manufacturers or a prescribing clinician’s instruction.
Exclude: Other outcome measures

The Evidence Service will undertake screening of titles. The lead reviewer will screen abstracts for inclusion/exclusion. Decisions should be recorded in the inclusion/exclusion table and PRISMA diagram. A co-reviewer will undertake a repeatability check on a minimum of 10 or 10% of sources screened at abstract. A random number technique or sample of every third reference in alphabetical list will be used to draw the sample. The co-reviewers’ decisions will be recorded in the inclusion/exclusion table. Any disagreements should be resolved by discussion. A copy of the completed inclusion/exclusion table should be sent to the Evidence Service team. If agreement cannot be reached, a member of the Evidence Service will act as third reviewer.

2.5 Critical appraisal

NICE guidance and Cochrane or Campbell systematic reviews will not be subject to critical appraisal. Critical appraisal of full-texts of other included systematic reviews will be undertaken by the lead reviewer using a critical appraisal checklist. If exclusion occurs at this point this should be recorded in the inclusion/exclusion table and PRISMA diagram. Repeatability checks will be undertaken by the co-reviewer (as described above). Copies of the completed critical appraisal checklists should be sent to the Evidence Service team.

Where there is major concern about the quality of studies/reviews these will be discussed by the reviewers and may lead to exclusion. Where there is disagreement this will be resolved by discussion. If agreement cannot be reached a member of the Evidence Service will act as third reviewer. Any minor concerns about quality should be noted in the RE-AIM framework.

Evidence grading will be undertaken by the lead reviewer using the ‘traffic light’ grading scheme. Repeatability checks will be undertaken by the co-reviewer as described above. Further repeatability checks will be undertaken by the Evidence Service team.

2.6 Data extraction

The lead reviewer will extract information from included SRs into the RE-AIM framework. It is anticipated that one RE-AIM form will be completed per intervention. Some SRs may only review one type of intervention but others may be outcome focussed and may review more than one type of intervention, therefore more than
one RE-AIM form will be completed using information from that SR. Usually the SR will categorise interventions into the different types for analysis and synthesis and this categorisation may be deemed appropriate for the evidence review but if not, then categories will need to be created. Categorisation of interventions should be discussed with the EAG Chair/project management team as this will need to fit within the overall theory of change/approach. Copies of the completed RE-AIM proformas should be sent to the Evidence Service team.
2.7 **Consistency checks**

Consistency checks (of application of methods across review teams) will be undertaken by the Evidence Service.

2.8 **Review outputs**

1. Search results recorded in the Search Technical Document
2. Inclusion/exclusion table
3. Completed PRISMA
4. Completed RE-AIM frameworks
ALCOHOL AND SUBSTANCE MISUSE

PRISMA DIAGRAM

Inclusion of records previously identified through HIR 2012 (n=6)

Records identified after title screening through database searching during THIW Implementation Programme Phase 1 (2014) for effective interventions - adults who drink above sensible limits (n=13)

Records identified after title screening through database searching during THIW Implementation Programme Phase 1 (2014) for effective interventions - alcohol consumption in under 18 years (n=14)

Records identified after title screening through database searching during THIW Implementation Programme Phase 1 (2014) for effective interventions - adults and young people binge drinking weekly (n=7)

Records identified after title screening through database searching during THIW Implementation Programme Phase 1 (2014) for effective interventions - problematic drug use across the population (n=20)

Abstracts screened (n=49)

Excluded at abstract screening (n=14)

Full articles screened (n=35)

Excluded at full text screening (n=11)

Included in Intervention Summaries for Outcome 1: A reduction in the number of adults drinking above the guidelines and/ or binge drinking in Wales. (n=7)

Included in Intervention Summaries for Outcome 2: The prevention and reduction of alcohol consumption in young people (aged 15 and younger). (n=7)

Included in Intervention Summaries for Outcome 3: A reduction in the number of problematic drug users in Wales. (n=0)

Studies that were not incorporated in Intervention Summaries (n=12)
* The total of records identified in searches exceeds the number of abstracts screened because some records were returned in more than one search.

† The total of records included in Intervention Summaries exceeds the number of records included after full title screening because two records supported both Outcomes 1 and 2.

‡ Studies were not incorporated in Intervention Summaries if the evidence was not strong enough to demonstrate effectiveness or more recent evidence existed. See Inclusion Exclusion Table (Appendix 6).
# Protocol for mental health evidence review

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Transforming Health Improvement Programme:  
- Mental Health Expert Advisory Group  
- Expert Advisory Group Process Project Management Group

**Review Date:** not applicable

**Purpose and Summary of Document:**  
To set out *a priori* the review question and methodology to be followed for the evidence review i.e. search strategy, inclusion/exclusion criteria, methodology for critical appraisal, data extraction and synthesis.

**Work Plan reference:**
1. **PURPOSE**

To provide a high level review of the research literature to inform the Mental Health Expert Advisory Group (EAG) of the Transforming Health Improvement Programme.

2. **METHODS**

2.1 **Review question**

This research evidence review will address the questions:

- What is effective for promoting the mental health and wellbeing of children, working age adults, and older people?
- What is effective in improving access to health and health improvement interventions for people with a mental illness?

2.2 **Search strategy**

**Electronic searches**

Updates of the searches undertaken for the 2012 Health Improvement Review will be undertaken. This covered NICE Guidance, Cochrane Systematic Reviews, Campbell Collaboration Reviews, EPPI Centre Systematic Reviews and US Taskforce Community Guide Recommendations. Supplementary focussed searches will also be carried out as required. Search strategies detailing search terms and sources are set up in the Search Technical Document (available on request from the ES). For the purpose of this search a standardised search filter will be used across the databases. There will be no follow up of reference lists. The search will be limited to English language and will only include sources published after 2003.

2.3 **Reference management**

A Reference Manager database will be created to manage the search results. References submitted by EAG will be annotated as such on the database.

2.4 **Inclusion/exclusion criteria**

*For question 1*: What is effective for promoting the mental health and wellbeing of children, working age adults, and older people?
**Types of studies:**
Include: Well designed systematic reviews (SR) and meta-analyses of interventional studies.
Exclude: Non-systematic literature reviews and primary research

**Types of participants:**
Include: Children (0 to 18 years); Adults of working age; Older adults
Exclude: No exclusions

**Types of interventions:**
Include: Universal interventions to promote mental health and wellbeing
Exclude: Other interventions, including those aimed at treatment of existing mental health problems

**Types of outcome measures**
Include: Self reported improvements in mental health and wellbeing; improvements in mental health and wellbeing demonstrated using validated scales or outcome measures; reductions in diagnoses of mental illness; reductions in rates of suicide and self harm
Exclude: Other outcome measures

**For question 2:** What is effective in improving access to health and health improvement interventions for people with mental illness?

**Types of studies:**
Include: Well designed systematic reviews and meta-analyses of interventional studies.
Exclude: Non-systematic literature reviews and primary research

**Types of participants:**
Include: Individuals with diagnosed mental illness
Exclude: Individuals without diagnosed mental illness

**Types of interventions:**
Include: Targeted interventions to improve access to health and health improvement interventions (for example screening, smoking cessation services)
Exclude: Other interventions

**Types of outcome measures**
Include: Measures of improvements in access or uptake
Exclude: Other outcome measures

The Evidence Service will undertake screening of titles. The lead reviewer will screen abstracts for inclusion/exclusion. Decisions
should be recorded in the inclusion/exclusion table and PRISMA diagram. A co-reviewer will undertake a repeatability check on a minimum of 10 or 10% of sources screened at abstract. A random number technique or sample of every third reference in alphabetical list will be used to draw the sample. The co-reviewers’ decisions will be recorded in the inclusion/exclusion table. Any disagreements should be resolved by discussion. A copy of the completed inclusion/exclusion tables should be sent to the Evidence Service team. If agreement cannot be reached, a member of the Evidence Service will act as third reviewer.

2.5 Critical appraisal

NICE guidance and Cochrane or Campbell systematic reviews will not be subject to critical appraisal. Critical appraisal of full-texts of other included systematic reviews will be undertaken by the lead reviewer using a critical appraisal checklist. If exclusion occurs at this point this should be recorded in the inclusion/exclusion table and PRISMA diagram. Repeatability checks will be undertaken by the co-reviewer (as described above). Copies of completed critical appraisal checklists should be sent to the Evidence Service team.

Where there is major concern about the quality of studies/reviews these will be discussed by the reviewers and may lead to exclusion. Where there is disagreement this will be resolved by discussion. If agreement cannot be reached a member of the Evidence Service will act as third reviewer. Any minor concerns about quality should be noted in the RE-AIM framework.

Evidence grading will be undertaken by the lead reviewer using the ‘traffic light’ grading scheme. Repeatability checks will be undertaken by the co-reviewer as described above. Further repeatability checks will be undertaken by the Evidence Service team.

2.6 Data extraction

The lead reviewer will extract information from included SRs into the RE-AIM framework. It is anticipated that one RE-AIM form will be completed per intervention. Some SRs may only review one type of intervention but others may be outcome focussed and may review more than one type of intervention, therefore more than one RE-AIM form will be completed using information from that SR. Usually the SR will categorise interventions into the different types for analysis and synthesis and this categorisation may be deemed appropriate for the evidence review but if not, then categories will need to be created. Categorisation of interventions
should be discussed with the EAG Chair/project management team as this will need to fit within the overall theory of change/approach. Copies of the completed RE-AIM proformas should be sent to the Evidence Service team.

2.7 **Consistency checks**

Consistency checks (of application of methods across review teams) will be undertaken by the Evidence Service.

2.8 **Review outputs**

1. Search results recorded in the Search Technical Document
2. Inclusion/exclusion table
3. Completed PRISMA
4. Completed RE-AIM framework
MENTAL HEALTH

PRISMA DIAGRAM

Inclusion of records previously identified through HIR 2012 (n=4)
Records identified after title screening through database searching during THIW Implementation Programme Phase 1, 2014 for interventions effective for promoting the mental health and wellbeing of children, working age adults, and older people. (n=68)
Records identified after title screening through database search during THIW Implementation Programme Phase 1, 2014 for interventions effective in improving access to health and health improvement interventions for people with mental illness. (n=4)
Records identified through other sources during THIW Implementation Programme Phase 1, 2014 (n=1)

Abstracts screened (n=77)
Excluded at abstract screening (n=44)

Full articles screened (n=33)
Excluded at full text screening (n=18)

Included in Intervention Summaries for Outcome 1: Increase in reported mental health (wellbeing) of adults and older people (n=3)
Included in Intervention Summaries for Outcome 2: Increase in reported mental health (wellbeing) of children and young people (n=4)
Studies that were not incorporated in Intervention Summaries (n=8)

* Studies were not incorporated in Intervention Summaries if the evidence was not strong enough to demonstrate effectiveness or more recent evidence existed. See Inclusion Exclusion Table (Appendix 6)