Getting started on a systematic review: defining a question and inclusion criteria

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What’s a systematic review for?

- To make sense of large bodies of information
- To find out what is known
- To produce a knowledge synthesis
- To get a more precise estimate of effect
- To reduce bias
- To identify limitations in the evidence base
Systematic reviews?

- How good is endometrial ablation?
- Does tacrolimus work?
- What do people think of active travel plans?
- What’s the effectiveness of temozolomide for treating glioma?
What do you want to know?

- Be clear!
- What’s realistic?
- What’s useful?

- For who?
- With what?
- What treatment?
- Against what?
- How will you know?
Effectiveness reviews

- PICOS
  - Population(s)
  - Intervention(s)
  - Comparator(s)
  - Outcome(s)
  - Study design(s)
Effectiveness question

- Compared to current standard treatment, what is the clinical effectiveness of temozolomide as adjunct treatment to surgery and radiation therapy to treat newly diagnosed high grade glioma?
Inclusion criteria

- **Population:**
  - Children and adult patients with newly diagnosed Grade III or IV primary gliomas.

- **Intervention:**
  - Surgery followed by radiotherapy with concomitant temozolomide followed by an adjuvant course of temozolomide.

- **Comparators:**
  - Surgery followed by radiotherapy with or without systemic chemotherapy with standard antineoplastic agents (excluding those listed in the intervention).

- **Outcomes:**
  - Overall survival, progression free survival, quality of life, adverse effects

- **Study design:**
  - Systematic reviews
  - RCTs
  - Non randomised evidence was also considered where it gave the best estimates of a required parameter (for example adverse effects) or where RCT data was scanty or uninformative.
Social interventions

- PICOCs
  - Population(s)
  - Intervention(s)
  - Comparator(s)
  - Outcome(s)
  - Context
  - Study design
Public health effectiveness

- What interventions addressing multiple risk-factors are effective and cost-effective in the primary prevention of CVD within a given population?
Any study identified addressing the primary research questions will also be interrogated for information addressing the following potential considerations:

- The target audience, actions taken and by whom, context, frequency and duration.
- Whether it is based on an underlying theory or conceptual model.
- Whether it is effective and cost effective.
- Critical elements. For example, whether effectiveness and cost effectiveness varies according to:
  - the diversity of the population (for example, in terms of the user’s age, gender or ethnicity)
  - the status of the person (or organization) delivering it and the way it is delivered
  - its frequency, length and duration, where it takes place and whether it is transferable to other settings
  - its intensity.
- Any trade offs between equity and efficiency.
- Any factors that prevent – or support – effective implementation.
- Any adverse or unintended effects.
- Current practice.
Inclusion criteria

**Population:**
- Populations including children and adults from developed / OECD countries or a WHO region. Populations may be defined geographically (local, regional or national) with a minimum size no less than that covered by a Primary Care Trust in the UK, or according to other characteristics such as workplace, age, sex, social class, ethnicity. Studies confined to populations clinically diagnosed as being at high risk of CVD or diagnosed with CVD will not be included.

**Intervention:**
- Multiple risk factor intervention programmes that include primary prevention strategies to tackle at least two of the following CVD risk factors: Smoking, poor diet, insufficient physical activity, high blood pressure, high blood cholesterol, obesity/overweight, diabetes, psychosocial stress (linked to an individual’s ability to influence the potentially stressful environments in which they live) and high alcohol consumption. Interventions may include one or more of: educational / behavioural approaches; fiscal changes; environmental changes, legislative changes. Interventions that include a pharmacological component and / or a secondary prevention component will only be included where data can be disaggregated to allow consideration of the impact of primary prevention and non-pharmacological elements. Interventions including screening for CVD risk factors will only be included if accompanied by interventions to modify these risk factors.

**Outcomes:**
- CVD mortality
- CVD morbidity
- Biochemical precursors of CVD including lipid levels, HDL/LDL ratio, triglyceride levels.
- Physiological precursors of CVD including blood pressure, metabolic syndrome.
- Behaviours associated with the risk of CVD including use of tobacco, diet, physical activity, alcohol consumption.
- Knowledge, attitudes and intentions with regard to behaviours related to CVD.
- Adverse events

**Study designs:**
- Effectiveness: RCT; Controlled before and after; Cohort; Case control; Before and after; Interrupted time series;
- Systematic reviews will be considered as a source of primary studies only.
- The following will be excluded: books; book chapters; thesis; dissertations; studies which describe the relationship between health and ill/health and CVD risk factors (i.e. correlates studies or non-evaluative studies). Any studies undertaken in non-developed or non-OECD countries will also be excluded.
Qualitative research review questions

- What’s the experience of women with heavy menstrual bleeding?
- What do people think about skin cancer and its prevention?
- What are the factors that facilitate or mitigate against the effective prevention of unintentional injury to children in the home?
What we’ve often been asked

- What are the barriers to, and facilitators of
  ...........................................

- What are the barriers to, and facilitators of, interventions involving the supply and/or installation of home safety equipment, and/or home risk assessments?
What are the factors which either enhance or reduce the effectiveness of interventions involving the supply and/or installation of home safety equipment and/or home risk assessments, or which help or hinder their implementation?
Inclusion criteria

- **Populations**
  - Children and young people aged under the age of 15.
  - Parents and carers of children and young people aged under 15.
  - Staff, such as health visitors, involved in the design and delivery of interventions and projects aimed at reducing unintentional injury in children in the home.

- **Interventions**
  - This report is accompanies reviews of effectiveness and cost-effectiveness of interventions to prevent unintentional injury in the home. Overall, these aimed to assess the supply and/or installation of safety equipment (free of charge or at a reduced cost) inside of a home and the home risk assessments. While this review of qualitative research was interested in intervention specific research, we also looked for studies that explored attitudes, behaviours and understandings related to preventing injury to children in the home generally, as these may reveal important underlying factors that may help or hinder the success of interventions.

- **Locations**
  - OECD countries

- **Study design**
  - Qualitative research designs, using recognised methods of data collection and analysis (including, but not limited to, observational methods, interviews and focus groups for the former and grounded theory, thematic analysis, hermeneutic phenomenological analysis, discourse analysis etc. for the latter), that address the question of barriers and facilitators.
<table>
<thead>
<tr>
<th>Research question</th>
<th>Qualitative research</th>
<th>Survey</th>
<th>Case control studies</th>
<th>Cohort studies</th>
<th>RCTs</th>
<th>Systematic reviews</th>
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<tbody>
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<td>Process of service delivery:</td>
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<td>How does it work?</td>
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<td>Salience:</td>
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<td>Safety:</td>
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<td>Will children/parents be willing to take up the service offered?</td>
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<td>Cost effectiveness:</td>
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<td>Is it worth buying this service?</td>
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<td>Is this the right service for these children?</td>
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<td>Satisfaction with the service:</td>
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<td>Are users, providers, and other stakeholders satisfied with the service?</td>
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Source: Petticrew & Roberts (2008) Systematic reviews in the social sciences