Evidence Map of Factors That Drive the Transition to Modern Energy Cooking Services

Caroline Ochieng
Why are systematic reviews important?

- Policy Question: How can we transition 2.2 billion people to clean cooking energy by 2030? What are the likely barriers and how do we tackle them?
  - Identify, evaluate, and summarize the findings of all relevant individual studies on the topic (the evidence base)
- Systematic review and mapping:
  - Enables increased and efficient access of existing evidence
  - Utilises legitimate and reliable standards of evidence synthesis - credibility
  - Ensures rigor, objectivity and transparency in evidence synthesis
Systematic review vs. Systematic Mapping

Farshchian and Dahl, 2015
Key steps and outputs

- Review question and its key elements (PICO framework)
- Protocol – Stakeholder engagement
- Search and selection of studies (incl. quality assessment)
- Data extraction
- Synthesis (maps, narrative synthesis, meta-analysis)
- Interpretation
**Review Question**

**Review question:** What factors are critical to achieve a large-scale transition towards sustained use of modern energy with particular reference to cooking in Low- and Middle-Income Countries?

**Population:** participants in a large-scale (e.g. village, regional, national) technology or fuel change program. Transitions to electricity for cooking were limited to studies from LMICs. Excluded during screening process.

**Intervention:** restricted to large scale ‘program’ aimed at producing a technology change (any sector). Within the programs, all studies where groups of individuals (households, villages, areas) are studied were included. Studies reporting individual choices outside an obvious program were excluded.

**Counterfactual:** Presence of a control in the research was not a requirement of inclusion, but was recorded if present in the study design.

**Outcome:** one of three outcome measures had to be present for studies to be included: (i) data reporting positive/negative/neutral changes to social, economic or environmental variables as a result of the programme or intervention; (ii) reported measures of uptake or sustained use (iii) drivers and/or barriers to change, where supported by tabulated results or qualitative results that indicated number of respondents.
Protocol development

• Two consultations held with key stakeholders

1) Loughborough University on 30th October 2019

2) Nairobi, November 2019, part of Clean Cooking Conference
Searching

Records identified through database searching (n = 13914)

Records identified through other sources, listed (n = 283)

Records after duplicates removed (n = 11325)

Duplicates (n = 2589)

Records after abstract screening (n = 508)

Excluded abstracts (n = 10817)

Articles retrieved at full text (n = 791)

Excluded full texts, with reasons (n = 653)

Excluded on:
- Population (n = 81)
- Intervention (n = 540)
- Outcome (n = 28)
- Other reason (n = 4)

Articles after full text screening (n = 138)

Articles with Drivers/Barriers data (i.e. fully-coded) (n = 91)

Articles with no Drivers/Barriers data, but with potentially useful information (i.e. partially-coded) (n = 47)

Synthesis

Studies included in the systematic map (n = 160)
Synthesis: Evidence Map

https://energydata.info/apps