Rapid Evidence Assessments: A guide for commissioners, funders, and policymakers

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Contents

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A. Introduction and top tips

Do you face an urgent policy decision - perhaps where to allocate resources, develop a business case, or scrutinise a new government policy - and need a swift overview of research to bolster confidence in your decision? You need that summary of evidence fast - and gathered in a way you can trust.

If so, there are two options that can help you. Firstly, check what is already out there. There are databases, living maps of global evidence, and easy-to-access repositories of systematic reviews (see Box G for sources of existing reviews).

Alternatively, if you cannot find what you need, a second option is to commission a Rapid Evidence Assessment (REA) - often referred to simply as a 'rapid review'. This is the focus of this guide. REAs provide a structured and transparent search, quality assessment, and synthesis of available research.

We will talk you through everything you need to know about how to commission a REA that meets your needs. This is *not* intended as a technical how-to guide aimed at researchers (see Appendix A for a list of such guides), but aims to help you as a commissioner. Our hope is that this guide will give you a feel for the *entire* review process, to inform your tender document, and help you ask searching questions of the review teams, to create a final review that balance between rapidity and rigour (Breckon, 2022b).

On the way, we show you the various types of review and acceleration strategies you can pick, whilst also flagging up top tips and potential pitfalls - such as ill-defined questions or unrealistic expectations - and indeed some of the inherent limitations within the REA process as a whole.

As well as practical advice (see our top ten tips below), we have added some useful templates, checklists, and links to other guides. We hope it will be useful to commissioners from any background or policy area, including across all social and environmental fields.

Ten top tips for REAs

TIP 1: Take time on the set up

Invest as much time as you can in preparation before the start of the review: check what other reviews are already out there, using systematic review repositories (see Box G) and PROSPERO for registered reviews (https://www.crd.york.ac.uk/prospero/); time-table regular meetings with the review team before diaries fill up; invite peer reviewers or other stakeholders at the start (not later on when it may be hard to make changes to the review).

Tip 2: Consider recruiting knowledge brokers

To make this 'social enterprise' work, consider using specialist intermediary knowledge brokers to help guide the process and navigate between the research and policy worlds. They can help link the review questions to the policy context and purpose, and facilitate reviews by weighing up review options against policy objectives.

Tip 3 Prioritise agreeing a clear, relevant and reviewable question

Sharp relevant review questions are crucial as they drive the entire review process. Invest as much time as you can working together to nail down a clearly articulated, answerable, and policy-relevant review question. The effort will pay off. If you get a vague, *un*-reviewable question (i.e. one that the research literature can not answer) it is very hard to reverse this decision later on, particularly if time is limited. Ask the review team to do preliminary searches to check that the question and scope is feasible within time and other resource constraints. Use Box J for a checklist of five considerations for review questions.

Tip 4: Insist on transparency

Whatever shortcut or acceleration technique is used, make sure that the review team is transparent and explicit about their search strategy, plans and methods - right from the start. Transparency will build confidence in review findings and ensure others are able to follow the process that was used - and potentially even try to replicate or update your work in future.

Tip 5: Carefully consider what to exclude and include

Be wary of the downsides of strict inclusion (and exclusion) criteria that can help fast-track a review. Omitting research (e.g. only recent publications, no grey literature, limits to geographical coverage) may be necessary to make the review rapid, but can exclude crucial data that undermines or limits the findings.

Tip 6: Employ at least two reviewers

We recommend having more than one reviewer. Having second opinions and checking each other's work - such as via dual screening - is a valuable part of the REA process to minimise bias, reduce human error, and help identify when inclusion criteria have been unclear. However, this needs to be balanced with resource demands on the project.

Tip 7: Include quality appraisal

Despite the challenges of trying to find time to check the quality and biases in the original studies, ask your review team to include some sort of assessment of quality, possibly using standardised checklists and tools. Using experienced systematic review teams may help as they will have the knowledge and skills to rapidly adapt quality appraisal tools they have used before.

Tip 8: Use a narrative and visuals to communicate results

The narrative can be a successful way to communicate review results. In addition to a narrative, ask the review team to use tables or diagrams to help present the findings in an easily graspable form.

Tip 9: Help the review team on policy implications

Academics may need help from you - or knowledge brokers - to craft useful implications for policy that give context-specific, actionable messages. Work together with the review team to draft pragmatic, impartial and relevant policy points.

Tip 10: Keep a close eye on workload and timings

The review process is unpredictable. How many search results to screen? How many studies to include? While hazarding a guess, we cannot be sure in advance and not knowing introduces an element of risk. Much of the advice in this paper helps ameliorate some of this risk. However, the only way to deliver a review to a timeline and budget that cannot change is to pause at the end of the search and at the end of screening stages and assess the volume of work to be done - then make informed choices. These choices must be reported transparently. Also be aware that the final part of the review can slow things down: sign-off, peer review, design, proof-reading, may make publication longer than expected and mean you miss a key window of influence.

Sources of information behind this guide

This guide is informed by four sources of information and knowledge:

- Current published methodological guidance, checklists and typologies (including grey literature, peer-reviewed academic articles, including methodological scoping and systematic reviews)

- A pilot project conducting five REAs for select committees in the UK Parliament, a partnership between Parliamentary Office of Science and Technology (POST, UK Parliament), International Public Policy Observatory (IPPO), and Capabilities in Academic Policy Engagement (CAPE)

- Interviews with commissioners or researchers with experience of REAs (see Acknowledgements)

- Experience of the authors in delivering and developing rapid synthesis over two decades (e.g. reviews for World Health Organisation, Campbell Collaboration, Health Education England, International Committee for the Red Cross, Doctors without Borders, Health Systems Global, Genomics England, UNICEF, What Works Children Social Care etc.)

B. What are Rapid Evidence Assessments and why are they important?

Rapid Evidence Assessments provide high-quality evidence in a timely and cost-effective manner (Tricco et al, 2017). They are pragmatic and aim to be a:

'tool for getting on top of the available research evidence on a policy issue, as comprehensively as possible, within the constraints of a given timetable'

(Government Social Research Service, 2014)

You may have seen more REAs commissioned recently because they have grown in popularity in the last decade (see Box A for examples from the UK Government and devolved nations) and increased in number across continents (Mijumbi-Deve et al., 2022; Robson et al., 2023), including as response to emergencies such as the Fukushima disaster or the 2014 Ebola epidemic in West Africa (Donnelly et al., 2018), as well as the Covid pandemic (Brassey, 2021).

Box A: Examples of REAs published by UK Government and agencies

Long distance airborne transmission of SARS-CoV-2: rapid systematic review
UK Health Security Agency, 2022

Rapid evidence assessment on the impacts of climate change on migration patterns
FCDO, 2021

Coronavirus (COVID-19): impact of school building closures - equity audit
Deputy First Minister, Scottish Government, 2021

What works in tackling serious and organised crime?
FCDO, 2021

Evidence Reviews on Analysis, Prevalence & Impact of Microplastics in Freshwater and Estuarine Environments
DEFRA, 2019

Rapid Evidence Assessment: what works with domestic abuse perpetrators?
Welsh Government, 2018

At the heart of these REAs is an attempt to streamline and accelerate what is called a systematic review of research (Hamel et al., 2021). A systematic review is an exhaustive synthesis of all available studies relevant to your research question. They take stock of the research in a field of inquiry by seeking out, selecting, critically assessing and synthesising the available research, using transparent, rigorous and replicable methods. This type of review provides a meticulous way of finding relevant, high quality studies; and integrating their findings to give a clearer and more comprehensive picture than any single study can produce. (Gough et al., 2013, p. 5).

In summary, systematic reviews typically synthesise and judge the reliability of empirical evidence drawn from multiple studies, reporting how this was done and what was found in a clear text, sometimes accompanied by tables, quantitative measures and/or diagrams.

What is vital to understand is what a systematic review is *not*. It is not a traditional literature review that can fall victim to cherry picking - and other biases (see Box B)

Box B The usual stages of a systematic review are outlined in diagram XX below

8 Stages in a rapid review

1 Review set up → 2 Clearly defined and reviewable question → 3 Literature searching → 4 Screening and study selection

8 Publication and recommendations ← 7 Synthesis and findings ← 6 Quality assessment ← 5 Data extraction
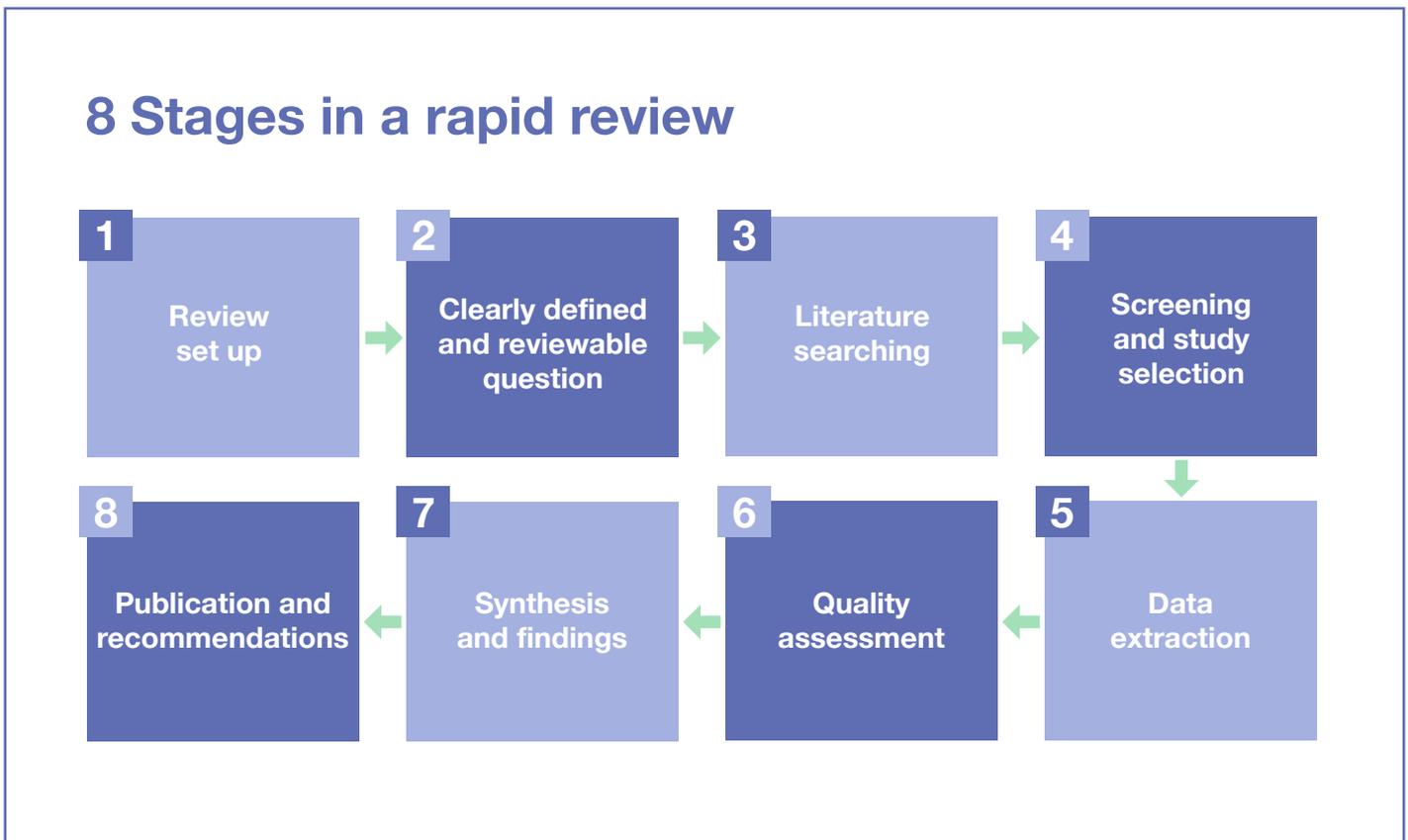
However, if a relevant systematic review is not already available, one major disadvantage is the time required to conduct a new one. An exhaustive review of available research can take on average 15 months to finish (Borah et al., 2017). As a policymaker, you are unlikely to be able to wait that long. An alternative is the REA. It accelerates the process of conducting a systematic review by 'streamlining or omitting various methods to produce evidence for stakeholders in a resource-efficient manner' (Hamel et al., 2021).

The exact nature of this acceleration process is discussed in more detail in sections D and E, but as a rule of thumb, rapid systematic reviews should take approximately 3 to 6 months (DFID, 2017). There can be a time saving of about 75% compared to systematic reviews (Tricco et al., 2017). It is worth you noting that there is a wide variation in timings. Some reviews will take even longer. And some are faster. The Canadian-based McMaster Health Forum provides rapid syntheses in 10- or 30-business days - and one review that took just three days[1] (Wilson, 2018).

Although there is no single rigid approach on REAs (Tricco et al., 2015), there are some agreed principles - that cut across all disciplines and policy areas. The UK's national academies for science and medicine (Royal Society & Academy of Medical Sciences, 2017) recommend four key principles of good evidence synthesis for policy - inclusivity, rigour, transparency, accessibility - principles endorsed by a range of different UK government departments and agencies (Donnelly et al., 2018).

Box C: Four principles of high quality synthesis (Royal Society & Academy of Medical Sciences, 2017)

> **Principle 1:** Inclusive. Evidence synthesis that involves policymakers throughout and considers many types and sources of evidence is most likely to yield significant policy insights.
>
> **Principle 2:** Rigorous. For the evidence synthesis to be robust and reliable, potential sources of bias should be recognised and minimised and the final synthesis article should be independently reviewed.
>
> **Principle 3:** Transparent. Synthesised evidence that is transparent is likely to be more credible, replicable and useful.
>
> **Principle 4:** Accessible. For evidence synthesis to be both useful and used it must be accessible. It should be written in plain language and freely available online.

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[1] This three-day review provided a profile of existing evidence - including 36 systematic reviews about the effects of homecare.

Why REAs are important for policy

The value of REAs for you as a commissioner is that they provide state-of-the-art and trustworthy knowledge across numerous steps across the policy-making process (Lavis, 2009). According to a guide for the World Health Organisation (Tricco et al., 2017, p. 7), they can help in three areas:

• priority setting (identifying and conceptualising priority issues for the policy agenda);

• policy formulation (assessing options to develop policies, to identify the benefits and harms of policy options);

• policy implementation (what is the best way for a government to implement a programme or policy) .

REAs can be particularly useful in response to an emergency or crisis. They can also be cost-saving, as the accelerated process can be a lot cheaper than a time-consuming systematic review.

In addition, REAs can assist in the scrutiny of government: parliamentarians, for instance, can use synthesis of research to question elected officials and other decision-makers, including on policy issues that arise at short notice. For the UK, evidence syntheses (informed by the Royal Society/Academy of Medical Sciences synthesis principles - see Box C) are particularly useful to the UK Parliament as they enable the 'research user to quickly gain a good understanding of consensus and disagreement in an area of evidence' (UK Parliament, 2020).

Compared to traditional narrative literature reviews, or reliance on groups of experts, systematic review methods for REAs can be useful for the following reasons:

Avoids cherry picking single studies

Firstly, a traditional literature review may only select the most interesting or conclusive primary research - and not reflect the breadth of the evidence base as a whole (Haddaway et al., 2020). Or literature may be selected, consciously or not, to support a certain perspective or proposition, thereby missing literature that may contradict a specific narrative. REAs use explicit, systematic methods to minimise bias, and provide more reliable findings from which policy conclusions can be drawn.

Box D: Controversy over deworming

An example of this bias provoked controversy in international development regarding the educational benefits of deworming in developing countries. Parasitic worms (soil-transmitted helminthiasis and schistosomiasis) affect more than 1 billion people globally. A landmark study using a selection of data and individual studies concluded that deworming tablets can have an impact on health and school outcomes (Miguel & Kremer, 2004). As a result, many governments, donors and international bodies pushed for deworming. But a Campbell systematic review published in 2017 reviewed 52 studies and found that mass deworming had little or no effect, on average, on short-term attention, cognitive development, school attendance, academic achievement, and mortality (Welch et al., 2017).

Provide transparency and neutral framing

Secondly, the neutral framing and methodological transparency of REAs are an advantage over narrative literature reviews. This might be important if you have commissioned a review in a politically charged or controversial policy area: if people want to disagree with your review's findings, they can check its search and synthesis methods, as set out in the methodology (see Section D).

In theory, others can try and replicate your review - something that may be impossible in a narrative literature review (that is not upfront about how studies were found, included, and appraised). Narrative literature reviews may also have a particular pre-conceived policy angle or recommendation, whereas REAs, based on systematic review methods, aim to provide a more neutral policy framing (see Box B).

Limits the cognitive biases of experts

Thirdly, many policymakers rely on experts. But the accuracy and reliability of expert opinions is 'compromised by a long list of cognitive frailties' (Sutherland & Burgman, 2015, p. 317).

A wide and growing range of evidence on unconscious biases have been documented since the seminal work of Kahneman and Taversky (Tversky & Kahneman, 1974), including: overconfidence bias (overestimating one's own expert abilities); information and availability biases (overly focusing on the most accessible sources of information); confirmation biases (focusing on information that fits with prior beliefs); and cross-cultural, racial, and gender biases (Neal et al., 2022). Such cognitive biases have been found in wide range of professional expert arenas, including law courts (Bunn & Stammers, 2015), surgery (Armstrong et al., 2023), healthcare (FitzGerald & Hurst, 2017) and forensic science (Cooper & Meterko, 2019).

In addition to these unconscious biases, the reality is that despite their best intentions, many academics are not neutral 'honest brokers' (Pielke, 2007) but have particular interests and policy priorities. As one interviewee (working for an independent government-funded research agency) told us: 'experts can be prone to cognitive biases… and have agendas to push'. Systematic review methods aim to be more neutral, and capture the breadth of published evidence, not just selections of experts that may be prone to their own biased views.

However, expert input can play an important part to frame and guide reviews. The UK Government guide to evaluation recommends using 'interviews with experts to facilitate targeted searches of the literature' (HM Treasury/Evaluation Task Force, 2020). The deep subject knowledge of experts can help supplement review findings where knowledge gaps exist in literature.

Experts can also: identify core papers to develop keywords for the review team's search strategy; refine the protocol (i.e. purpose, review question); and provide feed-back on the review synthesis, along with insights into the limitations with the findings (Cirkony et al., 2022). Indeed, in some areas, expert input may be an essential alternative if high quality research is non-existent, as long as their expertise is elicited in a structured way, such as using structured question formats, Delphi panels (Mukherjee et al., 2015) and other 'rules of engagement' (Sutherland & Burgman, 2015).

While experts are a highly valuable source of information, advice, and quality assurance, the process of systematic reviewing also helps check their biases. The appropriate involvement of experts - such as in peer review or advisory groups - is discussed in more detail in Section E on the stages of the review

C. What types of rapid review to choose?

There are a variety of different types of review to suit your resources, needs and timetable. These can be quantitative, qualitative or mixed methods. An overview of commonly-used types of rapid reviews is provided in Table A.

Table A: Commonly-used rapid research review types
(Adapted from Campbell et al., 2023; Collins et al., 2015; DFID, 2017; Dicks et al., 2017; Gartlehner et al., 2023; Peterson et al., 2017; Tricco et al., 2016)

Name	Time	Example
Traditional Rapid literature review	Days to months	Business basics; nudging firms to improve productivity; a rapid literature review of behavioural factors and best-practice prompts UK (Department for Business, Energy and Industrial Strategy, 2019)
Rapid Evidence Assessment (or Rapid Reviews, Rapid Evidence Reviews)	3 to 6 months	Beyond effective approaches: a rapid review response to designing professional learning, Australia (Cirkony et al., 2021)
Scoping reviews	3-5 months	Prevention and Control of Financial Fraud: a Scoping Review, Belgium (Gotelaere & Paoli, 2022)
Evidence Maps (or Evidence Gap Maps)	3-5 months	Africa Evidence Gap Map, International, 3ie

Wilson et al (2021) recommend three options for reviews for policymakers, adjusted according to time:

OPTION 1: Profile of existing evidence (produced in days)

It is possible to create a fast overview of evidence in days. For example, Acres (the Center for Rapid Evidence Synthesis) in Uganda has pioneered a rapid response briefing service that answers policy questions in a matter of days and the WHO has funded rapid review capacity in countries, such as Georgia, India, Malaysia and Zimbabwe (Robson et al., 2023). Because of the swiftness of this type of review, it may only be possible to give a basic policy analysis with an assessment of benefits, harms or costs of a policy option, summary and map of identified literature, and brief description of the types of evidence found, and there may be important gaps (Wilson et al., 2021).

OPTION 2: Quick scoping reviews and thematic summaries (produced in weeks)

If there is more time, it is possible to complete reviews in a matter of weeks. These draw on evidence from a range of sources, including existing systematic reviews and a manageable selection of primary studies (Wilson et al., 2021). One option is to skip the quality assessment of included original studies, and to give a general description of the evidence base, referred to as Quick Scoping Reviews (Collins et al., 2015). A scoping review can present a 'reconnaissance' of the evidence field (Campbell et al., 2023). Such a type of review addresses an exploratory research question aimed at mapping key concepts, types of evidence, and gaps in research related to a defined area or field (Colquhoun et al., 2014). They are useful for commissioners wanting some initial clarification of concepts, and for fields where a body of literature is complex, diverse and not amenable to a more precise

systematic review of the evidence (Peters et al., 2015, 2020). Scoping reviews can be grouped together with evidence maps (see below) as they both present a 'Big Picture' of the evidence field (Campbell et al., 2023). As well as reviewing policy documents, it might also be feasible to consider interviews with key informants who can provide additional insights and suggestions for literature that may not be found through database searches. The results can be produced in a mix of tables that are organised using a thematic framework, accompanied by a narrative that highlights key findings and themes (Wilson et al., 2021). Examples of such reviews include those conducted by the Sax Institute in Australia (see Box I).

OPTION 3: Synthesis (produced in months)

The third and final category can include more evidence types, sources, and formats (even including dissertations by PhD and MSc students) and generate multiple types of analyses, including of policy, the wider system and even political analyses using quantitative and/or qualitative methods (Wilson et al., 2021). For some, this type of review is a 'true' REA because it is an accelerated form of systematic review (Hartling et al., 2015). It may be an essential approach if time is needed to manage sensitive political and cultural issues. Wilson et al (2021) give the example of a review focused on identifying best practices to implement the United Nations Declaration on the Rights of Indigenous Peoples (covering six countries) that needed time to build trust and nurture a partnership for conducting the review with several Indigenous groups. The different stages of this type of review are covered in more detail in Section E.

Evidence maps

Another option is to produce evidence maps. These have overlaps with scoping reviews, as set out in Option 2[2]. While they are referred to by various names - such as evidence maps, systematic maps, evidence and gap maps, scoping maps - they have grown in popularity in recent years (Saran & White, 2018) and all have a shared aim: to systematically identify and report the range of research activity in a broad topic area or policy area (Miake-Lye et al., 2016). Evidence maps highlight where there are several studies, where there are stronger or weaker study designs, and also where there are gaps in the evidence base[3]. Findings from gap maps are usually presented in a visual and interactive format, with shapes and colour coding used to visualise the evidence base. Their user-friendly visual nature makes them a useful tool for involving members of the public in the review process (Stokes & Sutcliffe, 2018).

One use of evidence maps is to serve as background for future research: they point to where the gaps are and more research is needed, and help define the focus of future evidence synthesis. But they can equally be a stand alone piece of research for policymakers. The Centre for Homelessness Impact in the UK has shown how useful they can be in social policy - conducting the first gap map of homelessness interventions as their founding piece of research (see Box E).

Box E: Homelessness effectiveness map

The Centre for Homelessness Impact (CHI) has produced two evidence and gap maps, in partnership with the Campbell Collaboration and Heriot-Watt University, using the EPPI mapper technology. The Effectiveness Map, or 'what works' map, captures impact evaluations and effectiveness reviews - around 700 impact evaluations and systematic reviews from around the world.

The map is here:
https://centreforhomelessnessimpact.github.io/egm/

The Implementation Issues map focuses on the barriers and facilitators that affect the implementation of homelessness interventions. The maps bring together 400 qualitative process evaluations that examine factors which help or hinder the successful implementation of homelessness interventions.

The map is here
https://centreforhomelessnessimpact.github.io/egm-implementation/

Another option is rapid living maps (see for example Lorenc et al., 2020). These grew in popularity during Covid pandemic due to the need to constantly update systematic reviews with new studies, and refinement of its methodological quality.' (Negrini et al., 2021). However, they are still relatively rare outside of health and are still evolving so we do not provide guidance here.

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[2] A German systematic review attempted to differentiate the scoping and mapping methodologies: scoping reviews include a descriptive narrative summary of the results, whereas evidence maps identify research gaps. A similarity is both often use a table to depict a summary of literature characteristics (Schmucker et al., 2013).

[3] Evidence maps report on a number of characteristics of studies. An evidence map will describe the study design used; for instance (for example, whether it was a case study or comparative study, experimental evaluation or used a pre-post design). It may also report on the outcome measures used in studies, and what qualified or disqualified certain studies from inclusion. Some gap maps - but not all - will also conduct a quality appraisal, to judge and rank the quality of individual studies.

Qualitative vs quantitative reviews

One helpful way to distinguish between the different types of reviews is to see them as falling into two camps, either 'configurative' or 'aggregative' (Gough et al., 2012). Most people probably see systematic reviews as 'aggregative': adding and averaging up a large body of empirical data to describe and test predefined concepts. This type of review might involve statistical techniques to synthesise the data from several studies into a single quantitative estimate or summary effect size, perhaps of a drug or medical intervention (Petticrew & Roberts, 2006).

However, it is a common misperception that systematic reviews *only* involve this type of quantitative meta-analysis and focus on 'what works' and the effectiveness of interventions (such as drugs or health interventions). Reviews can cover a whole range of other areas, such as people's experiences, the causes or prevalence of problems, expert opinions and policies, diagnostic test accuracy, and other questions (Munn et al., 2018). An alternative category of review is the 'configurative' which might seek to spend more effort to interpret, and arrange (configure) information - and look for patterns in the studies[4].

A mixed methods review?

One option for a commissioner is to consider a mixed methods review. Mixed methods may be required for questions where there is a paucity of published literature and those involving complex policy subjects, as they can examine multiple aspects of implementation and delivery (Thomas et al., 2013). However, mixed method reviews can take longer to do because they include more types of studies, and the synthesis stage may be more onerous: trying to weave together very different types of studies.

But if the resources are available, it can be worth it. Including qualitative research in a review helps understand the heterogeneity of interventions, populations or contexts, and interpret the quantitative data. As one interviewee who produces systematic reviews said to us: 'understanding *why* that diversity is good to know - why was one study so positive, when others were negative? [Qualitative research] gives nuanced findings, otherwise reviews can be a very blunt instrument'. The interviewee also suggested involving subject experts to help understand mixed results - and sense-check the results of the review with people who understand the field.

As a commissioner, the main message of this section is that there is a broad array of different types of reviews that you can commission. They are not all about 'what works' and testing the effectiveness of interventions - and can confront a panoply of urgent policy questions (for a comprehensive overview of the diversity of all systematic reviews - including rapid reviews - see Littell, 2018).

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[4] Note that 'configurative' reviews is not synonymous with 'qualitative'. An aggregative systematic review might, for instance, combine a whole range of qualitative studies.

D. Acceleration strategies: making a rapid review rapid

Generally, there are four broad directions to expedite a review. A commissioner could opt for one strategy - or a mix:

Strategy 1: Applying shortcuts

This is the most common approach and involves shortening or dropping one or more systematic review steps (see Box F for list of shortcuts). One study of rapid reviews found three common types of shortcuts: one, not using two reviewers for study selection and/or data extraction; two, not conducting a quality assessment of included studies; and three, not searching for grey literature (Haby et al., 2016). However, there are many more options and the next section (Section E on stages of a review) goes into more detail about various options for fast-tracking at each stage in a rapid review.

Box F: Examples of shortcuts for a Rapid Evidence Assessment

1. Reducing list of sources searched, including limiting these to specialised sources (e.g. only reviewing other systematic reviews)

2. Limiting timeframe and searching for only recently published literature (e.g. last five years, or since a recent significant change in the field)

3. Narrowing question to be tightly defined and not too broad

4. Searching for only English language studies

5. Avoiding unpublished or 'grey literature'

6. Using only one reviewer for study selection and/or data extraction

7. Asking two or three reviewers to independently screen/code

8. Not publishing a formal protocol or avoiding PRISMA reporting framework

9. Using just one database, not a wide selection

10. Not 'hand searching' to manually find relevant studies

11. Using only a narrative to synthesise findings

The list of shortcuts does not cover every type of acceleration method but some of commonly used ones. It is informed by our interviews, authors experience, and published scoping studies, surveys or commentaries relating to rapid review methods (Garritty et al., 2021; Haby et al., 2016; Thomas et al., 2013; Tricco et al., 2015)

Strategy 2: Increasing the intensity of work on review processes

By intensifying the efforts of multiple reviewers to simultaneously complete review steps, it is possible to fast-track a full systematic review. For example, tasks can be conducted in parallel rather than sequentially, such as eligibility screening, data abstraction, and risk-of-bias assessment.

However this is a resource-heavy, burdensome approach and may need a highly experienced review team. We heard in our interviews that this could be a stressful process and requires staff dropping other core work or home responsibilities, which makes the process unsustainable. It is however possible, particularly if extra staff can be found and the topic is very urgent (such as during Covid emergency). Yet it can be 'challenging to the point of impossibility' (Thomas et al., 2013).

Strategy 3: Semi-automating review steps

Technology and other innovations can be used to speed up the standard systematic review steps, including search, screening, and data extraction. As the volume of research balloons, the need for automation to manage so much data is needed to reduce manual labour (Marshall et al., 2019). For example, machine learning uses computer algorithms which 'learn' to perform a specific task, such as your initial search for studies, through statistical modeling of data. Platforms such as EPPI-Reviewer and other reference management software such as EndNote, make removing duplicate records from the initial search pools very quick, allowing for several databases to be searched, without too much extra resource to process.

Some of these technologies are already part of review platforms like EPPI-Reviewer and can also be sourced from the free Systematic Review toolbox (http://systematicreviewtools.com/). The use of machine learning - like ExaCT and RobotReviewer - are currently a useful way to help in the initial stages of reviews, such as sourcing of studies. But it is not yet sophisticated enough for accurate extraction, analysis, and synthesis. The best approach is semi-automation: using machine learning to expedite tasks, rather than complete them, and majority of the tools are designed as 'human-in-the-loop' systems (Marshall et al., 2019). Full automation is not yet a realistic alternative for rapid reviews and extensive human validation of AI is still required (Blaizot et al., 2022).

Strategy 4: Prioritising existing systematic reviews

An alternative to doing a new rapid review of primary research is to focus on *existing* systematic reviews. During the Covid pandemic, the Education Endowment Foundation undertook a rapid evidence assessment of existing systematic reviews and meta-analyses, following the guidance from the Cochrane Collaboration (a globally respected producer of health-based systematic reviews) on overviews of reviews (Pollock et al. 2020).

Another approach is to ask the review team to start with existing systematic reviews to help expedite a rapid review, and then move on to include single studies where systematic reviews are missing. The Cochrane Rapid Reviews Methods Group recommends what they call a 'stepwise approach' for the inclusion of evidence, that prioritises synthesised research such as systematic reviews first (if they exist). So, first locate and summarise evidence from existing reviews; then move to a next stage on higher quality designed studies - such as randomised controlled trials for an effectiveness review (Garritty et al., 2021, p. 18).

However, whilst this is good advice in health, in fields outside of clinical medicine it may be difficult to locate randomised controlled trials - and this stepwise approach may not be appropriate. In addition, this strategy may be less helpful in fields of social policy with few systematic reviews. The process of analysing other reviews may be time-consuming and fail to meet your tight timetable. Finally, there is a dearth of practical tools on 'review of reviews' supported by empirical evidence, and what does exist is focused on health research and often contradictory (Gates et al., 2020).

Whatever strategy you use from the list of four above, make sure that the researchers are being transparent about where they are making shortcuts. The review team should be transparent from the start about where they have cut corners, and what the perceived limitations might arise.

E. Stages of a review - where to fast-track

Box B is an outline of the sequencing of a whole review, divided into eight different stages (some of which might occur in parallel). At each stage, we describe where you can find ways to accelerate the process - and the potential pitfalls to avoid along the way.

Stage 1: Set up

Implementing a range of measures at the initial stages will help the review run smoothly and avoid delays. Even before starting to recruit a review team, you should check that no other existing systematic reviews have already been published on this question (see Box G for repositories and sources of existing reviews).[5] In addition to portals listing published reviews, you can quickly check if other reviews in your area are already underway and are registered, but not yet published, by checking PROSPERO, the international prospective register of systematic reviews (https://www.crd.york.ac.uk/prospero/). This way you can avoid accidental duplication of another commissioned review. When you start your own review, consider registering your own rapid review protocols with PROSPERO.

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[5] When working with one select committee in Parliament, we found a recent existing review commissioned by a Government department that already met our needs.

Box G: Sources of existing systematic and rapid reviews

Education, crime and justice, social welfare and international development	Campbell Collaboration
Education, social policy, public health, international health systems, participative research and policy	EPPI Centre (UCL Institute of Education)
Environmental policy and practice	Collaboration for Environmental Evidence
Conservation and environmental policy and practice	Conservation Evidence
Health and social care interventions	Centre for Reviews and Dissemination
Human health care and health policy	Cochrane Library
Cross-cutting government sectors, including Sustainable Development Goals	Social Systems Evidence
Social and economic development interventions in low- and middle-income countries	International Initiative for Impact Evaluation (i3e)
UK What Works Centres covering social policy and practice, including crime reduction, education, wellbeing	What Works Centres (includes NICE)

When moving on to the initial review set up, you need to enact mechanisms that will build a close and trusting relationship between the reviewers, commissioners, and external stakeholders. As one guide by the EPPI Centre at University College London, describes the review process is a very 'social enterprise':

'Most guidance about systematic reviewing addresses the technical aspects of review methodology. Yet systematic reviewing is a social enterprise – success also depends on whether and how people work together, particularly how policy teams and review teams understand each other's interests, and how they work together to focus a review and interpret the findings.'

(Oliver et al., 2015, p. 6)

We recommend considering this list of eight activities at the initiation stage to assist in making this 'social enterprise' successful throughout entire process:

1. **Have early conversations with the researchers doing the review** - even before tendering. This can help ensure that the scope of the review is achievable. Can a review of literature actually provide the sorts of answers you are looking for? However, if the review is to be done externally, rather than by an in-house research team, beware of breaking procurement rules by giving advantage to one team in a competitive tender process.

2. **Set up regular check-in meetings in the diary between commissioners and reviewers to review progress** - and identify who is the lead in the review team. Regular communication is particularly important at the initial scoping and question refinement stage. You need to establish from the outset a clear and realistic mandate and time frame for completion of the synthesis. Keep communication channels open throughout; it is highly likely that the reviewers will find unexpected barriers or changes to the original strategy and scope and changes need to be communicated swifty.

3. **If time permits, consider making a public announcement of your review on your website** - this will help keep your stakeholders and potential users on board. They might help recommend research missed by the formal review, perhaps as not yet published or 'grey literature' (however, see below Part E on difficulties of synthesising grey and other supplemental literature). For example, the UK's What Works Wellbeing posts a brief call for evidence on the website and asks for papers to be sent to them. This can provide a valuable source of information, and it can also be helpful to keep other stakeholders on side and not be surprised when the final review is published.

4. **Invite peer reviewers or other stakeholders to join**. It is important to invite peer reviewers to join early on. Some of our peer reviewers for our work in POST were invited when the draft review was ready, but had suggestions for different search approaches that were needed at the start. Evidence suggests that peer reviewers can play a pivotal role when involved early on by reviewing the literature search strategy, such as in helping to agree key words or subject headings (Spry & Mierzwinski-Urban, 2018). You might also consider inviting other stakeholders - such as people with lived experience or professional expertise- to join a steering or stakeholder advisory group. However, be warned that engaging stakeholders can, in some cases, be a significant time burden and needs enough resources to manage. The members of the advisory group may not fully grasp the methodological nuances of the review. You also need to be careful about conflicts of interest. People on advisory groups may have what one interviewee for this guide called 'allegiance biases' towards favoured research, projects, policies and interventions. They could reject evidence found in the review that they didn't like.

5. **Consider recruiting knowledge brokers.** To make this social enterprise work, consideration should be given to using specialist intermediary knowledge brokers - who understand and can navigate between the research and policy worlds. They can help link the review questions to the policy context and purpose, and help facilitate reviews by weighing up review options against policy objectives (Moore et al., 2018). Our own experience in Parliament and POST, is that individual go-betweens are needed with knowledge of both the rapid review methodology (including what it can and can't achieve) - and the Westminster legislative and scrutiny process, and political impartiality.

Stage 2: Clearly defined and reviewable question

If we were to choose one dominant piece of advice it is this one: invest as much time as you can nailing down a clearly articulated, answerable and policy-relevant review question. The effort will pay off. If you get a vague and unreviewable question it is very hard to reverse this decision later on, particularly if time is limited.

Focused research questions are crucial as they drive the entire review process: every decision related to the review - like the search terms used, the selection of studies to be included, methodology for data extraction, synthesis, and reporting - will be geared toward answering the research question, so it's difficult to overstate its importance.

The question will also drive how long the review will take; a broad-ranging question or list of questions may require more time and more resources to address. As a commissioner, we strongly encourage you to avoid the temptation to squeeze in multiple and ever-expanding additional review questions. Try to stick with one. Or at least one main question with a small number of sub-questions. More questions means less detailed answers - and may drag out a review so that it is no longer rapid. REAs are designed to answer one or two questions well.

A good review question requires the expertise of the commissioner, alongside the expertise of the reviewer. Both sides are needed, and both sides will need to communicate and compromise. (see Box J on good review questions).

We have three recommendations on how to get the question right:

2.1. Consider using a question framework

There are a medley of different heuristics for helping define the question, with a range of acronyms like SPICE, SPIDER, and ECLIPSE. One of the most commonly used is PICO (Population or Problem, Intervention, Comparison, Outcome) and it can help guide commissioners.

The PICO approach is mostly used to compare effectiveness of different interventions - and is often used for quantitative studies in health. However, it can be a useful guide for setting a question even if the review team does not follow all of it. To help understand PICO, here is an imaginary scenario set out in Box H. The review team can use a question framework - such as PICO - to develop a protocol (a description of what they plan to do) that includes the review questions (Garritty et al., 2021).

Box H: Imaginary example of use of PICO for review questions

A large NGO in the UK wants to address the scourge of loneliness amongst women over 70 and is considering using group-based interventions (such as support clubs in local parks or libraries) and see if this is more effective than one-to-one interventions (such as befriending home visits by volunteers). But the Board of the NGO is not sure what intervention to pick and want to commission a review of what we know and don't know. In this scenario, the sample Population is women over 70 years of age, the Intervention is group-based interventions (such as support clubs in local parks or libraries), the Comparison is groups who receive one-to-one interventions (such as befriending home visits by volunteers); and the Outcome would be self-reported reductions in levels of loneliness. To set off their reviewer on the right track, the PICO approach might be a useful way to fix your question.

PICO:

• **P**opulation or **P**roblem - How would you describe the group of people concerned?

• **I**ntervention - What intervention are you considering?

• **C**omparison - What will you compare your intervention to?

• **O**utcome - What do you hope to improve, accomplish, measure or effect?

However, issues of interest to policy clients do not necessarily follow a PICO structure:

"'Clients' have 'problems' (affecting many components of the health system) rather than 'research questions'. Issues are not only about 'what works' but about 'what is the problem' (or how important is it, who is affected), or 'how to implement' (or how much will it cost, will it be appropriate to a given context). Translating an 'issue' into a research question to be addressed by a systematic review is not a simple task; ideally it requires an analytical framework which can 'make sense' of what may be important to ask, and what other issues to consider."

(Oliver et al 2017, p.11)

2.2. Invest time in dialogue and knowledge brokering

Empirical evidence from the Australian Sax Institute's Evidence Check rapid review programme (see Box I below), supports investing time in knowledge brokering (see Stage 1 on set up and use of knowledge brokers) to significantly improve questions. Dialogue and knowledge sharing between policymakers and reviewers can help create clearer review questions that meet policy makers' needs. You may need knowledge brokers who wear 'multiple hats' - and understand both policy and review methods (Oliver et al., 2017), and expect much back-and-forth iteration and dialogue between researchers and policymakers, what the International Public Policy Observatory calls a 'double helix model' (Chataway, 2021).

Diagrams can help your discussion with the review team. In meetings, you can scribble a diagram to illustrate a problem, the factors involved and how they might vary or interact (see systems mapping https://theippo.co.uk/systems-maps/). Or a diagram, particularly a logic model (Kneale et al., 2015), can show the successive changes you hope to see as a result of a policy or programme. Inviting your colleagues and the review team to comment on or amend the diagram can help you reach agreement on your initial assumptions or areas of uncertainty. Revisiting the diagram later can help conversations about whether emerging findings have confirmed expectations or revealed new possibilities. In this way, diagrams can help conceptualise the issues, advance collective thinking, frame the analysis, present the findings and, in the process, develop a common language and understanding of the review (Kneale et al. 2015; Rohwer et al. 2021).

You as commissioner need to provide as much clarity as possible about what's needed. Share as much information as you can on the policy challenge and the context for the question. This will help refine the question to be addressed. For example, ask yourself and your stakeholders if you are looking for: evidence to clarify a policy problem? Options to address a problem? Policy implementation considerations? (Wilson et al., 2021). Other background information can also be helpful, such as why change is being considered, who are the key actors and any political sensitivities in relation to the question?

But also ask the reviewers what is - and what is not - possible. With their methodological expertise, they can help shape the review question - and the types of methods that might help answer the questions. Encourage the reviewers to give their expert review on the question.

As well as your involvement as the direct commissioner of the review, you might also bring in other key stakeholders (e.g., other review users such as service users, frontline professionals, other policymakers and decision-makers) to set and refine the review question (Garritty et al., 2021).

Box I: Australian 'Evidence Check': using iterative brokering process to refine questions for rapid research reviews for policy

Evidence Check is a programme managed by the Sax Institute in Sydney, Australia that assists Australian policy makers to commission quality reviews of research to inform health policy decision making. The programme involves an iterative knowledge brokering process to formulate and refine the scope of questions for the review. In the Evidence Check process, policy makers and program managers complete a draft review proposal *before* knowledge brokering (a pre knowledge brokering proposal), describing their policy or program issue and proposed review questions. After structured and tailored discussion with the policy team, the knowledge broker drafts a synthesis of the discussion which is agreed with the policy team (a post knowledge brokering proposal). This post knowledge brokering proposal is given to the review authors who will undertake the review, defining its parameters. More than 200 reviews have been commissioned through this process (Moore et al., 2018).

2.3. Do a preliminary literature search

To help refine the question, ask the review team to carry out some preliminary literature searches. The team can then judge the appropriateness of the review question and feasibility of what has been requested in the timeline provided (Oliver et al., 2017). This scoping search does not need to be comprehensive, just a snapshot of what's out there, and can be done by checking one key database, scanning the search results and mapping the volume and type of literature. Looking at the search strings of existing reviews on related topics might be worth highlighting as one tool to help you develop a strong search string quickly.

Box J: Checklist of five considerations for review questions (Adapted from Thomas et al., 2013; Tricco et al., 2017)

1. Is the question **important for policy debates and decisions**… …as judged by people making those decisions?

2. Have you checked that question has **not already been answered by past systematic reviews**… …as apparent from some initial searches?

3. Is there a **consensus over the definitions of key terms and concepts**… …which is explored in background literature and discussions between stakeholders?

4. Are there **sufficient studies** to provide useful answers in a rapid review… …as judged by initial searches by the review team?

5. Are there **overwhelming numbers** that might make review unmanageable … …as judged by discussions about the initial searches by the review team?

Stage 3: Literature searching

The next stage is to start the search. The review team would benefit from an information specialist to help with this (such as a subject librarian) as it can be a specialist task. Specialists can speed up the process and help avoid having search strings that fail to find what you want.

There are a variety of options for streamlining systematic review methods by limiting the search by date, language, geographical area, publication type (e.g. peer reviewed articles, book chapters, conference proceedings), or study design, and some rapid reviews search only for existing systematic reviews (Tricco et al., 2017).

Whatever streamlining methods are used, commissioners should ask the review team to have an explicit and structured search strategy. Such a transparent strategy will ensure others are able to follow the process that was used - and potentially even try and replicate your work in future. Strategies can be short and pithy (see Box K for example of rapid review on health impact of light pollution we did for House of Lords Science and Technology Committee), not long and detailed: the important thing is that the reviewers are explicit about their plans from the start.

Box K: Search strategy rapid review of light pollution, Garavito et al, 2023

'Search terms were developed based on example literature and refined and agreed on by key stakeholders. The search strategy was tested across databases to develop the final search strategy. We searched four peer-reviewed literature databases (PubMed, MEDLINE, Web of Science, and PsycInfo) for literature published between January 2013 and April 2023, and six databases for grey literature and policy documents (Policy Commons, Social Science Database, Google Scholar, Dogpile, OSF preprints, and Opengrey). Searches were conducted on the 6th of March 2023. Details of the search terms and databases are provided in Appendix 1.'

(Garavito et al, 2023, p.16)

One way of helping to speed up this process is to use only some databases. For example, in the health field, rapid reviews often limit themselves to searching leading databases CENTRAL, MEDLINE (e.g., via PubMed), and Embase (if available access).

Box L: list of some commonly used databases for systematic reviews

Exhaustive searching

- Medline (via PubMed or Ovid)
- Embase
- CENTRAL (The Cochrane Central Register of Controlled Trials)
- Web of Science
- Scopus
- CINAHL
- PsycINFO
- EconLit
- ABI/INFORM Global
- Applied Social Sciences Index and Abstracts
- ERIC
- International Bibliography of the Social Sciences
- Social Science Citation Index

How to narrow it down? Inclusion and exclusion criteria

The inclusion (and exclusion) criteria help decide what makes it in, in a reasoned and transparent way. This might be an opportunity to fast-track the review, by placing strict boundaries on the inclusion criteria, perhaps simply narrowing the publication years and geographical coverage.

Such limits may be necessary to make the review rapid - and need to be justified. But beware the dangers of omitting crucial data and undermining the trustworthiness of your review findings. In the clinical health field, one study found that reducing the number of years can impact results (Marshall et al., 2019). A 2021 UK POST rapid review for parliament on water fluoridation needed to refer to a seminal core study from many decades ago - in the 1970s. Without including this influential study, the review would have been seriously flawed.

Another shortcut is to look only at studies published in English. Research (again in the health field) suggests that excluding non-English publications - such as in Spanish and French - from systematic reviews has a minimal effect on overall conclusions (Nussbaumer-Streit et al., 2020). However, we should add a note of caution: this might change depending on the scope of a study. A rapid review across Latin America or Europe would, for instance, be severely limited if it only included studies in English.

Should you search for grey literature?

Excluding grey literature from the search is one option to make the review rapid. These reports by government, think-tanks, researchers and others are published outside of formal academic journals and can be harder to locate and analyse in a systematic way. The 2017 WHO guide on rapid reviews notes that about half of published rapid reviews excluded grey literature (Tricco et al., 2017). The Cochrane Methods Group on Rapid Reviews also recommends limiting searches for grey literature if fast-tracking is required (Garritty et al., 2021, p. 18) - although this may particularly suit clinical medical literature where most clinical trials are in formal publications and register.

Limiting grey literature was a useful acceleration technique in one of our rapid reviews for Parliament on Green and Blue Infrastructure (Kirby & Scott, 2023); there was so much of it and it was hard to determine its quality. Finding grey literature remains challenging as it can be so voluminous - and rarely systematically catalogued and curated on formal databases (some databases, however, do exist and we have used in our reviews for our pilot in Parliament, including Policy Commons, Social Science Database, Google Scholar, Dogpile, OSF preprints, and Opengrey).

Nonetheless, there are significant dangers in dropping grey literature that you should discuss with the review team. Grey literature may be essential for certain topics where crucial information is published outside of academic publications - such as in areas of social or environmental policy (Oliver et al., 2017). One compromise is to only include searching for grey literature later on - after the abstract and full-text screening is completed - and to limit to key sources such as major governmental or NGO bodies (perhaps with the advice of subject experts involved in the review).

Stage 4: Screening and study selection

After this literature search, the next stage is for the team to start screening studies against inclusion criteria. Typically, this might first involve looking at just the titles and abstracts of studies to see if they fit inclusion criteria - and then using a standardised review form[6] - and then moving on to review the full texts of the studies. There are many software platforms, for example Rayyan (http://rayyan.qcri.org), a free and user-friendly web and mobile app, that helps expedite the initial screening of abstracts and titles using a process of semi-automation by sorting them based on likelihood of inclusion (see acceleration strategy 3 in Section D).

A common shortcut at the screening stage is to only use one reviewer. We do not recommend this. Having second opinions and checking each other's work is a valuable part of the rapid review process. Important studies can be missed (Gartlehner et al., 2020). For our Parliamentary pilot project, we cross-checked 25% of each other's exclusions. If you do need to cut down on staff time, Cochrane recommends having one person to *include* studies, but using two reviewers to *exclude* at title and abstract screening (Garritty et al., 2021, p. 18).

The process of double-checking can be time consuming, but we recommend that you as a commissioner follow other guides in demanding a second reviewer (e.g. Collins et al., 2015; Garritty et al., 2021; Tricco et al., 2017).

Stage 5: Data extraction

When the studies have been screened and selected, the next stage is to extract the data. Data extraction involves summarising the details of studies' key characteristics – including their outcomes - as set out in advance in the protocol. Developing a template for information extraction will help to ensure that the extraction is done in a way that is consistent for each piece of evidence. However, if any changes are made to the template after finding that more information is needed, the original protocol needs to be updated (Collins et al., 2015).

Rapid reviews tend to vary, but the most common approach is for data extraction to be done by a single reviewer - although a second reviewer may be used to check the work (Tricco et al., 2017). If resources allow, we recommend two reviewers working independently and then meeting to discuss findings. Double-checking can be valuable for raising the consistency and accuracy of the data extractions, although one acceleration strategy can be to use the second reviewer to check what the first reviewer has done, rather than to conduct their own independent data extraction (Thomas et al., 2013).

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[6] Cochrane recommends the review team conduct a pilot exercise using the same amount of abstracts (perhaps around 30-50) for the entire screening team to calibrate and test the review form (Garritty et al., 2021). At the full text stage, the review team may do a pilot exercise, but this time with the whole full text articles. Cochrane recommends using the same 5 to 10 full-text articles for the entire screening team to calibrate, and test the review form. Then use one reviewer to screen all included full-text articles and a second reviewer to screen all excluded full-text articles (Garritty et al., 2021).

Stage 6: Quality appraisal

This stage may come under a variety of names, including risk-of-bias assessment, critical appraisal, methodological quality appraisal. But the overarching goal is fundamentally the same: examining the quality of the methods employed for each included study to judge the reliability of specific findings (internal validity) and the generalisability of the findings (external validity).

Checking the quality of all studies can be a burden for rapid reviewers. Even with an experienced team and ready-made tools, there may not be enough time to meaningfully check quality. Cutting the quality appraisal stage is a common shortcut for rapid reviews (Haby et al., 2016). For our review of green and blue infrastructure (Kirby & Scott, 2023) we dropped the quality assessment stage because of the vast number of studies out there and difficulty of checking the reliability of enough of them in time. This may mean limiting the confidence you have in the conclusions of the review. Guidance produced for the UK Government Department for Environment, Food and Rural Affairs (DEFRA) recommends only using rapid reviews that omit quality appraisal for '*general* [our emphasis] understanding of the evidence base and to inform *general* policy direction' and not used directly for specific policy decision-making (Collins et al., 2015, p. 5).

Despite the challenges, the vast majority of rapid review producers perform some form of critical appraisal (Tricco et al., 2017) and some regard it as a hallmark of a reliable review (Thomas et al., 2013, p. 16). To help expedite matters, the team can pick one of the checklists or standardised appraisal tools, rather than creating one from scratch.

Many of these tools are aimed at randomised controlled trials (RCTs), but there are others for qualitative and observational studies, including the Australian/Canadian Newcastle-Ottawa Scale and ROBINS-I developed by Cochrane (Farrah et al., 2019). An experienced reviewer can help identify the right tool, perhaps re-cycling a previous tool they have used, and tailored it to the new needs - but without answering large numbers of questions that could slow the process down.

Stage 7: Synthesis and findings

At this stage, commissioners should expect to see the bringing together of all evidence that has met the screening stages to answer the review question. Before the synthesis is finalised by the review team, you should request to see some early draft findings to ensure that the work is on track and meeting your needs and the original review questions. This could save precious time later on when synthesis is being written up to ensure that it is in line with what you were expecting.

Some of the things you should expect to see in this synthesis (depending on your needs and resources) include: conclusions on the nature and adequacy of the evidence base; an overview of types of evidence, research design used, populations studied, interventions studied, outcomes measures, and context (e.g. geographical area - perhaps UK only). The overview of scale and nature of the evidence base may lead to recommendations about where new research may fill the gaps. If there has been a critical appraisal of the quality and strength evidence, the synthesis and conclusions might show more confidence in informing policy decision-making.

The synthesis is likely to be presented in a narrative form[7], particularly in areas of social and environmental policy (in some areas of clinical health synthesis a quantitative meta-analysis is more likely to be seen). The narrative can be a successful way to communicate evidence to policymakers (Cairney & Kwiatkowski, 2017) and you can use review results and 'tell a trustworthy story'[8] (Popay et al., 2006, p. 5).

The narrative does need to be fully grounded in the actual findings of review and be used appropriately and without exaggeration (Fadlallah et al., 2019). One RCT comparing different ways to present systematic review evidence, found that the most impactful was a short, contextually framed, narrative report of the results (and other evidence where relevant) that also discussed issues relating to implementation of the evidence (Opiyo et al., 2013).

Even if the review covered a complex area, you should question the review team's presentation of findings if they appear overly-convoluted. Findings should follow the principle of Occam's razor: explanations should be 'as complex as they need to be and no more' (Petticrew et al., 2013).
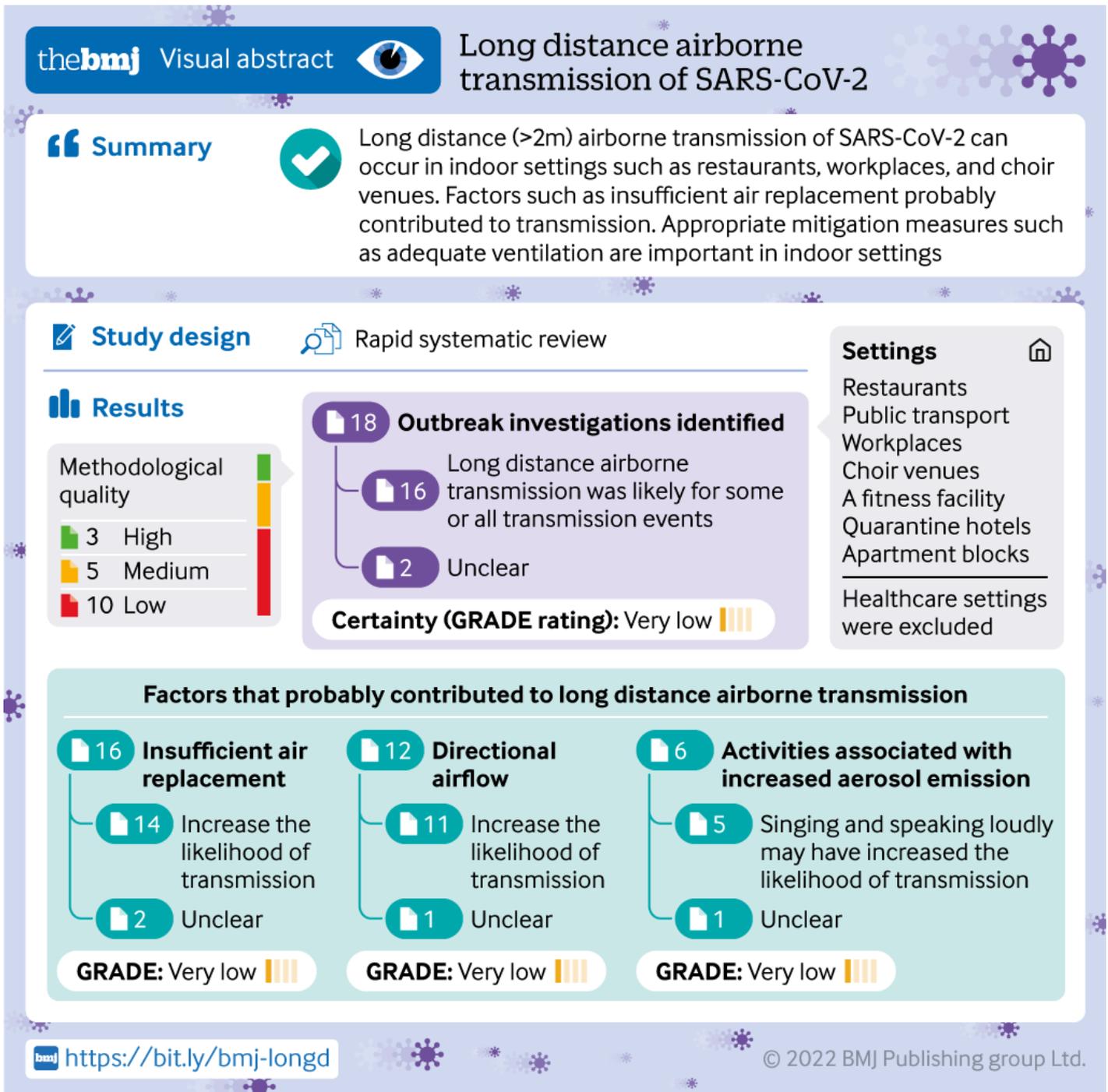
In addition to a narrative, we recommend asking the review team to use tables or other data visualisations to help present the findings in an easily graspable form[9]. For the review of green and blue spaces, we used an Evidence and Gap Map to give a helicopter view of the evidence base (Kirby & Scott, 2023).

A rapid review for the UK Health Security Agency in 2022 on long distance airborne transmission of SARS-CoV-2 in indoor community settings (Duval et al., 2022) produced this visualised abstract of the study:

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[7] However, there are other ways beyond a narrative of managing the synthesis including ones that gives much more attention to theories and concepts, such as in meta-ethnography (Sattar et al., 2021) - but these methods require significant analytical time by reviewers and may be unrealistic in a rapid review timescale. Another approach is framework synthesis (Brunton et al., 2020) which can be a valuable 'halfway house' because it can provide both a conceptual framework set out from the start, but is still flexible enough to adapt to new studies in the review, and relatively fast to complete (Thomas, 2013).

[8] Popay and colleagues make a strong case for the value of a narrative in a review: 'Narrative synthesis is a form of storytelling. We are part of a storytelling culture, and bringing together evidence in a way that tells a convincing story of why something needs to be done, or needs to be stopped, or why we have no idea whether a long established policy or practice makes a positive difference is one of the ways in which the gap between research, policy and practice can start to be bridged. Telling a trustworthy story is at the heart of narrative synthesis' (Popay et al, 2006 p.5)

[9] For qualitative synthesis, diagrams could arrange findings into an image of the emerging theory, offering explanations or relationships between or among observations (Rohwer et al., 2021).

the bmj Visual abstract — Long distance airborne transmission of SARS-CoV-2

Summary — Long distance (>2m) airborne transmission of SARS-CoV-2 can occur in indoor settings such as restaurants, workplaces, and choir venues. Factors such as insufficient air replacement probably contributed to transmission. Appropriate mitigation measures such as adequate ventilation are important in indoor settings

A diagram may take time, but could help in the communication of research. Don't be afraid to question how digestible the visualisations are. There is a body of psychological evidence on visual presentations of data that can be informative - such as cognitive perceptual design principles (Breckon, 2022a), and there is advice on how to present review diagrams, such as reducing the number of arrows and not relying on a legend to explain words (Rohwer et al., 2021).

You can also ask others for feedback on the visuals, including peers and the intended audience, while the diagram is developing. If the image is too confusing, a narrative with numbers and words may be a more effective means to relay findings. Also note that a complex image may not meet accessibility guidelines and be screen readable.

Don't be unduly concerned if the findings in the synthesis appear to be inconclusive and mixed. This is common. Social and environmental policy is messy and rarely has simple answers. You and the review team have still created a public good - and showed us our gaps in knowledge: the known unknowns. Others may now be able to fill in the gaps by doing primary research in the areas not covered.

Stage 8: Publication and policy recommendations

One of the key motivations for rapid reviews is to provide timely good quality and relevant evidence (Oliver et al., 2014; Rose et al., 2020; Whitty, 2015). As a commissioner, you need to ensure that the emergent findings, final write up, sign-off, proof-read, peer review, and design fits your timetable[10] and avoids missing a policy window (Kingdon, 1984). You may, for instance, ask the review team to share early findings to be used for an unexpected policy opportunity.

Our experience of rapid evidence assessments in Parliament highlighted that the best time for synthesis is well before the end of select committee inquiries, when it can frame the direction of the inquiry and suggest interactions with individual experts (Kenny et al., 2017). However, the exact timing of publication may be hard to judge. The likelihood that your rapid review is part of a complex process dominated by values, political goals and unpredictable timings, and so reviewers and commissioners need to be prepared to be flexible, creative, and 'muddle through' (Greenhalgh & Malterud, 2017).

Academics tend not to be strong on developing policy recommendations, and commissioners or other knowledge brokers in the team may need to work with them to frame 'context specific, actionable messages' (S. Oliver et al., 2017, p. 16). This may involve some 'collective, creative thinking' (S. Oliver et al., 2020, p. 11) to identify and shape policy relevant questions and draw out policy relevant implications and research recommendations[11].

For our REAs in Parliament, impartiality guidelines meant that we avoided giving policy advice that might be seen as partisan. Instead of policy recommendations, in one review we suggested some potential scrutiny questions for the UK legislature (Kirby and Scott, 2023). The messages were improved by the input of policy experts, particularly advisors in POST with deep knowledge of Parliament, and a member of the review team who had a background as a special adviser to a Parliamentary select committee.

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[10] Our experience of some of our rapid reviews for select committees is that the process of peer review, internal sign off, and design of the final reports delayed publication. In one case, this meant that we missed the opportunity to target the optimum time to influence an inquiry of select committees (for example, disseminating the report to help a select committee draft questions to use at an inquiry session with a government minister).

[11] One of our interviewees who had many decades experience delivering reviews also recommended agreeing in advance if the final draft should provide some policy context to the findings. Some reviewers in the health field do not expect to give any context - but in social and environmental reviews this context - such as the wider political, economic, social and legislative landscape - may be a vital part of framing the review.

F. Caveat emptor: Beware the downsides of REAs

When commissioning a review, it is worth bearing in mind the potential pitfalls of rapid reviews. It may be that, on balance, all the inevitable compromises outweigh the benefits of speed, rigour, and reduced cost. Some of the main downsides of REAs are listed below:

1. **Methodological shortcuts create a vulnerability to bias and errors.** Biases may be introduced due to shortened timeframes for literature searching, article retrieval, and quality appraisal (Ganann et al., 2010). The need for speed can mean key studies are lost by reducing the breadth of geography, language, grey literature, databases, or skipping the quality appraisal. REAs may also fail to clearly report their methods (Kelly et al., 2016) in the rush to complete on time, missing a key benefit of systematic review methods: being transparent and potentially replicable. The Education Endowment Foundation produces and uses REAs - but does not apply them to their guidelines for schools because of their limitations. The review should be transparent about where the shortcuts were made and include details of these concessions and challenges to give context to any of the claims made.

2. **The rapid review may end up not being rapid or resource-light.** Another danger is that your hoped-for speed or reduced cost fails to materialise. REAs are difficult to complete and sometimes finding ways to cut corners does not save time. Or unexpected events such as illness or other work distractions delay the review. The final publication and sign off and peer review may also take as long as the research itself.

3. **REAs are relevant but challenging for social policy questions.** It may be more difficult to apply rapid approaches to questions of social policy than in other fields, such as health technology assessments. This is in part because of the complexity of the topics and lack of relevant high quality underlying studies (Thomas et al, 2013). The UK Government guide on evaluation - the Magenta Book - warns that Rapid Evidence Assessments 'are less effective where research questions do not easily map on to the existing body of evidence' (HM Treasury/Evaluation Task Force, 2020, p. 50). In health-related rapid reviews, questions may be relatively easier to answer because of the wealth of high-quality evidence and the focus on questions of effectiveness such as 'does this intervention work'. But in social policy, there are other questions that REAs need more time to answer, such as questions that go beyond effectiveness, including 'why did/didn't this work?', 'how does it work?', 'under what circumstances does this apply?', 'is it acceptable/appropriate?' (Thomas et al, 2013). These questions are harder to answer.

4. **Results can be inconclusive.** Another pitfall of REAs is the final results do not meet your expectations. Often the evidence is not clear cut - particularly if the review has tried to be exhaustive and cover all published studies, not just cherry pick the most conclusive ones. One potential way round this limitation is the application of mixed methods, blending literature synthesis with key informant interviews, stakeholder surveys, primary data, and policy analysis. See Section C on mixed methods reviews.

When weighing up all these trade-offs and potential downsides, you may conclude that a rapid review is not worth it. There is a danger of failing to 'satisfy either the requirements for rigour or the requirement for timelines' (Thomas et al, 2013, p. 6). The alternative is to use existing reviews, or see if you have the resources to invest in a full blown systematic review that has less risk of errors and bias, and allows enough time to do the process properly. The European Commission-funded EKLIPSE Expert Group on Knowledge Synthesis Methods outlined some of the pros and cons in Box M.

Box M: Pros and cons of rapid evidence assessments from European EKLIPSE Expert Group on Knowledge Synthesis Methods (adapted from Dicks et al., 2017)

Strengths
Typically quicker to complete than a gold standard equivalent systematic review
Follows methodological principles of systematic review
Methods are documented transparently and shortcuts are clear to see
Often include searches for grey literature
Potentially upgradable into a full systematic review without complete repetition

Weakness
Not fully comprehensive (but is transparent about limitations)
Not as reliable as a full systematic review
Protocol typically not externally peer-reviewed
Flexible methods and non-specific guidance means reliability, and risk of bias are variable - many different corners can be cut
Not usually suitable for very broad topics
Risk of vote-counting (i.e. just counting numbers of studies rather than deeper analysis of quality or relevance) and introduction of bias if results are extracted from studies but not fully synthesised quantitatively

G. Conclusion and recommendations for the future

Rapid evidence assessments can play an important role for policymakers and other decision-makers because they provide high-quality evidence in a timely, transparent, and cost-effective manner. As a pragmatic tool that can be tailored to the commissioners needs, they strike a balance between rigour and rapidity (Breckon, 2022b). This guide has provided some practical advice for you as a commissioner. However, in this final section we look to the future and suggest some recommendations aimed at everybody involved in the rapid review process - including research funders and the research community:

Firstly, we think more needs to be done to deepen knowledge in systematic review methods and principles that underpin REAs. This is not just an issue for you in the 'demand side' as commissioners of REAs - but also amongst the 'supply side' of researchers. Too few researchers understand how to produce or commission good syntheses; and too many are reaching for information that is out of date, incomplete or biased (Donnelly et al., 2018).

This has two implications. Firstly, it means the lack of skills and knowledge can create a deficit of supply in universities and other research providers that means we are unable to meet demand.

A second implication is that the academic peer review process becomes problematic if reviewers do not understand systematic review methods.

Ultimately, there needs to be a 'culture shift' according to some UK Government chief scientific advisers and other science leaders, so that rigorous evidence synthesis is 'recognised as an exciting, intellectually challenging, high-status and respected activity for researchers' (Donnelly et al., 2018, p. 362).

Our second recommendation is that funders and the research community need to build the evidence base on the value of REAs. We cannot assume a ready-made demand and need to provide evidence of the dangers of relying on experts or the 'cherry-picking' of traditional literature reviews (Breckon, 2022a). We need more empirical studies comparing the differences between full-blown systematic reviews with REAs (Marshall et al., 2019; Tricco et al., 2015), and the omissions that are made by traditional narrative literature reviews.

Our third recommendation is aimed at methodological experts. We need more consistency on rapid review concepts, methods and titles. The recent work by the Cochrane Methods group was a helpful move to build consensus on these methods. But more needs to be done - particularly outside of health research. At the very least, it would also be helpful to agree on a single label. One scoping review found over 20 different names, the most frequent term being 'rapid review' (Tricco et al., 2015). An agreed name would help to avoid the 'jingle fallacy' (Littell, 2018): the mistaken belief that two different things are the same because they are given the same name; or the 'jangle fallacy' of different names for the same thing. 'Rapid reviews' fall into the jingle fallacy: they have taken on multiple meanings in recent years - but cover diverse and sometimes conflicting

approaches (Polisena et al., 2015) such as including rapid traditional literature review, as well as accelerated systematic reviews.

Our fourth recommendation is aimed at the suppliers and commissioners of REAs who need to be more joined-up. There is much duplication of work, such as reviewing similar topics but not collaborating. The Global Commission on Evidence (that was set up by international bodies in the aftermath of the pandemic) concluded that too many topics have too many available evidence syntheses, and many evidence syntheses are of low quality and out-of-date (The Global Commission on Evidence to Address Societal Challenges, 2022). More could be done to avoid duplication - and have resources ready to rapidly respond to requests. Some of our interviewees discussed the benefits of having single regularly-updated repositories and living evidence maps that could be resources for new REAs. For example, 3ie evidence hub (https://www.3ieimpact.org/evidence-hub) includes over a thousand systematic reviews.

Finally, organisations that are regularly involved in REAs should collaborate on new ways of exploiting technology like AI to speed up the standard systematic review steps - particularly outside of health (where most AI innovations are located). The torrential volume of unstructured published evidence has rendered existing (rigorous, but manual) approaches to evidence synthesis increasingly costly, onerous, and impractical (Marshall, 2019). Machine learning to semi-automate different steps of the evidence synthesis pipeline will need to become more mainstream if information becomes increasingly unmanageable by humans alone. However, currently human validation is still needed and the benefits of AI can be ambiguous (Blaizot et al 2022). The UK What Works Centres could pilot some new synthesis methods with organisations like the

Alan Turing Institute to find the best approaches to semi-automation: using machine learning to expedite tasks, rather than complete them.

The use of AI in reviews continues to grow but more could be done to bridge experts in AI with reviewers outside of healthcare research. And piloting other innovations would be valuable beyond AI, such as use of use of collective intelligence, such as the Cochrane Crowd citizen science platform (https://crowd.cochrane.org) and crowd sourcing during Covid 19 with the Screen4Me project (Noel-Storr et al., 2022).

Covid-19 illustrated the importance of rapid, timely, and trustworthy evidence synthesis that aimed to be exhaustive - and not rely on single headline-grabbing studies, or partial experts - and their use in urgent policy topics, such as the impact of school closures (Education Endowment Foundation, 2020), or estimates of vaccine refusals (Robinson et al., 2021). It may be hard to repeat that sense of pandemic purpose and capacity (many reviewers were in lock-down and not able to fulfill other research commitments). Nevertheless, we expect REAs to continue to grow over the next decade as AI and capacity advances, and awareness grows of the benefits of more trustworthy, timely, and transparent synthesis methods.

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Appendix A: Guides Relating to Rapid Evidence Assessments

The Production of Quick Scoping Reviews and Rapid Evidence Assessments; A How to Guide, UK Department for Food, Environment and Rural Affairs/ Natural Environment Research Council, 2015 https://www.gov.uk/government/publications/the-production-of-quick-scoping-reviews-and-rapid-evidence-assessments

Rapid Reviews Methods Group Interim guidance on producing rapid reviews, Cochrane Collaboration 2020 https://methods.cochrane.org/rapidreviews/cochrane-rr-methods

Rapid Review Guidebook: Steps for Conducting a Rapid Review, National Collaborating Centre for Methods and Tools, McMaster University, Canada *2017* https://www.nccmt.ca/tools/rapid-review-guidebook

Rapid Evidence Assessment Toolkit, HM Government 2011 https://webarchive.nationalarchives.gov.uk/ukgwa/20140402164155/http:/www.civilservice.gov.uk/networks/gsr/resources-and-guidance/rapid-evidence-assessment

Guidance on the conduct and standards of 'rapid review' evidence Collaboration for Environmental Evidence, updated 2023 https://environmentalevidence.org/information-for-authors/10-guidance-on-the-conduct-and-standards-for-rapid-review-of-evidence/#:~:text=The%20need%20for%20a%20rapid,of%20interventions%2Fexposures%20and%20outcomes

Knowledge Synthesis Guidance Note: Rapid Evidence Assessment, Eklipse 2017 https://www.eklipse-mechanism.eu/eklipse_outputs_tools

Updated Methodological Guidance for the Conduct of Scoping Reviews, JBI Scoping Review Methodology Group, 2020 https://pubmed.ncbi.nlm.nih.gov/33038124/

Guidance for Producing a Campbell Evidence and Gap Map, Campbell Collaboration, 2020 https://onlinelibrary.wiley.com/doi/10.1002/cl2.1125

Rapid Reviews to Strengthen Health Policy and Systems: a Practical Guide, World Health Organization 2017 https://apps.who.int/iris/bitstream/handle/10665/258698/9789241512763-eng.pdf

Appendix B: Template Methods Section Rapid Evidence Assessment

1.Title (25 words max)

Easily identifiable title that should help entice the reader with limited jargon and clearly showing contents of report. Avoid subtitles if possible. Key words frontloaded. Capitalise only the first letter of the first word. Editors may change titles in order to best suit search engine optimisation.

> **Good example:** A rapid review of research on the effectiveness of biological measures in asylum age assessments
>
> **Bad example:** Biology and asylum assessments; a review

2. Short Description and Review Questions (50-100 words)

Short description of the piece to show below the title. Ideally the description should contain the core review questions - and, if applicable, any secondary review questions. The inclusion of questions upfront will help with visibility on Google (as usually Google users type questions during their searches). When devising the questions, look at the PICO checklist (see POST/CAPE Rapid Review Toolkit).

> EXAMPLE, from IPPO/EPPI 2021
>
> **RQ1:** *the harms created by school closure during the COVID-19 pandemic on primary school and lower secondary children;*
>
> **RQ2:** *mitigations for these harms that have been: (a) used during the current pandemic or (b) used elsewhere to address harms arising from similar periods of educational disruption and with potential to be transferable.*

3. Key Findings (200-500 words)

Short summary of key conclusions. Write this as if some readers only read this section. Avoid bullet points and attempt a readable short description. Divided into headings and subheadings to improve readability.

EXAMPLE, from IPPO/EPPI 2021:

Findings on harms

There is evidence that the patterns of disruption to education during the pandemic have impacted on children's learning and attainment, mental health and wellbeing, physical health and nutrition and increased exposure to risk especially for those children living in potentially dangerous domestic settings. Although the quality of the evidence is uneven, it is clear that children living in poverty have been most affected, in particular through food insecurity and conditions triggering stress and anxiety in the home, alongside their more limited opportunities to access digital resources for learning, or indeed outside space for physical activity. Attempts to distinguish harms that impact in the short term from longer lasting harms may take time. It also requires schools to have access to contextually relevant diagnostic tools they can use to assess the range of harms in need of redress in their local context.

Findings on mitigation strategies

We found no evidence for mitigation strategies directly relevant to the harms experienced by children due to school closures under COVID-19. Mitigation strategies suggested in the UK often derived their evidence of efficacy from circumstances quite unlike the prolonged patterns of disruption to education that COVID has caused. Most were designed to address the needs of a few pupils struggling under normal circumstances and were not able to demonstrate their relevance at scale. We therefore examined the primary literature on recovery from unplanned school closures in other countries focused on school-based strategies that had been evaluated as effective under similar conditions.

4. Review Methods

4.1 Inclusion criteria (200 words max.)

Outline what your criteria for inclusion - and exclusion - of relevant studies. This might be such things as dates, research design, languages or countries covered - along with justification for these decisions. These criteria are important as they define the studies that the search strategy is attempting to locate.

EXAMPLE (From NatCen/Department for Transport 2020): *To be included in the review, studies had to meet the criteria set out below.*

1. **Language:** *Studies in English only. Search terms in English only.*

2. **Publication status:** *Both the published (journal) literature and unpublished or 'grey' literature such as policy research papers.*

3. **Date of publication:** *For the 30 selected articles, from 2010 to date.*

4. **Country contexts:** *UK, Europe, North America, Australia and New Zealand. Evidence reviews that include evidence relating to one or more of these countries will be includable.*

5. **Population:** *Any study that reports on modal shift of individuals from individual carbon producing forms of transport to public transport or to active forms of transport such as cycling or walking.*

6. **Study design:** *Quantitative and mixed-methods primary studies or secondary research that provide a quantitative estimate of intervention effect and that appropriately address the principal research questions of interest.*

7. **Topic:** *We will include studies that report on the effects of policies or interventions and Apps aiming to encourage people to switch from using individual carbon producing forms.*

4.2 Search strategy (250 words max)

Specify the methods for conducting the research. Set out the sources - such as the electronic databases or use of Google Scholar - that will be searched, and how these will be searched, including the search terms that will be used within these. This stage of the review is one of the most important and we recommend that you involve an information specialist or librarian who will be able to help on the most appropriate databases and search terms.

EXAMPLE (from CEBMa):

The following four databases were used to identify studies: ABI/INFORM Global, Business Source Premier, PsycINFO and Web of Science. The following generic search filters were applied to all databases during the search:

1. *Scholarly journals, peer-reviewed*

2. *Published in the period 1980 to 2016 for meta-analyses and the period 2000 to 2016 for primary studies*

3. *Articles in English A search was conducted using combinations of different search terms, such as 'goal setting', 'goal attainment', 'goal pursuit' and 'performance'.*

In addition, the references listed in the studies retrieved were screened in order to identify additional articles for possible inclusion in the REA. We conducted 8 different search queries and screened the titles and abstracts of more than 350 studies. An overview of all search terms and queries is provided in Annex I.

4.3 Screening and selection of studies (250 words max)

After finding studies, briefly describe your process for choosing studies according to the inclusion criteria. Usually this screening is usually a two stage process, the first involves reviewing the abstracts (if they exist - some grey literature may not have this) and the second, reviewing and reading the full studies (see Toolkit).

> EXAMPLE, from Haby et al (2016)*:*
>
> *Application of the inclusion criteria by the two reviewers was performed as follows. First, all studies that met the inclusion criteria for participants, interventions and outcomes were selected, providing that they described some type of evaluation of methodologies for rapid evidence synthesis. At this stage, the study type was assessed and categorised by the two reviewers as being a (1) systematic review; (2) primary study with a strong study design, i.e. of one of the four types identified above; or (3) 'other' study design (that provided some type of evaluation of methodologies for rapid evidence synthesis). The reason for this was to enable the reviewers to make a decision as to which study designs should be included (based on available evidence, it was not known if sufficient evidence would be found if only systematic reviews and primary studies with strong study designs were included from the outset) and because of interest from the funders in other study types. Following discussion between all co-authors it was decided that it was likely that sufficient evidence could be provided from the first two categories of study type. Thus, the third group was excluded from data extraction but are listed in Additional file 3.*

4.4 Appraisal of methodological quality (50-150 words)

Critically assess the studies according to their methodological quality. Those that do not meet a quality threshold should be removed. Some examples of quality checklists are available in the POST/CAPE Rapid Research Review Toolkit

> EXAMPLE, from Haby et al (2016):
>
> *The methodological quality of included studies was assessed independently by two reviewers using AMSTAR: A MeaSurement Tool to Assess Reviews [28] for systematic reviews and the Cochrane Risk of Bias Tool for RCTs [29]. Disagreements in scoring were resolved by discussion and consensus. For this review, systematic reviews that achieved AMSTAR scores of 8 to 11 were considered high quality; scores of 4 to 7 medium quality; and scores of 0 to 3 low quality. These cut-offs are commonly used in Cochrane Collaboration overviews. The study quality assessment was used to interpret their results when synthesised in this review and in the formulation of conclusions.*

4.5 Data extraction (300 words max)

Summarise the key characteristics of the included studies by filling in a table with information from each study, such as year of publication, research design, sample size, population (e.g., industry, type of employees), outcome measures, main findings, limitations (for an example of a table, see POST/CAPE Rapid Research Review Toolkit).

EXAMPLE from Haby et al (2016):

Information extracted from studies and reviewed included objectives, target population, method/s tested, outcomes reported, country of study/studies and results. For systematic reviews we also extracted the date of last search, the included study designs and the number of studies. For primary studies, we also extracted the year of study, the study design and the population size. Data extraction was performed by one reviewer (MH) and checked by a second reviewer (RC). Disagreements were resolved through discussion and consensus.

5. Findings and Synthesis

5.1 Search results (300 words max)

Provide an overview of the main search results. Use the PRISMA flow diagram of included studies to set out how you went about your search. Note that the main findings relevant to the research review question should be set out in the earlier section on 'main findings'.

EXAMPLE from Haby et al (2016):

Search results: *"Five systematic reviews (from seven articles) [18, 19, 21, 30–33] and one primary st udy with a strong study design – a RCT [34] – met the inclusion criteria for the review. The selection process for studies and the numbers at each stage are shown in Fig. 1. The reasons for exclusion of the 75 papers at full text stage are shown in Additional file 3. The 12 evaluation studies excluded from data extraction due to weak study designs are also listed at the end of Additional file. For PRISMA flow diagram of studies see Appendix".*

5.2 Synthesis and conclusions (300 words max)

Bring together all the findings in an overall narrative of the research evidence that answers the original rapid review question. Discuss the reasons for differences among studies, such as variations in methodological quality. You can also include any conclusions, recommendations, or implications for policy.

> EXAMPLE (from Haby et al, 2016):
>
> *'Findings from the included publications were synthesised using tables and a narrative summary. Meta-analysis was not possible because the included studies were heterogeneous in terms of the populations, methods and outcomes tested.'*

5.3 Limitations (100-200 words)

Describe any limitations and discuss how they possibly impacted the findings of the assessment.

> EXAMPLE (from CEBMa):
>
> *To provide a 'rapid' review, concessions were made in the breadth and depth of the search process. As a consequence, some relevant studies may have been missed. A second limitation concerns the critical appraisal of the studies included: this REA did not incorporate a comprehensive review of the psychometric properties of the tests, scales and questionnaires used. A third limitation concerns the fact that the evidence on several moderators is often based on a limited number (sometimes only one) of studies. Although most of these studies were well controlled or even randomised, no single study can be considered to be strong evidence – it is merely indicative. Finally, this REA focused only on high-quality studies, i.e. studies with a control group and/or a before- and after-measurement. For this reason, usually a large number cross-sectional studies are excluded. As a consequence, new, promising findings that are relevant for practice may have been missed. Given these limitations, care must be taken not to present the findings presented in this REA as conclusive.*