

Who We Are

When policy makers and health care practitioners seek to make informed decisions, they face a rapidly expanding supply of evidence. In 2010, there were 75 randomized trials being published every day and the pace of published research continues to climb every year. This is good news, in many ways, but it challenges decision-makers to sift through a vast volume of evidence, the quality of which can be quite variable, to ascertain the state of our knowledge about a particular intervention or policy.

At the Center for Evidence Synthesis in Health (formerly known as the “Center for Evidence-based Medicine”), we use research and analytic tools to transform vast quantities of evidence into essential knowledge. Our work helps policy experts and clinicians make informed and rational decisions.

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WHAT WE DO

What We Do

We conduct research in, and teach the principles of, research synthesis and evidence contextualization. Research synthesis refers to our activities in systematic review of published literature and data from those studies. Often this involves meta-analysis, which is an analytic method for combining datasets from multiple studies. Evidence contextualization refers to our work to determine the appropriate types of evidence to use in decision and economic modeling.

CESH serves as one of 13 Evidence-based Practice Centers (EPCs) across the country. EPCs produce effectiveness reviews at the request of the federal government on medications, devices, and other health care services with the goal of helping patients, physicians, and policymakers make better decisions about treatments.

The Center includes [statisticians, clinicians, epidemiologists, librarians, computer scientists, and health services researchers](#). Examples of our [past work](#) include systematic reviews of cancer care, chronic kidney disease, bariatric surgery and limb prostheses. Our team offers several free software programs to simplify collecting, organizing and analyzing the data. We also have written extensively on methods to improve the processes of systematic reviews and meta-analysis of experimental and observational studies as well as diagnostic tests. In fact, members of our Center were on the panels that wrote the Institute of Medicine's guides to Systematic Reviews and to Clinical Practice Guidelines.

Our [research and training programs](#) provide learning opportunities for undergraduate, graduate and post-graduate scholars, as well as faculty and healthcare professionals within and outside the Brown community. The courses that follow are an example of that work, and are part of an effort to improve awareness of and competency in methods of evidence synthesis.

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EVIDENCE SYNTHESIS

Evidence Synthesis



What do we mean when we use the term “evidence synthesis”? In the broadest terms, evidence synthesis describes the act of combining and analyzing existing information to learn what’s known and not known about a particular topic and perhaps, to make a decision. The act of using Angie’s List to hire the right plumber or Yelp to find a place to eat a delicious dinner in a romantic spot can count as evidence synthesis.

But in this course, we’ll be talking about forms of evidence syntheses that follow rigorous and systematic protocols. When the Center for Evidence Synthesis in Health conducts evidence synthesis, it addresses a well-defined question or questions, comprehensively searches for all relevant information and uses validated analytic methods.

Our center uses evidence synthesis to answer health care related questions, but the tools you learn in this course can be useful for any discipline.

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WHY IS EVIDENCE SYNTHESIS HELPFUL?

Why is evidence synthesis helpful?

Evidence Synthesis is helpful because it can:

Help with information overload

As the rate of medical research continues to climb, it's impossible to keep up with the latest findings. Evidence synthesis combines all available information into a digestible and useable format and determines which studies are rigorous enough to be included in the review of research about a particular topic.

Combine small studies together for more powerful findings

A small research study might lack enough participants or evidence to distinguish signal from noise, but when it's put in context with other similar studies, it can help paint a larger picture. For instance, a study of 20 people may be too small to establish a relationship between practicing meditation and decreasing blood pressure, but if multiple studies show a similar effect, the evidence is more compelling.

Describe variation and explain apparent discrepancies in existing research

Are there really health benefits associated with drinking red wine? What about eating dark chocolate? The latest answer often seems to depend on the most recent study. Evidence synthesis gets beyond the confusing headlines to look at the entire body of research on a topic, screening out poorly designed or irrelevant studies and accounting for random variation or study differences.

We'll talk about more benefits of evidence synthesis on the next page.

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**WHY IS EVIDENCE SYNTHESIS
HELPFUL, CONTINUED**

Why is evidence synthesis helpful, continued

Here are some more uses for Evidence Synthesis:

Examine whether a finding varies under different conditions

Many interventions work differently for different people or under different conditions. By combining results from different studies, it may be possible to determine how groups of individuals vary in the way they respond to interventions. Understanding this heterogeneity can help target treatments to the right patients.

Identify research gaps and needs for future studies

Because evidence synthesis takes a comprehensive look at the existing body of knowledge, it captures not only what research already exists but what research is missing. This analysis is helpful for guiding the direction of future studies. For instance, a meta analysis of studies related to the performance of limb prosthesis might find that few studies include women with prosthetic limbs and recommend research examining if performance differs between men and women.

We'll talk more about how we do this later on in the course. First, let's discuss the various types of evidence synthesis.

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Why is evidence synthesis helpful?

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Types of evidence synthesis

Types of evidence synthesis

How do we take a large body of evidence and turn it into useful information? There are a few ways to do this.

In the past, we relied primarily on **narrative reviews**.

In a **narrative review**, a subject matter expert addresses a research question by surveying and summarizing some of the existing literature. The expert then interprets that literature based on his or her personal experience. These reviews can be useful, but are limited. First, the research included is based only on the expert's knowledge, not a full review of the existing literature. Second, a narrative review is inherently biased because it's based on the opinions of one expert.

An alternative to this approach is a systematic review.

A **systematic review** seeks to systematically search for, evaluate, and synthesize existing research. It includes a qualitative and perhaps quantitative analysis of what is known and unknown, as well as recommendations for action and future research.

Depending on the evidence you're synthesizing, your systematic review might also include **meta-analysis**.

Meta-analysis uses statistics to combine information from different studies to produce a quantitative summary of their findings.

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EVIDENCE
SYNTHESIS
HELPFUL,
CONTINUED**

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**WHAT IF
YOU ARE
SHORT ON
TIME?**

What if you are short on time?

Systematic reviews, especially those that include meta-analysis, require extensive time and resources. If you are short on either of these, a **rapid review** might meet your needs. It's an abbreviated form of a systematic review that is less comprehensive but still follows a scientific approach to gathering and synthesizing information.

Depending on your question, you might also use these types of evidence synthesis:

Scoping review

Offers a summary of existing evidence by examining the size and scope of literature on a particular topic to understand if enough evidence exists to conduct a systematic review.

Evidence map

Similar to a scoping review, but includes an analysis of what type of studies are missing from a body of evidence by identifying gaps and recommending new areas of research. An evidence map can also give a general overview of existing study results.

Other terms you might encounter include: "mixed study review," "critical review," "systematized review," "literature review" and "state of the art review." In the world of evidence synthesis, some of these words are used interchangeably and their use has changed over time.

This can be confusing, even to experts from different backgrounds who learned slightly different words depending on their field or where they went to school. At this point, don't worry too much about the precise definitions of these different approaches. It's really more of an academic debate than a practical concern.

Now that we know evidence synthesis can take various forms, let's talk about the gold standard for evidence synthesis, the type we typically conduct at CESH: a systematic review.

What is a systematic review?

A systematic review is a type of evidence synthesis.

Systematic reviews are among the more rigorous forms of evidence synthesis. In general, they:

- Answer one (or more) carefully constructed question(s)

- Are carried out by a team of librarians, methodologists, statisticians, subject matter experts and stakeholders

- Use a clear, transparent and rigorous protocol for selecting, evaluating and extracting evidence

- Consider the role of subjectivity and bias in their results

- Involve stakeholders in the process

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AHRQ DEFINITION

AHRQ definition

The Agency for Healthcare Quality and Research (AHRQ), which sponsors the creation of systematic reviews to help public and private organizations improve the quality of healthcare, [defines systematic reviews as](#):

“...the building blocks underlying evidence-based practice; they focus attention on the strength and limits of evidence from research studies about the effectiveness and safety of a clinical intervention.”

[AHRQ says systematic reviews are useful because:](#)

“In the context of developing recommendations for practice, systematic reviews can help clarify whether assertions about the value of the intervention are based on strong evidence from clinical studies.”

Systematic reviews are extremely rigorous, but also extremely time and resource-intensive. On the next page, we'll take a closer look at the steps researchers follow when they do this kind of work.

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WHAT IS A SYSTEMATIC REVIEW?

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TYPE OF QUESTION

Type of question

Systematic Reviews can answer different types of research questions.

Your question may fall into one of the following common categories:

Effectiveness of Intervention

A question about the treatment of an illness, condition or disability.

Etiology/Risk

A question about the causes or origins of a disease.

Diagnosis

A question about the process for determining that someone has a particular disease or injury.

Prognosis/Predictions

A question that explores what happens to patients over the course of a disease or health condition.

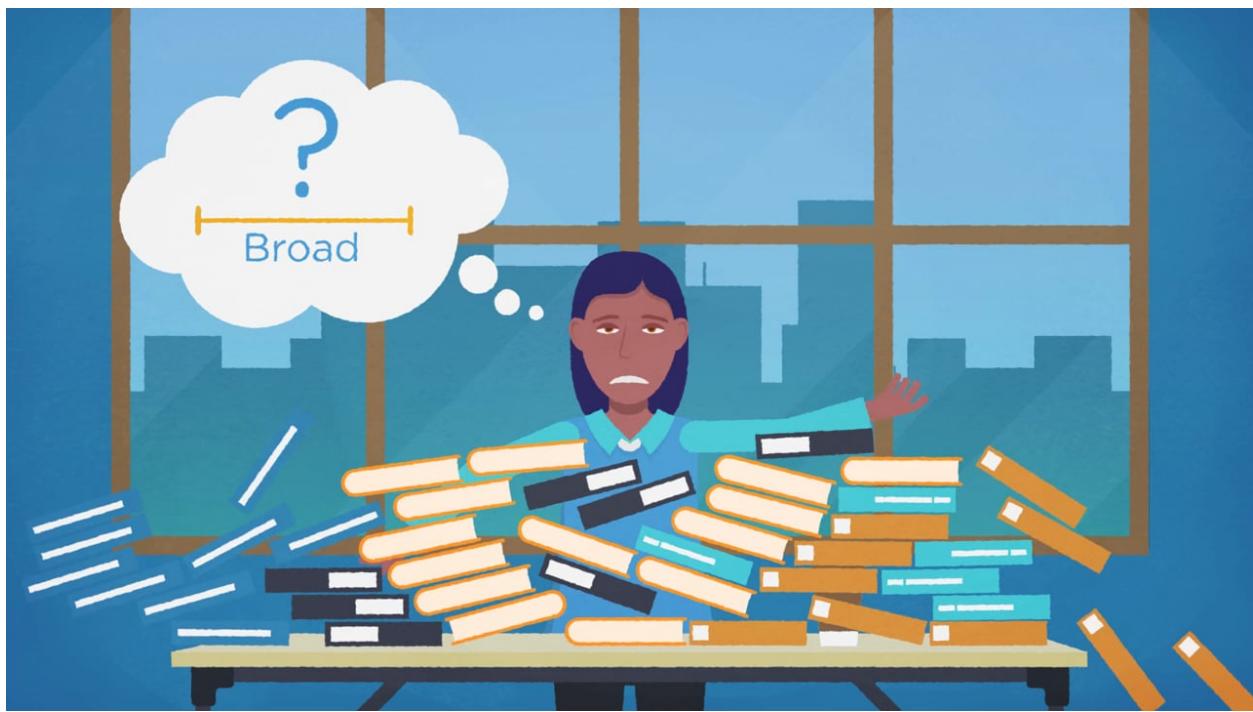
Methodological

A question that examines published reports to understand how research is conducted and reported.

Qualitative

A question that does not assess effectiveness. A question that asks “how” or “why”.

For more information on the types of questions that systematic reviews can answer, see the [Questions Module](#) of our [Prepare Your Topic](#) course.



<https://vimeo.com/266228454>

As the video above explains, a systematic review follows six main steps:

- 1. Prepare your topic:** Talk with stakeholders and experts and do a quick scan of available research to craft questions that are specific and relevant
- 2. Search for studies:** Find research studies that are potentially related to your question
- 3. Screen studies:** Exclude studies that don't address your question
- 4. Extract data:** Collect relevant data from all the remaining studies
- 5. Analyze and synthesize data:** Combine and evaluate the information you've selected from these studies
- 6. Report your findings:** Turn the synthesis of information into a coherent narrative of what you've discovered

On the next few pages, we'll give a brief explanation of each step, starting with "Prepare your topic."

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TYPE OF QUESTION

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PREPARE YOUR TOPIC

Prepare your topic

If you're interested in conducting a systematic review, you probably already have a question or a topic to explore. But how do you know whether this question can be effectively answered or if it has already been answered? Your topic may be too broad or too narrow. That's why it's important to take an initial look at the available evidence to see if there's enough research (or too much research) to address your question.

Talk to stakeholders and experts in the field to get a better sense of which questions might be meaningful to them. You should also carefully consider how an answer might be used. And of course, be sure to check if someone has already conducted a similar systematic review, or is planning to do so in the near future.

Where do you check? Go to [PROSPERO](#), a registry of planned, ongoing and completed systematic reviews. If you eventually conduct a review yourself, you can register your protocol here too!

Then, craft a question that's clear and specific enough to guide what kind of studies should and shouldn't be included in your search.

There's actually a specific technique for writing an effective research question called PICO(D).

Well-defined research questions include the followings elements:

Population

Interventions

Comparators

Outcomes

Design

For more information about the PICO(D) approach, check out our [Developing Your Question](#) course.

Search and Screen

Once you've written a clear and specific question, you cast a wide net to find studies that might be related to your topic.

While you're searching, be aware that the studies that make it to publication don't reflect the entire body of research on a topic. Studies might go unpublished for a lot of reasons: perhaps their results aren't statistically significant or their conclusions aren't novel enough to get attention. This is called **publication bias**.

You can help combat publication bias by seeking out unpublished research, checking out work presented at academic conferences, and considering other "grey literature" such as reports by government agencies and non-profits.

Another common problem in the published literature is **reporting bias**, when a study is published without all of its results, perhaps because some results are considered secondary or insignificant. In some cases, results are excluded for more nefarious reasons, especially if researchers leave out findings of harm. Failure to include these missing results in a systematic review can bias your findings.

You can combat reporting bias by following up with the authors of your studies to see if any results were left out. You can also compare the published results of a study with its protocol, which is written ahead of time. It's easy to look up protocols for funded trials at Clinicaltrials.gov.

Once you've gathered a diverse collection of studies, you take a closer look, removing any studies that don't address your specific question or don't meet your inclusion criteria. You may need to look at the studies you find pretty carefully to do this right.

For more information, check out our [Search and Screen Your Studies](#) course.

Extract Data

Using the relevant studies you have identified, you pull out the information that will help you answer your question. You'll use a data extraction form to help you organize and categorize what you find.

This is more difficult than it might seem. You may find factual inconsistencies between articles, even if they're written by the same authors about the same study. Even within a single article, you might find facts that don't agree. For instance, the text of an article might not match the data in its tables.

For more information, check out our [Extract Data course](#).

Analyze and Synthesize

Once the data have been extracted and organized, you will need to carefully evaluate what you have found and draw conclusions.

In this step, you describe the characteristics of your studies. What is their quality, their rigor and their scope? What has been studied and what hasn't? Do the studies agree or disagree with each other? Can you reconcile the disagreements?

You may also decide at this point that some of the studies lack sufficient information or are too poorly designed to use.

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Report Your Findings

This is the final step. Once you've drawn conclusions based on the evidence, you write a clear narrative of the steps you took and what you discovered.

If you're reading a systematic review, you should know that different types of reports offer different levels of detail. For instance, journal articles are typically briefer than technical reports. A journal's website, a company's report, or a government agency's technical documents may have supplementary tables and figures you can use if you're looking for more information.

For more details, check out our [Report your Findings course](#).

For now, let's look at how the Center for Evidence Synthesis in Health (CESH) has used systematic reviews to answer important clinical questions.

Omega-3 fatty acids

First up, omega-3 fatty acids and cardiovascular health:

Question: Should you take omega-3 fatty acids to prevent strokes, heart attacks or other cardiovascular diseases?*

You're probably familiar with omega-3 fatty acids. You can find them in foods such as salmon, flax seeds, and walnuts, but they're often taken as supplements in the form of those golden colored fish oil pills. How do omega-3 fatty acids improve our health? [If you look online](#), you can find claims that they do everything from decrease the spread of breast cancer to treat mental illness.

The Center for Evidence Synthesis in Health (CESH) conducted a systematic review to examine one of these claims: *do omega-3 fatty acids reduce the risk of strokes, heart attacks and other cardiovascular diseases?*

*Of course, researchers would phrase this question in more precise, scientific language. To express the overall intent of this systematic review, we'll use colloquial language. For information about how to construct an effective research question, [see our course on PICO\(D\)](#).

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Omega-3 fatty acids continued

Process: CESH conducted an exhaustive search of existing research on omega-3 fatty acids and cardiovascular disease. It excluded studies that were irrelevant or failed to meet the systematic review's eligibility criteria. Then, it used statistical methods to combine the results of the studies that remained.

Answer: After looking at all of the available evidence, [CESH found](#) that omega-3 fatty acids improved some “intermediate” outcomes (like lower triglycerides and low-density lipoproteins cholesterol), but found little evidence that omega-3 fatty acids actually contribute to a reduction in heart attacks and strokes.

Omega-3 fatty acids conclusions

But wait a minute, why have I seen news headlines about omega-3 fatty acids preventing heart attacks? And why did my doctor tell me to take fish oil pills to protect my health?

That's the beauty and the challenge of systematic reviews.

The beauty: Those news headlines were probably based on one study that found a connection between omega-3 fatty acids and the prevention of heart disease. The study may have found a direct association between taking fish oil pills and having fewer heart attacks or it may have found a relationship with an outcome related to cardiovascular health and inferred that changes in that outcome could lead to a reduction in heart attacks and strokes. By combining the results of many studies, CESH was able to see if these results were just a coincidence or part of a real trend.

The challenge: Evidence synthesis can only analyze studies that already exist. So, we can't conclusively say that omega-3 fatty acids have no effect on cardiovascular disease. We can only say that after looking at all of the existing research, there's little evidence that omega-3 fatty acids prevent heart attacks and strokes.

Obesity + C-sections

Here's another example of a systematic review in action: a study examining the link between maternal obesity and cesarean sections.



There's a fair amount of scientific evidence indicating that pregnant women who are overweight or obese have a higher risk of getting a cesarean section. But there's inconsistent data on the actual magnitude of this risk. Researchers who work at CESH conducted a meta-analysis with researchers from the Centers for Disease Control and Prevention (CDC) in Atlanta to determine how much more likely it was for overweight or obese women to give birth by cesarean section compared to women who were not overweight.

Question: We know pregnant women who are obese or overweight have a higher likelihood of cesarean section delivery, but what's our best estimate of the magnitude of that likelihood? How does that likelihood increase among women who are overweight, obese, and severely obese?

Obesity + C-sections continued

Process: The investigators searched for published research about maternal obesity and pregnancy complications. From that evidence, they selected studies that:

1. Included data indicating a mother was obese or overweight based on her weight before she became pregnant.
2. Included a comparison group of women who were not overweight or obese before they became pregnant.
3. Presented data that could be used to calculate a mother's level of obesity and her likelihood of cesarean delivery.

Researchers took the remaining studies and extracted the data that were related to a mother's weight and her likelihood of cesarean delivery. They then combined the data from all of the studies to calculate an overall estimate of the likelihood an overweight, obese, or severely obese woman would get a cesarean section compared to a pregnant woman in the normal weight range.

Answer: Once researchers combined and analyzed the data, they found that the risk of getting a cesarean section was:

- 1.47 times higher if mother was overweight
- 2.05 times higher if mother was obese
- 2.89 times higher if mother was severely obese

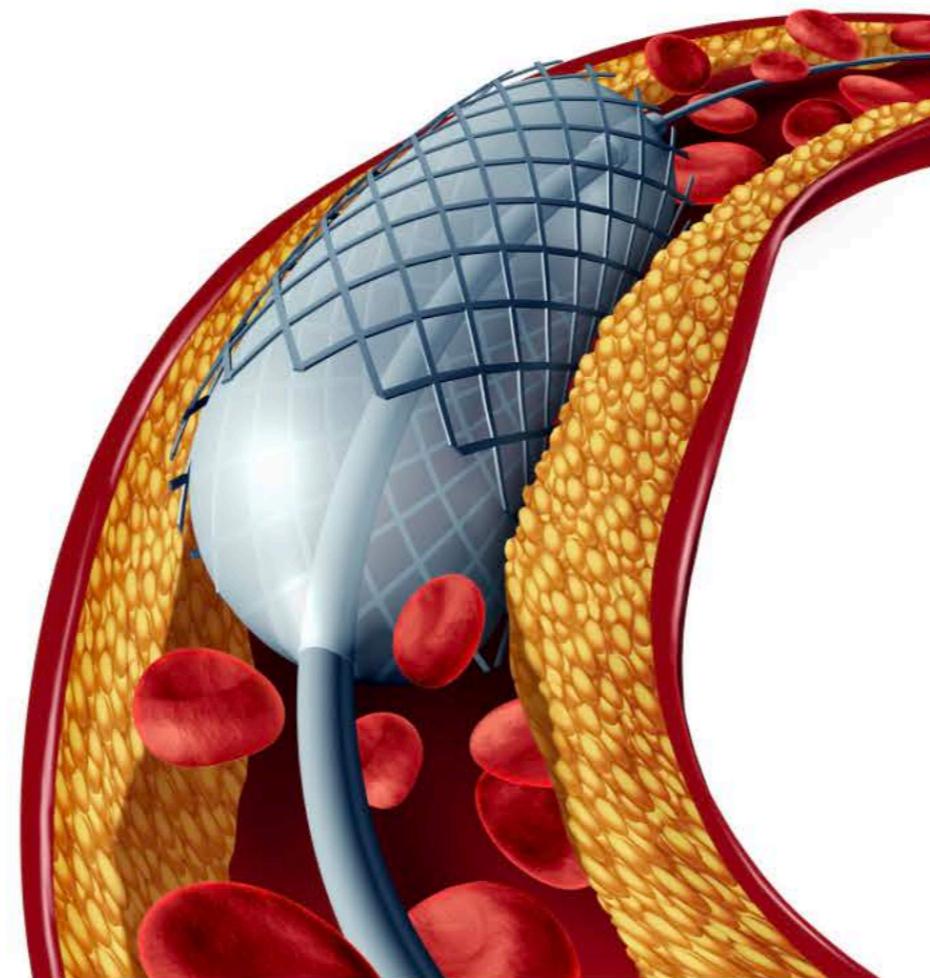
From these findings, the investigators were able to generalize that "the likelihood of a cesarean delivery is about two and three times higher, respectively, among obese and severely obese compared with normal weight pregnant women."

Based on these results and the current rate of cesarean sections in the United States, each 1% decrease in the number of birthing women who are obese would lead to 16,000 fewer cesarean sections a year. That's useful knowledge for any policy makers or clinicians hoping to decrease the overall rate of cesarean sections.

RAS treatments

Here's one last example of a systematic review in action. First, some background:

Renal Artery Stenosis (RAS) is the narrowing of the arteries that carry blood to the kidneys. RAS is usually caused by a buildup of plaque that clings to the walls of the artery, limiting the flow of blood to the kidneys. RAS can lead to high blood pressure, kidney damage, cardiac disease, stroke, and death.



“Illustration of Percutaneous Transluminal Angioplasty with Stent Placement (PTCAS)”

RAS is treated using medications, but some doctors also recommend opening the blood vessel by inserting a small balloon into the artery to clear away the plaque and improve blood flow. The most common approach for this type of blood vessel repair for patients with RAS is called **Percutaneous Transluminal Renal Angioplasty with Stent placement (PTRAS)**.

CESH conducted a [systematic review](#) to compare the benefits and harms of using PTRAS versus using medications alone to treat Renal Artery Stenosis.

Question: When treating renal artery stenosis, which approach is better: using medications alone or using medications and PTRAS?

RAS treatments continued

Process: CESH used a series of electronic databases to find studies related to renal artery stenosis, renal hypertension (high blood pressure due to kidney disease), and renal vascular disease (diseases of the kidney blood vessels). It also looked at abstracts and posters from academic conferences, and asked for citations from an expert panel and drug manufacturers to find the most up-to-date research. It then screened the materials, including only studies where researchers followed patients for at least 6 months.

In the end, CESH found:

15 studies comparing medication alone versus PTRAS with medication.

48 studies that looked at only one type of intervention: medication alone or PTRAS with medication, without a comparison between the two.

20 case reports of individual patient experiences

CESH also reviewed 20 case reports of patients with extreme symptoms of renal artery stenosis.

Of the 15 comparative studies, 8 were non-randomized controlled studies and 7 were randomized controlled trials (the gold standard of research).

Researchers included studies that only looked at one type of intervention because they were also interested in the long term outcomes and adverse events associated with each type of treatment.

In this case, it wasn't possible to use meta-analysis to combine data from the various studies because the study designs and the types of participants in each study weren't similar enough. Instead, researchers looked at each study individually and described how their results compared to each other.

RAS treatments conclusions

Answer: When researchers at CESH looked at the relevant articles, [the research showed](#) no difference between the outcomes for patients whose RAS was treated using medications alone versus those who underwent PTRAS as well.

But this finding came with a lot of caveats. Some of the existing research had major problems such as relatively small sample sizes or participants who didn't match the type of RAS patients doctors are likely to see in their offices. In particular, there were very few studies that examined which types of patients could most benefit from PTRAS. In short, the body of evidence just wasn't sufficient enough to draw any generalizable conclusions. So, the main findings from this systematic review were:

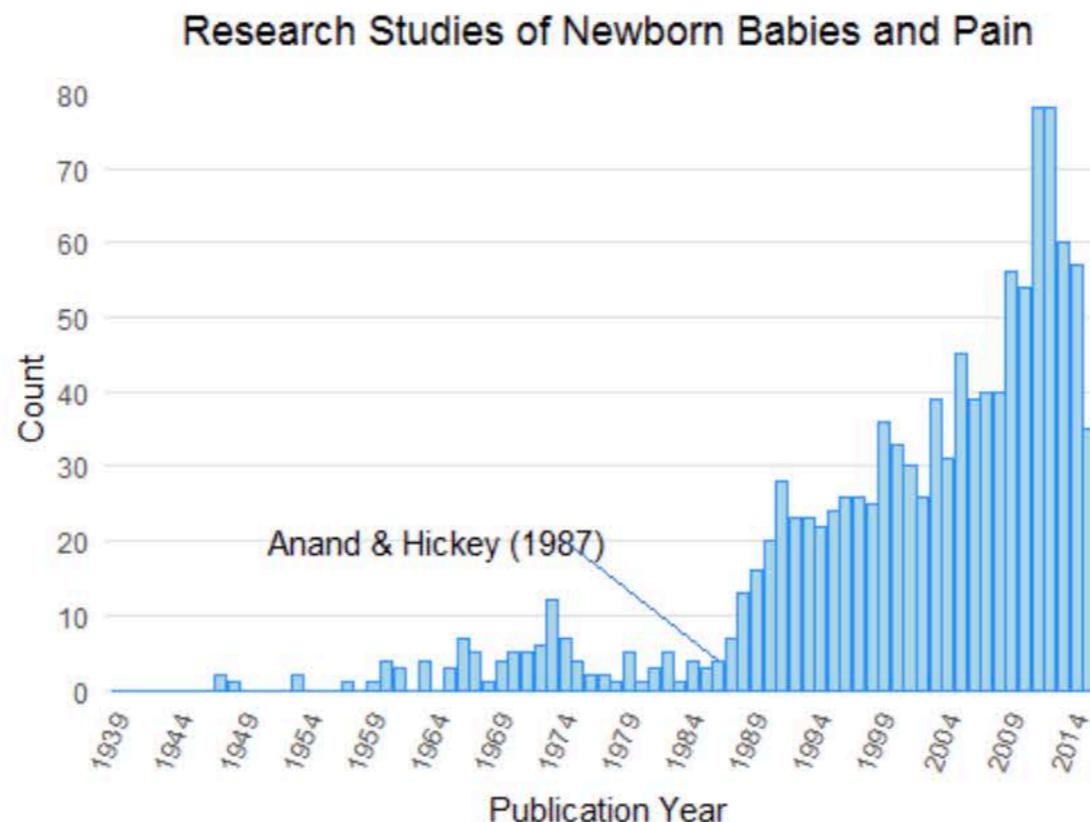
1. There's a need for more research on this topic
2. In the case of patients with less severe RAS, the current evidence does not support the clinical preference for using PTRAS and medication instead of just medication.
3. However, there are some case studies of individual patients with severe RAS symptoms who saw clinical improvement after PTRAS.

Now that you've seen systematic reviews in action, you might want to use this rigorous form of evidence synthesis to answer your own questions. A systematic review might be the right tool for you. But first, let's be clear about what systematic reviews can't do.

What systematic reviews can't do

So, a systematic review is a helpful tool, but it's not a magical process for answering any question. How do you know a systematic review is the best approach for you?

Let's use a scientific example. The chart below illustrates the number of published research studies about pain management in newborn babies between 1939 and 2016.



You'll see in this chart that the number of published articles about pain in newborn babies increased rapidly around 1990. This publication trend occurred after an [important paper about newborn babies and pain](#) was published in 1987 by Anand & Hickey in the New England Journal of Medicine.

If this were 1986 and we wanted to conduct a systematic review about pain in newborn babies , we wouldn't have a lot of material to use.

That's why, before you invest too much time in a systematic review, your first step is making sure there's enough existing research about the topic you care about. Because if no one has written about your question, or only a few people have written about it, you won't have enough evidence to synthesize.

A systematic review is the wrong tool if...

1. Research on your topic doesn't exist

In the chart on the previous page, you saw that before 1948, PubMed has no evidence of published literature about pain in newborn babies. So, you can't synthesize research from before 1948 because it doesn't exist.

Remember, If you can't find research on these topics, it doesn't necessarily mean no one has asked these questions, it just means no one has done a full study or published the findings.

2. There's not enough research on your question

The number of publications on the topic of newborn babies and pain were limited until 1987, when the Anand & Hickey paper ushered in a new area of research on newborn pain. If we tried to synthesize the research written before 1987, we wouldn't have enough information to make an informed decision.

3. Your question can't be answered with a systematic review

We can learn a lot about how infant pain has been studied since 1987 by synthesizing existing research, but we're less likely to find the answer to more philosophical or historical questions such as "Why is there a shortage of research about pain management for newborns?"

Still think a systematic review will address your needs? On the next page, we'll discuss the logistics for getting started.

Practical considerations

The next few pages will answer some common questions that you may have about Systematic Reviews.

Remember, each systematic review is different depending on the question you're asking and how much evidence exists.

Length of time



The time it takes to conduct a systematic review will depend on how much evidence exists, the kind of questions you're asking, how much help you have and whether you need to ask for additional information from researchers who conducted the primary studies.

It is possible to conduct a review in a very short time, even just a few days, but that's when the question is narrow, the researchers know where to search, they find only a few papers, and the end product is a simple analysis or description of the findings.

Many researchers working in small teams can do a review in a couple of months, even shorter if they work on the project full time.

But, in general a comprehensive review on a topic with multiple questions for a paying sponsor will take you much longer. CESH can conduct “rapid turnaround” systematic reviews in about four months. These reviews require a lot of effort from our team and are only possible if the systematic review is fairly straightforward.

A typical systematic review for the Agency for Healthcare Research and Quality (AHRQ) can take 42 to 58 weeks.

Team needed

These are the types of people who often work together to conduct a systematic review. Depending on your resources, you might have the same person filling several of these roles:

Project lead/methods expert

This person oversees the process and has expertise in the methods for conducting a systematic review. In some cases you might have two people fill this role- a project lead and a methods expert.

Statistician/quantitative expert

Your team should include someone with expertise in analyzing data. In some cases, your methods expert will fill this role.

Librarian

You'll need a librarian to help you design your "search strategy." This involves everything from using the right search terms in electronic databases to knowing what databases and sources to use. In some cases, your methods expert can fill this role.

Clinical/subject area experts

These people are experts on the question you're exploring. They help you understand the general landscape of research on this topic and evaluate which research is relevant. They can also help you frame your research question and interpret your findings so your results are relevant to decision makers.

Research assistant(s)

Research assistants do a lot of the intensive labor for a systematic review. Their tasks include data extraction, literature screening, data analysis, and strength of evidence/risk of bias assessments.

Team needed continued

You might also want to include these people in your process:

Stakeholders

Stakeholders are members of the community with a personal/financial/policymaking interest in the topic you're exploring. Depending on your question, stakeholders could be your clinical or subject area experts, but you might also want to include advocates, policy makers, clinicians, payers, purchasers or patients. Stakeholders can play a valuable role in helping you shape your initial question and assess the relevancy of your results.

Data visualization experts

Data visualization experts can help you present your findings in a compelling and clear format.

Dissemination partners

Once you've finished your systematic review, you'll want to share your results. Dissemination partners can help you spread the word about your findings.

Cost

The cost depends on how complicated your systematic review is, how quickly you need to get it done, and how big your team is.

To give you a rough estimate, the federal government pays about \$250,000- \$500,000 for a systematic review. But don't be intimidated by that price tag. You can conduct a less rigorous systematic review, perhaps with the help of volunteers or interns, for a lot less money. In fact, many students or research trainees conduct systematic reviews as a first research project on their own time.

Next steps

Now that you've learned about systematic reviews, what do you want to do next?

I'm ready to get started!

You know what a systematic review is, you think it can help you answer an important question, and you have the time and resources to make it happen. Dive in and start our [courses](#) about how to conduct a systematic review.

A systematic review is too involved for my needs, but I'm excited about evidence synthesis.

Maybe a less complicated approach to evidence synthesis could fit your needs. Review [the description of other types of evidence synthesis](#) again and check out this course on evidence mapping.

I don't want to conduct a systematic review, but I want to learn more.

Check out our other courses at [our website](#).

Other Resources:

[The Agency for Healthcare Research and Quality](#) sponsors the creation of systematic reviews to help public and private organizations improve the quality of healthcare.

[Cochrane](#) is an international non-profit devoted to conducting systematic reviews and encouraging the use of evidence based medicine.

[Prospero](#) is an international database of systematic reviews in health and social care, welfare, public health, education, crime, justice, and international development, where there is a health related outcome.

Want to learn more? Sign up to take our course on the first step of a systematic review: [Prepare your topic](#).