

# Publication and related bias in quantitative health services and delivery research: a multimethod study

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## Plain English summary

Bias in quantitative health services and delivery research

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## Plain English summary

**T**his project investigates publication and related bias in health services and delivery research.

Publication bias occurs when not all research evidence is made available. There are different ways publication bias can happen:

- studies with only 'positive' results are published
- researchers use different methods to analyse the same data until they get a 'significant' or 'positive' result
- researchers 'cherry pick' findings, reporting only those that are most 'interesting' or likely to get published.

In research affecting treatments for patients, issues of publication bias are well known and attempts have been made to ensure that all research evidence is made available. Less is known about publication bias in health services and delivery research, which explores how health services are designed and delivered. If there is publication bias in health services and delivery research, researchers might do research that has already previously been done and decision-makers may not have all the information available to make the best decisions.

### What we did

We used various methods to explore publication bias in health services and delivery research, including:

- A systematic review of published evidence on publication bias in health services and delivery research to identify if anyone had looked at this issue before.
- Examination of 200 systematic reviews of evidence in health services and delivery research to see if researchers took any steps to detect publication bias.
- Four in-depth case studies of health services and delivery research systematic reviews in which we highlighted issues in applying existing methods to detect publication bias.
- Analysis of 300 health services and delivery research projects to see which ones were published and which were not.
- Interviews with journal editors, researchers and members of the public about publication bias.

### What we found

- Publication bias in health services and delivery research had not been addressed previously.
- Most systematic reviews in health services and delivery research do not include a process for detecting publication bias.
- Studies with 'positive' findings are about three times more likely to be published.

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