

Reviews of Reviews: just how meta does it get?

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What is a Review of Reviews

- Reviews of reviews and Systematic reviews are very much alike

What are the similarities?

Systematic review

Review of reviews

Use a protocol

Screening process

Data Extraction

Synthesis

So what is different?

- Whilst the two methods share similarities, they diverge in two key ways

So what is different?

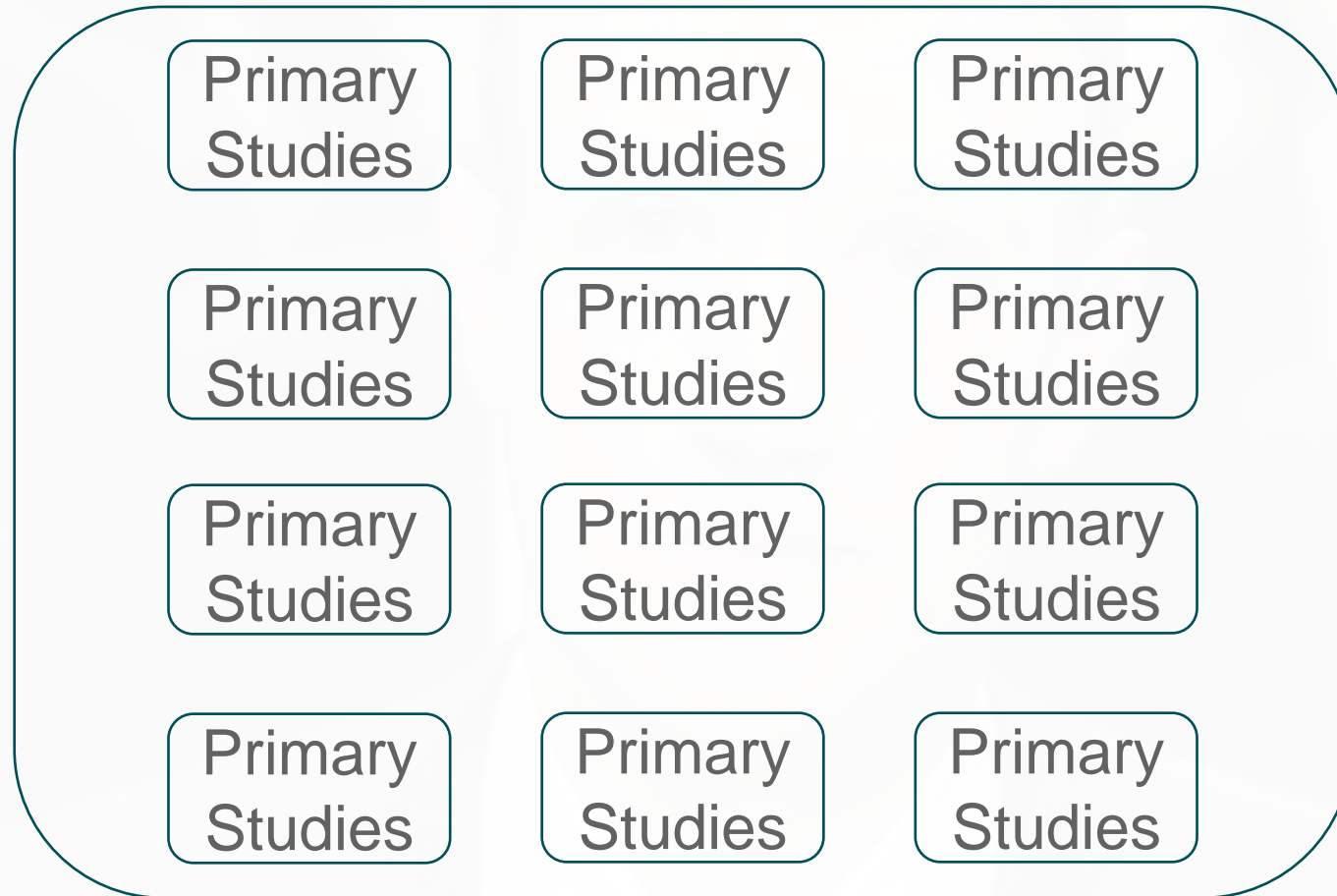
Systematic review

Review of reviews

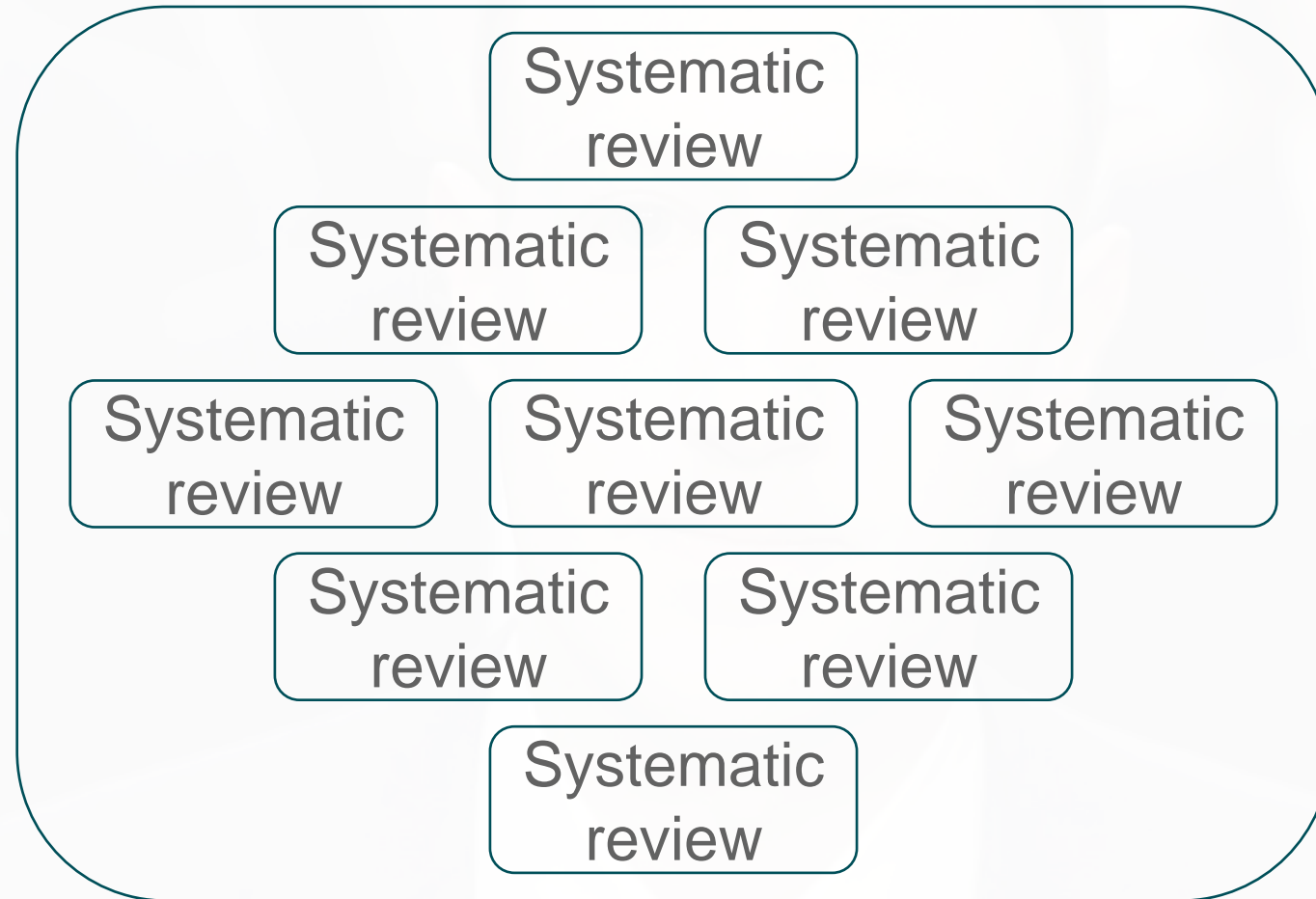
What's being reviewed

Checking overlap

Systematic review



Review of reviews



Overlap

- Reviews of reviews analyse systematic reviews
- Therefore, overlap may occur between the systematic reviews
- We need to prevent this as it may bias the conclusions we draw

Citation matrices

| | Review 1 | Review 2 | Review 3 | Review 4 |
|------------------------|----------|----------|----------|----------|
| Primary publication 1 | x | | | |
| Primary publication 2 | x | | | x |
| Primary publication 3 | x | x | x | x |
| Primary publication 4 | x | x | x | |
| Primary publication 5 | x | x | | x |
| Primary publication 6 | x | | | |
| Primary publication 7 | x | x | x | |
| Primary publication 8 | x | | | |
| Primary publication 9 | | x | | |
| Primary publication 10 | | x | | |
| Primary publication 11 | | | | x |
| Primary publication 12 | | | | x |

$$CA \text{ (covered area)} = \frac{N}{r \ c}$$

$$CCA \text{ (Corrected CA)} = \frac{N - r}{r \ c - r}$$

Table 1. Interpretation of CCA

| CCA | Overlap |
|-------|-----------|
| 0–5 | Slight |
| 6–10 | Moderate |
| 11–15 | High |
| > 15 | Very high |

Abbreviation: CCA, corrected covered area.

Screenshots taken from Pieper et al. 2014

Citation Matrices

- Not a perfect solution
- If one study has many more primary studies than another it can affect how well the method works

| Number of Reviews (<i>c</i>) | Total number of publications (<i>N</i>) | Number of Unique publications (<i>r</i>) | CCA |
|-----------------------------------|--|---|-----|
| 2 | 189 | 37 | 0 |

How I'm using it

- NCD Umbrella review
- The goal is to provide an overview of the current coverage by systematic reviews on NCD's in 7 key areas

Cardiovascular
Disease

Cancer

Diabetes

Bone Disease

Mental Health

Chronic respiratory
Disease

Cardiovascular
Disease

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The end

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