

The GRADE-CERQual approach for  
assessing how much confidence to place  
in the findings of qualitative evidence  
syntheses

**GRADE** CERQual

The GRADE-CERQual Project Group

Oslo Met

# What questions are decision makers asking?

Evidence of effectiveness is now seen as an important basis for decisions about health and social interventions

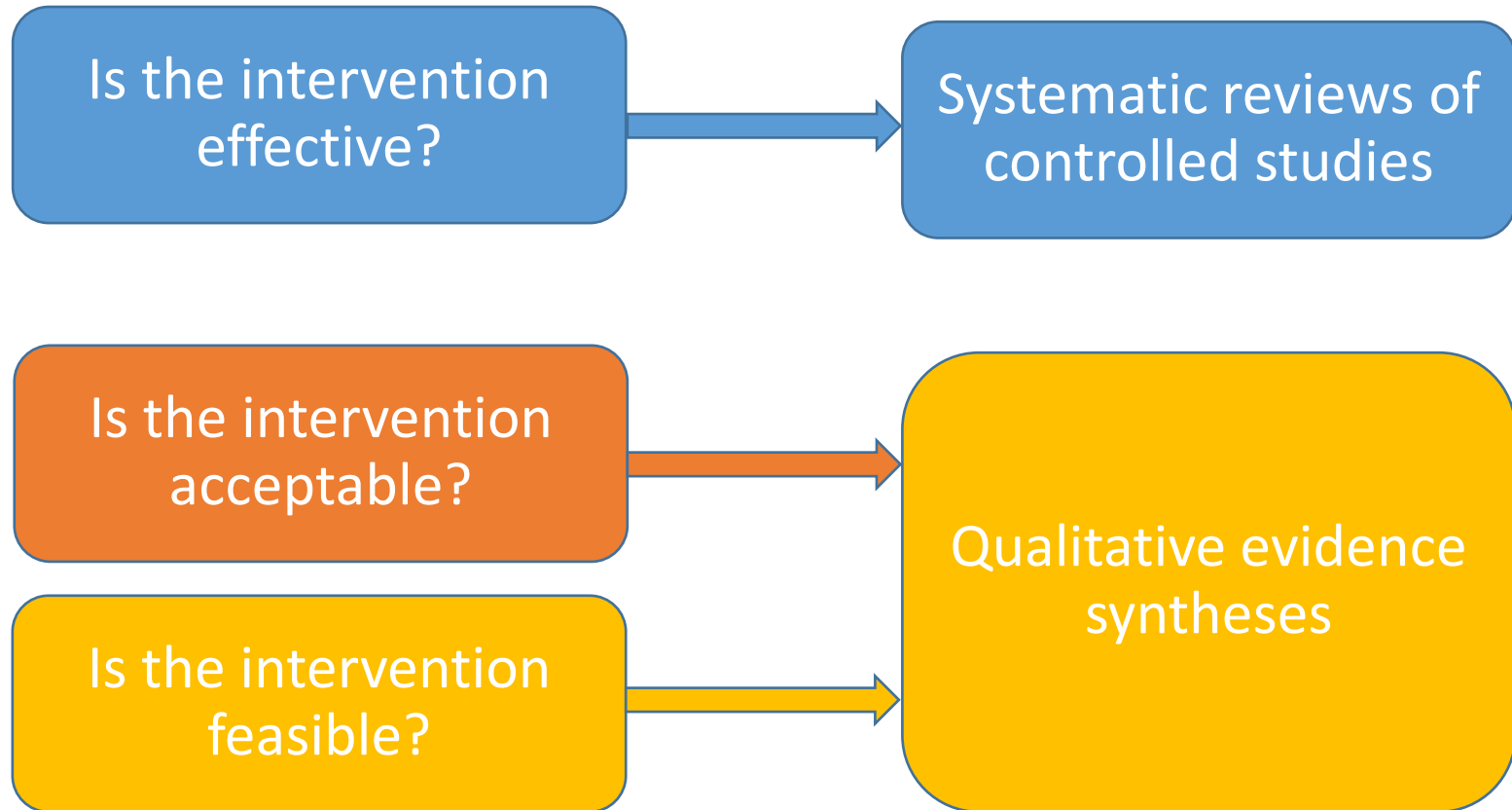
Is the intervention effective and safe?

But decision makers are also asking other questions

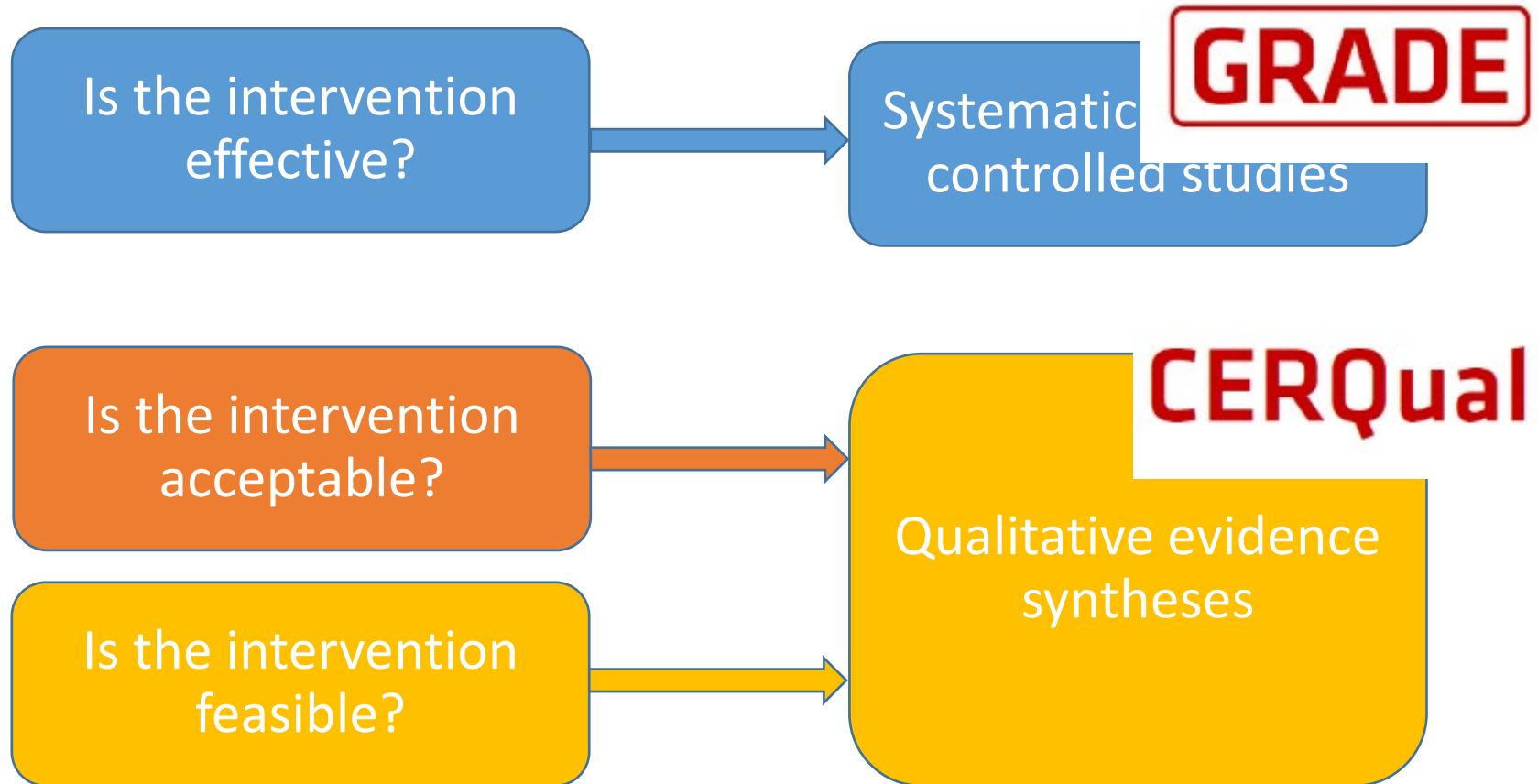
Will it be acceptable to service users and others?

Will it be feasible to implement?

# What kinds of evidence are needed to address these questions?



# How can we assess how much confidence to place in this evidence?



# What does the CERQual approach do?

- CERQual aims to transparently assess and describe how much confidence to place in findings from qualitative evidence syntheses



# When and where do we use CERQual?

- CERQual meant to be applied in all types of QES (although so far mainly used for more descriptive findings)
- CERQual assessments designed for use in all types of decision making processes

# What do we mean by 'confidence in the evidence'?

The extent to which a review finding is a reasonable representation of the topic of interest

- i.e. the topic of interest is unlikely to be substantially different from the research finding

# CERQual is applied to individual synthesis findings

- In the context of a qualitative evidence synthesis, a finding is...:

...an analytic output that describes a phenomenon (topic) or an aspect of a phenomenon (topic)

- Findings from qualitative evidence syntheses can be presented as:
  - themes, categories or theories
  - As both descriptive or more interpretive findings



## Example of a finding

- **Finding 1: Parents liked to receive information about vaccination before the baby was born for reasons such as fatigue and time limitations for reading about vaccination after delivery (low confidence).**
- **Finding 10: Parents found it difficult to find a vaccination information source that they perceived as impartial or providing balanced information (high confidence).**

# Relationship to GRADE

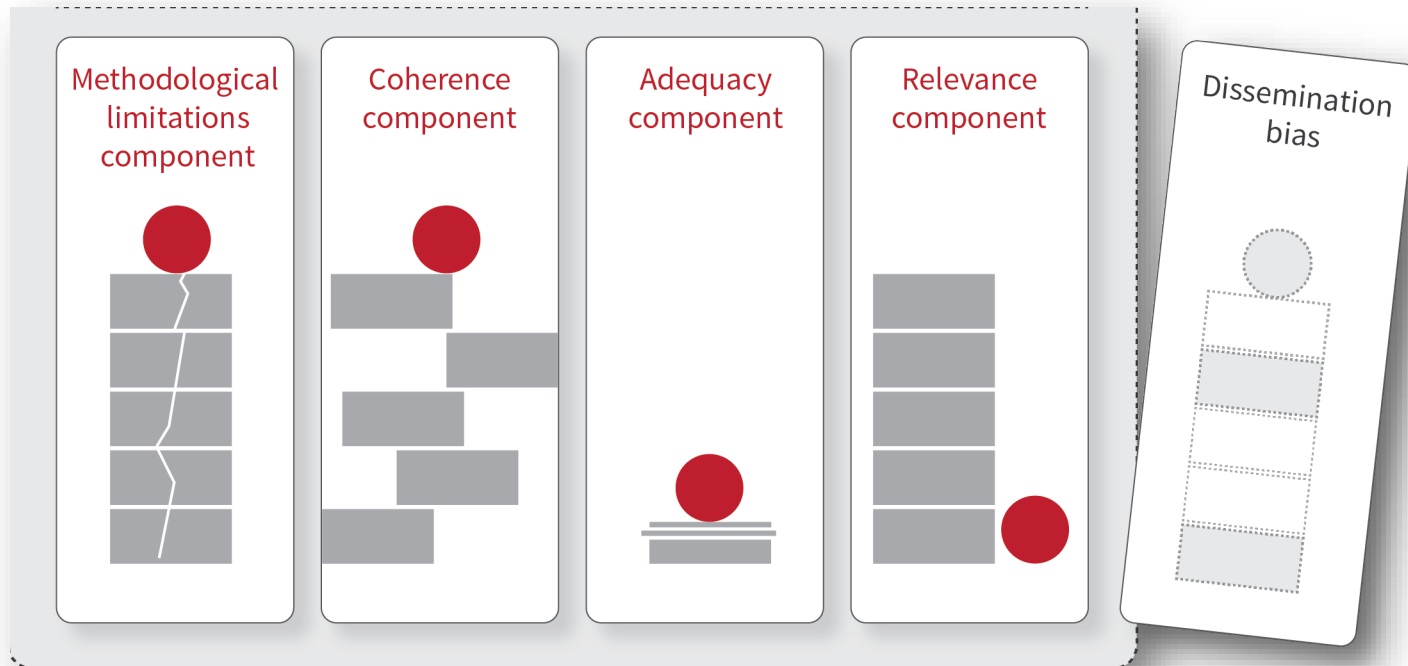
- CERQual is part of the GRADE Working Group
- CERQual shares the same aim as the GRADE tool used to assess the certainty of evidence of *effectiveness*
- However, CERQual is grounded in the principles of qualitative research

**GRADE** working group



**GRADE** CERQual

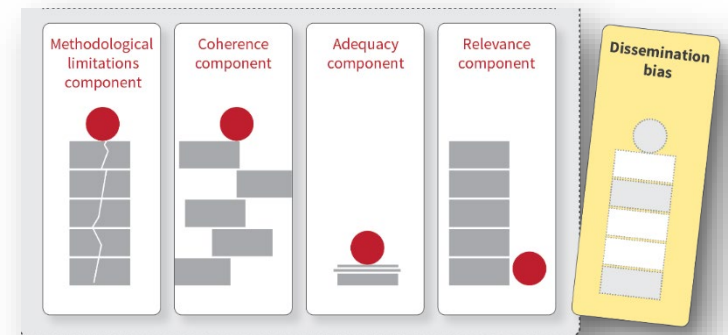
# The GRADE-CERQual approach



# Dissemination bias in qualitative research

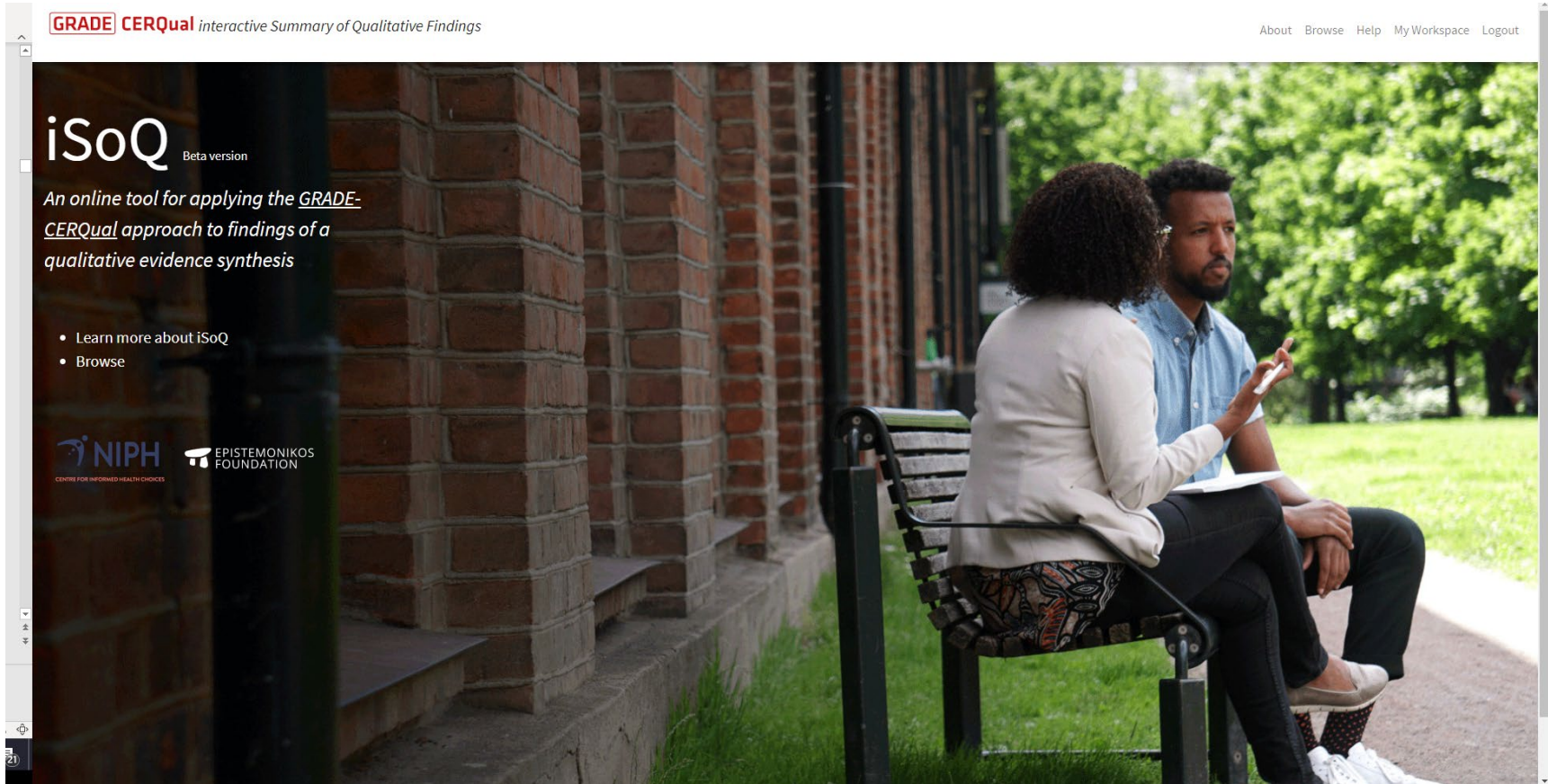
Toews I, Glenton C, Lewin S, Berg RC, Noyes J, Booth A, Marusic A, Malicki M, Munthe-Kaas HM, Meerpohl JJ. **Extent, Awareness and Perception of Dissemination Bias in Qualitative Research: An Explorative Survey.** *PLoS One*, 2016 Aug 3;11(8)

Toews I, Booth A, Berg RC, Lewin S, Glenton C, Munthe-Kaas HM, Noyes J, Schroter S, and Meerpohl JJ. **Dissemination Bias in Qualitative Research: conceptual considerations.** *Journal of Clinical Epidemiology* 2017 Aug; 88:133-139.



**GRADE** CERQual

Also available in an interactive online format



The screenshot shows a web browser window displaying the iSoQ interactive summary of qualitative findings. The page features a navigation menu at the top right with links for 'About', 'Browse', 'Help', 'MyWorkspace', and 'Logout'. The main content area is overlaid on a background image of two people sitting on a bench outdoors. The text on the page includes the title 'iSoQ Beta version', a subtitle 'An online tool for applying the GRADE-CERQual approach to findings of a qualitative evidence synthesis', and a list of links: 'Learn more about iSoQ' and 'Browse'. At the bottom left, there are logos for NIPH (Centre for Informed Health Choices) and the Epistemonikos Foundation.

GRADE CERQual interactive Summary of Qualitative Findings


About Browse Help MyWorkspace Logout


# iSoQ

Beta version

An online tool for applying the GRADE-CERQual approach to findings of a qualitative evidence synthesis

- Learn more about iSoQ
- Browse

 NIPH  
CENTRE FOR INFORMED HEALTH CHOICES

 EPISTEMONIKOS  
FOUNDATION



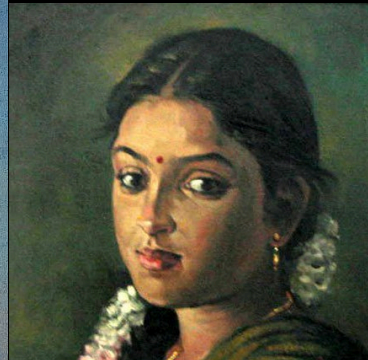
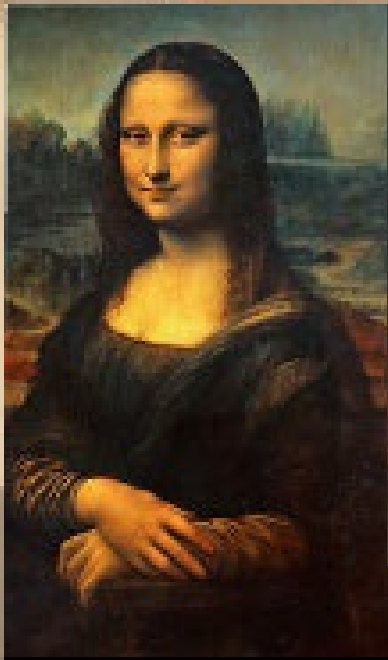
CERQual made easy

## Scenario:

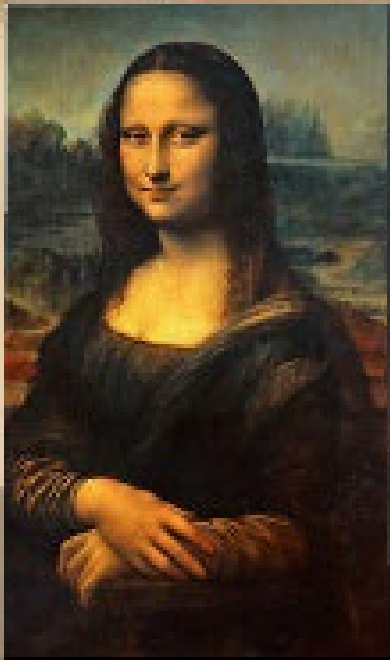
Decision makers are considering a new healthcare service. But before they introduce it, they want to know whether those affected, including patients and healthcare workers, are likely to accept it.

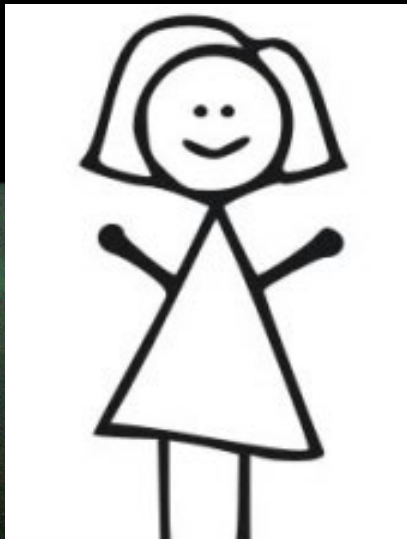
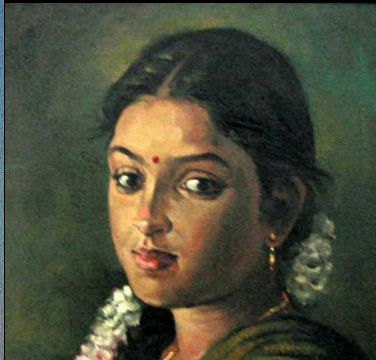
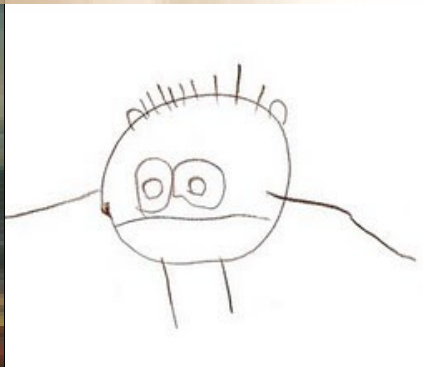
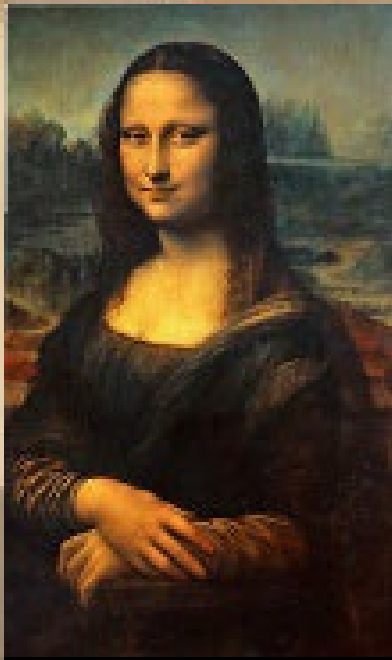
A review of qualitative research is commissioned and conducted

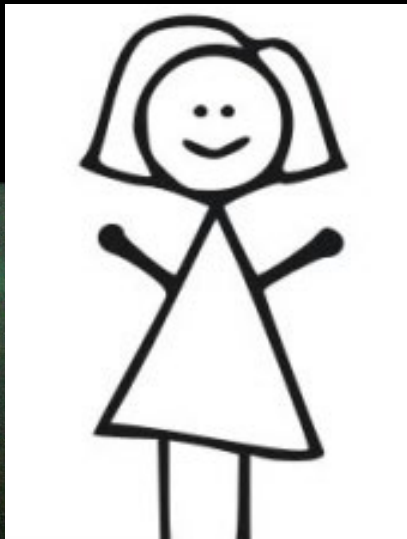
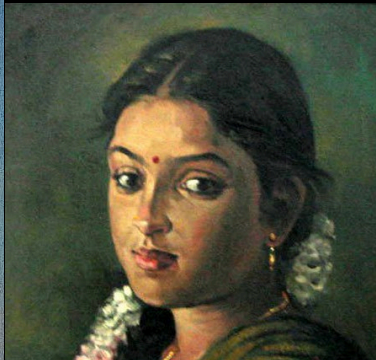
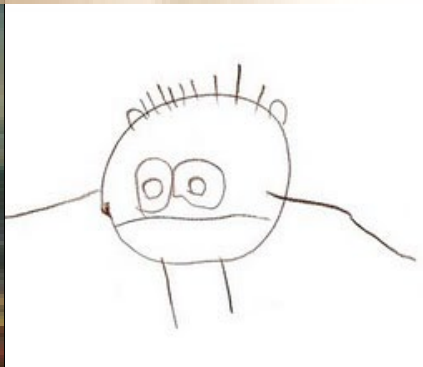
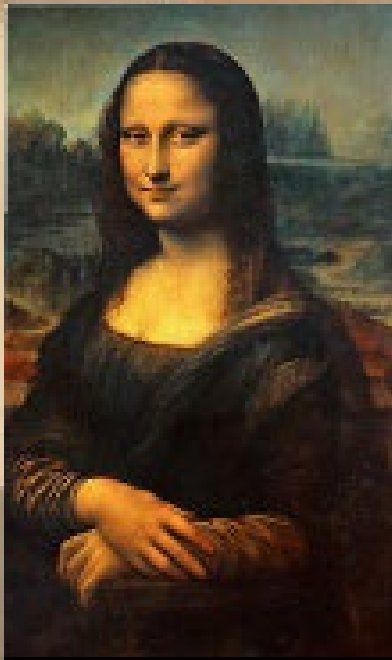
One of the findings describes women's experiences of the intervention

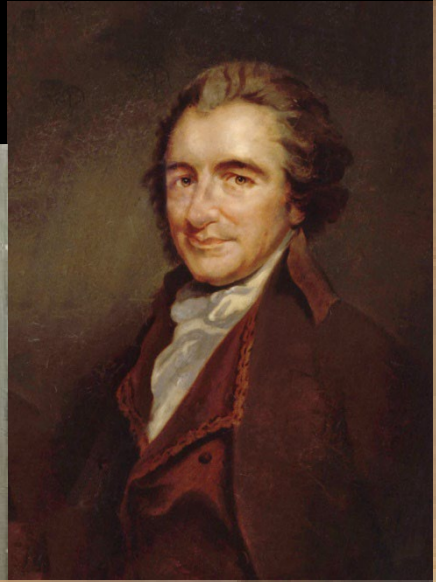
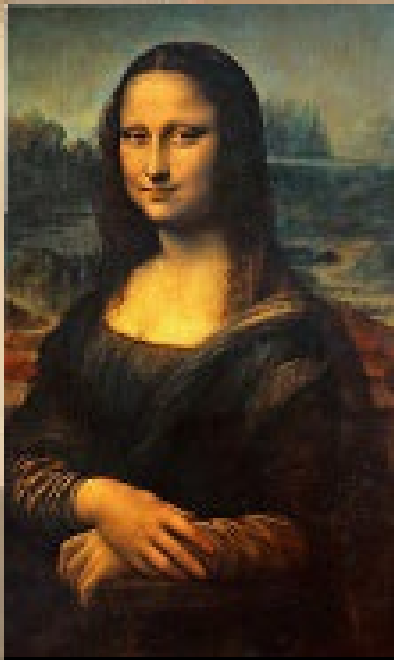


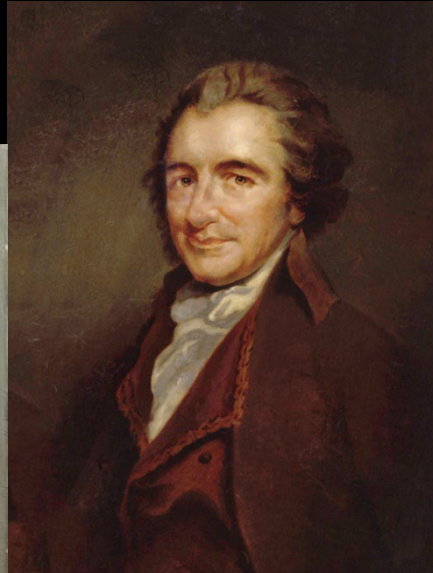
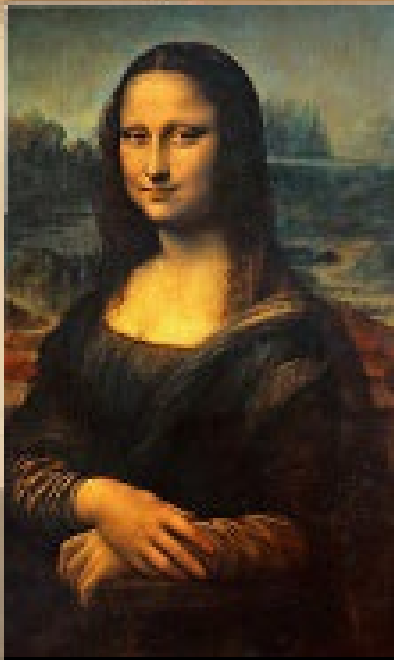


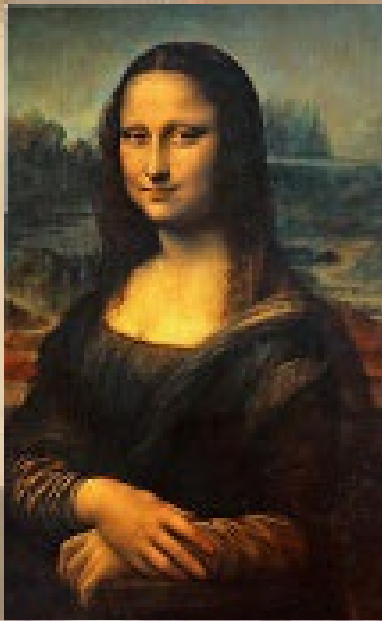


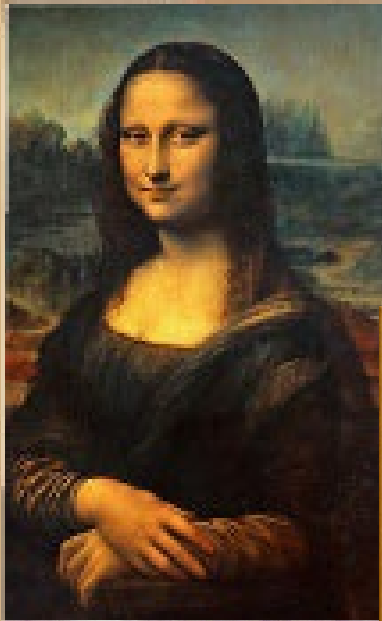


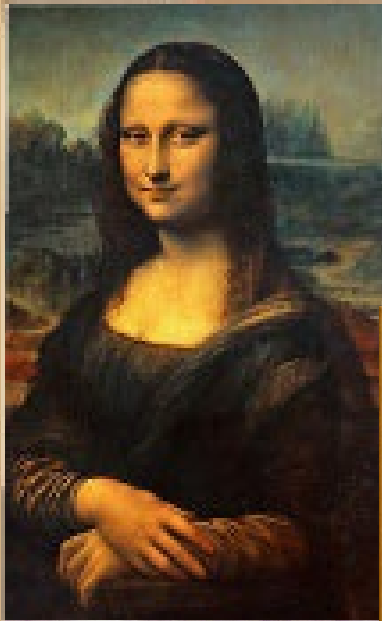




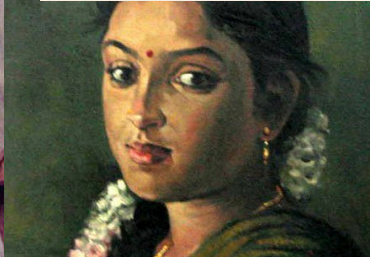
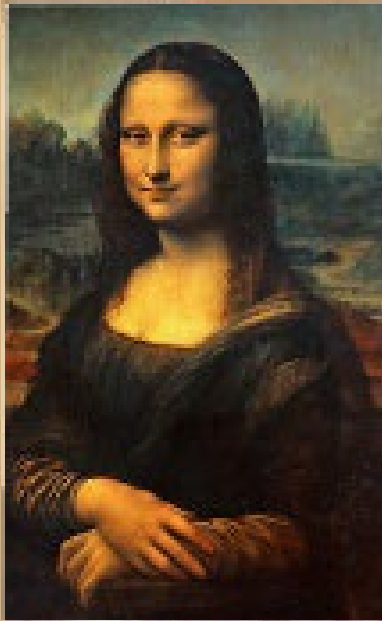


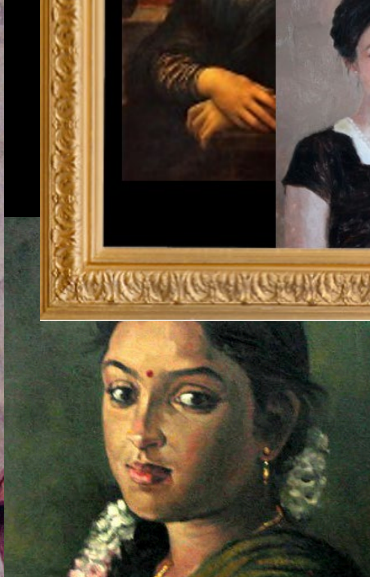
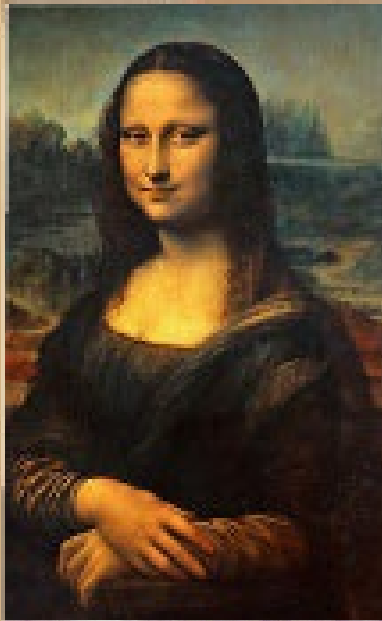


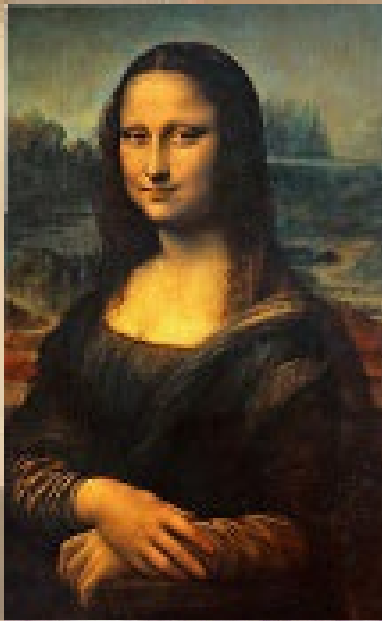




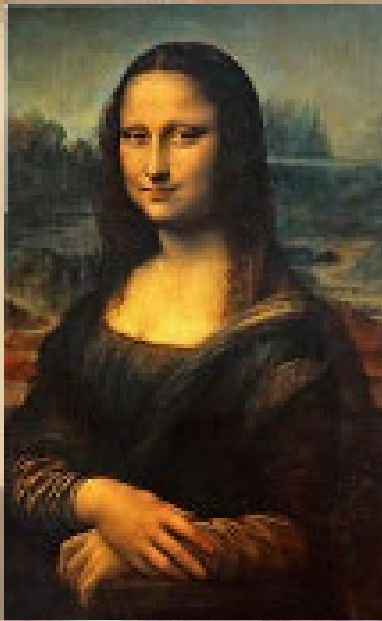


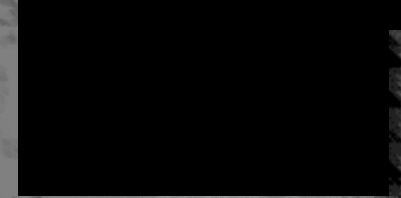
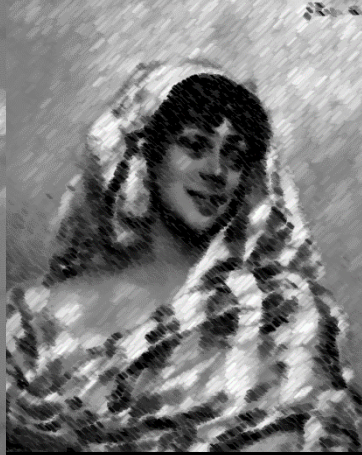










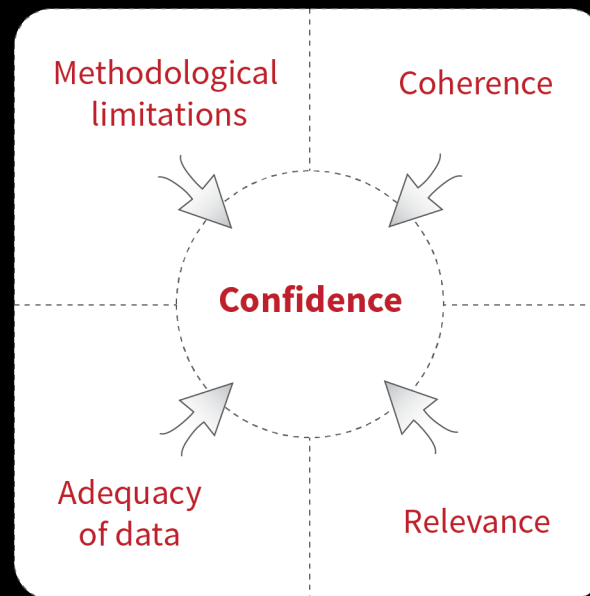


For each CERQual component, you need to identify your concerns and whether these are:

- No or very minor concerns
- Minor concerns
- Moderate concerns
- Serious concerns

After assessing all four components an overall assessment is made, expressed as either:

- High confidence
- Moderate confidence
- Low confidence
- Very low confidence







Questions |

# CERQual workshop exercises

**GRADE CERQual**

# Scenario

- You are carrying out research on how parents and caregivers want to be communicated with about childhood vaccinations and the type of information that they would like to receive
- As part of this work, you carry out a systematic review of qualitative research



# Scope of the review

- The review aims to explore parents' and informal caregivers' views and experiences regarding communication about childhood vaccinations and the manner in which it is communicated.
- The review includes studies:
  - from any country
  - that explore parents' and other caregivers' views and experiences regarding communication about childhood vaccinations and the manner in which it is communicated
  - that use qualitative methods for data collection and qualitative methods for data analysis

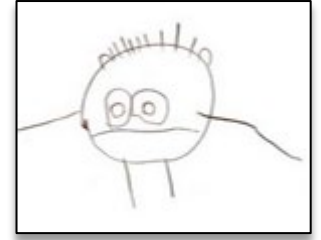
# The review findings

- The review includes 11 qualitative studies.
- The review presents a number of findings, including the following:

Parents would like to receive vaccination information in good time before each appointment, including all follow up appointments, in order to reflect on the content and prepare questions for the vaccination visit

This finding was based on data from six of the included studies. The remaining five studies did not offer any data on experiences with timing of vaccination information

# Component 1: Methodological limitations



The extent to which there are *problems in the design or conduct* of the primary studies supporting a review finding

# Concerns about methodological limitations

- We are less confident that the finding reflects the topic of interest when:

the primary studies underlying a review finding are shown to have **problems in the way they were designed or conducted**

- A critical appraisal tool for qualitative studies should be used to make this assessment
  - Typically includes appraisals of how the participants and settings were selected, how data was collected and analysed, researcher reflexivity etc
- Currently no widespread agreement about the best tool – research agenda in place



# Group work (methodological limitations)

The review finding is assessed as having no or very few concerns with methodological limitations.



# Component 2: Relevance



The extent to which the body of evidence from the primary studies supporting a review finding is *applicable to the context* specified in the review question

# Concerns about relevance

We are less confident that the finding reflects the topic of interest when:

the contexts of the primary studies underlying a review finding are **substantively different from the context** of the review question



# Assessing relevance - examples

- **Indirect relevance, example:** One included study focused on children from 3-5 years while the review was interested in on age group 10-18 years
- **Partial relevance, example:** Several of the included studies focused on girls/asylum seekers, while the review was interested in all children
- **Uncertain relevance, example:** The ages of the children in the studies was unclear

# Group work (relevance)

1. Assess the relevance of the studies based on the information in Table 2
2. Decide whether any concerns you have are serious enough to reduce your confidence in the review finding
3. Note your provisional assessment in Table 3
4. If time, discuss how these concerns could be addressed in future research

# Group work (relevance)

## ***Tips***

Is there anything about the studies that raises concerns about relevance? For example:

- Time (for example, were the studies conducted too long ago to be relevant?)
- Setting (for example, country of the study, place of care, rural vs. urban)
- Treatment (for example, is the treatment in the study different from the one specified in the review question?)
- Perspective (for example, do we only have information about a subset of the population of interest?)

# Component 3: Coherence



An assessment of how clear and cogent the fit is between the data from the primary studies and the review finding\*

\*Has been updated since PLOS article

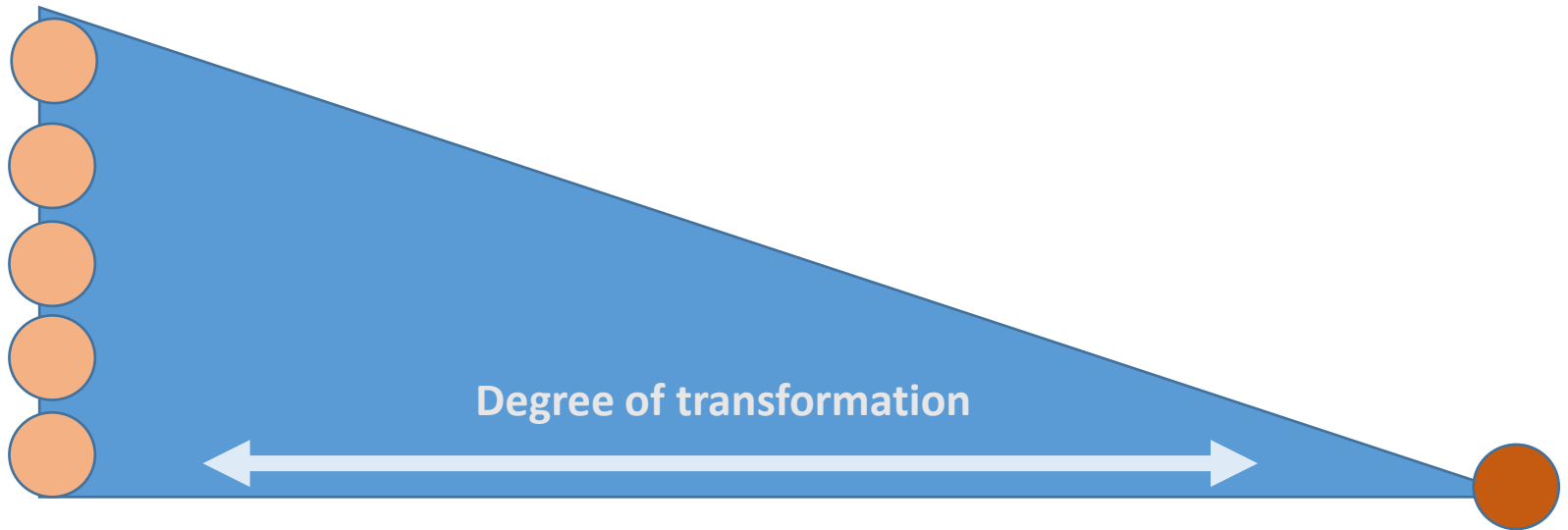
# Concerns about coherence

We are less confident that the finding reflects the topic of interest when:

- Some of the data contradicts the finding
- Some of the data is ambiguous



# Assessing coherence – transformation of the data





# Assessing coherence of the review finding: Dealing with variation or ambiguity in the data

Review finding

## Option 1:

*Most children preferred staff to have week-long shifts because they liked the stability and structure and the opportunity to form attachment. Children in one study preferred short shifts, but these children had poor relationships with their caregivers. In one study the experiences of the children were unclear.*

## Option 2:

*In situations where children have good relations with their caregivers, they prefer longer shifts because these provide stability and structure and opportunities to form attachment.*

Coherence

**No** concerns about coherence

Minor concerns about **coherence**. The finding is broadly supported by the data. However, one study gave a contradictory account of children's experiences, although this may be explained by their poor relationship with caregivers. In another study, children's experiences were unclear.

# Assessing coherence of the review finding: Dealing with variation or ambiguity in the data

Review finding

## *Option 1:*

*Most children and preferred staff to have week-long shifts because they liked the stability and structure and the opportunity to form attachment. Children in one study preferred short shifts, but these children had poor relationships with their caregivers. In one study the experiences of the children was unclear.*

## *Option 2:*

*In situations where children have good relations with their caregivers, they prefer longer shifts because these provide stability and structure and opportunities to form attachment.*

- Why would you choose to write a finding in the format of option 1 rather than option 2?

# Group work (coherence)

1. Assess the coherence of the finding based on the information in Table 2
2. Decide whether any concerns you have are serious enough to reduce your confidence in the review finding
3. Note your provisional assessment in Table 3
4. If time, discuss how these concerns could be addressed in future research

# Group work (coherence)

## Tips:

- Consider the following threats to coherence:
  - Varied data - Some elements of the underlying body of evidence might not fit the description of the key patterns captured in the review finding.
  - Ambiguous data - Key aspects of the underlying body of evidence may be vaguely defined or described, or defined in different ways.
- Varied data or ambiguous data must either be reflected in the review finding or discussed and represented in the assessment of coherence.

# Component 4: Adequacy of data



The degree of *richness* and *quantity of data* supporting a review finding

# Concerns about adequacy of data

We are less confident that the finding reflects the topic of interest when:

the data underlying a review finding are not sufficiently rich or only come from a small number of studies or participants

- Review authors need to make a judgement on what constitutes data that are not sufficiently rich or too small a number in the context of a specific review finding



# Assessing adequacy of data: Examples

- Example 1: The finding was based on very thin data, with very little explanation of the reasons behind this preference
- Example 2: The finding was based on only one study, although this study was very detailed with thick description

# Group work (adequacy)

1. Assess the richness and quantity of the data that is presented in Table 2
2. Decide whether any concerns you have are serious enough to reduce your confidence in the review finding
3. Note your provisional assessment in Table 3
4. If time, discuss how these concerns could be addressed in future research



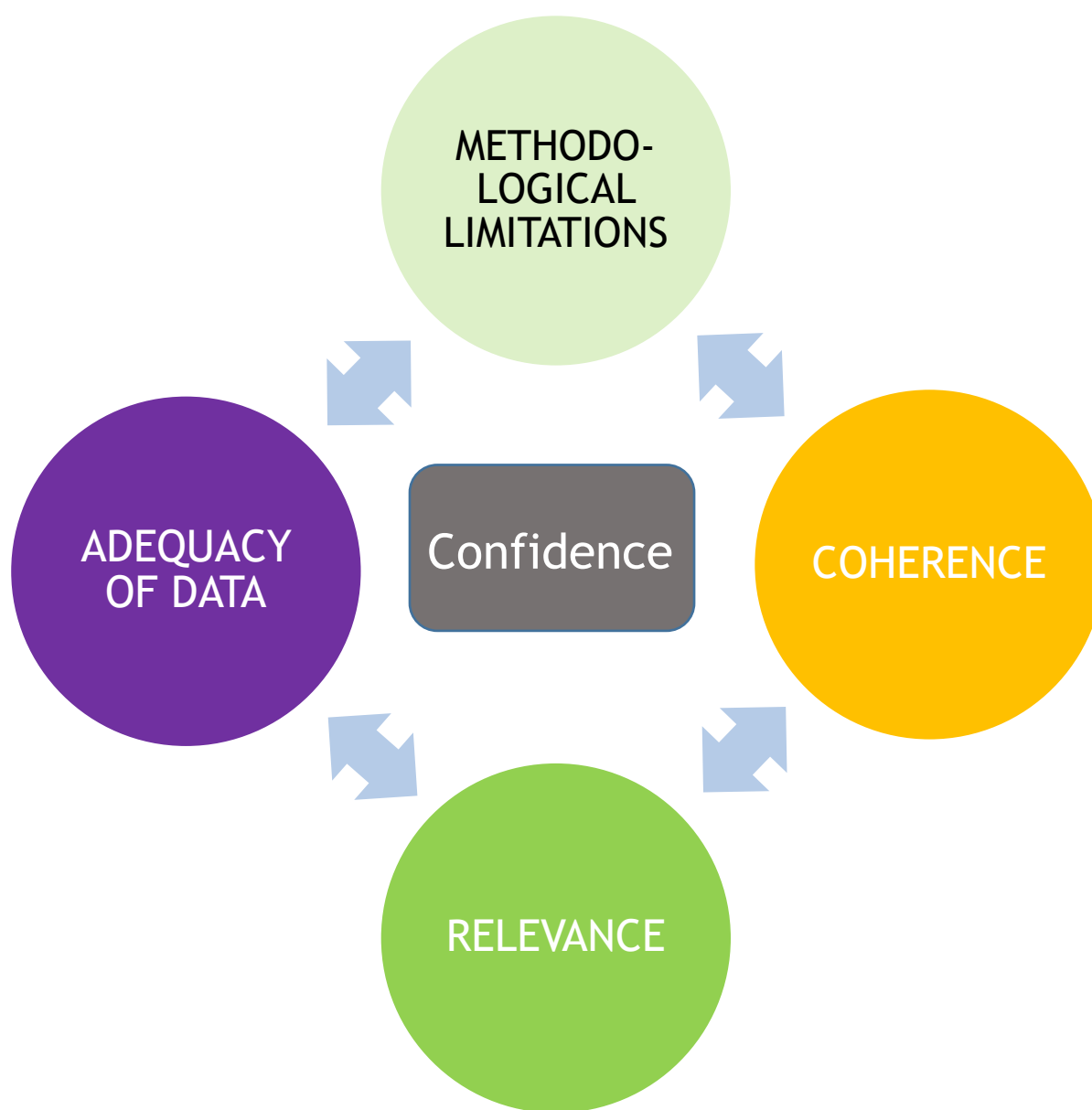
# Group work (adequacy)

## *Tips*

You may have concerns regarding the adequacy of the data if:

- there are insufficient details to gain an understanding of the topic described in the review finding
  - the review finding is supported by data from only one or very few studies, participants or observations
- 
- Review findings that are simple and primarily descriptive: relatively superficial data may be sufficient.
  - Review finding that are complex or explanatory: you may have concerns if the finding is based on data that is too superficial to allow a sufficient exploration of the topic

Making an overall assessment



After assessing each of the separate components, we make an overall judgement of the confidence in each review finding

# Confidence can be assessed as high, moderate, low or very low

- **High confidence:** It is highly likely that the review finding is a reasonable representation of the topic of interest
- **Moderate confidence:** It is likely that the review finding is a reasonable representation of the topic of interest
- **Low confidence:** It is possible that the review finding is a reasonable representation of the topic of interest
- **Very low confidence:** It is not clear whether the review finding is a reasonable representation of the topic of interest

# Group work (overall assessment)

- Make an overall assessment based on your assessment of the four components.
- We start with having “high confidence” in a review finding. Downgrade your confidence if you have serious concerns about one or more of the components.
- This assessment is a judgement. Be transparent and explain your assessment.
- If time, specify how any concerns could be addressed in future research

# Group work (overall assessment)

## *Tips*

- While you may have concerns about a single component, you may be uncertain about whether these concerns are serious enough to lower your confidence. Where you have some (but not very serious) concerns about more than one component, one option is to downgrade once (i.e. from “high confidence” to “moderate confidence”) to reflect your concerns with several CERQual components.

# To learn more about CERQual

- Join the mailing list
- Join the project group
- Read our PLOS paper:  
<http://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1001895>

[GRADECERQual@gmail.com](mailto:GRADECERQual@gmail.com)

[www.cerqual.org](http://www.cerqual.org)

@CERQualNet

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