

BACKGROUND

Overviews of systematic reviews ('overviews') aim to systematically identify and summarise several systematic reviews on a topic. Many published methods papers and guidance describe steps for undertaking overviews of interventions, yet it is uncertain whether these can be applied to other types of overviews. Despite this, other types of overviews are frequently being conducted and used to inform health care decision making and policy.

OBJECTIVE

To describe the key differences between conducting an overview of interventions compared to an overview that is restricted to observational primary studies.

METHODS

We compared guidance for overviews of interventions¹ to a recently conducted overview for an aetiology question. The overview was commissioned by the National Health and Medical Research Council (NHMRC) to inform an update of the 2009 Australian guidance on the health benefits and harms of alcohol consumption (Australian Guidelines to Reduce Health Risks from Drinking Alcohol). A single review was selected for each outcome. It included 38 systematic reviews (for 53 outcomes) on the health effects of varying levels and/or patterns of alcohol consumption. In addition, it aimed to identify gaps in evidence where no systematic reviews were found for an outcome.

RESULTS

We found additional considerations in a number of steps of the overview: objective, selection criteria, inclusion, quality and certainty of evidence. The selection of a single review for inclusion was complicated by criteria such as the adjustment for confounders and lack of Cochrane reviews. In fact, some of the arguably 'best' evidence available for these types of overviews may come from grey literature sources and evidence that may not follow strict systematic review criteria, for example work conducted by the World Cancer Research Fund. The lack of quality assessment in identified reviews was particularly high, with only 18% that assessed the quality of primary studies. No identified reviews conducted an assessment of the certainty of evidence, so a full assessment was required to be conducted for each outcome.

Figure 1. Flowchart of methodological steps for the overview²⁻³

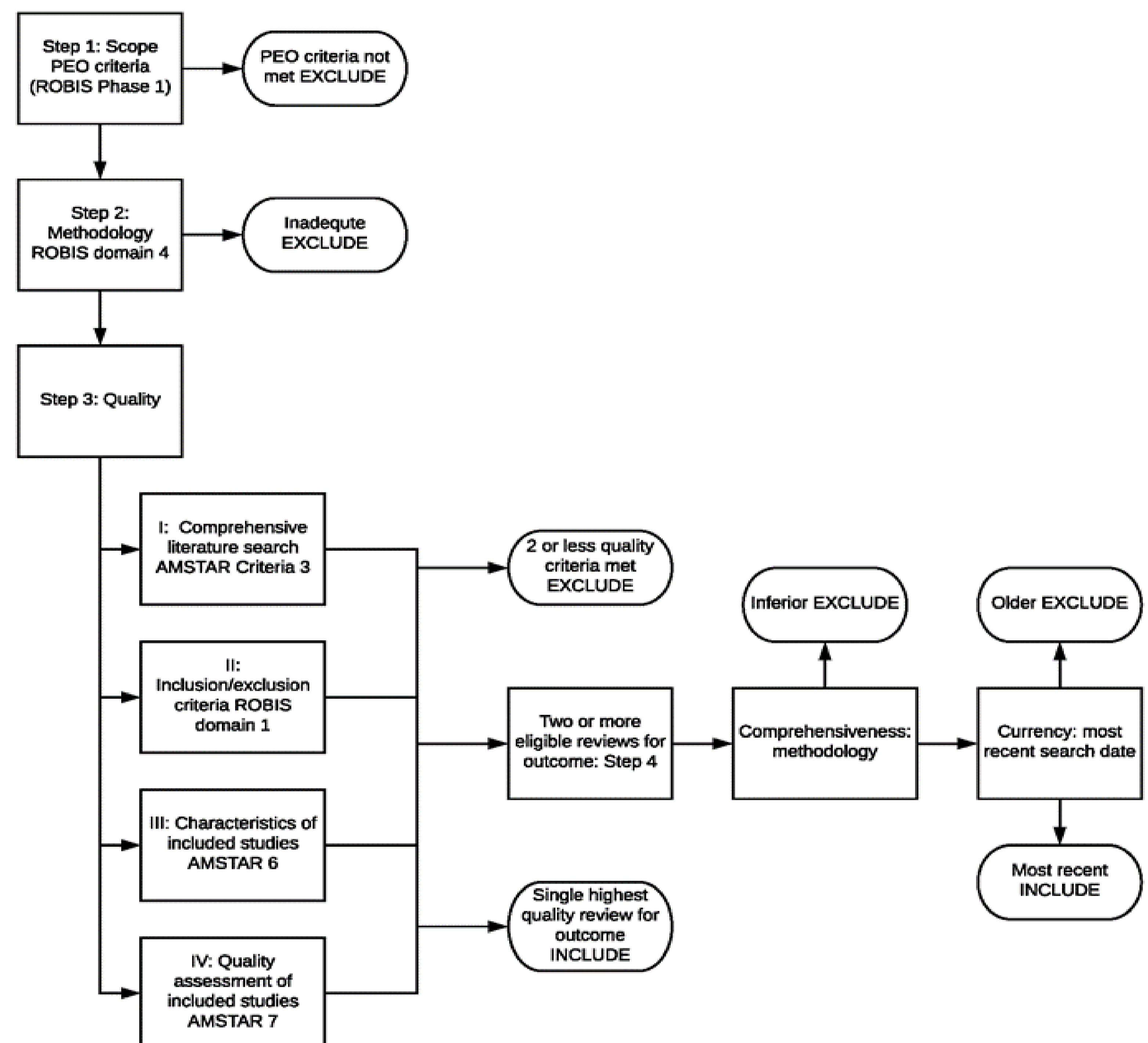


Figure 3: Number of reviews that met each criteria I-IV

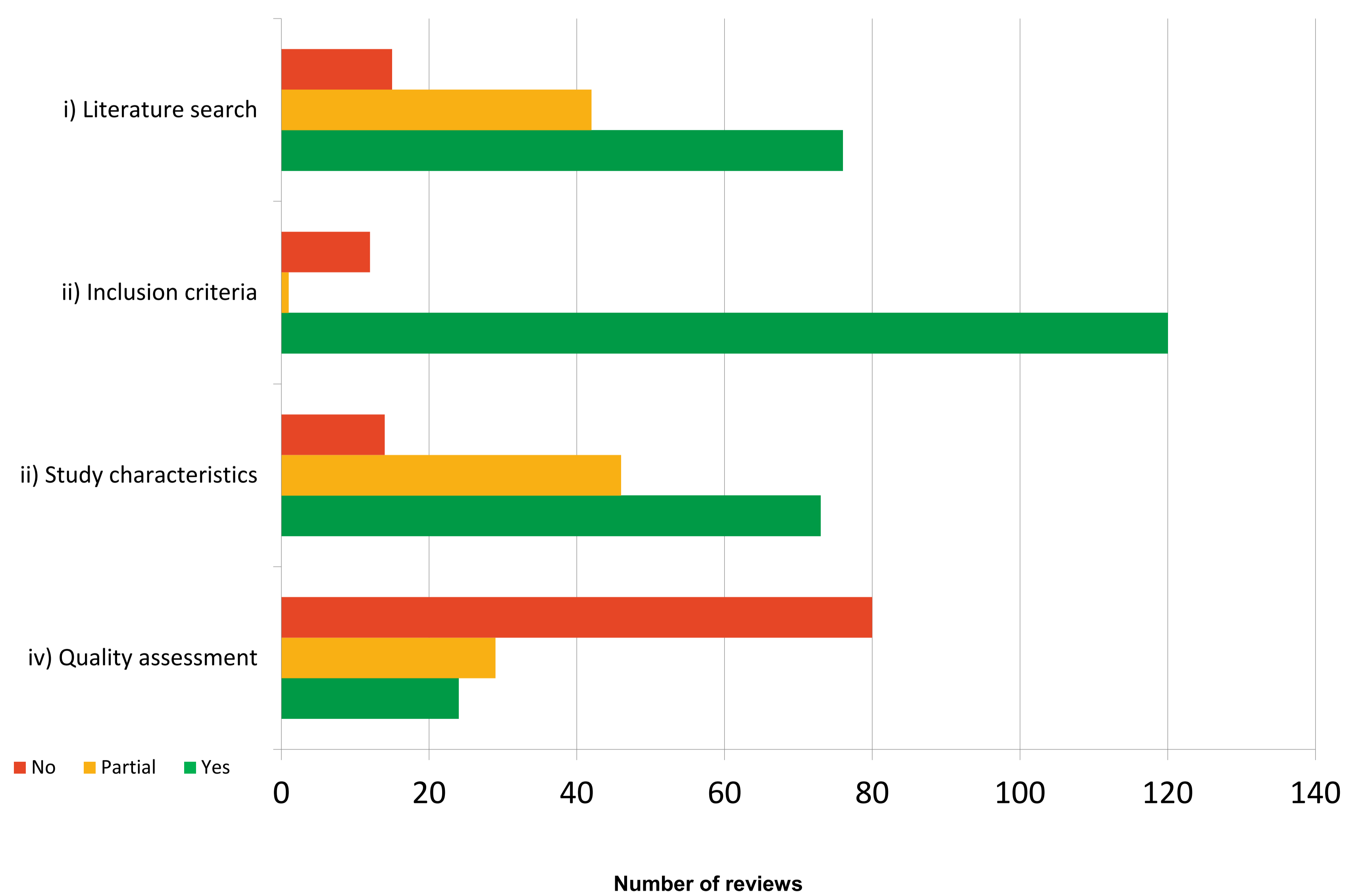
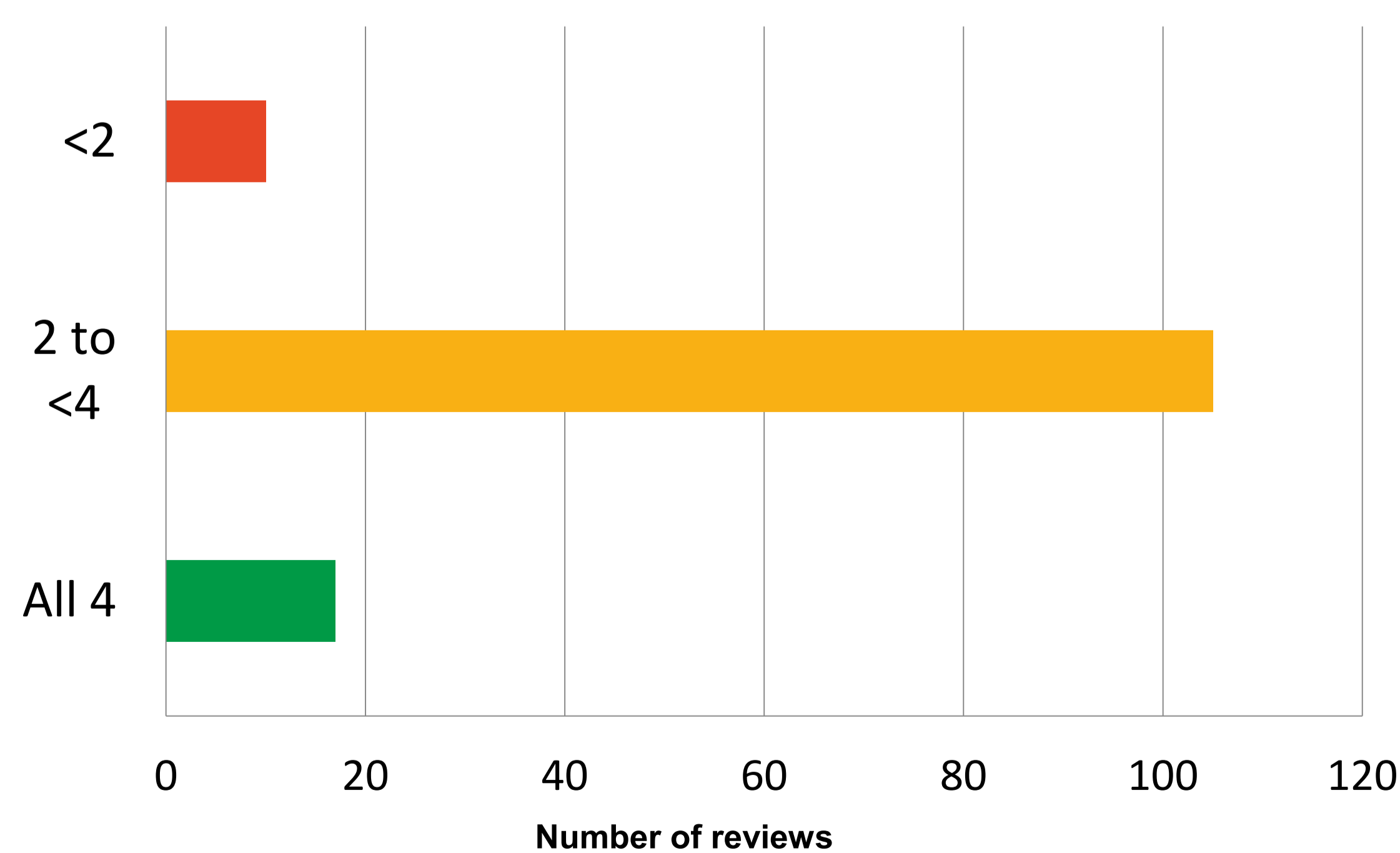


Figure 2: Number of reviews that met minimum (all 4) and lowered (2 to <4) quality criteria



CONCLUSION

We have reported the different methodology considerations for undertaking an overview including observational primary studies, compared to an overview of interventions. We hope this is useful for those undertaking similar overviews, particularly those intending to inform public health guidance and policy.

1. Pollock, M, Fernandes RM, Becker LA, Pieper D, Hartling L. Cochrane Guidance for Overviews of Reviews. London: Cochrane.

2. Shea, B.J., Grimshaw, J.M., Wells, G.A. et al. 2007. Development of AMSTAR: a measurement tool to assess the methodological quality of systematic reviews. BMC Med Res Methodol 7 10.

3. Whiting, P., Savovic, J., Higgins, J.P. et al. 2016. ROBIS: A new tool to assess risk of bias in systematic reviews was developed. J Clin Epidemiol 69 225-234.