Burden of respiratory syncytial virus diseases among under 5 children in Sub-Saharan Africa: *A systematic review and meta-analysis*

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- In sub-Sahara African countries, approximately **312, 417** children under five died in 2016, which is 47.9 % of global under five deaths attributable to lower respiratory infections.
- we conducted a systematic review and meta-analysis of case–control studies to estimate the etiological role of RSV to ALRIs in under 5 years children in sub-Saharan Africa.

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- The study protocol has been registered – PROSPERO with registration code CRD42022361757
- **Inclusion and exclusion criteria**
  - We included studies that fulfilled our strict eligibility criteria
- **statistical analysis** were conducted using STATA version 17 software

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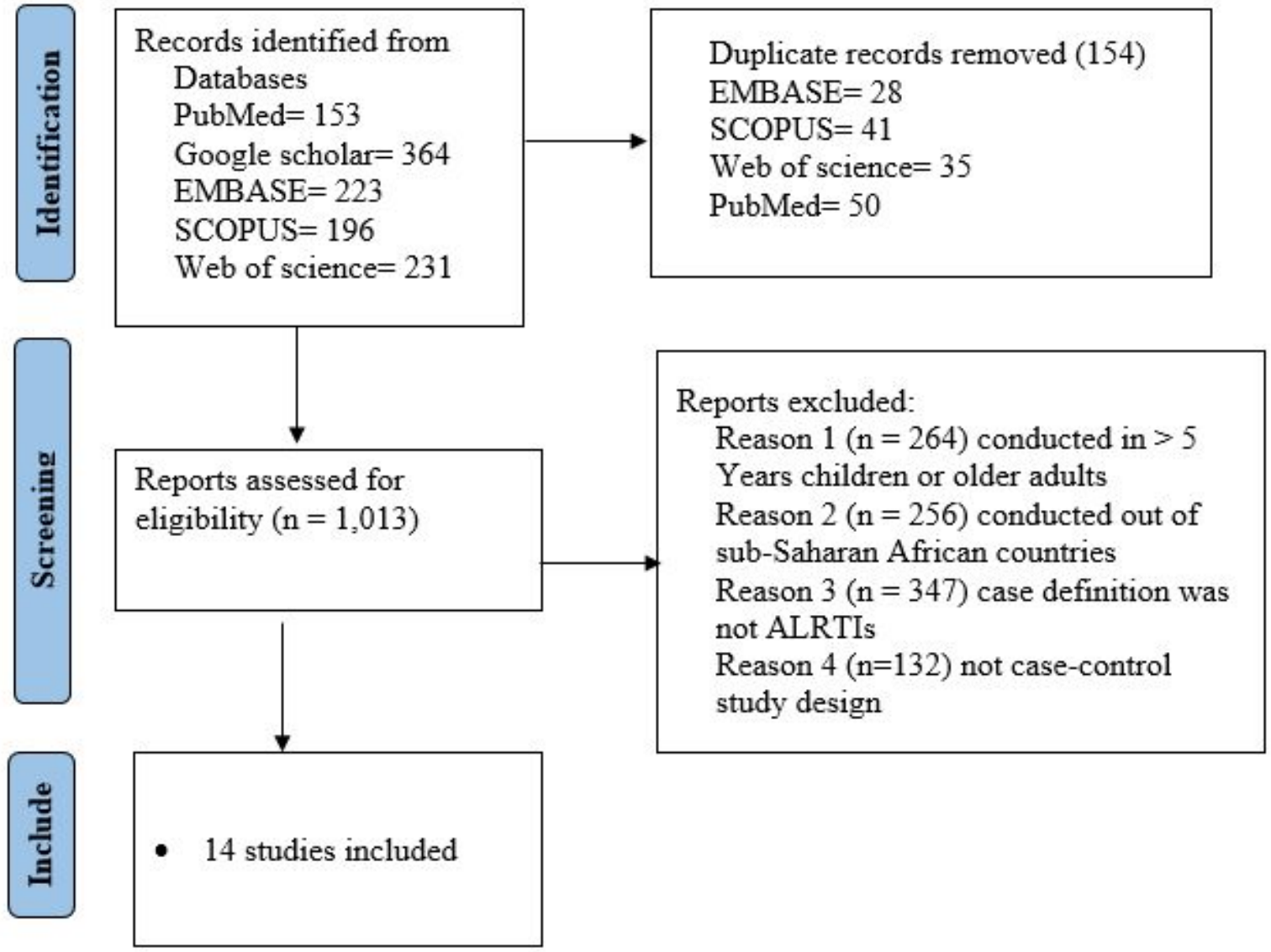
Figure 1 : PRISMA flow diagram showing the selection process of eligible articles for systematic review and meta-analysis



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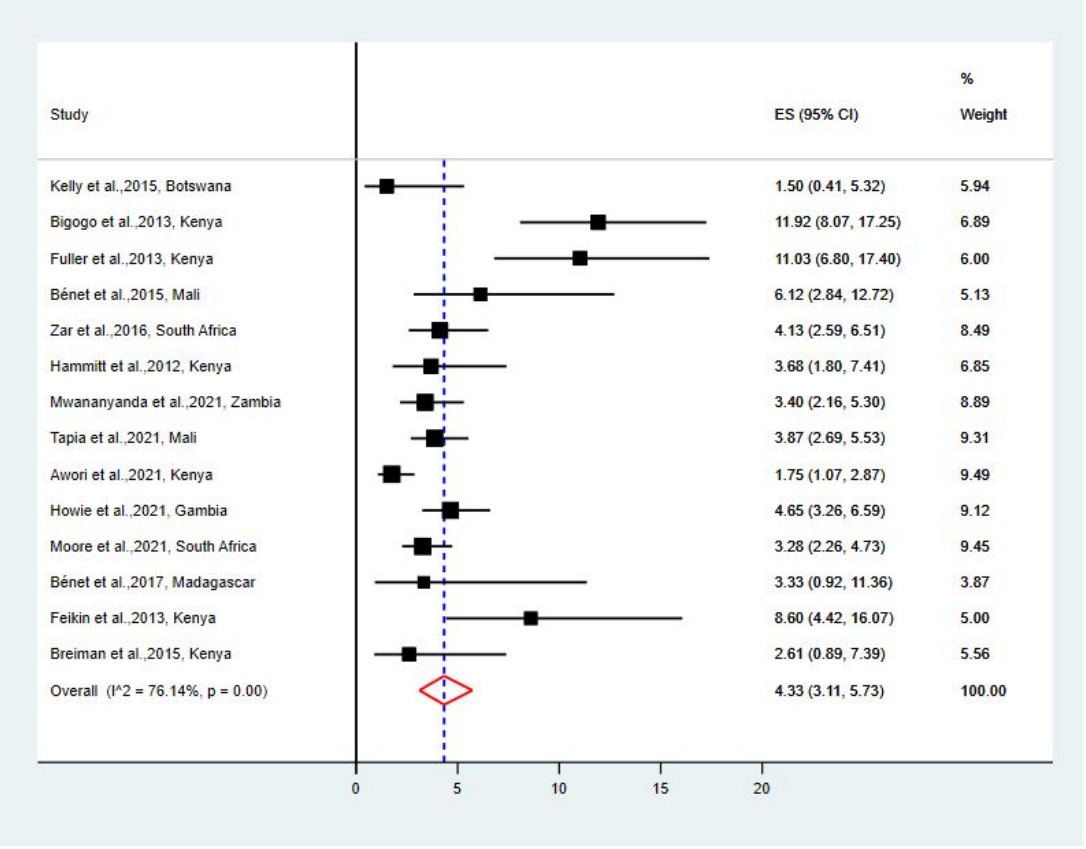
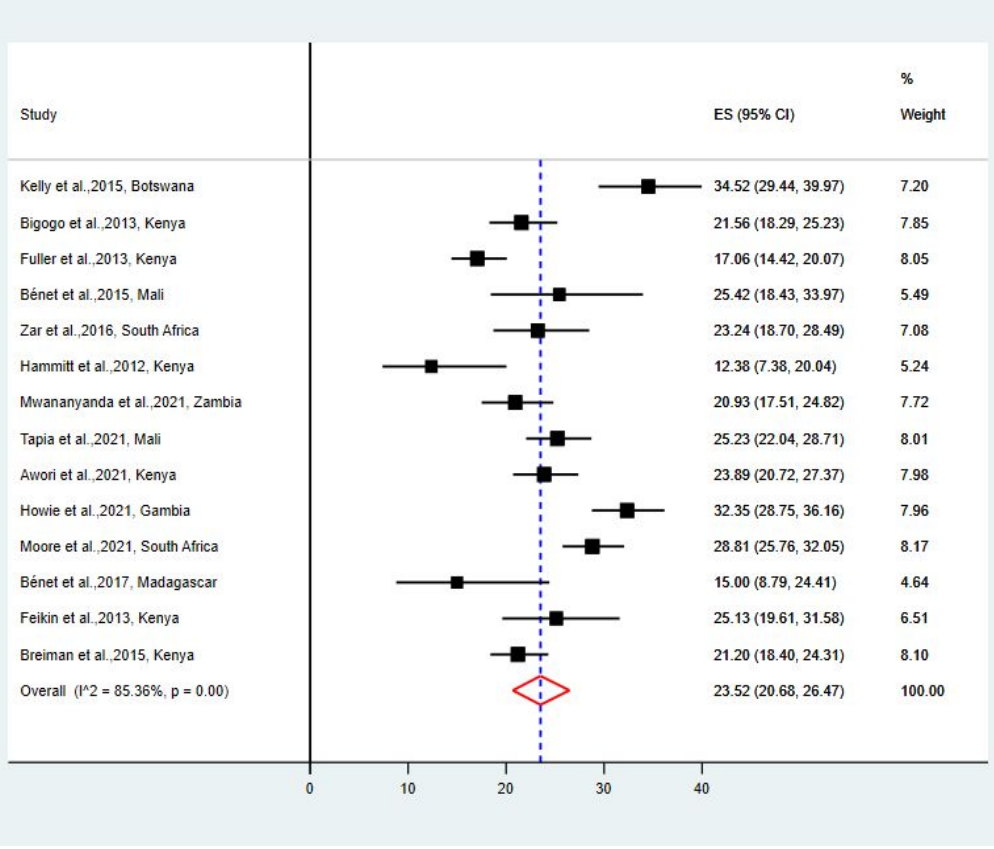
The Pooled prevalence of RSV among controls



The Pooled prevalence of RSV among cases/ALRIs



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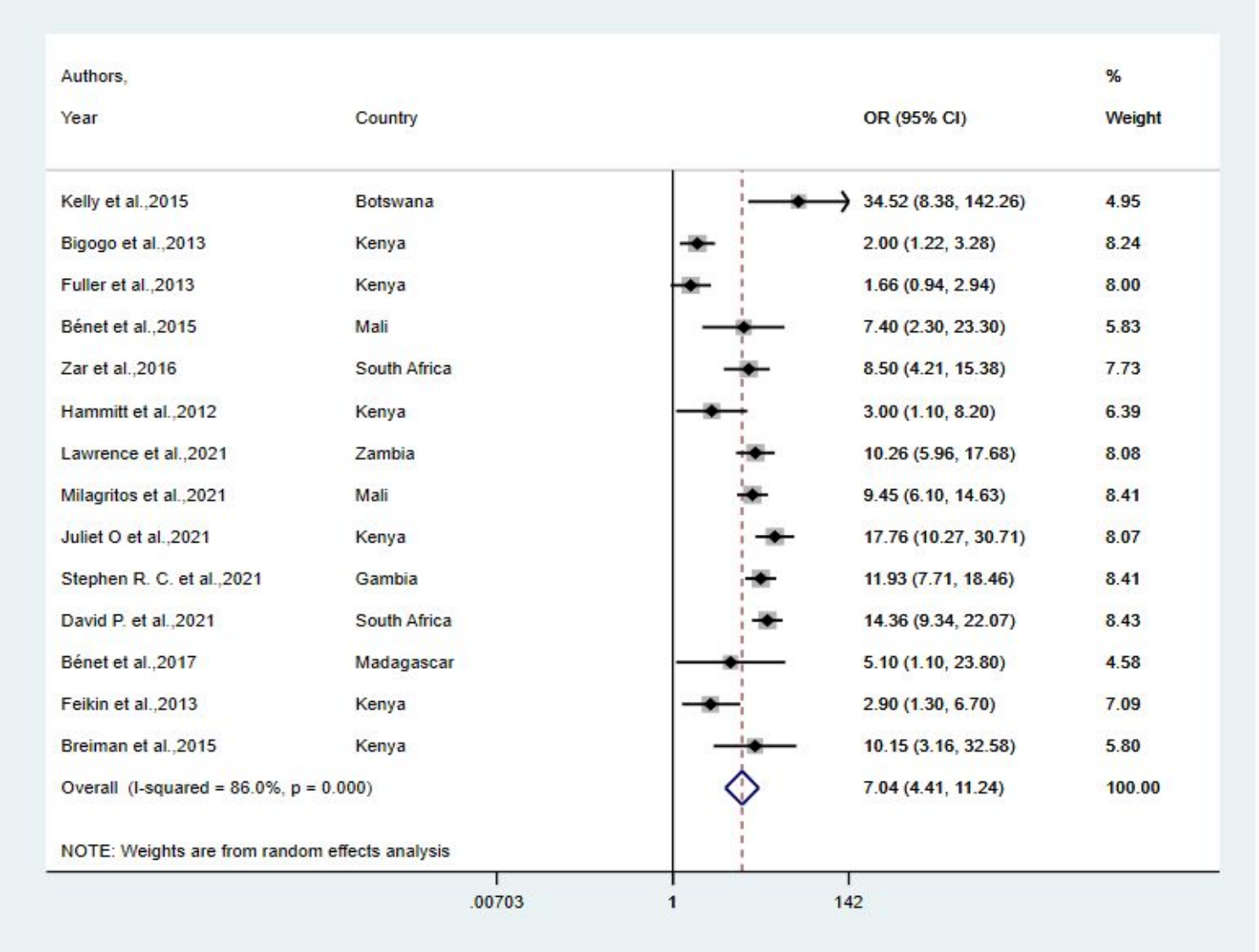
The pooled OR was **7.04 [95% CI (4.41-11.24)],** indicating a significant association between RSV and ALRIs in children in sub-Saharan Africa.



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Attributable fraction among the exposed (AFE)	population attributable fraction (PAF)
85.8% [95% CI (77.3-91.1)]	**20.2%** [95% CI (16-24.1)]
shows clear associations between this virus and ALRI hospitalization in young children.	indicates the potential for substantive reductions in the number of ALRI cases in young children using preventive measures such as vaccination.

Outline

Heliyon

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Thank you so much