Prevalence and incidence of drug-resistant tuberculosis among contacts of patients with drug-resistant tuberculosis: A systematic review and meta-analysis

P1-L4

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1. High prevalence and incidence of DR-TB were reported among DR-TB contacts.
2. Differences in prevalence and incidence rates are observed across different regions and age groups.
3. Contact tracing is essential for DR-TB prevention and curb the spread of DR-TB.

BACKGROUND

- Tuberculosis (TB) burden among contacts of drug-susceptible (DS-TB) patients is well studied.
- However, there is a lack of updated evidence on the prevalence and incidence among drug-resistant TB contacts.
- This systematic review and meta-analysis aimed to quantify the prevalence and incidence among contacts of DR-TB patients.

METHODS

- We searched Medline, Embase, Web of Science, Scopus, and CINHAL)
- A random effect meta-analysis was conducted for effect estimates.
- Higgins I2 statistics were used to assess the presence of heterogeneity between the included studies.
- Visual inspection of the funnel plots and Egger regression tests were used to assess publication bias.

RESULTS

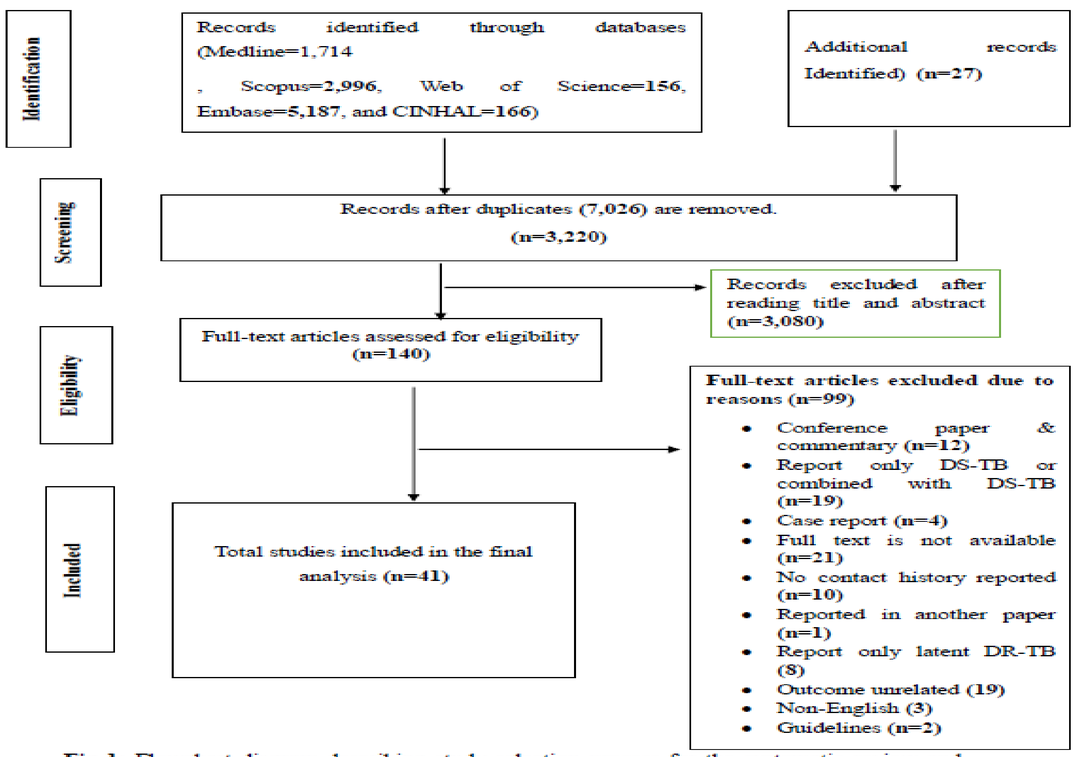

Fig 1: Flowchart diagram describing study selection process for the systematic review and meta-analysis.

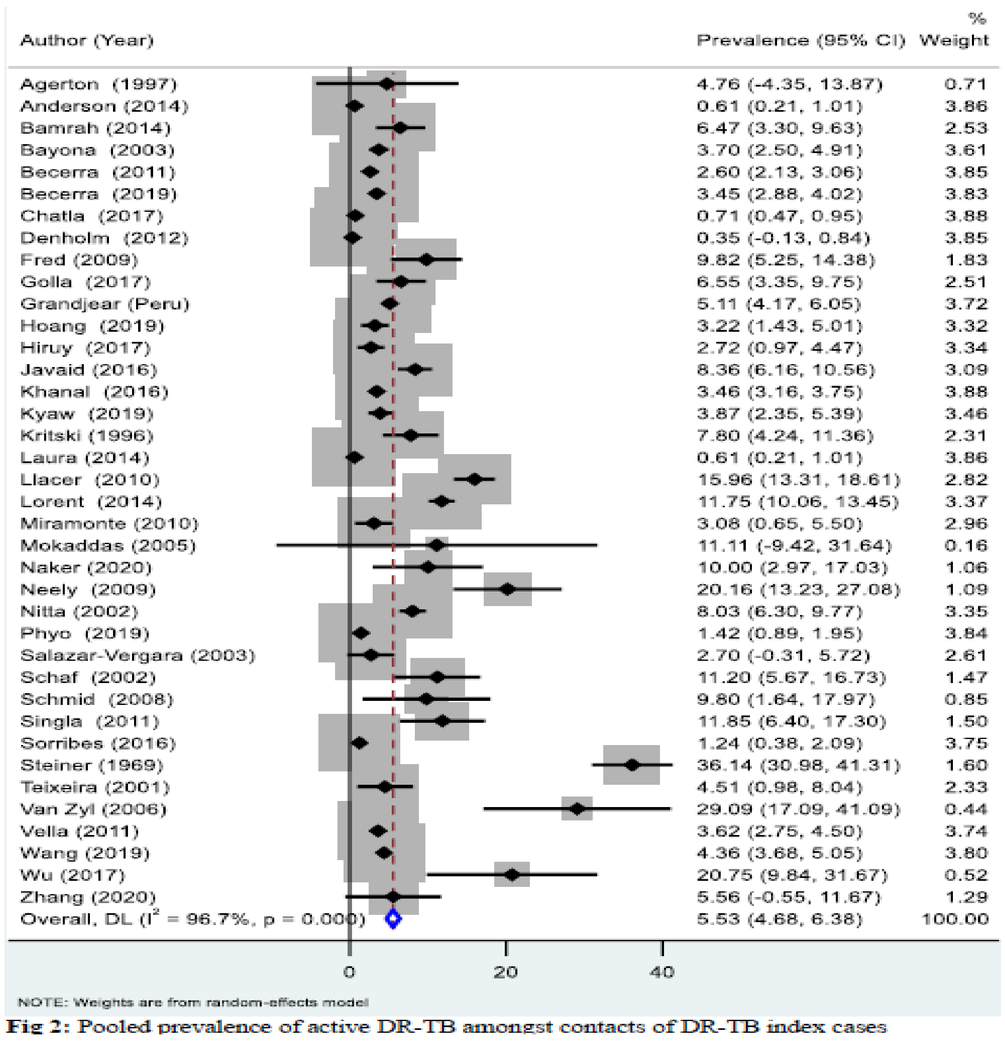

Fig 2: Pooled prevalence of active DR-TB amongst contacts of DR-TB index cases

RESULTS CONTINUED

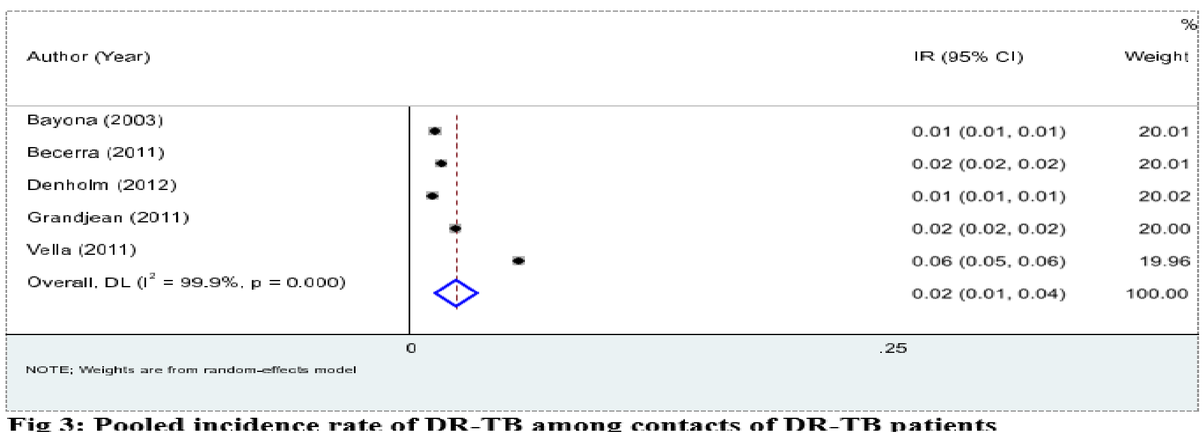

Fig 3: Pooled incidence rate of DR-TB among contacts of DR-TB patients

RESULTS CONTINUED

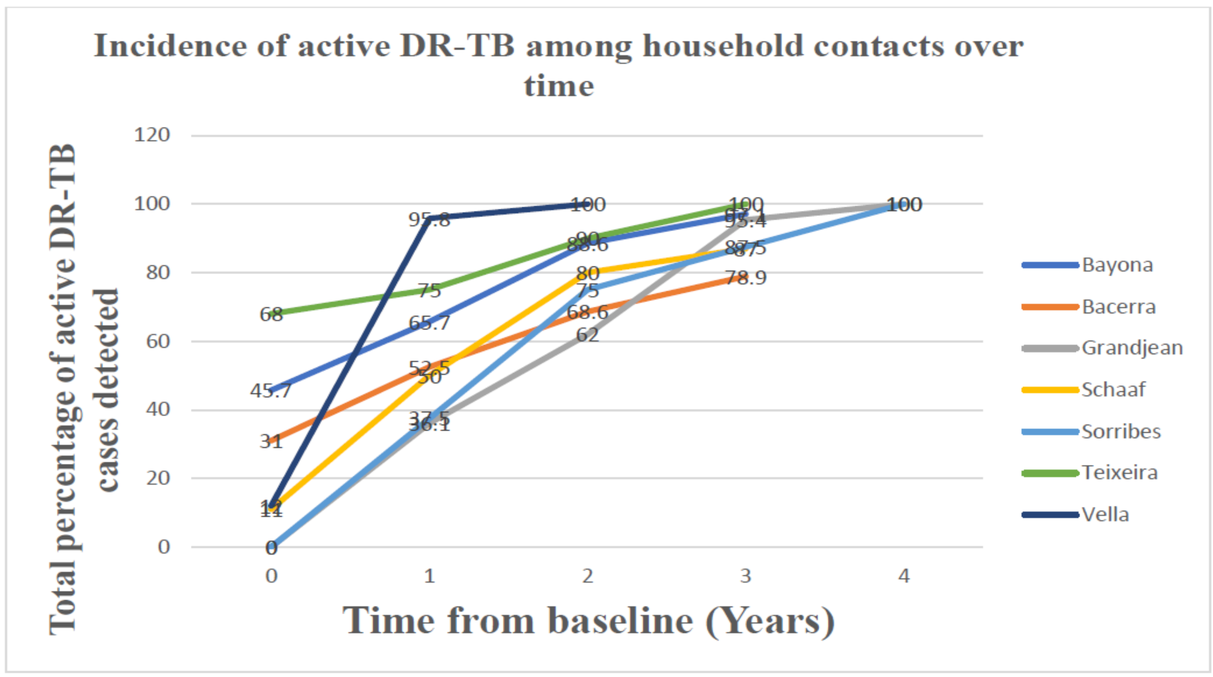

Fig 5: Incidence of active DR-TB among household contacts over time in different published studies.

CONCLUSIONS

- The prevalence and incidence of DR-TB among contacts of DR-TB is high.
- There is a substantial variation in prevalence and incidence of DR-TB by geographic region and age group.
- Contact tracing is crucial for DR-TB prevention and care programs.
- Early diagnosis and treatment commencement through contact tracing helps reduce disease transmission.

ADDITIONAL KEY INFORMATION

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Funding Source

Australian National Health and Medical Research Council (NHMRC)

Conflicts of Interest

No conflict of interest

Acknowledgments

Curtin University

The Kids Research Institute Australia

WCE
WORLD CONGRESS OF EPIDEMIOLOGY 2024