

REVIEW

Global prevalence of *Trichinella* in pigs: A systematic review and meta-analysis

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Abstract

Background: Investigating the global epidemiological patterns of *Trichinella* in pigs is required for accurate recognition and to establishing proper control programmes and preventive measures, as well as to decrease human exposure.

Objectives: To obtain a better understanding of the global prevalence of *Trichinella* in domestic pigs and factors that might influence the prevalence, a systematic review and meta-analysis was performed.

Methods: The Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines were followed. Multiple databases were used to identify literature published between January 2000 and December 2021, representing studies from 1985 to 2021, on *Trichinella* prevalence in domestic pigs. Prevalence was calculated on a global and country level, by country Human Development Index (HDI), climate, pig management system, and diagnostic test.

Results: The global pooled prevalence based on 60 manuscripts representing 32 countries and 65 pig populations was 2.02% (95% confidence interval [CI]: 0.88–3.62) and the estimated pooled prevalence in different continents ranged from 0.00% to 11.8%. *Trichinella* was highest in low HDI countries (21.6%; 95% CI: 4.3–47.2), tropical wet

Aida Vafae Eslahi and Meysam Olfatifar contributed equally to this study.

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