

Global prevalence of *Trichomonas vaginalis* among female sex workers: a systematic review and meta-analysis

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Trichomoniasis is a sexually transmitted infection (STI), caused by the protozoan parasite, *Trichomonas vaginalis*. Female sex workers are intensely affected by the infection, since they have frequent direct physical contact. The current systematic review and meta-analysis represents the global prevalence of *T. vaginalis* in female sex workers. Five databases (Science Direct, Scopus, PubMed, Web of Science, and Google Scholar) were explored for literatures that published from July 1985 to June 2020. Totally, 85 studies (54,515 participants) from 46 countries met the inclusion criteria. The global pooled prevalence of *T. vaginalis* was 16 (95 CI 13-19). The estimated pooled prevalence based on methods including wet mount, culture, and molecular techniques was 15 (95 CI 12-19), 16 (95 CI 10-24), and 22 (95 CI 13-32), respectively. Moreover, the infection was most prevalent at the mean age of 30-36 (20, 95 CI 11-30). Regarding the World Health Organization (WHO) regions, the highest pooled prevalence was estimated to be in the African region (23, 95 CI 7-46). In addition, we indicated that countries with low-income level have the highest pooled prevalence (23, 95 CI 14-34). Our results revealed that the worldwide prevalence of *T. vaginalis* was significant in female sex workers. Therefore, considering a precise strategy such as a health education program with regard to safe intercourse is needed to increase knowledge and prevent *T. vaginalis* infection in sex workers.

Keywords: Female sex workers; Sexually transmitted diseases; Trichomoniasis; Worldwide epidemiology.