HIV prevalence among international migrant populations: a systematic review and meta-analysis

Santoso D[1], Asfia SKBM[1], Mello MB[2], Baggaley RC[2], Johnson CC[2], Chow EPF[1,3,4], Fairley CK[1,3], Ong JJ[1,3,5]

[1] Central Clinical School, Monash University, Melbourne, Australia

[2] Global HIV, Hepatitis and STI Programmes, World Health Organization, Geneva, Switzerland

[3] Melbourne Sexual Health Centre, Alfred Health, Carlton, Australia

[4] Centre for Epidemiology and Biostatistics, Melbourne School of Population and Global Health, The University of Melbourne, Melbourne, Victoria, Australia

[5] Department of Clinical Research, London School of Hygiene and Tropical Medicine, London, United Kingdom

Background

Migrants face health inequities that limit their access to HIV prevention, testing and care. We used a systematic review to estimate the HIV prevalence among international migrants compared with native-born people.

Methods

We searched five databases for publications between January 2010 and March 2021. Using a random-effects meta-analysis, we calculated the pooled HIV prevalence ratios (PR) comparing that of migrants with native-born populations. We also used meta-regression analysis to explore the drivers of heterogeneity, using the following covariates: migrant type (refugees, asylum seeker, undocumented migrants and others), region of origin, risk group, country income level, and study setting.

Results

Out of 4,681 screened studies, 37 were included in the final analysis. The pooled HIV PR for refugees was 2.37% (95% confidence intervals (CI) 0.33–16.99, I^2=99.5%), asylum seekers was 54.79% (95% CI 17.23–174.23, I^2=90.2%), undocumented people was 3.98% (95% CI 0.11–143.01, I^2=94.6%), whilst other international migrants was 1.72% (95% CI 1.10–2.66, I^2=99.7%). On country-income level, the pooled PR of migrants residing in high-income countries was higher than those in low-income countries (2.25, 95% CI 1.27–3.98, I^2=99.8% vs 0.23, 95% CI 0.20–0.28, I^2=0%). Meta-regression revealed that risk group (adjusted R-squared 11.5%), region of origin (11.3%) and migrant type (10.8%) accounted for heterogeneity more than country-income (2.4%) and study setting (2.3%). The proportion of variance explained by including all covariates was 35.1%.

Conclusion

Although it was not possible to assess if HIV infection occurred at country of origin or destination, HIV PR was higher among migrants compared to native-born population. Inclusive health policies and strategies for delivering HIV testing, prevention and treatment services for migrant populations tailored to their needs are urgently needed.