HOMELESSNESS, UNSTABLE HOUSING AND RISK OF HIV AND HEPATITIS C VIRUS ACQUISITION AMONG PEOPLE WHO INJECT DRUGS – A SYSTEMATIC REVIEW AND META-ANALYSIS

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Background People who inject drugs (PWID) are a key population for HIV and hepatitis C virus (HCV) infection and experience high levels of homelessness and unstable housing. We assessed whether homelessness or unstable housing is associated with HIV or HCV acquisition risk among PWID.

Methods We searched MEDLINE, Embase and PsycINFO databases for studies published from January 2000 to September 2020 that estimated HIV and/or HCV incidence among community-recruited PWID, without language restriction. We contacted authors of studies that reported HIV or HCV incidence but did not report on an association with homelessness or unstable housing, to request data. We extracted and pooled data using random-effects meta-analyses to quantify the associations between recent (current or within last year) homelessness or unstable housing and HIV or HCV acquisition risk. We assessed risk of bias using the Newcastle-Ottawa Scale, and between-study heterogeneity using the I^2-statistic and p-value for heterogeneity.

Results We included 37 studies with 70 estimates (26 for HIV;44 for HCV). Studies originated from 16 countries including in North America, Europe, Australia, East Africa, and Asia. Pooling unadjusted estimates, recent homelessness or unstable housing was associated with an increased risk of acquiring HIV (crude relative risk[cRR] 1.55; 95% confidence interval [CI] 1.23–1.95; I^2=62.7%; p-value=0.00018; n=17) and HCV (cRR 1.65; 95%CI 1.44-1.90; I^2=44.8%; p-value<0.0001; n=27). Associations for both HIV (adjusted RR [aRR]:1.39; 95%CI:1.06-1.84; p-value=0.019; n=9) and HCV (aRR:1,64; 95%CI:1.43-1.89; p-value<0.0001; n=14) persisted when pooling adjusted estimates. For HIV, the association for unstable housing (cRR:1.82; 95%CI:1.13-2.95; p-value=0.014; n=5) was higher than for homelessness (cRR:1.44; 95%CI:1.12-1.85; p-value=0.0044; n=11).

Conclusion Homelessness or unstable housing are associated with increased HIV and HCV acquisition risk among PWID. Findings support the development of interventions which simultaneously address homelessness and HIV or HCV infection in this population.

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