Abstract

We examined migration levels, trends and patterns in rural KwaZulu-Natal, South Africa, using population-based data from the Africa Health Research Institute collected between 2001 and 2017. We followed 113 300 adult participants aged 20-49 at baseline and recorded their migration events to estimate the time to each migration event for participants by fitting stratified cox regression models, adjusting for socio-demographic covariates; age, sex, marital status, HIV/ART status. 43% of the population cohort experienced at least one migration event over the observation period. Over time, the rate of migration remained high, peaking in 2002 and 2012. At peak, women had over 12.51 migration events per 100 PY compared to men with 13.9 events per 100 PY. Adjusting for covariates above, the risk of migration increased almost 5 times among young adults 20-24 years compared to ≥40 years [adjusted hazard ratio (aHR) =4.74, 95% CI 4.58 – 4.90]; single compared to married (aHR=1.64, 95% CI 1.57 – 1.71). Overall, the risk of migration was higher, among those HIV+ (positive) and initiated ART (aHR=1.88, 95% CI 1.71 – 2.07) and HIV+ but not initiated ART (aHR=1.83, 95% CI 1.74 – 1.94) compared to those HIV – (negative), with risk increasing by over 80% in both models. Those HIV+ and not initiated ART were associated with excess hazard of migration when compared to those who were HIV negative. Notably, this contributed to large mobility risk, with significant HRs almost doubling in separate models for men and women. In this population, young unmarried women of working age including those HIV positive were more likely to migrate. As circular migration persists, our study finds evidence for the changing profile of migrants (i.e. young women, 'feminization of migration'), potentially facilitating greater access to areas with high HIV risk. Thus, novel public health interventions tailored to reduce new HIV infections and sustain care for this highly vulnerable population are urgently needed.

Keywords: Migrants, Migration intensity, Migration incidence, South Africa