

## Abstract

**BACKGROUND AND OBJECTIVES:** Blood safety and sufficiency are major challenges in Kenya and other sub-Saharan African countries forcing many countries to rely on family replacement donors (FRD). We analysed data from a national AIDS indicator survey to describe blood donors in Kenya and potential risks of transfusion transmissible infections (TTI) comparing voluntary donors and FRD. **MATERIALS AND METHODS:** A population-based, cross-sectional survey was conducted in 2007 among 15- to 64-year-olds. Consenting participants were interviewed about blood donation history and were tested for HIV, HSV-2 and syphilis. **RESULTS:** Of the 17,940 people surveyed, 445 (2.3%) reported donating blood in the prior 12 months. Sixty-four per cent were voluntary donors, and the rest were FRD. Compared to FRD, the majority of voluntary donors were <25 years old (59% versus 18%), from the highest wealth quintile (57% versus 42%) and single (64% versus 23%). In addition, voluntary donors were less likely to have been sexually active than replacement donors (43% versus 13%). HIV prevalence was lower among voluntary donors than among FRD (2.6% versus 7.4%, P-value=0.07). **CONCLUSIONS:** The majority of blood donors in Kenya are voluntary with lower potential risk of TTI. © 2010 The Author(s). Vox Sanguinis © 2010 International Society of Blood Transfusion.