## ABSTRACT

INTRODUCTION: Facility-based assessments of prevention of mother-to-child HIV transmission (PMTCT) programs may overestimate population coverage. There are few community-based studies that evaluate PMTCT coverage and uptake. METHODS: During 2011, a cross-sectional community survey among women who gave birth in the prior year was performed using the KEMRI-CDC Health and Demographic Surveillance System in Western Kenya. A random sample (n = 405) and a sample of women known to be HIV-positive through previous home-based testing (n=247) were enrolled. Rates and correlates of uptake of antenatal care (ANC), HIV-testing, and antiretrovirals (ARVs) were determined. RESULTS: Among 405 women in the random sample, 379 (94%) reported accessing ANC, most of whom (87%) were HIV tested. Uptake of HIV testing was associated with employment, higher socioeconomic status, and partner HIV testing. Among 247 known HIV-positive women, 173 (70%) self-disclosed their HIV status. Among 216 self-reported HIV-positive women (including 43 from the random sample), 82% took PMTCT ARVs, with 54% completing the full antenatal, peripartum, and postpartum course. Maternal ARV use was associated with more ANC visits and having an HIV tested partner. ARV use during delivery was lowest (62%) and associated with facility delivery. Eighty percent of HIV infected women reported having their infant HIV tested, 11% of whom reported their child was HIV infected, 76% uninfected, 6% declined to say, 7% did not recall; 79% of infected children were reportedly receiving HIV care and treatment. CONCLUSIONS: Community-based assessments provide data that complements clinic-based PMTCT evaluations. In this survey, antenatal HIV test uptake was high; most HIV infected women received ARVs, though many women did not self-disclose HIV status to field team. Community-driven strategies that encourage early ANC, partner involvement, and skilled delivery, and provide PMTCT education, may facilitate further reductions in vertical transmission.