Background: We piloted household distribution of HIV self-test (HIVST) kits in one rural district in Zimbabwe in preparation for a community randomised trial evaluating HIVST distribution models.

Methods: We briefly trained 81 paid community volunteers (CV) to distribute HIVST kits in four rural wards. Test-kits were distributed house-to-house to adults (≥16 years) with verbal consent. CV provided information on HIVST use and post-test referral. Demographic data were captured electronically from test acceptors who could opt to test alone or with CV assistance. Self-testers were asked to return used kits to locked drop-boxes in communities. Late read was then used to estimate HIV prevalence. At two and four weeks after kit distribution, PSI provided confirmatory testing, CD4 cell count/clinical staging/referral and non-HIV services through mobile outreach. Focus group discussions (FGD) explored views on HIVST and were analysed thematically. A follow-up household survey is underway providing population level estimates of uptake and linkage to services.

Results: Between 23Mar16 and 23Apr16, 79 CVs distributed 8,095 HIVST kits to 3,516 (51.8%) households across all four wards (estimated adult population 14,534 (males=5,849)) representing coverage of 61% in men and 52% in women. Electronic data are available for 7,510 individuals; 44% were male, 15% were adolescents (16-19 years). 85% tested without CV assistance and 5,521 (68.2%) returned their used HIVST kits as requested. On late read 0.4% kits were invalid and 0.4% were unused. Of the remaining kits 1153 (21.0%) of 5,479 were HIV+ve, representing a minimum yield of 1153/8095 (14.3%). 824 (10.2%) participants accessed PSI post-test services; some presented directly to public health facilities. A minimum of 48 HIV positive self-testers have been initiated on antiretroviral therapy to date.

In FGD self-testers stated that HIVST facilitated testing among individuals who would not test otherwise. Demand for HIVST exceeded supply.

Conclusions: Community-based distribution of HIVST is acceptable and results in high testing coverage, particularly among men and young people. The high testing yield suggests participation by high risk individuals with unknown status, although we cannot exclude use of kits to confirm known
HIV+ve status. More precise estimates of uptake and linkage based on household surveys are currently being analysed.