Background South African young women and other key populations have amongst the highest HIV incidence globally, and antiretroviral treatment (ART) initiation remains challenging. We measured HIV incidence, ART initiation, adherence, status disclosure and related support within 3 months from HIV diagnosis for youth who acquired HIV during follow-up study visits.

Methods The AYAZAZI cohort study enrolled 425 self-reported HIV-negative or status-unknown 16–24 year olds from Soweto and Durban, South Africa (2014–2016). Participants completed interviewer-administered questionnaires (assessing socio-demographics, sexual behaviour and history, HIV-related service utilization, ART adherence, HIV disclosure and support) and underwent HIV rapid testing at enrolment and every 6 months for 4 visits.

Results 13/425 (3.1%) enrollees were HIV-infected at enrolment. 12/412 (2.8%; n=5 Durban, n=7 Soweto) with median age of 19 (IQR:21–21) years, acquired HIV during their first year of follow-up (IR=2.54; 95%CI:1.5–4.4) per 100 person-years; 6/12 were females, 5/12 (42%) identified as LGBTQ, 10/12 (83%) were sexually active and 5/10 (50%) used a condom at last sex. Three months after HIV diagnosis, 10/12 (83%) reported they were medically advised to initiate ART, and 8/12 (67%) had initiated ART. Fear of provider judgement was the most common reason for ART non-initiation (3/4; 75%). A third (4/12) had not accessed any HIV-related medical or support services since diagnosis, commonly because of a disbelief of HIV test results (4/4; 100%). Of those who initiated ART, 5/8 (63%) said they forgot a dose once or more per week. Eighty-three percent (10/12) had disclosed their HIV status to someone. The most common source of support related to HIV was from friends (7/12; 58%). 2/12 (17%) rated that taking ART makes the risk of HIV infection a lot lower.

Conclusion HIV incidence was 2.5 per 100 person-years amongst our youth cohort; immediate ART uptake and adherence was sub-optimal; awareness of HIV prevention benefits of ART was low. Biomedical technologies and improved support systems for HIV-infected youth are needed. Disclosure No significant relationships.