**Title:** Urban adherence clubs in Zambia: findings from model implementation

**Authors**: Monika Roy, Carolyn Bolton, Izukanji Sikazwe, Mpande Mukumbwa-Mwenechanya, Emilie Efronson, Paul Somwe, Estella Kalunkumya, Mwansa Lumpa, Anjali Sharma, Jake Pry, Nancy Padian, Elvin Geng, Charles Holmes

**Background:**

The urban adherence club (UAC) model is a differentiated service delivery (DSD) model designed to improve on-time drug pickup and retention in HIV care through off-hours facility access and group drug distribution. Successes during scale-up in South Africa have been tempered by a recent report of high loss to follow-up and transfers back to facility-based care1. We sought to characterize retention among patients enrolled in UACs at five urban health facilities in Zambia to evaluate implementation outside of South Africa.

**Methods:**

As part of a cluster randomized trial, a systematic sample of eligible patients (HIV+, on ART > 6 months, not acutely ill, CD4 >=200/µl) were enrolled in UACs between May 19 & July 29, 2016. Patients were scheduled for bimonthly group drug-pick up meetings in the first six months and every 3-month meetings thereafter. Clinical and pharmacy visit data were obtained through the existing electronic medical record. UAC meeting visit attendance, transfer-outs, and deaths were collected prospectively through October 31, 2017.

**Results:**

Among 592 intervention patients, median age was 41 yrs (IQR: 35-48), 371 (63%) were female, median CD4 count was 411 /µl (IQR: 273 - 559), and median time on ART was 4.0 yrs (IQR: 2.0 -7.2). Out of 3,756 scheduled UAC visits, 685 (18%) were not attended. In 204 (30%) of the unattended visits, patients still obtained medication on the same day: either via a buddy (151(74%)) or same day drug-pick up at the facility outside of the UAC meeting (53 (26%)). Among the 481 (70%) unattended visits where patients did not receive same-day medication, cumulative incidence of drug-pick up after a missed UAC visit was 27% at 14 days and 32% at 28 days (Figure 1). At 12 months, cumulative incidence of treatment interruption (> 14 days late for drug pick-up) was 9.8%, transfer out of UAC was 6.8%, and death was 0.51%.

**Conclusions:**

Group meetings were generally well-attended and in nearly one third of missed meetings, patients accessed timely drug pick-up via other means. These findings suggest that group-based care is a viable model of care, although adaptation and patient-centeredness should be prioritized in DSD model implementation.

**Figure 1. Kaplan-Meier survival curve of time to drug pick-up after first unattended group visit**



1. Nofemela A, Kalombo, C, Orrell, C, Myer, L. Discontinuation from community-based antiretroviral adherence clubs in Gugulethu, Cape Town, South Africa International Aids Society; 2016; Durban, South Africa.