CONGESTION IN URBAN HIV TREATMENT CLINICS IN LUSAKA, ZAMBIA:
AN ASSESSMENT OF FACTORS TO INFORM DECONGESTION SOLUTIONS

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Background

In 2013, Zambia adopted national antiretroviral therapy (ART) guidelines that increased the number of treatment-eligible patients. Concern over the impact of crowding and congestion in Lusaka's ART clinics on retention rates prompted an assessment to gather evidence on the critical factors contributing to and possible solutions for facility congestion, with particular attention focused on barriers to 3-month refills for stable patients.

Demand-driven evaluations for decisions (3DE)

This work was carried out as part of a pilot initiative called Demand-Driven Evaluations for Decisions (3DE), which aims to generate rapid and reliable evidence for Ministries of Health in Uganda and Zambia to inform cost-effective policy decisions. Research questions are generated by the government, who lead the process from question sourcing to using the evidence to inform policy decisions.

Methods

- In order to identify critical process failures that lead to clinic congestion and inform the design of an intervention to address identified barriers, we undertook a exploratory assessment of eight randomly selected ART clinics in Lusaka, Zambia, in November 2014.
- To better understand the patient and provider perspective of care, we conducted 84 exit interviews with ART patients (average of 10 per facility) and 16 key informant interviews with clinicians (2 per facility).
- To document the client flow and amount of time spent waiting for services, we directly observed patient wait time and time spent receiving care at each clinic station for 80 adult ART patients (10 per facility).
- To understand the pattern of refills for each facility, we reviewed ART registry records for 80 stable patients (10 per facility) and examined the proportion of stable patients receiving 1-week, 1-, 2-, and 3-month refills. To be characterized as stable, a patient must have been on first-line treatment for more than 6 months, have no health conditions requiring clinical attention, and have not switched medication in the last 3 months.
- To assess whether the proportion of 3-month refills was associated with stockouts, we obtained stockout history of antiretroviral drugs (ARVs) from medical store registers and examined the stockout pattern vis-à-vis the proportion of stable patients receiving 3-month refills.
- As an exploratory assessment, all analyses were descriptive and no statistical tests were performed.

Results

WAIT TIMES: Patients spent most time waiting for services and stated long wait times were a primary barrier to staying in care

Almost half of patients (47.5%) were visiting only to refill their prescription at the pharmacy.
Total time spent by patients:

- At clinic on average (for all patient visit types) from arrival to departure: 1 hour 51 minutes (excluding wait time prior to triage).
- At the clinic for drug prescription refill only: 1 hour 34 minutes.
- With a clinical visit plus drug refill (21.3%): 2 hours 10 minutes.
- Visiting for clinical services, lab tests and a drug refill (22.5%): 2 hours 10 minutes.

Receiving care at the stations was between 3.5 and 5 minutes once patients passed through triage (Figure 1).
Wait time was 34 minutes for adherence counseling, 40 minutes for lab services, 35 minutes for clinical services and 52 minutes for pharmaceutical services (Figure 1).

Figure 1. Average service and wait times at each station (minutes)

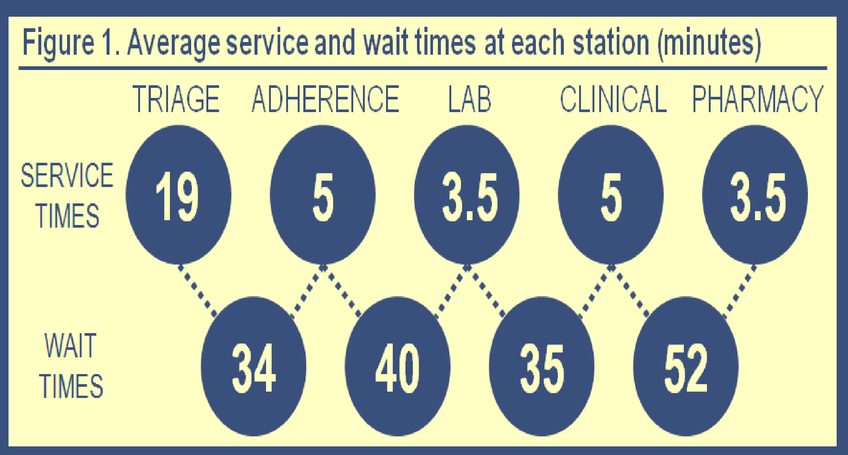
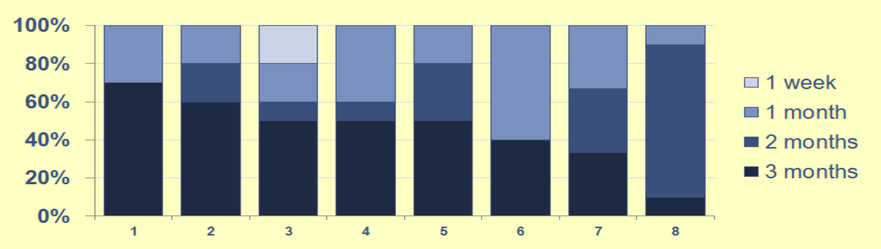


Figure 1 is illustrative of a common pattern of patient flow through the clinic when the patient comes for services. Patients typically pass through triage and adherence, and then any combination of lab, clinical and/or pharmacy.

Figure 2. Proportion of patients receiving varying ART refills, by facility



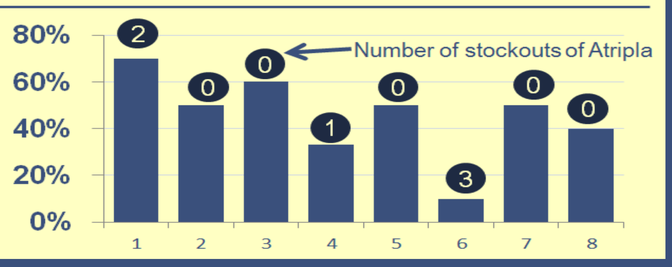
REFILL LENGTH: Many patients are not provided with the recommended ART refill length of 3 months, wide variation across sites

Between 8% and 70% of stable patients received a 3-month supply of ARVs (average 46% across facilities) (Figure 2).

STOCKOUTS: Stockouts of first-line drugs were infrequent

From January to October 2014, three of eight facilities experienced one or more stockouts of the the preferred first-line therapy, the single-tablet regimen of- tenofovir (TDF)/emtricitabine (FTC)/efavirenz (EFV) for an average of 2.5 days (range: 1-4.5 days). Stockouts of TDF-FTC-EFV seem to not be associated with the proportion of patients on 3-month prescriptions in all facilities (Figure 3). A stockout meant that there was unavailability of TDF-FTC-EFV, but did not mean that patients went home without any drugs.

Figure 3. Proportion of patients receiving 3-month refills and stockouts of Atripla



PATIENT AND PROVIDER PERSPECTIVES: Patients stated long wait times as a primary barrier to staying in care and providers outlined key challenges

Most patients (77%) reported long wait times as the primary reason for difficulty receiving care. Almost all (96%) reported a preference for 3-month refills.
Providers suggested that staff shortages and poor filing systems were the cause of clinic congestion, and that inconsistent drug supplies and misalignment of clinical and lab appointments were barriers to the provision of 3-month refills.

CONCLUSIONS

Although Zambia's national ART guidelines recommend that stable ART patients receive 3-month prescriptions, the assessment found that most stable patients were not receiving 3 months of drugs at a time. As a result, patients make frequent visits to the clinic, often only to pick up their medications. Stockouts were not found to be a major barrier to 3-month refills hypothesized. Increasing the proportion of patients on 3-month refills was identified as potentially significantly reducing ART clinic congestion.

Using these findings, we tailored an intervention using quality improvement officers to troubleshoot challenges and improve compliance to the MOH policy of 3-month ART refills. This work is expected to contribute to clinic decongestion and pave the way for additional service delivery improvements.

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