A "Quick Pick-Up" Differentiated Model of ART Delivery Shows Good Retention in Care

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Introduction

- In the context of ART scale-up, models of Differentiated Service Delivery (DSD) are a key strategy to improve efficiency and cater to patient needs
- Setting: a large primary healthcare clinic in Khayelitsha, a low-income area in Cape Town, South Africa, with high HIV prevalence
- We describe and compare characteristics and outcomes of patients in a "Quick Pick-Up" (QPUP, also known as fast lane) DSD to those in facility- and community-based adherence clubs and matched clinic patients

Table 1: Description of DSDs at Facility

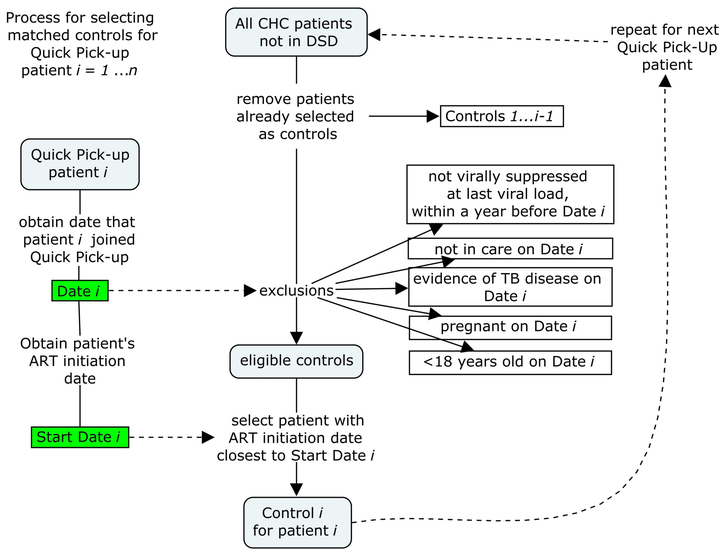
	Clinic Patients	Community Clubs	Facility Club	QPUP
Eligibility criteria	N/A	Stable on ART and virally suppressed Not pregnant, no TB		
When model introduced	N/A	2015	2009	October 2015
Venue	Facility	Community venue	Facility	Pharmacy
Responsible	Clinicians	Counselor At each ART pick-up, group adherence counseling session		Pharmacy assistant
Visit schedule	5-12 visits/year	5 ART pick-ups/year, including one blood draw and clinical visit/year		

Methods

- We used routine clinical data of ART patients , followed up until October 2017
- For comparability in terms of time on ART and eligibility criteria we matched each QPUP patient to two non-DSD 'clinic' patients.

Figure 1: Matching process

Each QPUP patient was matched to two patients with the closest ART start date, from patients who were in care and eligible for QPUP at their last visit when the QPUP patient joined QPUP



- Follow-up time for both matched clinic patients began on the QPUP patient's QPUP start date
- To compare QPUP with other DSDs, only patients that joined facility or community clubs after QPUP began were included

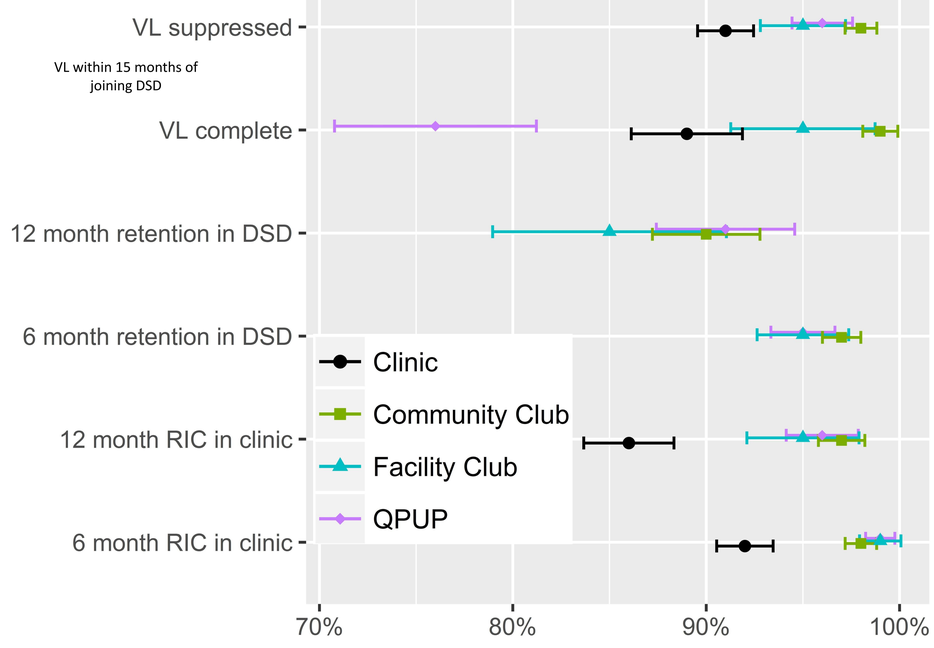
Results

Table 2: Baseline Characteristics by Model of Care

	Clinic	Community Club	Facility Club	QPUP
N	2010	1161	577	1005
ART start date (guideline CD4 threshold):				
Before August 2011 (<200)	31%	81%	44%	33%
1 Aug 2011- 31 Dec 2014 (<350)	37%	18%	30%	44%
1 Jan 2015 - 31 Aug 2016 (<500)	29%	2%	24%	22%
After 1 Sept 2016 (UTT)	3%	0%	2%	1%
Median age (IQR)	39.8 (33-48)	40.8 (36-46)	37 (32-43)	37.3 (32-43)
% male	33%	23%	18%	27%
% evidence of TB before DSD start*	29%	24%	26%	24%
Median CD4 Count at ART initiation (IQR)	267 (155-403)	278 (183-484)	294 (174-500)	274 (167-412)
Median months on ART at DSD start* (IQR)	35.8 (16-71)	88.8 (64-117)	51.6 (21-95)	41.4 (22-71)

*in the case of clinic patients, DSD start refers to the DSD start date of the patient they were matched to

Figure 2: Patient Outcomes by Model of Care (95% CI)



- Baseline data indicates QPUP patients are similar to the clinic controls in terms of ART start date and median months on ART at DSD start date (i.e. matching was successful)
- Community club patients are more likely to have been on ART for longer, despite the exclusion of clubs starting before October 2015. This is in part because some community clubs were initially facility clubs
- Approximately a quarter of all patients had evidence of TB before DSD start
- Clinic patients are most likely to be male (33%), followed by QPUP (27%), community clubs (23%), then facility clubs (18%)

- Viral load suppression is high for all DSD patients (95-98%) and 91% for clinic patients
- Viral load completion is lower in QPUP patients, likely because of initial challenges with setting up systems for blood draw

- As expected in stable patients, all DSDs show good retention in care, but a notable proportion return to clinic care
- QPUP patients have higher retention in care compared to matched clinic controls
- QPUP retention is not inferior to other DSDs

Conclusions

- QPUP outcomes suggest that reduced healthcare contact time is feasible for stable patients
- A limitation is the self-selection of DSD patients, but similar baseline characteristics as well as favorable comparison with other DSDs strongly suggest the success of the QPUP model
- In this context, having a variety of ART delivery models has catered to diverse patient preferences without compromising patient outcomes

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