Differentiated Care: Time Spent in Different ART Delivery Models in Rural Zimbabwe

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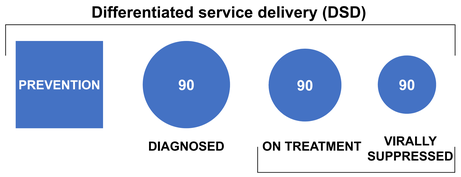
Benedikt Christ[1], Janneke H. van Dijk[2], Wesley R. Mukondwa[2], Cordelia Kunzekwenyika[2], Ronald Manhibi[2], David Tasunga[3], Frédérique Chammartin[1], Marie Ballif[1] and Matthias Egger[1,4]
[1]Institute of Social and Preventive Medicine, University of Bern, Switzerland, [2]SolidarMed, Masvingo, Zimbabwe, [3]Ministry of Health and Child Care, Masvingo, Zimbabwe,
[4]Centre for Infectious Disease Research and Epidemiology, University of Cape Town, South Africa

BACKGROUND

- Differentiated service delivery (DSD) is key to achieving the UNAIDS 90-90-90 targets (Figure 1).
- DSD addresses the diverse needs of people living with HIV (PLWH) and can reduce burden on health systems.
- The 2017 DSD guidelines for Zimbabwe recommends five differentiated ART delivery (DART) models (Figure 2).
- We explored the availability of, and need for, DART models in Zimbabwe using quantitative and qualitative approaches.

Here we present preliminary data on the availability of DART and the duration of clinical visits.

Figure 1: Differentiated ART delivery is part of the DSD approach.
Adapted from www.differentiatedcare.org.



OBJECTIVES

- To assess the availability of DART at SolidarMed-supported health facilities (HFs) in rural Zimbabwe (Bikita District).
- To compare the clinical visit duration by DART model.

METHODS

Availability of differentiated ART delivery models

- One representative health care worker per HF provided HF-level data using a standardized web-based questionnaire.
- Data collection took place from May to August 2019.

Time spent at the clinic

- We recruited PLWH attending the HF during the day of HF-level data collection; sample was stratified by age and sex.
- We captured arrival and departure times at each HIV service point attended during a visit.

All participants provided oral consent to participate in this study and withdrawal was possible at any time.

Differentiated ART delivery has the potential to decrease the duration of clinical visits

Figure 2: Five differentiated ART delivery models recommended by the national DSD guidelines of Zimbabwe.

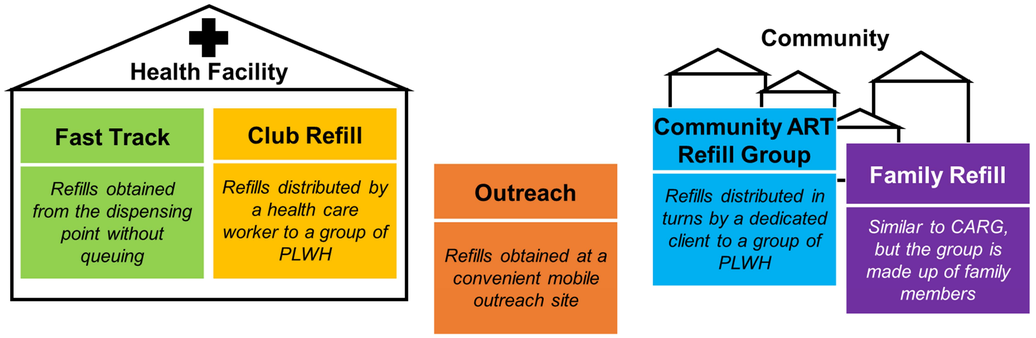
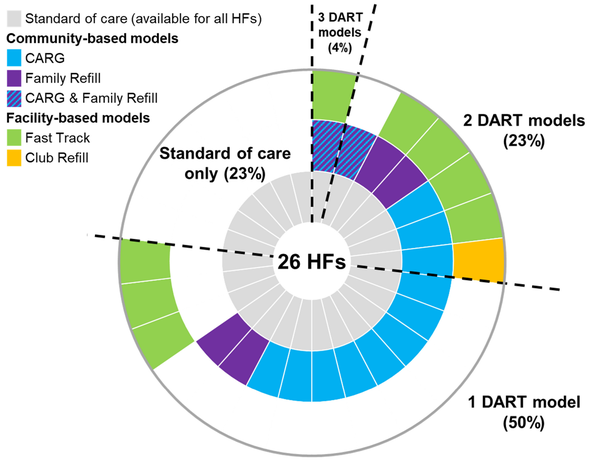


Table 1: Characteristics of the 26 participating HFs

	Total HFs N=26
Standard of care	26 (100%)
DART model *(see figure 2 for details)*	
Fast Track	8 (31%)
Club Refill	1 (4%)
Outreach	0 (0%)
Community ART Refill Group (CARG)	13 (50%)
Family Refill	6 (23%)
Clinic size	
No. of patients, median (IQR)	389 (206-704)
No. of staff members, median (IQR)	4 (4-5)
Patient-to-staff ratio	71 (42-98)
Other	
Training on DSD/DART received	12 (46%)
Year of introduction of first DART model	2017
Open for HIV services after 5 PM (week days)	0 (0%)
Open for HIV services (Saturday/Sunday)	17 (65%)

Figure 3: Availability of DART models.
17 HFs (65%) have a community-based model in place; 9 HFs (35%) have a facility-based model in place.



RESULTS

Availability of differentiated ART delivery models

- 20/26 HFs (77%) had at least one DART model in place (range: 1 to 3) aside of standard of care (Figure 3).
- Community ART refill groups (CARG) were available at 13 HFs, followed by fast track (8), family refill (6) and club refill (1). Outreach was not available (Table 1).

Time spent at the clinic

- Time spent at the HF was assessed for 203 PLWH at 22 HFs (68% female, median age 43 years [IQR: 34-52]).
- 57 (28%) were enrolled in a DART model (Table 2).
- Median time at the HF was 27 minutes (IQR: 16-62).
- Visit duration was longer at RHCs than at hospitals, and shorter at HFs with a patient-to-staff ratio >100 (Table 2).

Table 2: Time spent at the clinic and predictors for visit duration

	Total participants N=203	Mean time spent, minutes (SD)	Coefficients from linear regression model* (95% CI)	P value
Model of care				
Standard care	146 (72%)	46 (40)	1	
Facility-based model[&]	34 (17%)	24 (15)	0.98 (0.70-1.38)	0.029
Community-based model[#]	23 (11%)	75 (62)	1.54 (1.10-2.16)	
Type of health facility				
Rural Health Center	165 (81%)	49 (45)	1	
Rural Hospital	20 (10%)	26 (23)	0.66 (0.45-0.95)	0.017
District Hospital	18 (9%)	33 (25)	0.69 (0.46-1.02)	
Patient-to-staff ratio				
1-50	54 (27%)	50 (47)	1	
51-100	83 (41%)	58 (47)	1.11 (0.84-1.47)	<0.0001
>100	66 (32%)	26 (19)	0.54 (0.38-0.75)	

SD=Standard deviation, CI=Confidence interval
*Adjusted for all variables listed, pregnancy-breastfeeding-status and number of services received during the visit
[&]Fast track or club refill; [#]CARG or family refill

CONCLUSIONS

- Two years after the publication of the DSD guidelines, DART models were available in 77% of assessed HFs in rural Zimbabwe, and 28% of participating PLWH were enrolled in a DART model. Yet, only few DART options were available at most participating HFs.
- Community-based models are associated with longer visits but serve a group of PLWH.
- Future analyses of this dataset, including interviews of health care providers and PLWH will provide deeper insights into the challenges of DART implementation.

Contact: Benedikt Christ, benedikt.christ@ispm.unibe.ch; www.iedea-sa.org
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IeDEA-Southern Africa Steering Committee: Matthias Egger (co-PI), University of Bern, Switzerland; Mary-Ann Davies (co-PI), University of Cape Town, South Africa; Gary Maartens, Aid for AIDS, South Africa; Carolyn Bolton, Michael Vinikoor, Centre for Infectious Disease Research in Zambia (CIDRZ), Zambia; Robin Wood and Catherine Orrell, Gugulethu ART Programme, South Africa; Nosisa Sipambo, Harriet Shezi Clinic, South Africa; Frank Tanser, Africa Centre for Health & Population Studies (Hlabisa), South Africa; Andrew Boulle, Khayelitsha ART Programme, South Africa; Geoffrey Fatti, Kheth'Impilo, South Africa; Sam Phiri, Lighthouse Clinic, Malawi; Cleophas Chimbetete, Newlands Clinic, Zimbabwe; Karl Technau, Rahima Moosa Mother and Child Hospital, South Africa; Brian Eley, Red Cross Children's Hospital, South Africa; Josephine Muhairwe, SolidarMed Lesotho; Cordelia Kunzekwenyika, SolidarMed Zimbabwe, Matthew P Fox, Themba Lethu Clinic, South Africa; Hans Prozesky, Tygerberg Academic Hospital, South Africa.