

### **Delivering High-Quality DSD Services at Scale**

A CQUIN Learning Network Workshop

April 26– 29, 2022 Johannesburg, South Africa

No differences in recipients of care perceived quality of care between differentiated service delivery models and conventional care in South Africa Results of the first round of AMBIT's Sentinel-South Africa survey

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## AMBIT—Alternative Models of ART Delivery: Optimizing the Benefits

### • Objectives:

- Describe implementation scale of DSD models
- Estimate benefits and costs
- Propose optimal allocation of resources and models
- Identify impacts of DSD models on broader health system

### • By doing what?

- Data collection, data synthesis, data analysis, and mathematical modeling
- In Malawi, Zambia, and South Africa
- Relying on both existing data (e.g. national EMRs) and newly generated data (SENTINEL survey)

### Project implementation

- 2019-2024
- BMGF support
- HE<sup>2</sup>RO (South Africa), CHAI (Zambia and Malawi), Boston University



## Background

- Like many countries across sub-Saharan Africa, South Africa has been scaling up differentiated service delivery models (DSD) to improve ART coverage
- DSD models aim to increase the responsiveness of HIV treatment programs to the individual needs of recipients of care (RoC) to improve treatment outcomes and quality of life.
- Current evidence shows that compared to conventional care, DSD models of care can lead to slightly improved treatment outcomes, lower costs for patients, and (sometimes) slightly lower costs for health systems
- Little is known about how patients' experiences of care in DSD models differ from conventional care.
  - Patient satisfaction with the quality of care provided is imperative because care should be responsive to patients' needs and respectful of their circumstances and it's an important determinant of health-seeking behaviour.
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## Methods

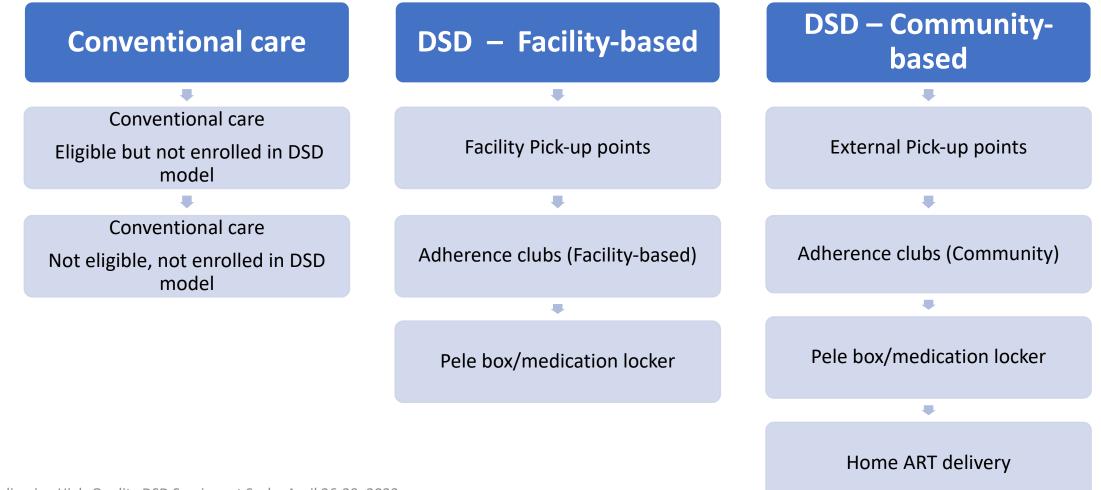
- The AMBIT's SENTINEL survey was conducted to assess patient experience, provider experience, and other aspects of DSD model implementation.
- STUDY DESIGN: Cross-sectional survey
- STUDY POPULATION: Adults on ART for ≥6 months at the study site and either enrolled in a DSD model, eligible for but not enrolled in a DSD model or not eligible
- **STUDY LOCATION:** 21 primary clinics in 4 districts in 3 provinces of South Africa
- **SAMPLE SIZE:** Up to 10 individuals/model x up to 5 models/site (maximum n=1050)
- **STUDY PERIOD:** May to November 2021

 ✓ We assessed the experiences of RoC participating in DSD models compared to those remaining in conventional care



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## Models of ART delivery included in the study



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## Outcomes measures

PERCEIVED QUALITY OF CARE – "High" vs "Low"

- Questionnaire included a 10-item, 5-point Likert scale (strongly disagree to strongly agree) assessing participants' perceived quality of care (QoC)
- The final scale included 6 items assessing:
  - Provider attitude
  - Trust in the providers
  - Time spent with the provider
  - Clinic administrative processes
  - Information received regarding HIV/ART
- Asked how HIV services could be improved (multiple response selection & "other")

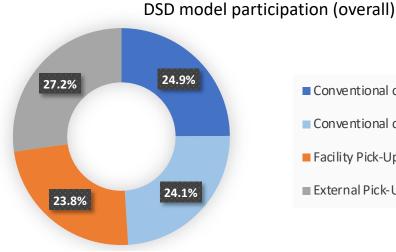


## Data analysis

- We dichotomized the final mean QoC scores as "High" QoC (score >3) or "Low" QoC (score <=3)</li>
- Logistic regression analysis to assess factors associated with "Low" perceived QoC
- Adjusted regression models for:
  - DSD model participation,
  - Duration of ART,
  - Plural health-seeking behaviour,
  - Additional diseases treated at the facility,
  - ART dispensing duration,
  - The annual number and type of clinic visits,
  - The number of missed visits annually
- We report adjusted odds ratio (AOR) of low perceived QoC

## Characteristics of enrolled study participants (n=867)

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Conventional care - not eligible for DSD model

Conventional care - eligible for DSD model

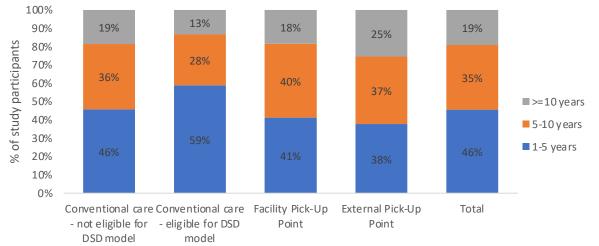
Facility Pick-Up Point

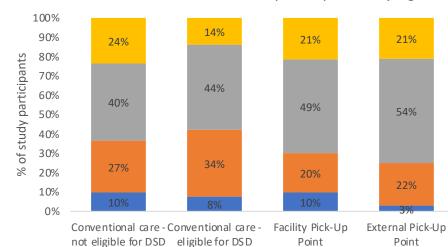
External Pick-Up Point

Point

#### DSD model participation by ART duration

×





model model

#### DSD model participation by age

Point

\*

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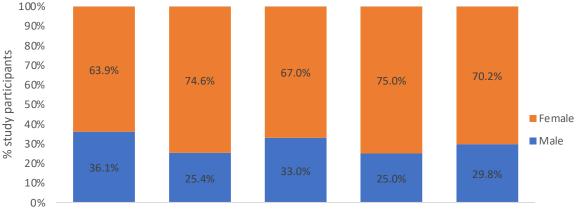
47% 50+ years ■ 35-49 years 25-34 years 26% 18-24 years

%

20%

Total

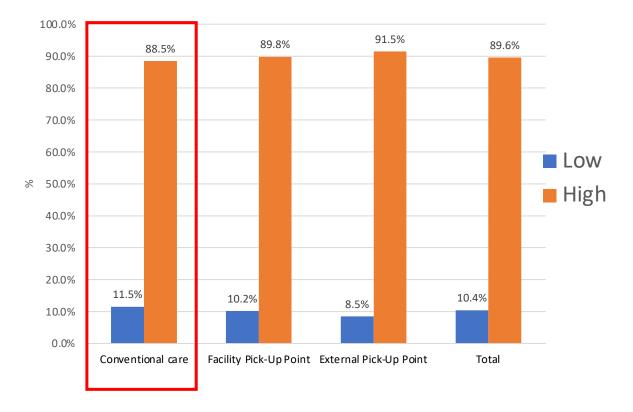
#### DSD model participation by sex

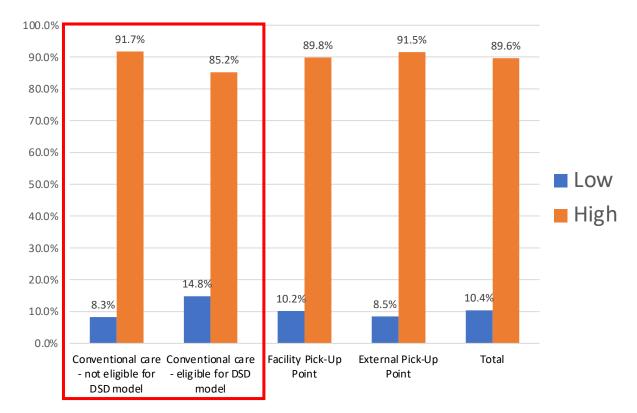


Conventional care - n Coeligible for Bo De meldeible for Bo De mel Total



Perceived quality of care among study participants (n=867)





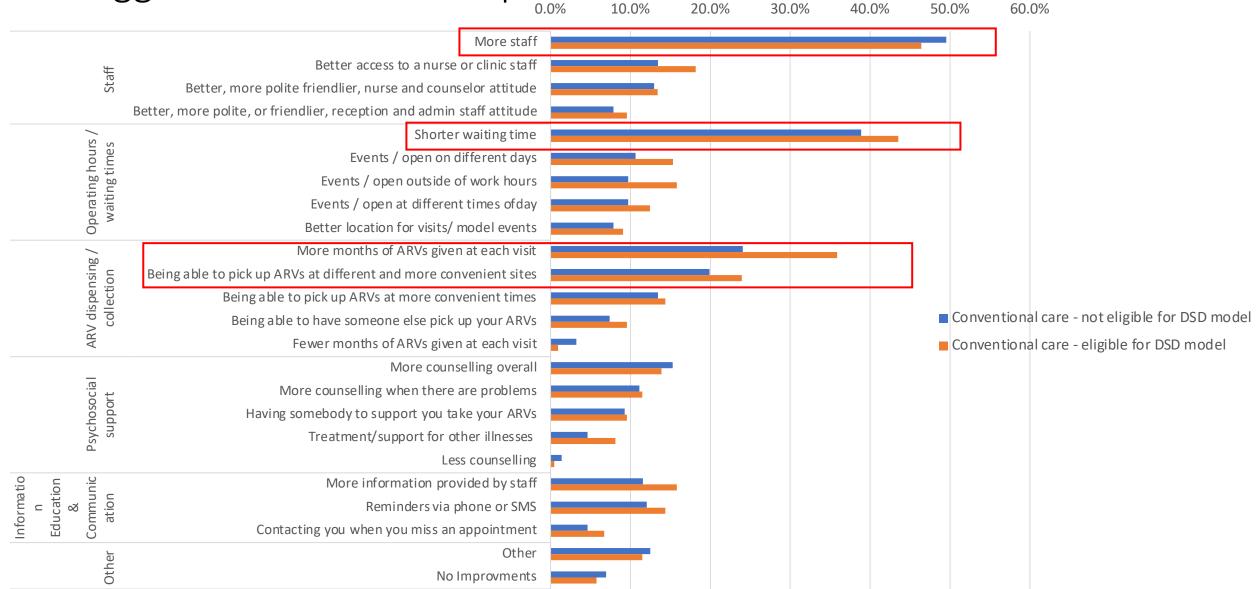
- Low perceived QoC was slightly higher among study participants in conventional care (11.5%) compared to 10.2% for facility pick up points and 8.5% for external pick-up points
- When those in conventional care were disaggregated by eligibility for DSD model enrolment, almost 15% of those who were eligible but not enrolled in DSD models had low perceived QoC

# Crude and adjusted odds ratios of low perceived QoC for DSD model and conventional care study participants

		N (% of popn.)		Adjusted OR [95% CI]	Crude OR [95% CI]
DSD model participation	SoC - not eligible for DSD model SoC - eligible for DSD model	<u>216 (24.9)</u> 209 (24.1)	►	Ref 2.09 [1.07-4.06]	Ref 1.91 [1.03-3.54]
	DSD - Facility Pick-Up Point DSD - External Pick-Up Point	206 (23.8) ⊢ 236 (27.2) ⊢		1.28 [0.58-2.85] 1.04 [0.43-2.51]	1.26 [0.64-2.43] 1.02 [0.52-1.98]
Number of months of medication received per visit		358 (46.7) ⊢ 267 (34.8)⊢ 142 (18.5)		1.14 [0.50-2.58] 0.66 [0.38-1.15] Ref	1.09 [0.57-2.09] 0.65 [0.40-1.06] Ref
Number of years on ART	1-5 years (Ref) 5-10 years >=10 years	615 (80.2) 152 (19.8) ⊢ 592 (77.2) ⊢		Ref 1.20 [0.72-1.99] 1.16 [0.61-2.19]	Ref 1.11 [0.69-1.81] 0.95 [0.51-1.74]
Additional diseases treated at current		175 (22.8) 233 (29.3 <del>)</del> •		Ref 0.61 [0.31-1.20]	Ref 0.54 [0.28-1.05]
Seeking health care form other providers outside		174 (22.8) 365 (47.9)	<b>⊢−−−−</b> −	Ref 1.66 [1.02-2.70]	Ref 1.85 [1.16-2.96] •
the facility Number of nurse and medication collection visits	1-2 visits (Ref) 3-4 visits 5-12 visits	113 (14.8) 423 (55.5) ⊢─── 226 (29.7) ⊢───		Ref 1.02 [0.52-2.02] 1.18 [0.57-2.44]	Ref 1.16 [0.62-2.16] 1.22 [0.73-2.04]
Number of medication collection only visits		113 (14.8)     423 (55.5)     ▶     226 (29.7)		Ref 1.69 [0.90-3.16] 1.54 [0.76-3.14]	Ref 1.42 [0.85-2.35] 1.04 [0.57-1.91]
Number of missed visits in the past year	None (Ref) 1 visit >=2 visits	492 (64.2) 116 (15.1) ⊢ 132 (17.2)		Ref 1.40 [0.75-2.64] 1.74 [1.00-3.02]	Ref 1.45 [0.79-2.67] 1.79 [1.07-2.99]
		0.0 1 Adjusted odds ra	.0 2.0 3.0 4.0 atio <b>(95% CI)</b>	)	

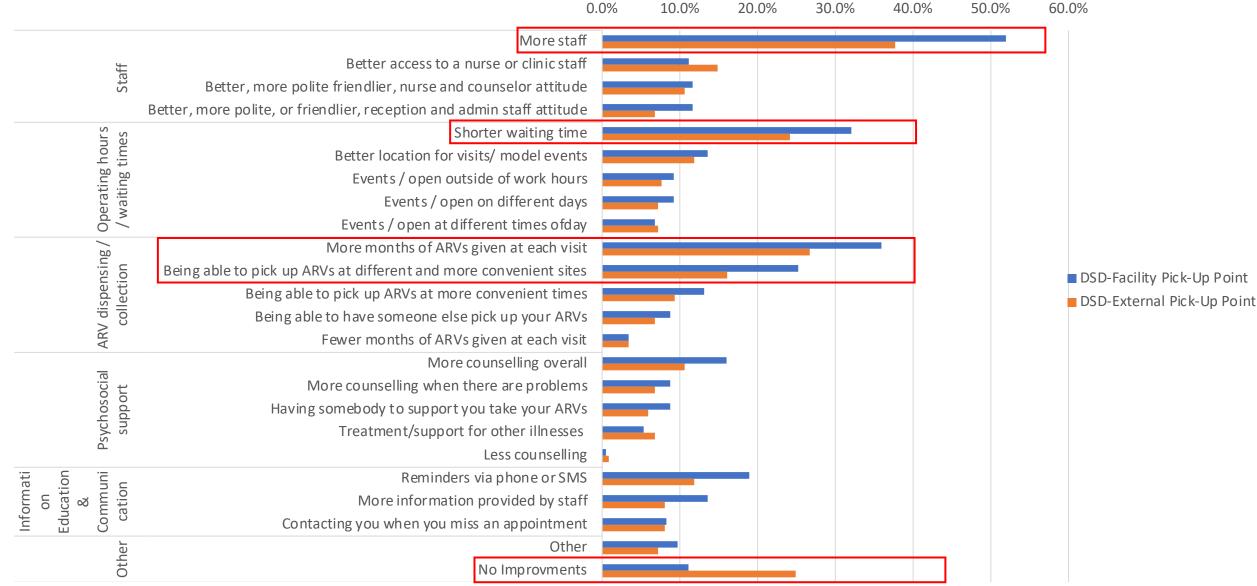
- There were no significant differences in perceived QoC among those enrolled in DSD models compared to those in conventional care However, RoC in conventional care who
  - were eligible but not enrolled in DSD models were more likely to have low perceived QoC
- RoC seeking outside healthcare and those who missed two or more visits in the year prior to study enrolment, were also more likely to have low perceived QoC

### Suggested HIV service improvements – Conventional care



### Suggested HIV service improvements – DSD models

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## Suggested HIV service improvements

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### **Conventional care:**

"We spend so much time waiting at the facility they seem to be short staffed"

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~ Male, 40 years old, Conventional care, not eligible for DSD model

"The system they are using is in order I wouldn't like to see any improvement as they are trying their best I have been a patient since 2015 at this facility and they treat me very well every time."

<u>~ Female, 36 years old, Conventional care, not eligible for DSD model</u>

"They must allow us when we send people to come and collect meds for us if we had missed appointments due to work commitment"

~ Female, 48 years old, Conventional care, not eligible for DSD model

"Employ more male staff as they seem to be the ones with better attitude towards patients"

~ Female, 30 years old, Conventional care, eligible for DSD model

"They should decant more patients. The facility sometimes has a lot of patients, and we get to wait long hours so it would really help if they decant more patients to external pick-up points for myself, I have been on medication for longer so I would appreciate it if they send me to external pick-up point."

~ Female, 29 years old, Conventional care, eligible for DSD model

### **DSD models:**

"The external PuP should be more flexible as in my vicinity we have just two pharmacies that offered care as an *external PuP"* ~ Female, 37 years old, DSD - External Pick-up Point

"They should sort out their admin. Sometimes we used to arrive at the club and not get our treatment because our names are not on that list then we had to come here at the clinic. Pele box is perfect for me because I receive a notification when my treatment is ready." <u>~ Female, 35 years old, DSD - External Pick-up Point</u>

"Being able to renew script at the pharmacy where I collect medications." <u>~ Female, 41 years old, DSD - External Pick-up Point</u>

"More explanation or education for patients as I was referred to external pick point today and I am happy with collecting my medication at the facility" <u>~ Female, 55 years old, DSD - Facility Pick-up Point</u>

Treatment must be delivered to homes and only come once to check bloods and checkups <u>~ Female, 24 years old, DSD - Facility Pick-up Point</u>



## **Discussion & Conclusions**

- RoC report high perceived QoC in the public sector in South Africa.
- RoC enrolled in DSD models in South Africa did not perceive major differences in QoC compared to those in conventional care.
- "Satisfaction" may be a function of expectations—many RoC reported themselves to be satisfied with long waiting times and other characteristics we might associate with poorer quality care
  - Need to determine how to assess quality of care when patients' expectations are very modest
  - Routine satisfaction surveys should be integrated into Quality assurance frameworks and routine service delivery (e.g., SA national satisfaction survey)
  - It is critical to also incorporate RoC feedback regarding experience and expectations in Quality improvement initiatives
- Limitations
  - Cross-sectional study design, small number of study sites
  - No perspectives from RoCs who are no longer in care
  - No health outcomes were measured in this survey; therefore, we don't know how the patient experience affects health outcomes

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## Acknowledgements

- Recipients of care who participated in the survey
- Study sites and their staff
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