



**Elizabeth Glaser  
Pediatric AIDS Foundation**  
Fighting for an AIDS-free generation

# Evidence to Action (E2A) Webinar Series:

Multimonth ART:

What Do Patient Care and Outcomes Look Like Within the First Year?  
Results from Studies in Cote d'Ivoire, Mozambique, and Eswatini

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**Monday, February 13, 2023 | 9:00–10:00 AM ET**



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- This E2A is being live streamed and recorded, and EGPAF will share the recording at the conclusion of the webinar

# Agenda

## **Welcome and Opening Remarks (9:00 — 9:10 AM ET)**

Appolinaire Tiam, MD, PhD, Vice President, Technical Strategies and Innovation, EGPAF

## **Panelist Presentations (9:10 — 9:40 AM ET)**

Marc N’Goran, MD, MPH, Director, INILI Project, EGPAF in Cote d’Ivoire

Marie-Huguette Kingbo, MD, MPH, Technical Advisor for Program Evaluation, EGPAF in Cote d’Ivoire

Lauren Greenberg, MPH, Senior Research Officer, EGPAF

Lydia Mpango, MBChB, MSc, Senior Clinical Advisor, EGPAF in Eswatini

Mahoudo Bonou, MD, MPH, Technical Director, EGPAF in Mozambique

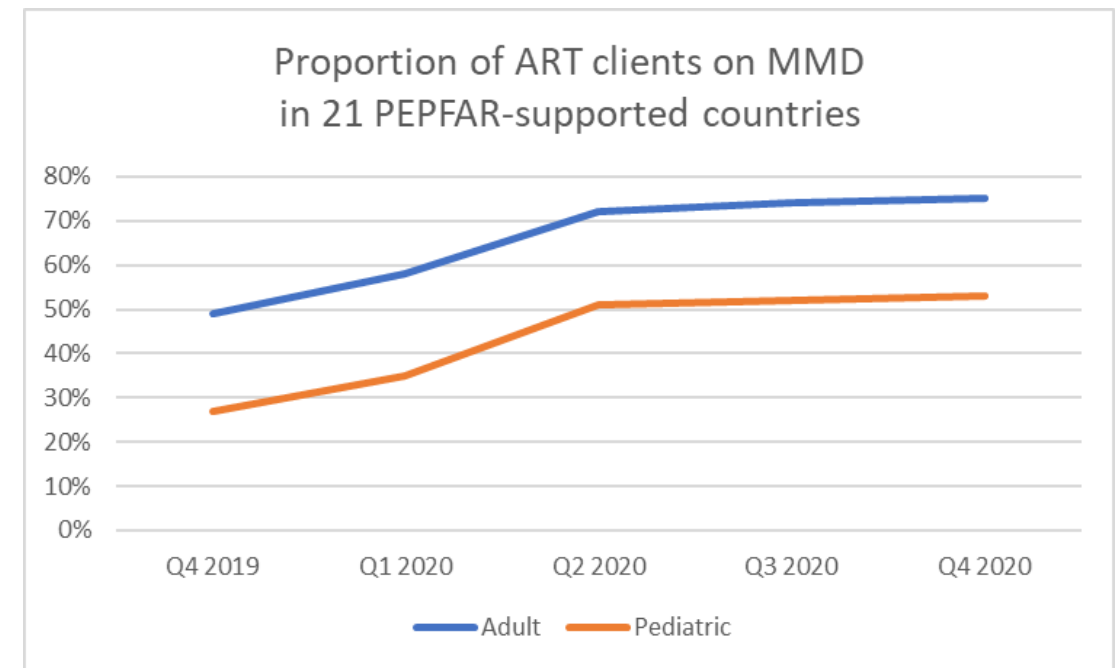
## **Q&A (9:40 — 10:00 AM ET)**



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# Multimonth Dispensing

- Multimonth dispensing (MMD) of antiretroviral therapy (ART): a strategy to reduce the burden on both clients and healthcare facilities, particularly after the introduction of “test and treat”
  - Large increase in the number of clients receiving ART through a MMD model in 2020, both globally and within EGPAF programs
  - Expanded eligibility for MMD, particularly for children as young as 2 years, pregnant and breastfeeding women, and patients not classified as clinically stable



Bailey LE, Siberry GK, Agaba P, Douglas M, Clinkscales JR, Godfrey C. The impact of COVID-19 on multi-month dispensing (MMD) policies for antiretroviral therapy (ART) and MMD uptake in 21 PEPFAR-supported countries: a multi-country analysis. *J Int AIDS Soc.* 2021 Oct;24 Suppl 6(Suppl 6):e25794

# Study: Evaluation of Viral Suppression in the Context of Differentiated Care in Côte d'Ivoire

- **Purpose:** *Review client charts* to understand how many clients — and which clients — had already been transitioned to MMD, and *follow a cohort of clients* newly transitioning to MMD for 18-24 months to better understand outcomes on MMD (viral load coverage/viral suppression) and whether they continued to receive multi-month ART
- **Sites:** 29 sites across Côte d'Ivoire (16 supported by EGPAF, 13 supported by other CDC Implementing Partners)
- **Cohort study population:** ART clients aged 1 year and older, newly transitioned to MMD model (first receipt of at least 90 days of ART no earlier than January 2020)
- **Enrollment:** March 2020-January 2021
- **Data collection:** March 2020-August 2022

# Results: Chart Review



- Records reviewed for **41,542** clients
- 90% of clients already received MMD, most (>80%) for more than one year
- 78% of children <15 years had ever received MMD
- Clients first receiving MMD during the COVID-19 pandemic were:
  - younger
  - more recently initiated on ART
  - less likely to have had a viral load test
  - more likely to have been unsuppressed at their last viral load test
  - more likely to have had a history of opportunistic infection

# Cohort Study: Participant Characteristics (Children and Adolescents <18 Years)

- 52 participants
  - 17 (33 %): <5 years
  - 19 (37 %): 5-9 years
  - 5 (10 %): 10-14 years
  - 11 (21%): 15-17 years
- 54% male
- 77% had other household members on ART
- 35% had at least one deceased parent (two were orphans)
- 40% had been on ART at least two years at first receipt of MMD
- 20 % had missed ART at least once in the last seven days



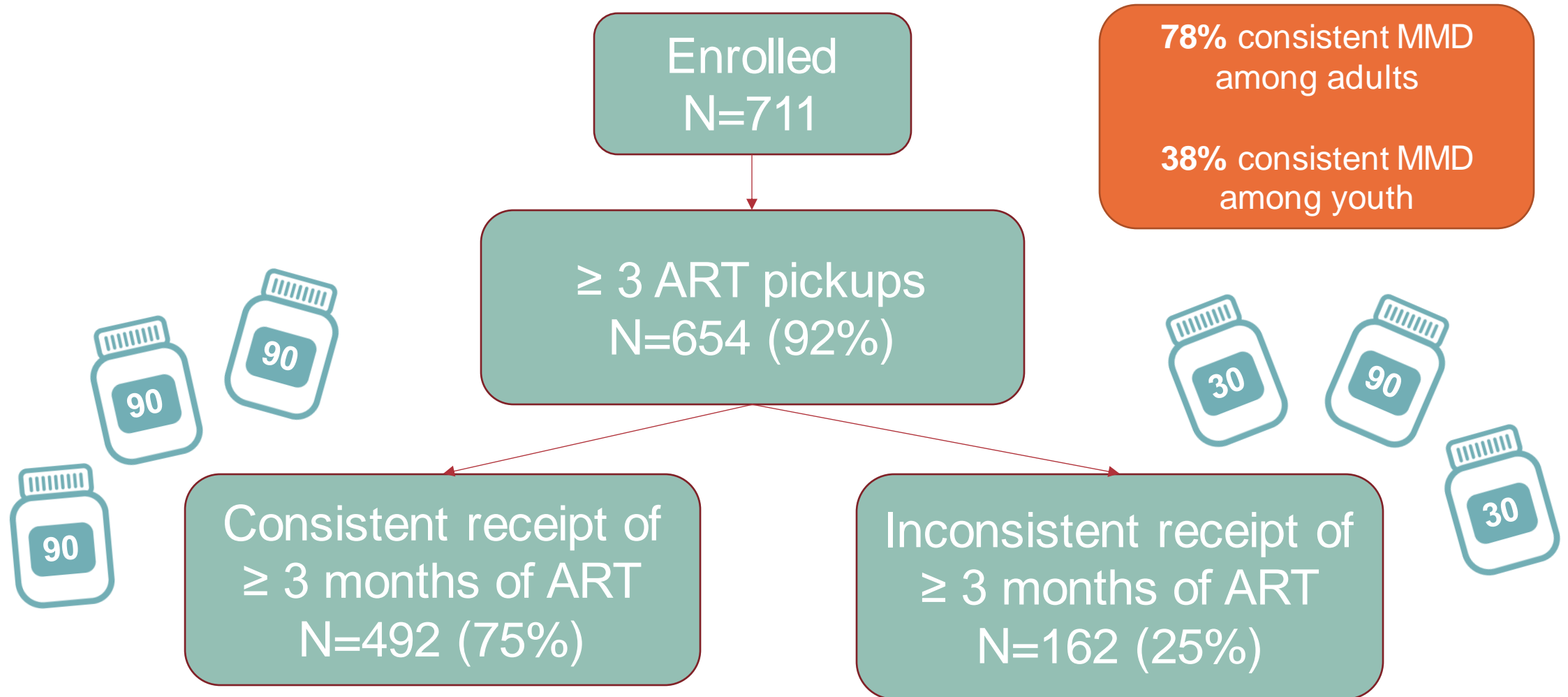


# Cohort Study: Participant Characteristics (Adults)

- Median age 41 years
- 70% female
- 30% had no formal education
- 47% married/cohabiting
- 34% reported other household members on ART
- 36% had been on ART <6 months at first MMD; 23% had been on ART at least two years
- 15% reported missing at least one dose of ART in the past seven days



# Consistent Receipt of MMD



# Cohort Study: Reasons for Discontinuation of MMD

## Adults

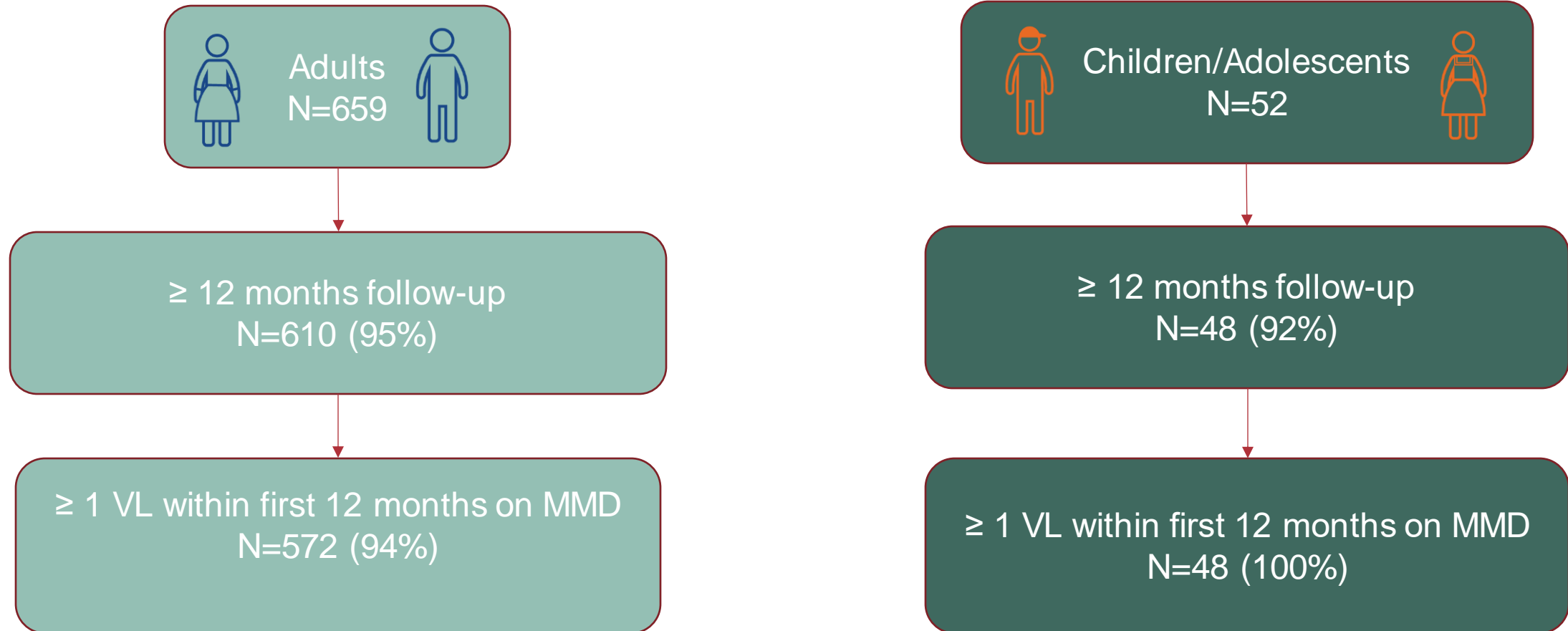
- Most common reason cited: **provider decision** (N=46), followed by participant having a **high VL** (N=28)
- Other reasons included **stockouts**, **pregnancy**, concerns about **adherence**, and the need to return sooner for **viral load monitoring**

## Children/Adolescents

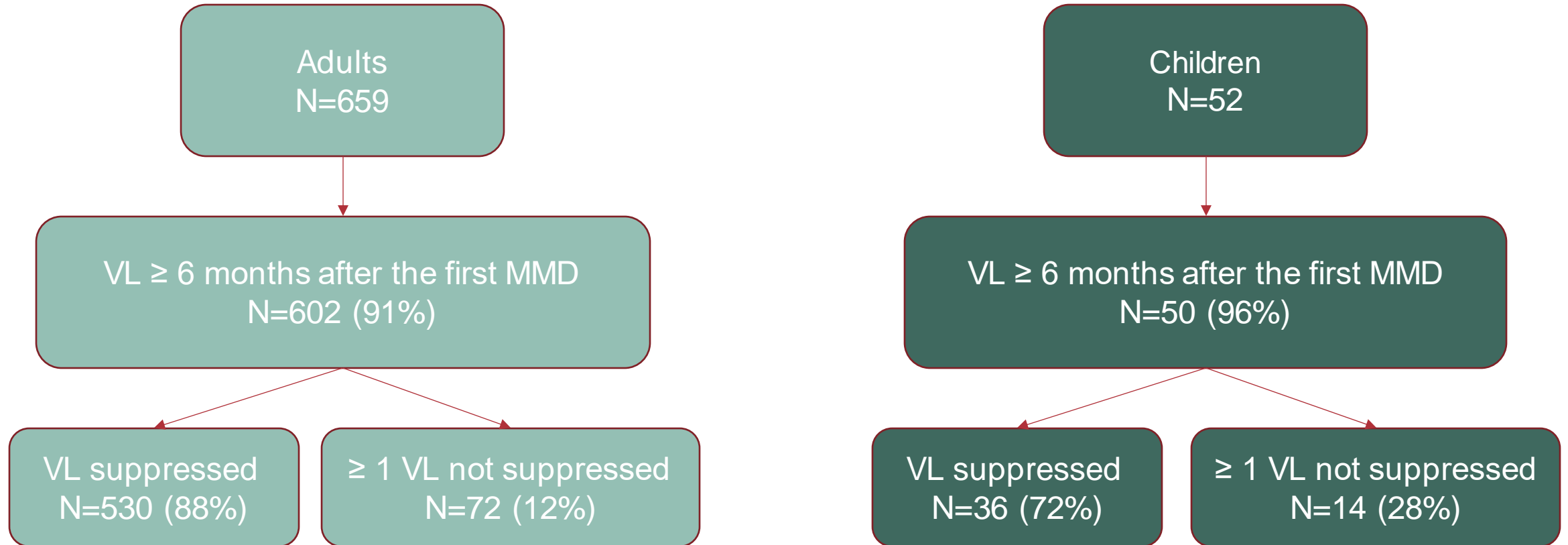
- Most common reason for MMD discontinuation: **provider decision**, followed by **high VL**, **adherence** issues, and **stockouts**



# Viral Load (VL) Coverage



# VL Results



# Evaluations of Pediatric MMD: Mozambique and Eswatini

- Design:
  - Secondary analysis of existing data from electronic and paper-based records
- Population:
  - All children ages <15 with clinical visit to a study site between September 2019-August 2020 (Mozambique) or July-December 2020 (Eswatini) at 16 facilities in two provinces in Mozambique and 31 facilities in two regions in Eswatini
- Data collected on patient outcomes and care through August 2021 (Mozambique) or March 2022 (Eswatini)
- Data items included date of ART pickups and number of months of ART received, as well as viral load specimen collection dates and results

# Pediatric MMD Evaluation Objectives

- How many children were transitioned to MMD, when were they transitioned, and how did they differ from children who were not transitioned?
- Did children who ever received MMD continue to receive MMD for the next year?
- Did children on MMD continue to receive viral load monitoring according to guidelines, and were they able to maintain or achieve viral suppression?

# Client Characteristics and Receipt of MMD

	Mozambique	Eswatini
Age group		
<5	1,183 (27%)	196 (13%)
5-9	1,699 (39%)	505 (32%)
10-14	1,501 (34%)	858 (55%)
On ART <6 months at the time of study enrollment	858 (20%)	83 (5%)
Ever received a multimonth supply of ART during study follow-up	3,609 (82%)	1,041 (67%)

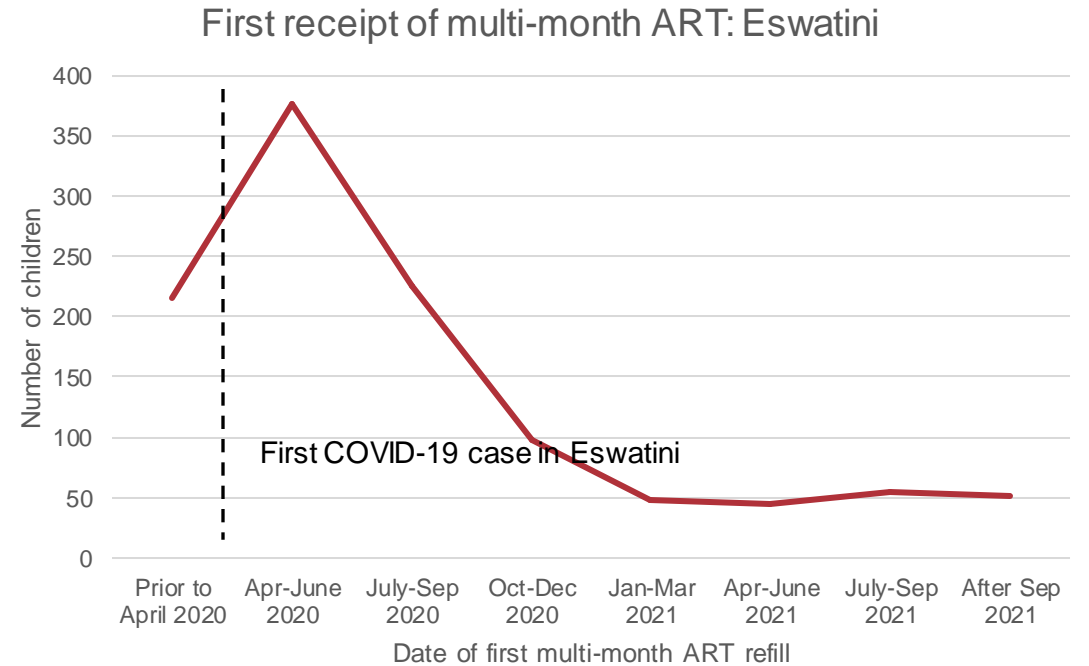
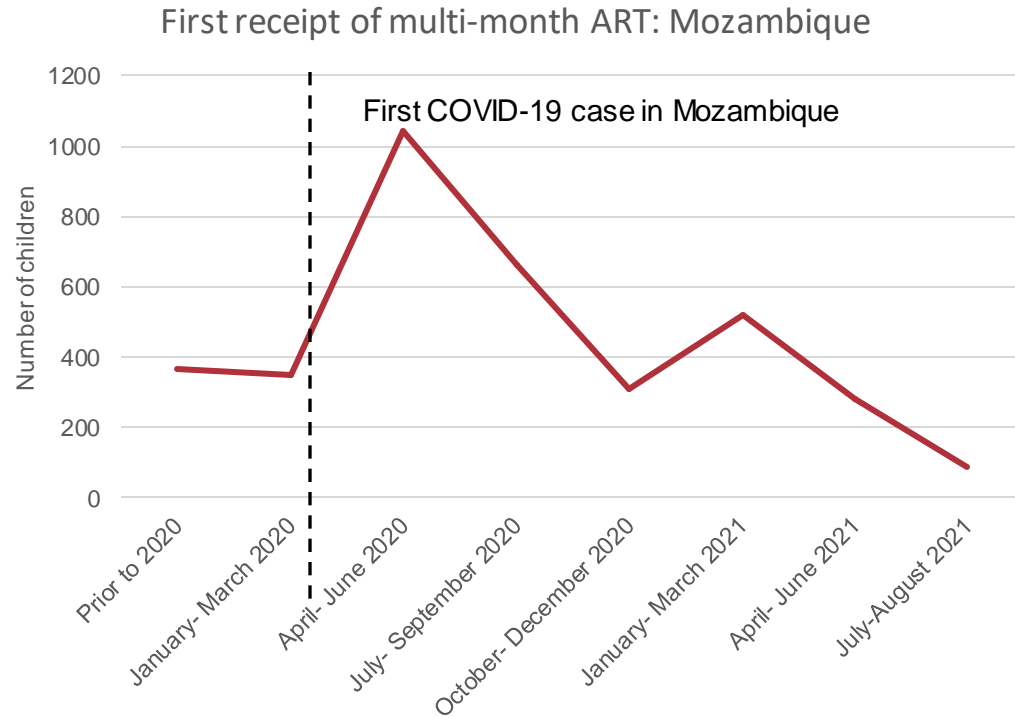




# Receipt of MMD

- Highly correlated with age: from 63% for those ages  $\leq 5$  up to 93% of those ages 10-14 in Mozambique, and 41% of those ages  $\leq 5$  up to 75% of those ages 10-14 in Eswatini.
- In **Mozambique**, receipt of MMD was also correlated with time on ART and time in follow-up at the site. Children with record of opportunistic infection, malnutrition, or unsuppressed VL less likely to receive MMD during the study period.
- In **Eswatini**, children attending facilities in Shiselweni region were also significantly more likely to have ever received MMD compared to children receiving care at facilities in Hhohho. Significant variation by site: of 33 sites, 11 sites recorded over 85% of children on MMD, while five sites reported fewer than 25% of children ever receiving MMD.

# Timing of First Receipt of MMD



# Retention on the MMD model

% of children receiving consistent MMD	Mozambique	Eswatini
Age <5 years	29%	7%
Age 5-9 years	36%	17%
Age 10-14	48%	41%
Overall	40%	31%

**Age** was the strongest predictor of consistent MMD receipt, but children with an **elevated VL** (>1,000 copies/mL), children with **suboptimal adherence** to ART pickups, and children with a **regimen switch** after first MMD were less likely to receive consistent MMD.

# Viral Load Coverage and Suppression Among Children on MMD

- In **Mozambique**, **40% of children had a VL** within the 12 months after first MMD (lowest among children ages 10-14 at 35%). In adjusted analysis, **children who received consistent multimonth supplies of ART were significant less likely to have a viral load** in that 12-month period.
- 79% of children were suppressed at least six months after first MMD, while 21% had an unsuppressed VL at least six months after first MMD. Younger children were significantly **less** likely to be suppressed.
- In **Eswatini**, **87% of children had a VL** within the 12 months after first MMD: no significant difference by age or consistent receipt of MMD.
- 93% of children were suppressed at all VLs 6-12 months after first MMD; this was lower among children under age 5 (86%)

# Acknowledgements:

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- Aneta Dvorakova
- Study participants
- Support from: Clinton Health Access Initiative



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# Q&A





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