

# Kenya Case Study

## *Leveraging on EMR for DSD Monitoring*

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**CQUIN 6<sup>th</sup> Annual Meeting**

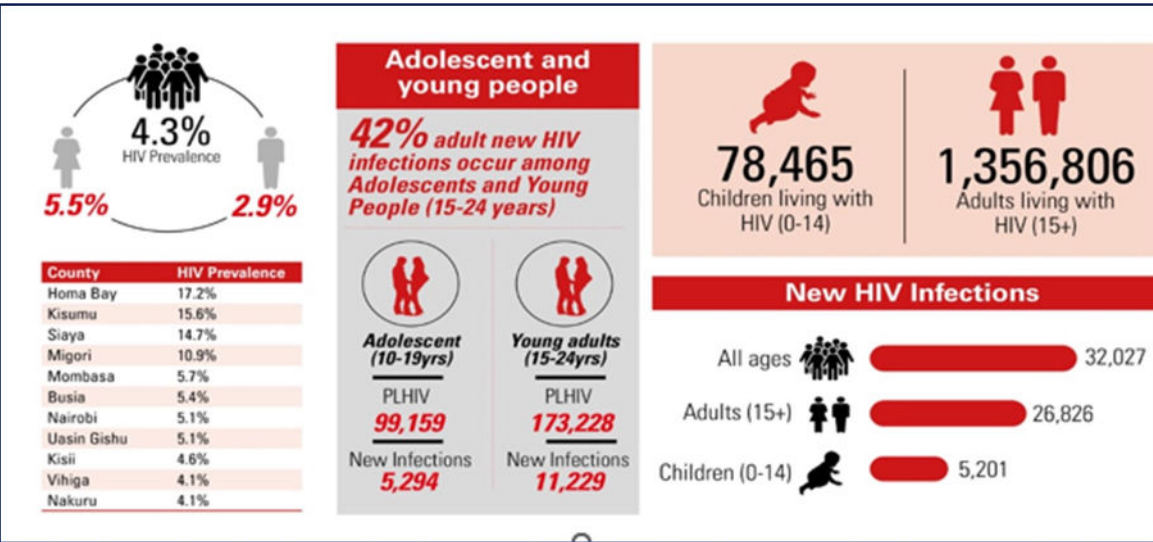
December 6 – 9, 2022 | Durban, South Africa



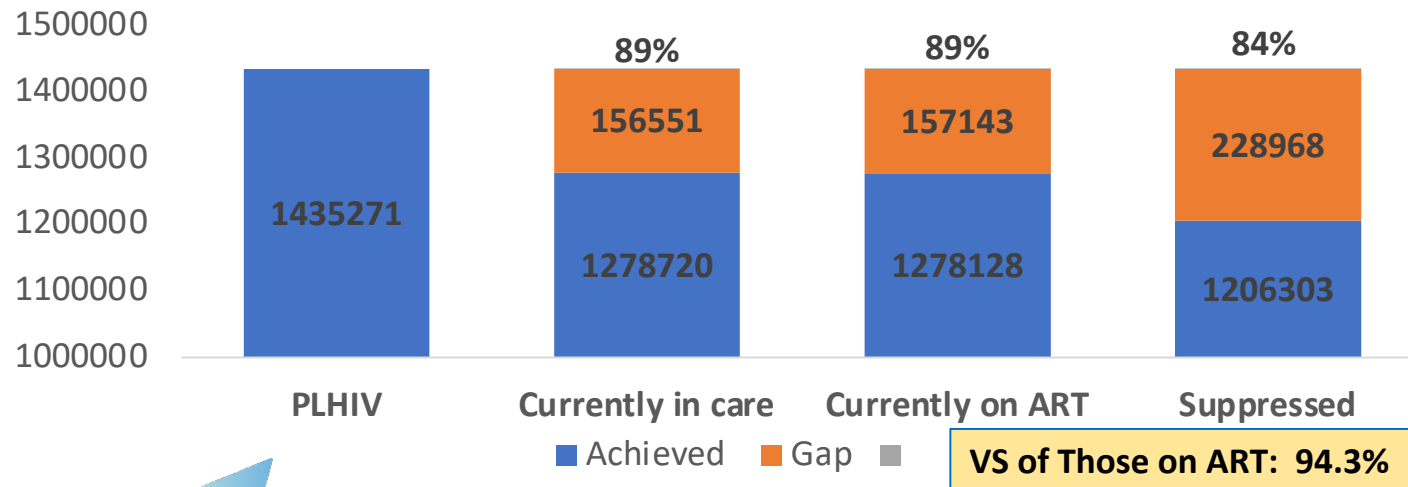
# Presentation Outline

- Background, policy & guidances
- Overview of national data reporting systems for HIV
- HIS/EMR distribution and patient coverage
- Data flow for DSD, EMR Dashboards
- Challenges
- Next steps for scale up

# Overview - Kenya HIV Epidemic



- **1.43 Million** estimated Persons Living with HIV in Kenya (*HIV estimates 2021*)
- **> 1.27 Million** on ART
- **94.3%** overall viral suppression on ART (children lag behind, 89.3% comp. to adults, 95.5%)





**Kenya HIV Prevention and Treatment  
Guidelines, 2022**

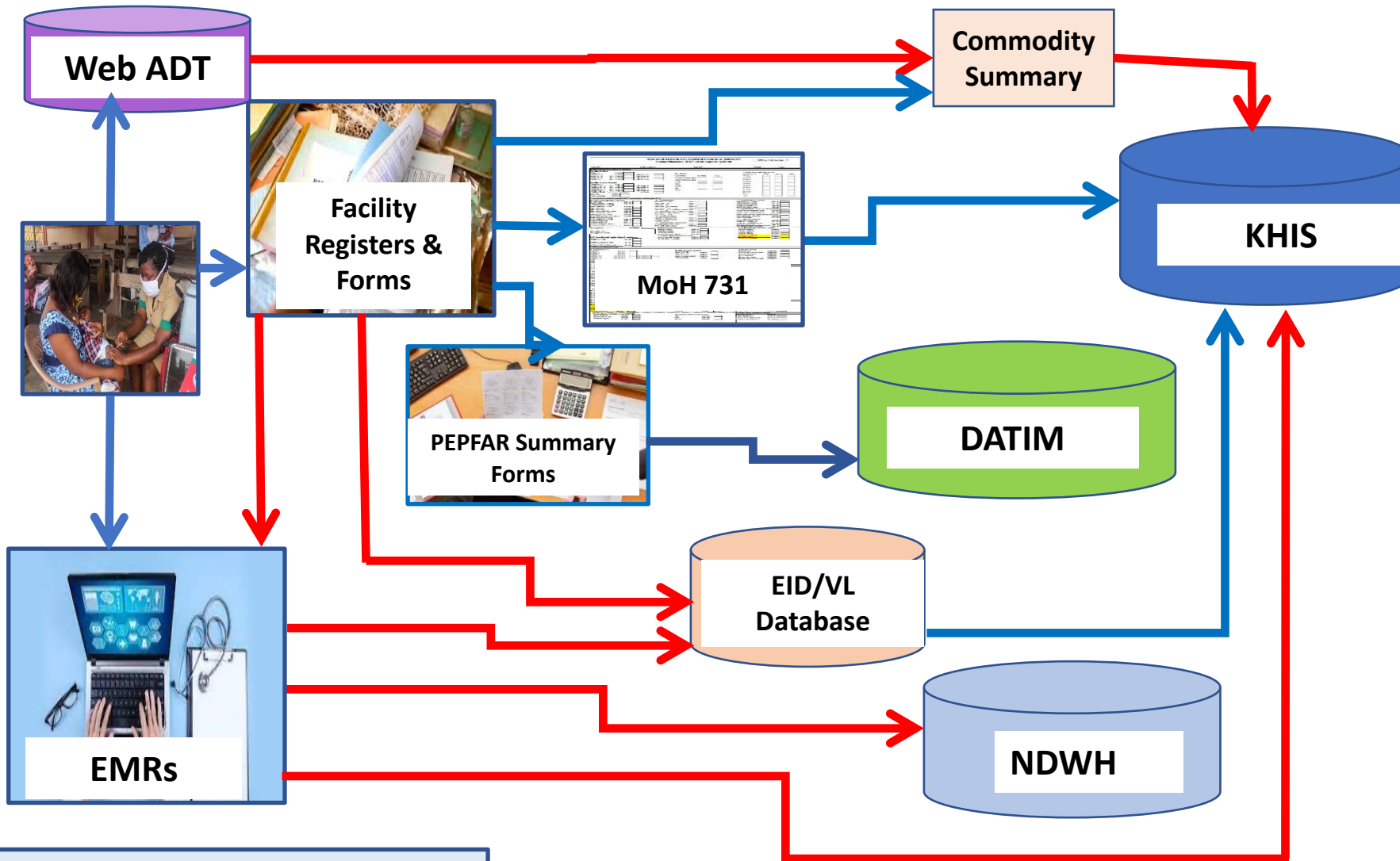
2022 Edition

# Kenya HIS Policy Environment

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- Health Act, 2017
- Data Protection Act, 2019
- National eHealth policy and strategy
- eHealth Strategy 2019 - 2024

# Kenya - HIV Reporting & Data Flow Systems



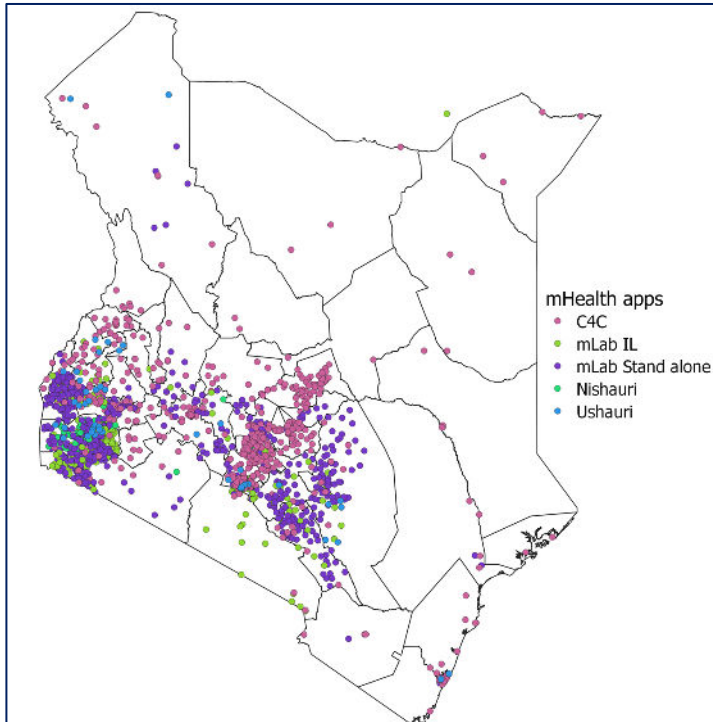
## National Repository/Databases

- KHIS (Aggregate Data)
- NDWH (Patient Level Data)
- EID/VL Database (Patient Level Data)

## Facility Systems

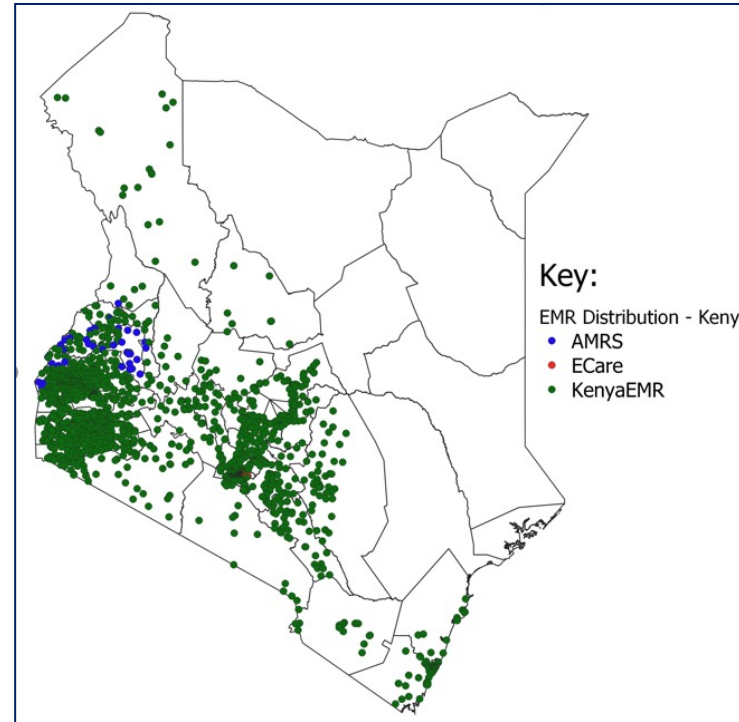
- EMR
- Paper
- Hybrid

# Kenya - HIS Distribution and PLHIV Coverage



## mHealth Apps Distribution

- **982** mLab sites
- **544** Ushauri Sites
- **1,044** Active eHTS Sites;  
**91%** have data in NDWH



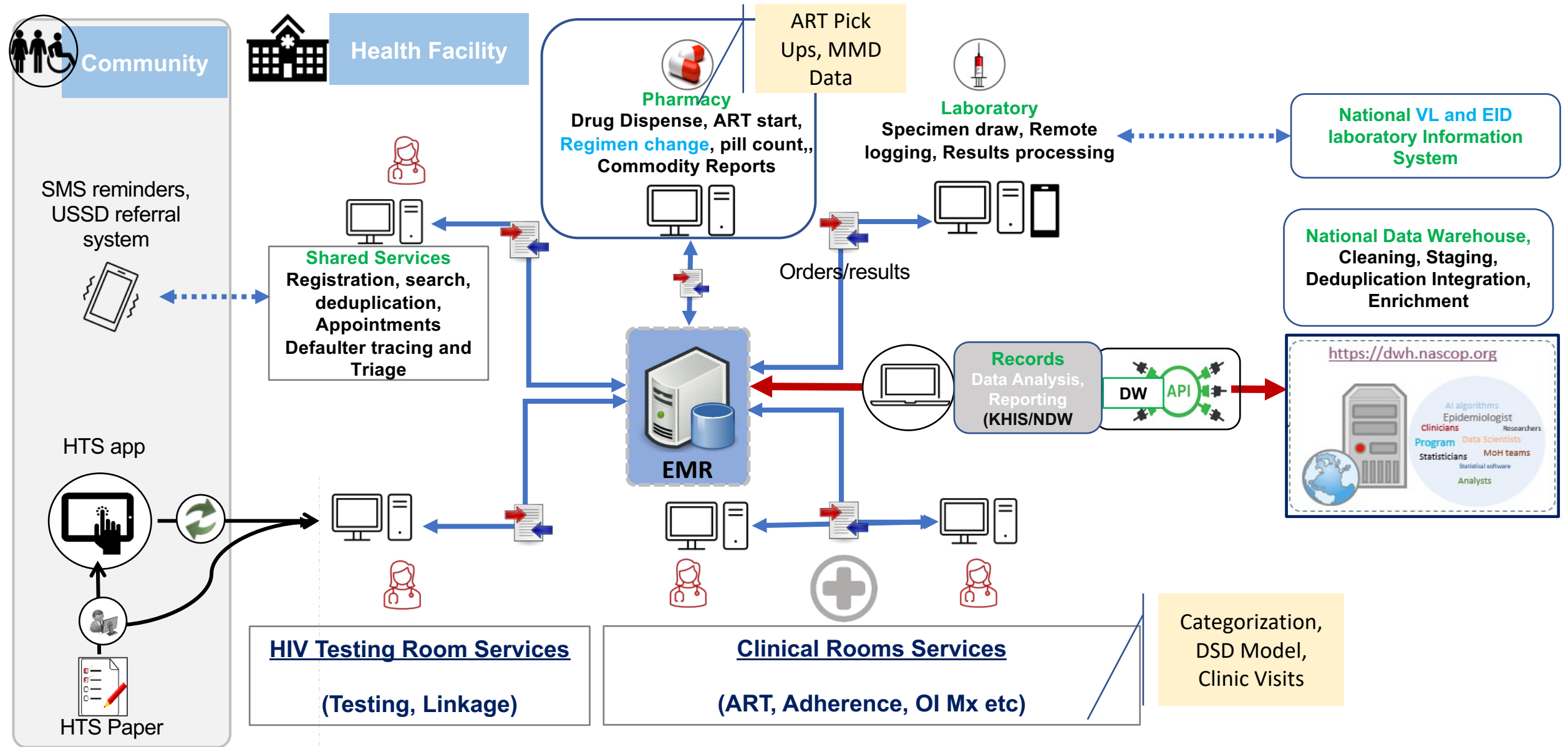
## EMR Distribution

- **1,690** Active EMR Sites
- **1,658** Active Kenya EMR Sites
- **>90%** of EMR sites reported to NDWH

- **Active PLHIV** as of September 2022
- **94%** (1,143,401) of Current on ART Patients were seen at a site with an EMR
- **98%** (1,103,564) of Current on ART Patients seen at EMR Sites had records in DWH
- **85%** (1,049,431) of all active ART Patients have records in DWH

↑  
Opportunity to leverage on good coverage of EMR for ART patients for reporting, analysis of patient level data including DSD

# Integrated Electronic Data Flow for HIV Services



# DSD Data Entry Window - at Facility EMR

**Cotrimoxazole**  
Adherence  Good (G)  Fair (F)  Poor (P)  Not applicable (N/A)  
Dispensed  Yes  No  Not applicable (N/A)

**ARV**  
Current Regimen: **TDF/3TC/DTG**

**PHDP Services**  
Has the client been given condoms this visit?  Yes  No  Unkown  N/A  
Has the client been screened for substance abuse?  Yes  No  Unkown  N/A  
Has the Client disclosed HIV status to their sexually active partner?  Yes  No  Unkown  N/A  
Has the client's partner received on-site HIV testing?  Yes  No  Unkown  N/A  
Has the client been screened for STI (in this visit)? \*  Positive  Negative  Not Done  N/A

**Stability assessment**

Healthcare team is satisfied about providing for the patient?

**Return Visit**  
Return Visit Date:   
Differentiated Care: **Standard Care**

Willing to receive reminders/notifications about the appointments?  Yes  No\*

Age	37	BMI	30.83
Current regimen	TDF/3TC/DTG	Duration of current regimen (Months)	0
Active Ois		Most recent VL Results	2.0
Good adherence in the last 6 months	NO	Completed 6 months TPT	NO

Model Mix Selection

Entry of Stability Assessment Variables



# Kenya - National Data Warehouse (NDWH) DSD Dashboards

**DSD Tab** Inbuilt as Part of Care Treatment 'View' National Data Warehouse (NDWH)

**Disaggregated Dashboards** by County, Sub-County, Facility, Age, Gender

Integrated Data Warehouse

Home Reporting Rates HIV Testing & Prevention HIV Treatment Resources [Clear Cached Data](#)

Home / HIV Treatment / HIV Treatment

NEWLY STARTED ON ART CURRENT ON ART ART OPTIMIZATION ADVERSE EVENTS - AE **DSD** VL MONITORING TREATMENT OUTCOMES OTZ OVC COVID-19

**DIFFERENTIATED SERVICE DELIVERY**

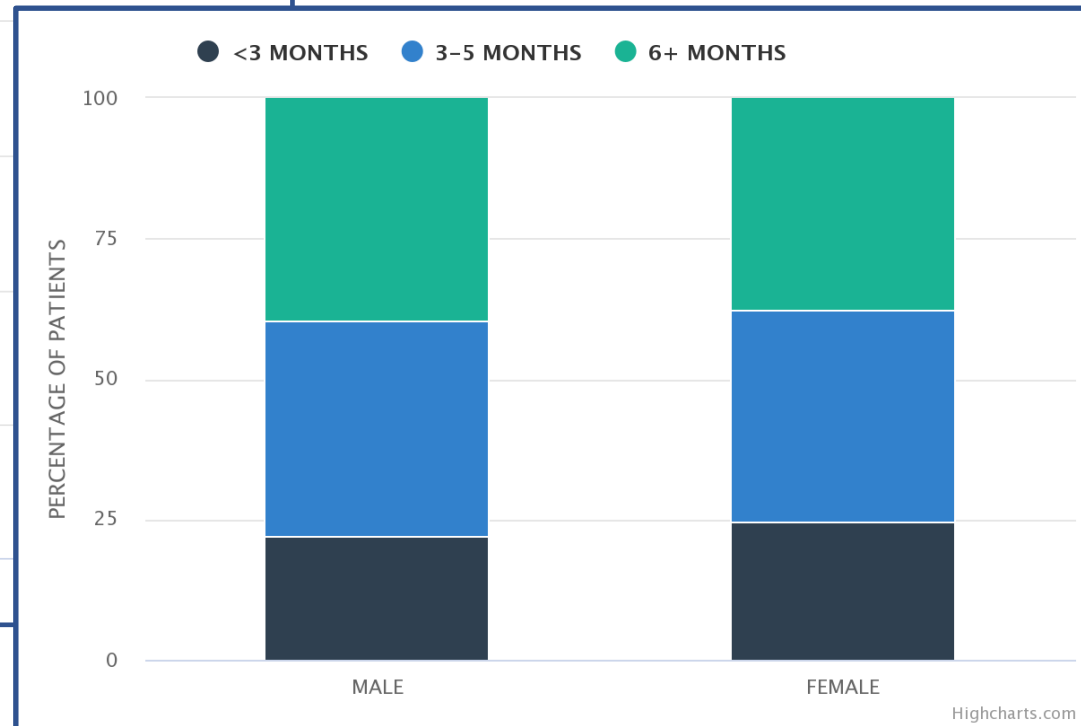
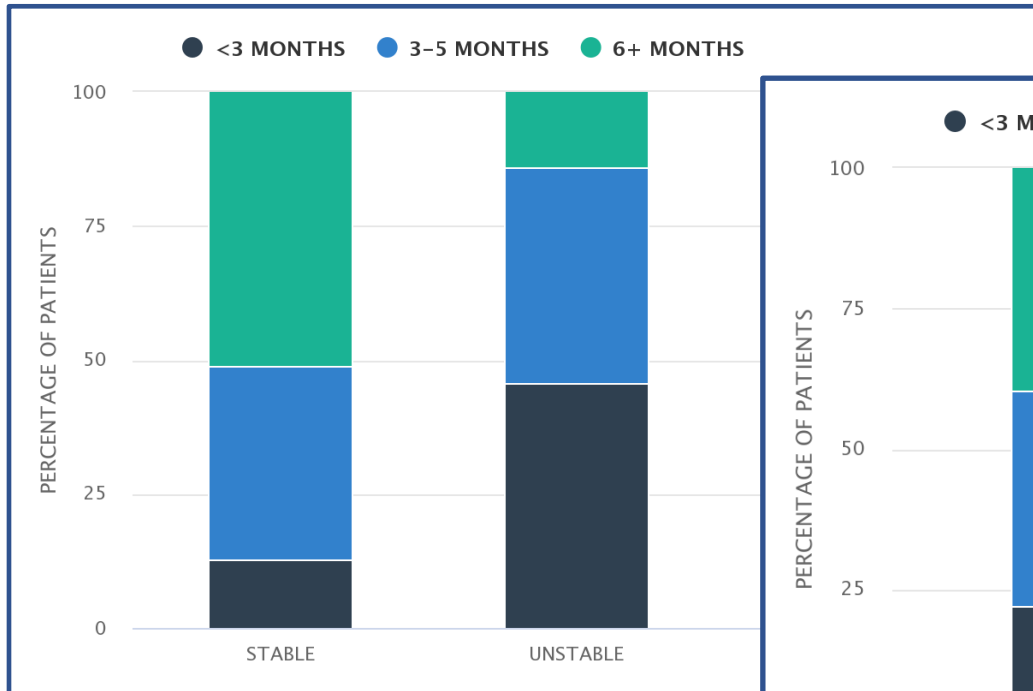
County Sub-County Facility Partner Agency Gender

Select County Select Sub-County Select Facility Select Partner Select Agency Select Gender

Age Group

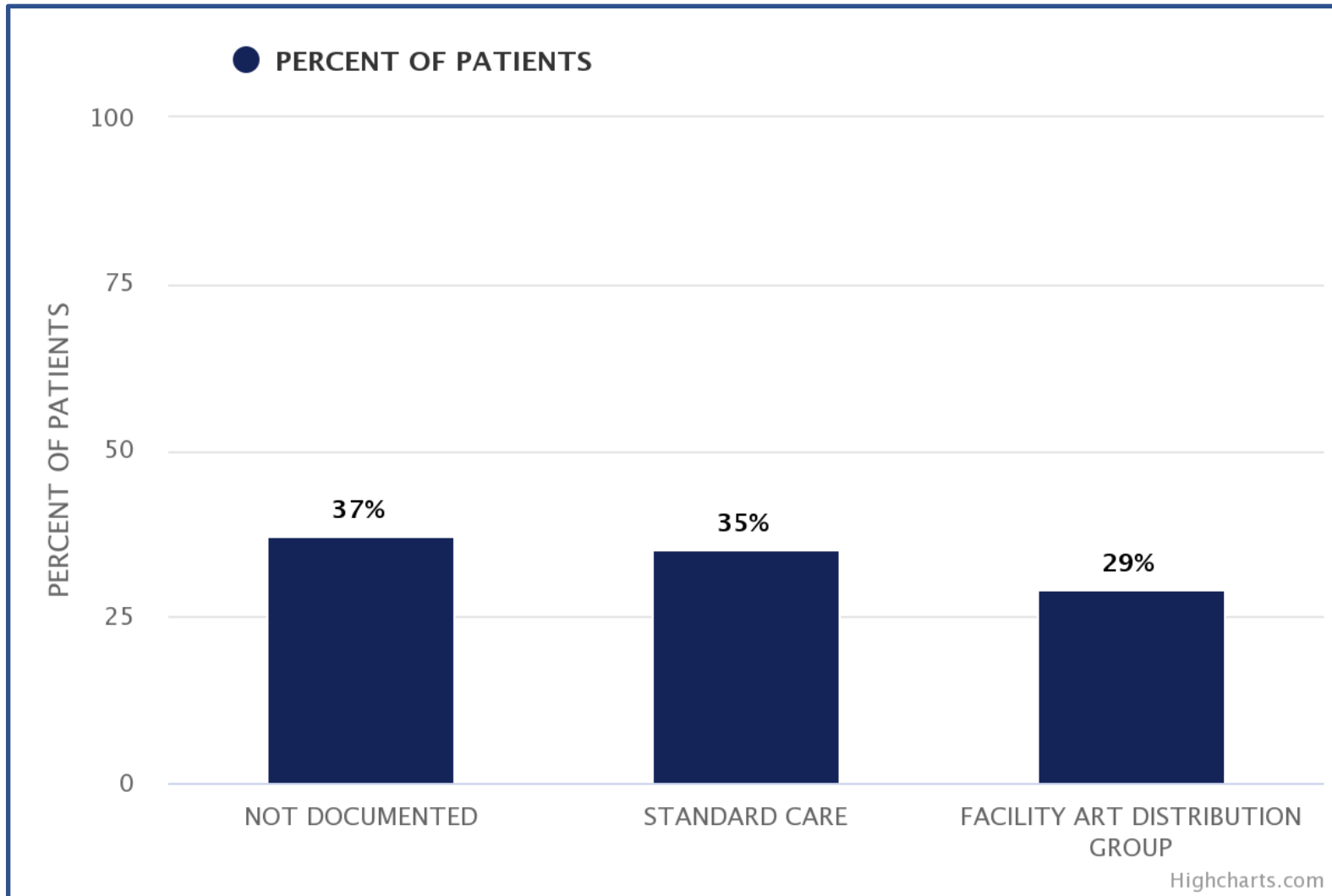
Select Age Group

# Kenya - National Data Warehouse (NDWH) DSD Dashboards - MMD



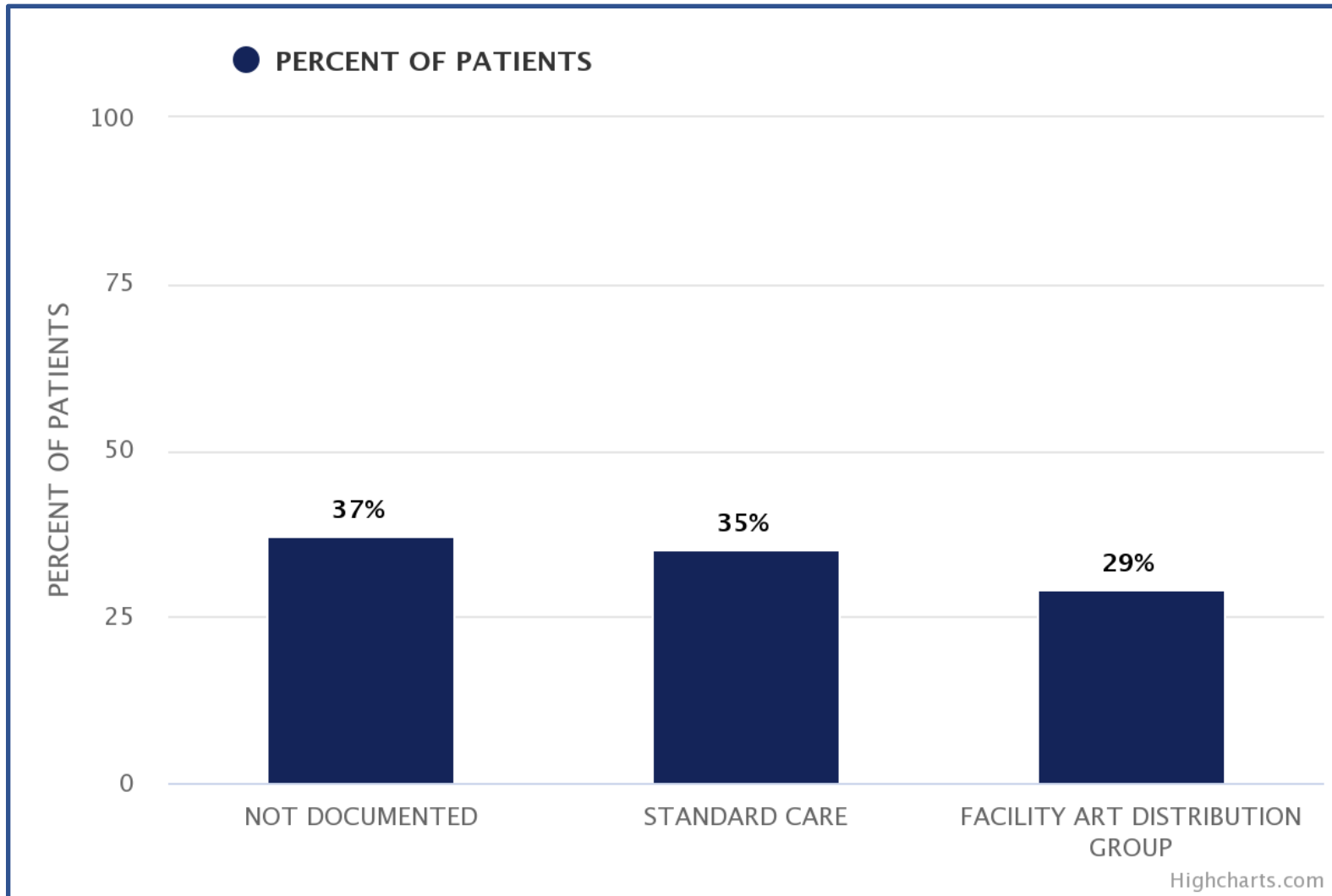
- PLHIV on ART MMD Data Disaggregation
  - Stability Status
  - Gender
- Addressing documentation gaps to report dispensing as opposed to scripting

# Kenya - National Data Warehouse (NDWH) DSD Dashboards – Model Mix



- Documentation gaps - ROC with undocumented models

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- Documentation gaps - ROC with undocumented models

# Challenges

- Documentation gaps - client categorization, missing data on DSD eligibility eg TB/OIs
- Late uploads of current data from the facility EMRs to the National Datawarehouse
- Difficulties by service providers in documenting clinic visits and drug pick ups resulting in data quality between pharmacy and clinic records

# Next Steps/Plans to Improve EMR Utilization for DSD

- Update the EMR module and NDWH dashboards to align with the *HIV Prevention and Treatment Guidelines 2022* - criteria for established on ART, expanded DSD model mix
- Enhance dashboards to visualize outcomes by model type - viral load suppression, retention
- Institutionalize use of EMR DSD data for decision making at all levels - national, county, facility
- Continuous TA to facilities to improve EMR documentation
- Finalization of adoption of National Unique Patient Identifier (NUPI) - Ongoing

# Acknowledgements

REPUBLIC OF KENYA



MINISTRY OF HEALTH



Thank you!

