

# Reaching Key and Priority Populations Using Digital Vending Machines

## Digital Platforms to Enhance HIV Testing and Linkage Coverage

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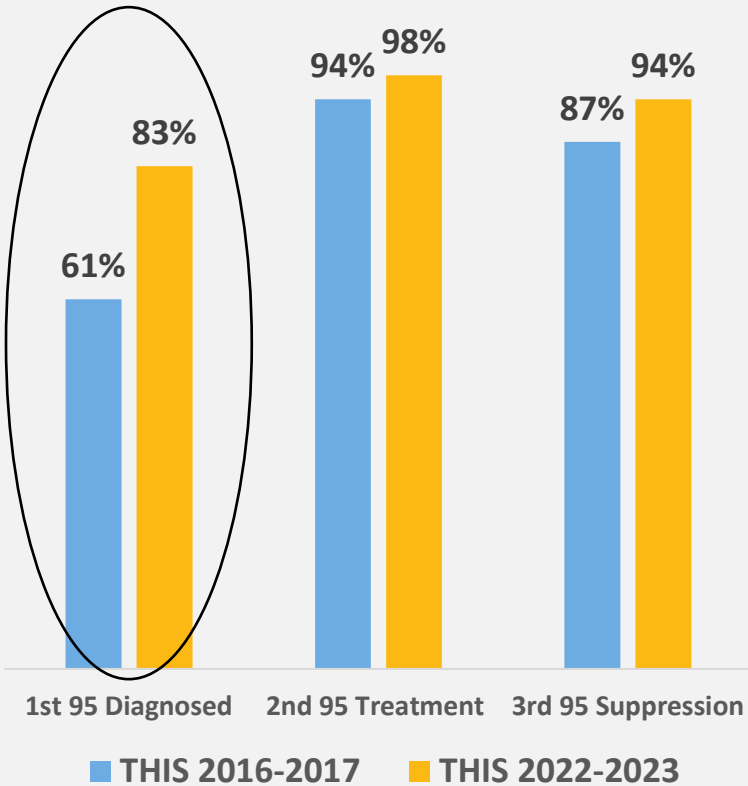
U.S. Centers for Disease Control and Prevention, Tanzania Office



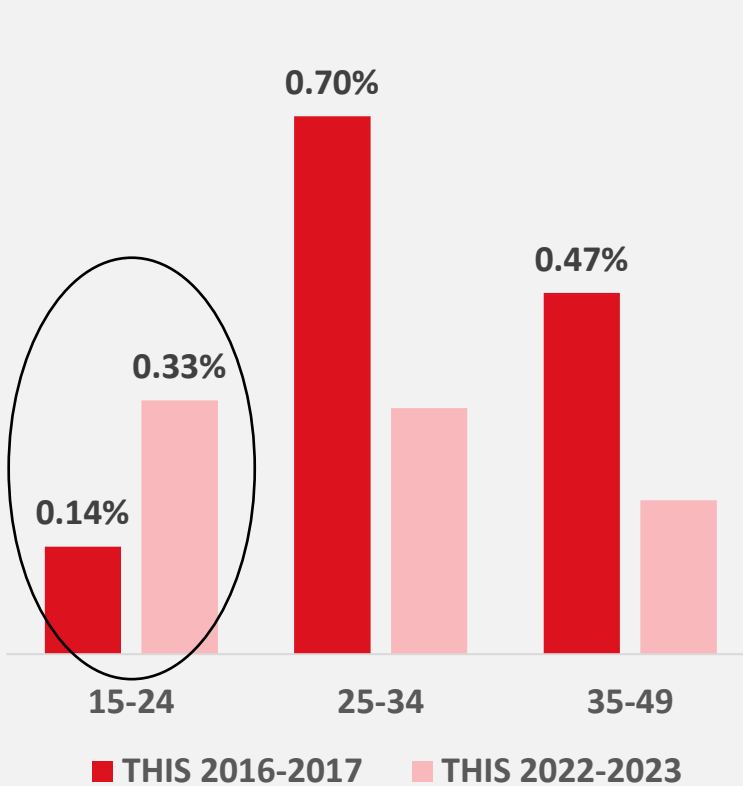
# Introduction

HIV case identification and HIV prevention among youth and men remain a challenge and necessitate innovations to address gaps.

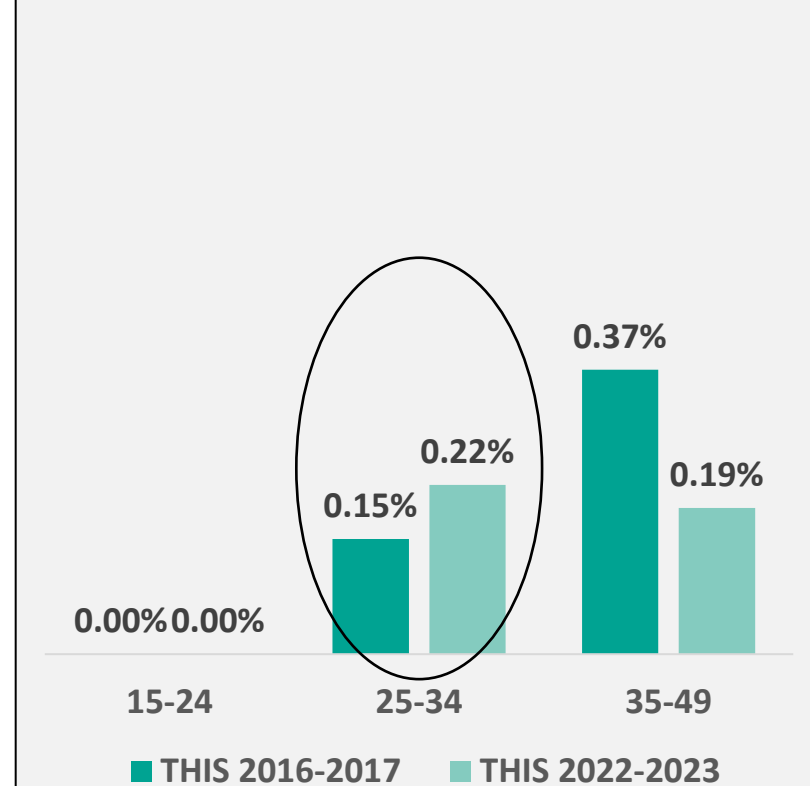
### 95-95-95 Cascade Among People Living with HIV Ages 15+ Years



### Comparing Annual HIV Incidence by Age Group, Females 15+ Years



### Comparing Annual HIV Incidence by Age Group, Males 15+ Years

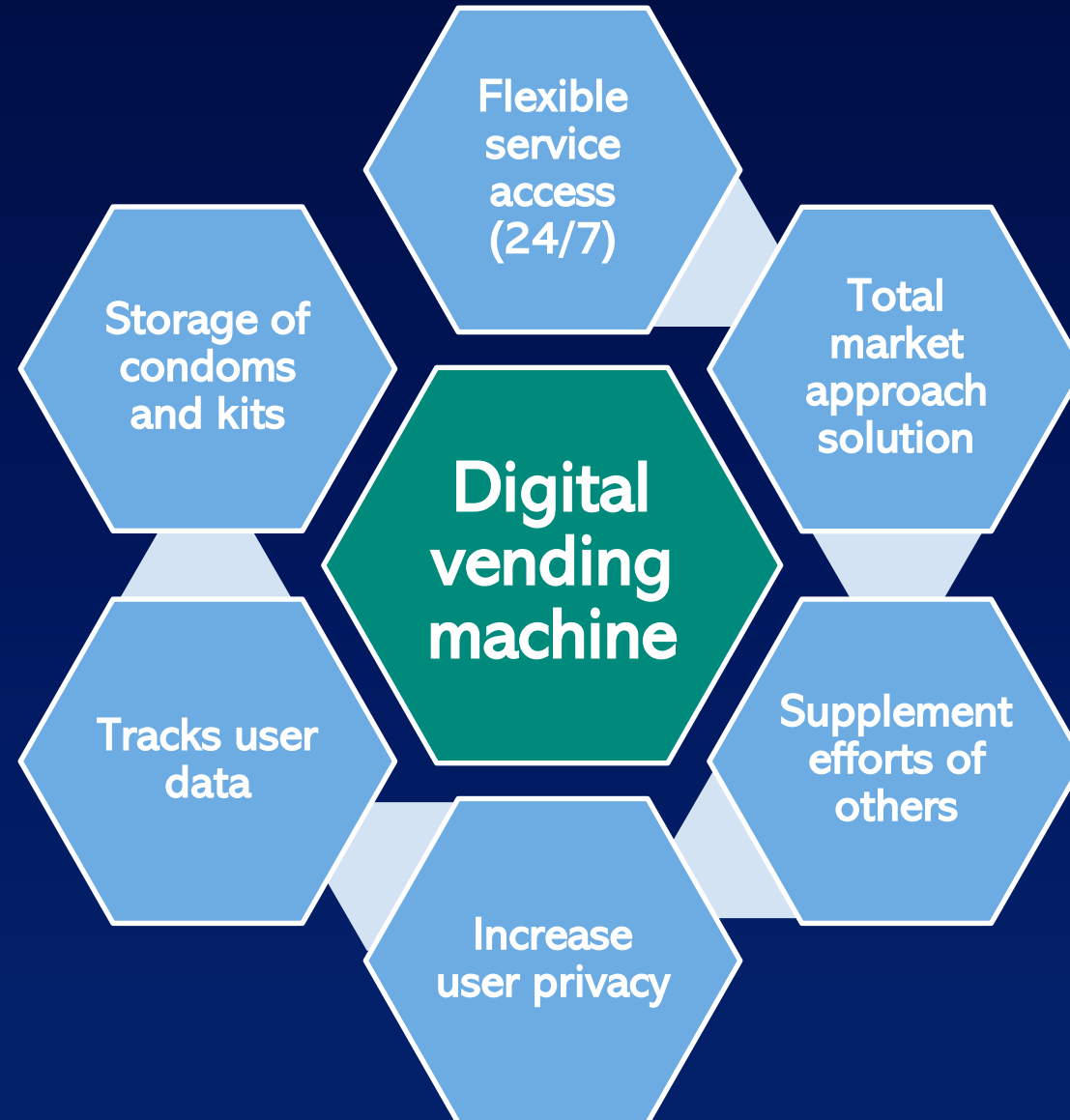




# Digital Vending Machine in Tanzania

- In Tanzania, innovation started in **2018** in Dar es Salaam, primarily for **condoms** distribution.
- HIV self-test kits approved by MOH in **Dec 2023** and **implementation started in Feb 2024**.
- Machines are connected to **electric power** and **internet**.
- **Fixed** and **mobile** machines.
- For this presentation, most of the data will be on condom uptake as a platform for other prevention services.

# Why Digital Vending Machine (DVM)?







# DVM Access

## 1. Key & Vulnerable Population (KVP) Dedicated PIN Number

- Given to KVPs by peers after registration.

## 2. Mobile Phone One Time Passcode (OTPs)

- Normally for clients of KVPs, men, youths, AGYWs, and GPs.

## 3. Special card

- KVPs provided with cards that are coded with KVP sub-group category.

# Backend Data Capturing and Report Generation

(Real time web-based data capture)

**ADMIN PANEL**

MENU

- Dashboard
- Data
- Machine
- Products
- PIN Management
- Report**
- Graphical Report
- Hours Report
- Daily Report
- Weekly Report
- Monthly Report
- Quarterly Report
- Custom Reports
- HIV-self test Reports
- Setting

Welcome Administrator (Tunu). MY SERVICES wishes you a great working day

Welcome Tunu

## Vending Data

Home / Vending Data

Export All

### LIST OF STATISTICAL REPORT

Showing 1-200 of 131,172 items.

**Machine ID** **Gender** **Age Group** **Pin**

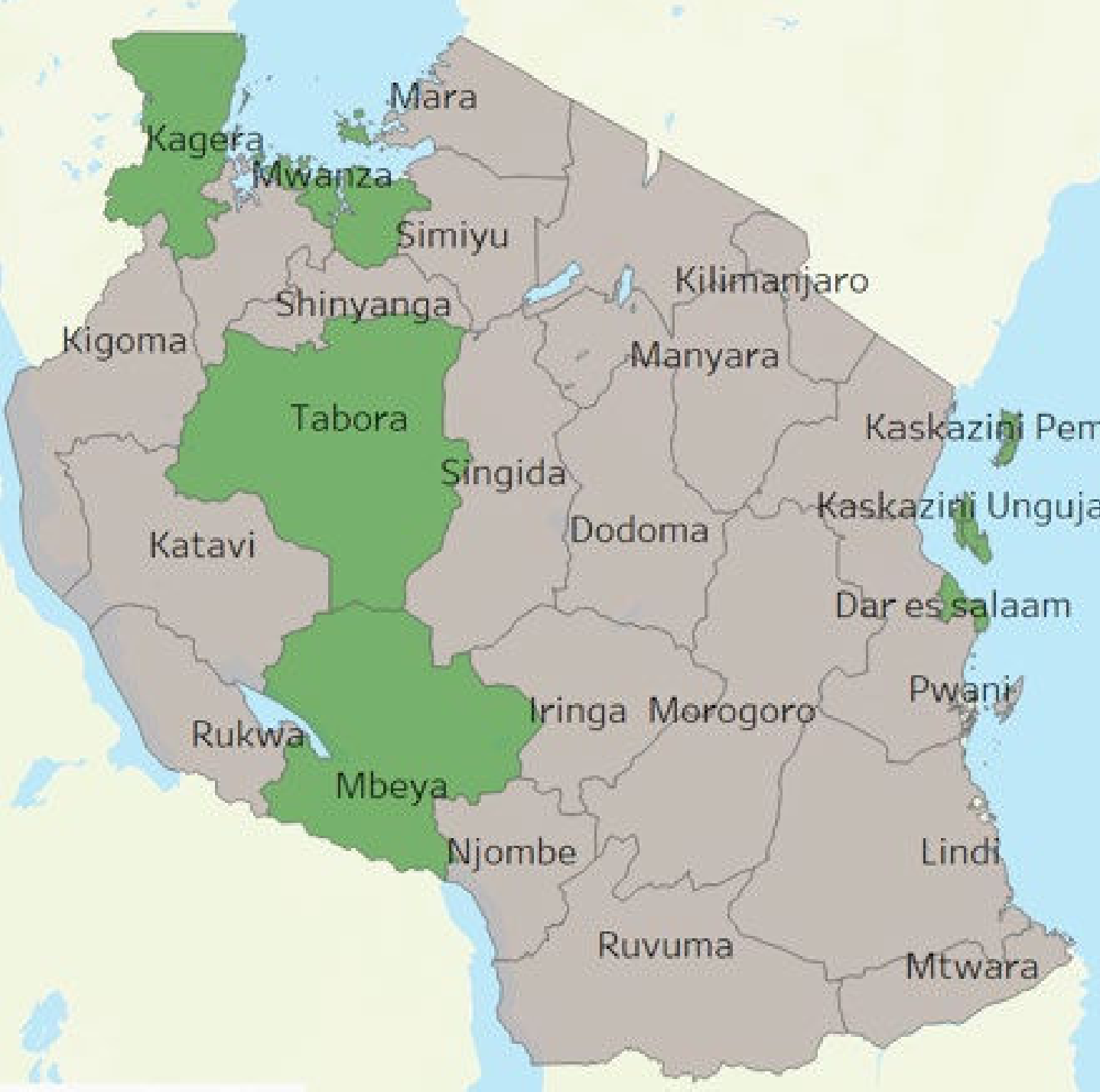
Select a Machine ... Select a Gender ... Select a Age group ... Select a Desc ...

**Description** **DATE From** **DATE To** **Type**

Select a Desc ... Select Start Time ... Select End Time ...

Search Reset

#	Machine ID	Ward	Location	Transaction Ref No	Gender	KVPs Group	Age Group	Product	Quantity	Slot No	Date	Time	Access Method	Pin	phone
1	864086063456952	KIJITONYAMA	SINZA 2	20240610080144732	MALE	GP	15 - 19	ZANA	3	40	2024-06-10	08:00:50	PIN	108272	0655420521
2	864086063456812	HAMUGEMBE	KAGERA	20240610070144731	FEMALE	AGYW	20 - 24	ZANA	7	59	2024-06-10	07:49:26	PIN	736403	
3	864086063456812	HAMUGEMBE	KAGERA	20240610070144730	MALE	ABYM	20 - 24	ZANA	7	59	2024-06-10	07:47:50	PIN	25130603	
4	864086063456812	HAMUGEMBE	KAGERA	20240610070144729	MALE	ABYM	20 - 24	ZANA	7	60	2024-06-10	07:46:10	PIN	85931403	
5	864086063456812	HAMUGEMBE	KAGERA	20240610070144728	MALE	ABYM	20 - 24	ZANA	7	58	2024-06-10	07:44:40	PIN	42697603	



## Current Coverage

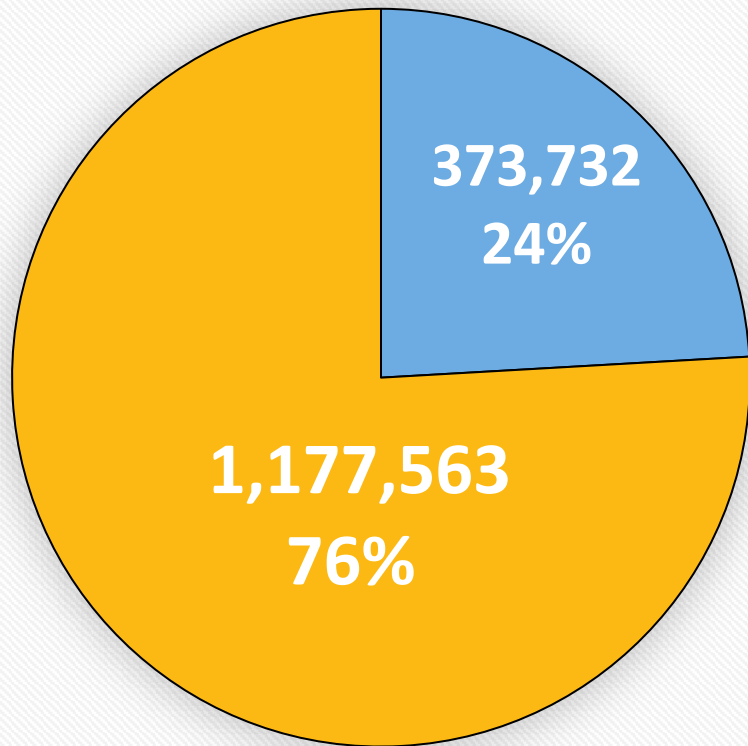
- 18 machines installed
- Placed in hotspots e.g., brothels and night hangouts.
- 5 mainland regions + Zanzibar
- 3 PEPFAR implementing partners



# DVM Beneficiaries (N=1.6M)

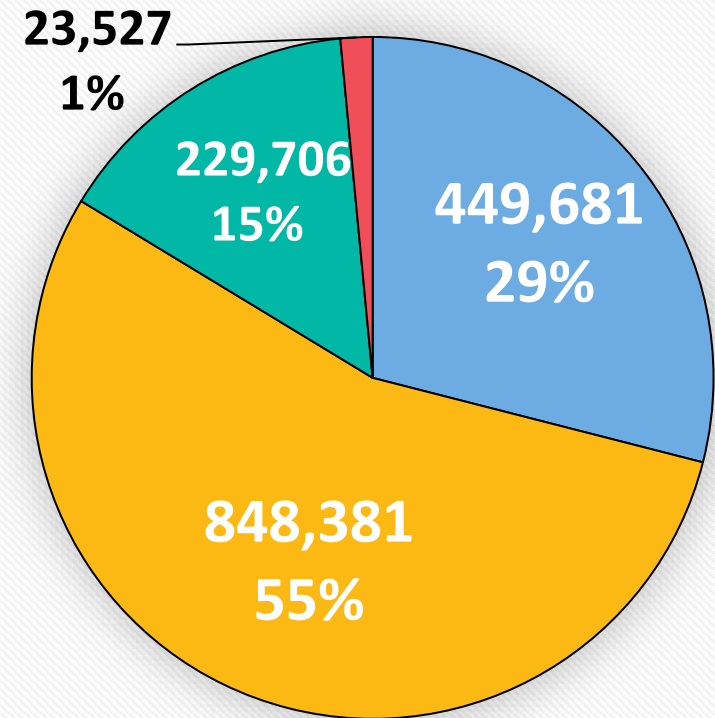
## Age and Sex Distribution, October 2022-March 2024

Sex distribution



■ Male ■ Female

Age distribution,  
age groups in years



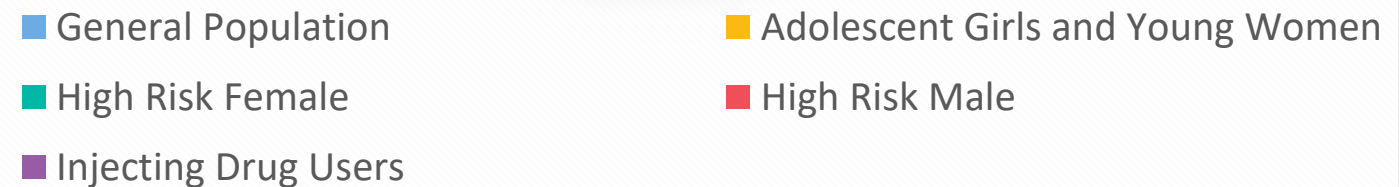
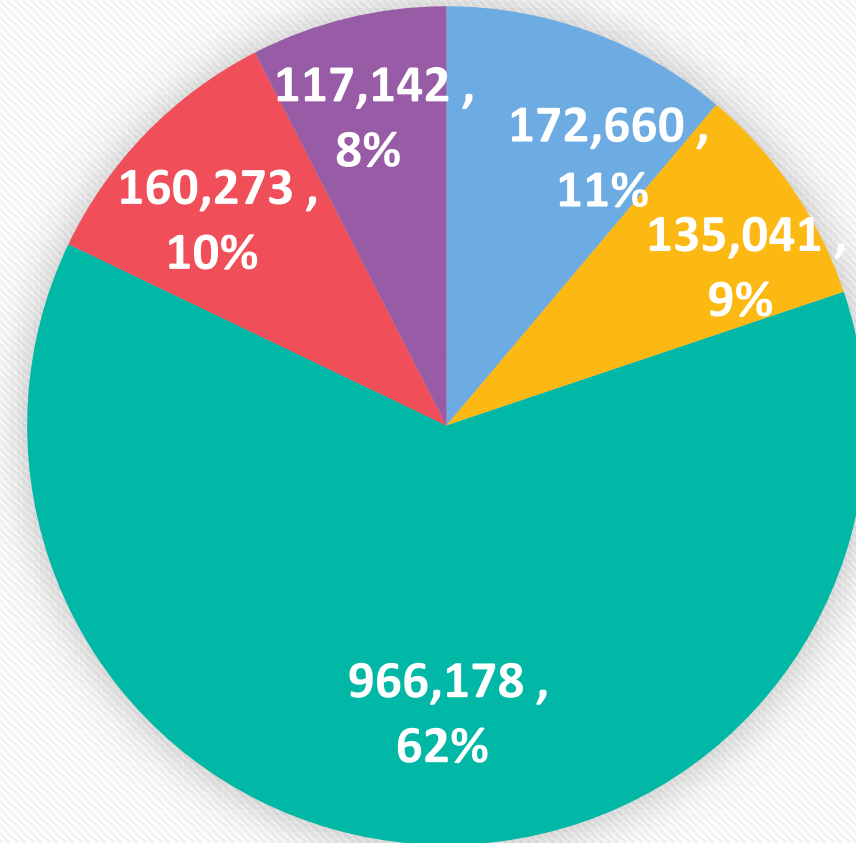
■ 15-24 ■ 25-34 ■ 35-44 ■ 45+



# Condoms Uptake by Population Type, October 2022-March 2024

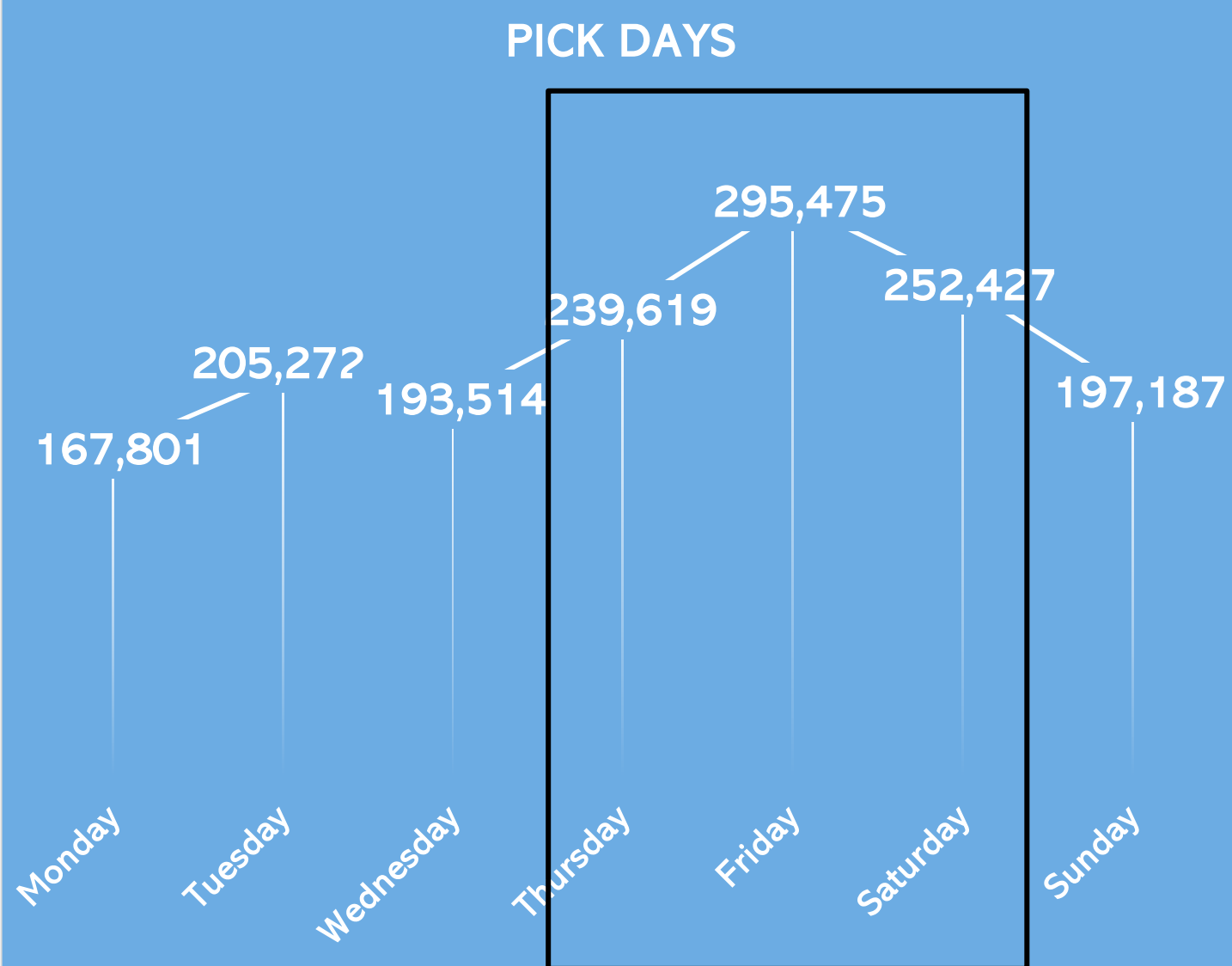
- High risk females, mostly Female Sex Workers, have the highest uptake of services
- Services extended to general populations

Sub-population identification



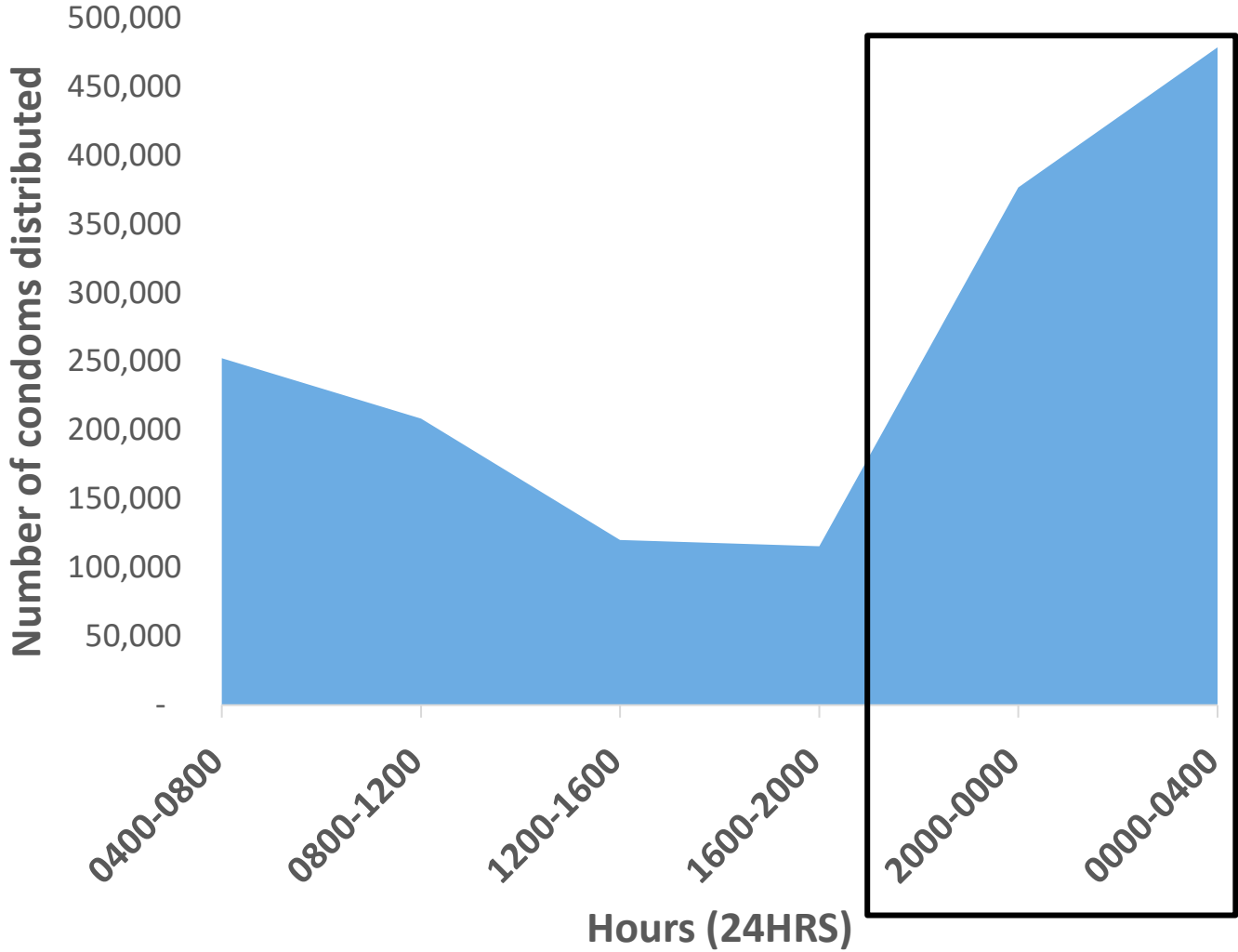
# Condoms uptake by day of week, October 2022-March 2024

- Condoms are picked up throughout the week
- Friday is the most popular pick day
- ~50% of weekly uptake happens over weekend
- Uptake per day varies by location
- Data is used to inform community outreach activities and planning



# Condom uptake highest at night, October 2022-March 2024

Number of condoms distributed by time of day



- Digital vending machines are accessed throughout a day
- >75% of condoms are picked up at night
- Data used to inform community outreach activities like moonlight testing events.
- Pick up hours vary per location





## Future Plans

- Configure machines to distribute HIV self test kits
- Increase access through cell phones.
- Integrate communication for other health services.
- Explore feasibility to distribute other **medical products**, e.g., PrEP drugs, ARV drugs refill.
- Increase regional coverage.





Asante!  
Thank You!

