Taking the digital step: Using automated dispensing to improve patient experiences

Decentralized Drug Distribution (DDD) Learning Collaborative

August 13, 2020

PEPFAR

USAID
FROM THE AMERICAN PEOPLE

EpiC
Meeting Targets and Maintaining Epidemic Control

Session 2: Learning Collaborative Agenda (7-8:30 am EST)

- **What are automated dispensing models?**
  Tawanda Dube, Right ePharmacy
- **Leveraging private sector innovation and route-to-market insights to improve access to medications in the public sector**
  Philip Roberts, Coke Project Last Mile
- **Nigeria Current Scenario**
  Sachin V.M., Worldwide Healthcare
- **Looking Forward: Automated Dispensing to Deliver Patient-Centered Care & Sustain HIV Programmatic Gains**
  Fanie Hendriksz, Right ePharmacy

What are automated dispensing models?

Tawanda Dube, Right ePharmacy

August 13, 2020

PEPFAR

USAID
FROM THE AMERICAN PEOPLE

EpiC
Meeting Targets and Maintaining Epidemic Control

Automation impacts each element of the supply chain

	Manual	*Semi-automated*	*Fully Automated*
Procurement	Estimated based on historical data and projected consumption data	Calculated based on consumption data from EMR and supply chain systems	
Stock management	Manual handling systems	Automated handling systems at warehouse level, automated and manual systems at pick-up points (PUP)	Automated handling systems from warehouse to PUPs
Stock distribution	Based on pre-determined delivery schedule, often weeks / months in advance	Targeted distribution based on current stock levels at PUPs	
Reporting systems	Each component has own, often paper-based, reporting system	Majority of supply chain components have integrated reporting systems	Entire supply chain has integrated reporting system – real-time tracking of products from warehouse to PUP in system

The level of automation can be tailored based on capacity and terrain

Automated models leverage technology to achieve supply chain efficiencies

Through automation, can reduce (1) the number of intermediate distribution points, (2) the number of HRH required, and (3) the reporting burden for supply chain and service delivery partners.

Traditional Model

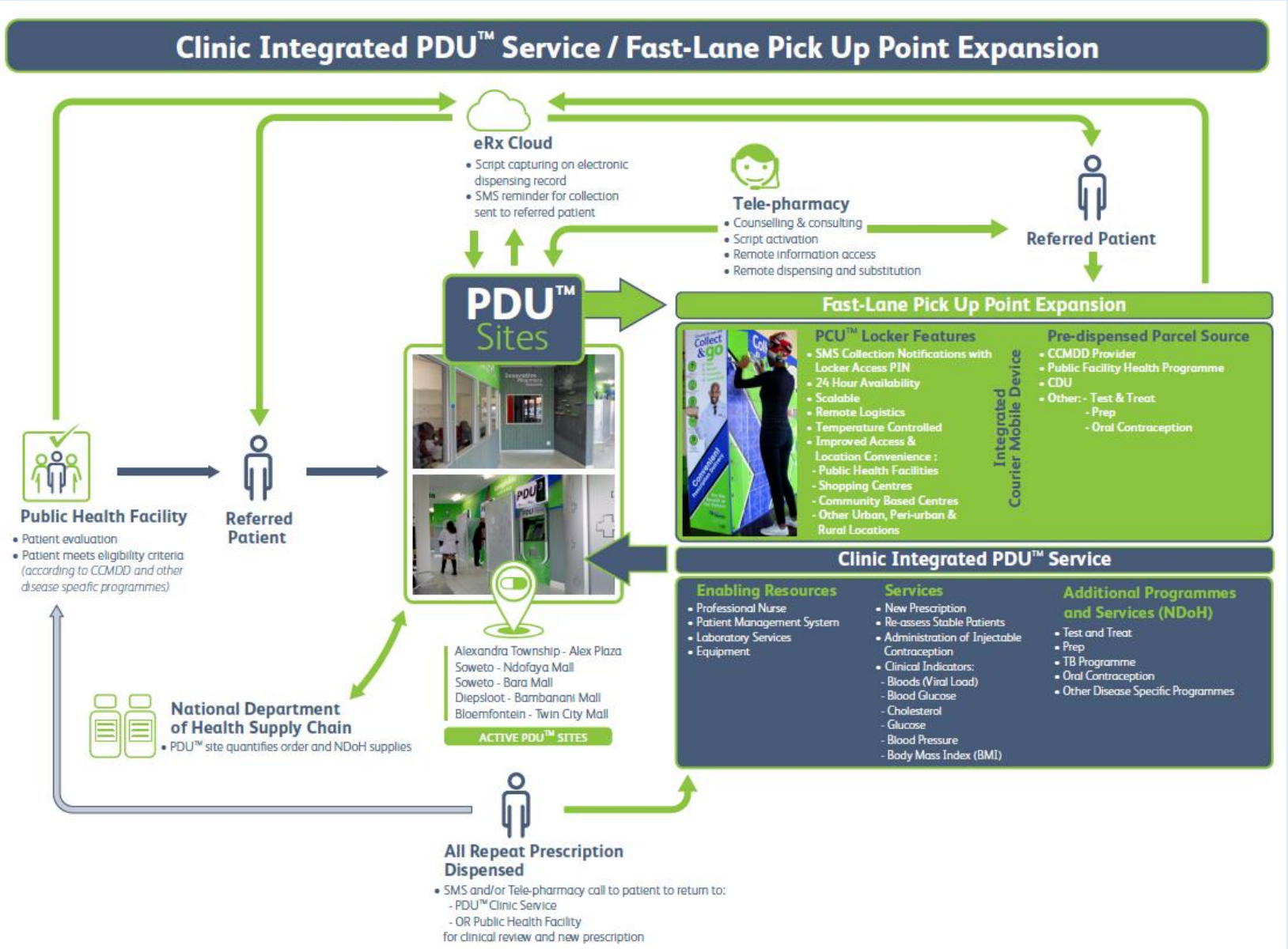
National Warehouse → Regional Warehouse → District Warehouse → Health facilities → Community ART Group (CAGs) or PUPs

Right ePharmacy's Automated Model

National Warehouse or District Warehouse → Centralized Dispensing Unit (CDU) → Health facilities; CAGS; PUPs

E.g. Right ePharmacy's Pharmacy Dispensing Unit (PDU) and Prescription Collection Unit (PCU)

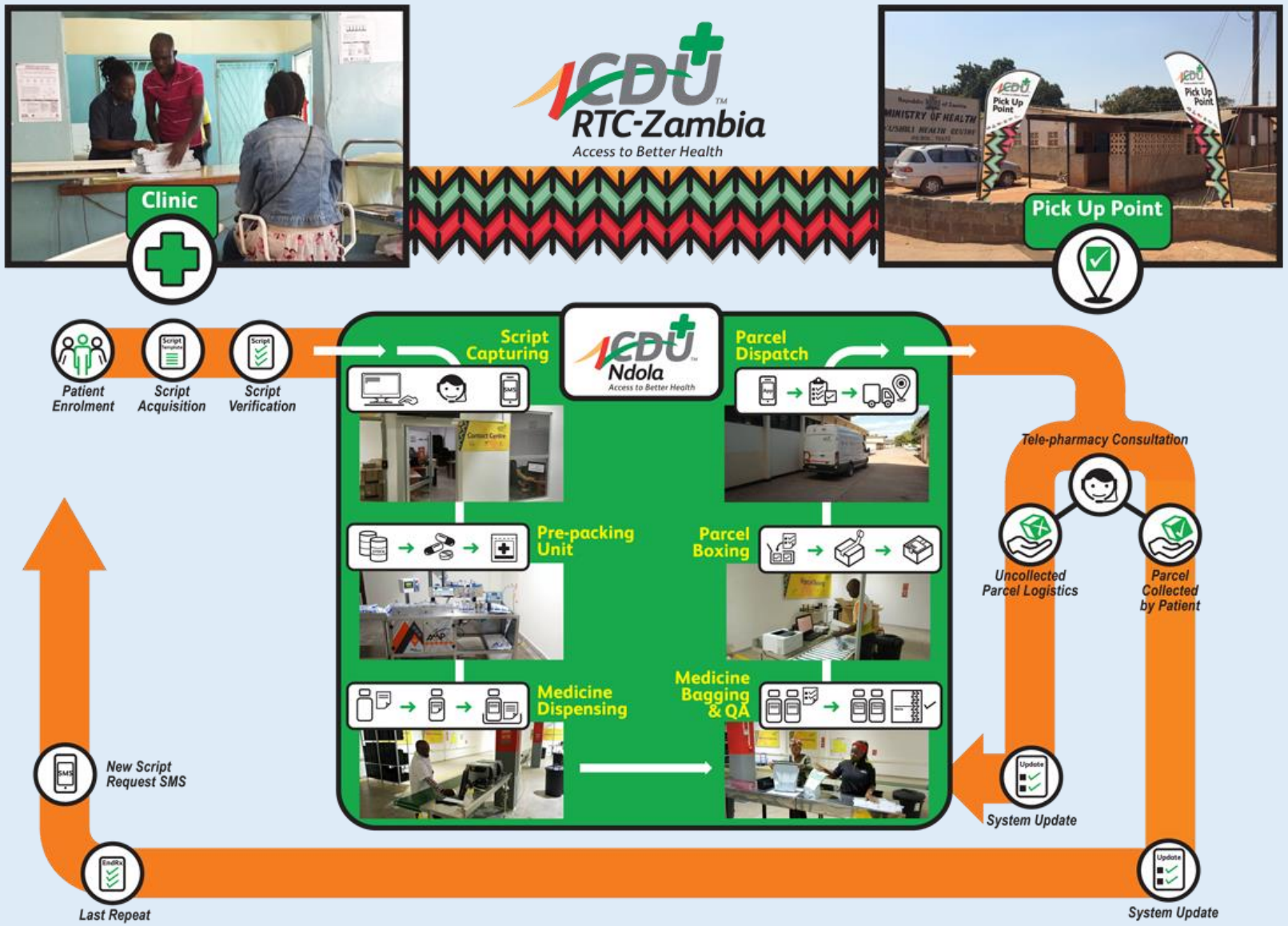
Right ePharmacy's Fully Automated System in South Africa



Current output: up to 230,000 repeat dispenses by 10 CC staff members

Capacity and scalability: on track to reach 1,200,000 million dispenses

Right ePharmacy's Semi-Automated Model in Zambia



Current output: up to 180,000 repeat dispenses pa by 8 staff members

Capacity and scalability: on track to reach 1,2 million dispenses pa

98% retention rate for 14,014 clients served through the CDU model

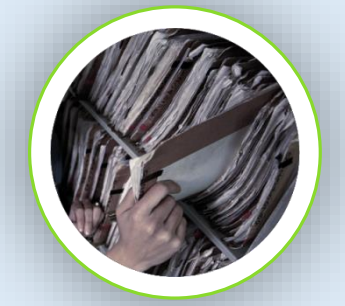
Automated systems also generate data to support improved programming, system integration, and efficiencies

Facility Level Data + ***Regional Data*** = ***Improved data for programming***

Patient Data

Medicine Availability

Facility Level Stock Information



Manual Patient Information Records

Why automated dispensing models are important for client-centered HIV care and related systems?

Systems designed for **client-centered experience, leading to measurable adherence and retention,** monitoring, and viral suppression

Flexibility of locations and systems increase convenience of pick-ups

In South Africa, average ARV collection time at automated PUP was <3 minutes

Optimized process efficiency leading to **improved dispensing capacity, reduced HRH burden, and cost savings**

In Zambia, 8 staff support 19 pick-up points, each of which can service up to 80 patients per hour

Integration with EMR, inventory and logistics management systems for personalized labelling, accurate dispensing and up-to-date client records

Clients receive SMS reminders and custom codes to get ARVs at automated PUPs

Contact

Tawanda Dube, Right ePharmacy, Tawanda.Dube@right-epharmacy.co.za

Lauren Weir, Right to Care, Lauren.Weir@righttocare.org

PEPFAR

USAID FROM THE AMERICAN PEOPLE

EpiC Meeting Targets and Maintaining Epidemic Control

Project Last Mile in South Africa

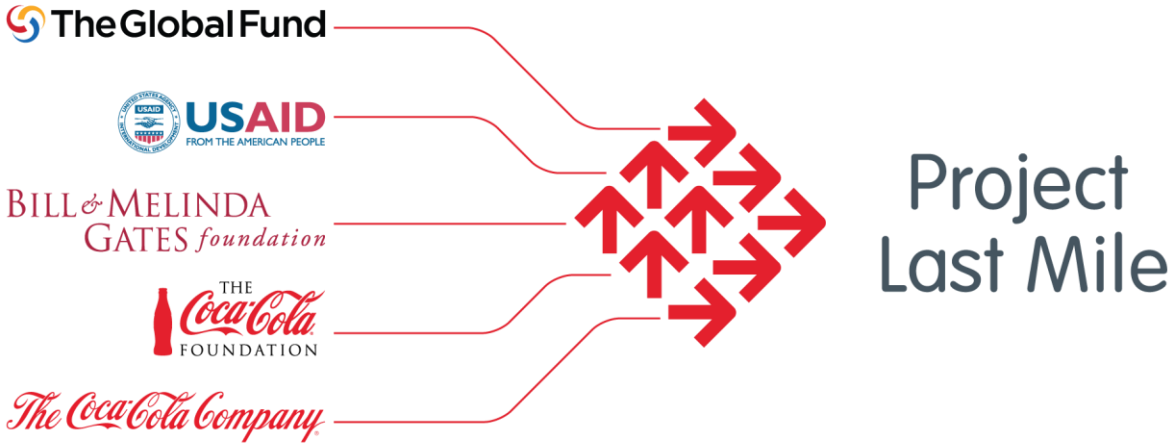
Leveraging private sector innovation and route-to-market insights to improve access to medications in the public sector

Phil Roberts, Country Lead

The Global Fund · USAID FROM THE AMERICAN PEOPLE · Bill & Melinda Gates foundation · The Coca-Cola Foundation · The Coca-Cola Company

What is Project Last Mile

A global health partnership to improve the availability of life-saving medicines and the uptake of health services by sharing the expertise of the Coca-Cola system with public health sector agencies in Africa



The Coca-Cola Company brings private sector expertise related to:

- Supply chain logistics/ distribution
- Cold chain equipment maintenance
- Differentiated Service Delivery (RTM)
- Strategic marketing and communications
- Talent management and general business skills

Where do we work?

GHANA
(2011 – 2013)

Pilot created a blueprint for improved uptime of cold chain equipment used for vaccines and introduced the use of market research & segmentation model to improve uptake and adherence for immunizations.

TANZANIA
(2010 – present)

Building on ten years of partnership to further strengthen distribution and management of medical supply chains in Tanzania through route optimization.

NIGERIA
(2017 – present)

Tapping into the Coca-Cola ecosystem to help improve uptime and management of vaccine cold chain equipment and save lives of children in Nigeria.

SIERRA LEONE
(2017 – recent)

Leveraging and adapting Coca-Cola best practices in distribution and organizational development to support supply chain strengthening

LESOTHO
(2019 –present)

Building on experience from work in the Kingdom of eSwatini to develop strategic marketing solutions to support Lesotho's Adolescent Youth Program for HIV prevention and treatment.

LIBERIA
(2017 – present)

Leveraging and adapting Coca-Cola best practices in demand planning, distribution optimization, network design, and organizational development. To help build a functioning medical supply chain for the Central Medical Stores.

MOZAMBIQUE
(2016 – present)

Applying Coca-Cola best practices in route-to-market and logistics to improve distribution of medicines and health products.

KINGDOM OF ESWATINI
(2016 – present)

Leveraging and adapting Coca-Cola best practices in strategic marketing to support increased demand for health services for HIV prevention, especially focused on young women.

SOUTH AFRICA
(2016 – present)

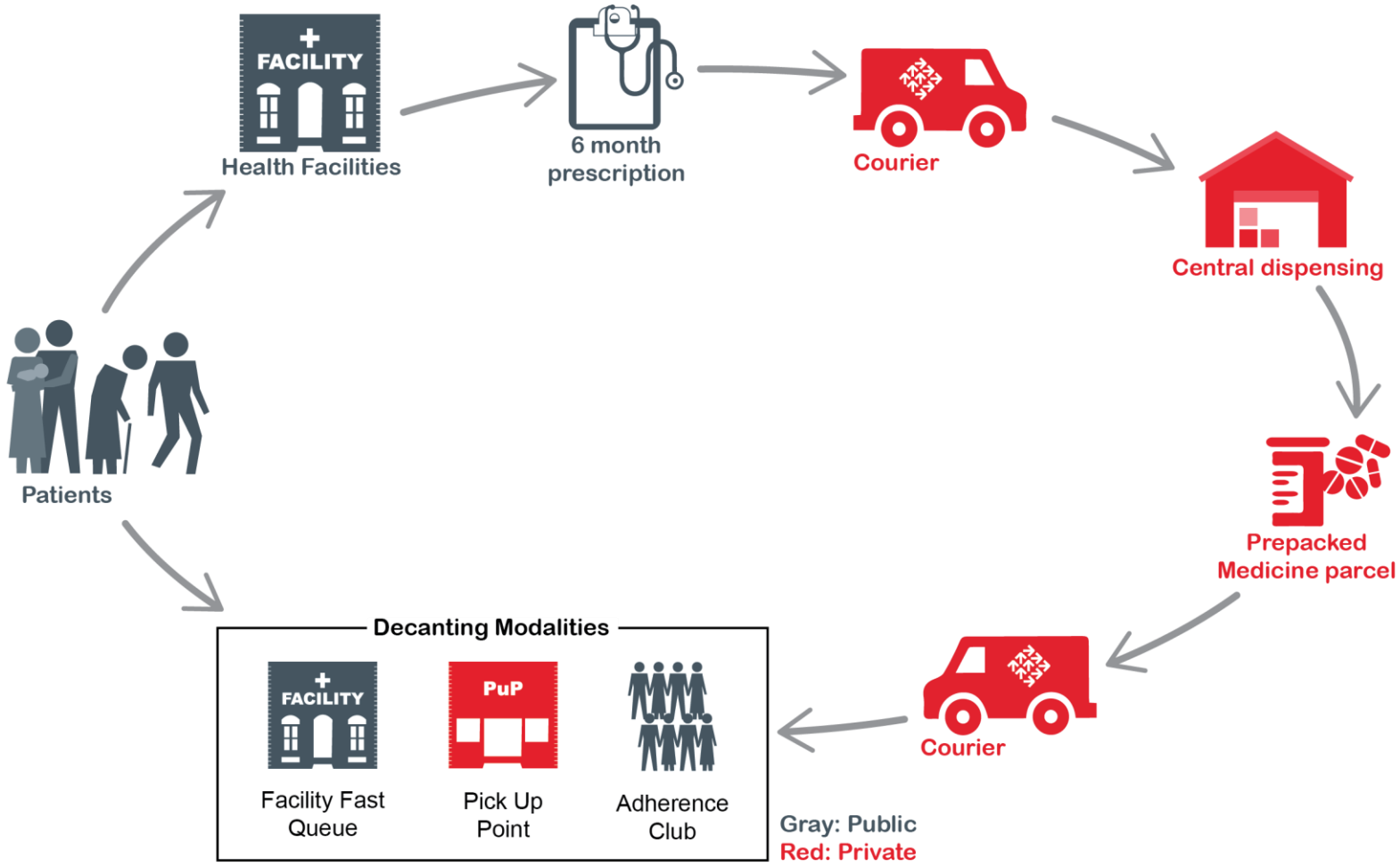
Leveraging the Coca-Cola network and route-to-market experience to help revolutionize distribution of chronic medicines for over 2 million people Recently, this work has expanded to include strategic marketing best practices for HIV prevention among males.

UGANDA
(2019 – present)

Supporting a broader Africa Resource Center project by leveraging the learnings from South Africa's differentiated service delivery model to support the Ministry of Health in improving the availability of key chronic medicines.

The CCMDD process

a multi-sectoral solution



Supporting South Africa to transition 85% of ALL eligible patients to CCMD

Increase **new, and retain** existing patients onto CCMDD

- Increase patient and health worker awareness + demand generation
- Efficient and simplified processes – SOPs, Guidelines, Tools, DSP engagement

Continue **strategic management** support of CCMDD

- Clear targets and action plans

Improve **patient experience and access** to medicine

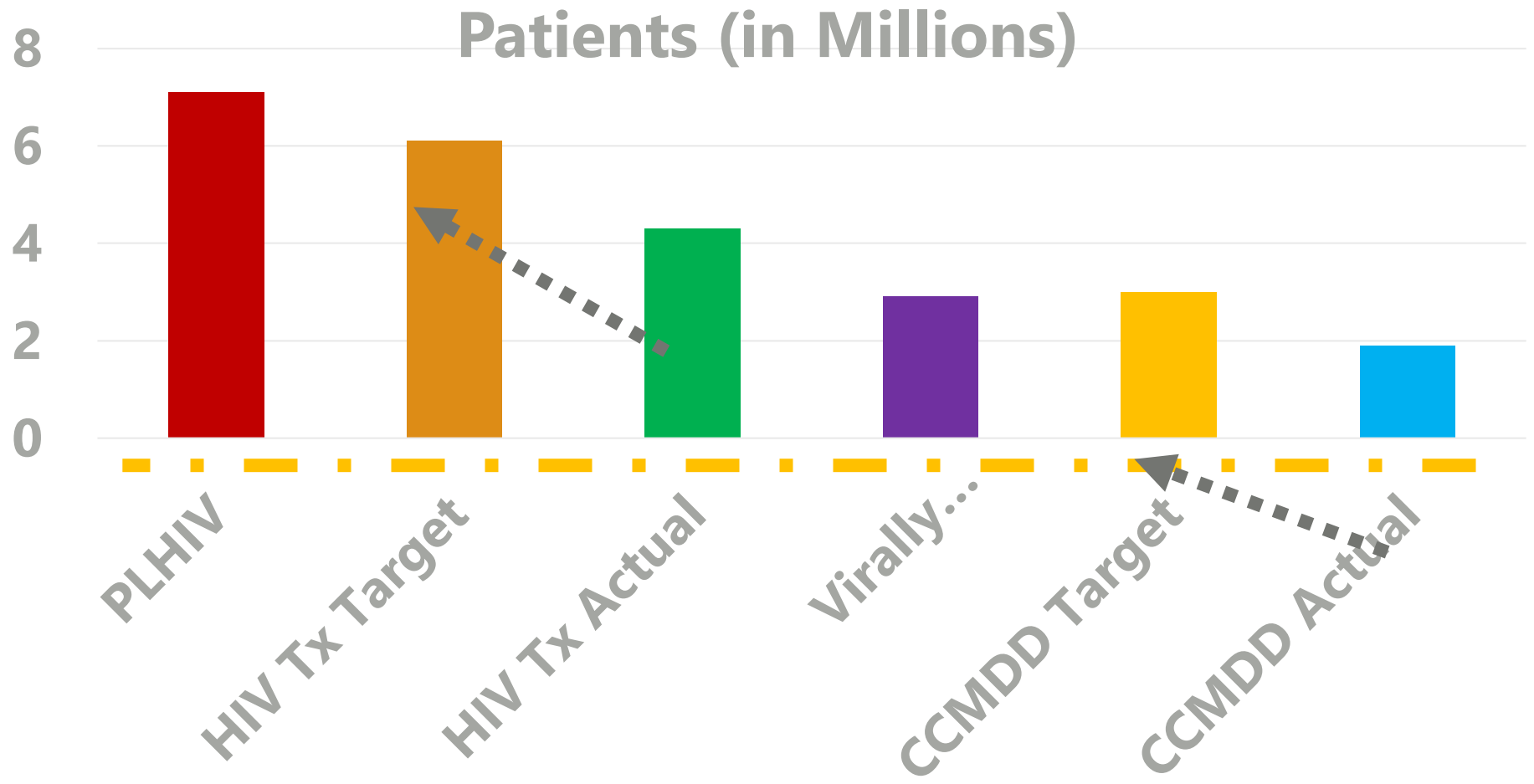
- Improved Stock/Inventory, supply chain, TLD transition
- PuP footprint – lockers, containers, private sector, sustainability
- Geo-spatial Analytics

Expand **Stakeholder Engagement**

- Funders, DoH - all levels, DSPs, “above site” partners, Civil Society, Private sector, NHI, Service Providers, PuPs, Patients

What does success look like for South Africa?

3 mm decanted and active on CCMDD = 2 million additional capacity by Sep. 2020



Providing strategic marketing support for rapid decanting

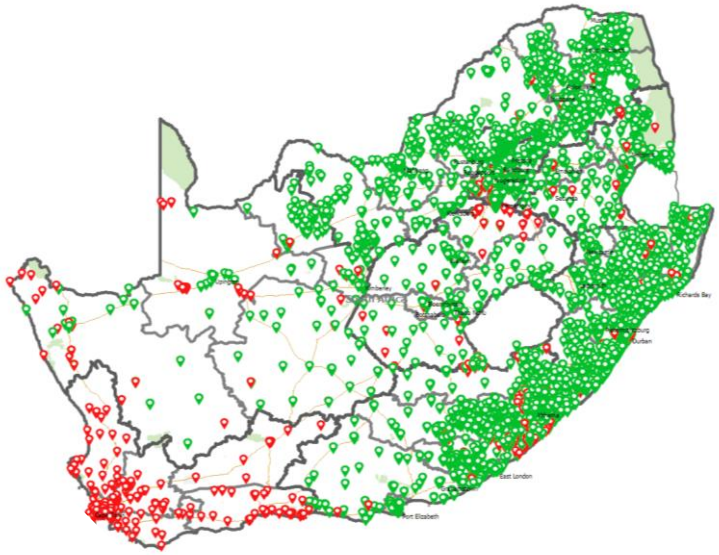
- Operational aspects **integrated and adapted** to learnings from strategic marketing research
- CCMDD **Patient Behaviour** understood, addressed and communicated to all stakeholders
- CCMDD **Health Care Worker Behaviour** addressed and supportive of CCMDD (down referrals)
- **Informed, targeted** approach to understand **inhibitors** to **patient initiation and retention**
- Support the **enrolment of 1 500 000** patients into CCMDD
- Monitor and **course correct** further Strategic Marketing work

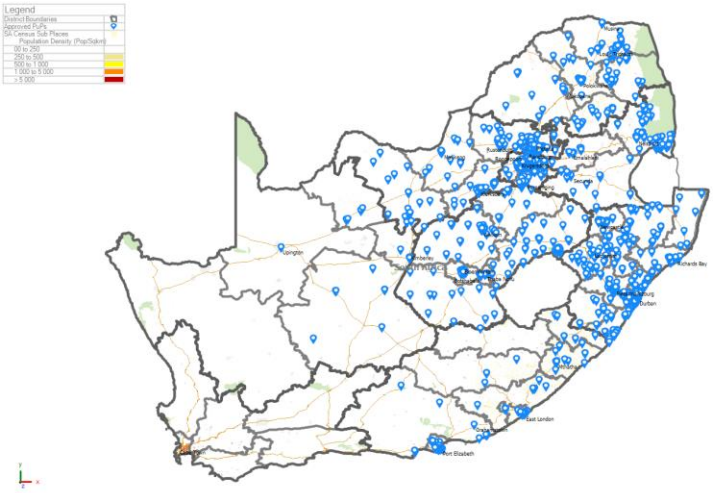
Materials from new awareness-raising campaign

Assisting with PuP expansion

- **PuP and Service provider liaison and contract support**

- **Innovative solutions expansion support**
  - Right ePharmacy /Aurum/ Technovera lockers
  - Cipla Foundation Containers





Results by July 2020

- **46 Health Districts in South Africa onboarded onto CCMDD** in all 8 active provinces [100% coverage]
- Health facilities, pick-up points, and general practitioners mapped to strategically inform placement of external PuPs and regional targets for CCMDD, based on HIV/NCD burden
- **3.55 M patients have been cumulatively enrolled onto CCMDD**, since the program began
- **~90% of eligible facilities registered** to refer patients to CCMDD [and serve as fast lanes]
- Over **2462 external pick-up points activated** across South Africa, with established relationships with Clicks, Spar, Dis-Chem, MediRite and CIPLA Foundation

CCMDD Benefits based on PLM Business Case

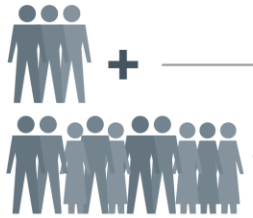
↗ Improved patient experience and access to treatment

↘ 43% savings for patients

saving patients R1.2bn in 2020

↗ 22% Improvement in patient adherence

avoiding NDoH up to R3.1bn of costs in 2020



↗ 2.5m - 3.3m Additional patient capacity

33 - 43% increase in PHC capacity by March 2021 with 5.5 million CCMDD patients

↘ 50% Reduction in NDoH cost to treat patients

NDoH facility visit & medicine supply chain costs (excluding medicines), NDoH efficiency gains of up to R4.1bn in 2020

Supports 90Ninety90

In 2020, 4.9m of 5.9m TROA patients enrolled on CCMDD

Project Last Mile

Phil Roberts, Country Lead

Thank you

USAID FROM THE AMERICAN PEOPLE

health
Department:
Health
REPUBLIC OF SOUTH AFRICA

The Global Fund | USAID FROM THE AMERICAN PEOPLE | Bill & Melinda Gates foundation | The Coca-Cola Foundation | The Coca-Cola Company

DECENTRALIZED DRUG DISTRIBUTION (DDD) LEARNING COLLABORATIVE

Worldwide Healthcare

13th Aug 20

Nigeria Current Scenario

HealthCare

- 90% Out of Pocket
- <1% Health Insurance
- Commu. Disease-Public Sector

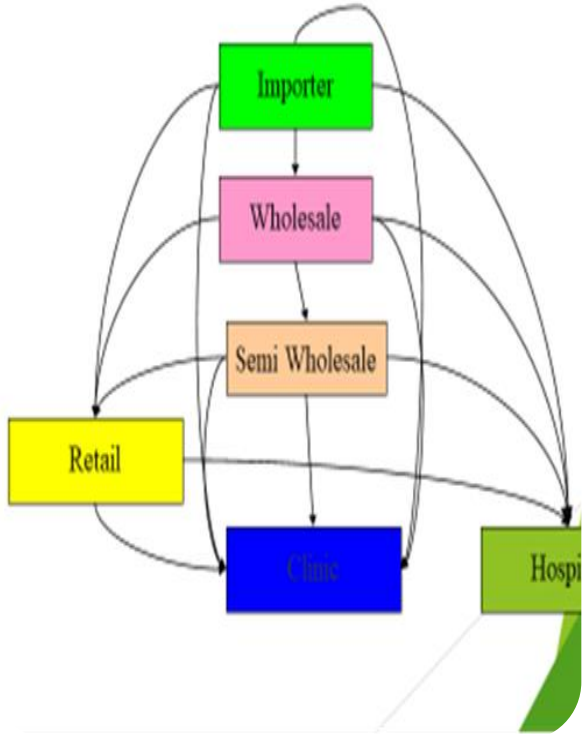
Donor Funded

- No Visibility-Data?
- Misuse-Pilferage
- Withdrawal

Environment

- Power Supply?
- Security?
- Trained Manpower?

Supply Chain

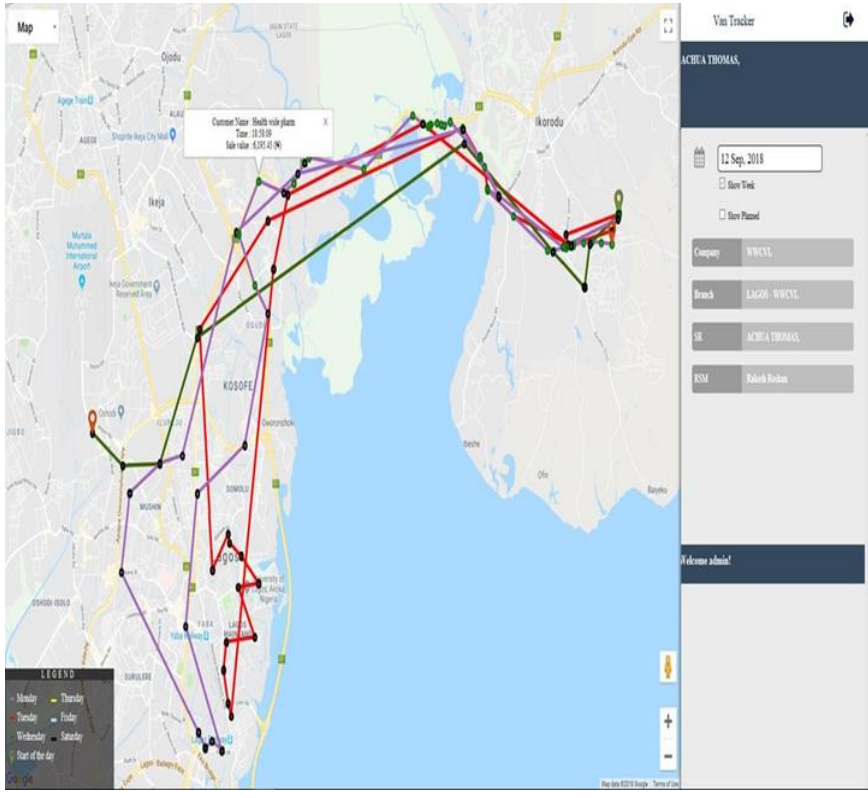



Principal
All
Customer Name
All
Item Name
All
WWCVL Sale Value and Stock In Trade by Month
WWCVL Sale Value
Stock In Trade
August
September
October
November
December
Opening Stock Value, WWCVL Sale Value, Stock In Transit, Stock In Trade and Secondary Sales value for the month by Mon...
Opening Stock Value
WWCVL Sale Value
Stock In Transit
Stock In Trade
Secondary Sales value for the month


...your online healthcare partner
Call Us: +234 8072991804
Live Chat
Manufacturers
Distributor
Patients & Consumers
WON Products
Key Accounts & Pharmacies
OTC
Hospitals & Institutions
Service Support
Laboratories
Devices & Equipments
WON Services
Doctors
HMO
Pharmacists
Get it on Google play
Available on the App Store


Geographic reach
Nigeria
Branch locations
MDS LOGISTICS
an Imperial Logistics™ company

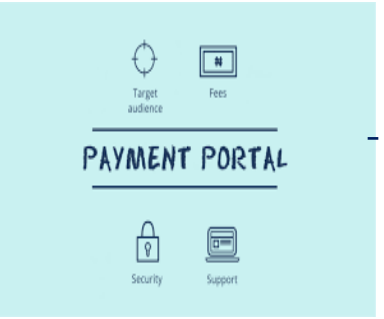

Power BI
WON
SFA
40 Depots (including MDS)
NDDG Qualified warehouse
ORACLE


Map
Ojodu
Ikorodu
Ikeja
KOSOFE
Van Tracker
ACHUA THOMAS,
12 Sep, 2018
Show Week
Show Planned
Company
WWCVL
Branch
LAGOS - WWCVL
SR
ACHUA THOMAS,
RSM
Rakesh Roshan
Welcome admin!
LEGEND
Monday
Tuesday
Wednesday
Thursday
Friday
Saturday
Start of the day

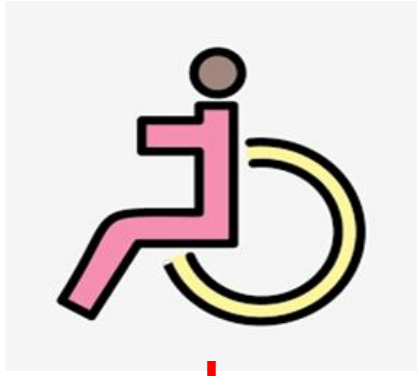
Last Mile Distribution Model

700 reps

Direct To Patient Model-CHAI



Proposal



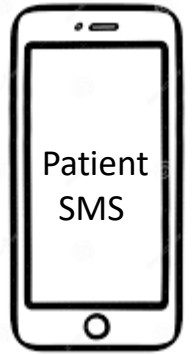
Vault-Quality?

006

USAID
FROM THE AMERICAN PEOPLE

*01*002*003

006



Looking Forward: Automated Dispensing to Deliver Patient-Centered Care & Sustain HIV Programmatic Gains

Fanie Hendriksz
Managing Director Right ePharmacy

Right ePharmacy

There are systemic challenges that prevent us from delivering healthcare & commodities efficiently

High Dem&

Shortage of Pharmaceutical Services

Limited Infrastructure

Medicine Availability

Manual Patient Information Records

Overburdened Facilities

Patient Experience

Negative Economic Impact

Negative Impact on Adherence

Poor Healthcare Outcomes

#ATMpharmacy @rightepharmacy @righttocare

Automated dispensing offers a solution to sustain & maintain gains in the HIV epidemic with patient centered care

Patient Centered Care

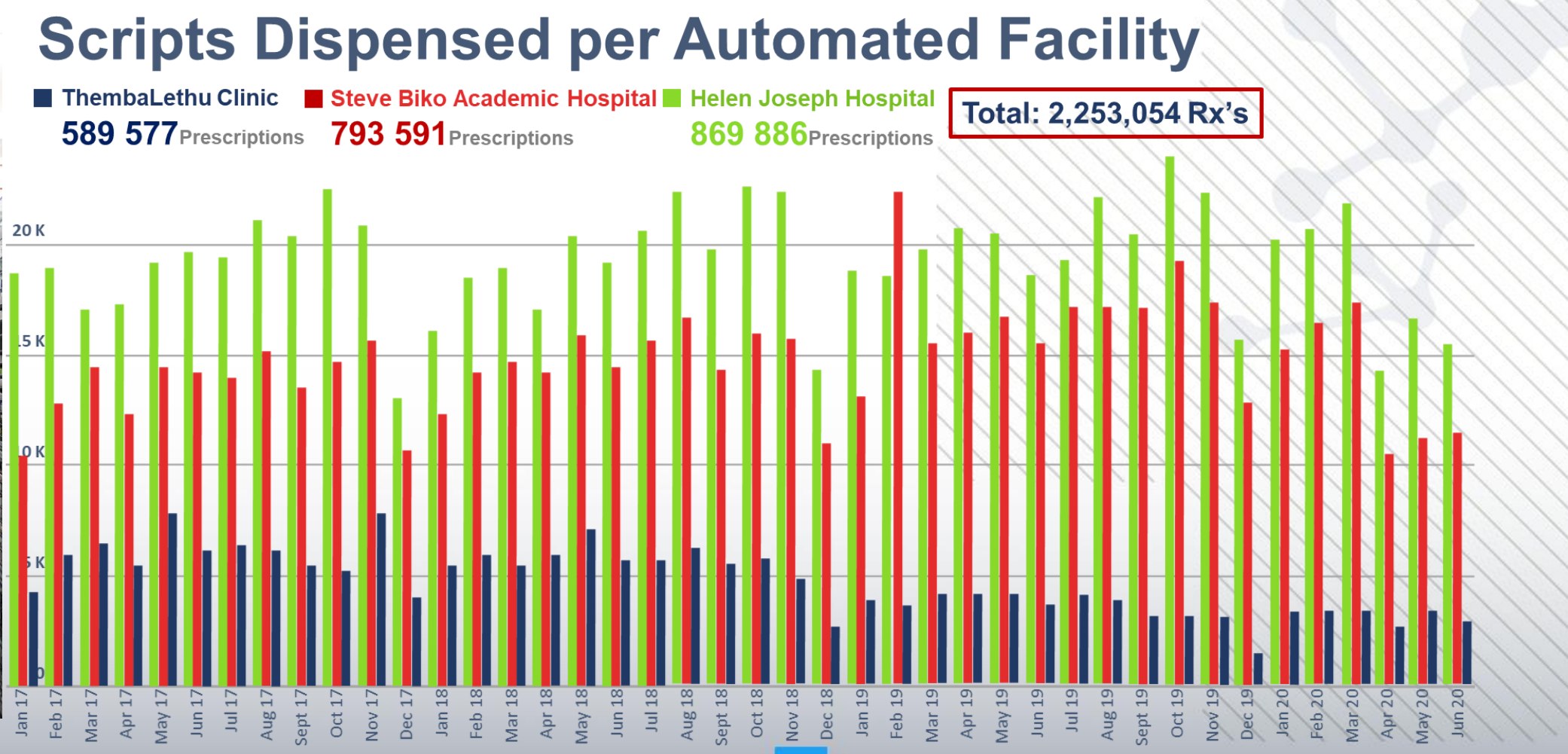
Accurate client & supply records

Efficient processes & rapid customer service

Convenient locations

Automated dispensing is a critical component to empower patients to chose where & when they collect their medicines, while also reducing the burden on the system overall

COVID-19 demonstrates the urgency for automated dispensing: Example Automated Facility Dispensing

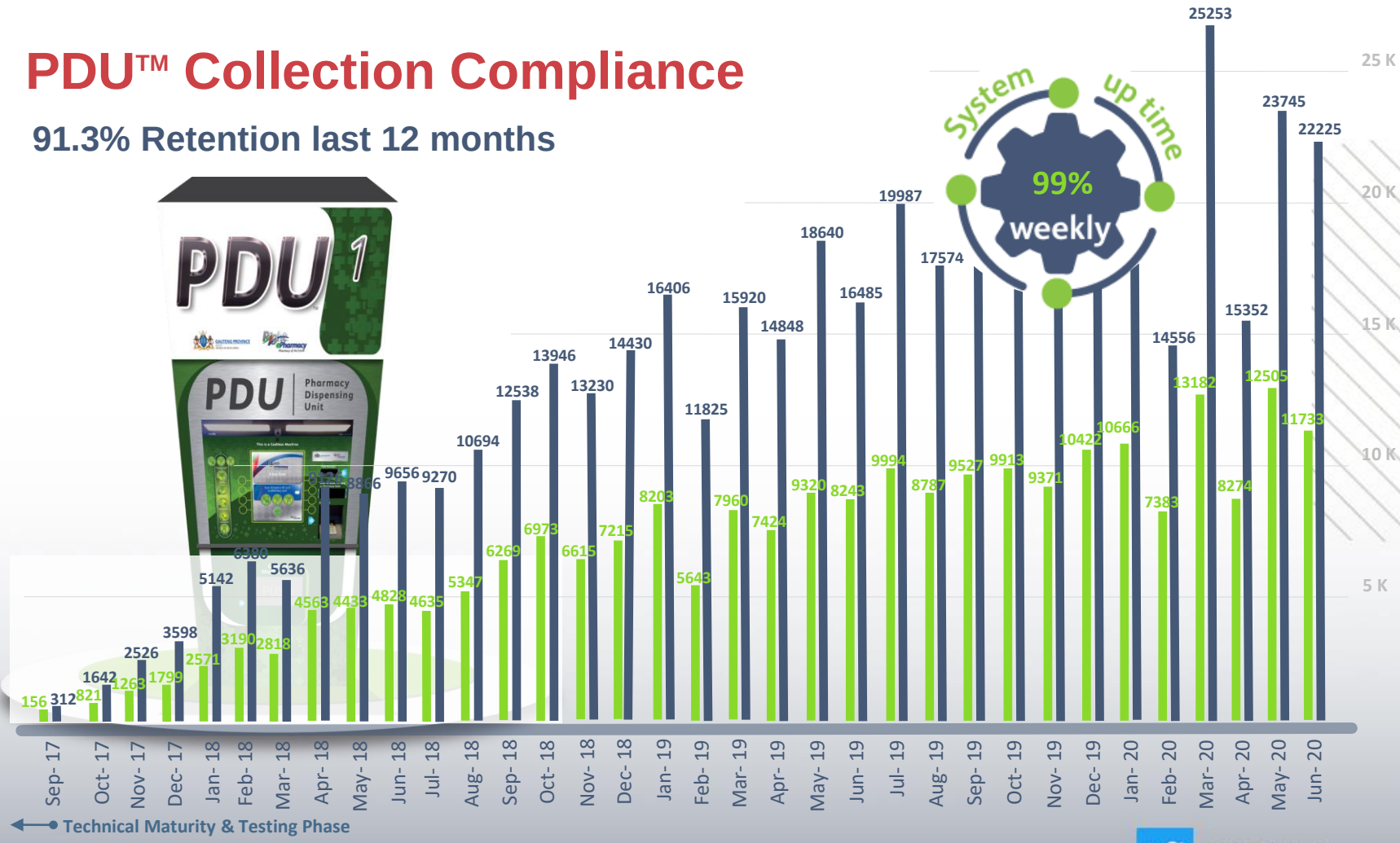


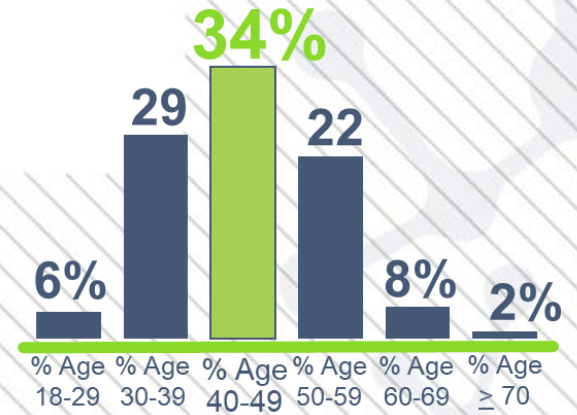
#ATMpharmacy @rightepharmacy @righttocare

COVID-19 demonstrates the urgency for automated dispensing: Right ePharmacy PDU

PDU™ Collection Compliance

91.3% Retention last 12 months



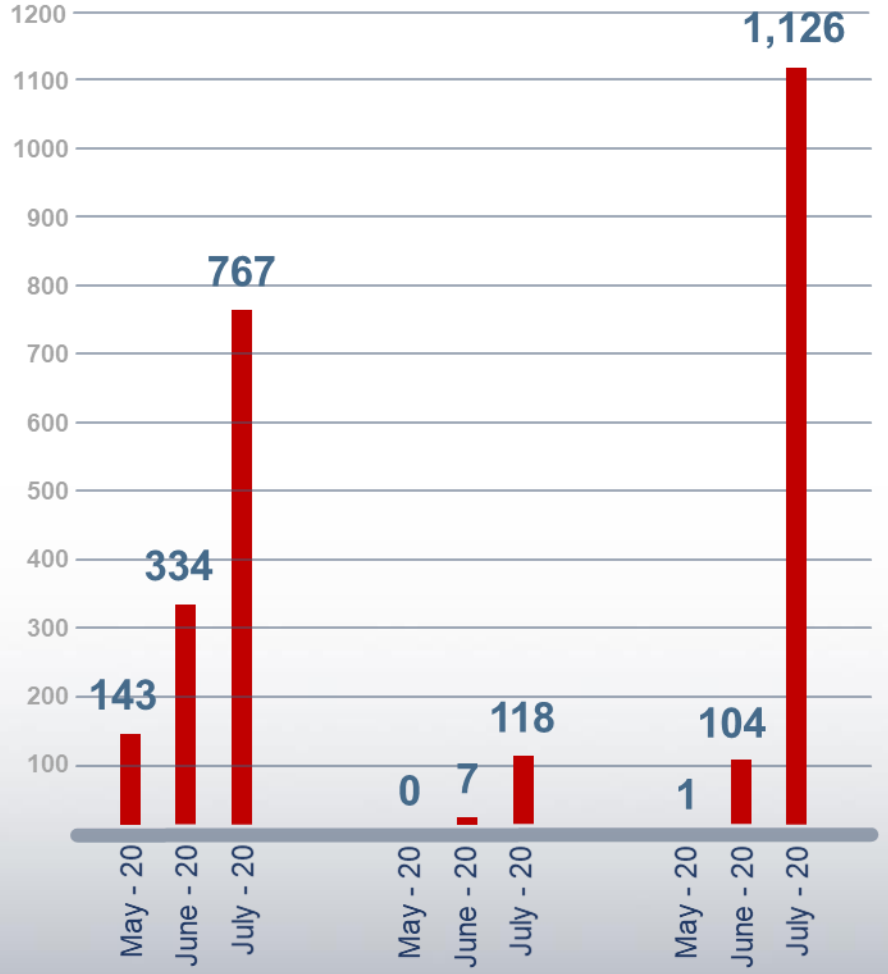


Age Band Distribution

Gender Distribution

#ATMpharmacy @rightepharmacy @righttocare

COVID-19 demonstrates the urgency for automated dispensing: Collect & Go



	GAUTENG GP	FREE STATE FS	MPUMALANGA MP
	1,244	125	1,231
Sites	40	13	11

#ATMpharmacy @rightepharmacy @righttocare

Patient Dispensing & Distribution System & Data

Right™ ePharmacy
Pharmacy of the future

The building blocks that facilitate these systems are simple, the key is to integrate them…

Simplified Stock Master File

Patient ID Demographics

Dispensing Data

Delivery & Collection Data

#ATMpharmacy @rightepharmacy @righttocare

Looking forward: How do we scale?

Existing technology is already adapted for low connectivity environments & ready for scale.
Creating the right enabling environment through partnerships is the key to success.

Challenges	Solutions
Partner coordination	Incentives for partners to adapt a patient-centered care focus
Demand generation	Partners generate demand through referrals & awareness campaigns
Siloed programs & integration with existing systems	MOUs outlining programmatic synergies & data sharing
Regulatory limitations	Joint advocacy for evidence-based change
Stock availability	Coordinated procurement & stock level tracking

Fanie Hendriksz
Managing Director Right ePharmacy
Fanie.Hendriksz@right-epharmacy.co.za

Right ePharmacy
Pharmacy of the future

Lauren R.K. Weir
Right to Care US Director
Lauren.Weir@righttocare.org

Q+A

Upcoming Session

The contribution of private hospitals and clinics as part of sustainable financing of the HIV epidemic

Thursday, August 27, 2020

7:00 AM-8:30 AM EST | 13:00-14:30 CAT | 14:00-15:30 EAT

Register Here