

Supply chain and last-mile delivery considerations critical to DDD

Decentralized Drug Distribution (DDD) Learning Collaborative

September 24, 2020



Introduction: Supply chain and Last-Mile Delivery Considerations Critical to DDD

Private Hospitals and Clinics

- Trained clinicians provide comprehensive care
- Well-established
- Often enjoy support from donor/government
- Clients may contribute, reducing costs to government
- Can manage both stable and non-stable clients

Private Pharmacy

- Patients pick drugs from an approved pharmacy
- Flexible pick up points and hours
- May include home delivery
 - Can be linked to public or private clinics
- Low set up and maintenance cost
- Clients may pay for services
- Allows for pharmacovigilance

Automated models

- Patients pick drugs from lockers or machines
- Flexible locations and hours
- Requires good “last mile management”
- Can be combined with other chronic diseases medicines
- Requires reverse logistics in case patients do not show up
- Automated models require good infrastructure and may be costly

Community Based models

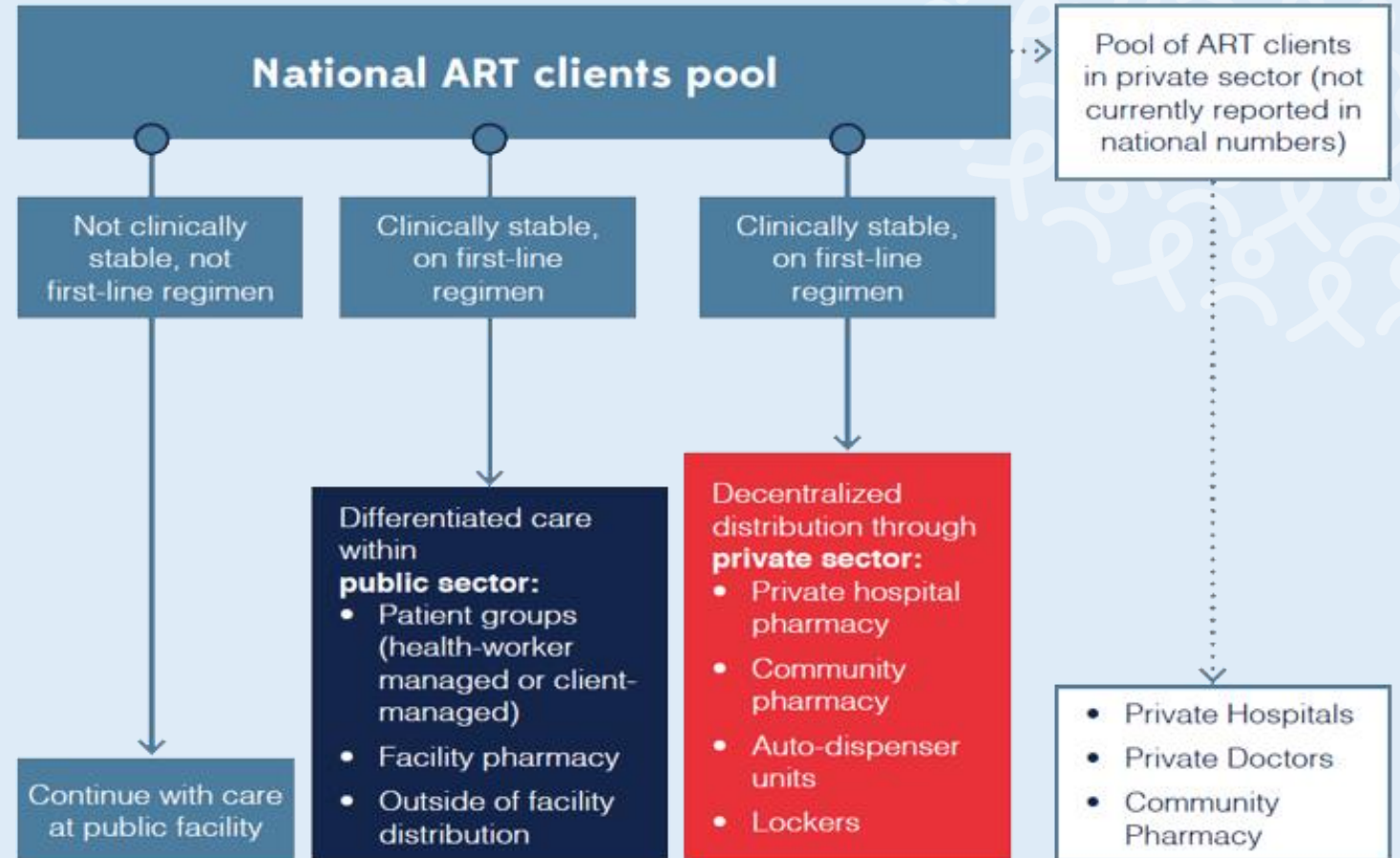
- Refills and clinical consultations are provided outside of healthcare facilities
- Healthcare worker-managed group models where individuals receive ART in a group (e.g. community adherence clubs)
- Client-managed group models where clients receive ARVs in groups also run by clients themselves (e.g. Zimbabwe)

Benefits:

- Decongesting overburdened public sector health facilities, allowing resources and capacity to focus on the patients most in need
- Leveraging untapped potential within the private sector for greater convenience and confidentiality
- Financial sustainability as many patients show ability and willingness to pay

Pillars of Success

- Investment of resources (policy advocacy, human resources, financing)
- Strong, flexible supply chains that can adapt during times of stress or change
- Consistent drug availability
- Timely and accurate flow of data
- Commodity security and risk mitigation



Session 5: Learning Collaborative Agenda (7-8:30 am EST)

- **The role of the supply chain in planning and implementing DDD in Eswatini**
Timothy Rosché, Country Director and Denis Okidi Ladwar, Senior Technical Lead: Global Health Supply Chain-Procurement and Supply Management Project (GHSC-PSM), eSwatini
- **The last mile ARV and data flow between public and DDD outlets**
James Batuka, Meeting Targets and Maintaining Epidemic Control (EpiC), Kenya
- **Safeguarding ARVs: detecting leakage and fraud**
Tom Woods, World Bank Chairman of the Global Steering Committee for Quality Assurance and Senior Advisor to GHAP and Martin Cinnamond, Executive Director of the Global Health Assurance Partnership (GHAP)
- **Impact of COVID-19 on the national supply chain, experience of Joint Medical Stores Uganda**
Ivan Luswata, Logistics Officer, Joint Medical Stores

Upcoming Sessions



What topics would you like covered in upcoming webinars? Please type in the chat



DDD supply chain considerations in Eswatini

Sept 24th, 2020

Timothy Rosche



Agenda

- Background
- Supply chain roles
- Challenges
- Next steps



Background

- DDD has always been part of Differentiated Service Delivery - huge push to accelerate due to COVID-19
- PEPFAR IPs developed joint approach to be used by all IPs - approved by MOH In April 2020
- Routine virtual coordination calls (weekly, then bi-weekly then monthly)
 - MOH program-wide and
 - PEPFAR IP-specific (1st PEPFAR IP call 3/26/20)
- Standing IP progress reporting on coordination calls
 - # community distribution points, # refills served, # appointments adhered to vs. appointments missed
 - other products/services integrated into DDD in addition to ART (not only for convenience, but also to avoid stigma - many clients prefer continuing to receive refills/services at facilities)
 - HIV/ST
 - FP and Condoms
 - NCDs
 - PrEP
 - TPT

Supply chain support and roles

- Developing DDD commodity ordering and reporting tools
 - Manual forms for recording dispensing (where CMIS Lite is not available)
- Developing guidance on standardized process of pre-packing at facilities pharmacies
- Guiding on supply chain aspects of MMD as component of the accelerated DDD
 - Using GHSC-PSM developed modelling tools e.g. MuMS, determining limits of patients that stock can support without disrupting availability, supply planning for MOH procurements (including TLD 90s)
- Responding to increased interest in other product stock status for potential MMD (FP, NCDs, TPT, HIV-ST...)
- Monitoring and building supply chain capacity to support DDD/MMD
 - included as integral part of RLOs' supportive supervision
- Regular stock status monitoring using SDP PPMR / facility-level Google form stock monitoring (not developed specifically for DDD but accelerated and adapted for DDD/MMD monitoring)

Listing and prepackaging of meds by partners





Challenges

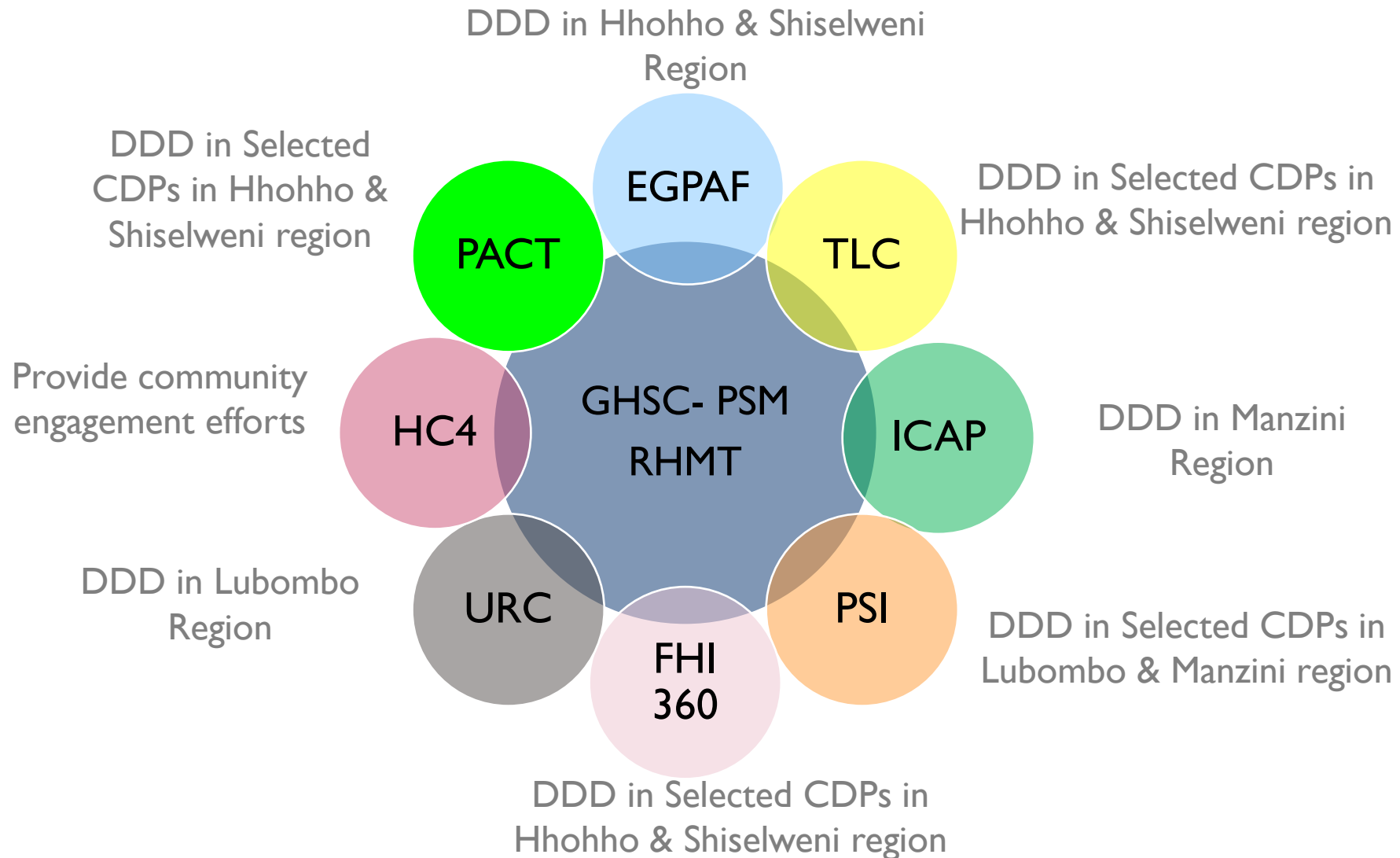
- Heavily partner dependent and resource intensive
 - Fuel, Airtime, Staff, Packaging bags all provided by partners
 - MOH currently cannot manage distribution for over 584 commodity distribution points
 - 4 RLOs not adequate for the SC support needs of DDD
- COVID related commodity supply challenges hindering full integration of MMD in DDD to include;
 - HIV/ST, FP and Condoms, NCDs, PrEP
- Manual data entry since CMIS Lite is not yet available
 - Partner collating data for reporting manually in some cases



Next steps

- Enhance national DDD data management
 - CMIS lite scaleup to improve patient and SC reporting
- MOH through FHI EpiC costing DDD service delivery to facilitate scale up and sustainability decisions
 - Possible Mother-Baby-Community DDD model - including detailed mapping to optimise DDD operations
 - Including expansion of DDD points to private Pharmacies
- Strengthen IP coordination to ensure delivery of a standard package in all regions
- Strengthen Regional capacity to coordinate, monitor and resolve supply chain issues related to DDD

DDD supply chain partner collaboration



Community distribution points





Thank you

Thank you



EpiC is a global cooperative agreement dedicated to achieving and maintaining HIV epidemic control. It is led by FHI 360 with core partners Right to Care, Palladium, Population Services International (PSI), and Gobee Group.

Decentralized distribution of HIV medications

The last mile: ARV and data flow between medical stores, public facilities and DDD outlets

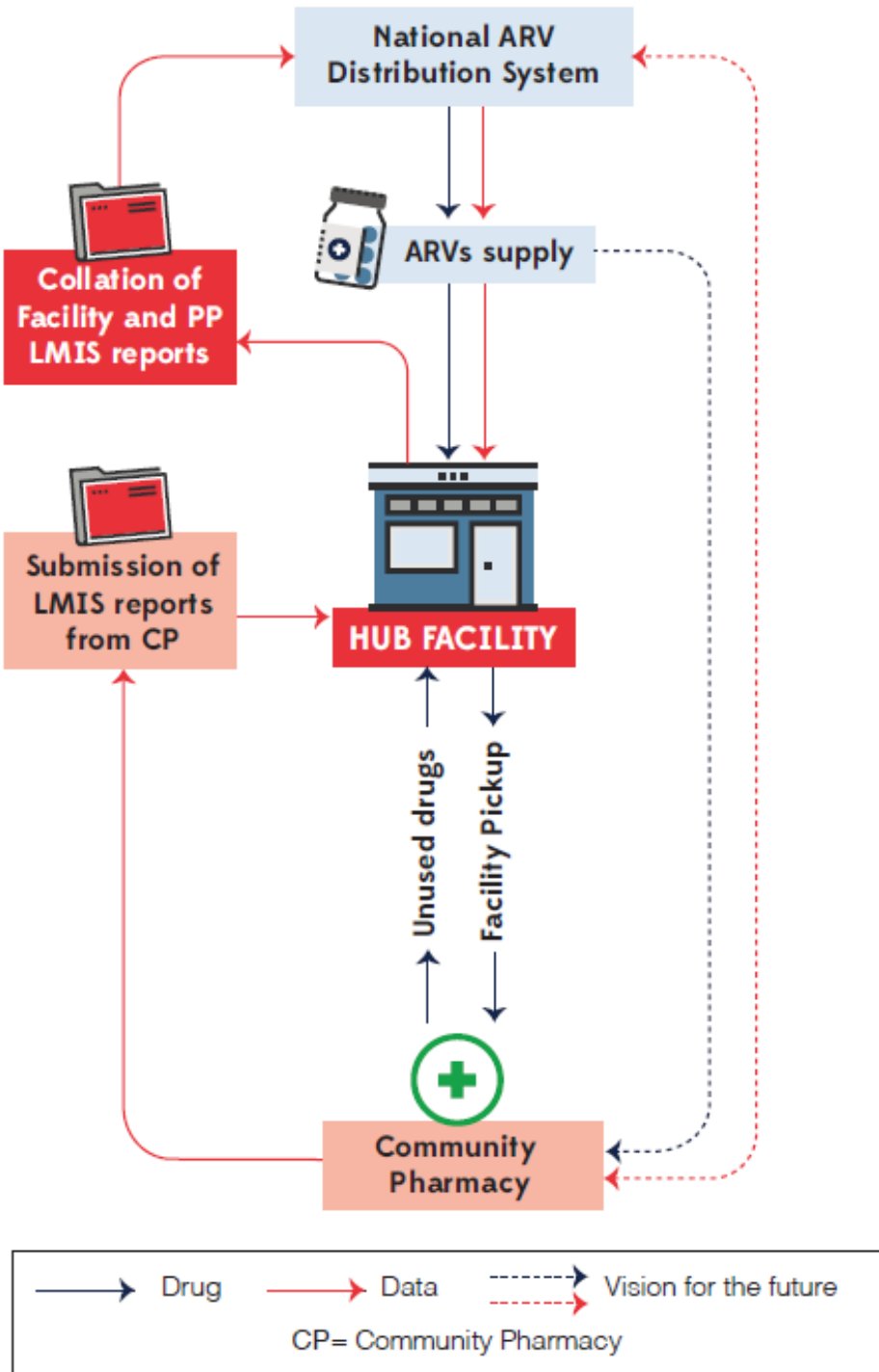
James Batuka

September 24, 2020



Introduction

- Flow of medications (ARVs, IPT etc.) supply and consumption data between central medical stores, public facilities and DDD outlets is important for effective DDD
- Different kinds of data are required and an electronic system or an App can facilitate this process



Information Sharing

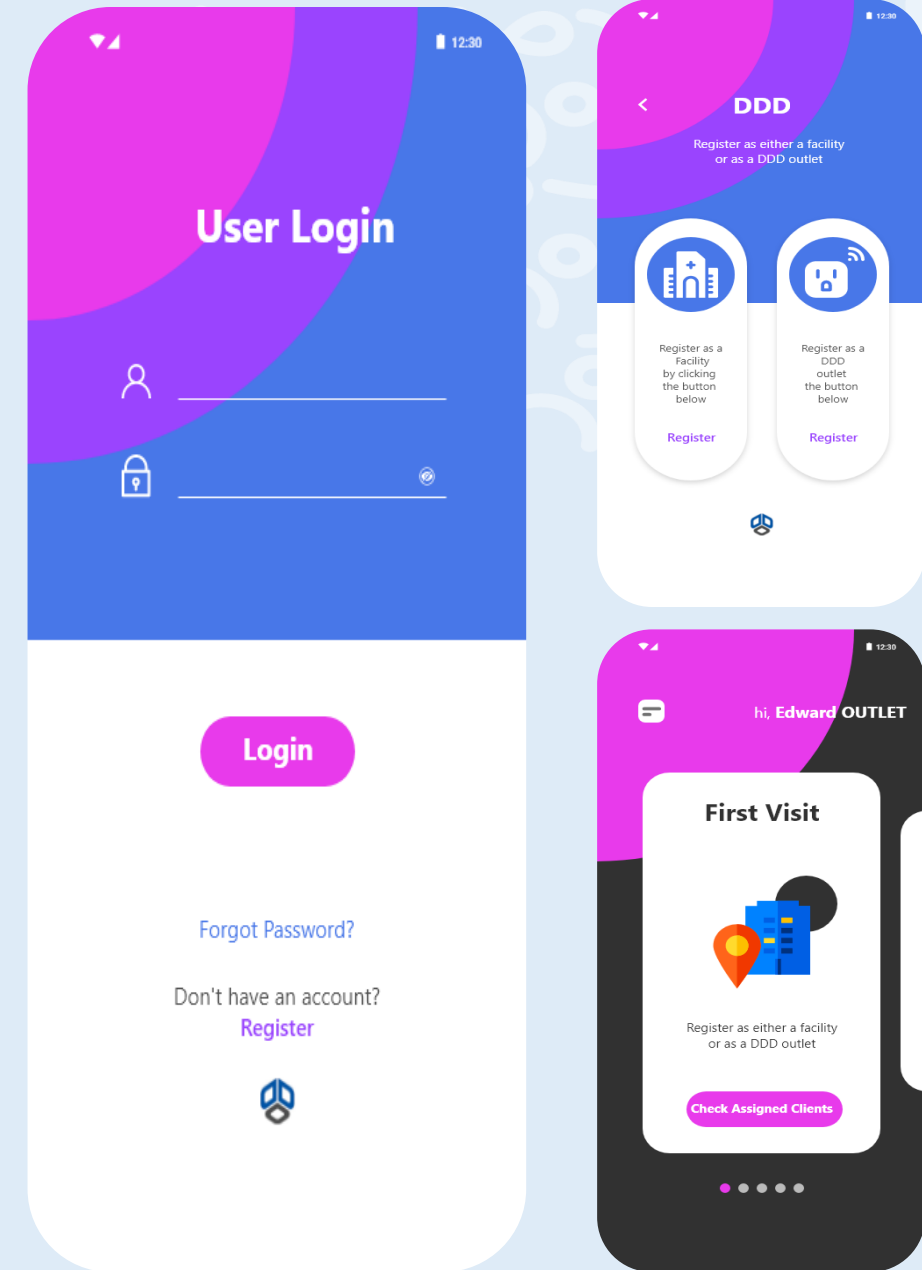
- Need to send information on devolved patients from health facilities to the DDD outlets
- DDD outlets need for providing feedback on patient refills to the facility
 - Missed appointments
 - Patients adherence challenges
 - Suspected failure
- DDD outlets need for completing the patient records
- Need to track government/donors medicines in private sector

The DDD App

- Generic online platform to allow real time data exchange between the public health facility “hub” (with or without EMR) and DDD outlet and in the long-term through patient portal will allow tripartite communication

Characteristics

- Online and offline platform using a smartphone, tablet or laptop
- Enabled interactive bi-directional communication
- Secure sharing of patient information
- Capacity for automated reminders and reports
- Dashboards
- Inventory management- From Hub or Central store
- Low set up and maintenance cost



User roles

Health Facility (hub)

- Facility login
- Register DDD outlets
- Enter devolved patient information (non EMR) or
- Pull from data from EMR
- Assign patients to DDD outlets
- Use data from outlets to complete patient records where necessary
- Generate reports
- Allocate drugs/monitor drugs use

DDD Outlet

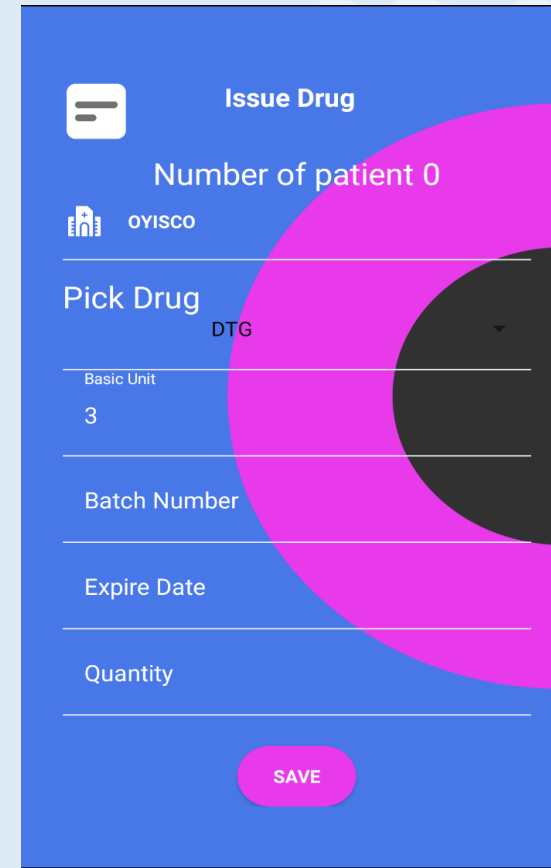
- Receive activation code from facility
- Install, login and retrieve patient information
- Dispense medications and enter necessary patient information
- Refer patients back to facility
- Set refill dates and send reminders to patients
- Synchronize data and generate reports
- Request, receive and track drug use

Data and Security

- Secure web hosting by recognized, high-capacity cloud hosting vendors
- Secure sockets layer (SSL) encryption
- App maintenance, and software elements that are updated to newest versions and patches
- Limited identifying information (based on need to know)
- Securing client data through a secure login portal
- Informed consent obtained from clients before they are devolved
- Staff user guides are developed to outline user roles

Inventory Management

- Registration of the drug formulation
 - Strength
 - Pack size
 - Batch number
 - Expiry data
- Allocation/recommendation by faculty
- Based on decentralized number of patients
- May include buffer stocks



Issue Drug

Number of patient 0

OYISCO

Pick Drug DTG

Basic Unit

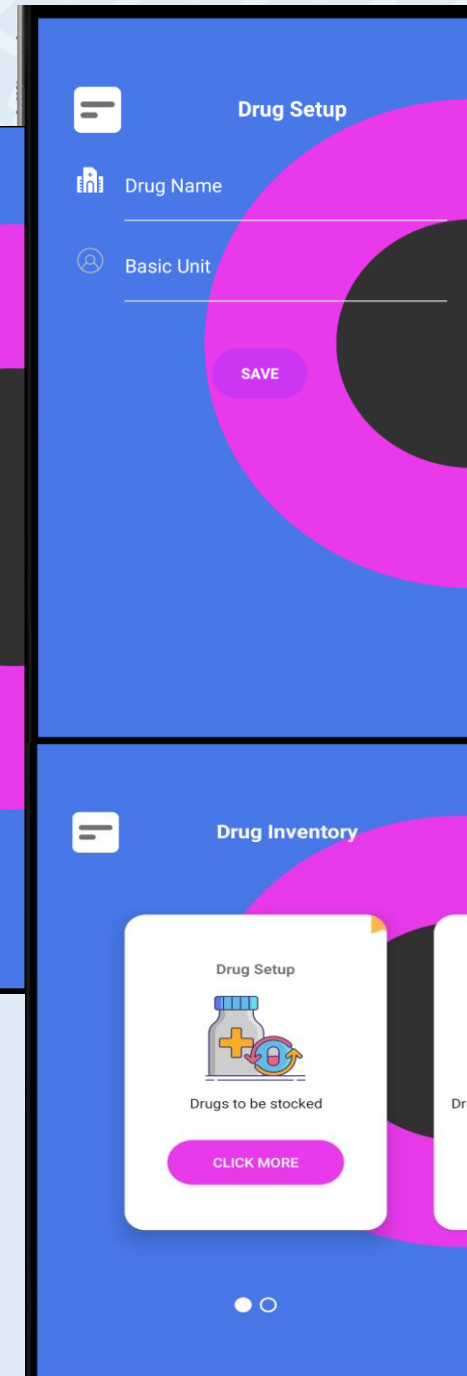
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Batch Number

Expire Date

Quantity

SAVE



Drug Setup

Drug Name

Basic Unit

SAVE

Drug Inventory

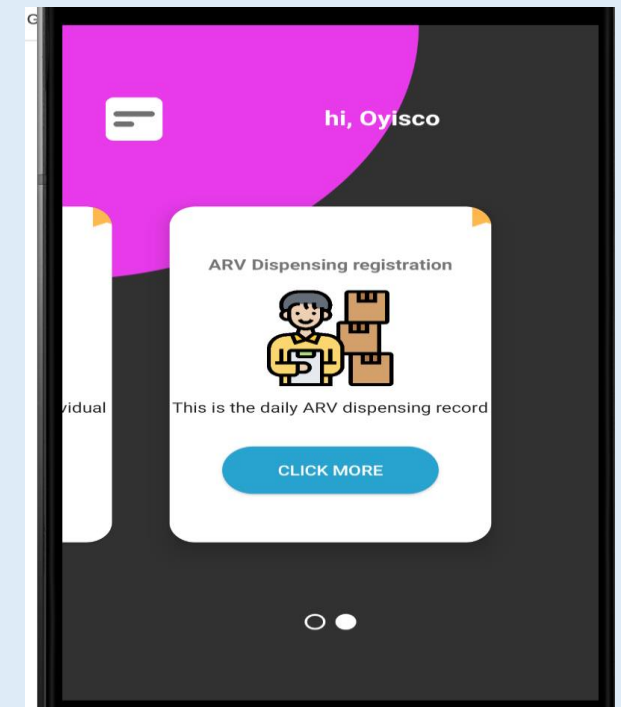
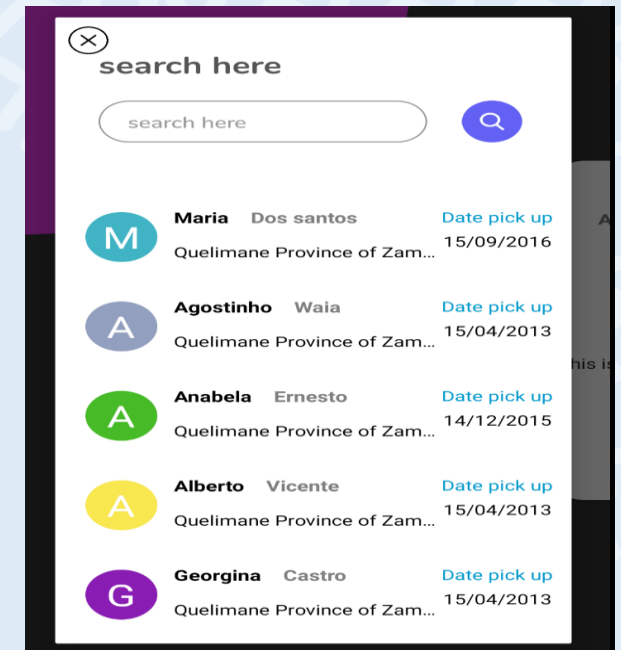
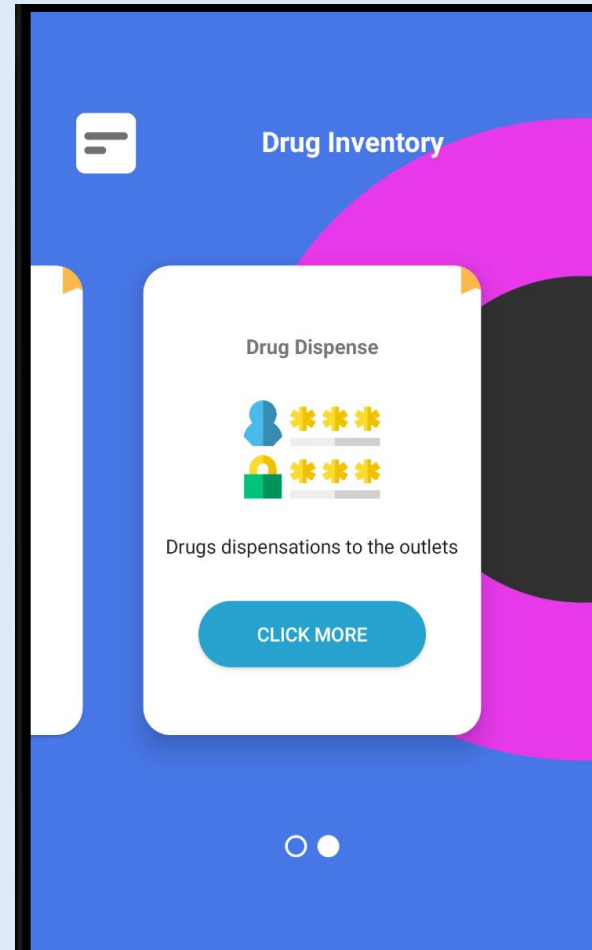
Drug Setup

Drugs to be stocked

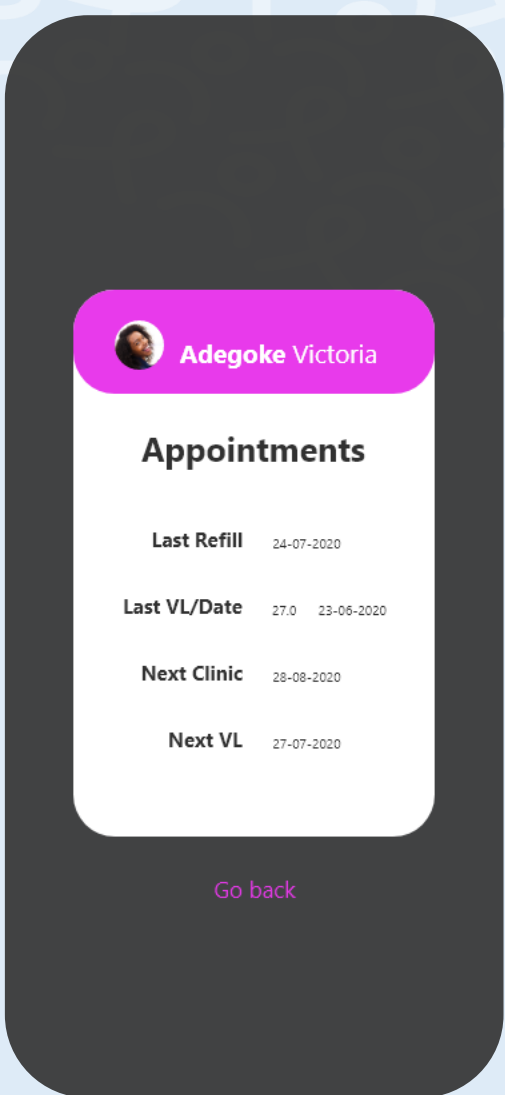
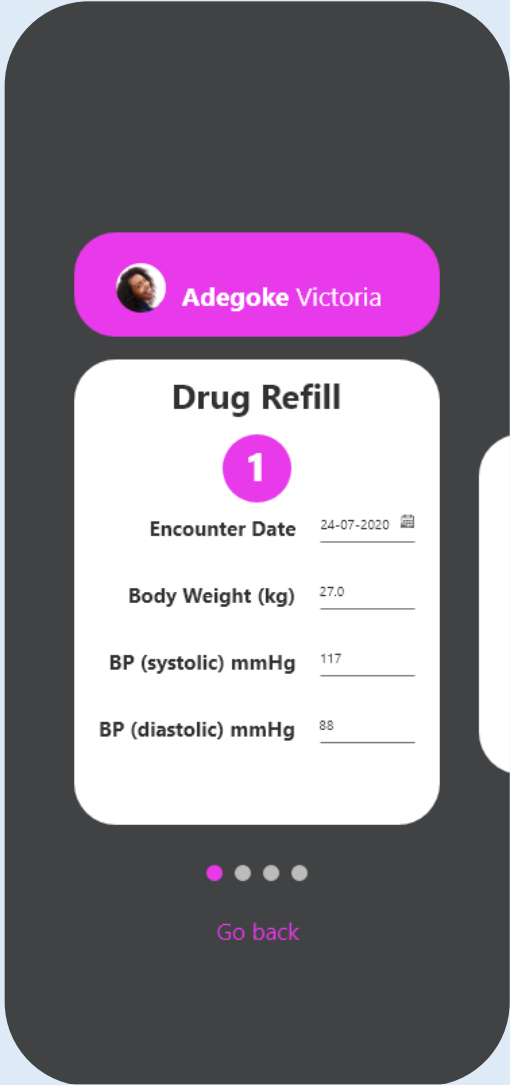
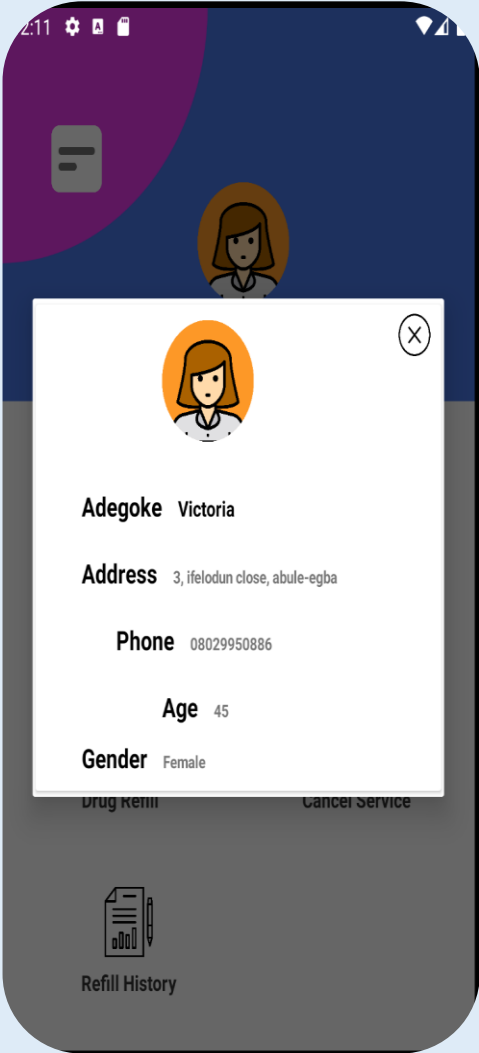
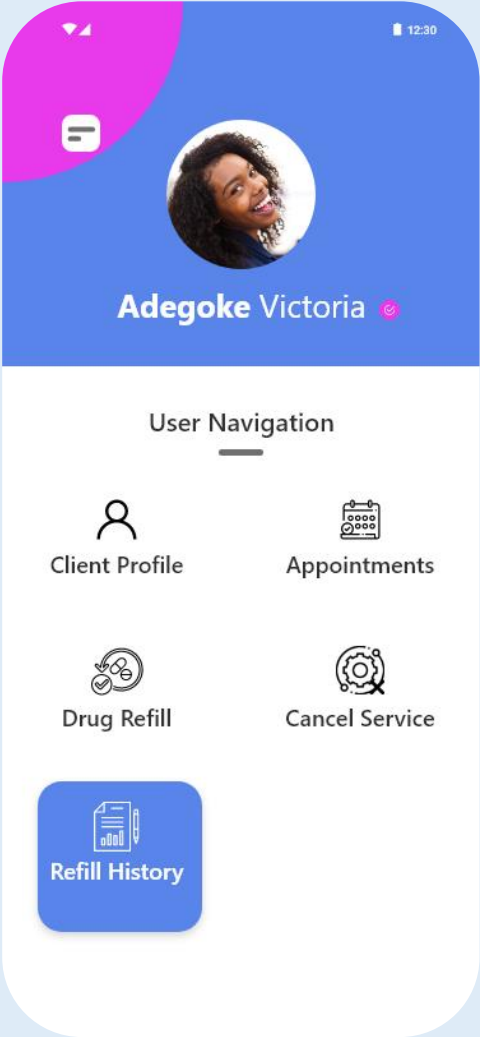
CLICK MORE

Dispensing

- Patient dispensing
 - Drug name
 - Date
 - Number dispensed
- Daily dispensing
- Shared with facility

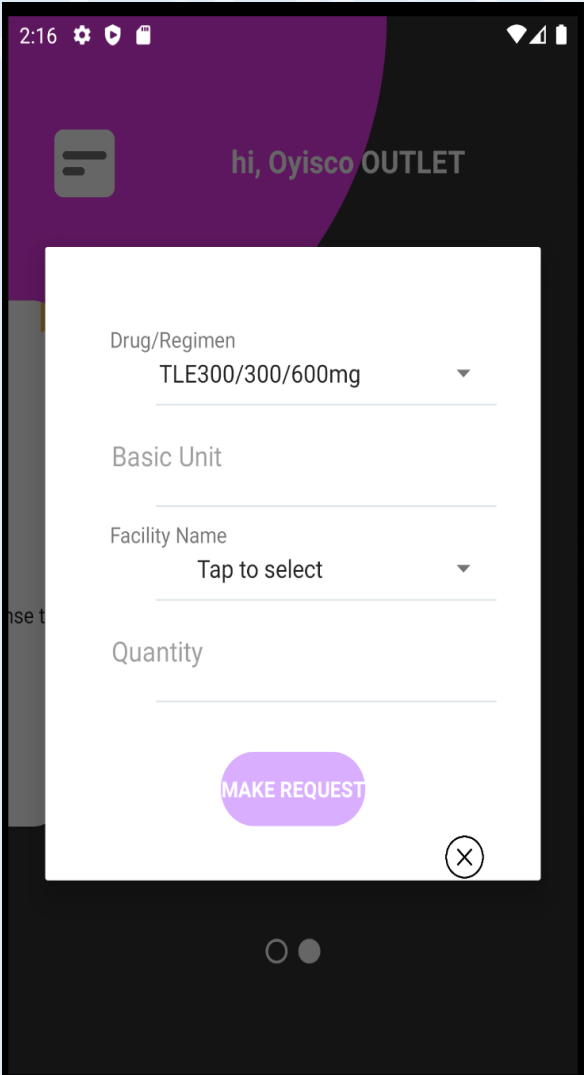
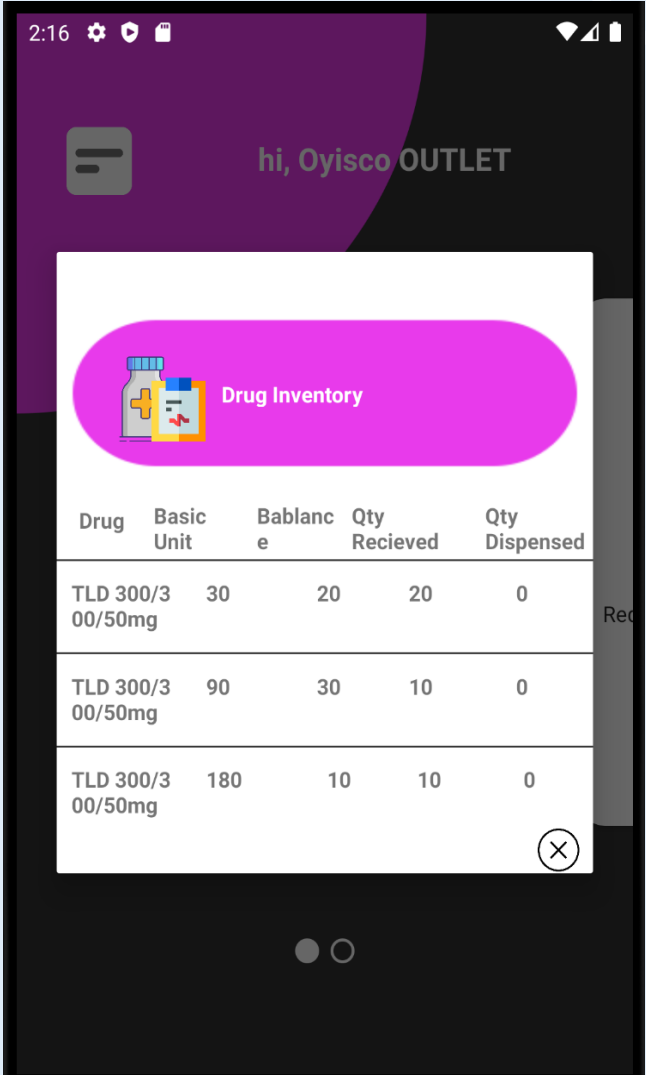
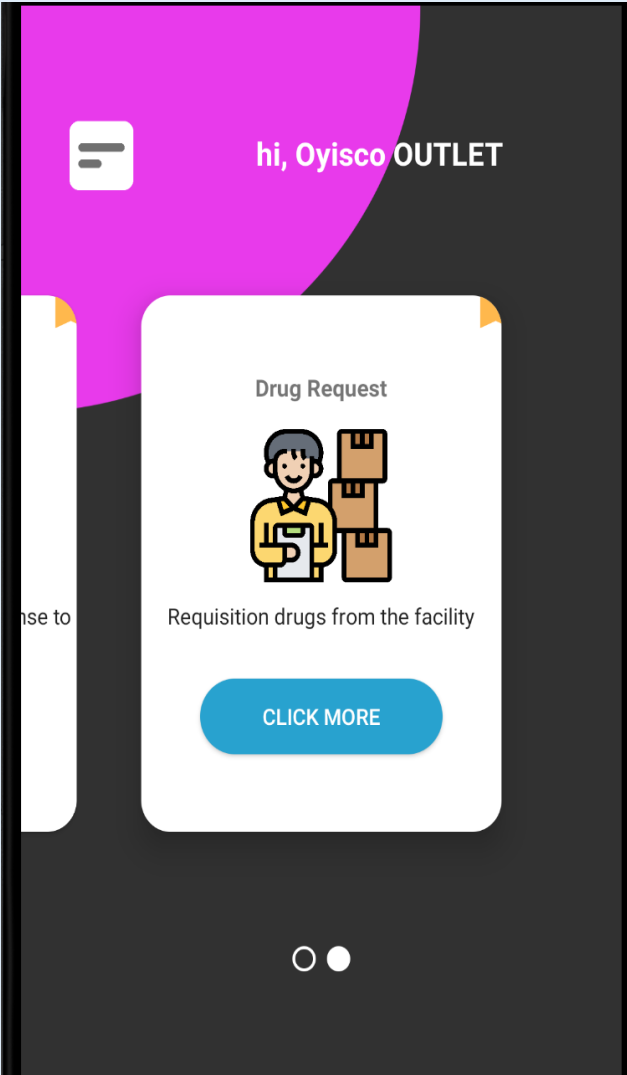


Refill outlet client list

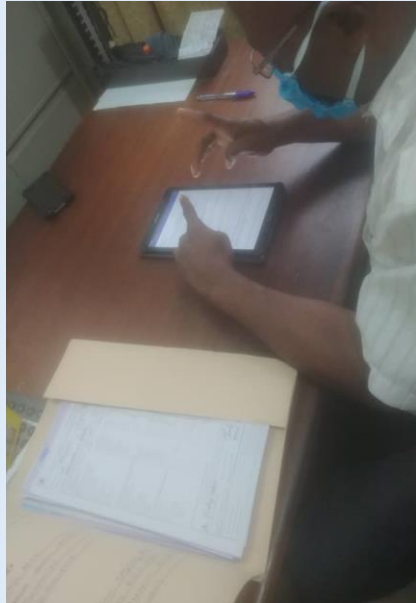
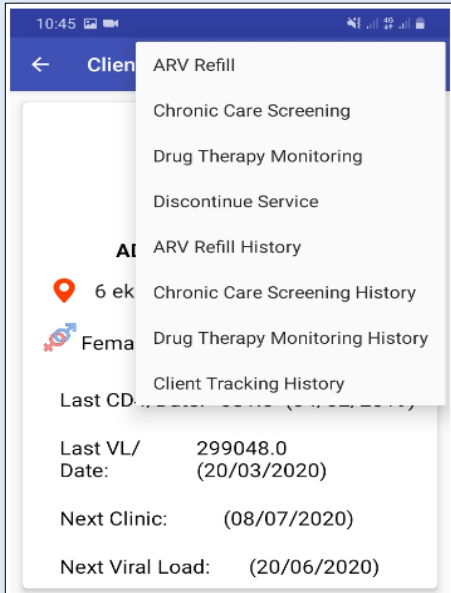


Reporting/Requisition

- Closing balance
- Consumption
- Order



Using the App in Nigeria- used as “CPARP Mobile”



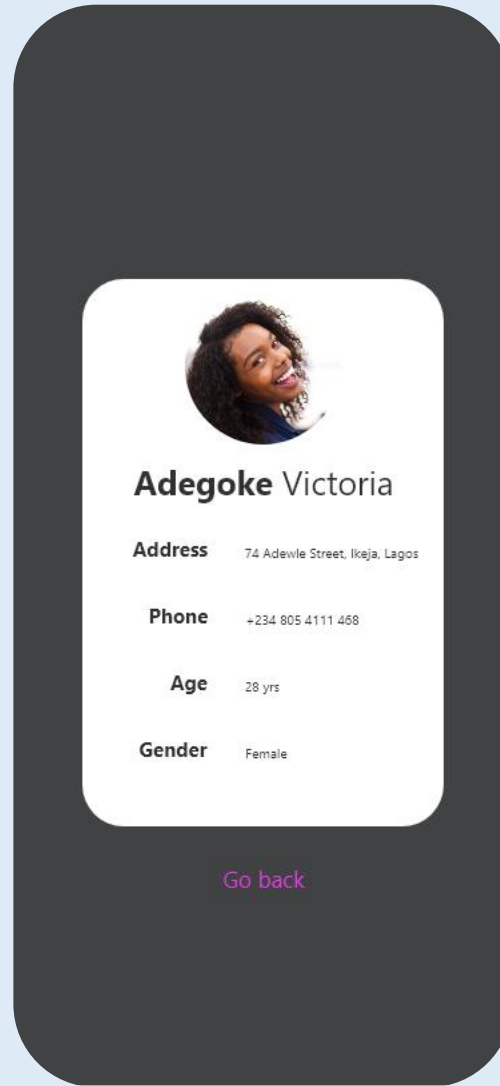
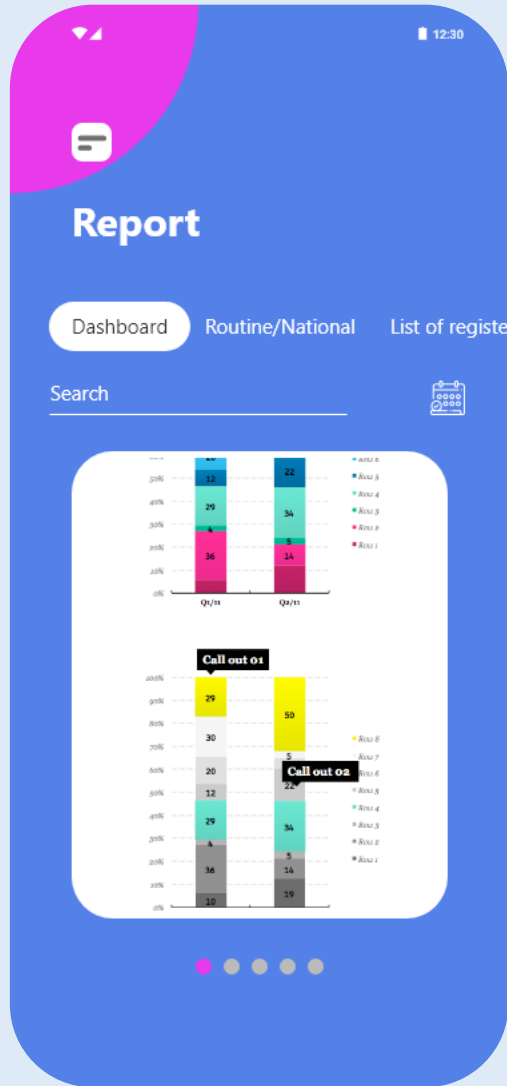
- It is currently in use in 44 community pharmacies (CP) with 2,773 devolved clients in Cross River State.
- It has helped to significantly reduce documentation gaps for devolved clients.
- Recurring challenges are;
 - Poor internet connectivity, both of which affect synchronization of data between hub facility and CP.

On-site use of CPARP mobile

Snapshots of the community pharmacy ART refill point (CPARP) mobile in use at a community pharmacy in Calabar, Cross River State, Nigeria

Piloted in Lagos and Akwa Ibom, updated version to be implemented in Q4

Service Delivery Reports



Data Visualization Dashboard

- Hub facility app as well as DDD outlet
- Appointment keeping rates
- Number of clients served

Routine MER and non-MER reports

- Can be exported via email

Defaulter list

- For client tracking

Country adaptation

- Routine reports matched to country required reports
- In country logos: based on in country branding guidelines
- Language options – user able to select country language
- Cloud server/physical server for facilities without EMR – Can be managed by in country health informatics officers/ IT specialists
- Seamless plugin and use by facilities with EMR through data mapping and use of API calls to the existing EMR
- Generically configured to accept local IP address for facilities with local area network
- Community of Practice (CoP)

Thank you



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Global Health Assurance Partnership (GHAP)

September 2020

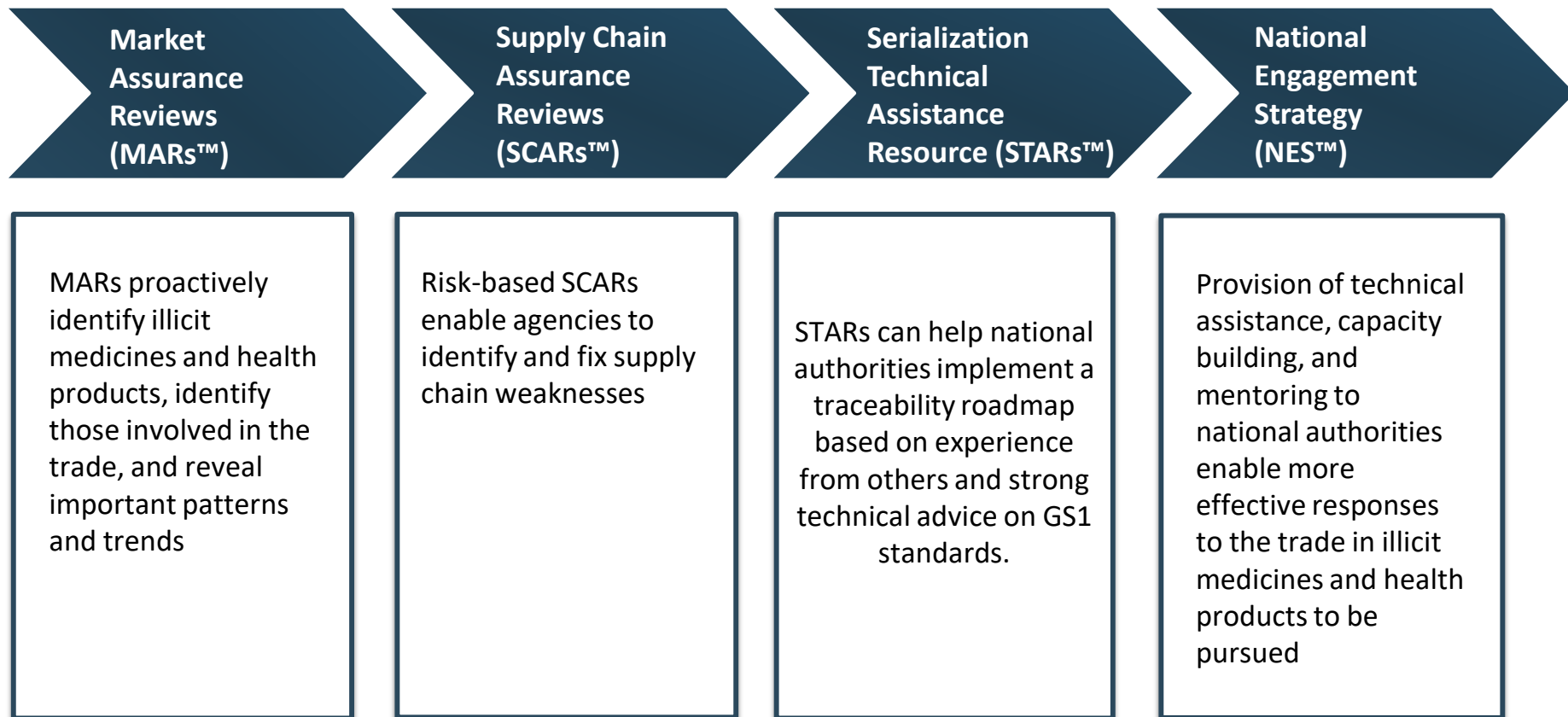
Illicit Medicines and Health Products: Setting the Context

- Substandard & falsified (SF) medicines and health products are an acute public health concern impacting both generic and branded products.
- SF medicines have a detrimental impact on disease targets, including the fight against resistance and disease eradication.
- SF and diverted (Illicit) medicines and health products pose a reputational risk for national authorities and international health agencies.
- Donors' confidence and continued funding may be undermined if national authorities and international health agencies do not have adequate assurance mechanisms in place to proactively identify and respond to the trade in illicit medicines and health products.

GHAP's Mission

- **To protect public health** from the adverse impact of illicit medicines and health products.
- **To provide enhanced risk assurance** for stakeholders with a primary focus on national authorities and international development agencies.
- **To support health-system strengthening** through the delivery of technical assistance and capacity building, to enable national medical regulatory agencies (NMRAs) and other special agencies to better respond to the challenge posed by illicit medicines.

GHAP: The Full-Spectrum Approach



Establishing Ground Truth: GHAP's Market Assurance Reviews (MARs™)

MAR Teams

- In-country connection
- Specialist background

Security

- Under-the-radar
- Rigorous security SOPs
- Security training

Team MO

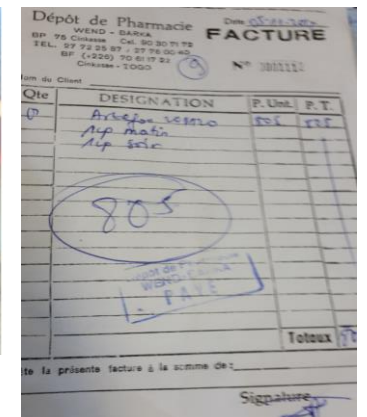
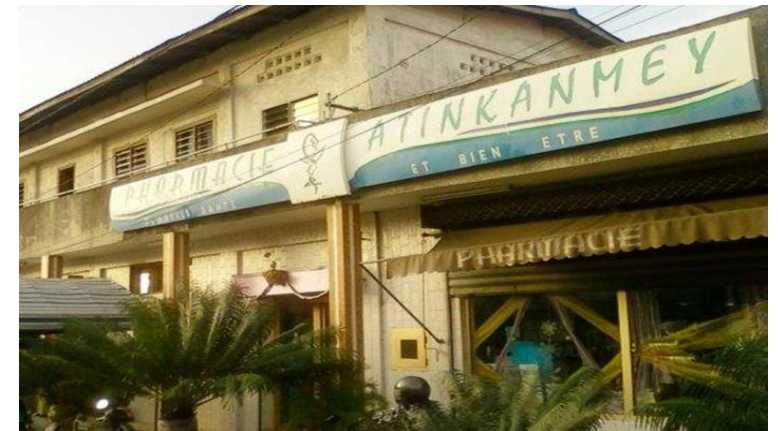
- Conduct personal buys
- GPS locating
- Purchase receipts
- Wider intelligence

Targeting Criteria

- Open Source Intel
- Survey team knowledge and experience
- In-country contacts

Repeat Surveys

- Establishes patterns and trends



Supporting National Authorities: The Key Components

- Operations
- Equipment
- Technical assistance

The Way Forward

- Support to national authorities to enable them to conduct effective intelligence-led operations is crucial
- National responses need to be increasingly of an inter-agency nature
- Cross-border collaboration is key
- Sustained training & mentoring for NMRAs and National Task Forces

Global Health Assurance Partnership (GHAP)

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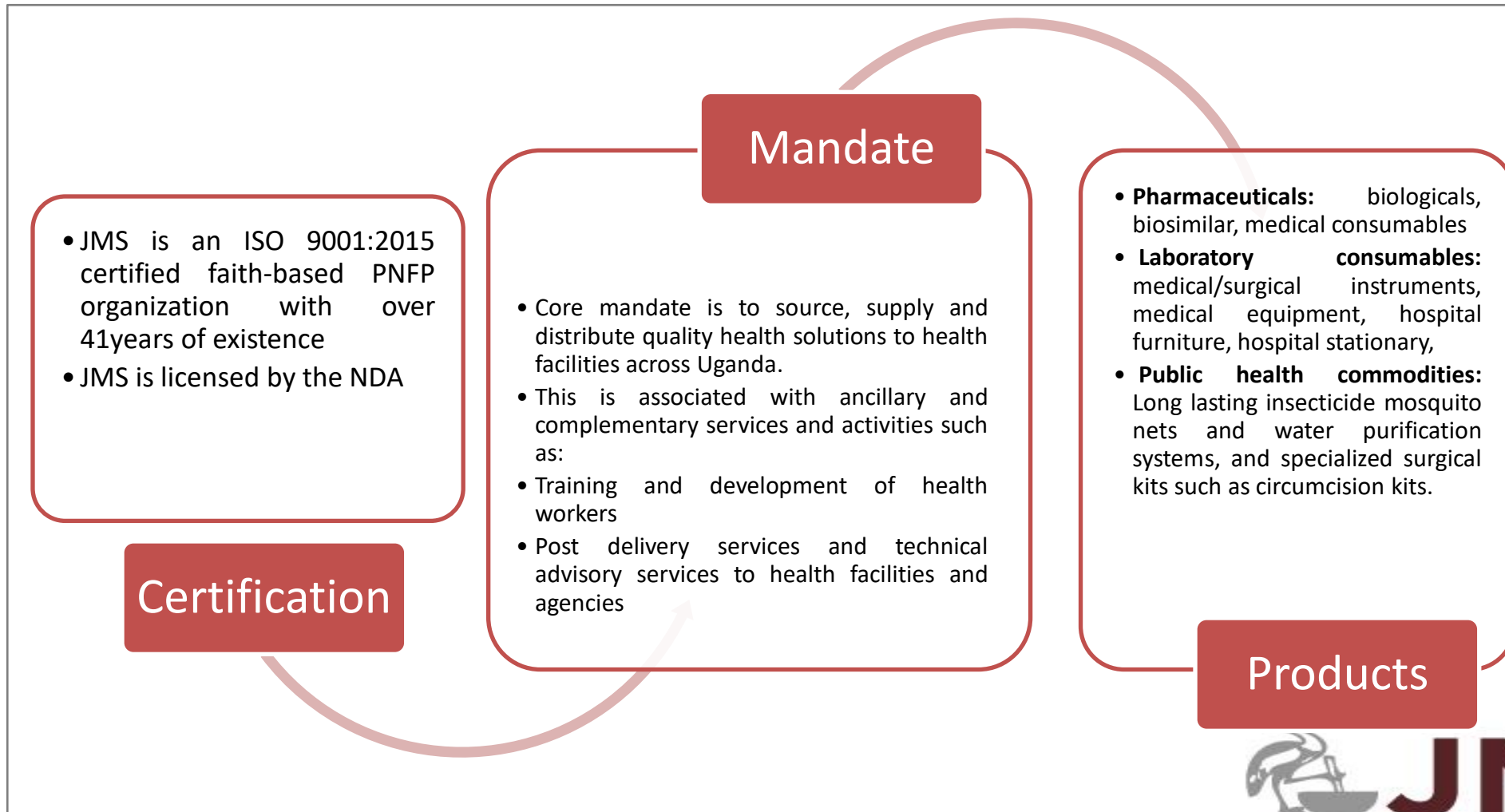
Impact of COVID-19 on National Supply chain Experience of Joint Medical Store (JMS) in Uganda.

24th Sept 2020





About JMS





Top left: Head office, Top right:
Prof A.M Odonga warehouse.
Right: Mbarara Branch





Our work

Our work

JMS handles SC projects that support PNFP & PFPs on behalf of MOH

- Distribution HIV commodities
- ACT
- RH/FP commodities
- PHC – EMHS

Partners

While executing its mandate JMS works with various implementing partners such as:

- USAID
- UNFPA
- Global FUND
- TASO



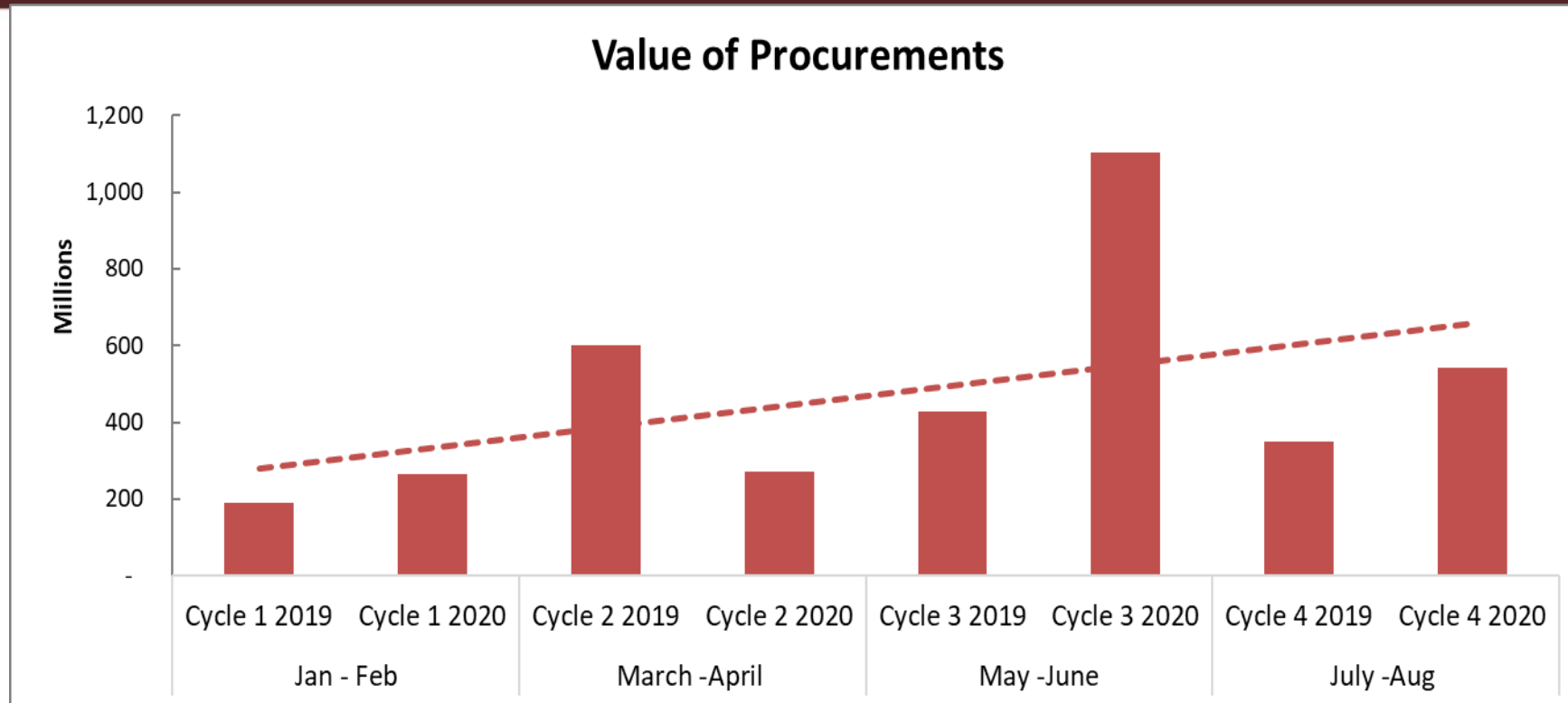
Effects of Covid 19

- Just like any other country, Covid-19 caused supply chain disruptions in the following areas:
 - Procurement
 - Clearing and forwarding
 - Distribution
 - Ordering trends
 - HR and administration





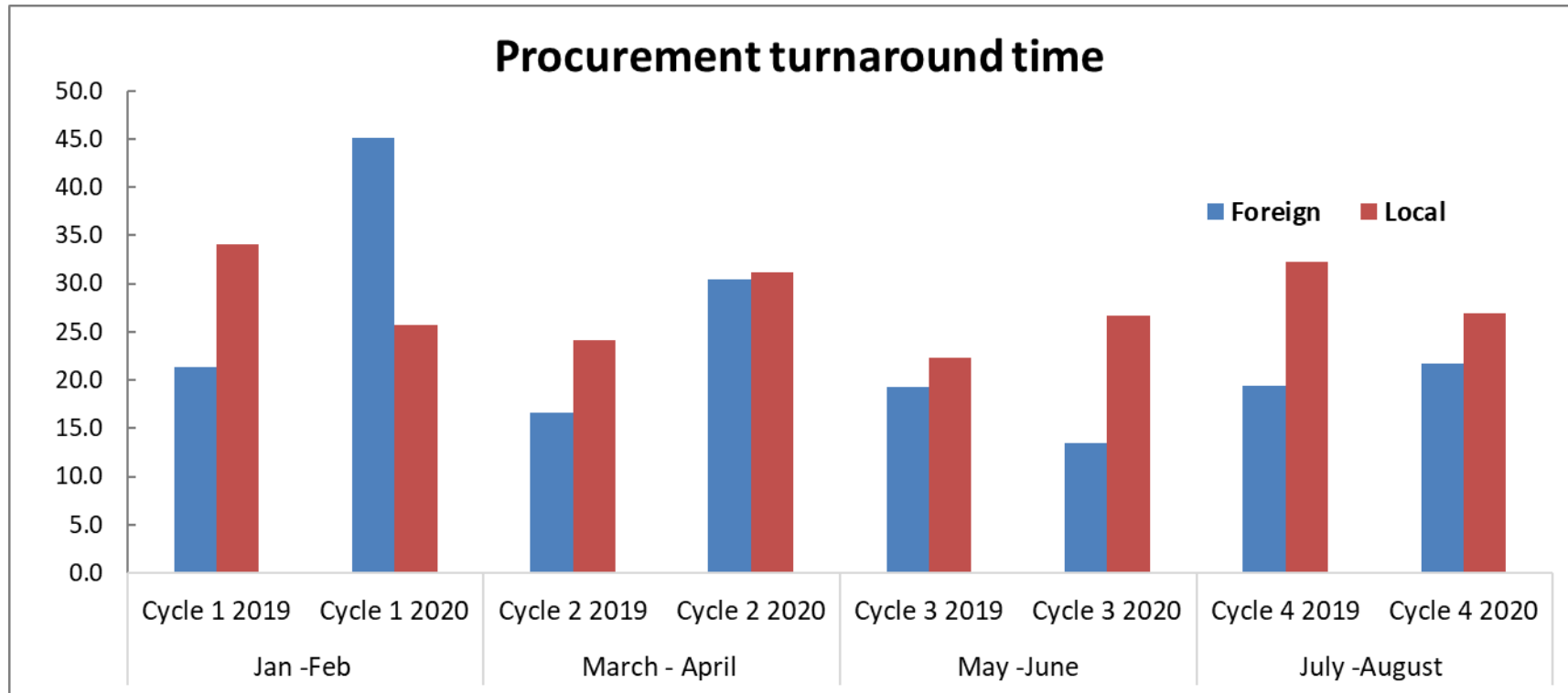
Procurement Financing



Suppliers preferred cash procurements: Inflation of prices: Change in demand and preferences: Local beneficiaries never had enough working capital to finance procurement



Procurement lead times

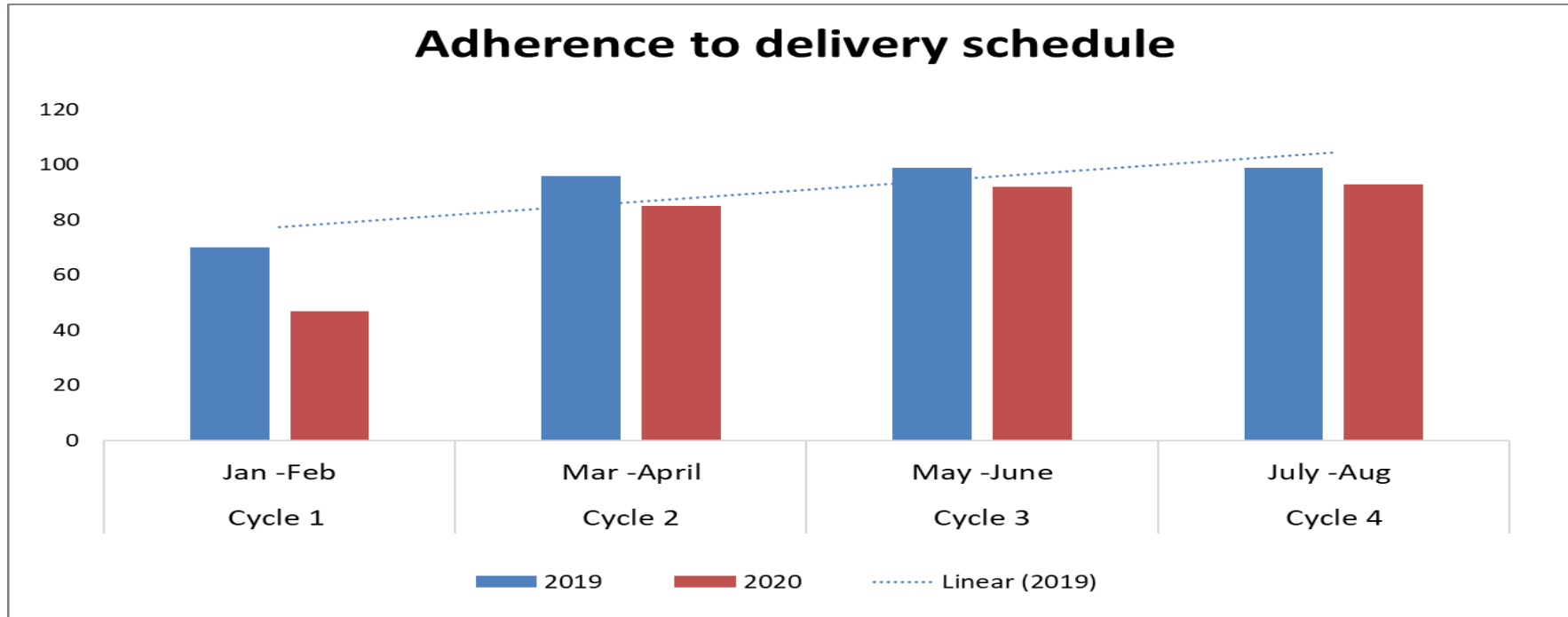


Increased procurement turn around time due to:

- Delays at points of entry
- Increase in production lead times and freight charges
- Change in demand patterns



Adherence to distribution schedules



- Restrictions in movements and accommodation facilities
- Fewer patient numbers leading to overstocks at facilities
- Long supply lead times which affected supply plans: currently the warehouse is low in ABC/3TC 300/600mg
- Support supervision was affected: Minimal TA to facilities



Customer order patterns

Change in customer preferences

- More Covid relief items were ordered
- High rate of emergency orders mostly for Covid relief items
- Panic purchasing
- Beneficiaries never had enough working capital
- Reduced orders for EMHS by 36%

Delays in timely submission of project orders

- JMS TA support reduced due to restriction in movements
- Over stocks due to limited movements of health workers and patients
- Multi months dispensing for chronic illnesses was preferred





HR management

- Change in work schedules-shifts
- Increased cost of HR maintenance:
 - transportation costs
 - internet
 - on site accommodation.
 - PPEs for all staff



Thank you



Q+A

Upcoming Session

Strategic Information – a comprehensive approach to DDD

Thursday, October 8, 2020

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

[Register here](#)