### The Right Place at the Right Time

What We Learned from Supply Chain Strengthening of Six Faith-Based Drug Supply Organizations

August 24, 2022





# Traduction?

# Cliquez en bas de l'écran pour la traduction en français.







Michael Fleming is a Senior Expert in McKinsey's Social Sector and Global Public Health (GPH) practices. He has 16 years of experience in procurement and supply chain management and specializes in the supply of health commodities to developing countries. He supports donors and multilateral agencies to improve their procurement outcomes at a global level (including negotiating lower pricing for complex health commodities and medical devices) and supports Ministries of Health and other country-based drug supply organizations to strengthen their domestic supply chains.

# Our objective is to improve the resiliency of faith-based DSO supply chains in Africa

#### Context

- In Africa, some faith-based organizations (FBOs) also own and operate drug supply organizations (DSOs). These organizations typically serve anywhere from tens to thousands of facilities.
- DSOs face a range of challenges in consistently procuring and distributing health commodities to the communities they serve
- In August September 2020, MOMENTUM supported several faith-based DSOs to implement a supply chain self-assessment.
  This highlighted opportunities for improvement across 6 key supply chain areas
- In June September 2021, MCGL designed and implemented an e-Learning program for DSOs, targeting capability building in the areas identified from the self-assessment

#### Objective

Build capabilities of critical supply chain personnel at DSOs to directly address operational challenges and drive a sustained increase in supply chain performance

#### The DSO strengthening work has touched 8 DSOs across 5 countries





(Catholic Drug Centre)



Nigeria (CHAN) Medi-Pharm





In Year 1, MOMENTUM facilitated a self-assessment of the 8 DSOs that evaluated their supply chain capability, functionality and performance The assessment utilized a tailored version of USAID's National Supply Chain Assessment (NSCA) Tool



#### **1. Supply Chain Mapping**

Develops a visual representation of how the supply chain works



2. Capability Maturity Model Assessment Measures the supply chain's capability and functionality



#### **3. Key Performance Indicators** Measures supply chain performance

**Evaluation areas** 

	Low Capability	High Capability
KPIs How is the	High Performance	High Performance
supply chain actually performing?	Low Capability	High Capability
	Low Performance	Low Performance

**Capability Maturity Model Assessment** What is the capability of the system to perform?

The NSCA is typically used to assess public health supply chains, or a subset thereof, making it a comprehensive tool which is applicable to decision making processes regarding investments for improvement.

Participating DSOs implemented the self-assessment in September 2020, including extensive data collection by each organization's Assessment Team

#### **Project overview**



## The self-assessment identified opportunities for strengthening activities across 6 areas.

**Examples of areas identified for strengthening across multiple DSOs:** 



Following the self-assessment findings, a supply chain capability building program was created and launched in Year 2

The program focused on **developing DSOs capabilities** and **improving their supply chain operating model** through:



#### **Online modules**

Each employee completed a collection of online courses tailored to their role in the organization



#### In-field training session

Each DSO organized an in-field session bringing together learning participants to address a specific supply chain challenge



The online training consisted of 10 modules focusing on the strengthening needs identified in Year 1

#### Key challenge areas



**Forecasting and supply** planning



storage

Warehousing and

Quality



**Financial sustainability** 

HR and capabilities / -0-|-|soft skills

- **Training modules**
- Forecast and Demand Planning
- Shipments
- Supply Chain Visibility
- Fleet Management
- Warehouse Operations
- Inventory and Records Management
- Cold Chain Management
- Quality Assurance
- Financial Management
- Problem Solving



In-field training sessions allowed trainees to apply the e-module learnings in a real-life situation

Team-led "go-and-see" session where participants explore one topic from the training in the context of their operations





#### Outcome

- All trainees exposed to real-life warehouse operations
- Trainees practiced structured problem-solving approaches
- Trainees developed set of solutions to tackle a selected real-world supply chain challenge for their DSO



Fidelis Nyaah Bah Ngoh is a pharmacist trained in Nigeria at the Ahmadu Bello University Kaduna State. He is a licensed pharmacist in Cameroon with over 14 years of practice both as a full-time pharmacist and international consultant. He worked as Chief Pharmacist to the Presbyterian Church in Cameroon Health Services until June 2021 when he was appointed as Director of the Presbyterian Church in Cameroon (PCC) Health Services. He has expertise in pharmaceutical supply chain management and is deeply involved in the fight against proliferation of counterfeit medicines across the world.

### Introduction of Presbyterian Church in Cameroon Health Services (PCC-HS) and its DSO



- Our health facilities are in five of the 10 regions of Cameroon
- South West, North West, The Littoral, West and Centre Regions

#### Introduction



- We operate in both rural and urban areas
- Four general hospitals and three health complexes
- Five specialized eye hospitals and three eye satellite clinics
- 10 integrated health centers and one dispensary

### The PCC Central Pharmacy (DSO)



- Created to procure and distribute medical commodities to all PCC health facilities and other Private and Government facilities
- Compounding Unit
- Quality Control laboratory (Global Pharma Health Fund [GPHF] Minilab)
- Warehouses
- Logistic unit
- Finance department
- Headed by a Pharmacist

#### Lessons Learned from NSCA

Using the survey tool enabled us to identify several gaps in our SMC:

- Little was known as per financial management on both facility level and central levels how it was affecting the supply chain of medical commodities
- Regular bridge in the cold chain storage system especially, at facility level due to constant interrupted electric power supply
- Regular breakdowns of delivery vans from central store to the health facilities, causing drugs not to reach destination on time
- Lack of logical approach in tackling the challenges encountered at every level of the supply chain

#### Lessons Learned from NSCA (continued)



- Limited space to store the needed stock, especially at the central warehouse
- Inadequate shelves to pack drugs
  - Making warehouse management especially inventory control difficult
- Poor temperature and humidity monitoring system at the storage site of the medicines and along the supply chain

### Lessons Learned from Supply Chain Leadership Development Program (SCLDP)

- Supply chains involve a multidisciplinary collection of professionals (drivers, health personnel, finance personnel, administrators, etc.)
- Training on the different components of supply chains with regular refresher courses to all staff working on the SC is essential for smooth functioning of the supply chain
- Trained 15 staff members on both central and facility levels. This led to the workers in SCM speaking the same language and better understanding among themselves leading to smoother functioning of the supply chain
- All the modules in the SCLDP training gave us an insight into supply chain management and better equipped our SC staff on their different responsibilities and on how their respective actions affect the supply chain
- Financial management, which we used to treat as a stand alone, is crucial to ensure a functional medicine supply chain

### Impact of the Two Programs



- We realized the importance of warehouse training and how it can be useful to improve our inventory management
- We have trained staff on working to improve our warehouse operations
- We saw the need to decongest the central store by creating a bigger satellite store in another region with more improved stock management tools
- We plan to build a new central store where more storage space is available

### Impact (continued)



- Our QC lab now runs a proper quality assurance system for the entire pharmaceutical supply chain (PSC) of medicines (from central stores to facilities dispensaries)
- Ensures quality standards are maintained throughout the PSC
- Improvement in the availability of the right medicines in the right quantity at the right time at the right price and to the right facility, all due to improved functioning of our PSC of medicines

#### Impact (continued)



- Some aspects of the SCLDP course content have been incorporated in the training of pharmacy personnel in our training school
- We have budgeted refresher seminars for staff working at all levels of the supply chain

### Conclusion: Challenges Encountered in Implementation

- The baseline assessment helped in identifying gaps, which we originally did not see as a threat to our PSC
- The online training gave us knowledge on how to approach those problems and to logically find solutions to them
- Our biggest challenge is having the financial mobilization to address the problems identified and to implement the activities that can resolve them



Dr. Paul Amo Kyeremeh is a Ghanaian and a passionate practitioner of Public Health and Development. He holds a Doctorate in Public Health and is pursuing another PhD in Development Administration in the Philippines. He is a Co-Director of Pisgah Advanced Medical Center. He served as a Hospital Administrator, President of the Mid-North Ghana Conference, an Adjunct Lecturer in Public Health for the Adventist University of Africa, Kenya, and was the immediate past Director of the Ghana Adventist Health Services. He recently accepted a position as the Health Director for the West-Central Africa Division of Seventh Day Adventist Church based in Abidjan, operating in 22 countries.

#### Introduction

- Ghana Adventist Health Services (GAHS) has 36 health facilities:
  - 33 hospitals and clinics
  - 3 health training institutions
  - Over 5,000 staff
- Among the 36 facilities is the GAHS Central Medical Stores (CMS) which procure, stock, and supply pharmaceuticals to its facilities

#### Our Mission and Vision

- GAHS seeks to win souls for Christ through a holistic approach to quality healthcare in families, households, communities, and with a committed effort to treat all with human dignity, respect and tolerance.
- GAHS envisions to create a future where each of the GAHS hospitals, clinics, and training institutions would be adequately and appropriately resourced to operate optimally and to provide quality health care to our clients.

### Lessons from the National Supply Chain Assessment (NSCA)

- Tremendous improvement of computation of stock levels (minimum, maximum, re-order, emergency) by facilities
- Able to minimize stock out syndrome
- Adherence to basic supply chain standards
- Modification of decision making
- Provision of basic storage and material handling equipment

#### **Identified Gaps**

- Supply Chain Financing
- Supply Chain Relationships
- Information systems in supply chain management should be looked at in subsequent programs
- The project should be able to direct participants to where they can source funding to mitigate challenges which are related to the project

#### **SCLDP Benefits**

- **Cold chain protocols**: There has been a strict adherence to cold chain protocols in GAHS facilities to maintain quality. Basic cold chain equipment which were lacking are now available.
- Effective financial management practices: The spending by our facilities has also seen improvement. The little that is generated is controlled to make sure stock outs are minimised. The number of expired drugs has been reduced over 90%.

#### Conclusion

 Amid financial constraints and availability of a centralised technological information system to monitor stock at the various facilities by GAHS central medical stores, the implementation of both NSCA and SCLDP have been successful.



Jonathan Manya Dogo is the Managing Director/CEO of ECWA Central Pharmacy Ltd, in Jos, Nigeria. He is a pharmacist with experience in various settings, including hospital, community, production, and administration. He has 36 years of practice as a pharmacist out of which he practiced in rural areas for 17 years. He supervised the Health Department of the Jama's Local Government, Kaduna State for one year. He also speaks at different fora on the safe use of medicines and healthy living.

#### Introduction

- ECPL is a faith-based DSO that stands out for quality products and services
- Manufactures and distributes medicines to some government and private health institutions, in addition to faith-based health facilities
- Works mostly in North and Central Nigeria, with few in the South
- Facilitated the supply of family planning and maternal and child health commodities to FBOs by the Plateau State government
- Central store supplies as many as 188 facilities.

#### Lessons Learned from the NSCA

- Forecasting and supply planning is based on the consumption rate.
- Forecast accuracy for most commodities is between 50% and 85%.
- Distribution is challenged by poor road infrastructure, high fleet management costs, and the use of outsourced delivery services.
- Low storage space, unreliable cold chain equipment, unqualified staff, and limited temperature management tools affect warehousing and storage.



#### Lessons Learned from the NSCA (continued)

- It is important to have quality processes in place and with an accredited laboratory for quality control testing.
- Effective planning and sustainability are affected by inadequate documentation and low cash flow.
- Limited number of skilled personnel and excess workload negatively affects human resources.



#### Lessons Learned from the SCLDP



- Problem solving has organized steps that, when followed, gives a better understanding of the problem and yields great and lasting results.
- Some supply chain processes add additional costs to the DSO.
- Quality assurance is essential in receiving needed feedback.
- Improved forecast accuracy, master lead time, and calculated reorder points to avoid stockouts and expiration are essential to forecast demand.
- Teamwork improves productivity, saves time, and increases income.

#### Impact of Lessons Learned

- Problems are efficiently and easily resolved
- Management stress is reduced
- Effective use of time when carrying out warehouse operations
- Organized and improved warehouse management
- Increased level of team synergy leading to better and more comprehensive results
- Optimum management of time and resources to eliminate waste
- Timely bulk purchase of medicines minimizes reduced or unavailable stock



### Impact (continued)

- Effective and sustainable record keeping
- Effective and sustained quality check on medicines and services
- Significant feedback from customers
- Development and appropriate use of new standard operating procedure
- Training and retraining of staff regularly
- Improved customer satisfaction
- Creation of the Office of Quality Assurance

S/N A 1. 2. 3.	CHEMICALS VISUAL ASAC OF PRODUCT Pro DETAILS OR PARAMETER Chemical Is delivery documents and quantity	ecwapharma	on checkl	
S/N A 1. 2.	DETAILS OR PARAMETER Chemical Is delivery documents and quantity	INSPECTION LONISO	on checkl	IST
S/N A 1. 2.	DETAILS OR PARAMETER Chemical Is delivery documents and quantity	edniso YES	cone i	hills
S/N A 1. 2.	DETAILS OR PARAMETER Chemical Is delivery documents and quantity	YES	NO	nues
A 1. 2.	Chemical Is delivery documents and quantity		NO	OBSERVATION
1.				
			/	/
	supplied according to local		/	/
	purchase order (LPO) verified?			
3.	Is there certificate of analysis?		/	
	Was the item properly cleaned and		X	
	dursted	/		
4.	Is the batch No., mfg, and expiring			
	dates properly written?			
5.	Is the product properly packaged	1		
6.	Was the order supply done at the	11		0
	expected date of delivery?	~		
7.	Was the order complete? Packaging	1.1		4
	materials			+
8.	Is the quantity supplied according	V		( amples
-	to LPO specification?			
9.	Has the printer maintained quality			1 1
	of the packs, labels literature and	V		
	the specifications?	1		
10.	Was the order supply done at the	V		1
	expected date of deliver?			
11.	Was the order complete?			
	No 0 DE	Date: 24!	3/202 - A. 3/2022	

### Conclusion

- The NSCA was effective in identifying the strengths and gaps of the DSOs and prepared DSO staff for the SCLD-P training, which had tremendous impact on the services of the DSOs, especially ECPL.
- However, implementation is affected by paucity of funds, and poor implementation of some of the lessons learned by some SDPs.

