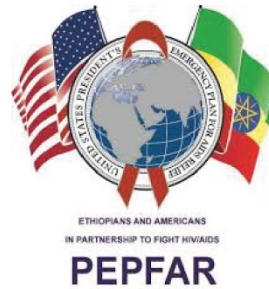




**USAID**  
FROM THE AMERICAN PEOPLE



**AIDS Free**  
Strengthening High Impact Interventions  
for an AIDS-free Generation

## Automating health centers at refugee camps in Ethiopia as a means of strengthening commodity management.

18 July 2018

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# Outline

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PART 1 – Background

PART 2 – Supply Chain Performance Improvement Approach

PART 3 – Result Summary

PART 4 – Conclusion

PART1

Background

# Background

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- Ethiopia hosts more than 900,000 refugees in its 27 refugee camps spread across six regions in the country.
- Basic health care service including primary health care is one among the service package given to refugees
- Health care service requires sustainable supply and availability of essential health commodities in sustainable manner.
- The UNHCR has been supporting the operation and management of the camps, including health commodity management

# The Challenge: Getting Products to People



“Much of the [world’s] burden of disease can be prevented or cured with known, affordable technologies. The problem is getting drugs, vaccines, information and other forms of prevention, care or treatment—on time, reliably, in sufficient quantity and at reasonable cost—to those who need them.”

— World Health Organization (WHO)

## The Challenge: Specific

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- LMIS recording and reporting practices needs to be streamlined and standardized (manual and automation)
- Motivated and competent workforce to fulfill essential supply chain functions,
- Good store management practices needs to be enforced
- Inventory control policies to help to inform personnel when and how much to order and to maintain an appropriate stock level
- Increase of product demand at facilities requiring better management

# Solution: Support an Effective Health Supply Chain System by Strengthening Processes, People, and Tools

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- John Snow, Inc. (JSI) AIDSFree, Ethiopia collaborated with ARRA and UNHCR to improve commodity management practices:
  - Leveraging systems and best practices in public health supply chain system
  - Capacity building through training, mentoring, supportive supervision, and
  - Optimize processes for commodity management using an automated inventory management information system (implementing Dagu)

# AIDSFree Ethiopia Overview

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AIDSFree is a 5-year cooperative agreement seeking to strengthen high-impact interventions for an AIDS-free generation. It is funded by USAID (Pop, MCH, PMI) and PEPFAR and managed by the USAID Office of HIV/AIDS and implemented by a consortium of implementing partners led by JSI.

## AIDSFree Ethiopia

- In Ethiopia, AIDSFree seeks to improve health care outcomes by ensuring efficient supply chain systems

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## AIDSFree Ethiopia Goals

- AIDSFree Ethiopia goals focuses on improving commodity availability through enhanced: Data Visibility, Data Quality and Data Use

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## AIDSFree Ethiopia Objectives

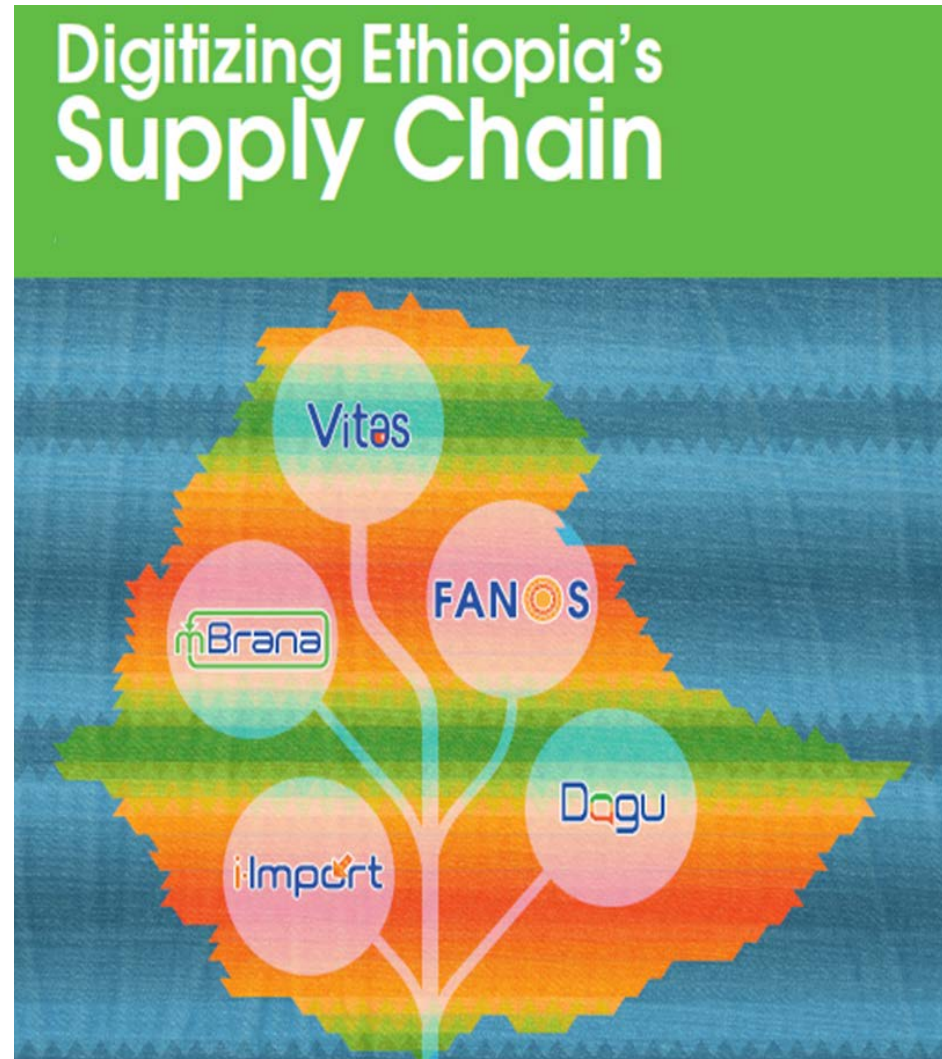
- 1) Increase data visibility and use for all levels of the supply chain to facilitate data-driven decision-making
- 2) Improve data quality (accuracy, completeness, timeliness) to catalyze increased data use and improved supply chain performance
- 3) Enhance the capacity of stakeholders to use data for improved supply chain decision-making
- 4) Increase the capacity of stakeholders to implement, support, and sustain the IPLS
- 5) Complete integration of rapid test kits and commodities for malaria and MCH into IPLS
- 6) Strengthen the ability of the pharmaceutical regulatory system to deliver quality medicines.



# Ethiopia: Supply Chain Management Information System

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- Manage 12,000+ unique health commodities and over 8,000+ issues and 100+ receipts daily at PFSA
- Support 4 import permits a day at FMHACA
- Over 180 Woredas using mobile technology for vaccine management with 750 health centers and hospitals using Dagu
- Manage a daily average of 44 million USD in commodities



PART2

# Supply Chain Performance Improvement Approach

# The Solution: Support an Effective System by Strengthening Processes, People, and Tools

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- Building capacity through training and promoting data use, will ensure to have a more motivated and capacitated supply chain workforce supporting the system
- Supply chain process improvement ensures better; demand and supply planning, inventory and fleet management, and business process.
- Strengthening tools will help in addressing the existing supply chain bottle necks, including optimization of business processes.

# Strengthening People

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Building capacity through training and promoting data use, will ensure to have a more motivated and capacitated supply chain workforce supporting the system

## Activities

- Total of 79 professionals were trained on basic inventory and LMIS to improve commodity and information flow.
- The same were trained on managing and use of data generated from the software solution
- Availability of data is empowering the Supply Chain workforce to make informed decisions and take actions.



## Results

- Capacitated and motivated workforce supporting the system.
- Capacitated staff empowered with data to make informed decision

## Strengthening Processes

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Supply chain process improvement approach, which was proven on public health supply chain was adopted.

- The approach focuses on supply chain integration across programs and levels.
- The software solutions and tools that the project has developed and deployed were used as a conduit for process improvement.

# Strengthening Processes

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## Activities

- Intensive field level implementation support through Supportive supervision and OJT
- Provide ongoing support to enhance use of data for decision making
- Enforce good internal resupply and store management process

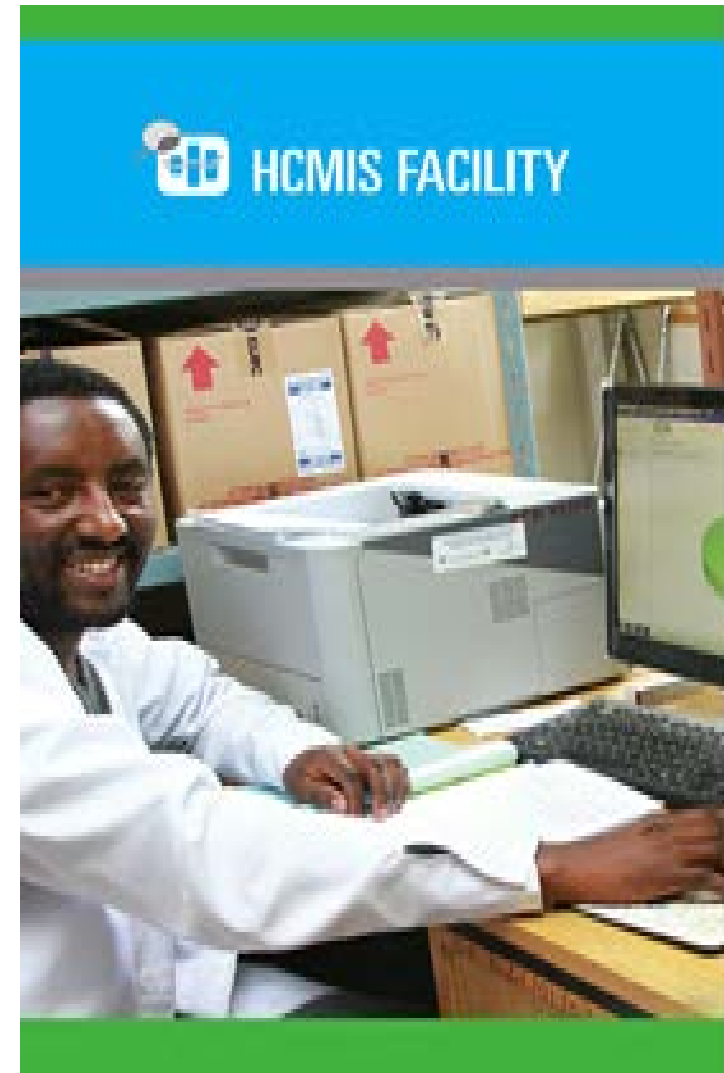


## Results

- 19 Health centers have well streamlined process facilitating good commodity and information flow
- The system is now being used to redistribute overstocked and near expiry items to other refugee camp health centers.
- Good inventory management practices helping a lot in minimizing wastage and maintaining efficiency

## Strengthening Tools

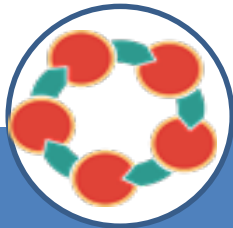
- AIDSFree employs an agile software development approach
- Software solutions and tools developed are designed and deployed to address existing supply chain bottlenecks, including optimization of business processes.
- Dagu is one of the pharmaceutical inventory management systems developed to optimize facility business processes and operations
  - Inventory management, transactional tool, and logistics decision making



# Strengthening Tools

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Objectives of implementing the system at the facility set up will be:



## Improving and optimizing internal business process

- Facilitate the use of SOPs including issue and receipts, 'first to expire, first out', and batch/expiry tracking.



## Generate reports for decision making

- Expand data visibility through timely reporting
- Improve data quality through requisition automation



## Improve performance/output:

- Shorten requisition submission and fulfillment times,
- Reduce wastage
- Improve availability



## Strengthening Tools

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- AIDSFree, ARRA, UNHCR and USAID collaborated to implement the system in 24 refugee camp health centers in the refugee camps.
- AIDSFree supported Dagu implementation, customization of the facility drug list, identifying of dispensing units, setting the minimum/maximum of dispensing units and health center training.
- After training, each facility received on-site support every two weeks for the first three months and every month thereafter for three months to ensure, ability to fully self-sustain system.

## Strengthening Tools

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- In addition, the project provided remote support through call center (8773 )using toll-free line
  - 90% of challenges solved at the time of call
  - Reduced downtimes and saved costs
  - Categorize and prioritize challenges for future support



# Strengthening Tools

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## Activities

- Enhancing and customizing software product features as needed
- Improving order management systems
- Supporting the efforts to improve visibility for all priority commodities
- Internal business process optimization
- Enhancing use of system generated data for decision making





## Results

- Customized tool and software solutions supporting facility's data needs to monitor and improve supply chain performance
- Requisition submission time went down from two days to an average of 90 minutes.
- Used the system to redistribute overstocked and near expiry items to other refugee camp health centers.

# Strengthening Tools

Kobo Health center - Health Commodity Management Information System (HCMIS)

Reports Transactions Activity Log Reports Summary Profile Utilities Admin Help File

## Near Expiry Products

Store: Budget Store  
 Category: All Year: All  
 Filter By Item Name:   Show Internal Drug Code

Export Print

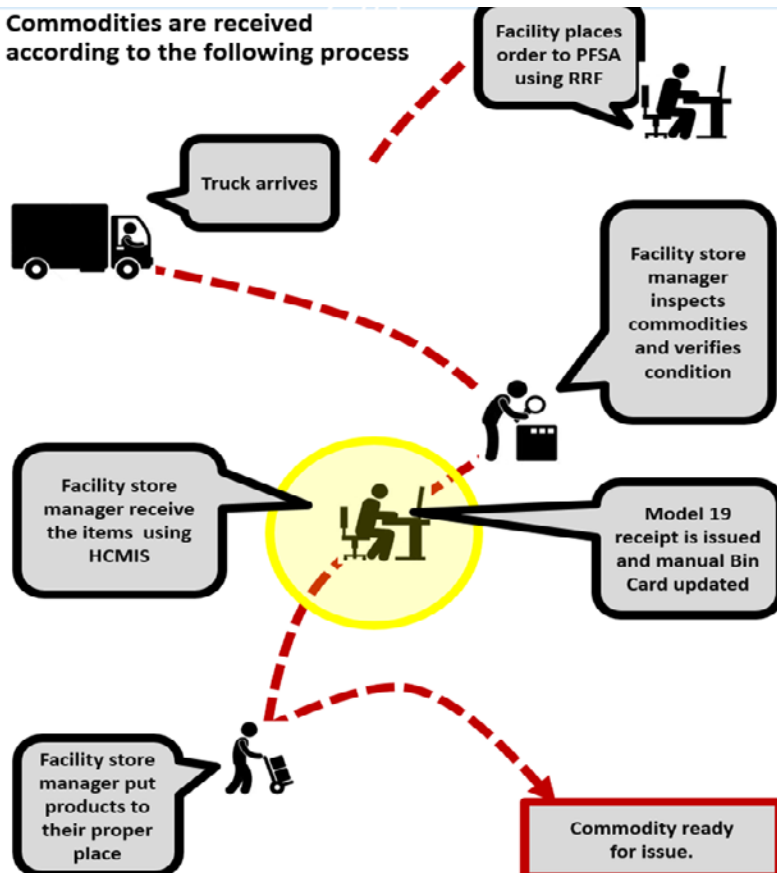
	Stock Code	Item Name	Batch No	Expiry Date	Quantity	Amount in Birr	AMC	MOS	Redistributio...	
1	OP.500.12	Oxytetracycline HCL + Hydrocortisone Acetate -...	j06	Sep 30,2017	106.00	8,332.660	0.00	0.00	106	
2	AI.101.11	Amoxicillin + Clavulanic Acid - Tablet (Film Coate...	5150684	Aug 30,2017	1,400.00	3,626.700	0.00	0.00	1,400	
3	AI.101.28	Cloxacillin Sodium - Capsule - 250mg	3082091	Aug 15,2017	8,000.00	2,888.240	0.00	0.00	8,000	
4	VT.200.8	Multivitamin with Minerals - Tablet -	d15050b304	Sep 30,2017	2,600.00	2,392.520	0.00	0.00	2,600	
5	OP.500.12	Oxytetracycline HCL + Hydrocortisone Acetate -...	j04	May 22,2017	29.00	2,279.690	0.00	0.00	29	
6	DR.3.004	Urine Multitest - 10 Parameter test streips(PH, P...	10lg1604102	May 01,2017	1,500.00	2,114.600	0.00	0.00	1,500	
7	AI.101.48	Penicillin G Benzathin - "Injection in Vial" - 1.2 MIU	312152	Jul 31,2017	400.00	1,841.280	0.00	0.00	400	
8	CV.600.13	Spironolactone - Tablet - 25mg	1210518	Jul 25,2017	2,200.00	1,270.940	588.00	3.74	436	
9	AI.101.7	Amoxicillin + Clavulanic Acid - Oral Suspension - (...)	519551	Jul 21,2017	40.00	1,222.400	0.00	0.00	40	
10	DR.0.029	Widal - "O" & "H" Antigen	4000016193	Jul 14,2017	10.00	1,100.000	0.00	0.00	10	
11	DR.2.005	ASO Latex (Anti-Streptolysin O Antibodies) -	25258	Jun 29,2017	200.00	980.000	0.00	0.00	200	
12	OG.000.18	Methylergometrine Maleate - Injection - 0.2mg/...	122710	Jun 30,2017	100.00	718.600	13.00	7.69	74	
13	GI.200.15	Ranitidine - Tablet - 150mg	d15002bx55	Apr 07,2017	1,600.00	608.000	100.00	16.00	1,600	
14	DR.2.005	ASO Latex (Anti-Streptolysin O Antibodies) -	25258	Jun 29,2017	100.00	450.000	0.00	0.00	100	
15	OG.000.18	Methylergometrine Maleate - Injection - 0.2mg/...	1254	Jun 30,2017	60.00	432.300	13.00	4.62	34	
16	DE.200.4	Bethamethasone Valarate - Topical Ointment - 0....	O-1755	Jul 31,2017	41.00	333.330	25.00	1.64	100	
17	AI.101.50	Penicillin G Sodium Crystalline - Injection - 1 MIU	405132	Aug 28,2017	100.00	326.170	0.00	0.00	100	
18	NS.200.27	Diazepam - Injection - 5mg/ml in 2ml ampoule	r06085	Apr 22,2017	100.00	208.300	0.00	0.00	100	
						Total Birr: 32,859.850				

AMC calculation completed for all stores.

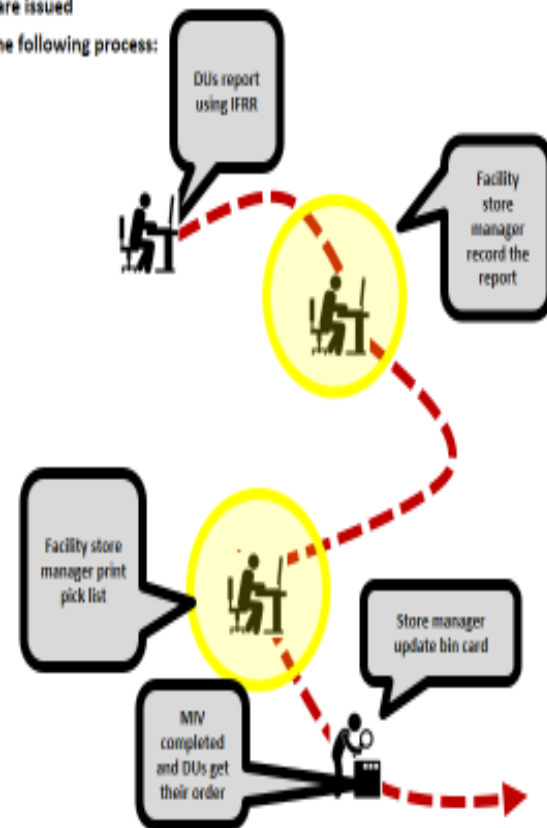
# Strengthening Tools

The system has helped a lot in streamlining the internal facility business processes as follows:

Commodities are received according to the following process



Commodities are issued according to the following process:



PART 3

# Result Summary

## Result Summary

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- The partners supported the training and intensive field level and remote telephone support to all 24 refugee camp health centers.
- Dagu is currently up and running in all the 24 refugee camp health centers, which are located all around Ethiopia.
  - Of those deployments, 11 facilities are using the system regularly, without any project support to assess stock levels and place necessary order to maintain continuous commodity availability.
- The near expiry and stock status report and decision support functionalities are among the most frequently used reports in all facilities

## Result Summary

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- The system has proven useful for resupply and regulatory bodies who constantly need to track pharmaceuticals throughout the entire supply chain from import to distribution.
- The same system with is now planned to be implemented at ARRA central warehouse to optimize warehouse operation and resupply.
- The refugee health centers are also using the system to redistribute overstocked and near expiry items to other refugee camp health centers.
- The trained store managers are now generating quality reports and requisition forms (RRF), a bimonthly report for resupply in an average of 90 minutes, as opposed to the two days it took them to do so manually.



PART4

Conclusion

# Conclusion

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- With consistent use, Dagu is revolutionizing supply chain management at refugee camps by
  - Minimizing commodity shortages and overages,
  - Improving stock management (maintaining inventory levels between minimum and maximum), and
  - Increasing access to and accuracy of information for upstream resupply planning.
- These have contributed to improved health and well-being of refugees in the camps.

# Conclusion

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According to Berihu, store manager from one of the Health Centers,

- The system is helping a lot in saving time and manage work and clients properly.
- They can now easily know stock status and access to consumption reports easily.
- The system has also helped in redistributing overstocked and near expiry items to other refugee camp health centers.



*“I can easily and quickly generate quality reports and requisition forms (RRF), a bimonthly report for PFSA to supply program items, and that used to take longer in the earlier manual system”*

says Berihu, Store Manager from one of the Health Centers.

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**THANK YOU**