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SUPPLY CHAIN SUMMIT



# From three to one: The benefits of donor health supply chain integration

## The USAID Nigeria Example

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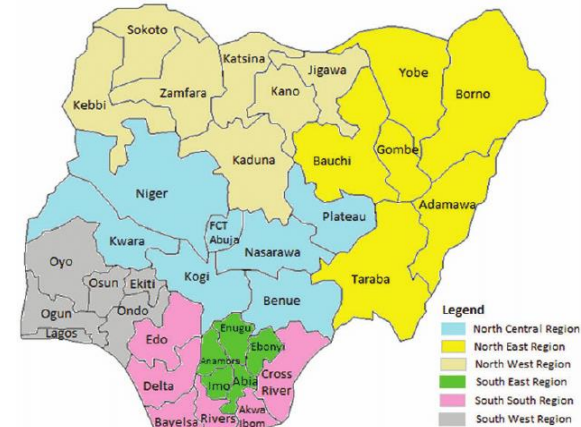




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# Overview

- Nigeria is comprised of 36 states and the federal capital territory (FCT)
- USAID supports
  - 34 states and the FCT for HIV - PEPFAR
  - 11 states for Malaria - PMI
  - 6 states and the FCT for family planning (FP) - USAID Health Population and Nutrition Office
- Warehousing for the different programs was not integrated
  - HIV – 6 regional distribution hubs
  - Malaria – 11 PMI-focused state warehouses
  - FP – A cluster of state and LGA storage locations
- Last mile distribution (LMD) for the different programs was carried out separately resulting in multiple commodity drops to the same health facility (HF)
- Warehousing and LMD integration began with a phased approach in April 2017 and was completed in March 2018





# Then and Now

## Before April 2017

- Majority of data collection was siloed by disease area
- More than 15 warehouses across the country
- Multiple distribution channels - Global Fund, PEPFAR, and PMI commodities distributed separately
- Multiple program distribution plans

## March 2018 onward...

- Integrated data collection for all supported programs
- 6 regional warehouses
- One distribution channel
- All USAID supported programs are operating on the national integrated model of report collection, warehousing and distribution
- Global Fund commodities are distributed on the same platform
- Integrated distribution plan developed across programs

# Road to Integration I

1 Apr 17' LMD

Alignment with National LMD calendar



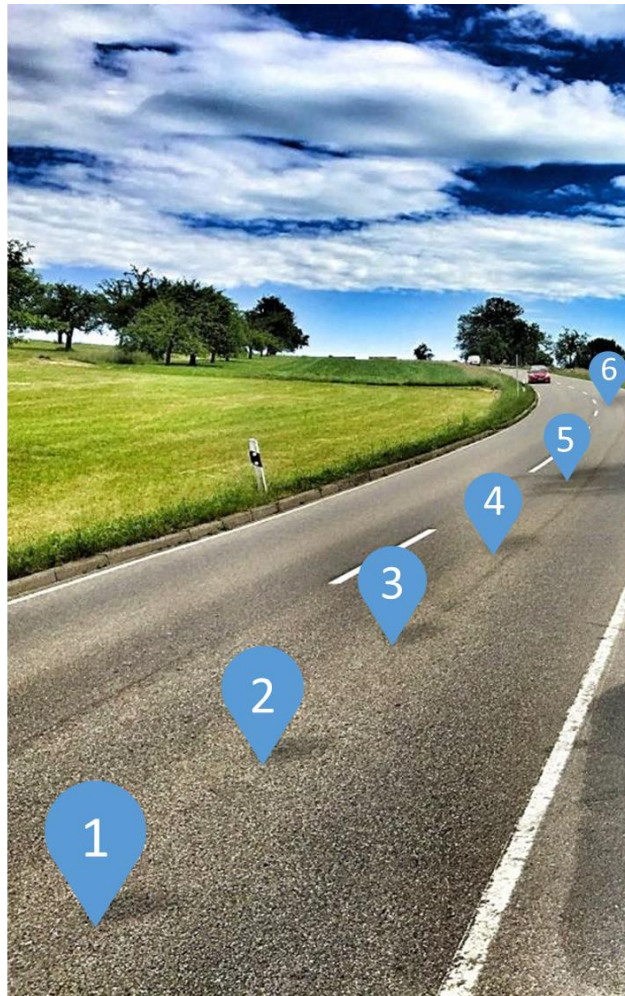
2 July 17' LMD

Integrate PMI commodities into the regional model in Nassarawa and Benue



3 Sept 17' LMD

Integrate in Oyo



Nov 17' LMD

Kebbi, \*Zamfara and \*Sokoto



Jan 18' LMD

Cross River, \*Ebonyi, \*Bauchi, Plateau, Akwa Ibom



Mar 18' LMD

Rest of the States



\* Indicates state implementing DDIC model



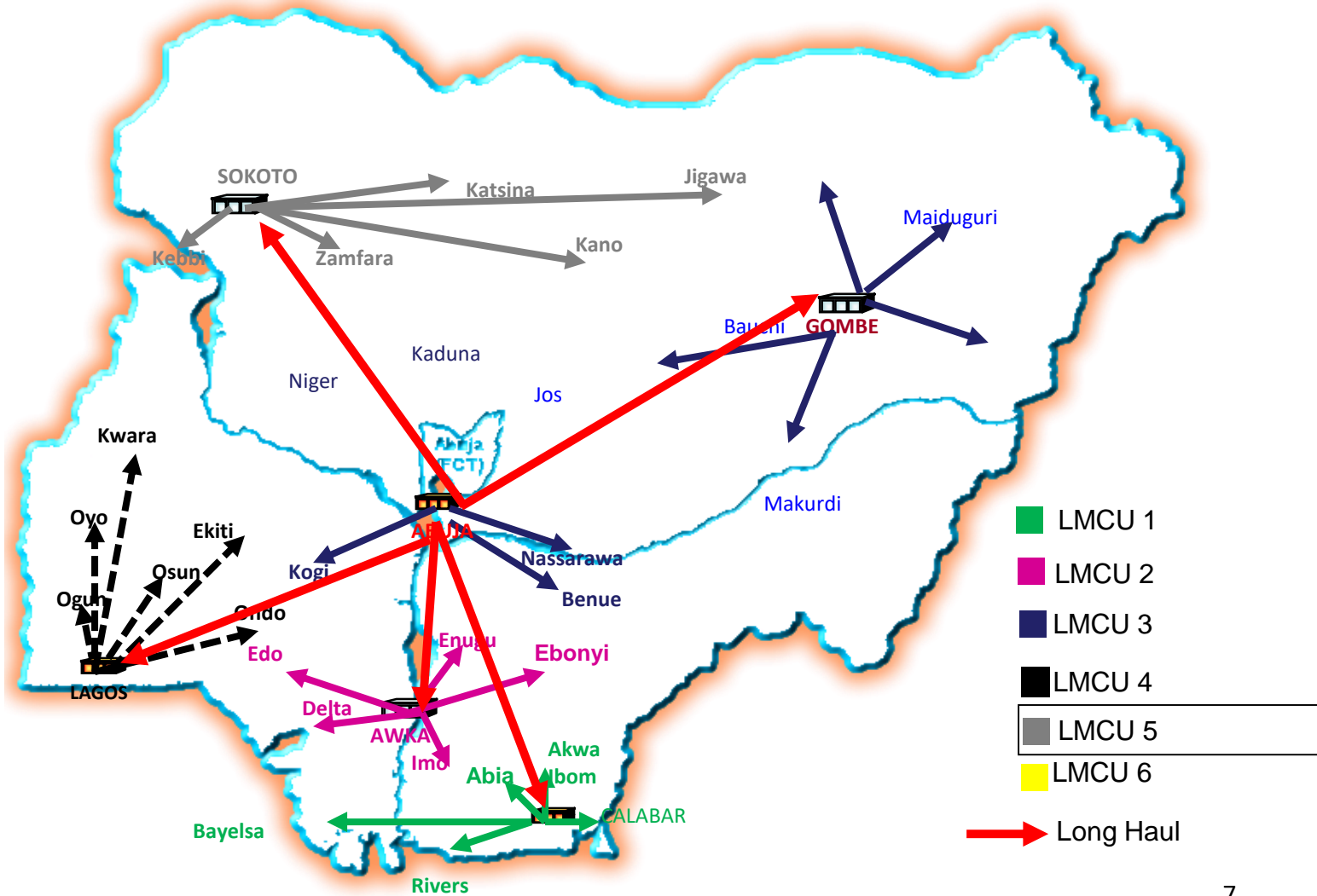
# Road to Integration II

- Integration process fully commenced in April 2017; worked with stakeholders to align calendar for report collection, warehousing and distribution operations.
- In July 2017, integrated the first malaria focus states of Nasarawa and Benue, while Oyo state was added in September 2017 to the regional model.
- In November 2017, added Kebbi, Sokoto and Zamfara states. Two of these states previously operated the direct delivery and information capture (DDIC) system.
  - DDIC is a vendor-managed inventory (VMI) distribution model that uses an automated inventory control process to replenish health facilities with commodities.
- Health facility personnel in DDIC states had to be retrained and some supply chain roles at the state government level were realigned to be supervisory rather than directly accompanying the delivery trucks.
- In January 2018, integrated five additional states into the regional model. Remaining states were added in March 2018, making it the first cycle of warehousing and LMD integration for all HIV, malaria and FP programs supported through the GHSC-PSM project.



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# Integrated distribution model Distribution Model





# Methodology I

## Last Mile Distribution

- Reviewed LMD matrix from six regional distribution centers for 4,998 health facilities that had orders
- Nationally, health facilities are supplied every two months in line with the service delivery point resupply calendar
- Determined overlapping health facilities
- Mapped facilities to three categories
  - Category A – health facilities with orders for one program
  - Category B - health facilities with orders for two programs
  - Category C - health facilities with orders for three programs
- Analyzed costing data and invoices
- Analysis was for USAID-funded health programs
- Data reviewed for eleven states
- States included must serve a minimum of two health programs
- Supply chain integration was concluded in March 2018





# Methodology II

## Category A

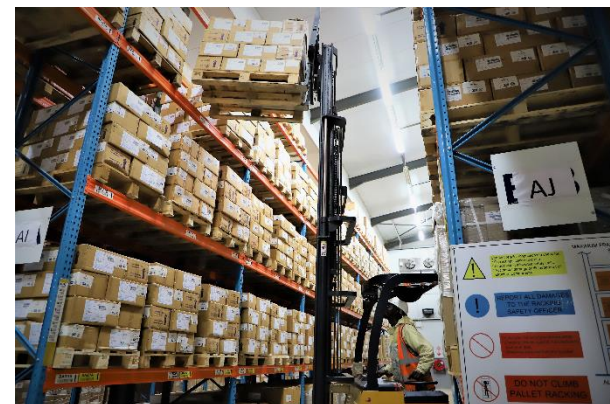
- Comprised of health facilities with orders for one health program (67%)
  - HIV / Malaria/ Family Planning
- No savings to be realized

## Category B

- Comprised of health facilities with orders for two programs (31%).  
Combinations were as follows:
  - HIV + Malaria
  - HIV + Family Planning
  - Malaria + Family Planning

## Category C

- Comprised health facilities with orders for three health programs (2%): HIV + malaria + family planning





# Methodology IV

## Report Collection

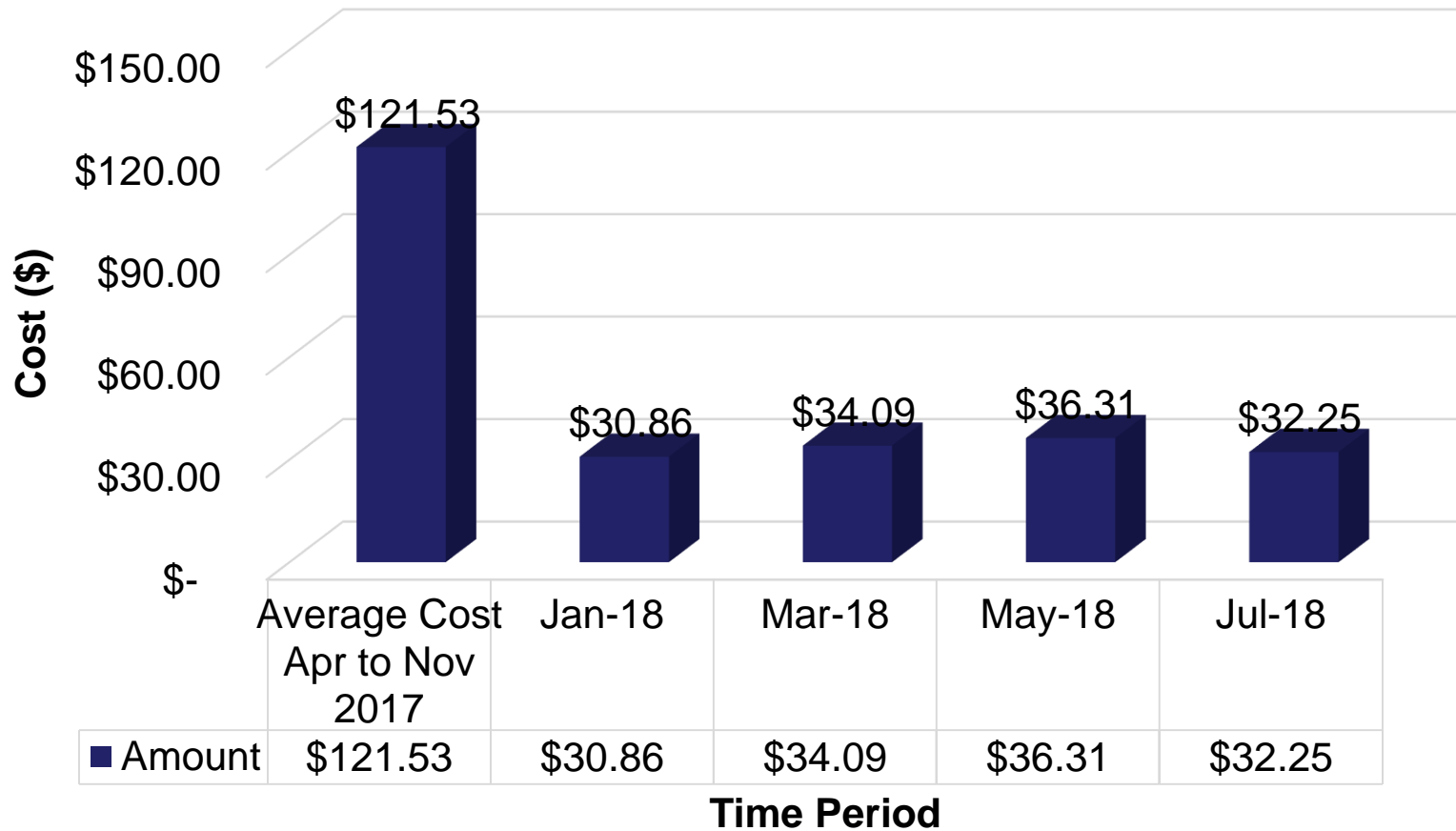
- Reviewed cost of report collection across the various programs
  - Different models adopted by various states
  - About 90% use Local Government Area (LGA) model of report collection. This entails LGA officials visiting every facility within their jurisdiction to physically collect reports
  - Less than 10% use electronic means for submission—email, WhatsApp
- Reports collected include service delivery point Combined Report and Requisition Form (CRRF), Patients Per Regimen (PPR) report, Bi-monthly Facility Stock Report (BFSR), and Requisition Issue and Report Form (RIRF)
- Analyzed reporting rate for all states to ensure number of reports submitted did not reduce due to report collection integration by LGA personnel.



# LMD Cost Savings



# Average Cost of Distribution Per Programs Per Facility

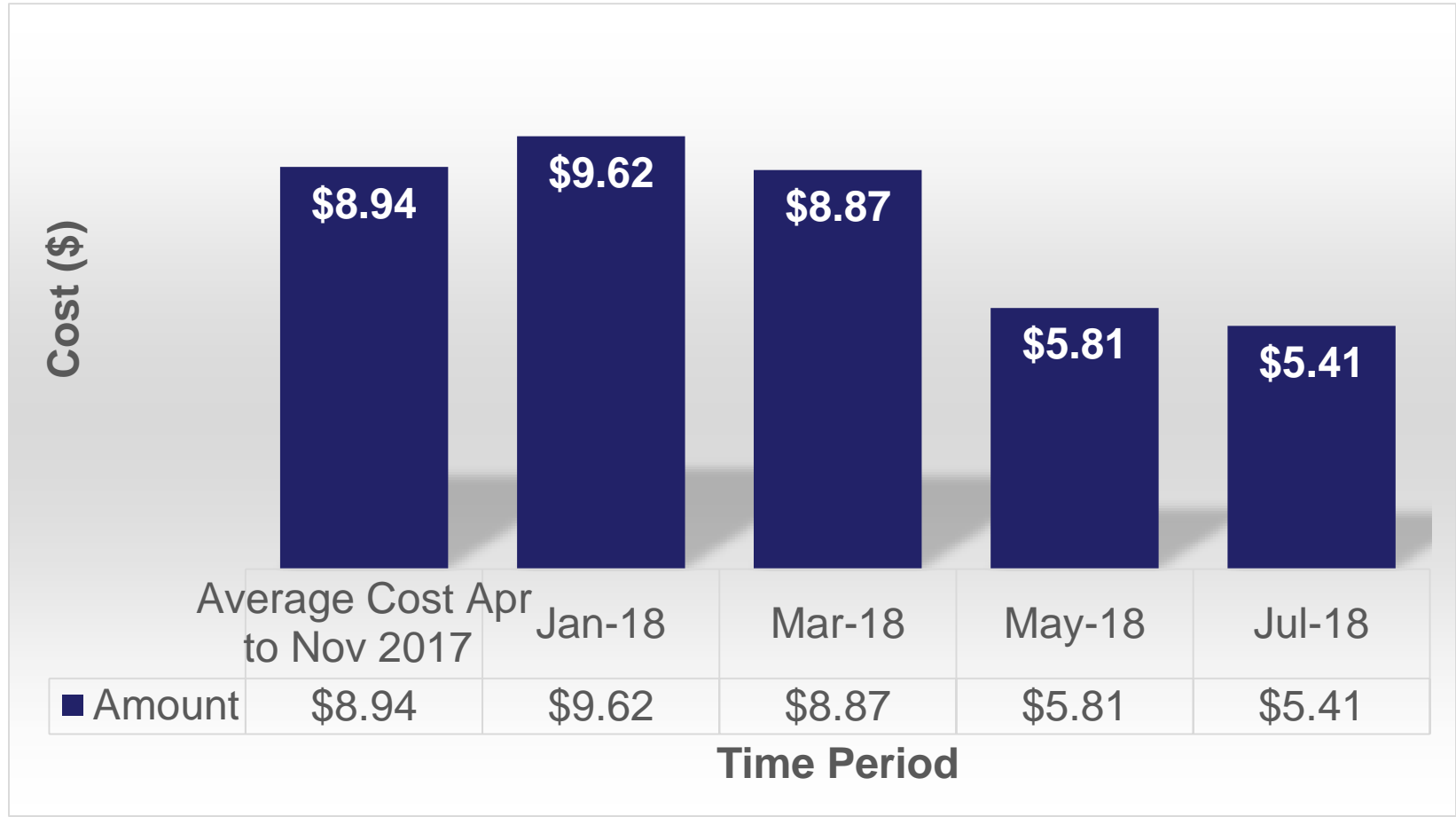




# Report Collection Cost Savings



# Average Cost of Report Collection Per Facility (for all programs) – Pre and Post Integration





# Journey to Integration - Challenges

- Managing large number of stakeholders with different focus and priorities.
- Various program supply chains were at different levels of maturity - HIV program has been operating a regional model which was more mature, while malaria and family planning were largely state based.
- Transitioning the DDIC system in Bauchi, Ebonyi, Sokoto, and Zamfara states to integrated LMD. This required retraining service delivery point and LGA personnel as well as significant state engagements.
- Savings from LMD integration were seen as of January 2018, but report collection savings could not be realized until trainings of LGA personnel were concluded in March 2018.
- Unwillingness of government officials in some malaria and family planning states to move commodities previously positioned at their state central medical store (CMS) to the regional warehouses. That meant concurrent distribution was carried out during the first year of integration in some states until the CMS was emptied.





# Lessons Learned

- Gains from successful integration of USAID programs provided platform for the integration of Global Fund's malaria program in 13 states.
- Need to manage expectations of stakeholders at the national and regional levels. Success of the process was dependent on all partners agreeing on the way forward.
- Need to phase supply chain integration for a large country such as Nigeria – over 7,200 health facilities supported by U.S. Government alone. This means integrating report collection and LMD for states in batches.
- Realignment of roles and re-training of health facilities and local government staff was essential in DDIC focused states.



# Recommendations

- There is potential for additional cost savings if family planning commodities distributed by other donors are included in the platform.
- Report collection should be integrated by LGA officials for all other parallel programs. With training, the LGA official will be capable of reviewing and collecting every health commodity logistics report regardless of the program funding stream.

# Conclusions

- USAID example of supply chain integration offers a platform for further synergy across programs and donors in Nigeria.
- Results showed cost of distribution reduced from an average of \$121.53 to as low as \$30.86 per facility drop per program.
- Cost of report collection per facility reduced from an average of \$8.94 to \$5.41.
- Warehouse pick and pack efficiencies improved.
- Number of long hauls were reduced.
- Health facilities no longer receive multiple distributions.





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The USAID Global Health Supply Chain Program-Procurement and Supply Management (GHSC-PSM) project is funded under USAID Contract No. AID-OAA-I-15-0004. GHSC-PSM connects technical solutions and proven commercial processes to promote efficient and cost-effective health supply chains worldwide. Our goal is to ensure uninterrupted supplies of health commodities to save lives and create a healthier future for all. The project purchases and delivers health commodities, offers comprehensive technical assistance to strengthen national supply chain systems, and provides global supply chain leadership. For more information, visit [ghsupplychain.org](http://ghsupplychain.org).

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