

# **Baseline Assessment of Drug Logistics Systems in Twelve DISH-supported Districts and Service Delivery Points (SDPs).**

## **Final Report**

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*The conclusions and recommendations presented in this report are not meant to represent the opinion of the United States Agency for International Development and remain the responsibility of the authors.*

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## Table of contents

	List of acronyms	4
1.	Executive Summary	5
2.	Background	9
3.	Study Objectives	12
4.	Methodology	13
5.	Major Findings	15
5.1.	Availability	15
5.2.	Procurement	20
5.3.	Human Resources	22
5.4.	Warehousing and storage	24
5.5.	Inventory control	25
5.6.	LMIS	27
5.7.	Commodity Tracking System	29
5.8.	Financing	29
5.9.	Expired drugs	30
5.10.	Transport and distribution	32
5.11.	Forecasting and needs assessment	33
5.12.	Supervision	34
5.13.	Integration	34
6.	Recommendations	35
7.	Bibliography	37
Annexes		
I	District-specific results	
II	Study protocol	
III	Questionnaires	

## List of Acronyms

ACP	AIDS Control Program
CCA	Cold Chain Assistant
CMS	Commercial Marketing Strategies
CTS	Computerized Tracking System
CY	Calendar Year
DADI	District Assistant Drugs Inspector
DAI	Drug Access Initiative
DANIDA	Danish International Development Assistance
DDHS	District Director of Health Services
DfID	Department for International Development
DHMT	District Health Management Team
DHV	District Health Visitor
DISH	Delivery of Improved Services for Health
DLA	District Drug Logistics Assessment
DMS	District Medical Store
DNO	District Nursing Officer
DTLS	District TB and Leprosy Supervisor
FPAU	Family Planning Association of Uganda
FY	Financial Year
GoU	Government of Uganda
HMIS	Health Management Information System
HSD	Health Sub-District
HUMC	Health Unit Management Committee
JMS	Joint Medical Stores
LMIS	Logistics Management Information System
MOH	Ministry of Health
NDA	National Drug Authority
NMS	National Medical Stores
NTLP	National Tuberculosis and Leprosy Program
RHD	Reproductive Health Days
SDP	Service Delivery Point
SK	Store-keeper
SNO	Senior Nursing Officer
STIP	Sexually Transmitted Infections Project
UEDSP	Uganda Essential Drugs Support Programme
UNEPI	Ugandan National Expanded Programme for Immunization
UNFPA	United Nations Fund for Population Activities
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WB	World Bank
WHO	World Health Organization

DISH-supported districts: Jinja (JJA), Kampala (KLA), Kamuli (KLI), Kasese (KSE), Luwero (LRO), Masaka (MSK), Masindi (MSI), Mbarara (MRA), Nakasongola (NKS), Ntungamo (NTG), Rakai (RAK), Sembabule (SSB)

# 1. Executive Summary

The availability of drug supplies is an essential element in the delivery of quality, integrated health services. Over the last two years, repeated stock-outs of drugs, particularly of contraceptive supplies, have been registered at national, district and facility levels. Several logistics issues were identified to have hampered the programs' success in ensuring that contraceptive products are available for distribution, including: poor quality of drug and contraceptive storage, and inadequate drug needs assessment at district and facility levels. In addition, the decentralization of health services has resulted in inadequate capacity for inventory and information management in the District and service delivery points, thus affecting the overall performance of the Drug logistics system.

The current assessment is aimed at documenting these factors and validating the DISH II strategy in the area of drug and contraceptive logistics.

## **Main findings**

### Availability of Drug Supplies

There were frequent drug shortages both at District and Service Delivery Point (SDP) stores. Availability varied by product category. Availability for Vaccines was the best, followed by Essential drug kits, TB/Leprosy, contraceptives and drugs for Sexually Transmitted Infections (STI). Essential drug kits have been regularly supplied by push system to districts and lower health units on a quarterly basis, but the latest consignment (2<sup>nd</sup> quarter of CY2000) was delayed for over 2 months. Vaccines and TB drugs were continuously available in most facilities. Contraceptives and STI drugs had the most frequent stock-outs due to irregular supplies by the National Medical Stores (NMS).

### Procurement

There were nine vertical drug supply systems to the Districts, including Contraceptives; the National Tuberculosis and Leprosy Project (NTLP); EDP; Blood-related products; STI; the Drug Access Initiative (DAI); the Ugandan National Expanded Programme for Immunization (UNEPI); NMS; and the Private Sector, including Joint Medical Stores (JMS). Four districts, representing 33.3% of the surveyed units, had attempted to tender for Drugs in the last years indicating limited institutional capacity in drug procurement at District-level.

### Human resources for Drug logistics

Most of the key staff in drug logistics did not have job descriptions, and some staff are not performing the responsibilities they were employed to do. Many of the District-level staff have not had any formal training in logistics management. Very few SDP level staff have received formal training in logistics management.

### Warehousing and Storage of Drugs

All districts had storage facilities at district, hospital and lower health units levels. However, most of the stores were inadequate in terms of space and storage conditions. Some had supplies scattered all over the floor, were untidy and poorly ventilated. Others lacked shelves, and thus the orderly placement of drugs was not possible. In appraising quality of storage conditions, the team rated the storage facilities using a set of 20 criteria that looked at structural, organizational and operational setup of the stores. A positive rating for 15 of 20 criteria was defined as *good conditions* and any score below that as *bad*. Using this method,

none of 12 DMS stores, 1 of 9 (11.1%) Hospitals, and 2 of 60 (3.33%) Health centers were rated as having good storage conditions. There were neither guidelines nor job aides on inventory management including storage practices to aid transfer of skills during on-the-job training.

### Inventory Control

Most facilities had inadequate inventory control and management, as seen through available stock cards not being kept up-to-date, and a lack of basic ordering skills; for example, not knowing how to calculate months of stock available, and to base orders on maximum and minimum quantities.

### Logistics Management Information System (LMIS)

At District-level the LMIS varies by product category and is not integrated. All facilities had records for drugs originating from essential drug kits and STI kits. Most facilities had no stock card/records for contraceptives, Vitamin A and drugs purchased from private pharmacies. Most hospital stores had good records of all drug categories. However, the standard of record keeping varied. Many units had poor records, which were not up-to-date, not filed in an orderly manner and some were not integrated (i.e. different stock cards for different sources of same drug).

### Expired drugs.

Large stocks of expired drugs were found in most district-level facilities. No written guidelines on handling the expired drugs were found in any district, although in most instances they were segregated from viable stock. A few units followed approved (though not written) procedures for disposal of drugs.

### Integration of Drug Logistics

At district level all products are managed separately by each respective program manager: the District TB and Leprosy Supervisor (DTLS) for TB and Leprosy drugs, the Cold Chain Assistant (CCA) for Vaccines, the Storekeeper for ED Kits and medical supplies, and the District Health Visitor (DHV) for contraceptives and vaccines. LMIS is still vertical by product category.

### Transportation and distribution

National Medical Stores (NMS), zonal NTLP stores and UNEPI deliver Essential Drug (ED) kits and STI drugs, TB/Leprosy drugs and vaccines to the District stores respectively. Contraceptives and private sector purchases are collected and delivered by a mix of both Suppliers and Districts. The distribution to SDPs is mainly through the district and Health Unit staff, arranging the transport to deliver and collect the supplies from the District Medical Stores to the SDPs.

### Forecasting and needs assessment

There was inadequate forecasting currently being done at District-level. Although most districts had been trained in drug quantification by the National Drug Authority (NDA), none of the 12 districts surveyed had an annual district drug needs estimate for FY 2000. All those trained by NDA had only done one district drug needs estimate/quantification exercise during the training and no further drug needs estimation for the subsequent years.

### Supervision

Unlike vaccines and NTLP product categories there is no direct program or personnel at both central and district responsible for undertaking drug surveillance, supervision and monitoring of utilization of ED kits, Contraceptives, Vitamin A and STI categories. The presence of full time personnel (i.e. District Cold Chain Assistant and District TB and Leprosy Coordinator) dedicated and responsible for the management and supervision of vaccines and NTLP product categories explains the regular availability and good LMIS systems for the same product categories.

## **Recommendations**

One of the objectives of the assessment was to validate the drug logistics related activities planned under the DISH II Project. In the following section, the recommendations stemming from the assessment are thus distributed into three categories:

- a first group consists of recommendations linked to activities already planned for by the Project, activities that will be carried out as planned or with slight modifications in their format or scope;
- the second group includes recommendations based on important new findings from the assessment, which may justify a significant change to the Project's work plan and budget, as the related activities appear to be essential to the achievement of the Project's objectives;
- finally, the third group is made of recommendations for the long term, or that go beyond the overall scope of the Project.

### Activities already planned:

1. Encourage, facilitate and organize the use of stock cards for all drugs, including contraceptives, Vitamin A and private pharmacy purchases. The project, in conjunction with DDHS offices, should ensure regular availability of stock cards, send out circulars to all health facilities emphasizing the need to keep stock cards for each product in the medical stores. Further still, during the integrated support supervision, on-site guidance on inventory management and most especially stock record management should be provided to all facilities.
2. Provide on-the-job training for SDP storekeepers in basic stores and record management during the support supervision and distribution of IEC materials.
3. Upgrade the existing Computerized Tracking System and expand the range of products to be tracked at the District-level to include other drugs, in particular IMCI and Maternal Health drugs. The Project should consider using Supply Chain Manager computer system from FPLM to replace the existing CTS software. The revised CTS software should also be tried at Health Sub-district level in the pilot HSDs that have been provided with computer capacity.
4. Promote and facilitate quantification of annual district drugs needs. This should include support for training of District Health Management Team (DHMT), HSD and SDP staff in coordination with existing activities conducted by the National Drug Authority, and budgetary support to annual exercises for routine quantification of drug needs. To promote the operationalisation of acquired skills, there is need to develop a drug quantification manual as a reference and guiding tool; this manual will also be used during on-the-job training for HSD and SDP staff.

Important activities to be included within the Project's scope after the assessment:

5. Improve the physical conditions of warehousing at the District-level (and selected HSDs). The improvements should include installation of basic shelving and floor pallets, repair of major environmental defects (leaks, ventilation, security), and store organization (as a first direct output of the training provided to storekeepers).
6. Promote improvement in storage conditions and inventory management at both DMS and SDP levels by developing:
  - guidelines on stores management, including storage, records keeping, inventory control, stock ordering and handling of special and expired drugs;
  - laminated job aides on stores management to facilitate the practical transfer of skills amongst drug logistics related staff.
7. Train and support a district drug logistics core team, including DHMT, DMS Store keepers, HSD and hospital supplies officers, in logistics management, stores management procedures and job aides so that they can transfer drug logistics skills to SDP staff during on-the-job training, training follow-up and support supervision.
8. Facilitate the inclusion of contraceptive distribution in the quarterly cycle of Essential Drug kits distribution by notifying districts to send their contraceptive orders so that they reach NMS at least a month before the scheduled NMS distribution dates to the districts.

Long-term recommendations :

9. Promote and coordinate with relevant authorities the collection and removal of expired stock and damaged materials from health facilities and District-level storage areas. This will help free more space in the already congested stores for storage of the valid (non-expired) drugs.
10. Consider the integration of contraceptives, Vitamin A (and other commodities within LMIS), supervision, reporting, and the warehousing and distribution of Essential Drug kits in order to reduce costs, and improve management and decision-making.
11. Include logistics training in other training packages for all health-related cadres, in order to better promote logistics management among health workers. In the short term, review and include elements of logistics training in the DISH II, IMCI, and Reproductive training curricula.
12. Define more accurately the future role of Health Sub-district and Health Center IV with regards to satellite health centers in drug logistics activities (needs quantification, request and/or purchase, storage, and distribution).
13. Consider encouraging the development of drug-specific cost recovery mechanisms in order to improve funding for financing drugs and promoting continued and regular drug availability in the districts and SDPs. Both the Rukungiri district and some NGO hospital models could be used in this respect.

