

# Briefing

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## Development of the District Supervision Data System based on the architecture of the Pharmaceutical Information Portal

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**By Petra Schaefer**

Securing Ugandans' Right to Essential Medicines Program  
Centre for Pharmaceutical Management  
Management Sciences for Health  
Plot 15, Princess Anne Drive, Bugolobi  
P. O Box 71419, Kampala, Uganda  
Phone: +256 414 235038  
Fax: +256 414 235035



## 1. Introduction

This document is a short brief about the genesis of the District Supervision Data System - DSDS (result area 3.1) rising from the ashes of the Pharmaceutical Information Portal - PIP (result area 2.2). For detailed information please refer to the documents which are organized as follows:

1. PIP
  - a. PIP Concept and Design
  - b. Hardware Selection
  - c. System Software Selection
  - d. Development Partner Selection
  - e. eHealth Moratorium
2. DSDS
  - a. Development partner selection
  - b. Project management
  - c. Design documents
3. Support to MOH Resource Center
  - a. Support infrastructure
  - b. Health Development Partner Meetings

The three bibliographies give a short excerpt of each enclosed document.

## 2. Problem to PIP

There is a clear lack of availability of data for decision making on each level in the supply chain (from central to facilities). What is needed is a system that contains up to date, consolidated and validated data, and which is easy accessible by decision makers providing one truth.

After thorough discussions with the Pharmacy Division and the Resource Center the decision was made to develop a Data Warehousing/Business Intelligence/Portal system to capture and monitor stock of EMHS.

Several arguments for choosing this architecture:

- Data Warehouse Architecture sits on 'top' of existing systems, by
  - feeding in data from other existing systems,
  - cleaning and structuring the data
  - and presenting the data to the end user for analysis in cubes

which makes it not 'yet another vertical system' next to the already existing systems.

- Data from NMS, JMS, MAUL, NDA, SPARS, RxSolution, and HMIS (form 105) is loaded and made accessible through the Data Warehouse.



- Business Intelligence gives end-users the ability to dynamically analyze the data in the Data Warehouse by aggregating, slicing and dicing, and presenting it in spatial format.
- A portal gives users a one-stop address for their data needs and is tailored to all level managers to show exceptions (like stoplight reports) which require immediate attention.
- The (to be coined) Pharmaceutical Information Portal will be designed to form the base architecture of the National Health Data Bank (as proposed in the Uganda Health Information System Strategic Plan 2010-2014) and thus add to the Ministries ability to add other data from other sources for further triangulation, like HR data and HMIS data. Using this architecture will ensure sustainability of the solution.

### 3. PIP

In concert with members from MOH PD, MOH RC, SURE, CDC and Makerere University a selection was made of the software and hardware to host the system.

The concept of the PIP was presented in various fora within the MOH and found applause and approval.

A Scope of Work was developed and an RFP (Request for Proposal) issued to solicit a development partner for the design and programming of the PIP. After a thorough evaluation a partner was selected (Technobrain (U) Ltd). The drafting of the contract took months because of delays by MSH head office.

### 4. eHealth Moratorium

A few weeks (or maybe even days) before the contract was ready for signing the Director General of Health Services (DGHS) issued a moratorium on all ICT/eHealth/mHealth developments supported by partners. Despite the promise that the pending initiatives were going to be evaluated “within weeks” by a Technical Working Group for go-ahead or cancellation we are still in limbo (16 months after the directive was issued). All the requested documentation was provided and meetings were held to present the concept of the PIP.

### 5. PIP to DSDS

After eight months a decision was made together with the MOH PD and USAID to start with the development of the Districts Supervision Data System, utilizing the architecture of the PIP. The analysis of the supervision data was running against the edges of the capability of Excel and another solution for reporting of this data was needed.

The same supplier was sourced to build this system. We have experienced considerable delays because of delays in contract development by head office and replacement of sub-performing staff from



Technobrain. The requirements have been finalized and signed off by MOH PD and SURE and right now the team is working on the design document.

## 6. Support to MOH RC

The DGHS tasked a group of IT and management experts to come up with a proposal to revamp the defunct Resource center of the MOH. The team came up with recommendations but also with concerns that the proposed improvements (short term investment \$ 700,000) will not yield the expected result under the current management and proposed measures to be accepted by the MOH before the partners commit to the investments. Partners involved are: WHO, UNICEF, META, MEEPP, and SURE. This initiative is still ongoing.

## 7. Lessons learnt - recommendations

- Do not take responsibility for the development of new systems. Embed these systems fully in the Government structure (even if it will take much longer), have the project being led by government officials, and only provide technical assistance.
- Get support from the top, the level we are working at does not have enough mandate/power.
- Be cognizant of hidden agendas. A decision is not necessarily fueled by logic but also by expected (personal) benefits.
- Make sure to add ample time for tasks that (have to) involve head office.