



Implementing a Dashboard for Pharmaceutical information in Namibia

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NAMIBIANS AND AMERICANS
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OUTLINE

- Objectives
- Problem
- Sources of electronic data
- Uses of the dashboard
- Introduction to the Dashboard for Pharmaceutical Information



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Objectives

- Review transitioning from paper-based to electronic pharmaceutical management tools in Namibia
- Discuss lessons learnt in implementing electronic systems for patient and data management in Namibia
- Demonstrate selected key reports on the Namibian Pharmaceutical Information Dashboard



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The Problem

- Namibian health commodities have been largely managed with paper-based tools
- Manual aggregation and analysis of data from the paper-based tools was a huge challenge – resulting in lack of up-to-date data consumption data
- Lack of visibility of facility-level stock status data by the regional/ central level contributed to poor re-supply decisions distribution and redistribution of commodities across the country (e.g. critical stock outs of antiretroviral medicines in 2014 & 2015) (resulting in hoarding of commodities, and increased possibility of pilferage)
- Poor linkage between patient numbers and commodity information
- Inventory management decisions were delayed by lack of information on stock status, at different levels of the supply chain in the country
- Supply Chain decisions were made based on a number of assumptions and limited evidence

Intervention: a multipronged approach

- **Enhancing the capturing of data at the facility-level and central level**
 - ☐ Implementation of electronic dispensing tool, the facility electronic stock card & Syspro
- **Enhancing data transmission to a central point**
 - ☐ Using mobile phone network, internet and memory sticks (for remote sites)
 - ☐ Electronic Dispensing Tool (EDT) network, EDT reporting module, The Facility Electronic Stock Card (FESC) LMIS reporting & Syspro CSV reports
- **Enhancing data processing and information dissemination**
 - ☐ The National Database for ART information (NDB)
 - ☐ The Dashboard for Pharmaceutical information
 - ☐ Quarterly and adhoc summary reports to key stakeholders

Sources of dashboard data :The Facility Electronic Stock Card (FESC)



**INVENTORY MANAGEMENT OF PHARMACEUTICAL
COMMODITIES AT HEALTH FACILITIES**

Sources of dashboard data :The Electronic Dispensing Tool (EDT)



EDT Main Menu

ABC Training Hospital

User

PATIENTS
Dispense S+F3
Patients View S+F4
Patients Add Ctrl+F4
Appointments S+F5
Duplicate


STOCK
Receiving S+F7
Issue OUT S+F8
Medicines S+F6
Stock Take S+F10
Quantification S+F9

PRO FORMA
Create ProForma
Process ProForma

MOBILE
Export to Mobile
Import from Mobile
Verify Mobile

MoHSS ARV Management System

MAIN MENU



Supported by SPS Program of Management Sciences for Health with support from the US Government
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Login admin on ABLOM - EDT

EDT-

Ver No 4.00.A db 2.000

PATIENT & STOCK MANAGEMENT AT ART SITES



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Sources of dashboard data: Pharmacy Management Indicators

- The Namibian Pharmacy Management Information system (PMIS) uses 22 indicators to monitor service delivery at National, Regional and Facility level
- The information collected;
 - Serves as an Early warning system for the risk of medicine shortages
 - Supports strategic planning for pharmaceutical services
 - Makes the health system more accountable for pharmaceuticals and services
 - Facilitates resource allocation and reallocation
 - Identifies facilities that need specific targeted interventions and helps in monitoring performance improvement over time
 - Compares districts / regional performance in pharmaceutical services service delivery



Data Exchange



MoHSS Pharmaceutical Information Dashboard



MoHSS Decision Making

Upload of Monthly Stock Status Report, ART Monthly Report, LMIS Report, and Electronic Order Book



CMS/RMS

SysPro ERP software
(Procurement, Inventory Management, Supply of Pharmaceuticals)

EDT National Database (NDB)

Data Exchange

Lab & Other National Databases

Health Facility (1...N)

Electronic Stock Card (Desktop)

EDT (Desktop)

Data Exchange

EPMS



Description of the Namibia PMIS dashboard

Three main modules on the Dashboard's welcome page

- Antiretroviral Therapy (ART) module
 - ☐ Patient reports
 - ☐ ART commodities reports
- Essential commodities and clinical supplies module
 - ☐ Stock status reports
 - ☐ Early warning system reports for stock outs
 - ☐ Stock status reports by category, level and by health facility
- Pharmaceutical Service Performance Indicators
 - ☐ Service quality reports national & by region

Benefits of the Dashboard

- **Data processing**

- ☐ Consolidates data from various tools/ health facilities and facilitates pharmaceutical data visibility at national, regional, and facility levels,
- ☐ The data is more comprehensive, timely and available on a monthly basis

- **ART Program**

- ☐ Readily informs the programs on essential service indicators, such as ART patient numbers, regimen distributions, adherence, patients lost to follow up (LTFU), and early warning indicators (EWIs) of HIV-DR

Benefits of the Dashboard (continued)

- **Planning**

- ☐ More reliable data for forecasting and supply planning at the national level
- ☐ Better visibility of essential logistics data at health facilities
- ☐ Facilitates stock re-distribution and minimises wastage
- ☐ Serves as an early warning indicator of potential stock out / over stocking of all pharmaceutical commodities

- **Quantification**

- ☐ Readily available data for annual pharmaceutical planning and budgeting by Regions
- ☐ More accurate data for the ART program for estimating the growth in the ART population, for scale-up planning

The ART Portal of the Dashboard



MoHSS Pharmaceutical
Information Dashboard

HOME

ART DASHBOARD

NATIONAL REPORTS

FACILITY REPORTS

NDB REPORTS

ADMIN

ENTRY FORMS

CONTACT

ART Dashboard

Home / ART Dashboard



March

2017

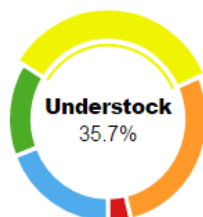


LMIS

Patient

Reporting Rate Total: 100.00 % ART Sites: 100.00 % RMS: 100.00 % CMS: 100.00 %

National ART Stock Status (Percentage of Products)



Stockout

2.4%
MOS: 0

Potential Stockout

28.6%
MOS: 0 - 6

Understock

35.7%
MOS: 6 - 12

Satisfactory

14.3%
MOS: 12 - 24

Overstock

19.0%
MOS: > 24

154,683

Total Active Patients

1,560

New Patients This Month

Adult: 94%

(145,415)

Paediatric: 6%

(9,268)

Female: 63%

(97,486)

Male: 37%

(57,197)

Description

This is probably the most important report of this dashboard. It is therefore the first report that managers should always keep track of. It shows the categorisation of products (Medicines) by the level of risk of stockout of products. The MOS on hand is based on all the stock of products at Central Medical Stores (CMS), Regional Medical Depots (RMDs) and at health facilities and in relation to consumption patterns for the most recent 3 months of consumption.

The first category is Stockout. It is reflected by "zero (0) Months of Stock (MOS)" on hand. This category is highlighted in "Red" showing that these products are out of stock (a stock-out has basically occurred) and need urgent attention and intervention to minimise the negative impact of this stockout on treatment interruption and negative effects on overall program attainment of

[Go to Detailed Report](#)

Lessons learnt

- Web-based platforms can be used to consolidate data from various sources (tools) and facilities & patient levels to provide a comprehensive picture that facilitates decision-making
- Political commitment from top management is crucial in implementation
- Fostering a structured and incremental transition from paper based to electronic information systems engaged health facility supervisors and is necessary to influence behaviour change in how they visualise and use electronic tools – electronic tools have become part and parcel of the pharmacy in Namibia (Sustainability is the Question).
- Data from multiple sources, levels, and tools has been consolidated into one dashboard that has enhanced the visibility of data and facilitated evidence based decisions in Namibia

Lessons learnt

- Training of managers on how to use the data is important to create demand for/ use of reports & dashboard data
- Pharmaceutical information platforms can also provide important patient-focussed information for program managers such as:
 - Numbers of patients on ART, by age, gender and location
 - ART uptake and regimen distributions
 - Adherence and retention in case
 - Early-warning indicators for HIV drug-resistance
- Visibility of data on stock status and price can be used to enhance accountability for pharmaceuticals

Next steps in Namibia

Sustainability

- Empower the Ministry's National Medicine Policy Coordination unit to coordinate the systems for reporting and feedback
- Finalize incorporating electronic data flow processes & hosting of system servers into government of Namibia systems
 - The Office of the Prime minister is implementing an e-Governance strategy for managing all Government's data systems
- Implement innovative ways of automating basic routine reports from the tools and synchronising with the national database, the Dashboard, and other MoHSS information platforms

MoHSS Pharmaceutical Information Dashboard

<http://pmis.org.na/>

Selected Dashboard reports for demonstration

- 2 HIV reports (patient numbers & regimen distribution)
- 1 TB report (Distribution by level for selected TB medicines)
- 1 Malaria report (Distribution by district of national stock for selected antimalarial)
- 1 Vaccines report (National Stock status for selected vaccines)
- Service delivery indicator (PMIS) : HF 12

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 - Health facilities
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- Systems for Improved Access to Pharmaceuticals & Services (SIAPS)
- Collaborating PEPFAR implementing partners in Namibia



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