THE REPUBLIC OF UGANDA

Continuous stock-outs of medical supplies in Uganda: What are the root causes?

Overview

Over the years, health service delivery has been affected by a number of challenges including non-availability or stock-outs of medical supplies in public health facilities.

In FY2009/10 only 21% of the health facilities reported no stock-outs of tracer medicines in the previous six months. Tracer medicines include anti-malarials, Cotrimoxale, measles vaccine, Sulphadoxine/Pyramethamine, Depoprovera and Oral Rehydration Salts (ORS).

Although the number increased to 57% in FY2013/14 as reported by the Annual Health Sector Performance Report (AHSPR, 2013/14), the problem is still big. Patients in public health facilities continue to suffer and die of preventable diseases due to medical stock-outs.

The Budget Monitoring and Accountability Unit (BMAU) reports have continually highlighted the issue of medical stock-outs at various levels. This briefing paper highlights the causes for continued medical stock-outs, implications and key policy recommendations for improved health service delivery.

Key Issues

- Poor planning, prioritization and forecasting are the key causes of medical stock-outs in Uganda.
- Inadequate data management and monitoring systems to track amounts of drugs ordered, dispensed, prescribed and balances.
- Non-supply of ordered items by National Medical Stores.
- Poly pharmacy tendencies characterized by some clinicians prescribing more drugs than needed.
- Abuse of the referral system where drugs for un-referred cases crowd out provisions for referrals.

Introduction

A "stock-out" is defined as having less stock of a medicine available in public health facility than required for patients as stipulated by the national guidelines.

The Central Medical stores (CMS), a department of Ministry of Health (MoH) was responsible for drug procurement and management through local governments. However, in December 1993, the MoH delegated the drug supply, storage and distribution function to National Medical Stores (NMS) through an Act of Parliament

The policy shift was expected to improve procurement and management of health supplies at various levels. This has partly been achieved; however, continued stock-outs of medical supplies are reported at different levels. The Office of the Auditor General (OAG) Value for Money Report 2010, highlighted a general countrywide concern of people dying of treatable diseases such as malaria arising from patients' failure to access drugs in public health facilities.

During the annual monitoring for FY2013/14, the NMS warehouse in Entebbe was found fully stocked with drugs by 24th June 2014. However, continuous stock-outs of medical supplies existed at all levels of health facilities

visited. Two national referral hospitals, 10 regional referral hospitals, three general hospitals, and 13 districts were monitored during the annual monitoring and semi-annual monitoring exercises of FY 2013/14 and FY 2014/15 respectively. A situational analysis to establish causes and implications of drug stock-outs was therefore done and the following were established;

Causes of medical stock-outs

1. **Poor planning and forecasting** characterised by failure to present adequate and timely procurement plans by both health facilities and District Health Officials. The situation is worsened by increasing population, inadequate drug budgets and sometimes changing disease patterns. This caused drug shortages and expiries at various entities monitored. Instances of over/under ordering of supplies were common at health facilities like Mulago National Referral Hospital.

2. **Limited budgetary allocations;** During FY 2014/15, the budget for the Essential Medicines and Health Supplies (EMHS) basic kit for HCIIs was Ug shs 11.16 billion. However, only Ug shs 3.44 (30%) was released and 100% spent by 31st December 2014. Specialised units like Uganda Heart Institute (UHI), Uganda Cancer Institute (UCI) and Uganda Blood Transfusion Services (UBTS) had a budget of Ug shs 18.10 billion and only Ug shs 8 billion (44%) was released and spent by half year. This means that the expected half year targets of those institutions could not be achieved. This automatically translated into stock-outs of medical supplies and enormous suffering by patients at the above mentioned institutions.

   Limited budgets have often led to adjustments of orders and medical requirements by health facilities hence affecting availability of certain supplies including specialised medicines for referral hospitals. *"Sometimes the funds available on our credit lines are not sufficient and the orders have to be reconciled with the available money. We end up ordering and receiving less drugs than we need,"* said Masaka Hospital Director FY 2013/14.

Inadequate planning, forecasting and budgeting at all levels makes it difficult for NMS to adequately plan, budget, order and procure required quantities of medical supplies at any given time.

3. **Inadequate data management and monitoring systems to track amounts of drugs ordered, dispersed, prescribed and balances**. All health facilities visited did not have proper drug tracking systems right from receipt of supplies from NMS to prescription and dispensing them to patients. This made it very difficult for health facilities to clearly plan, measure and accurately forecast their medical supplies need for any given time frame.

4. **Non-supply of ordered items by NMS:** over 90% of health facilities reported non-supply of ordered medical items including drugs and stationery. For example On 26th February 2014, medical orders worth Ug shs 531,175,250 were made by Mulago Hospital, however items worth Ug shs 380,449,461 were received in March 2014. Phenytoin Sodium (an anticonvulsant) required by the Neuro unit to treat emergency or traffic accidents cases and convulsions among others had not been received since February 2014 yet the unit receives over 47 medical cases daily. This translated into referral of patients to buy the drug from nearby pharmacies. *"Non-delivery of ordered items has adverse effects on both human health and service delivery,"* Principal Pharmacists, Mulago Hospital noted.

Stock of drugs at the NMS Warehouse in Entebbe

5. **Abuse of the referral system:** most people in Uganda seek medical services at referral hospitals without references from respective regional health care systems. This in most cases led to drug stock-outs and compromised functionality of referral hospitals since most of their medical budget allocations were spent on requisition and procurement of basic items rather than specialised services, and equipment.

6. **Poly pharmacy tendencies characterized by some clinicians prescribing more drugs than needed:** the MFPED 2014, BMAU discussion paper 1/14 noted that 50% of the clinicians adhere to clinical guidelines and 58% are able to diagnose illnesses accurately. Interactions with some hospital directors confirmed this finding. Some clinicians were prescribing stronger drugs for simple illnesses while others had a preference for certain drugs "*The situation is worsened by drug promoting companies affecting their mindset regarding use of some drugs than others," said Director Moroto Regional Referral Hospital.* This affects the procurement plans, budgets and utilization of certain items than others.

Implications of medical stock outs to service delivery

- **Loss of life:** failure to access adequate medical care and supplies has often led to loss of lives especially in rural areas where drugs cannot easily be accessed from private clinics and pharmacies. The OAG, 2010 Value for Money Report indicated that the malarial death rose from 4,252 in 2006 to 7,003 in 2007 implying that there were 2,750 more malarial deaths during the year 2007.
  The number of death at the Uganda Cancer Institute also increased from 1,019 in 2010 to 1,512 in 2014. Some of these deaths were partly attributed to lack of timely and adequate provision of the right combinations of drugs to the patients.

- **Referral of patients to buy drugs from private pharmacies:** once drugs are not available at public health facilities, health workers have no choice but to refer their patients to private pharmacies which is very costly and time consuming. For example *Mrs. Margaret Sekiranda, 81-year-old widow of Kitiiko Mutungo was operated on 15th February 2015 at the Uganda Heart Institute. She noted that most of the drugs were not readily available at the institute hence were often bought from pharmacies in Wandegeya. These drugs included; Zinacef injection 750mg bought at Ug shs 54,000, Rabepraz-Ole injection at Ug shs 81,000, Alenol 50mg tablets at Ug shs 1500 among others.*

- **Failure to complete prescribed dosage:** For example interactions with outpatients and pharmacists of Mbarara Regional Referral Hospital indicated that drugs were rationed with some patients getting half dosage. This meant that those that could not afford to buy the rest of the

dose from private pharmacies were most likely not to complete the dosage. This could result in drug resistance.

Some children in Serere, Soroti and Kaberamaido districts failed to complete their immunization schedules due to frequent stock outs of Bacillus Calmette–Guérin (BCG) and Pneumococcal Conjugate Vaccine (PCV) vaccine. The situation was worse for mothers travelling long distances to search for the vaccines.

Conclusion

The key causes of medical stock-outs in Uganda are; poor planning, prioritization and weak tracking systems among others. It is important to note that non-availability of certain types of supplies at a particular time directly translates into loss of lives and undermines the public health care system.

Policy Recommendations

The need to minimise stock-outs at all health facilities is paramount at all levels.

- The NMS should step up its planning, budgeting and coordination efforts so that all entities receive their full order requests.
- The NMS should establish electronic drug monitoring systems right from delivery to prescription and dispensing to patients. This will translate into proper planning, timely detection of stock outs as well as reliable forecasts of the populations' drug requirements per facility in Uganda.
- In the short run, the MoH and NMS should continue sensitising hospital managers and health centre in-charges about the need for accurate predictions based on the disease burden of their catchment population.
- The MoH together with NMS should initiate campaigns to improve dissemination of information on medicine supply, distribution and availability at all health facilities.
- The MFPED should ensure adequate allocations to medical supplies to avoid stock-outs related to budgetary allocations and releases. The annual projected cost to cover the national need for pharmaceuticals, health supplies and commodities was Ug shs 940 billion (Health Sector Strategic and Investment Plan (FY 2010/11-2014/15).
- The MoH should retool clinical officers on new drugs and their effects to ensure proper prescription to clients.
- Clinical officers who continuously fail to follow clinical guidelines should be reprimanded.

References

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