

Towards a Harmonised Health Products and Technologies (HPT) Logistics Management Information System (LMIS)

INTRODUCTION

The prevailing status of the LMIS for Health Products and Technologies (HPT) is characterised by systematic lapses in recording, collation, analysis and reporting of health commodities data, that hamper provision of continuous information required for demand and supply management. These also have implications on focus of national and county governments on market shaping through improved local production of HPT. Continued investments aimed at strengthening use of information technology in HPT supply chain are too fragmented, verticalized by programs, and largely driven by partners with no clear sustainability arrangements. Strategic investment in an elaborate e-LMIS will not only help address management of health commodities data, but also contribute to optimal use of the already stretched staff capacity. Adoption of end-to-end supply chain visibility platforms of by counties¹ to supplement the current tools for capturing consumption and stock status data, through provision of real time data, and facilitate consolidation, analysis, management of exceptions and provide alerts for prompt supply chain decisions is a top priority.

Moving forward, county governments should develop and adopt a standard policy on the use of e-LMIS, incorporate e-LMIS in the County Health legislation with requirements for reporting by facilities, and jointly invest in a suitable e-LMIS that is interoperable with other health systems as well as county core information systems.

REFLECTIONS ON LMIS STATUS

Strengthening the Supply Chain System for Health Products and Technologies is a priority of the Health Sector in a bid to ensuring that essential health commodities are accessible and affordable to the population. As such the flow, encompassing products, service, and information, from producers to the end users must be effectively managed to meet both supply and demand side needs. A logistical management information system (LMIS), whether paper based or electronic, provides the essential link across the various levels of the supply chain system through collection, aggregation, analysis, validation, and display of data that facilitates logistical decisions and performance of supply chain roles. Such roles include but are not limited to quantification, supply planning, warehousing, distribution, and inventory management.

The LMIS for health commodities has been facilitating county governments in making decisions on rational order management, redistributions, managing inventory as well as managing expiries. The systems have been more elaborately established for the health commodities covered under the vertically run health priority programs, that are managed by the national Ministry of Health (MOH), such as HIV commodities, Malaria commodities, TB drugs and related supplies, Family Planning commodities, and vaccines. These have supported close monitoring of availability of health commodities at the points of service as well as the central stores.

¹ Five counties are already considering adoption of end-to-end visibility systems - Busia, Kilifi, Makueni, Tharaka-Nithi and Vihiga

These systems have also aided in demand forecasting for health products through provision of consumption data. However, current experiences with the application of the LMIS reveals that there are persistent challenges with availability, timeliness, quality, and visibility of health commodities data across the supply chain, that continue to hamper the effectiveness and efficiency of the health supply chain system. Furthermore, attempts to address these challenges have been characterised by fragmentation and unsustainable interventions. The extent of integration of the LMIS components with other systems has also been limited.

Commodity stock status tracking on aspects such as stock levels, expiries, months of stocks available, consumption for the last period (month or quarter), and request for the subsequent period is based on manual reports from facilities, summarised by the county health management teams (CHMTs) and keyed into the Kenya Health Information System (KHIS). The fragmented applications applied at this level have contributed to inefficiency and inconsistencies during aggregation of data.

There are notable gaps in integration of the various systems especially the KHIS and the KEMSA LMIS that limit data sharing, provision of early warning signals and order rationalisation, generation of real time monthly reports and end to end visibility of commodities data in the supply chain. Notable progress has been made regarding program commodities especially malaria and HIV products where the KEMSA LMIS linkages with KHIS supports order management through provision of commodity stock status at facilities, national stores and in the pipeline, and has alerts for overstocking, understocking based on estimated monthly consumption data.

Since stock levels at county health facilities are not visible as most of the records are manual and limitations in ICT infrastructure exist, the accuracy of inventory levels reported is compromised. This situation is exacerbated by the human resource constraints at most facilities especially Level 2 and 3 facilities that are manned by very few workers. The sheer number of manual records required to be filled at the health facility has been reported as a disincentive. Unfortunately, the ripple effect of inaccurate and incomplete reports in the health sector's ability to manage demand and supply of HPT is not adequately appreciated at the individual facility level.

There is lack of harmonisation of the IT Systems and inadequate linkages for interoperability of the IT infrastructure limits the county health supply chain ability to support visibility of products in the last mile since most of HPT functions are managed manually or using standalone systems at the facility level.

Towards, improving access, sharing and analysis of data, the Ministry of Health has developed various policies and guidelines including the Kenya Health Information Systems Interoperability Framework (KHISIF) that focus on interoperability of health information systems. There is also an appreciation that the existing platforms may be too diverse to achieve the level of interoperability expected and there is a current initiative led by the Ministries of Health and ICT to develop a national Electronic Medical Records (EMR) system that will ultimately have modules for HPT management. The extent to which the system will meet the urgent LMIS functional gaps of counties is yet to be clarified.

END TO END VISIBILITY PLATFORM

The fragmented approach towards strengthening of the e-LMIS for HPT has resulted in inefficiencies in data collection, data aggregation, analysis and reporting on HPT. There is need for good data visibility, based on routinely and accurately updated records and timely reporting for guiding decision making and the ultimate improvement in performance of the health supply chain through increased product availability. It is notable that reporting² by counties on commodities has improved over time, but the

² Facility reporting rates in KHIS range from 80% to 100%

timeliness and quality of data remains suboptimal thus hampering the use of data in key decisions such as quantification, resupply, and redistribution.

RECOMMENDATIONS

To address the current gaps, county governments should:

1. County governments should invest (provide budgets) individually or jointly in systems that assure end-to end visibility of HPT. Owing to the scale of required investment, county governments need detailed and phased implementation plan spanning three-to-five-year period.

To ensure the chosen system(s) are responsive, county governments should undertake a comprehensive mapping of the existing systems including ICT infrastructure, internet connectivity, application of mobiles as well as the capacity for use by the health workers.

2. Reorganise the county Health Products and Technologies HPT function/units to effectively manage the logistical aspects of all categories of HPT under one roof.