



THE REPUBLIC OF UGANDA
MINISTRY OF HEALTH



Dr. Jane Ruth Aceng Otero the Hon. Minister of Health at the Launch of the Government of Uganda's 10 year Health Supply Chain Roadmap.



INSIDE

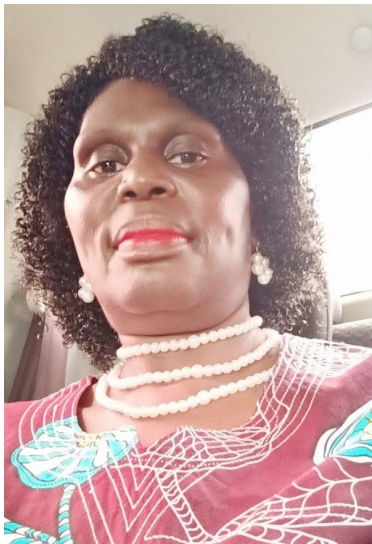
PharmaNet

Newsletter

ISSUE 1, VOLUME 2

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Message from the Commissioner



Dr. Okuna Neville Oteba,
Commissioner Pharmaceuticals
and Natural Medicines, Ministry of Health..

Welcome to the 2nd edition of the PharmaNet newsletter. The first issue covered a wide range of topics of concern that are of great importance in the pharmaceutical sub-sector. This edition offers the readership a wealth of evidence-based information deduced from operational research in supply chain, pharmaceutical care as well as first-hand experience in the power of responsible leadership and digitization in improving pharmaceutical supply chain performance indicators in the regional hospitals in Uganda. It brings to light the value ‘centers of excellence’ are capable of creating to win the trust and benefit to hospital clients.

Additionally, it unveils the quality improvement mechanism for facilities and individual health workers known as the Digital Supply Chain Performance Self-Assessment (DSPSS) which evolved from SPARS and its linked health supply chain e-learning portal that the ministry has adopted to identify and improve weaknesses in the health supply chain. A study on the knowledge and perception of hand washing on Infection Prevention and Control (IPC) practices, use of e-LMIS to improve pharmaceutical services accountability and visibility and ease of access to the most needed data for decision making.

Readers will be introduced to the national health commodity supply chain 10-year Roadmap, a unique piece which summarizes supply chain priorities to be undertaken towards GOU financial self-reliance and sustainability aimed at gradually transitioning a big percentage of funding for programmatic medicines and health supplies from donors to GOU as well as increase the GOU funding for EMHS to a level whereby the Health Supply Chain is able to benefit more from internally generated domestic revenue over the next ten years.

We welcome proposals on topics and or articles to be covered in the next volume, as well as ideas on how to make the Pharmanet a better and a must-read newsletter for many readers out there. I also thank the MUK school of pharmacy and partners for the editorial support - special thanks go to Denis Kibira who reviewed and edited all the articles in this issue.

Lastly, Antimicrobial Resistance (AMR) is a global threat, lets participate in preserving the existing antimicrobials. Join me in the Fight against AMR, be a loyal Steward, Start with yourself. Do not Use or Dispense antimicrobials without proper diagnosis from an authorized health outlet.

Message from the Chief of Party USAID/Uganda Strengthening Supply Chain Systems Activity



Welcome to the second issue of the PharmaNet newsletter. Uganda’s health sector is undergoing a major transformation with COVID-19 and cross sectoral collaborations (one government approach) to deliver client-centered health services. The cross sectoral collaborations include linkages with various Government ministries, departments, and agencies, Partners, Non-Governmental Organizations (NGOs), private sector entities and other stakeholders to leverage existing structures and available resources. These collaborations rely on real time data for effective planning and decision making. Digital technologies are available to facilitate timely availability, sharing, and protection of information for the provision of better-quality health care services.

To support the Government of Uganda’s commitment to digitize the health sector, the USAID/ Uganda Strengthening Supply Chain Systems (SSCS) Activity provides technical assistance to the Ministry of Health to build an integrated digital national health supply chain system. This digital supply chain system will enhance end-to-end supply chain data visibility of medicines from the central warehouses to the health facility. MoH relies on supply chain data to plan, procure, and distribute life-saving commodities. However, reporting on health facility stock status remains low. Currently, only 40 percent of all health facilities report health commodity stock status into the Pharmaceutical Information Portal, and of those that report, only 10 percent are complete. Yet 4,246 of 7,000 public and private health facilities have functional electronic systems.

“The Global Fund will provide 630 computers to cover over 300 facilities, and the UNFPA will equip 158 health centre IIIs in West Nile.”

The SSCS Activity’s efforts are focused on building the capacity of the MoH and sub-national level partners, including health workers, to effectively implement electronic logistics information management systems (eLMIS). The support includes implementing change management principles, strengthening supply chain leadership and governance at the sub-national level, and collaborating with the Government and partners to equip facilities with computers, internet, and power access to effectively operate the electronic systems. The SSCS Activity has initiated the process to link all MoH-approved supply chain systems from the community to the health facility and central warehouses and finally to the national level where decisions and plans for the country are made.

To further drive supply chain digitization, the American People through USAID supported the purchase of 535 computers for 350 health facilities. The Global Fund will provide 630 computers to cover over 300 facilities, and the UNFPA will equip 158 health centre IIIs in West Nile and two districts in Acholi sub region with computers. With this additional arsenal of infrastructure and targeted interventions, we expect that supply chain data visibility will improve, promoting accountability and traceability of commodities while enabling good governance, leadership, efficiency, and resource mobilization. The ultimate goal is to ensure uninterrupted availability of essential medicines and health supplies for all people in Uganda when and where needed.

Dr. Eric Lugada,
Chief of Party, USAID/Uganda Strengthening Supply Chain Systems (SSCS) Activity
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A group photo – of the official launch of the Uganda's 10-Year HSC roadmap and the NPSSP 2021/22-2024/25

Government Launches a 10-Year Roadmap to Improve the Country’s Health Commodities Supply Chain.

By Moses Mukundane, Belinda Blick, Sheila Mwebaze
USAID/SSCS Activity

The Government of Uganda on Thursday 20th January 2022 launched the 10-Year National Health Supply Chain Roadmap. The roadmap aims to ensure the sustainability of development outcomes invested in the health sector over time by the development partners. This is supported through targeted improvements towards sustained availability of essential medicines and health supplies to all Ugandans wherever and whenever needed.

The launch was attended by dignitaries from the Ministry of Health, Ministry of Finance, Planning and Economic Development, Ministry of Local Government, Ministry of Public Service, Ministry of ICT and National Guidance, National Planning Authority, National Medical Stores, National Drug Authority, districts, regional referral hospitals, USAID, CDC, UNFPA, UNICEF, Global Fund and USAID implementing partners.

The Prime Minister of Uganda, in her remarks, read by the Rt. Hon. Rukia Nakadama Isanga the Third Deputy Prime Minister at Sheraton Hotel Kampala, indicated that the roadmap would be the guiding framework towards the realization of the Abuja Declaration of allocating 15% of the National GDP towards financing public health.

“The Office of the Prime Minister is committed to supporting the implementation of the roadmap as per the mandate of coordinating all government entities it involves a number of stakeholders. I also personally commit myself to coordinate and monitor service delivery in health facilities not only in Kakumiro but also the entire country and will expose any rot, because I have learned lessons from COVID-19.”

An efficient health supply chain is the backbone that supports effective operations of functional health systems. The roadmap lays out a blueprint for the government to plan, facilitate, and effectively manage the national health supply chain system independent of donor support as Uganda moves towards a self-reliant middle-income country.



Dr. Jane Ruth Aceng - Hon. Minister of Health

The 10-year roadmap was developed with financial support through the USAID-funded Uganda Strengthening Supply Chain Systems (SSCS) Activity which is implemented by Management Sciences for Health (MSH) and partners- Advocates Coalition for Development and Environment (ACODE), and Uganda Healthcare Federation (UHF) in close collaboration with several government agencies. The roadmap serves as a guide to sustained incremental ownership, stewardship, and financing of the national health supply chain system by the Government of Uganda.

At the launch, the USAID/Uganda Mission Director, Mr. Richard Nelson, who spoke on behalf of development partners called upon the Government of Uganda leadership to follow the roadmap and increasingly take charge of the governance and financing of the health supply chain system. He noted that the development partners would continue to stand with the Government to implement the roadmap.

“Our hope is that this roadmap will provide motivation and a pathway for Uganda to strengthen its capacity to fully manage its own supply chain systems so that there are health commodities available when people need them, in the amounts they need and in the place, they need them. It is more important than ever for the Government of Uganda to improve leadership and oversight functions of the national health supply chain systems. We can’t forget that more resources are also needed at the local level to complement the work that will be done at the national level on this plan.”

Over the past 15 years, there has been clear progress in the national health supply chain. Yet, challenges remain. A recent assessment of more than 1,700 health facilities found the following challenges:

Other challenges include regular supply shortages of essential medicines and health supplies at health facilities; understaffing, especially at Health Center IVs; and limited domestic financing of essential medicines and health supplies.

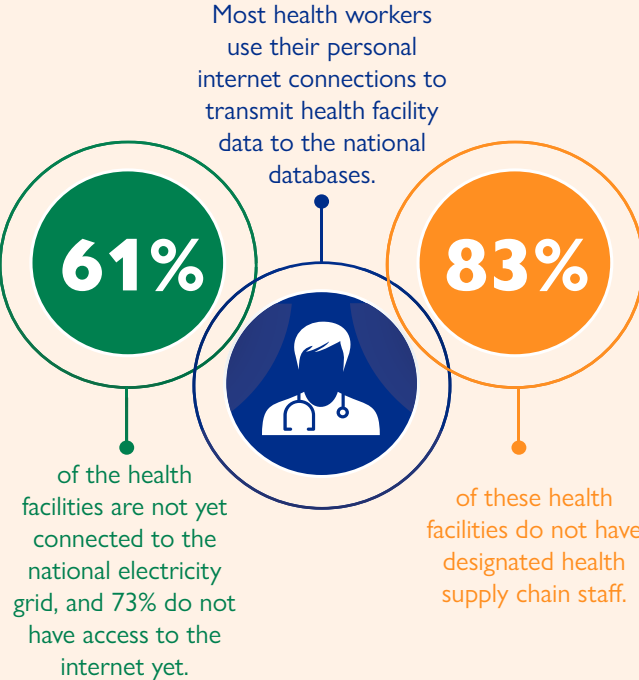


With improved efficiencies and equitable allocation of funding for essential medicines and health supplies based on health facility needs and workload, it is anticipated that USD 371 million will be saved over the 10 years of implementation of the roadmap.

The roadmap will enhance adequate supply chain specialist staffing, electricity supply, and access to an internet connection to all health facilities in the country to enable the complete digitization of the national health supply chain system. This will increase the visibility of national health commodities and supplies, real-time availability of stock status in the national system, increased commodity security and safety thus eliminating wastage and potential loss.

“While this may look like a heavy investment, together through our respective and collective efforts, we shall realize it through integrated planning and budgeting frameworks across the key ministries, departments and agencies. The contribution of the private sector under the public-private partnership is equally critical,”
Dr. Jane Ruth Aceng, Minister of Health.

The process of developing the 10 year supply chain roadmap was both collaborative and consultative through a One Government approach involving various ministries, departments, and agencies led by the national health supply chain inter-ministerial task force. The task force consists of the Ministry of Finance, Planning and Economic Development, the office of the Prime Minister, the Ministry of Health, the Ministry of Local Government, relevant government agencies the National Medical Stores and the Joint Medical Stores, and development partners.



The estimated budget to implement this roadmap is approximately USD 5.701 million within the first year with an incremental requirement of up to USD 7.85 billion over 10 years. This includes USD 7.80 billion for purchasing health commodities and a further USD 44.8 million for operational cost. Other than the health commodity budget which is entirely financed by the Ministry of Health under the Vote 116 for National Medical Store and Private Not for Profit Credit line for JMS, the operational costs are expected to be met through integrated planning and budgeting framework of the key ministries, departments and agencies under the principle of the One Government Approach.

Commitments made to implement the roadmap

“The Ministry of Health commits to ensuring an enabling policy framework for effective implementation of the roadmap. The estimated investment need of the health supply chain is to ensure that the technical implementation environment (Human Resources, Information, communication and technology equipment, operational management and supervision) is conducive for both the central Government and Local Government to effectively oversee and run the health supply chain of this country. While this may look like a heavy investment, together through our respective and collective efforts, we shall realize it through integrated planning and budgeting frameworks across the key ministries, departments and agencies. The contribution of the private sector under the public-private partnership is equally critical,” Dr. Jane Ruth Aceng, Minister of Health.

“The Ministry of Finance, Planning and Economic Development will do all it takes to finance this very important roadmap,” said Patrick Ocaipap- Deputy Secretary to the Treasurer, Ministry of Finance, Planning and Economic Development. “The Government of Uganda committed to incrementally allocate more funding to the health supply chain. In FY 2021/22 an additional UGX 50 billion for HIV and UGX 50 billion for essential medicines and health supplies was provided and will continue in the medium term.”

“The Ministry of Local Government commits to filling the critical human resources at the district and health facilities levels as highlighted in the roadmap,” Benon Kigenyi, Under Secretary, Ministry of Local Government.

“The Ministry of ICT and National Guidance commits to support the roadmap. The Ministry of ICT and National Guidance is leading the national digitization agenda. The Ministry is expanding digital coverage and literacy and laying the national fibre backbone in four phases. The prioritized list of health facilities will be connected

to the internet in phase five of the national backbone— in the next two years,” Hon. Dr Chris Baryomunsi, Minister of ICT and National Guidance.



Hon William Muruli-Mukasa, Minister of Public Service and acting Minister of Justice and Constitutional Affairs said the Ministry of Public Service is committed to support the Ministry of Health in the review of human resource structures to deliver timely and cost-effective health supply chain services.

“Recruitment of health workers has been prioritized for the next financial year including other scientists. Health workers will receive a pay raise as agreed by the cabinet. Ministry of Public Service will support the health sector to ensure quality, timely affordable care and rapid and effective economic development in steering national development.”

Dr. Eric Lugada Chief of Party, USAID/Uganda Strengthening Supply Chain Systems Activity, said the Activity is committed to provide guidance and technical assistance to all stakeholders in their roles to ensure the roadmap implementation is successful. He called for targeted and incremental implementation of the integrated national digital health supply chain system to improve the visibility of the health supply chain. The United States Government has supported the procurement of 535 computers to 350 health facilities to support implementation.

Download a copy of the roadmap here.
<https://www.health.go.ug/resources/>

Baseline Assessment of Supply Chain Centres of Excellence at Referral Hospitals

By Julius Mubiru, USAID/Uganda Strengthening Supply Chain Systems Activity, MSH.

Background

The Ministry of Health Department of Pharmaceuticals and Natural Medicines and the USAID/Uganda Strengthening Supply Chain Systems (SSCS) Activity in 2020 adopted the Centres of Excellence approach to promote supply chain management of essential medicines and health supplies excellence in referral hospitals. The Centres of Excellence are designed to strengthen the supply chain management capacity of referral hospitals to create strong linkages and mentor lower facilities using the hub and spoke model. Under the hub and spoke model, the referral hospitals will be the hubs with superior supply chain expertise and performance and will supervise and help build the supply chain capacity and performance of the surrounding lower facilities (spokes).

The supply chain Centre of Excellence approach consists of biannual assessments of the hospitals' compliance using standard criteria, action planning, and individualized interventions to address areas of noncompliance. The criteria adopted indicators from the National Supply Chain Assessment of 2018 , SPARS , and expert opinion. The indicators are grouped into 15 modules covering technical aspects of Essential Medicines and Health supply chain management and the enabling environment needed for its effectiveness. A hospital qualifies as a centre of excellence when it complies with at least 90% of all criteria, including all those deemed critical for supply chain effectiveness (Figure 1 and Table 1).

Key Findings

Twenty national and regional referral hospitals were assessed between April and September 2021. The threshold performance level was 90% overall compliance, with 100% compliance in all critical indicators. With overall compliance ranging between 37% and 75% in the baseline assessment, none of the hospitals qualified as a centre of excellence. The hospitals performed best in the pharmacovigilance module, with an average compliance level of 77%. Antimicrobial stewardship had the lowest average compliance at 20%. Only two hospitals, Gulu and Lira, complied with nine critical indicators (Table 1).

Regarding the enabling environment for supply chain effectiveness, at the time of the baseline assessment, all the hospitals were in the process of drafting strategic plans for 2020 – 2025 but only three of these drafts had a detailed, costed supply chain section. Department of Pharmaceuticals and Natural Medicines, USAID/SSCS Activity and National Planning Authority have since worked with the regional referral hospitals to incorporate the supply chain in their drafts.

In terms of human resources for supply chain management, most hospitals had suboptimal staffing levels for supply chain positions, with only seven hospitals having filled up to 80% of the approved positions at the time of the baseline assessment.

In the supply management aspects of the assessment, only three hospitals were found to have maintained the stock of all sampled vital Essential Medicines and Health Supplies (EMHS) between the two (minimum) months and four (maximum) months of stock. Nine hospitals had dedicated at least 80% of their procurement plan value to vital EMHS or had evidence of utilizing consumption data to make these procurement plans. These three observations suggest that there is need to increase efficiency of the supply management processes.

Electronic Logistics Management Information Systems (eLMIS) and the monthly HMIS 105 section 6 reports provide two of the mechanisms that the Department of Pharmaceuticals and Natural Medicines and partners can use to keep track of the stock status of commodities at health facilities. The HMIS 105 section 6 reports the stock status of 41 tracer commodities. This is possible when the eLMIS at facilities synchronize data with the Pharmaceutical Information Portal (PIP), and facilities

submit the HMIS 105 into DHIS2. Only two hospitals (Gulu and Lira) had synchronized eLMIS data for all the 12 months reviewed in the baseline assessment. Submission of the HMIS 105 section 6 reports was also suboptimal. Only nine hospitals submitted reports for all the 12 months reviewed, and only three submitted 100% of the expected data in the three most recent reports. These observations mean stakeholders do not have real-time access to reliable stock status data at the referral hospitals.

Next steps

With support from the USAID/SSCS Activity and the regional implementing partners, the Ministry of Health Department of Pharmaceuticals and Natural Medicines has planned several hospital tailor-made activities to improve each hospital's performance. Close monitoring of the performance improvements has been planned with supply chain management Centres of Excellence supervisions and performance assessments for each N/RRHs every six months.



Julius Mubiru, USAID/SSCS Activity Regional Coordinator, reviewing stock cards with a Dispenser during the supply chain centres of excellence assessment at Mubende regional referral hospital.

Figure 1: Supply Chain Centres of Excellence Assessment Cascade

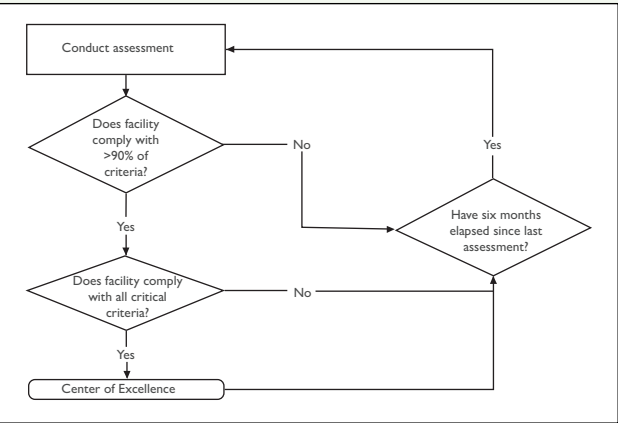


Figure 2: Average Compliance by Hospital in the Supply Chain Centers of Excellence Baseline Assessment

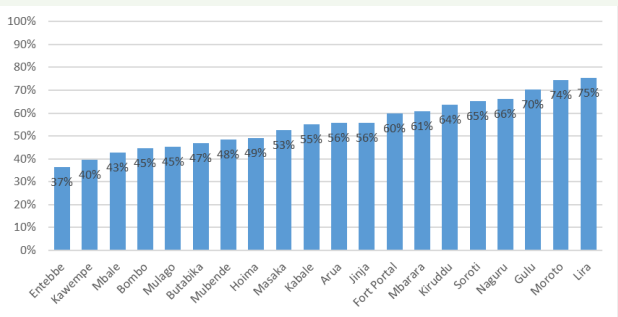
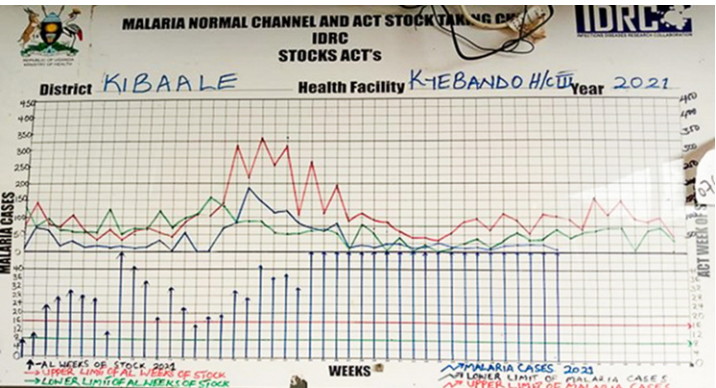
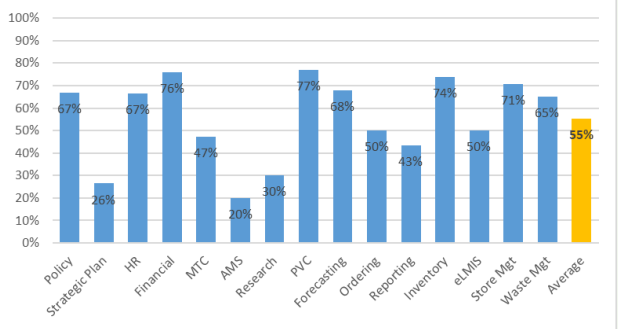


Figure 3: Average Compliance by Module in the Supply Chain Centers of Excellence Baseline Assessment for referral hospitals



Data-driven actions: Responding to a malaria epidemic/upsurge

By Joel Tutu Miti, Supply Chain Specialist, Sheila Mwebaze Senior Knowledge Management Specialist USAID/Uganda Strengthening Supply Chain Systems Activity, MSH.

Malaria is a preventable and treatable disease but remains one of the leading causes of illness and death in Uganda. Data use at health facilities can play a critical role in early detection and effective response to malaria epidemics.

The malaria normal channel showing weekly case trends is a World Health Organization early detection system for malaria epidemics that uses five-year weekly malaria case data to determine an epidemic threshold. At the health facility, a health worker plots the weekly malaria cases during the current year to monitor malaria case trends. The graph is plotted using color-coded marker pens on a whiteboard. Malaria cases that exceed the threshold are flagged and provide an early warning for a potential malaria upsurge/epidemic in the health facility catchment area.

Successful response to malaria epidemics depends on the availability of commodities such as artemisinin-based combination therapies (ACTs) and malaria rapid diagnostic tests (mRDTs). However, the lack of digital tools and equipment at lower-level facilities affects their ability to monitor malaria cases and stock data in real-time and to ensure sufficient commodities to respond to a malaria epidemic.

In 2020, the National Malaria Control Division of Ministry of Health, with technical assistance from the USAID-Uganda Strengthening Supply Chain Systems (SSCS) Activity, developed a hybrid combining malaria normal channel with weekly ACT stock status monitoring data. This hybrid channel graph enables health facility staff to examine the trend of weekly malaria cases and ACT stock available to manage emerging cases.

The National Malaria Control Division worked with the SSCS Activity, Infectious Disease Research Collaboration, and district health teams to train health workers from 70 sentinel health facilities to complete the hybrid channel graph on time and to use the data to respond to malaria epidemics effectively and efficiently.

Nwoya district in northern Uganda has faced several malaria epidemics. According to Denis Loum, Nwoya's malaria focal person, the district saw an upsurge of malaria cases in September 2021. The hybrid chart helped staff detect the excess cases in Koch Goma Health Center (HC) III and Alero HCIII. "The facilities notified the district of the malaria upsurge and requested support to obtain additional malaria commodities. Through our intra-district channels, we managed to redistribute 250 doses of ACTs and 400 mRDTs from overstocked health facilities in the district. We supplied these to Koch Goma Health Center III and Alero Health Center III with support from the Infectious Disease Research Collaboration team," said Denis Loum.

In Kibaale district, Bright Kagimu, the facility in-charge at Kyebando HCIII said, "We utilized the hybrid graph for epidemiological surveillance of malaria cases and available facility ACT stocks in 2021. From week 16 to 36, we observed an increasing trend of malaria cases and a decreasing trend of ACT stocks—from above 40 weeks of stock on hand in week 12 to 14 weeks of stock at week 20. However, the facility stock was still within the recommended min-max level of 8 to 16 weeks of stock. With this information, we knew that we had sufficient stock to continue managing cases for at least two to three weeks of the upsurge." Bright also informed the district health office of the upsurge and requested additional support in the event of a further case rise.

"In our fight against malaria, we cannot afford to go a day without stock of life-saving malaria medicines. We have, therefore, set an ambitious target of greater than 95% availability for malaria commodities. The hybrid normal channel was an idea conceived by the division, and we are happy about its impact," said Dr. Opigo Jimmy, Assistant Commissioner Health Services. "We would like to give appreciation to all the partners and district teams that have supported its rollout. We are working to scale up the tool to all health facilities."



Managing Medicines and Self-testing Appropriately While at Home.

By Irene Ochola, USAID/Uganda Strengthening Supply Chain Systems Activity - Management Sciences for Health.

Everyone has at some point taken medicine while at home, whether it was prescribed from a visit to a health facility, pharmacy or bought over the counter. Irrespective of how the medicines are obtained, we all need to take caution before administering any medication or self-testing while at home.

Appropriate medicine management ensures that we are safe by avoiding overdosing, underdosing or mixing up drugs and using them for the right purpose. This can be quite challenging to any individual while at home. This is because medicines vary in form, strength, and usefulness, and often individuals may have more than one illness or symptom at any given time. The choice of medicine or test, if not prescribed by a professional health worker, can be potentially harmful to an individual.

The Ministry of Health and the National Drug Authority have channeled efforts towards ensuring that the entire population in Uganda has equitable access to safe and quality medicines and health care services in general. Structures and systems have been put in place to ensure that medicines are managed appropriately from the points of distribution to the patient. However, this is only guaranteed when in the presence of a professional health worker, what happens at home is often left to an individual's decision. Whether one will follow the prescription as provided or manage the medicine or self-testing appropriately and follow safety procedures depend on how much knowledge and information they have been provided.

There is limited information about medication management in home settings. The living conditions of the population does not encourage appropriate medicine management such as poor storage, overdosing/underdosing, not completing the dose or self-medication. For example, when one has a fever, it is presumed to be malaria, and antimalarial medicine is taken without a confirmatory test because it's a common illness in most communities. Furthermore, people tend to keep drugs that have been left over from a previous treatment or discontinued for future use. All these pose a danger to the population if one does not have the right information to manage medicines appropriately at home.

Some of the common things that can be done to ensure we protect ourselves and the people around us are to ensure we obtain all medication or self-testing products from a licensed medical outlet such as a health facility, pharmacy, or clinic. Ensure we get professional prescriptions for medicines, faithfully follow the instructions, learn about the medicine by reading the leaflet in the packet, keep an eye out for side effects and report to the health facility if any symptoms present. Other actions include keeping medication in its original packaging, disposing of any used self-tests or unused medicines in the prescribed way, and most importantly working with either your home caregiver or healthcare provider throughout the period you are taking the medicine.

Managing medicines at home would be safe if the people using them have sufficient knowledge about their dose, time of intake, and side effects. Lack of information can cause serious effects such as antibiotic resistance, skin problems, allergies and even death. Therefore, we must importantly take responsibility as individuals to seek as much information about medicine as possible. At the same time, health workers and the governing institutions should provide as much awareness as possible on proper medicine management and use. Health workers must spend extra time educating patients regarding medicines and their safe management while at home.

To successfully overcome the problems associated with poor medicine management and self-medication, we must use a holistic approach and work together as the population, health workforce, and the governing institutions to ensure appropriate policies are in place and implemented and information is readily accessible to all.

Scaling Up eLMIS at facility level for end-to-end visibility of Supply Chain Data to support real-time reporting: Lessons from East-Central Uganda

Authors: P Niwagaba, M Isabirye, P Bakerethi, D Mukisa, M Wamoka, D Seunjo, University Research Centre

Introduction:

In 2019, the Ministry of Health with support from USAID launched the installation and implementation of the Enterprise Resource Planning system dubbed 'NMS plus' (NMS+) to increase accountability and transparency in the drug supply chain system across all health facilities in the country. This new system is accessed through a Client Self Service Portal which requires the engagement of key persons involved (right from the requestors to the approvers). This aims to improve day-to-day operations including procuring, accounting, and ordering drugs from the National Medical Stores. It will also support the National Medical Stores to increase its effectiveness in service delivery. As of May 2020, no health facility in the East Central region had been enrolled on the NMS+ due to the COVID19 movement restrictions.

Method:

USAID RHITES-EC project working with the National Medical Stores regional support team conducted 12 district pieces of training of 124 health care workers from 19 Health Centre IVs and 6 hospitals during May 2021. They were trained in the implementation and application of the Enterprise Resource Planning.

Continuous onsite mentorships to the trained persons were conducted to ensure a seamless transition to, and utilization of the Enterprise Resource Planning system.

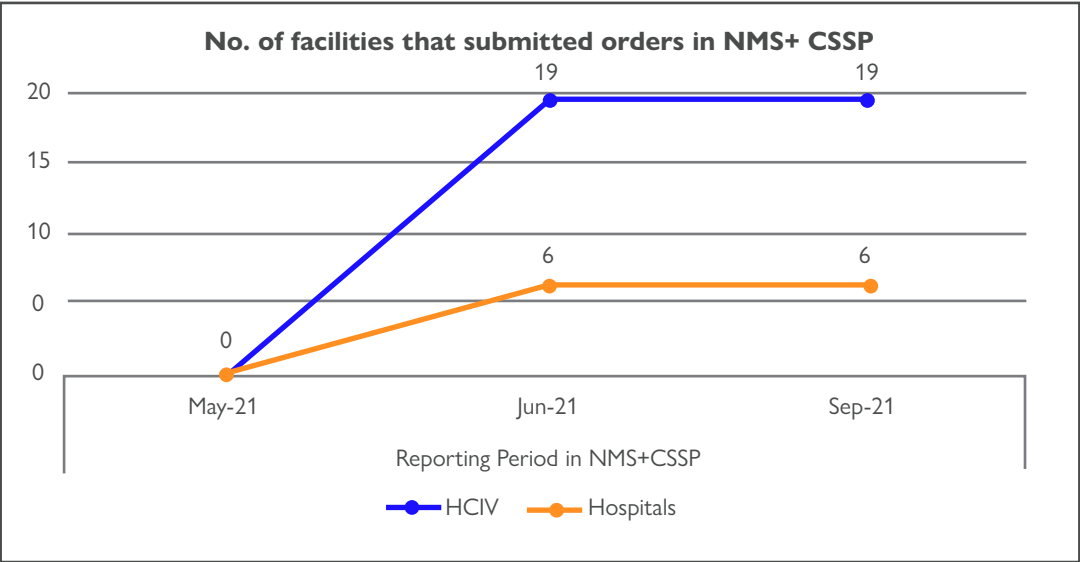
The Strengthening Supply Chain Systems Activity (SSCS) team supported the provision of routine updates on the submission status within the Enterprise Resource Planning system which guided the offering of targeted support.

Results:

The number of Health Centre IVs and hospitals submitting orders through NMS+ increased from 0 at the beginning of May 2021 to 25 (100%) in both the June 2021 and September 2021 National Medical Stores reporting cycles, as presented in the chart below.

Conclusion:

Specific and dedicated capacity building is important for improving end-to-end visibility of chain data. Providing hands on training to health workers, tracking and sharing of progress made in utilization of the system, and conducting of follow up visits with onsite targeted support facilitated the 100% transition and adaptation to the Enterprise Resource Planning system.





Adapting e-self-assessment from the private sector to build the capacity of health supply chain staff in public health facilities: Lessons from implementation in Uganda

Authors: Bridget Kyobutungi, Ivan Onyutta, Grace Kiwanuka, Henry Komakech, Sheila Mwebaze, Irene Ochola, Denis Okidi, Martin Oteba, Eric Lugada

Background

E-learning has become an integral part of institutions and transformed continuing education endeavors. Institutions have embraced this pedagogy as an alternative to the traditional educational systems, which lack the dynamic needs of learners. However, there is slow adoption of this new pedagogy by institutions and potential beneficiaries.

Objective

To develop and conduct proof of concept of an integrated self-assessment quality improvement approach at public and private not-for-profit health facilities to boost system-wide performance along the health supply chain.

Method

This article outlines the results of a proof of concept of an electronic supply chain self-assessment piloted in public health facilities in Uganda . Four Regional Referral Hospitals (Entebbe, Mbarara, Masaka, and Kiruddu) were selected based on their performance extremities. The study used a capacity building methodology where each facility self-assessed, and a subsequent quality improvement plan was auto-generated and ended with e-learning courses. Ten participants including pharmacy interns, stores assistants, and pharmacy technicians enrolled in the health supply chain e-learning course following the self-assessment scores. Data was analyzed using descriptive statistical techniques.

Results

In the facility self-assessment, Mbarara Masaka and Kiruddu scored over 70%, while Entebbe scored the least, 48%. The average self-assessment score was 75% similar to the external/independent supervision scores, with 9 out of the 13 modules having above 80% correlation to the independent assessment. On average, participants scored 90% in the online health supply chain final course evaluation. Participants expressed positive views about the self-assessment tool. Participants felt the self-assessment course was well structured, relevant to their work with clear objectives and well-organized content. However, participants felt the one week was inadequate given the course workload.

Conclusion

The correlation between self-assessment and independent assessments is similar, with prompt e-learning being acceptable to health supply chain staff. The combination of self-assessment and e-learning can effectively improve the knowledge and competence of health supply chain staff; therefore, we recommend the scale-up of this method to more facilities. However, modifications and evaluation of the e-learning tool is required before any widespread implementation.

Strengthening public health emergency supply chain system: implications of COVID-19 response in Uganda

Authors: Henry Oundo, Henry Komakech, Thomas Obua Ocwa, Okuna Neville Oteba, Martha Ajulong, Irene Ochola, Sheila Mwebaze, John Wasswa, Denis Okidi Ladwar, Martin Oteba, Eric Lugada

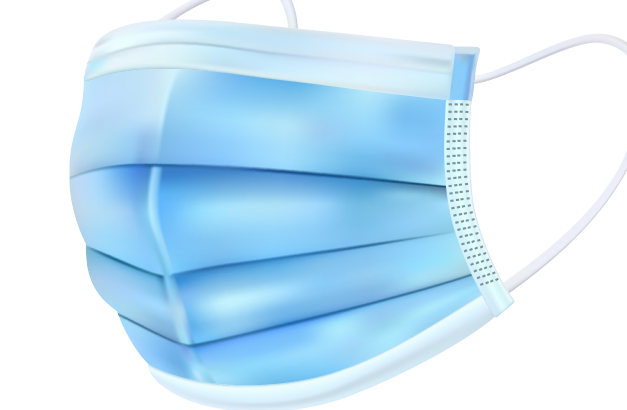
Abstract

The COVID-19 pandemic has brought to light the shortcomings of the health supply chain system. A dramatic increase in demand for Public Health Emergency commodities has challenged the health supply chain system. The Ministry of Health has put in place several interventions to strengthen preparedness, response, and mitigation to the COVID-19 pandemic. Several guidance documents were developed to guide interventions aimed at COVID-19 preparedness and response. Further, the Ministry of Health developed the emergency Electronic Logistic Management Information System based on the existing Electronic Logistics Management Information System to support preparedness and response activities. Other interventions include capacity building for key supply chain staff. To strengthen the health supply chain, it is important to develop mechanisms to ensure the system is able to absorb shocks and assure the availability of commodities during Public Health Emergencies.

Introduction

COVID-19 also known as a coronavirus (SARS CoV-2) was declared a pandemic by the World Health Organization (WHO) on 11th March 2020 (WHO 2020). Since the first notification of COVID-19 in China in December 2019, over 200 million confirmed cases and more than 4.3 million deaths have been recorded worldwide (WHO 2021). The high levels of transmission and risks to the general public prompted governments all over the world to enact various preparedness and mitigation measures (Desvars-Larrive, Dervic et al. 2020). Specifically, the pandemic has challenged the health systems highlighting the critical role of the Public Health Emergency (PHE) supply chain system in ensuring the availability of critical emergency supplies.

Effective preparedness and response to PHEs require a strong health supply chain system that ensure effective control centres on the availability of medicine and essential supplies across all response areas. The impact of the COVID-19 on supply chain system has been drastic in terms of demand, supply, and logistics. Low-and Middle-Income Countries (LMIC) have been worse affected, some with very high infection rates of COVID-19. The pandemic has led to a huge increase in the demand for essential health commodities (Badreldin and Atallah 2021) due to the disrupted supply chains. Across health systems around the world, this has resulted in health supply chain failures. Stock outs of much needed medicines, medical supplies, and vaccines have been reported across all levels of care in the country. (WHO 2020).



Methodology

Strengthening the health supply chain system in Uganda

The article is based on the review of reports from the Ministry of Health (MoH), partners, websites, and other relevant documents. It highlights efforts aimed at strengthening the health supply chain system during the COVID-19 pandemic. We adopted the Health

Product Supply Chain in developing countries model (Yadav P. and Smith L. 2014) to discuss the implication of COVID-19 on the PHE health supply multidisciplinary task force that coordinates responses to emergencies. It comprises key ministries, government departments, agencies, partners, and all relevant stakeholders. With the COVID-19 outbreak, the MoH has leveraged on the PHE supply chain system to ensure availability of emergency commodities. This has strengthened the management and coordination of COVID-19 preparedness and mitigation in the country through the various structures including the Logistics Sub-Committee (LSC). The LSC has been central to COVID-19 preparedness and mitigation activities including assessment of logistics needs, coordination of central warehouses, and partners for emergency supplies which were later distributed to end users.

The COVID-19 outbreak prompted several strategic and practical changes to suit the supply chain system to the PHE challenges. Several PHE supply chain guidance documents were developed consolidated under the Uganda National Medical Countermeasures Supply Chain Plan. These include the Guidelines for Management of Public Health Emergencies commodities, Standard Operating Procedures for Management of supply chain activities during Public Health Emergencies, Guidelines for National Drug Authority Operations during Public Health Emergencies including strategies to fast-track clearance of MCMs. Other measures included the development, adaptation, and enforcement of other existing national and international guidelines to regulate PHEs in the country.

As the COVID-19 evolved, several interventions were implemented to strengthen human resources for health supply chain. About 786 supply chain staff were trained at National, regional and district levels. Training covered several areas including coordination and management of commodities for PHE. Additionally, PHE supply chain management simulation exercises were conducted. The training included testing structures set up for coordination, information and commodity flows across the supply chain system from national, regional and to the district levels. These trainings have helped strengthen skills and knowledge of supply chain staff to support COVID-19 preparedness and mitigation measures in the country.

The MoH with USAID's Uganda Health Supply Chain adopted and customized the electronic Emergency Logistics Management Information System (eELMIS) to facilitate response to the COVID-19 outbreak. The adoption and integration of digital technology into government-coordinated containment and mitigation process has facilitated several supply plain functions. The eELMIS has supported supply chain coordination, information flow and commodity movement during COVID-19 preparedness and response. From the time of roll out, the system has had several milestones. The eELMIS has supported tracking medicines and health supplies procured and distributed at National and sub-national level including in 78 quarantine centres, 54 border points of entry, 80 public hospitals, 15 Regional Referral Hospitals, and 2 national hospitals in all 136 districts. Health Facilities and District Task Forces made bulk orders through the eELMIS, which were verified, processed, approved, and issued by MoH. Other achievements include conducting Uganda's first PHE supply chain simulation exercise, providing real time data for decision making, tracking movements of supplies and commodities, provision of quality data for routine transaction of supplies. It also enhanced coordination of partners notably in resource mobilization and allocation and supporting reporting, end to end visibility and accountability.

Conclusion

To future-proof the health supply chain, it is important to develop mechanisms to ensure agility to absorb pandemic shocks and assure availability of medicines and essential supplies across all levels of care during PHEs. It is essential to develop and strengthen supply chain protocols, and standard operating procedures and guidelines to support the system. The supply chain system will require strengthening partnerships to ensure better coordination and management of emergency response.

It is important to strengthen the capacity supply chain workers to manage PHE commodities across all levels of the supply chains system. Additionally, concerted efforts are required to ensure availability of stocks of emergency medicines and supplies for a buffer period in the central, district stores and across all levels of care. Finally, it is important to increase funding to support other critical PHE structures and functions. All these efforts are critical for not only preparedness and response but also strengthening public trust in the health system in its ability to contribute to control of

future pandemics.

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Active Leadership Involvement Drives up Health Facility Stock Status Reporting and Visibility

By Fred Twinomujuni, Regional Coordinator, USAID/Uganda Strengthening Supply Chain Systems

Activity

Visibility of stock status is key to ensuring the availability of good quality essential medicines and supplies. Uganda’s Ministry of Health relies on this data to plan, procure, and distribute life-saving commodities. Using data on the medicines that clients consume is the most accurate method to determine future health facility commodity needs. However, reporting on consumption data remains low. As a result, the Ministry of Health uses proxy data such as the number of patients and new disease cases to calculate commodity needs. Challenges related to the completeness and accuracy of data make decision-making difficult. Additionally, it increases the risk of stockouts, overstocks, and expiries.

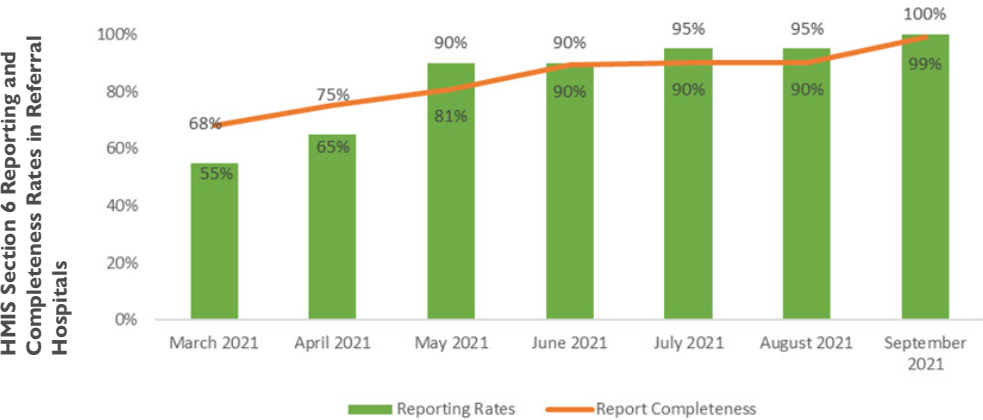
Health facilities use the HMIS 105 section 6 tool in DHIS2 to routinely report stock status and quantities of commodities dispensed to clients and expiries. In March 2021, only 47% of 4,520 health facilities reported HMIS 105 section 6 data in the DHIS2. Referral hospitals that are expected to demonstrate better performance because these

facilities have trained staff and provide specialized health care services did not perform any better. Out of 20 referral hospitals, only 11 routinely submitted stock status data in DHIS2.

In March 2021, the Ministry of Health’s Department of Pharmaceuticals and Natural Medicines in partnership with the USAID-funded Uganda Strengthening Supply Chain Systems Activity (USAID/SSCS) and implementing partners engaged referral hospital leaders to improve reporting rates. The SSCS Activity leadership team and partners conducted monitoring visits to all referral hospitals to build the capacity of the hospital directors, principal administrators, pharmacists, and records staff in supply chain leadership and governance. Action plans on hospital performance on monthly stock status reporting were drawn to support all facilities.

A follow-on meeting in May 2021 brought together leadership teams of all the referral hospitals to review supply chain performance and stock status reporting and to share lessons learned and best practices. By working with this range of personnel, reporting rates of referral hospital improved from 55% in March 2021 to 95% in August 2021. Additionally, completeness of reports improved from 68% in March 2021 to 90% in August 2021.

To further improve reporting rates countrywide, the referral hospitals will supervise and transfer the skills gained to the lower-level health facilities in their catchment areas as part of their role in the health system’s hub-and-spoke structure.



Realizing the Value, the Government-to-Government Assistance Brings to Regional Referral Hospitals

Authors: Manzi Mbabazize Gerald, Pharmacist Mbarara RRH and Fred Twinomujuni, Anthony Kirunda, Denis Okidi, John Hans Wasswa, and Benjamin Atwine, USAID/ Uganda Strengthening Supply Chain Systems Activity.

To support local ownership and enhance the sustainability of development outcomes, United States Agency for International Development (USAID) is providing government-to-government (G2G) assistance inform of grants to four Regional Referral Hospitals (RRH) in Uganda to strengthen their management, supervision, and overall performance in health service delivery. The implementation of the G2G assistance was piloted in two regional referral hospitals, Jinja and Mbarara and later extended to another two, Lira and Moroto. These activities are part of an on-going effort within USAID to transition delivery of services and technical assistance to local partners including host government entities. The current G2G awards focus on HIV service delivery and health systems strengthening including public financial management support to the referral hospitals.

Since the introduction of the G2G assistance, numerous achievements and improvements in pharmaceutical services have been observed in the hospitals benefiting from these grants. The Hospital pharmacy departments have been able to implement and coordinate pharmacovigilance activities both within the hospitals and in other lower-level facilities within their catchment areas. Capacity has been built at the referral hospitals to extend support, strengthen supervision to improve health supply chain performance at lower-level health facilities within their catchment areas. The regional referral pharmacy staff routinely conduct tailored support supervisions to ensure the health supply chain functions operate optimally at these lower-level health facilities. This funding has enabled these hospitals acquire vital equipment such as distillation equipment to support pharmaceutical services. Improvements in human resources have been noted at the hospitals with various staff recruited to fill vacant positions within the hospital pharmacy.

Through G2G, Medicines and Therapeutic Committees (MTCs) in the hospitals have been strengthened. These have been facilitated to carry out their functions including facilitating sub-committees like logistics sub-committee which oversees health commodities procurements to ensure constant availability of essential medicines and health supplies. Furthermore, with this funding, regional hospital teams have been able to cascade support to lower-level health facilities to strengthen their MTCs.

Private community pharmacies have been identified to support with refills for stable clients on Antiretroviral treatment and technical support provided to these Pharmacies with

G2G funds. Hospitals also use G2G funding to carry out redistribution of essential health commodities leading to constant availability of essential commodities and avoidance of wastages by mitigating potential expiries. Through this funding, hospitals can also procure health commodities for HIV, TB, cervical cancer, and other essential commodities in case of insufficient supply from the National Medical Stores. The G2G assistance has enabled Mbarara RRH improve supply chain performance over time and would be a great initiative to extend to all referral hospitals.

The Ministry of Health - Department of Pharmaceuticals and Natural Medicines embraces health commodity Supply Chain Logistics Management Information Systems to ease Quantification accountability and visibility.



Dr. Diana Atwine visits the Ministry of Health stall at the PharmaTec Exhibition at UMA grounds



Immunization completion rates at Baitambogwe HC111, Mayuge district, Uganda

By Kagoya Margret, Babirye Shamim, Martha Ajulong, Nabirye Christine, Namukose Robinah, Kaluya Rogers, Musubika Esther, Gamusi Ahumed, Esther B Kalanzi

Background

The Ministry of Health recommends 100% completion of vaccination for all children below one year. At Baitambogwe HC III (Mayuge district) an assessment undertaken in February 2020 showed that only 16% of the targeted children met this requirement. This was due to knowledge gaps among the staff at the facility, poor documentation of data in the child register, and poor implementation of immunization guidelines at facility level.

Objective.

To improve the percentage of children who complete the national immunisation schedule by one year and below from 16% in February 2020 to 70 % Baitambogwe HC III by June 2020.

Methods

USAID RHITES-EC, Quality Improvement team of Baitambogwe HCIII initiated a quality improvement activity to monitor immunization activities at the facility and address any gaps. From this, three main actions were undertaken.

On job mentorship was conducted where the facility-based teams were continuously mentored on proper documentation of

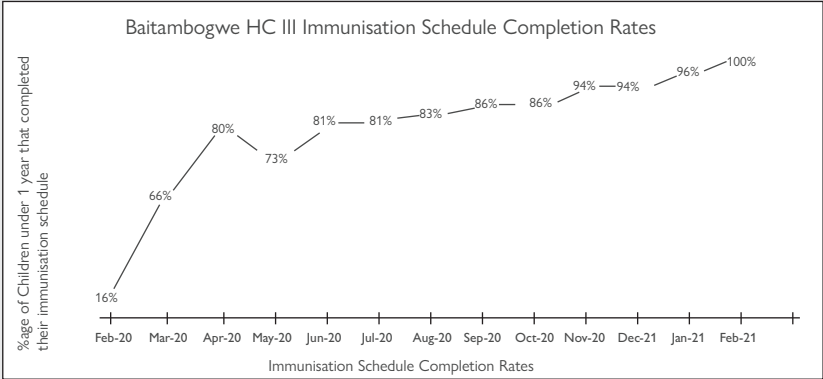
the child registers to ensure that all the required information is accurately filled in.

Improvising a column in Outpatients Department (OPD) register for documentation on vaccination assessment. The OPD register did not provide for vaccination assessment yet this is an important aspect to inform the health worker on the status of vaccination for each child. This column was helpful in ensuring that every child is assessed for vaccination. By improvising this column, it provided guidance for actions to be taken, thus keeping the records for status of vaccination more updated.

A day before the vaccination clinic, Village Health Teams (VHTs) are given reminder calls to inform mothers to bring their children. This is a practice that encourages eligible children to be brought for immunization. The VHTs take lead in this because they live within the communities and are more conversant with the children in their villages. Mothers often forget dates and the VHTs are the ones who remind them. These reminder calls have played a significant role in immunization. If the VHT has no phone or is not available, the Health Assistant does physical follow ups at household level

Conclusion:

Throughout implementation of vaccination of children at Baitambogwe HCIII, it was observed that teamwork amongst the staff at the facility and community improves indicator performance. In addition to this, proper documentation ultimately improves immunization completion. Also, enhanced supervision and collaboration with the Mayuge district teams resulted into an acceleration in immunization completion. Working together on the whole cascade of immunization leads to good results.



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- * Ministry of Local Government
- * Ministry of Public Service
- * Ministry of Agriculture, Animal Industry and Fisheries
- * National and Regional Referral Hospitals
- * General Hospitals and Health Centres
- * National Drug Authority
- * National Medical Stores
- * U.S. Agency for International Development (USAID)
- * U.S. Centre for Disease Control (CDC)
- * U.S. Department of Defence
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- * Uganda Reproductive Maternal Child Health Services Improvement Project (URMCHIP)
- * Pharmaceutical Society of Uganda (PSU)

Knowledge and Perception on Hand Hygiene and correlation with IPC practices and structures in health facilities in Uganda.

Authors: Hassan Kasujja, John Paul Waswa, Reuben Kiggundu, Marion Murungi, Andre Zagorski, Dinah Tjipura, Mohan Josh, Tamara Hafner, Fozo Alombah

Background: Infection prevention and control is an evidence-based approach to improving patient safety and containing antimicrobial resistance. Improving Infection Prevention and Control practices requires both human resource capacity building and ensuring system change in hospitals. This study assessed healthcare workers' knowledge and perception of hand hygiene and the correlation with Infection prevention and control practices in select Ugandan hospitals.

Methods: We conducted a cross-sectional study in February and March 2021. A random sample of 140 health workers and 28 senior managers were selected from 14 hospitals by cluster sampling. Hand hygiene knowledge and perception were assessed using the WHO Hand Hygiene Knowledge Questionnaire and Perception Surveys for Health Workers and Senior Managers. Facility hand hygiene, and Infection prevention and control practices and structures were assessed using the WHO Hand Hygiene and Infection Prevention and Control Self-Assessment Framework tools. Data were collected concurrently and analyzed using STATA.

Results: In total, 140 healthcare workers participated in the study. These included 74 (52.8%) females and 66 (47.1%) males. Of these 28 were senior managers with 13 (46.4%) females and 15 (53.6%) males. The average score of hand hygiene knowledge among healthcare workers was 42.4% (SD 10.93). Most, 84.4% (SD 5.52) of healthcare workers believe that hand hygiene is effective in reducing hospital-acquired infections. Senior managers believe that the hand hygiene program proposed by WHO is 78.1% (SD 9.93) effective in increasing compliance permanently. The average score on the Infection Prevention and Control Assessment Framework was 453.6 (SD 130.02) which corresponds to the intermediate level. The mean Hand Hygiene and IPC Self-Assessment Framework score was 226.7 (SD 49.22), a basic hand hygiene level. There was a positive correlation between knowledge of hand hygiene and the Infection Prevention and Control Assessment Framework (0.395). However, there was a negative correlation between knowledge and Hand Hygiene and IPC Self-Assessment Framework (-0.133).

Conclusion: There is a need to increase knowledge on Infection Prevention and Control, particularly hand hygiene among healthcare workers. The moderate scores on Infection Prevention and Control Assessment Framework and Hand Hygiene and Self-Assessment Framework reflect efforts being made in strengthening capacity. Educating and supporting managers could be a good strategy to increase knowledge among other healthcare workers. Further investments are required to improve Infection Prevention and Control knowledge and hand hygiene compliance and practices.



Janice my niece 35 years old is a mother and a business lady. She runs her own business, a very busy office. The first to wake up and the last to go to bed. Every day she reaches home too tired to attend to the home business. One day she confided into a friend- Maria, and said, Maria you know what? I love my business very much however; I hardly get time for my friends and family. Most times I have to carry work at home and when I retire to my bed, I do not have any sleep at all. My mind wonders a lot however much I try.

Maria responded, take it easieeeeey, it happens to many including me as well. Just buy sleeping pills from any outlet and take, then you will sleep like a baby. Janice said, I will have to get a prescription from a doctor first and I do not have the money and time. Oh no, here is the prescription, Maria hands Janice a script with the words "Diazepam" 10 tabs. Janice sends her 8-year-old boy to the nearby clinic and quickly brings the medicines to his mom. Three days later, Janice calls Maria thanking her for being a miracle doctor and for saving her from lack of sleep.

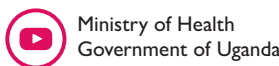
- Q1: Identify ethical and professional issues to be avoided in the story?
- Q2: What advice would you give Janice?
- Q3: Comment on Maria's advice to Janice, what options would you have given?
- Q4: What should Pharmacists do to benefit from Health Insurance scheme and contribute to sustainable pharmaceutical development?

Please send your answers to nokuna6@gmail.com



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