
Integrating Oxytocin into the Vaccine Cold Chain to Improve Management of Post-Partum Haemorrhage in Uganda.

Activity Report

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Abbreviations

DHMT	District Health Management Team
DHO	District Health Office
DVS	District Vaccine Store
EPI	Expanded Program for Immunisation
HC	health center
IP	implementing partner
MCH	maternal and child health
MoH	Ministry of Health
MSH	Management Sciences for Health
PPH	post-partum haemorrhage
RHITES-EC	Regional Health Integration to Enhance Services
SOP	standard operating procedure
SPARS	Supervision, Performance Assessment, and Recognition Strategy
UCG	Uganda Clinical Guidelines
UHSC	Uganda Health Supply Chain Program
UNEPI	Uganda National Expanded Program for Immunisation

Introduction

Background

The United Nations Commission on Life-Saving Commodities for Women and Children identified oxytocin as one of the 13 under-utilised life-saving commodities. Oxytocin is used as the first-line medicine to both prevent and treat excessive bleeding (post-partum haemorrhage [PPH]) after delivery.¹ PPH accounts for 42% of the maternal mortality in Uganda.² Oxytocin has to be kept at temperatures between +2°C and +8°C to maintain potency and requires cold chain facilities. However, there are weaknesses in cold chain infrastructure, resources, and systems for the transportation and storage of oxytocin and other essential medicines. A cost-effective and rapid solution to the oxytocin cold chain problem could be integrating it into the vaccine cold chain system.

WHO, UNICEF, and UNFPA endorse the integration of oxytocin into the vaccine cold chain to maintain quality of the product.³ This is dependent on the best storage and labelling practices being applied to clearly distinguish nonvaccine products from vaccines and diluents. Such an integration would benefit the most at-risk women in low- and middle-income countries by ensuring that they receive the quality product needed to save their lives. In most low- and middle-income countries, the Expanded Program for Immunisation (EPI) has dedicated resources and capacity building to maintain the cold chain for vaccines from the country's ports of entry to the point of service. Until June 2017, the vaccine cold chain in Uganda was restricted to vaccines. The Ministry of Health (MoH) has since directed health facilities that lack appropriate cold chain for oxytocin to use vaccine refrigerators where available.⁴

Management Sciences for Health (MSH), through an Innovation Fund grant of the Reproductive Health Supplies Coalition,⁵ proposed to support Uganda to implement integration of oxytocin into the vaccine cold chain for improved storage, building on work previously conducted in Uganda by PATH and by the USAID-funded Systems for Improved Access to Pharmaceuticals and Services (SIAPS) program and aimed to leverage work done by other projects.

Objective of the Project

The objective of the project was to facilitate the integration of oxytocin into the EPI cold chain by conducting an options analysis, securing political commitment, and supporting phased implementation in Uganda.

¹ Ministry of Health. *The Uganda Clinical Guidelines*. Kampala, Uganda: MOH; 2016

² Ministry of Health. *Investment Case for Reproductive, Maternal, Newborn, Child, and Adolescent Health Sharpened Plan for Uganda 2016/17 – 2019/20*. Kampala, Uganda: MoH; 2016

³ Temperature-sensitive health products in the Expanded Programme on Immunization cold chain. WHO-UNICEF Joint Statement 2015

⁴ Ministry of Health, Uganda (2017). "Use of the UNEPI Cold Chain in storage and maintaining a cold chain for oxytocin" Circular Reference No. ADM 215/306/01 dated June 14, 2017

⁵ Objective 3 of the Maternal Health Supplies Caucus (MHSC) subgroup of the Reproductive Health Supplies Coalition is to increase awareness and develop strategies to ensure availability of quality-assured maternal health supplies

Approach and Methodology

Holistic Approach

We took a health systems approach to the activity by examining the requirements for each of the elements of oxytocin integration, including policy environment, human resources, supply chain, information systems, and financing implications.

Phases of Implementation

The activity was conducted in three phases.

- In *Phase 1*, we assessed the feasibility and acceptability of integrating oxytocin into the EPI cold chain in three countries (Uganda, Kenya, and Malawi) through scoping exercises conducted by local consultants. This involved three inter-related activities: stakeholder mapping; situational analysis of the oxytocin supply chain to the last mile, coupled with key informant interviews using a semi-structured interview guide to characterise stakeholder perceptions of the feasibility and acceptability of integrating oxytocin into the EPI cold chain; and review of oxytocin-related policies and documentation on supply chain integration. Uganda was selected to move to Phase 2 based on favourable feasibility and acceptability results for integration of oxytocin into the vaccine cold chain.
- *Phase 2* was to engage stakeholders in Uganda to conduct an options analysis for opportunities related to the integration, choose the most feasible option(s), and draft an implementation plan. The options analysis process was developed and applied to enable stakeholders to consider the systemwide view of facilitating integration of oxytocin into the vaccine cold chain. The outcome of a multistakeholder options analysis in July 2019 was a recommendation that integration at the district and health facility levels is the most feasible option in Uganda.
- *Phase 3* was to test the option(s) in a geographically restricted area to determine the feasibility of scale-up in the target country and beyond. This involved the formation of an integration task force to steer the implementation; development of implementation guidelines, standard operating procedures (SOPs), and visual aids; and design and implementation of a pilot to field test the guidelines, SOPs, and visual aids and to document lessons learned and best practices.

The three phases were conducted between December 2018 and December 2019.

Pilot of the Implementation Guidelines and SOPs

The options analysis meeting recommended piloting integration guidelines and SOPs prior to adoption and eventual national scale-up. The pilot ran for four to six months. The justification for such a limited timeframe was related to the fact that these were not new products in the system, but rather a new way of handling them; health facility and district staff should be able to adapt quickly to recommendations from the guidelines. It was also an opportunity to have the districts receive and manage the district-to-facility level transportation procedures at least one or two times, as deliveries from the central warehouse are made every two months.

The pilot districts, Bugiri and Mayuge, were purposively selected from the region supported by the USAID-funded Regional Health Integration to Enhance Services (RHITES-EC) Program, which expressed strong interest in supporting the integration process. The districts were selected based on average monthly facility-based births, presence of newly installed vaccine refrigerators with an oxytocin compartment, and interest from the district health office. The pilot primarily targeted HC3-level

facilities in the districts; this is the lowest level that should offer skilled delivery services according to MoH policy. HC2s do not routinely receive oxytocin from National Medical Stores but may acquire it through redistribution. HC4s and hospital-level facilities were shown to have alternative nonvaccine refrigerators where oxytocin could be kept and therefore were not in need of the integration option. Nevertheless, since it was the prerogative of the District Health Officer (DHO) to invite participants, a number of HC2- and a few HC4-level facilities were also trained when the guidelines and SOPs were rolled out, and others were visited during the pilot supervisions. The pilot phase ran for four months from August to December 2019.

Results

Achievements

- Conducted a stakeholder-led evaluation, analysis, and selection process of the options for integration of oxytocin into the vaccine cold chain
- Developed implementation guidelines, SOPs, and visual aids for integration of oxytocin into the vaccine cold chain at district vaccines stores (DVS) and health facilities and for appropriate oxytocin storage in maternity wards
- Introduced two tools:
 - Cold Chain Equipment Tracker to monitor use of DVS equipment for nonvaccine activities, including oxytocin integration (will be applied for other cases when required)
 - Oxytocin Stock Form to monitor availability and use of oxytocin as well cold chain maintenance on the maternity ward
- Successfully implemented a four-month pilot in Bugiri and Mayuge districts, which has ensured adequate storage conditions for oxytocin to maintain the potency of the product, and developed a road map for national scale up.
- Relevant staff from all HC3s in the two districts were trained on the integration guidelines. The few HC2 facilities that were equipped to offer delivery services were included in the implementation. In total, staff from 34 facilities (17 HC3s, 16 HC2s, and 1 HC4) were oriented on adequate procedures for integrating oxytocin in the vaccine cold chain. HC4 and hospital-level facilities were reported to have adequate refrigerators for storage of oxytocin and did not need a vaccine refrigerator. Twenty-one facilities were visited during the early implementation phase.
- The activity improved storage conditions for oxytocin in the two districts. All health facilities visited during the pilot stored their oxytocin in the cold chain. Other levels of care not targeted in the pilot also benefitted from the training on the guidelines and SOPs and the support at the district level, which improved oxytocin storage conditions.
- Secured high-level commitment within the MoH and partners for integration of oxytocin into the vaccine cold chain as shown by:
 - The approval of the draft implementation guidelines and SOPs by three MoH technical working groups: Immunisation Technical Coordination Committee, Maternal and Child Health Cluster, and the Medicines and Procurement Management Technical Working Group
 - Validation and approval of guidelines in a multistakeholder workshop
 - The oxytocin integration activity, which has helped establish a stronger axis for collaboration among the MoH's Pharmacy, Reproductive Health, and Uganda National Expanded Program for Immunisation (UNEPI) departments, partly through the formation of an integration task force. This will have other benefits in the system beyond the project.
- Supported the MoH's Pharmacy, Reproductive Health, and UNEPI teams to conduct a joint quantification exercise of the country's oxytocin needs, demonstrating the strengthened collaboration among the MoH teams garnered through the work of this grant. The output was used to estimate the cold storage space requirements for oxytocin to be stored in vaccine refrigerators. Ultimately, the 996 vaccine refrigerators being procured with GAVI's support to the UNEPI will have a specific container for oxytocin that occupies approximately 10% of the volume. This estimate was confirmed through the work of this grant.

Lessons learned and best practices

PREIMPLEMENTATION

Stakeholder Involvement and Buy-In. For the country to successfully implement integration of oxytocin into the vaccine cold chain, it is important to carefully consider the implications of the integration with all stakeholders and map their roles. Figure 1 shows the stakeholder mapping for Uganda. Managing stakeholders, understanding their expectations, and ensuring their support and active contributions were critical for success.

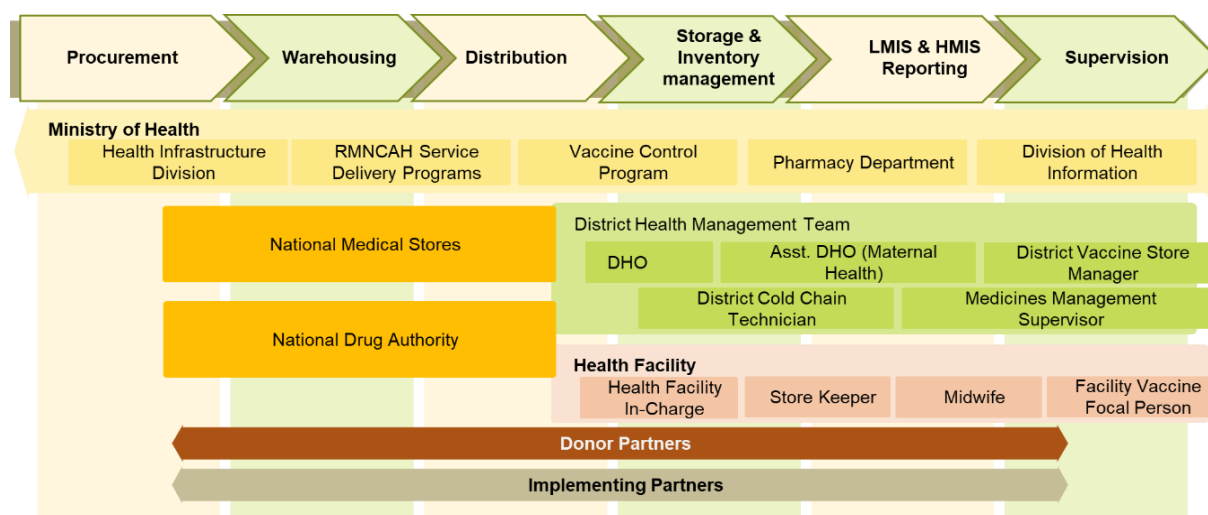


Figure 1: Mapping of stakeholders involved in the oxytocin-vaccine integration

These stakeholders are coordinated by the MoH through three main categories: maternal and child health, supply chain management, and immunisation. We formed an Integration Taskforce that had membership from all three areas and conducted consultative meetings that involved MoH departments/teams, academia, funding agencies, implementing partners (IPs), and district and facility-based personnel. The stakeholders were involved in determining the options for integration and guided the development and implementation of the integration activities.

At the district level, entry meetings were conducted with the DHO and members of the District Health Management Team (DHMT) to sensitise them on the policy and implementation requirements and later to obtain commitment to include oxytocin integration in routine, district-led supervision activities. In Uganda, the collaboration with RHITES-EC, a regional IP operating in the learning districts, was important as it provided continuous engagement with members of the DHMT and health facility staff. Some members who had initially resisted the integration process eventually became strong advocates in their districts and health facilities.

Lessons Learned	Best Practices
It is important to obtain stakeholder buy-in by ensuring effective involvement (not prescription) in considering implications of and exploring solutions to enable successful implementation of oxytocin integration.	<ul style="list-style-type: none"> Identify and ensure engagement with stakeholders in maternal and child health, supply chain management, and immunisation at the central and subnational levels Form a multistakeholder Integration Taskforce Conduct district entry meetings with DHO and DHMT members

Lessons Learned	Best Practices
Oxytocin must be labelled for storage in the cold chain between +2°C and +8°C	<ul style="list-style-type: none"> The national medicines regulatory authority had previously made proper labelling of oxytocin for storage a requirement for issuing market authorisation

Implementation Guidelines, SOPs, and Visual Aids. While the MoH of Uganda had issued a directive to allow oxytocin co-storage in health facility vaccine refrigerators, implementation was not well guided and resulted into overall poor implementation. The development and implementation of guidelines, SOPs, and visual aids were welcomed by facility staff to standardise the integration of oxytocin and to provide them with tools.

Lessons Learned	Best Practices
Ensure clarity on the reason for integration. In Uganda, oxytocin integration into the vaccine cold chain was done only where cold chain for the product was likely to be compromised	<ul style="list-style-type: none"> The scoping assessment was important to consider the policy environment and other supply chain considerations The options analysis process provided a structured approach to coordinate stakeholders participation in the decision making process
Implementation guidelines, SOPs, and visual aids for oxytocin integration are important to operationalise MoH policy	<ul style="list-style-type: none"> Design guidelines, SOPs, and visual aids to address the important system and operational concerns. For example, district-level integration was limited to storage at DVS, but leveraging DVS resources (cold box, temperature monitoring devices, and expertise of cold chain technician) to support packing for transportation to the health facility was also important. Development of illustrations of the SOPs (visual aids) creates a quick reference and supports training for health workers on the integration procedures

Refrigerators and other cold chain infrastructure challenges were encountered mainly but not exclusively at primary care facilities; higher-level facilities had challenges of cold storage in maternity wards.

Preparation for Implementation at District Level. The implementation guidelines for the integration of oxytocin into the vaccine cold chain required the use of the DVS as a transition storage point prior to delivery to the health facility, a functional refrigerator at the health facility, an oxytocin storage container, and a dedicated cold box/vaccine carrier for the maternity ward. We developed a preimplementation checklist to enable the district and health facility to conduct a self-assessment of their readiness to use the guidelines and, where gaps were identified, to work with DHMT officers to remedy the problems. For example, many facilities that did not have oxytocin storage containers were able to improvise; District Cold Chain Technicians/Assistants mobilised additional cold boxes and ice packs.

As part of the roll-out, we conducted a two-hour orientation on the procedures and tools for health workers, health facility in-charges, immunisation focal persons, and midwives. A total of 49 participants from 34 health facilities in the two learning districts were trained on the integration guidelines and SOPs. They were then able to sufficiently pass on the knowledge to other colleagues at the health

facility. This indicates that this orientation can be readily integrated into other preplanned activities or trainings without additional costs, thus facilitating the roll-out.

Lessons Learned	Best Practices
Readiness needs to be assessed and integration prepared for at the district store and the health facility	<ul style="list-style-type: none"> • Checklist for readiness assessment
District and health facility staff need training on the procedures to ensure good practice is applied	<ul style="list-style-type: none"> • A simple orientation module allows rapid orientation and integration into other trainings or facility-level activities

IMPLEMENTATION

The Oxytocin Stock Form was an important tool in encouraging midwives in the maternity ward to regularly check availability of oxytocin and routinely change the ice packs in the vaccine carrier. Where this form was not introduced, such as in the hospitals and HC4s, we found that the ice packs were not routinely changed. The tool also helped facilities to maintain an adequate supply of oxytocin in the maternity ward, increasing availability at the point of use. The guidelines recommend maintaining a 48-hour supply in the cold box/vaccine carrier and topping it up twice a day. The same form could be used to monitor receipt, consumption, and stock balance of oxytocin in the maternity ward.

The pilot allowed for fine tuning of the procedures and guidelines (e.g., specifying the amount of oxytocin to store in the maternity ward was not considered when the first draft of the guidelines and SOPs were developed).

Lessons Learned	Best Practices
The Oxytocin Stock Form is a useful tool to ensure that ice packs in the cold box are checked and regularly changed and the oxytocin stock is replenished by midwives in the maternity ward. This strategy ensures sufficient oxytocin in the maternity ward in adequate storage conditions and minimises the frequency of opening the (vaccine) refrigerator, which could compromise maintenance of the cold chain	<ul style="list-style-type: none"> • While stock is maintained in the maternity ward, it is important that the midwife on duty has 24/7 access to the refrigerator in case more oxytocin is needed • A roster for daily replenishment of oxytocin and replacement of ice packs in the cold box in the maternity ward, particularly during shift changes, is critical • Train all midwives at all health facilities, including higher-level facilities, to use the Oxytocin Storage Form • Where the number of births is low, as in the case in HC2s, there is no harm in collecting oxytocin from the refrigerator only when needed as the nurse midwife is also the key holder for the vaccine refrigerator
Standardise the stock holding for oxytocin kept in the maternity wards to minimise risk of theft or spoilage and to make it easy to compute order quantities from ward to refrigerator	<ul style="list-style-type: none"> • Provide guidance on maximum stock holding for oxytocin to be kept in maternity wards. Uganda's oxytocin integration guideline recommends a two-day supply of oxytocin (based on average consumption) be kept in the cold box in the maternity ward.
Increased awareness of and responsiveness to oxytocin stock and cold chain maintenance challenges	<ul style="list-style-type: none"> • Through inter-facility arrangements, facilities that did not have functional refrigerators were able to work with a nearby facility to ensure that their oxytocin was still kept in the cold chain

	<ul style="list-style-type: none"> • District health teams and facilities that run out of oxytocin were also quick to mobilise stock from other health facilities in the district that were overstocked, and the health facility in-charges were more willing to allocate funds for transport to staff to affect such redistribution
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Leveraging In-Country Resources

In all three phases, we leveraged in-country resources to enable deeper understanding of the issues affecting implementation of oxytocin integration, obtain stakeholder buy-in throughout the process, and enable sustainable investments in the outputs beyond the lifetime of the project. Phase 1 in Uganda was conducted using a local consultant knowledgeable of the supply chain; health policy; and the reproductive, maternal, newborn, child, and adolescent health sector. Phases 2 and 3 involved collaborating with a range of development agencies, academia, and IPs, particularly MSH’s USAID-funded Uganda Health Supply Chain Program (UHSC), to leverage in-country resources and technical support to ensure constant progress on the ground.

Uganda Health Supply Chain Program: UHSC leveraged the program’s district staff to coordinate data collection for the rapid assessment of knowledge and practices in 183 health facilities regarding storage of oxytocin and availability of refrigerators (EPI and non-EPI). UHSC was also responsible for overall coordination of in-country activities, including recruitment of the consultant in Phase 1 and all activities in Phases 2 and 3. UHSC also contributed financial support for the roll-out and supportive supervision conducted with the MoH during the pilot of the guideline and SOP implementation in the two districts.

UNEPI/GAVI: While the initial procurement of 608 refrigerators had a one-size compartment for storage of oxytocin, we supported a quantification of oxytocin to estimate the cold storage space requirements for the integrated storage. As a result, the next 996 refrigerators procured made a provision for 10% of the volume for the purpose; this will reduce pressure in the health facility storage space, particularly in those places that received the smaller refrigerators.

USAID and its IPs: There was a collaboration with the USAID-funded RHITES-EC Program to select and pilot the implementation of the guidelines and SOPs in the two districts. The lessons learned have given USAID the impetus to commit to working through its IPs to support scale-up of the integration.

The Global Fund, Uganda: In collaboration with the Global Fund and the UHSC Program, the country plans to conduct an assessment of the cold chain system to document the requirements and gaps in storage space; this will inform the next five-year Health Sector Development Plan starting 2021 and potentially help obtain commitments from a number of development partners to strengthen the cold chain system for nonvaccine commodities.

Challenges

- There was initially implicit resistance to implementation of oxytocin integration, particularly at the district and health facility levels. At times, this was also due to ineffective engagement and communication from the DHO to the DHMT and health facility staff. The post-training supportive supervision conducted by MSH, MoH Pharmacy, district cold chain, and RHITES-EC project staff was important in reinforcing the desired messaging and overcoming this resistance.

- At the start of the pilot, health facility staff determined how much stock of oxytocin to hold in the maternity ward, which resulted in variations from a one-day to several-week supply. The higher extreme would potentially risk maintenance of the cold chain in the cold box/vaccine carrier in the maternity ward. During the pilot, guidance was provided to hold a maximum of a two-day supply of oxytocin, based on average daily consumption, in the cold box in the labour wards, both to minimise risk of theft or spoilage and to make it easy to calculate order quantities from vaccine stores and allow for an unexpected influx of deliveries.
- Record keeping was particularly challenging in health facilities and affected all programs, including oxytocin integration. The Oxytocin Stock Form for the maternity ward was not consistently completed in some facilities during the pilot. In one facility, the stock card was taped to the refrigerator and all staff were encouraged to complete the tool whenever they removed oxytocin from the refrigerator, which was an effective strategy.
- In the short term, the available refrigerators in the health facilities should meet the additional space requirements for oxytocin integration. However, in the long term, the EPI program has planned to expand the range of vaccines in the public health system, which may eventually crowd out oxytocin.
- Related to the above challenge, there was discussion of the need to consider integration of other temperature-sensitive commodities into the vaccine cold chain, including blood, insulin, and lab reagents. However, it is recognised that this is likely to overwhelm the available vaccines infrastructure if not well managed or if separate refrigerators are not considered.
- Most facilities had to improvise storage containers for oxytocin to be kept in the vaccine refrigerator to minimise the risk of accidental administration as a result of mix-ups, as most vaccine refrigerators did not have standardised oxytocin compartments/containers with standardised labels.
- Higher-level facilities have nonvaccine refrigerators that could be used for storage of oxytocin, and we felt that the pilot would not need to target those facilities. However, we found they have deficiencies—many lack temperature monitoring devices, back-up power sources, and routine service and maintenance.

Recommendations

Policy environment for temperature-sensitive commodities

- There is need for more sensitisation of district and facility-level actors about the MoH directive and the guidelines once approved. The MoH should appeal to partners supporting districts to replicate the work done in this pilot, similar to the RHITES-EC program, and support rapid scale-up of oxytocin integration into the vaccine cold chain to improve service delivery of this life-saving commodity.
- As part of the Health Sector Development Plan, the MoH should prioritise guidelines for storage and transportation of temperature-sensitive health commodities that address the system-related issues that influence maintenance of cold chain throughout the supply chain.
- The MoH should review all options for treatment and prevention of PPH, including heat-stable carbetocin, misoprostol, and tranexamic acid as they revise the Uganda Clinical Guidelines (UCG) and Essential Medicines and Health Supplies List of Uganda, planned for 2020.
- The Pharmacy Department and UNEPI shall incorporate oxytocin integration guidelines into the training materials for medicines management and vaccines management

- The National Drug Authority should institute procedures to ensure that private drug outlets (e.g., pharmacies, drug shops, clinics) store oxytocin in the cold chain.

Investments to operationalise the oxytocin integration guidelines and SOPs

- GAVI, UNEPI, and other partners shall ensure procurement of oxytocin storage containers to be placed in vaccine refrigerators with standard labels for oxytocin.
- The MoH should ensure that contracts for last mile distributor(s) provide for cold chain storage and transportation.
- Where oxytocin is not available or there is no cold chain infrastructure, ensure that misoprostol or other alternative uterotonics are available at the health facility.
- A water-proof pocket pouch could the oxytocin stock cards kept on the vaccine refrigerator and the Oxytocin Stock Form in the maternity ward from rapid wear-and-tear and facilitate their use.

Investment in cold chain infrastructure

- There is need for the MoH to assess the additional need for cold chain equipment at the district and health facility levels to guide investments and resource mobilisation to support the proposed implementation. The equipment to be assessed includes refrigerators and back-up power sources, temperature monitor devices, vaccine carriers, ice packs, and record keeping tools.
- There is a need to harmonise criteria for determination of cold storage capacity needs. Currently, the immunisation program allocates refrigerators based on the catchment area served by the facility, while in the wider health system, investments are based on the level of care. As a result, there are HC3s that have smaller vaccine refrigerators than HC2s, where deliveries are less frequent. Furthermore, UNEPI has just completed its five-year review of cold chain storage facilities and written a grant application to procure refrigerators to meet this need. The integration process is an additional pressure on the existing infrastructure and requires additional resource mobilisation
- There is a need for partners to support procurement of oxytocin containers to be used in refrigerators that do not have special containers.
- There is a need to explore opportunities for joint planning for cold chain equipment by UNEPI and nonvaccine cold chain actors, including maternal, newborn, and child health partners. This could explore standardising specifications, installation of back-up power systems, preventive maintenance, and staff training.

Institutionalise oxytocin integration tools

- To institutionalise the tools, the Oxytocin Stock Form and the Cold Chain Equipment Tracker should be included in the health management information system manual. Tools in the manual attract resources for printing and distribution from government and other development partners. In the short term, specifications for printing these tools should be developed for immediate use by partners.
- Ensure that supervision tools and checklists for essential medicines, immunisation, and maternal and child health for use at the national, district, and health facility levels are adapted to include monitoring whether temperature-sensitive commodities such as oxytocin are integrated into the vaccine cold chain.
- Adapt the Supervision, Performance Assessment, and Recognition Strategy (SPARS) tool for essential medicines monitoring to recognise a refrigerator as a store for oxytocin and apply all

typical stock management practices, including availability and updating of stock card and monthly physical counts. We have proposed an oxytocin storage condition indicator for inclusion in the Essential Medicines-SPARS tool.

- Monitor indicators to track oxytocin cold storage.

Immediate Next steps

Activity Description	Responsible	Time frame
Present the oxytocin integration guidelines, tools, and SOPs (including illustrations) for approval by the MoH	MoH	March 2020
Disseminate oxytocin integration guidelines according to the roll-out plan.	MoH, IPs	April 2020
Print and disseminate oxytocin integration tools, SOPs, and illustrated job aids to all health facilities offering delivery services. The tools include the Oxytocin Stock Form (health facility) and the Cold Chain Equipment Tracker (DVS, District Medicines Store)	MoH, IPs	April 2020
Maternal and child health (MCH) Cluster and Medicines Procurement and Management (MPM) technical working group track commitments to and implementation of the guidelines and SOPs and the roll-out plan	MoH (UNEPI, Pharmacy Department, MCH Department)	Quarterly
Incorporate oxytocin integration guidelines into the training materials for medicines management and vaccines management	Pharmacy Department, UNEPI	June 2020
Develop scope of work and secure funding for assessment of the cold chain requirements for oxytocin integration into the vaccine system. This should identify gaps and highlight the short- and long-term recommendations and related costs to close the gap	MoH, UHSC, funding agencies	June 2020
Explore funding for procurement and distribution of standardised oxytocin storage containers with appropriate labels	MoH, USAID	April 2020
Review the SPARS tool for essential medicines to include an indicator on appropriate storage conditions for oxytocin (as an indicator for appropriate storage for temperature-sensitive commodities)	MoH	June 2020
Leverage the work done on oxytocin integration to prepare a justification paper to make a case for the FY 2021–2026 Health Sector Development Plan to address cold chain storage and transportation for temperature-sensitive commodities in the supply chain	MoH	March 2020
Review all options for treatment and prevention of PPH, including heat-stable carbetocin, misoprostol, and tranexamic acid as part of the revision process for the UCG and Essential Medicines and Health Supplies List of Uganda	MoH	June 2020