



Mann Global Health

Delivering Condoms to the Last Mile: Leveraging Data to Enhance Condom Access in Uganda



Case Study
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Uganda's community last mile condom distribution encompasses several promising practices underpinning a people-centred, data-driven initiative aiming to increase access to condoms. GIS mapping of "hotspots" feeding into a central database to drive segmentation of condom distribution points and channels is extending both reach and volumes of highly targeted condom distribution. Creative partnerships with the private sector and technology supporting real-time data collection aligns supply with demand - minimizing potential wastage from overstock of health facilities and stock outs created by poor inventory management. The net result of this effort is increased, convenient access to a lifesaving commodity by priority populations of Uganda.

This case study is part of a series documenting promising and best practices supported by the Global Fund to Fight AIDS, Tuberculosis and Malaria's (GFATM) Condom Strategic Initiative and wider condom programming. While every country and context are unique, our hope is that lessons identified in this work can be drawn on to inspire and inform programs in other countries.

This case study addresses the need to focus HIV prevention interventions and resources to those at highest risk of HIV, including Key Populations (KPs), as outlined in the UNAIDS [Technical Guidance](#).¹

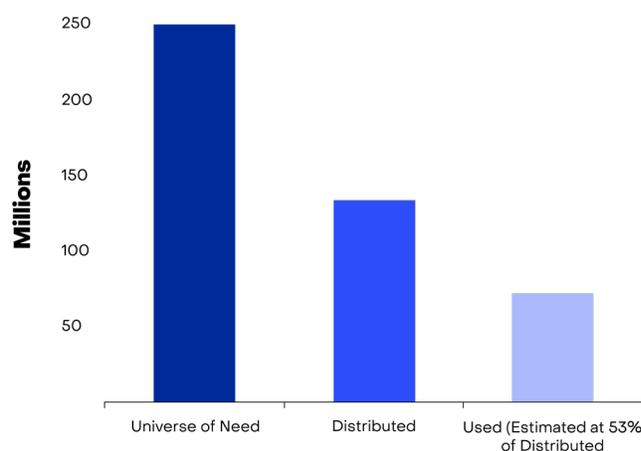
The related case study highlighting the institutionalization of the [Condom Needs Estimation Tool \(CNET\)](#) in Uganda to inform upstream procurement and planning links directly into this work.



Best and Promising Practices

Uganda's Condom Programme – an Overview

Uganda - 2020



Uganda's HIV overall prevalence is 5.5%². Teenage pregnancy rates of 24%³, coupled with high prevalence of STIs⁴ and unintended pregnancies at 46%⁵ continue to be challenges. Despite such alarming statistics, condom use remains low, with worrisome trends in use for high-risk sexual encounters.

Uganda's 2020 universe of need for condoms was approximately 250 million. Annually 134 million (71% of estimated need) condoms

Figure 1. Uganda's Condom Universe of Need, UNFPA, 2020

¹ UNAIDS 2020 Reference, [Developing Effective Condom Programs](#)
² UPHIA, 2021
³ UDHS, 2022
⁴ UDHS, 2016
⁵ PMA, 2022

were distributed to intermediate distribution points and only 53% of these were taken by end users, pointing to **high levels of potential wastage and major gaps in accountability due to inadequate distribution channels beyond health facilities and poor targeting.**

Uganda's condom market has long been dominated by donor procured free-to-user and subsidized social marketing condoms. Of those condoms distributed annually, the National Medical Stores (NMS - the mandated national supply chain system to public health facilities) only has capacity to distribute 20% of the supply nationally. NMS distribution is tracked through the Health Management Information System (HMIS). The remaining 80% of condoms are distributed through the Alternative Distribution Mechanism (ADM) to private facilities, implementing partners, and via community organizations to community hotspots and pick up points during community based activities.

The **ADM was established in 2018** by the Ministry of Health (MOH) for reproductive health commodities, including condoms, in order **to extend distribution beyond health facilities. It is executed and managed through a government contracted private sector national warehouse, currently the Joint Medical Stores (JMS).** This arrangement also includes providing storage facilities of donor procured medicines, supplies and commodities which are distributed by NMS.

By 2020, it became clear that **while the ADM was extending distribution, it didn't have sufficient distribution channels to get to last mile communities, nor did it have adequate mechanisms for tracking or targeting distribution.** COVID-19 control measures implemented during the year also exacerbated the distribution and access challenges. The MOH, JMS and development partners that support Reproductive Health Commodity Security including UNFPA and USAID stepped back to understand the challenges of extending distribution channels to the last mile for key and priority populations.

A consultative process led by the MOH in collaboration with JMS aimed to identify locations where key and priority populations were concentrated and could easily access the condoms at pick points/hotspots. Starting in March 2021, USAID funded a pilot, **The Community Last Mile Distribution Initiative, an innovative solution to distribute condoms directly to mapped hotspots,** distributing over 26 million condoms in just 4 months to more than 14,000 GIS mapped hotspots. Upon a successful phase one, phase two was supported by UNFPA to sustain the distribution.

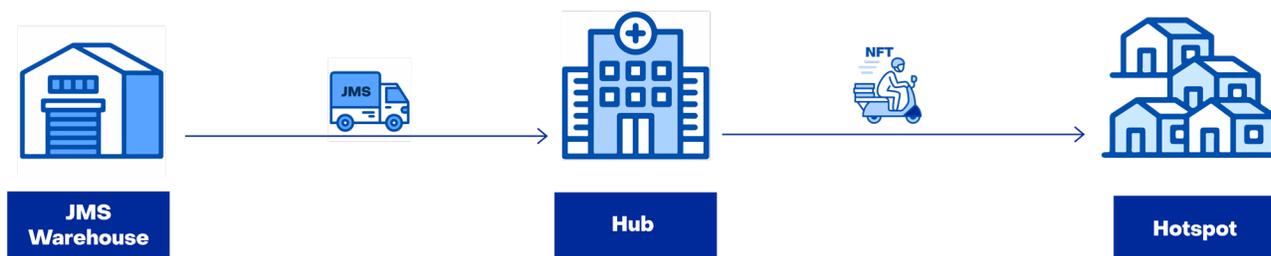
National Condom Distribution Guidelines aligned to people-centred and data-driven approaches were developed, supported by an intervention guide to support last mile distribution by partners. The initiative is now in phase three, having incorporated lessons from the first two phases, including the need for improved data collection and tracking.



Photo: Condom dispenser in a hotspot.

Critical Elements Supporting Last Mile Distribution Initiative

Figure 2. Community Last Mile Distribution Model to Hotspots /User pick points



Mapping Hotspots for targeted distribution:

For the first round of mapping, JMS worked closely with diverse partners including the MOH, district health teams and community-based NGOs that included sex worker groups, youth and concerned community members to conduct an extensive country wide mapping in all districts and cities. During mapping, GIS locations of hotspots and community pick points are uploaded to a central database using the online GIS mapping tool to facilitate stock monitoring, ordering, resupply and replenishment. Basic details and contact focal persons are also collected. Continuous mapping of hotspots is done by District Health Offices (DHOs) on every round of distribution including delisting of the closed hotspots. **Over the last 2 years, the number of hotspots and distribution points in the network has grown, with over 16,000 expected for phase three.**

To ensure institutionalization of the process, a **standard operating procedure for hotspot and pick point identification and mapping** was developed to guide district teams and ensure a uniform approach. The guide clearly illustrates the roles of national and district leadership teams, target populations, and community partners in the process.⁶ Partners included the MOH Condom Coordination Unit, District Health Offices (DHOs), Implementing Partners (IPs), CBOs, and target populations including commercial sex workers, youth groups and community leaders.

District Hub Distribution:

The initiative adopted the hub and spoke model, which fit well with JMS's existing ADM distribution structure of regional branches and district level storage facilities. These facilities became hubs from which the last mile distributors pick condoms to take to remote communities and hotspots as illustrated in Figure 2.

While the phase one pilot had a push system that initially delivered 3,000 condoms to each hotspot, the mechanism evolved to a pull system driven by requests from hotspot focal points to better inform distribution. Based on detailed GIS-informed distribution plans, JMS distributes condoms to district hubs on JMS trucks to all regions in Uganda. JMS sub-contracts NFT, a private sector firm, to oversee distribution from district hubs to last mile hotspots. Local youth "boda bodas" or motor bike taxi riders who work 24/7 are contracted by NFT to undertake last mile distribution of condoms from district hubs to hotspots and community user pick points, capture focal point contact details, and conduct regular follow-up activities to ensure there are no stock outs.

In phase three, JMS plans to take on the distribution in two of the four regions while NFT will continue only in three regions, and the efficiency and effectiveness of each model of delivery will be assessed to determine the best way forward.

Data Collection:

A digital application links information from hotspots in real time. Variables collected include functional status of condom dispensers, the individual focal point supporting re-orders, the GPS-location, and quantity of condoms requested and distributed. The system also aggregates data from partners using their own apps to collect data, which is uploaded to JMS's Condom Logistics Management Information System (CLMIS) to continuously update mapping and refine distribution. JMS's CLMIS then links to the MOH's MIS.

Resupply:

A hotspot/user pick point focal person is critical to managing inventories and placing re-orders via text or telephone. Data is entered into CLMIS in real-time. NFT collects condoms from district hubs and delivers to the designated hotspots on a pull system to limit oversupply and excess inventory, which has been problematic in the past.

Delisting inactive hotspots:

To ensure distribution plans remain up to date, DHOs monitor hotspot data on a monthly basis. If a hotspot is found to be no longer active, it is delisted, using a process set out in the MOH guidance.

⁶ Government of Uganda, Ministry of Health: Guidelines for Identification and Mapping of Condom pick points at last mile within the Communities. July 2023

Accomplishments

Increased condom distribution to last mile hotspots resulted in improved availability and accessibility:

Over 26 million condoms were distributed to 14,175 mapped hotspots across 120 districts in all four regions in the pilot phase in 2021. Phase two expanded distribution to 29 million condoms over three months, while phase three is expected to see site expansion to 16,000 mapped hotspots, achieving national coverage. This targeted distribution to hotspots is expected to continue to average about **10 million condoms per month, roughly half the 19 million condoms distributed every month through the ADM.**

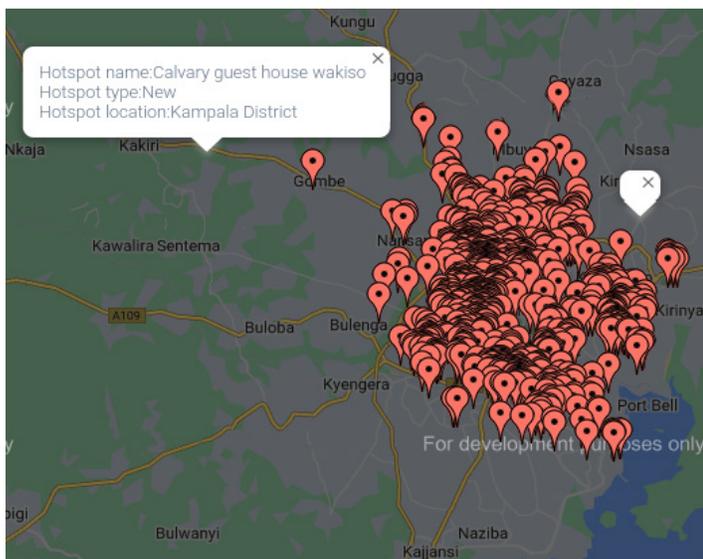


Figure 3. Mapped hotspots in Phase 2

Better data and aligned supply and demand:

New digital data collection tools strengthened condom logistics data management to drive accountability and traceability of condoms across the supply chain. Since the pilot started there are almost **no reports of stock outs** in targeted hotspots because stock levels are monitored closely enabling timely requests for re-stocking.

Improved resource planning and sustainability:

The intervention improved condom availability, accessibility and data tracking without significant additional resources, as it was built from the existing ADM. Transportation costs supporting last mile distribution, including payments and fuel for the motorcycle riders, management and maintenance cost for the online data tracking application, supervision and communication costs, were **estimated at 3% of condom procurement costs**, excluding costs for mapping and data collection. Based on this success and cost analysis, the Permanent Secretary for Health **issued guidance to all**

Development Partners to include the 3% as a standard rate for last mile distribution costs in all future condom procurement, ensuring that all future free condom procurers budget for more effective, data-driven last mile distribution. Lessons learned from the pilot were used to inform **policy supporting the institutionalization of the GIS-mapping approach, enabling national scale up.** The 3% last mile distribution costs and costs for mapping were included in the latest GFATM funding application and the PEPFAR COP'23, and will be included in resource requests moving forward.

Several champions within the MOH, including the Condom Coordinator, and the Uganda AIDS Council, collaborated with development partners and worked on several fronts, including through the Condom Technical Working Group, to ensure this initiative was successful. The MOH has developed an advocacy program for condoms to keep up the momentum.



“The MOH will take it (targeted distribution of hotspots) forward because it is embedded in GC7 (GFATM proposal Round 7).”

- Project Management Unit, GFATM

Keys to Effective Implementation

- **By leveraging the existing ADM** to extend distribution channels to the last mile for key and priority populations, the MOH was able to capitalize on existing infrastructure and systems. Adding the **GIS mapping and a digital data system** enabled targeted distribution to address greatest need, and improve efficiency and accountability.

- **Involvement of national, district and community stakeholders and partners** brought the buy in needed to inform mapping and targeting, support participation and ownership, and effective implementation. **Bringing in private sector partners** resulted in creative, cost-effective solutions for reaching the last mile, such as using bodas-bodas for quick, convenient delivery.
- Designing **data systems that are linked to the MOH MIS** is important. While systems need to be flexible enough to capture data from different implementers and their applications, rolling up into national systems is essential to inform planning and decisions.
- **Basic cost analysis** can ensure distribution costs are appropriately budgeted in condom procurement and GFATM proposals. This costing analysis demonstrated that last mile distribution costs were not as high as expected. **Advocacy by the UN agencies** was important in bringing about the policy shift to include the 3% as a standard rate for last mile distribution.

What's Next

Targeted condom distribution to GIS mapped hotspots through the ADM is now embedded and will remain an integral part of Uganda's ongoing package of interventions to support HIV prevention to be included in all future resource requests. The condom monitoring system is now well established and will be strengthened as the MOH develops an app and national dashboard that will link to DHIS2 and be shared with partners.

Consistent data to track condom use is now important to understand the impact of last mile distribution and other interventions. Further, an assessment of where there is willingness to pay across the hotspots would be important to understand the potential for expanding partnerships with social marketing organisations and commercial distributors to improve sustainability. While there is strong demand in many districts, more active demand creation is required on a continuous basis, which will require ongoing funding.

Suggested Citation

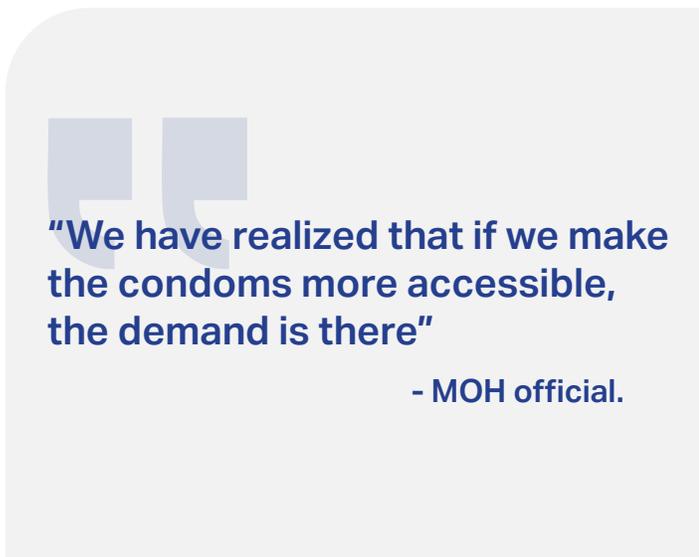
Sarah Gibson, Mann Global Health (MGH); Aasha Pai (MGH); Chris Jones (MGH); Gina Dallabetta (MGH); Lucy Maikweki (MGH); Wilberforce Mugwanya, Program Coordinator, North (UNFPA); Rosemary Kindyomunda, SRH/HIV Specialist, East and Southern Africa Regional Office (UNFPA); Sarah Taratwebirwe, Logistics Management Office (MOH); Ambrose Jakira, Health Product Quantification Specialist (MOH); Namwinda Chintu, Program Advisor, Programme Innovation for Prevention Treatment and Pediatrics (UNAIDS), *Delivering Condoms to the Community Last Mile: Leveraging Data to Enhance Condom Access in Uganda*, January 2024

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Boniface Epoku, Programme Officer, HIV Prevention, MOH; Francis Engwau, Condom Strategic Initiative Manager, UNFPA

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Referenced documents

- Government of Uganda, Ministry of Health: Guidelines for Identification and Mapping of Condom pick points at last mile within the Communities. July 2023.
- [National Comprehensive Condom Programming Strategy & Implementation Plan 2020 – 2025.](#)
- People Centred Condom Programming, September 2022
- Uganda National Condom Distribution Guidelines, May 2022



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