EADSI
East African Drug Seller Initiative

Creating a Sustainable Private-sector Drug Seller Program in Uganda

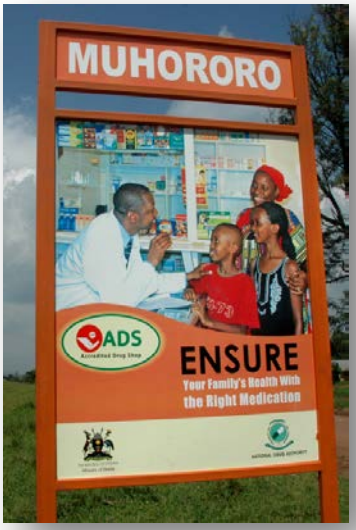
The East African Drug Seller Initiative (EADSI) aimed to increase access to quality medicines and pharmaceutical services in underserved areas through involvement of the private sector. Funded by the Bill & Melinda Gates Foundation through a three-year grant, EADSI built on Management Sciences for Health's (MSH) Strategies for Enhancing Access to Medicines Program, also funded by Gates and which, in collaboration with the government of Tanzania, launched the country's successful accredited drug dispensing outlet (ADDO) program. EADSI's goal was to create a sustainable accredited drug seller model that can be adapted, replicated, and scaled up in underserved regions of developing countries and that will ultimately operate independent of donor support.

Situation in Uganda: Class C drug shops are licensed by Uganda's National Drug Authority (NDA) to sell over-the-counter drug products. However, most also illegally sell prescription drugs, such as antibiotics, and many drug sellers also provide injection services. Although over 40% of the 106 drug sellers interviewed in an EADSI assessment in Mpigi and Kibaale districts in 2008 refused to answer a question about sales of prescription medicines, about 28% of those who responded said they were unaware of the medicines that they were not allowed to stock. NDA has licensed over 5,000 drug shops nationwide, but thousands more may be operating without licenses. Most shops do not use signage to identify themselves as drug sellers, which allows them to evade NDA inspectors more easily. Additional problems include inadequate storage and inventory management; poor record keeping and dispensing practices; and little supervision or oversight of shop operations.

Strategy for Change: The EADSI program worked with national and local stakeholders to develop an accreditation model based on the Tanzanian ADDOs, but adapted to the Ugandan context. NDA, the initiative's lead implementer, in collaboration with the Pharmaceutical Society of Uganda and MSH, selected two districts, Kibaale and Mpigi, to serve as the demonstration and control districts for the new initiative.

The specific objectives in developing Uganda's Accredited Drug Shop (ADS) model were to—

- Increase access to quality essential medicines, particularly in remote areas, through private sector drug sellers
- Strengthen the regulatory monitoring and inspection of drug sellers by national and local authorities
- Improve the quality of drug shop dispensing services through training, accreditation, supervision, and continuing education
- Improve the record keeping practices for medicines sold, including purchases, adverse drug reactions, referrals, and financial and sales records
- Increase drug shop sustainability through business skills training for owners and access to loans to improve premises and expand inventory
- Raise consumer awareness of the need to buy medicines from reliable sources, such as accredited drug sellers



Specific activities included stakeholder development and NDA approval of ADS standards that focus on personnel, premises, dispensing, record keeping, and a code of ethics for owners and sellers. Stakeholders also collaborated to develop training curricula for drug sellers and shop owners, a list of prescription medicines for ADS to sell legally, guidelines for a supportive supervision and inspection system, and a marketing campaign.

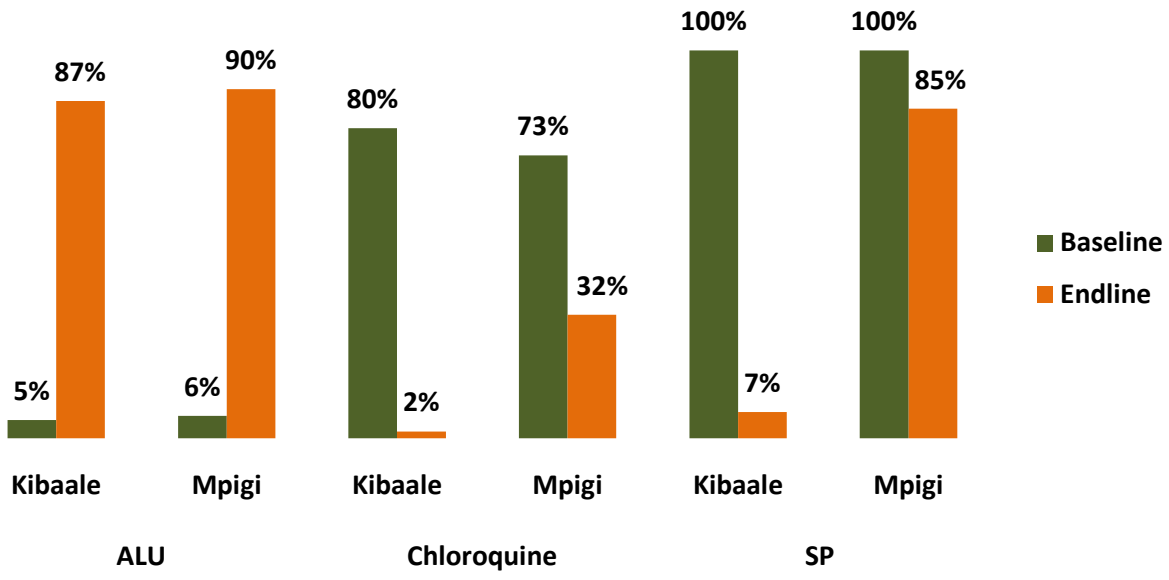
Plot 15, Princess Anne Drive, Bugolobi • Phone: +256414-235038/43 • Fax: +256414-235035

Implementation activities included conducting local sensitization meetings, mapping and inspecting the existing licensed and unlicensed drug shops, and training 246 sellers in good dispensing practices and 82 owners in business practices. In addition, local monitors and supervisory teams received training in the accreditation standards and using checklists. NDA and the local authorities collaborated to assure that ADS had and used dispensing logs, referral forms, and other record keeping and job aids. After a local media campaign to raise awareness, the ADS program was officially launched by the former Minister of Health, Dr. Stephen Mallinga, in November 2009 with a community celebration.

Program Evaluation: EADSI collected qualitative data through stakeholder interviews and focus group discussions with national and local stakeholders, including representatives from 88% of the ADS, district health officials, and central level staff from NDA, Pharmaceutical Society of Uganda, and the Ministry of Health. Data collection in Kibaale and Mpigi used mystery shoppers and shop audits. Endline data was collected in September 2010—10 months after the ADS launch. In addition, EADSI conducted baseline and endline household surveys in Kibaale and Mpigi to assess community health concerns and medicine use behavior.

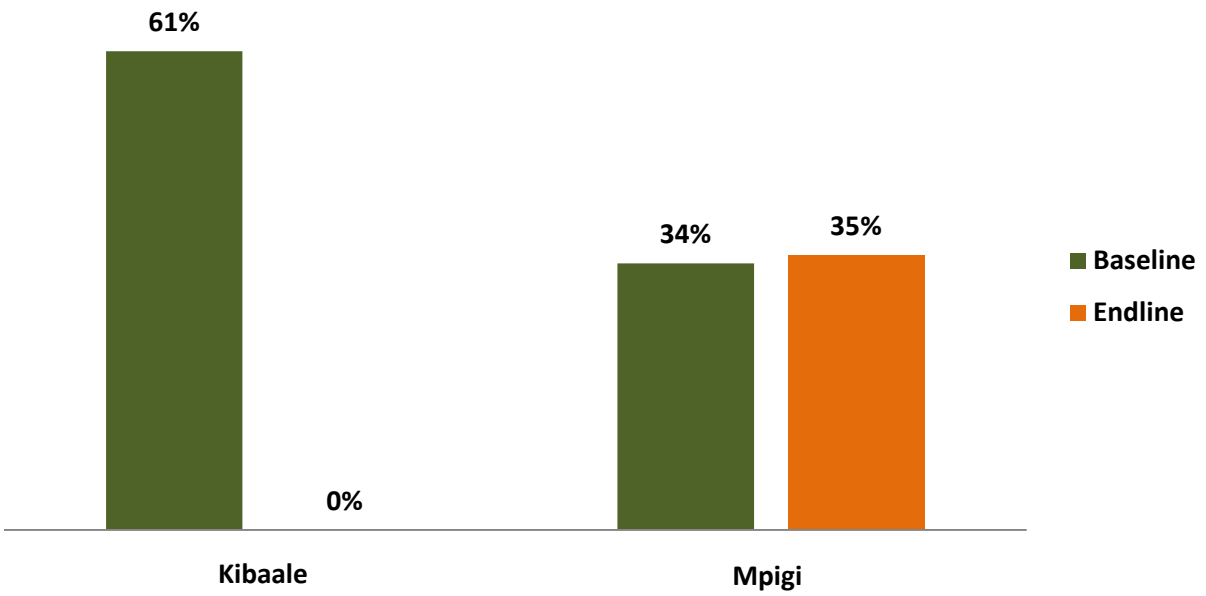
Results: At baseline, Kibaale had 85 licensed Class C drug shops (and over 50 unlicensed shops); 73 (86%) of the licensed shops converted to ADS. In addition, three shops converted to full-service pharmacies, which increased access in the community. At endline, the number of licensed Class C shops had risen to 57 (the 9 licensed shops that did not convert for the pilot and 48 previously unlicensed shops that became licensed during the pilot). The increase in licensing of Class C drug shops indicated shop owners' willingness to progress toward accreditation.
Availability of antidiarrheals. The number of ADS stocking oral rehydration solution (ORS) increased 78% (from 50% at baseline to 89% at endline) and ADS stocking zinc tablets increased from 6% to 62%. The number of drug shops in the control district of Mpigi also experienced smaller increases in antidiarrheal availability (78% to 88% for ORS and 13% to 24% for zinc).
Availability of antimalarials. The chart below shows the evidence of Uganda's push to increase artemether-lumefantrine (ALU) in the private sector in both Kibaale and Mpigi. However, the significant result of accreditation in Kibaale is illustrated through the dramatic decreases in chloroquine and sulfadoxine-pyrimethamine (SP), which are no longer recommended for uncomplicated malaria treatment. Mpigi also experienced moderate reductions.

Percentage of Class C drug shops and ADS with antimalarials available at baseline and endline



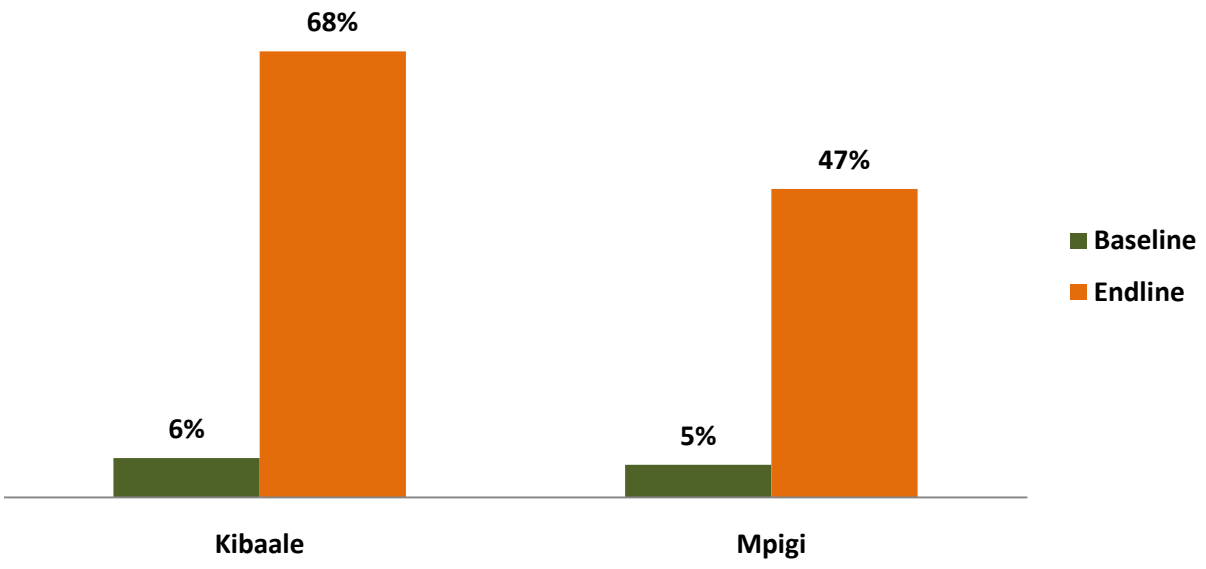
Availability of injectables. Another impressive result is the decrease in availability of injectables at ADS post-pilot. Drug shops are not authorized to sell or provide injections, and yet the baseline data in Kibaale showed that many did. The dispensing training for sellers emphasized the risks of providing injections—a message that they clearly took to heart—and coupled with monitoring and inspection, the availability of injectables in ADS was reduced to zero, while Mpigi remained unchanged.

Percentage of Class C drug shops and ADS with injectables available at baseline and endline



Quality of antimalarial dispensing. Using mystery shoppers, EADSI assessed how well drug sellers dispensed treatment for a simple malaria scenario in a child. The percentage of encounters with appropriate dispensing in Kibaale rose from only 6% at baseline to 68% at endline. Mpigi drug shops also experienced increases in dispensing quality, although to a lesser degree. The positive results in both districts were likely related to the country's efforts to increase the use of ALU.

Percentage of encounters with appropriate malaria treatment



Quality of dispensing services. Dispensing service indicators generally improved after the ADS intervention; however, room for improvement should be addressed in future training. In the baseline and endline evaluations in Kibaale, the percentage of mystery shopper encounters where the drug seller—

- Asked about symptoms—rose from 56% to 64%
- Asked about other medicines the child took—increased from 31% to 64%
- Gave instructions for taking medicines—decreased from 75% to 68%

In addition, the percentage of mystery shoppers who were referred to a health facility increased in Kibaale from 6% at baseline to 15% at endline. Because ADS training should result in drug sellers feeling confident about handling uncomplicated malaria, the referral rate post-pilot should have been zero. In Mpigi, the same indicators of dispensing services either deteriorated or remained unchanged between baseline and endline.

Stakeholder perceptions: Interviews with ADS stakeholders showed general satisfaction with the accreditation concept and implementation process.

The top reason that owners cited for participating in the initiative was the expanded list of allowable drugs for sale legally. The expanded list, which includes select antibiotics, makes a previously illicit activity acceptable. "We no longer have to run away when the inspectors come because we are now allowed to have antibiotics," said an owner from Muhorro village.

Sellers most appreciated increasing their skills to deliver quality services and therefore their social status. A seller from Buronzi village said, "They now refer to us as *abasawo batufu* [true doctor] because we now know what we do, and we are held with high esteem in society."

Kibaale drug shop before…

…and after ADS conversion

ADS owners paid an average of 700,000 Ugandan shillings (~268 U.S. dollars) to renovate their shops to meet accreditation standards. Ninety percent of the owners interviewed felt the cost was worth the investment.

"The customers have now increased; they see the business clean and organized, and we even have most of the medicines they want" —ADS seller in Kasimbi village.

All the shop owners and sellers (n = 64) who were interviewed liked to have inspectors come to their shops saying that they "give us advice that is helpful to the business." This attitude was an abrupt turn-around from what had reportedly been a contentious relationship: "I don't mind NDA or district inspectors. NDA used to be very hostile to us; it's now like eating on the same plate with a lion. They are all very supportive"—ADS owner from Kagadi.

In the community, close to 100% of households surveyed in Kibaale and Mpigi reported that they routinely buy medicines at Class C drug shops or ADS. At baseline, 10% of households in Kibaale reported that drugs shops were their first choice of where to access health care. By endline, that percentage had increased by 160% to 23%. In Mpigi, those who responded "drug shops" increased from 12 to 15%.

Challenges: Stakeholders, particularly shop owners and dispensers, were generally enthusiastic about the initiative, but challenges remain—

- Most shop owners rent their premises (78% of those interviewed). Convincing property owners to do major renovations is difficult. Some shops have been forced to relocate.
- Financial institutions focus on other sectors (e.g., agriculture), so getting a loan is harder for drug sellers; however, 100% (n = 64) of the owners interviewed said they faced no challenges to meeting the accreditation standards.
- Customers still want medicines outside the list.
- Customers still demand half doses and unapproved medicines.
- ADS face competition from illegal (unlicensed) sellers.
- More sellers need to be trained, so they can fill openings caused by attrition and the accreditation of new shops.

"When the people come to an ADS outlet, they are told what to do. They ask for some unapproved medicine and the sellers refuse to give it to them after explaining why. But they go to the next drug shop (nonaccredited) and get the medicine there'' –ADS owner from Kasamba.

"The jingle that was broadcast on the radio needs to be changed because already people know about ADS, they now need to be told about how to use the medicines and to listen to what the ADS sellers tell them" —ADS seller in Karuguuza.

The Future of ADS. In August 2011, additional training will be held for about 60 dispensers who will work at the 34 ADS that are awaiting accreditation and at existing shops that need additional dispensers. The new accreditations will bring the total number of ADS to over 100 in Kibaale district.

EADSI commissioned a business and profitability analysis from a consultant who reviewed the ADS business model and made recommendations for how the model can be strengthened to assure sustainability. Recommendations included broadening the type of products that ADS offer (such as cosmetics) to reduce strict reliance on medicine sales; participating in community health and welfare initiatives; and becoming involved with health insurance schemes, if they are available in the community.

NDA budgeted for sensitization and supportive supervision activities for Kibaale, and local authorities in Kibaale are planning to continue the initiative. For example, the Kibaale Secretary of Health said about the ADS initiative, "ADS is very good, we are now budgeting for it in our integral activities for health. We pay staff to do support supervision for ADS, which we used not to do. We also facilitate by giving them transport. Even in our sensitization and mobilization activities, ADS is now included. If you look at our meeting minutes notes you can see ADS featured strongly. ADS has really helped our people supplement the government in provision of quality health services. We are proud of it and I am extremely satisfied with the ADS implementation in Kibaale."

A new Gates Foundation-funded program, Sustainable Drug Seller Initiatives (SDSI), builds on EADSI. One of SDSI's objectives is to enhance the ADS program's long-term sustainability, contributions to community-based access to medicines and care, and ability to adapt to changing health needs and health system context.