

CAN ADDO ACCOMPLISHMENTS BE SUSTAINED? THE TANZANIA EXPERIENCE SEVEN YEARS LATER

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Abstract (1)

Problem Statement: In 2003–2004, the accredited drug dispensing outlet (ADDO) program was piloted in Tanzania's rural Ruvuma region, which had few pharmaceutical services. The program focused on training and supervision to improve dispensing practices at retail outlets and regulatory enforcement to assure quality. The pilot evaluation showed improved access to affordable quality medicines and pharmaceutical services, particularly related to managing common conditions, such as malaria. However, a major question has been the sustainability of these improvements.

Objective: To determine if ADDOs in Ruvuma have maintained the availability of quality products and services and profitability seven years after implementation.

Design: Quantitative data collection through a price and product availability survey and a mystery shopper exercise (five-year-old child with uncomplicated malaria). The results were compared with the ADDO pilot results from 2002 and 2004.

Setting: Thirty randomly selected ADDOs in Ruvuma that opened during the pilot in 2003 and were still operating in 2010.

Outcome measures: Percentage availability and median prices of tracer products, percentage of unregistered products available, and indicators on dispensing services for malaria

Abstract (2)

Results: Average availability of select antibiotics in Ruvuma in 2010 was 70% compared with 77% at endline in 2004 and 45% in 2002. No unregistered products were found in 2010 compared to 2% in 2004. The average median price for a market basket of antibiotics compared with the International Price Guide showed virtually no difference between 2004 and 2010 (+15% compared with +16%). The percent of encounters where malaria cases were treated according to national standard treatment guideline rose to 63% in 2010 compared to 24% in 2004 and 6% in 2002. In terms of dispensing practices, the percentage of mystery shopper encounters where the drug seller:

- Asked about symptoms—rose from 48% in 2004 to 53% in 2010
- Asked about other medicines the child took—decreased from 54% in 2004 to 43% in 2010
- Gave instructions for taking medicines—increased from 60% in 2004 to 77% in 2010
- Recommended a referral to a doctor or clinic—decreased from 52% in 2004 to 27% in 2010
- All of the owners reported that they made a profit, with 64% averaging a profit of 50,000–500,000 Tanzanian shillings per month.

Conclusions: With minimal additional training and supportive supervision since the pilot, the 2010 assessment showed that overall, the quality of dispensing services in Ruvuma ADDOs has actually improved since 2004. Declines in referral for simple malaria indicate ADDO dispensers' increased ability and confidence to manage simple malaria. Median prices compared to the International Price Guide increased 1% between 2002 and 2010.

Funding Source: Management Sciences for Health/East African Drug Seller Initiative funded by a grant from the Bill & Melinda Gates Foundation



Background

- The ADDO program started as a collaborative initiative between the Tanzania Ministry of Health and Social Welfare through TFDA and MSH with support from Bill & Melinda Gates Foundation
- The program transformed existing part two drug shops (duka la dawa baridi) into government-accredited ADDOs through standard setting, training, incentives, and regulatory enforcement
- Piloted in Ruvuma region from 2003–2004, the evaluation showed improved access to affordable quality medicines and pharmaceutical services
- Since 2003, dispensers received limited refresher trainings or supportive supervision
- Other programs provided training over the years; for example, dispensing artemisinin-based combination therapies and management of sick children with focus on Integrated Management of Childhood Illness



Objective

To determine if ADDOs in Ruvuma have maintained improvements in product availability service quality seven years after original program implementation

Methodology (1)

Quantitative data collection in Ruvuma region in 2010 which included—

- Price and availability of tracer medicines in 30 randomly selected ADDOs opened during pilot in 2003 and still operational in 2010
- TFDA registration status of tracer medicines (as a proxy for quality) in the 30 randomly selected ADDOs
- Mystery shopper scenario of a 5-year-old child with simple malaria in 60 randomly selected ADDOs (different than the 30 ADDOs selected for product surveys) opened during pilot and still operational in 2010

- Results compared with results from the 2002 (baseline) and 2004 (endline) data collections from the pilot evaluation

- Sustainability assessed based on profitability (owner interviews) and number of outlets that maintained operations from 2004 to 2010 (record review)

Methodology (2)

Availability, price, and product quality indicators

Percentage of average availability of tracer medicines
Average median price of products compared with international drug prices
Percentage of unregistered medicines found in ADDOs

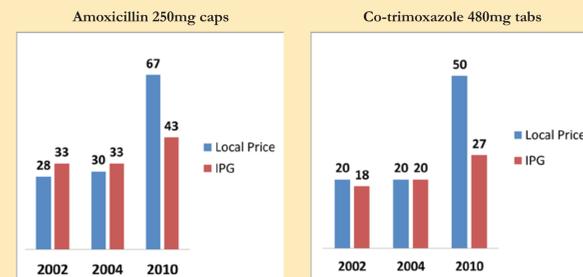
Quality of dispensing services indicators

- Percentage of encounters in which the appropriate first-line antimalarial medicine was dispensed consistently with standard treatment guidelines (STGs) for malaria
- Percentage of encounters in which the attendant provided instructions on how to take the medication
- Percentage of encounters in which the attendant asked about the symptoms of the child
- Percentage of encounters in which the dispensers asked about other medicines the child took
- Percentage of encounters in which dispensers recommended a referral to a doctor or clinic



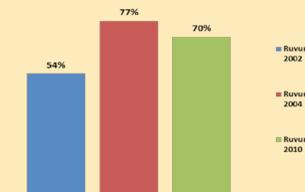
Results: Price

Average Median Unit Price (TZS) for Selected Products Compared to International Price Guide (IPG)



Results: Availability

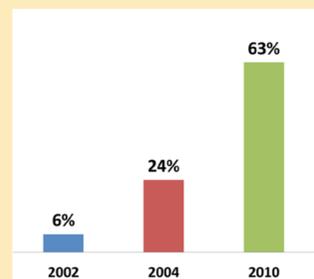
Average Availability of Antibiotics 2002–2010



All medicines assessed in the ADDOs in 2010 were registered by TFDA compared to 98% in 2004 and 74% in 2002

Results: Service Quality (1)

Percent of Drug Outlets Dispensing Appropriate Malaria Treatment



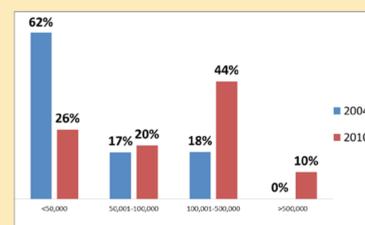
Results: Service Quality (2)

Did the drug seller—	2004 (%)	2010 (%)
Ask about symptoms?	48	53
Ask about other medicines the child took?	54	43
Give instructions on how to take the medicine?	60	77
Recommend referral to a doctor or clinic?	52	27

Results: Profitability

Owner Reported Monthly Net Profit in Ruvuma 2010

83% (176/210) of ADDOs opened in 2003 are still in operation
The 17% that closed did so mainly due to loss of qualified dispensers.



Conclusions

- ADDOs are sustainable with most original accredited shops still open for business and profitable
- ADDO owners and dispensers show willingness to contribute to costs of accreditation, including training; this contributes independence from donor support
- With minimal additional training and supportive supervision since 2003, the quality of dispensing services in Ruvuma ADDOs has actually improved
- Declines in referral for simple malaria indicate ADDO dispensers' increased ability and confidence to manage simple malaria
- Product price increases did not appear to negatively impact customer base
- ADDOs can be used as a platform to increase access to public health interventions which improves the community's health, dispensers' capacity, and ADDO sustainability

Policy Implications

- Health authorities, including regulatory enforcement bodies, recognize and accept that ADDO services contribute to national health policy and public health goals
- Having regulations, guidelines, standards, and a functional enforcement system for private sector outlets results in sustained product and service quality.

