



Demand Generation

Adapting the Demand Generation Implementation Kit for Underutilized, Life Saving Commodities: HC3 Case Study Series

February 2017

Improving Community Access to Amoxicillin Dispersible Tablets and Co-Pack Oral Rehydration Salts and Zinc through Accredited Drug Dispensing Outlets in Tanzania

National data shows that malaria, diarrhea and pneumonia are the major causes of mortality in Tanzania among children under five. As part of the child survival call to action, the government of Tanzania has committed to prioritizing child health and reducing child mortality to 20 deaths per 1,000 live births by 2035. This commitment includes a specific focus on ending preventable deaths from pneumonia and diarrhea. As a pathfinder country under the United Nations Commission on Life-Saving commodities for Women and Children (UNCoLSC), Tanzania has developed a plan to improve access to 12 lifesaving commodities to help meet their child mortality targets, including specific activities related to oral rehydration salt (ORS), zinc tablets and Amoxicillin dispersible tablets (DTs).

To support Tanzania's efforts to reduce child mortality due to pneumonia and diarrhea – and achieve Millennium Development Goal 4 – the United Nations International Children's Emergency Fund (UNICEF) has supported the Tanzanian Ministry of Health, Community Development, Gender, Elderly and Children (MoHDGEC) to increase the availability and appropriate use of Amoxicillin DT and co-pack ORS/Zinc as first-line drugs of choice to treat those conditions. While UNICEF has supported activities in the public sector, various studies have shown that over 40 percent of Tanzanians use private retail drug outlets when seeking health care services. Most of the public health facilities in Tanzania experience frequent drug stock outs, forcing clients to visit private drug retail outlets to fill their prescriptions. Therefore, it is important to ensure these lifesaving commodities are made available in the private sector too.

Program Description

In March 2016, the Pharmaceutical Society of Tanzania (PST) received a grant from the Demand Generation Technical Working Group of the UNCoLSC to support its mission to improve access to new products – Amoxicillin DTs and co-pack ORS/Zinc respectively – to treat childhood pneumonia and diarrhea. To accomplish this goal, PST collaborated with the MoHDGEC Reproductive and Child Health (RCH) Unit to create awareness of the products and thus increase their uptake. PST implemented these efforts as a five-month project in five target districts in the coastal region of Tanzania: Pwani (including Mkuranga), Rufiji, Bagamoyo, Kisarawe and Kibaha.



R&CHMT members taking notes during sensitizations

Project implementation was carried out through:

- Consultative meetings with identified key stakeholders
- Adaptation of training and sensitization materials, and a mobile technology platform for reporting on the products
- Orientation of R&CHMTs and training of ADDO dispensers and owners on the products
- Sensitization meetings with district health teams and suppliers
- Physical and remote monitoring of availability and dispensing of the products

PST, in partnership with the RCH Unit and ITIDO, oriented Regional and Council Health Management Teams (R&CHMTs) and trained accredited drug dispensing outlet (ADDO) dispensers and owners on the new formulation of Amoxicillin DTs – the recommended first-line drug of choice for the treatment of pneumonia – and introduced the use of ORS/Zinc as a co-pack product to treat diarrhea. To ensure Amoxicillin DTs and ORS/Zinc co-packs were stocked in ADDOs, and R&CHMT were being effectively involved in promoting their use in health facilities, PST implemented monitoring activities consisting of physical supervisory visits to outlets and remote electronic monitoring.

Following these roll out activities, PST continued to provide on-the-job training to ADDO dispensers to further strengthen their knowledge and skills. Moreover, PST conducted meetings with R&CHMTs and local distributors during supervisory visits to continue advocating for their

roles and responsibilities around ensuring the products were made available in health facilities and that ADDOs were promoting prescription writing from practitioners. Supervisory visits were also used for data collection to monitor whether or not the project was achieving its objective to improve the uptake of these newly recommended products.

Implementation Challenges

Challenges arose during the project's implementation, including the limited availability of the products due to the limited number of distributors and suppliers, and the inadequate availability of prescriptions from health facilities. Typically, Amoxicillin, regardless of its dosage, requires a prescription from a medical practitioner in order to be issued by ADDOs. Thus it was expected that R&CHMTs would play their role to influence changes in clinician behavior to prescribe Amoxicillin DT, per the recommended treatment guidelines for pneumonia and diarrhea. The ADDO owners also seemed hesitant to stock large quantities of the products to avoid expiry since they consider them to be slow-moving and not yet known to the community at large. Another important challenge the supervisors encountered was the issue of price; the products were found to be sold at a slightly higher price than the old formulation, which was contrary to project expectations. The supervisors worked with the ADDO association leadership, who advised their members to not inflate the price, which would help to make the product affordable. It was commonly known that the ADDOs were buying Amoxicillin DT from suppliers at a reasonable price (around 70 cents) and selling it for a much higher one (200 cents). This price was unaffordable for many consumers, which forced them to continue purchasing the old formulation.

Accomplishments

- **Consultative Meetings with Key Stakeholders**

Before implementation began, PST held a number of consultative meetings with identified stakeholders (i.e., the pharmacy council, RCH Unit and drug suppliers and



ADDO dispensers and Owners listen to facilitators during training

manufacturers) to introduce the project and solicit ideas on how it could be implemented.

PST staff also visited two pharmaceutical suppliers, Moraf Pharmacy and Salama Pharmaceuticals, who were World Health Organization (WHO) pre-qualified importers and suppliers of the lifesaving products in the country. It was found that neither of these importers had the co-pack ORS/Zinc or imported it. It was therefore decided that a meeting with the pharmaceutical manufacturers was needed to explore the status of the ORS/Zinc co-pack supply status.

- **Adaptation of Training and Sensitization Materials and the Mobile Technology Platform**

PST adapted training and sensitization materials on how to manage Amoxicillin DT and ORS/Zinc co-packs. The materials included information on how Amoxicillin DT is more effective than Amoxicillin syrup, and why the ORS/Zinc co-pack is a more effective product than ORS alone.

In addition, the mobile technology platform was adapted and used to monitor the new products through a mobile phone short message service (SMS) reporting mechanism. The existing drug register currently used in the ADDOs was also customized to include standard operating procedures (SOP) to assist dispensers correctly gather information and compile reports on project indicators.

- **Training and Sensitization Meetings with ADDO Dispensers, R&CHMTs and Suppliers**

The training and sensitization meetings were both meant to promote recent changes in treatment guidelines, particularly those related to the management of pneumonia. They were also used as avenues to implement the demand creation strategy, aiming to increase uptake of the products; the training sessions were used to enlighten and create awareness among ADDO owners and dispensers on the availability of Amoxicillin DT in the market to treat pneumonia and Zinc/ORS co-packs to treat diarrhea.

The mobile technology application was also introduced to ADDO dispensers during these training sessions. Instruction was given on how to correctly generate reports on services



ADDO dispensers and Owners listen to facilitators during training

and stock availability according to project indicators and then submit them through the use of mobile phone SMS.

A one-day advocacy meeting was organized with R&CHMTs to inform them about the availability of the new formulation of Amoxicillin DT recommended for pneumonia treatment and co-pack Zinc/ORS for diarrhea. A majority of the participants did not know about the availability of these products in the market. Some confessed they had heard of the newly recommended treatment guideline but had never actually seen the product.

The sensitization meetings were used to promote the availability of the new products to local distributors and link local pharmaceutical distributors with the pre-qualified pharmaceutical importers located in Dar es Salaam. As a demand creation strategy, both pharmaceutical importers and local distributors were invited to the training sessions to meet the ADDO owners and dispensers, the main consumers of the products.

- **Monitoring and Supportive Supervision**

To ensure the two products were available and appropriately used, it was important to establish mechanisms to track their movement from the national level to the local (or ADDO) level, and provide onsite support to ADDOs to strengthen their dispensing capacity. Supportive supervision was designed as a follow up to the training, aiming to provide on-the-job support to ADDO dispensers to strengthen their knowledge and skills in dispensing and reporting on the availability of the product. Furthermore, supportive supervision was used as a data collection activity for project monitoring purposes. Physical and remote support were used to address the challenges dispensers faced related to the dispensation of Amoxicillin DT and co-pack ORS/Zinc. Tools were also developed to ensure that supportive supervision activities are conducted effectively. For example, a standardized supervision checklist was developed to assess the availability and use of Amoxicillin DT and Co-pack ORS/Zinc in ADDOs and the local market where ADDOs are situated.

One round of physical supervisory visits was conducted within one month of the training and sensitization meetings. The visits covered all five districts – 212 ADDOs were visited and interviews were conducted with 10 R&CHMT members and five pharmaceutical distributors.

The following were observations made during the two supervision visits:

- **Availability of Amoxicillin DT.** Before implementing the intervention, none of the drug outlets had Amoxicillin DTs. Therefore, sensitization meetings and trainings had created demand for the product. Results showed the availability of Amoxicillin DT was improved, with an overall average availability of 40 percent in all five districts – 36.3 percent in

Mkuranga, 42.2 percent in Rufiji, 47.7 percent in Kibaha, 45.5 percent in Bagamoyo and 43.2 percent in Kisarawe.

- **Availability of co-pack ORS/Zinc.** Similarly, data obtained during the supervision visits showed the availability of co-pack ORS/Zinc was very low in all districts, ranging from 2.3 percent in Mkuranga, 3.3 percent in Rufiji, 3.2 percent in Kibaha, 1.2 percent in Bagamoyo and zero percent in Kisarawe.
- **Percentage of parents presenting prescriptions to ADDOs for dispensation.** Since Amoxicillin DT is a medicine that requires a prescription from authorized medical practitioners, it was important to collect information related to prescriptions received in ADDOs containing Amoxicillin DT. During the supervisory visit, results showed that the percentage of clients who went to the ADDOs with prescriptions on Amoxicillin DT or ORS/Zinc co-pack was slightly increased in all districts – 25.9 percent in Mkuranga, 34.6 percent in Rufiji, 48.1 percent in Kibaha, 40.8 percent in Bagamoyo and 35.3 percent in Kisarawe.
- **R&CHMT roles on improving access to Amoxicillin DT and co-pack ORS/Zinc.** The R&CHMT members were visited and interviewed during the supervisory visit since they were sensitized on the new formulations for Amoxicillin DT and co-pack ORS/Zinc. The interviews confirmed that all members are well informed about the new formulations and they confirmed the formulations were being stocked in their public health facilities, albeit at a very slow pace. However, there had been difficulty ordering the products, as the new formulations were not in the MSD catalogue, causing a delay in distributing the new formulations to public health facilities. However, the distribution had started by the time supervision began.



A drug register embedded with information on how to compile and send a report

- **Remote monitoring of product availability.** Remote monitoring was performed with the help of the mobile phone application, enabling the ADDO dispenser to compile and send monthly reports on the availability and use of the two products. Dispensers received follow-up phone calls and reporting reminders through SMS, helping them adhere to reporting periods. Four 30-day reporting periods (from late May until mid-September 2016) were used to aggregate data from ADDOs. The reporting cycles were introduced to assess trends on targets reached and challenges that needed to be addressed for the project to achieve its objectives.

The graph below illustrates how ADDOs were reporting on the availability of Amoxicillin DT and co-pack ORS/Zinc by district, and the overall availability of both products. The reporting rate was initially high but began to decline later in the project, partly because the SMS reminder message was going to the ADDO owners and not directly to the dispensers, delaying communication with the dispensers. Dispensers were not reporting the availability for various reasons, such as the absence of the FIN number (which is necessary for sending reports), not having a drug register or having forgotten/not been trained on the reporting process. The overall availability of the two products also fluctuated during the project period. Immediately after the trainings, the ADDOs started to procure the products, despite their limited availability. In the first and second reporting period, fewer ADDOs appeared to have stocked and sold Amoxicillin DT. In the third reporting cycle, many ADDOs stocked and sold the product since ITIDO communicated with each shop and followed up on their stock status. However, a sharp fall in availability was later observed. This change was due to various factors, including the limited availability of the products due to fewer distributors/suppliers; clients'

difficulty obtaining prescriptions for Amoxicillin DT from health facilities; and ADDO owners being hesitant to stock large quantities of the products since they were still considered to be slow-moving items.

- **Interviews with local pharmaceutical distributors and wholesalers about improving the availability of Amoxicillin DT and ORS/Zinc co-pack.** Local pharmaceutical distributors and wholesalers were interviewed by project supervisors during follow-up visits to verify the stock status for products. Results showed that a majority of the wholesale pharmacies/owners in all regions had information about the availability of the new formulations. However, on average, about 40 percent of those interviewed said there was still not enough demand for the new formulations.

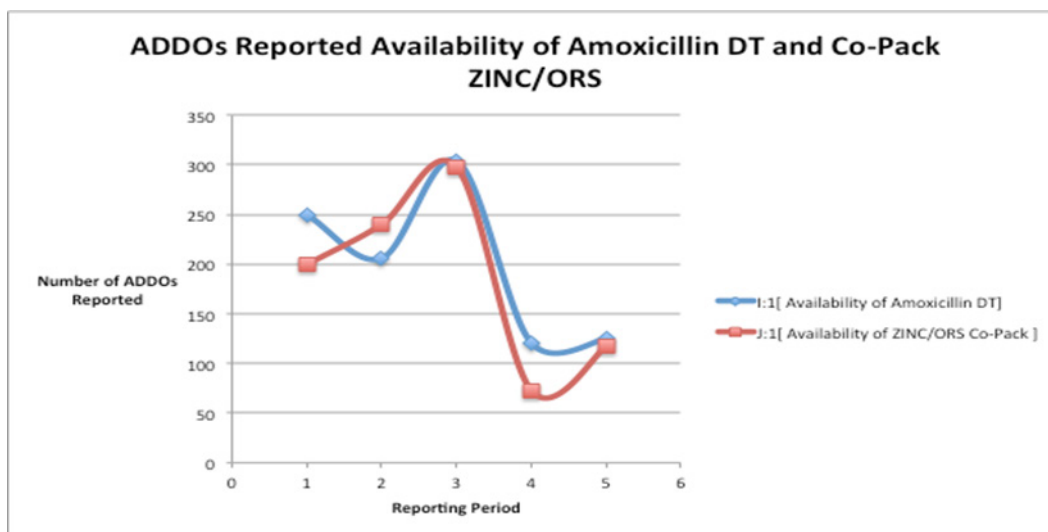
Project Outcomes

The project was carried out for five consecutive months, from April to September 2016, and results were reported from late May to mid-September 2016. The intervention produced the following outcomes:

- A total of 505 ADDO dispensers received refresher training on the products, of which a majority (about three quarters) were female
- A total of 40 R&CHMT members were sensitized on the use of Amoxicillin DT and co-pack ORS/Zinc
- Over 305 ADDOs and 12 pharmacies were implementing the intervention
- About 212 or 69.5 percent of ADDOs were visited during physical supervisions

Lessons Learned

- Introduction of any new product requires the efforts of multiple stakeholders and should include a high level of advocacy at all levels.



- R&CHMT is challenged by its limited resources to carry out frequent supervision activities for health facilities and drug outlets. This hinders their ability to effectively execute their responsibilities.
- Sensitizations and trainings alone will not ensure success. Therefore, a component of follow up and supportive supervision should be embedded within monitoring initiatives to supplement initially imparted knowledge and skills.

Recommendations

- Expand the supply chain of the products to increase their availability and reach at an affordable price
- Changes in treatment guidelines should go hand-in-hand with building the capacity of implementers, and enforcement of adherence to guideline changes should follow immediately to ensure fulfillment of the desired objectives
- Stakeholder collaboration and commitment is important when implementing such multifaceted interventions

Conclusions

PST successfully introduced the lifesaving products through the ADDO platform despite many challenges, achieving its objective to support the mission of the UNCoLSC. This project shows that the private sector can forge reliable partnerships to support government efforts to improve the quality of health care services, including improved community access to essential medicines.

Resources

- [Every Woman, Every Child](#)
- [Demand Generation I-Kit for Underutilized, Life Saving Commodities](#)

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