

## **Refresher Training of ADDO Dispensers in the Revised Diarrheal Disease Management Guidelines and Reproductive Health Products, Ruvuma, Tanzania, February 9–24, 2009**

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This report is made possible by the generous support of the American people through the U.S. Agency for International Development (USAID), under the terms of cooperative agreement number GHN-A-00-07-00002-00. The contents are the responsibility of Management Sciences for Health and do not necessarily reflect the views of USAID or the United States Government.

## **About SPS**

The Strengthening Pharmaceutical Systems (SPS) Program strives to build capacity within developing countries to effectively manage all aspects of pharmaceutical systems and services. SPS focuses on improving governance in the pharmaceutical sector, strengthening pharmaceutical management systems and financing mechanisms, containing antimicrobial resistance, and enhancing access to and appropriate use of medicines.

## **About POUZN**

The mission of the Point-of-Use Water Disinfection and Zinc Treatment (POUZN) Project is to implement a diarrhea reduction project using point-of-use (POU) water disinfection and zinc treatment, thereby contributing to the reduction of mortality and morbidity from diarrhea. The project ensures long-term sustainability of zinc and POU by expanding production and sales of products within targeted countries.

## **About T-MARC**

The Tanzania Marketing and Communications (T-MARC) Company Ltd. is an independent Tanzanian-owned and run organization registered in Tanzania as a not-for-profit business limited by guarantee. T-MARC Company works with Tanzanian businesses to develop or expand markets for health products for HIV/AIDS prevention and care, family planning, child survival, and infectious diseases that will achieve a demonstrable and sustainable health impact.

## **Recommended Citation**

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Kimatta, S., et al. 2009. *Refresher Training of ADDO Dispensers in the Revised Diarrheal Disease Management Guidelines and Reproductive Health Products, Ruvuma, Tanzania, February 9–24, 2009*. Submitted to the U.S. Agency for International Development by the Strengthening Pharmaceutical Systems (SPS) Program. Arlington, VA: Management Sciences for Health.

## **Abstract**

Management Sciences for Health's SPS Program collaborated with the POUZN Project and T-MARC to plan and implement refresher training sessions in the Ruvuma region. The sessions oriented 211 Accredited Drug Dispensing Outlet (ADDO) dispensers, 16 Council Health Management Team members, and 9 cascade supervisors of health zones on the revised diarrheal disease management guidelines, which include zinc treatment, the appropriate use of selected reproductive health products, and the current monitoring and evaluation system for the ADDOs.

## **Key Words**

accreditation, child health, diarrheal disease, private sector, reproductive health, Tanzania, zinc

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## ACRONYMS

ADDO	accredited drug dispensing outlet or <i>duka la dawa muhimu</i> in Swahili
ALu	artemether-lumefantrine
CHMT	Council Health Management Team
COC	combined oral contraceptive
IMCI	Integrated Management of Childhood Illness
MoHSW	Ministry of Health and Social Welfare
MSH	Management Sciences for Health
ORS	oral rehydration salts
POUZN	Point-of-Use Water Disinfection and Zinc Treatment [Project]
SPS	Strengthening Pharmaceutical Systems [Program]
T-MARC	Tanzania Marketing and Communications Company Ltd.
TFDA	Tanzania Food and Drugs Authority
UNICEF	United Nations Children's Fund

## ACKNOWLEDGMENTS

The training of Accredited Drug Dispensing Outlet (ADDO) dispensers in the revised diarrheal disease management guidelines and reproductive health products in the Ruvumia region of Tanzania was supported with funds from the U.S. Agency for International Development through the Point-of-Use Water Disinfection and Zinc Treatment Project, the Tanzania Marketing and Communications Company, and the Strengthening Pharmaceutical Systems Program.

Special thanks go to—

- All the ADDO dispensers and owners in the Ruvumia region
- The regional, district, ward, and village authorities in Songea Municipal, Songea Rural, Namtumbo, Tunduru, and Mbinga districts

## BACKGROUND

The Ministry of Health and Social Welfare (MoHSW), through the Integrated Management of Childhood Illness (IMCI) unit in Tanzania, has revised the national recommendations for the management of diarrhea for children under five to incorporate both zinc treatment and low-osmolarity oral rehydration salts (ORS) in accordance with the revised recommendations issued in 2004 by the World Health Organization/United Nations Children's Fund (UNICEF). The MoHSW is collaborating with stakeholders in country to implement the revised recommendations in the public and private sectors and to make zinc treatment and low-osmolarity ORS more accessible to the population.

UNICEF has procured zinc sulfate tablets (20 milligram) from Nutriset, and the zinc tablets have begun to be distributed to public health facilities and those operated by faith-based organizations. The Medicines Stores Department, the central medical store in Tanzania, has also procured zinc locally produced through Shelys Pharmaceuticals Limited. The Tanzania Food and Drug Authority (TFDA) has registered locally manufactured zinc.

To increase accessibility to and use of zinc treatment and low-osmolarity ORS in the private sector, the Strengthening Pharmaceutical Systems (SPS) Program of Management Sciences for Health (MSH) collaborated with the TFDA, the Point-of-Use Water Disinfection and Zinc Treatment (POUZN) project, and the Tanzania Marketing and Communications (T-MARC) Company to plan and implement refresher training sessions for dispensers of the Accredited Drug Dispensing Outlet (ADDO) program who did not receive training on the updated diarrheal disease management guidelines. The current ADDO training package has been updated with the revised guidelines; however, dispensers in four regions (Morogoro, Mtwara, Rukwa, and Ruvuma) received the standard ADDO training before the diarrheal disease management module was updated to include zinc treatment. Therefore, these regions were targeted to receive the refresher session.

The key components of the three-day refresher session for ADDO dispensers include an overview of (a) the updated management of diarrhea guidelines for children under five, including the use of low-osmolarity ORS and zinc treatment; (b) appropriate dispensing practices for reproductive health products, including combined oral contraceptives (COCs); and (c) a summary of the ADDO monitoring and evaluation system.

In September 2008, the refresher session was provided to 395 ADDO dispensers and 9 cascade supervisors in the Morogoro region. In February 2009, the refresher session was extended to 211 ADDO dispensers, 16 Council Health Management Team (CHMT) members, and 9 cascade supervisors of health zones in the Ruvuma region. There are plans to extend the refresher session to the remaining regions that have implemented the ADDO program (Mtwara and Rukwa) during the next quarter.

## DESCRIPTION OF TRAINING

The refresher session included ADDO dispensers from all five districts of Ruvuma region (Songea Municipal, Songea Rural, Namtumbo, Tunduru, and Mbinga) and was conducted from February 9–24, 2009.

Specific points covered during the session included—

- General danger signs and symptoms related to diarrhea
- Proper practices for managing diarrhea based on IMCI guidelines
- Benefits of using low-osmolarity ORS together with zinc in treating diarrhea in children
- Appropriate preparation and use of low-osmolarity ORS
- Appropriate dispensing practices and administration of zinc treatment
- Use of selected oral contraceptives for family planning
- Filling in and submitting monthly report forms
- Referral and how to fill in referral forms with feedback and patient registers

### Methodology

An interactive and participatory method was used to facilitate the sessions. It included short lectures to introduce the topic, followed by active discussion with the participants; group assignments; pre- and posttests; job aids; and monthly report forms.

The first refresher session was held in Songea Municipal District and served as an orientation for national-level facilitators to become accustomed to the standard format and content of the refresher session. Dr. Kimatta of MSH/SPS oriented the facilitators from both the national and district levels (refer to Annex 2 for a detailed list of facilitators).

District personnel from the region were invited to participate in the refresher sessions, along with cascade supervisors. The responsibilities of the cascade supervisors include monitoring and evaluation of both the public and private health facilities, including the ADDOs, in their respective catchment areas. During the refresher training, the supervisors were exposed to data collection and reporting tools for the ADDO program. Through such training, it is hoped the cascade supervisors will begin to play a more substantial role in tracking data compilation and submission of reports to the district level by the ADDOs.

In total, 211 ADDO dispensers, 16 CHMT members, and 9 cascade supervisors of health zones were oriented on the revised diarrheal disease management guidelines, which include zinc treatment, the appropriate use of selected reproductive health products, and the current monitoring and evaluation system for the ADDOs. Cascade supervisors were also oriented on how to conduct supervisions in ADDOs using a standard checklist.



**Table 1. Total ADDO Dispensers and Supervisors Trained**

District	Number of ADDO Dispensers			Number of CHMT Members			Number of Cascade Supervisors		
	Total	Female	Male	Total	Female	Male	Total	Female	Male
Songea Municipal	74	72	2	3	2	1	0	0	0
Songea Rural	35	32	3	2	0	2	2	2	0
Namtumbo	22	22	0	4	2	2	4	2	2
Tunduru	29	23	6	4	1	3	0	0	0
Mbinga	51	42	9	3	1	2	3	0	3
<b>Total</b>	<b>211</b>	191	20	<b>16</b>	6	10	<b>9</b>	4	5

## Results

The ADDO dispensers completed pre- and posttests to measure their gains in knowledge. On average, test scores improved by 11 percent. Although an 11 percent increase may not seem high, that range was expected because of the nature of the orientation as a refresher with the focus on zinc introduction. The average posttest score was 82 percent. The test covered appropriate referral practices; the appropriate management of diarrhea, including zinc treatment; and key information on appropriately stocking and dispensing reproductive health products. According to the pre-/posttest results, ADDO dispensers increased their knowledge on the appropriate management of children with diarrhea, including the use of zinc treatment.

## MONITORING AND EVALUATION

### Availability of Key Medicines and Products

In addition to the orientation of ADDO dispensers, facilitators conducted supervision visits to a sample of ADDOs. The team was able to collect data on the availability of key essential medicines for children, including low-osmolarity ORS, zinc tablets, artemether-lumefantrine (ALu), and co-trimoxazole (see table 2), as well as a tracer list of reproductive health products (see table 3). The team also checked the medicine registers for completeness, correctness, and timeliness of completion.

**Table 2. Percentage of ADDOs Visited with Available Essential Medicines for Children**

District	Low-Osmolarity ORS	Zinc	ALu	Co-trimoxazole
Songea Municipal (n = 25)	96%	8%	88%	100%
Namtumbo (n = 10)	80%	0	80%	80%
Tunduru (n = 18)	83%	0	78%	100%
Mbinga (n = 28)	93%	4%	89%	96%
Total (n = 81)	90%	4%	85%	96%

The low availability of zinc in the ADDOs was expected because the refresher training that is expected to increase the stocking of zinc in the ADDOs had not yet occurred.

Currently, sulfadoxine-pyrimethamine is still available in the private sector for treating malaria, and its profit margin is larger than that available of ALu (the recommended first-line treatment) with the subsidized prices, which may affect the availability of ALu. In addition, ALu is available only at the wholesale pharmacies located at regional centers; therefore, some ADDOs must travel long distances to purchase ALu, which may make it difficult to restock. Currently, SPS is collaborating with the TFDA to address these challenges.

In addition to the ADDOs, facilitators visited two wholesale pharmacies (Southern Highland Pharmacy and Seven Pharmacy) and three public district health hospitals (Mbinga, Namtumbo, and Tunduru). The pharmacies had the five items well stocked to serve as the main source of medicines and other medical supplies for the ADDOs in the region.

In public health facilities, health workers were not aware of the updated guidelines for treatment of diarrhea with zinc. Although all the district authorities in the region had received the zinc tablet consignment and were actively distributing zinc treatment to the health facilities, none of the districts had plans to conduct an orientation for health workers on the use of zinc because of funding limitations. However, they did distribute printed instructions on the use of zinc to health workers.

**Table 3. Percentage of ADDOs Visited with Available Reproductive Health Products**

Districts	Family Planning Products (by Brand)		Condoms (by Brand)		
	Flexi P	Familia	Dume	Lady Pepeta	Salama
Songea Municipal (n = 25)	60%	16%	16%	0	52%
Songea Rural (n = 10)	10%	40%	0	0	70%
Namtumbo (n = 10)	10%	30%	10%	10%	6%
Tunduru (n = 18)	61%	22%	17%	0	67%
Mbinga (n=28)	64%	57%	25%	4%	71%
Total (n = 91)	51%	34%	16%	2%	64%

As seen in table 3, reproductive health products are not commonly stocked in the ADDOs. Up to this point, little orientation has been given to ADDO dispensers on reproductive health products.

### Observations from Visits

#### *Inappropriate Recommendations for Dispensing*

The visiting team observed that in one of the private pharmacies the dispensers were inappropriately providing one tablet of zinc once a day. In one of the ADDOs in Mbinga, zinc was dispensed to a child with diarrhea with the inappropriate instruction to administer three times a day for one day only (instead of once a day for 10 days). These findings were not surprising because the ADDO dispensers had not yet been trained regarding the appropriate administration of zinc treatment.



**Figure 1. A package of zinc tablets inappropriately labeled with instructions to take one tablet three times a day for only one day (instead of once a day for 10 days)**

### ***Supervision Visits***

Through discussions and a review of supervision records, facilitators found that district teams do not regularly visit ADDOs for supervision or for inspection. They normally conduct supervision visits when accompanying officials from high levels (regional or national). Funding is one major constraint because the funds for supervision are calculated on the basis of the number of health facilities included in the catchment area and do not generally include the ADDOs.

### ***Inspection Visits***

Similarly, the ward inspectors do not frequently conduct inspection activities. One reason cited for the low level of visits is that inspectors at the ward level need to be provided with official identity cards to verify that they have the authority to conduct inspection visits. Currently, many inspectors who have been trained have not yet been provided with identity cards and therefore cannot yet conduct inspection visits.

### ***Patient Registers***

Many ADDO dispensers are appropriately filling in the patient registers; however, some of the dispensers do not correctly fill in the diagnosis of children's conditions in the format they were taught, using the following categories: uncomplicated malaria, severe malaria, no pneumonia, pneumonia, severe pneumonia, nonbloody diarrhea, bloody diarrhea, and persistent diarrhea.

### ***Monthly Report Forms***

Some districts manually compile the monthly ADDO reports but do not actively collect the reports from the ADDOs.

### ***Closure of ADDOs***

Some ADDOs have closed their operations because of a lack of available ADDO dispensers. The situation is worst in Tunduru and Namtumbo Districts.

## RECOMMENDATIONS

- District councils should explore opportunities to speed up the orientation of public health workers on the use of zinc treatment to increase the availability and appropriate use of zinc treatment for diarrhea in the public sector.
- The Council Food and Drug Committee should work to ensure that the health sectors include supervision and inspection activities in the Comprehensive Council Health Plans and to allocate funds for conducting supervision and inspection activities on a regular basis.
- T-MARC should coordinate with other reproductive health stakeholders to intensify social marketing activities to promote the appropriate use of reproductive health products.
- The overall monitoring and evaluation system for the ADDOs, including standard data collection and analysis, needs to be strengthened.
- In collaboration with the TFDA through the Clinical Officers Training Centre in Songea, a new group of ADDO dispensers should be trained to meet the demand. Mbinga District alone has received 28 applications for establishment of new ADDOs, but it lacks the trained dispensers to work in the anticipated outlets.
- Stakeholders should continue the refresher sessions for the remaining ADDO dispensers who have not yet been oriented on the updated diarrheal disease management guidelines in Mtwara and Rukwa.

## ANNEX 1: SCHEDULE OF ORIENTATION

Day	Date	Activities Accomplished	Place/District	Center
1	8 Feb 2009	Travel to Songea	Songea Municipal	
2	9 Feb 2009	Carried out logistical preparations for the orientation of the ADDO dispensers and supervised 25 ADDOs	Songea Municipal	
3	10 Feb 2009	Orientation of dispensers	Songea Municipal	Don Bosco
4	11 Feb 2009	Orientation of dispensers	Songea Rural	Don Bosco
5	12 Feb 2009	Traveled to Namtumbo, met the district officials, and visited 10 ADDOs	Namtumbo	
6	13 Feb 2009	Orientation of Dispensers	Namtumbo	Faraja conference Hall
7	14 Feb 2009	Traveled to Tunduru		
8	15 Feb 2009	Visited 18 ADDOs for supervision	Tunduru	
9	16 Feb 2009	Orientation of dispensers	Tunduru	Roman Catholic
10	17 Feb 2009	Traveled to Mbinga		
11	18 Feb 2009	Carried out logistics preparation for orientation of the ADDO dispensers and supervised 22 ADDOs	Mbinga	
12	19 Feb 2009	Orientation of dispensers	Mbinga	MBICU Hall
13	20 Feb	Traveled to Mbamba Bay and visited 6 ADDOs for supervision	Mbinga	
14	21 Feb 2009	Orientation of dispensers	Mbinga	Mbamba Bay Ward Hall
15	22 Feb 2009	Travelled to Makambako	Njombe	
16	23 Feb 2009	Wrote report	Njombe	
17	24 Feb 2009	Traveled to Dar		

## ANNEX 2: LIST OF FACILITATORS

<b>Organization</b>	<b>Name</b>	<b>Role</b>
MSH	Dr. Suleiman Kimatta	Main organizer and facilitator
	Saphina Mkony	Facilitator and orientation assistant
AED/POUZN	Mgeni Bongo	Facilitator during Songea Municipal and Songea Rural orientations
T-MARC	Halima Mwinyi	Facilitator during Songea Municipal and Songea Rural orientations
	Khadija Fungwe	Main facilitator for the COC-Flexi P and condom
Shelys Manufacturing Company	Ezekieli Muganda	Facilitator during Songea Municipal and Songea Rural orientations
TFDA	Rodney Alananga	Facilitator
IMCI National trainer	Dr. Yasin Mbaga	Facilitator