



# Engaging the Private Retail Pharmaceutical Sector in TB Case Finding in Tanzania: Pilot Dissemination Meeting Report

February 2014



**USAID**  
FROM THE AMERICAN PEOPLE

**SLAPS**   
Systems for Improved Access  
to Pharmaceuticals and Services



## **Engaging the Private Retail Pharmaceutical Sector in TB Case Finding in Tanzania: Pilot Dissemination Meeting Report**

---

Emily Delmotte  
Kanjinga Kakanda  
Salama Mwatawala  
Richard Valimba

February 2014



**USAID**  
FROM THE AMERICAN PEOPLE

**SIAPS** 

The SIAPS logo consists of the word 'SIAPS' in a bold, green, sans-serif font, followed by a stylized blue figure of a person with arms raised in a 'V' shape.

This report is made possible by the generous support of the American people through the US Agency for International Development (USAID), under the terms of cooperative agreement number AID-OAA-A-11-00021. 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 SIAPS**

The goal of the Systems for Improved Access to Pharmaceuticals and Services (SIAPS) Program is to assure the availability of quality pharmaceutical products and effective pharmaceutical services to achieve desired health outcomes. Toward this end, the SIAPS result areas include improving governance, building capacity for pharmaceutical management and services, addressing information needed for decision-making in the pharmaceutical sector, strengthening financing strategies and mechanisms to improve access to medicines, and increasing quality pharmaceutical services.

## **Recommended Citation**

This report may be reproduced if credit is given to SIAPS. Please use the following citation.

Delmotte, E., Kakanda, K., Mwatawala, S., Valimba, R. 2014. *Engaging the Private Retail Pharmaceutical Sector in TB Case Finding in Tanzania: Pilot Dissemination Meeting Report*. Submitted to the US Agency for International Development by the Systems for Improved Access to Pharmaceuticals and Services (SIAPS) Program. Arlington, VA: Management Sciences for Health.

## **Key Words**

TB, private pharmaceutical retail sector, public-private mix (PPM), Tanzania

Systems for Improved Access to Pharmaceuticals and Services  
Center for Pharmaceutical Management  
Management Sciences for Health  
4301 North Fairfax Drive, Suite 400  
Arlington, VA 22203 USA  
Telephone: 703.524.6575  
Fax: 703.524.7898  
E-mail: [siaps@msh.org](mailto:siaps@msh.org)  
Website: [www.siapsprogram.org](http://www.siapsprogram.org)

## CONTENTS

Acronyms .....	iv
Background .....	1
Goal of SIAPS Technical Support .....	2
Dissemination Workshop.....	3
Background .....	3
Dissemination Workshop.....	4
Focus Group Discussion .....	10
Agreed Way Forward.....	10
Annex A. Meeting Agenda and Photo .....	12
Annex B. Presentation .....	13

## ACRONYMS

ACT	artemisinin-based combination therapy
ADDO	accredited drug dispensing outlet
DOT	directly observed therapy
DR-TB	drug-resistant tuberculosis
DTLC	district tuberculosis/leprosy coordinator
HCW	health care worker
HIV	human immunodeficiency virus
IEC	information, education, and communication
IMCI	integrated management of childhood illness
ITN	insecticide-treated nets
MoHSW	Ministry of Health and Social Welfare
MSH	Management Sciences for Health
NTLN	National Tuberculosis and Leprosy Program
PATH	Program for Appropriate Technology for Health
PPM	public-private mix
SIAPS	Systems for Improved Access to Pharmaceuticals and Services
SPS	Strengthening Pharmaceutical Services
TB	tuberculosis
TFDA	Tanzania Food and Drug Administration
USAID	US Agency for International Development
WHO	World Health Organization

## BACKGROUND

The Systems for Improved Access to Pharmaceuticals and Services (SIAPS) Program, funded by the US Agency for International Development (USAID) and implemented by Management Sciences for Health (MSH), is a global initiative with funding of up to \$198 million over five years. SIAPS is the follow-on to the Strengthening Pharmaceutical Services (SPS) program. The work performed under SIAPS will transition into the next phase of strengthening the management of pharmaceutical systems. The goal of SIAPS is to ensure the availability of high-quality pharmaceutical products and effective pharmaceutical services to achieve desired health outcomes.

SIAPS has been providing technical and financial support to pilot the expansion of tuberculosis (TB) case detection in private sector retail drug outlets in Tanzania, specifically, pharmacies in Dar es Salaam and accredited drug dispensing outlets (ADDOs) in Morogoro, in response to a request by the Tanzania National TB and Leprosy Program (NTLP).

The efforts to engage the retail pharmaceutical sector in intensified TB case-finding build on work already started under the SPS program, in collaboration with PATH, to support public-private mix (PPM) activities for the prevention and control of TB and drug-resistant TB (DR-TB) in Tanzania.

The main achievements of this initiative include:

- Under the leadership of the NTLP, a pharmacy-PPM steering committee was established to provide technical coordination and leadership of activities; this champion group is composed of NTLP, MSH, PATH, the Association of Private Hospital Facilities in Tanzania, the Pharmaceutical Society of Tanzania, the Tanzania Food and Drugs Authority (TFDA), the Pharmacy Council, and select pharmacies
- Implementation of a baseline survey of knowledge and practices of providers in the retail pharmaceutical sector in Tanzania, specifically, pharmacies in Dar es Salaam and ADDOs in Morogoro
- Implementation of a training of trainers program, followed by the training of dispensers to enhance their TB knowledge and skills
- Development of a formal referral linkage between the private retail drug outlets and TB diagnostic and treatment centers
- Sensitization of health workers at TB diagnostic centers on the new initiative
- Implementation of supervision visits for data collection and monitoring activity progress

## **Goal of SIAPS Technical Support**

The goal of this trip was to conduct a workshop to disseminate the findings of the pilot intervention, engaging the private retail pharmaceutical sector in early TB case finding and exploring potential scale-up scenarios. The workshop was planned for February 12, 2014, in Dar es Salaam, Tanzania, and organized jointly by the NTLP and SIAPS. Invitees included USAID/Tanzania, members of the champion group, and intervention participants.

## DISSEMINATION WORKSHOP

### Background

A situation analysis aimed at determining the private retail pharmaceutical sector's knowledge and practice in TB case management in Tanzania was conducted in August 2011 among 295 drug dispensers at pharmacies and ADDOs in Dar es Salaam and Morogoro, respectively. This assessment's findings enabled the Tanzania Ministry of Health and Social Welfare (MoHSW)/NTLP and its partners to develop a targeted intervention for engaging the retail pharmaceutical sector in intensified TB case finding.

Key findings from the baseline assessment included the following:

- 85% of dispensers had a medical background, such as nurse assistant or medical attendant
- The vast majority of dispensers (99%) had not received TB-related training in the previous three years
- Dispensers' knowledge of TB symptoms and mode of transmission was inadequate
- A majority of private drug outlets (61%) saw clients with TB-like symptoms, and demand for anti-TB medicines from private drug outlets is relatively high
- A structured system for referring those suspected of having TB who present to private pharmaceutical outlets to TB diagnostic centers did not exist

Beginning in May 2012, the NTLP, with support from SIAPS and in collaboration with other major TB stakeholders, designed and implemented a pilot intervention to engage private drug dispensers in Dar es Salaam and Morogoro. The primary objective of this initiative was to increase early TB case detection through implementation of a formal referral linkage between private retail drug outlets and TB diagnostic and treatment centers. This pilot intervention, conducted between July 2012 and November 2013, involved 595 ADDO dispensers and 142 pharmacy dispensers in Morogoro and Dar es Salaam, respectively. Five supervision visits—three in Morogoro and two in Dar es Salaam—for program performance monitoring and evaluation were conducted. Data collection was also conducted during these supportive supervision visits.

The findings from this pilot exercise will inform MoHSW/NTLP and its partners on the future direction of a PPM approach involving drug dispensers from the private retail pharmaceutical sector in Tanzania.

## **Dissemination Workshop**

Prior to the workshop, the SIAPS team met with NTLP and its partners at the NTLP office on February 11, 2014 to review presentations for the dissemination meeting by NTLP, the Pharmacy Council, and SIAPS. Seven people, including three from the NTLP, one from the Pharmacy Council, and three from SIAPS attended this meeting. At the end of the discussion, participants reached agreement on the presentations that would be given at the dissemination meeting.

On February 12, 2014, the SIAPS team held the dissemination meeting for 39 people, including participants from NTLP, represented by the PPM coordinator and four program pharmacists; USAID/Tanzania, represented by the mission project management specialist for infectious diseases; the Pharmacy Council; district tuberculosis and leprosy coordinators (DTLCs); TB treatment centers representatives; and dispensers from ADDOs and pharmacies.

After welcoming the participants, the Tanzania NTLP manager gave an overview of the national TB program. Following these remarks, the USAID mission specialist for infectious diseases thanked SIAPS for exploring the potential contribution of the private retail sector in increasing early TB case detection. The NTLP PPM coordinator then provided an overview of the current status of TB in Tanzania, sharing findings from the first national TB prevalence survey, which was conducted in 2012. This survey revealed a higher prevalence of bacteriological confirmed TB (295 per 100,000 adult populations) than previously thought, with a greater burden of TB in rural areas than urban areas and among men than women. Case detection for new smear-positive adult TB patients was estimated to be between 42 and 54%.<sup>1</sup>

The Pharmacy Council representative followed with an outline of the ADDO program, beginning with its inception in 2003 when the TFDA led an intervention in a single region to accredit informal drug shops in order to improve access to affordable, high-quality medicines in an area with limited availability of pharmacies. The success of this pilot was followed by a nationwide scale-up of the program between 2005 and 2010.

The national expansion of the ADDO program created an opportunity to incorporate additional public health interventions. Initially designed to improve access to high-quality essential medicines in rural and underserved areas of Tanzania, the scope of ADDO services has since expanded to include community-based health interventions such as the integrated management of childhood illnesses (IMCI); increased access to artemisinin-based combination therapy (ACT) and insecticide-treated nets (ITNs); ADDO links to community-based HIV and AIDS palliative care and information; family planning; and accreditation of ADDOs by the National Health Insurance Fund. In addition to these activities, the Pharmacy Council shared its vision of the future of ADDOs, which incorporates new technologies such as mobile technology (e.g., for reporting adverse drug reactions) and geo-mapping of ADDOs with Google.

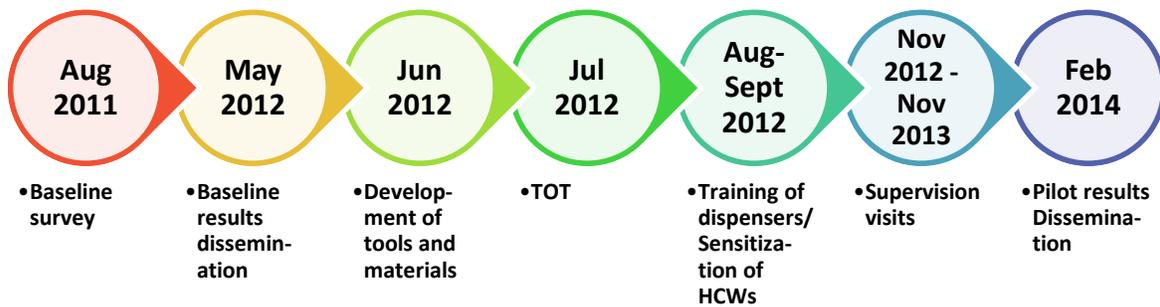
Following the Pharmacy Council presentation, the NTLP and SIAPS presented the findings of the PPM intervention to engage the private retail pharmaceutical sector in TB case detection. The

---

<sup>1</sup> Ministry of Health and Social Welfare (2013). First National Tuberculosis Prevalence Survey in the United Republic of Tanzania - Final Report; <http://ntlp.go.tz/>

NTLP program pharmacist gave the first part of the presentation, outlining the design and implementation process to effectively engage private drug dispensers in TB case-finding. During the second part of the presentation, a SIAPS representative highlighted the main achievements and challenges of the pilot.

The pilot implementation timeline is presented in figure 1 below.



**Figure 1. PPM pilot implementation timeline**

To explore the extent to which private drug dispensers can be engaged in TB case finding as part of PPM for TB case management, the champion group focused on input, output, and outcome indicators to monitor and evaluate activities.

The following achievements were documented as part of this pilot project:

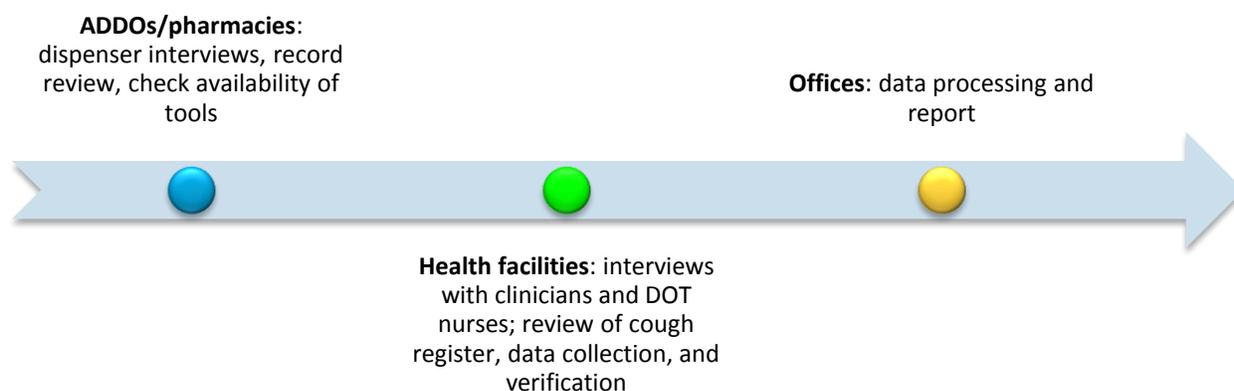
- A training of trainers was conducted for 32 participants, including regional and district TB coordinators, community pharmacists, ADDO trainers, and select clinicians. Topics covered during the training included basic facts about TB, the referral process, and communication skills
- 737 dispensers were trained to address gaps identified during the baseline assessment: 595 in Morogoro (from 446 shops) and 142 in Dar es Salaam
- 462 health care workers (HCWs) from 98 diagnostic and treatment centers were sensitized on the new PPM initiative, the proposed referral system, the roles of various stakeholders in the implementation process, and tools developed to facilitate the implementation of the initiative. These trainings were conducted for receptionists, laboratory staff, DOT nurses, outpatient department clinicians, and managers of health facilities
- 1100 referral books and a similar number of TB diagnostic center directories were printed and distributed to private drug outlets involved in the pilot initiative
- 200 cough registers were printed and distributed at TB diagnostic and treatment centers to track individuals who presented with a cough

- Five supportive supervision visits—three in Morogoro and two in Dar es Salaam—were conducted in both private drug outlets and TB diagnostic and treatment centers

The main objectives of the supervision visits were to:

- Reinforce dispensers' TB knowledge gained during the training
- Help resolve any issues that may be affecting successful implementation of activities
- Collect data on the number of clients referred to the TB diagnostic centers
- Track the outcome of referred clients at TB diagnostic centers
- Collect the number of TB cases identified through private drug outlets

Figure 2 below outlines the specific activities that were conducted as part of supervision visits.



**Figure 2. Supervision visit flowchart and activity**

### ***Results of the Supervision Visits***

Three supervision visits were conducted in all districts of Morogoro and two supervision visits took place in Dar es Salaam. Table 1 displays the number of outlets visited, and the corresponding percentage of outlets visited of all outlets trained.

**Table 1. Supervision Visits between November 2012 and November 2013**

<b>Supervision visit</b>	<b>Number of outlets visited</b>	<b>Percentage</b>
Morogoro visit 1	328	74% (328/446)
Morogoro visit 2	324	73% (324/446)
Morogoro visit 3	304	68% (304/446)
Dar es Salaam visit 1	114	80% (114/142)
Dar es Salaam visit 2	92	65% (92/142)

Dispensers' knowledge of TB symptoms, diagnosis, transmission, and treatment was assessed throughout the supervision visits to monitor changes in their knowledge and attitudes. In most cases, more than 60% of respondents were able to identify the cardinal TB symptoms needed to screen and identify clients who should be referred for further clinical assessment. The level of respondents' knowledge of TB is shown in figures 3 (Morogoro) and 4 (Dar es Salaam).

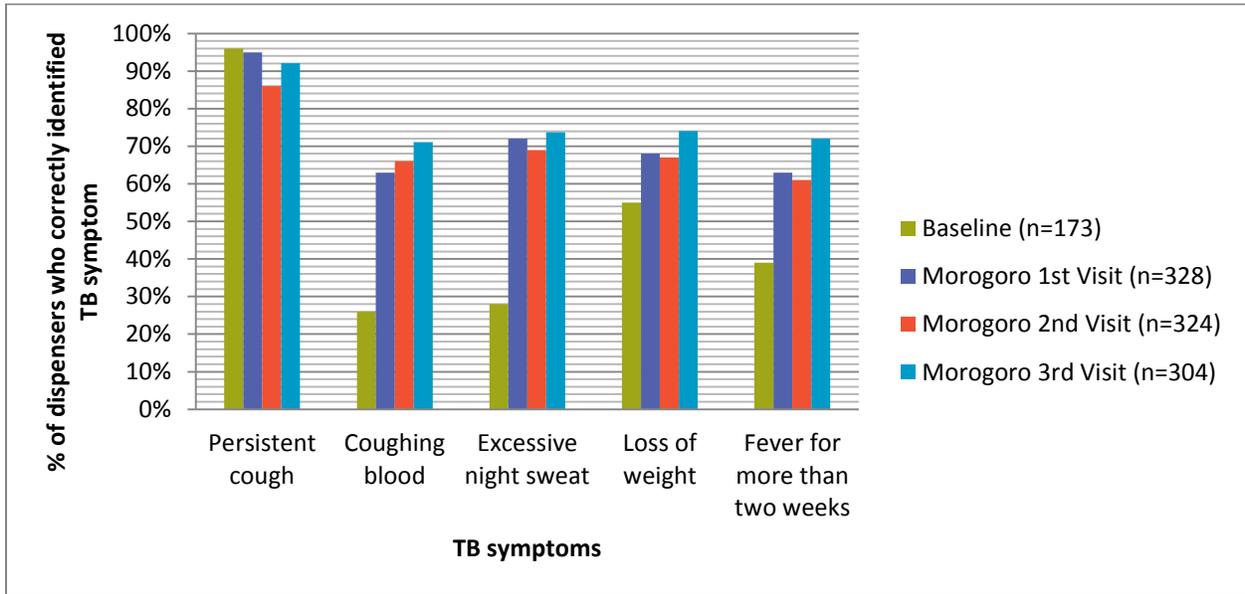


Figure 3. TB symptoms knowledge – Morogoro dispensers

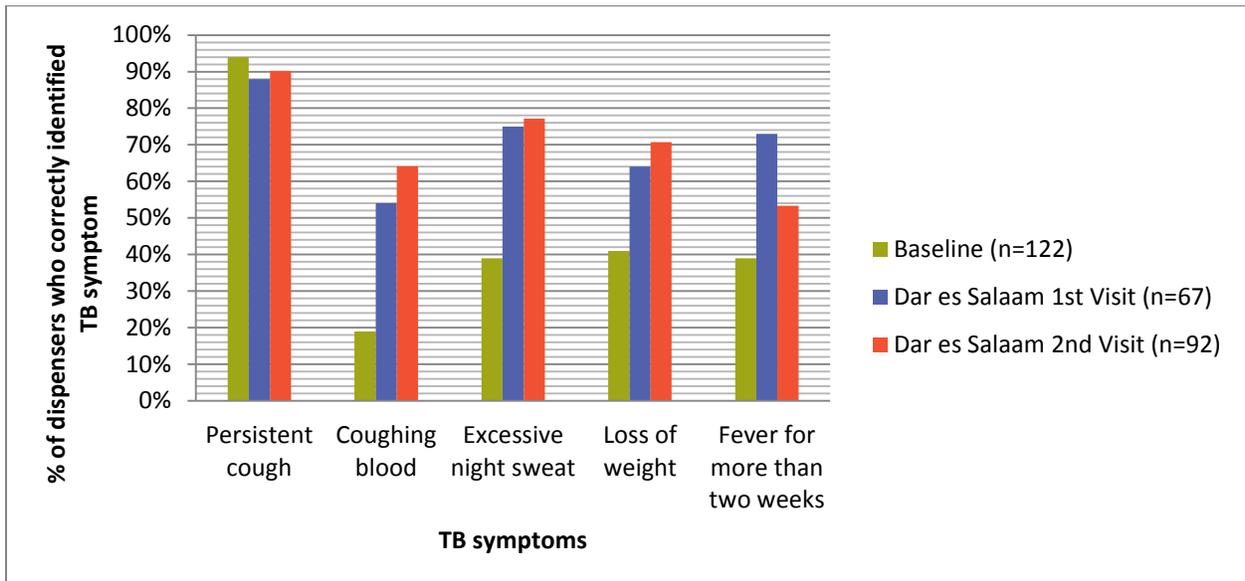


Figure 4. TB symptoms knowledge – Dar es Salaam dispensers

After 16 months of activity (July 2012–November 2013), the following key results were reported:

- 587 clients (482 in Morogoro and 105 in Dar es Salaam) with TB-like symptoms were referred to a TB diagnostic and treatment center, as shown in table 2; among ADDOs that referred at least one client to a diagnostic center, the average number of cases referred per ADDO per quarter was 3
- 38% (n = 223/587) of referral forms for all referred clients with TB symptoms were tracked and found at health facilities, as shown on table 2 below; of those, 83% (n = 186/223) were sent for sputum investigation (see Tables 3 and 4)
- Of the 186 patients sent for sputum investigation, 44% (n = 81/186) were confirmed to have TB

**Table 2. Number of Cases Referred from Private Drug Outlets in Morogoro and Dar es Salaam**

Indicator	Morogoro visit 1	Morogoro visit 2	Morogoro visit 3	Dar es Salaam visit 1	Dar es Salaam visit 2	Total
Number of referrals made by the outlets	167	226	89	39	66	587
Number of referrals tracked at TB diagnostic centers	82	61	30	13	37	223
Percentage of referral completion	49% (82/167)	27% (61/226)	34% (30/89)	33% (13/39)	56% (37/66)	38% (223/587)

The discrepancy observed between the number of people referred to health facilities and the number of referred individuals who could be tracked at TB diagnostic and treatment centers could be attributable to several causes. These may include patient-related reasons such as lack of patient follow-up, loss of a referral slip, patients seeking services at another facility or not showing the referral form when presenting for service, or a decision to seek services at another pharmacy. However, the discrepancy could also stem from inadequate recording at TB diagnostic and treatment centers.

**Table 3. Outcome of Cases Referred from the Private Drug Outlets in Morogoro**

Selected Indicators	Supervision visit 1	Supervision visit 2	Supervision visit 3
Number of clients with TB symptoms referred from drug outlets	167	226	89
Number of referred clients with TB symptoms sent for sputum check	62	61	30
Number of referred suspects that were confirmed TB cases	11	35	16
Percentage TB confirmed among referred clients sent for sputum check	18% (11/62)	57% (35/61)	53% (16/30)

**Table 4. Outcome of Cases Referred from Private Drug Outlets in Dar es Salaam**

Select Indicators	Supervision visit 1	Supervision visit 2
Number of clients with TB symptoms referred from drug outlets	39	66
Number of referred clients with TB symptoms sent for sputum check	13	20
Number of referred suspects that were confirmed TB cases	11	8
Percentage TB confirmed among referred clients sent for sputum check	85% (11/13)	40% (8/20)

Major challenges encountered during the PPM intervention included:

- Clients hesitant to accept forms referring them to TB diagnostic centers
- Dispenser turnover: a high turnover of dispensers at both ADDOs and pharmacies, sometimes leaving the incoming dispenser without referral tools
- Attendance: limited attendance at a number of dispenser trainings, particularly in Dar es Salaam, where a number of dispensers reported not having permission from their owners to attend the training
- Record keeping: not all referrals were recorded in cough registers at the TB diagnostic and treatment centers, making it difficult to trace client diagnostic results
- Limited client return of counter-referral forms to drug outlets
- Geographical inaccessibility: inability to visit all participating drug shops due to challenging terrain

Lessons learned include:

- Successful engagement of private outlets in TB case-finding appeared to benefit from complementary activities such as:
  - Supportive supervision of all participating dispensers and HCWs
  - Sensitization of HCWs
  - Development of a formal referral linkage between private retail dispensers and NTLP (TB diagnostic and treatment centers)
  - Strengthened record keeping at the facility level to track referred cases
- Future work may benefit from building community awareness of the importance of follow-up at TB diagnostic and treatment centers
- To promote sustainability and effective use of resources, implementation of the PPM private outlet intervention should be integrated into the existing NTLP coordinating mechanism, with the close involvement of district teams

- Involvement of relevant stakeholders (e.g., the Pharmacy Council, NTLP, DTLC/regional TB and leprosy coordinators [RTLCS], ADDOs, partners, and pharmacies) is key to successful implementation of the intervention
- Creative approaches are needed to ensure a high level of participation by private drug outlet dispensers in trainings

Following these presentations, a plenary discussion explored the way forward and the potential implications of intervention scale-up. The PPM coordinator, on behalf of the NTLP, conveyed the program's excitement over the results of the intervention. The program is exploring ways to integrate this initiative into its existing structure and operations and encouraged districts to explore funding opportunities available at the district level.

### **Focus Group Discussion**

The presentation of the intervention achievements was followed by a focus group discussion with 11 participants in the intervention, including dispensers from Dar es Salaam and Morogoro, and DTLC supervisors and trainers. The primary goal of the discussion was to provide an opportunity for participants to reflect on the experience as a whole and provide feedback on major challenges encountered during the referral process, perceived barriers to referral completion, and potential opportunities to overcome these barriers.

In conclusion:

- Retail pharmacies and drug dispensing outlets have the potential to contribute to early TB case detection in Tanzania
- Coordinated efforts are needed to ensure ongoing support to dispensers to help them continue TB case detection
- Dispensers noted that a key factor motivating them to refer clients was the opportunity to participate in trainings to enhance their capacity to identify clients presenting with TB
- Additional community sensitization on TB disease and treatment and the importance of referral follow up is needed
- The preliminary results indicate there is an opportunity to enhance the TB referral mechanism, and hence early case detection, through engagement of dispensers from private drugs outlets

### **Agreed Way Forward**

The dissemination meeting resulted in agreement on the following next steps:

- NTLP will include the PPM approach in its next National Strategic Plan
- NTLP will work with key stakeholders to identify partners and resources for scaling up this intervention, including exploration of funding opportunities through the Global Fund New Funding Model
- NTLP will advocate for, and sensitize policy makers on the importance of, involving retail pharmaceutical outlets in TB control
- NTLP will encourage the Council Health Management Team (CHMT) to explore other funding streams available at their levels, develop strategic plans at the district levels, and encourage continuation of this work to partners
- SIAPS will provide assistance in developing a concept note for scale-up of this intervention

## ANNEX A. MEETING AGENDA AND PHOTO

February 12, 2014/Serena Hotel

Time	Activity	Responsible Person
8:30-9:00 am	Registration	All
9:00-9:10 am	Introduction	Chairperson
9:10-9:30 am	Welcome note and opening remarks	Program Manager NTLP
9:30-10:30 am	Overview of TB disease burden in Tanzania	NTLP: Dr. Tarimo
10:30-11:00 am	Tea Break	All
11:00-11:30 am	Overview of ADDO program and its contribution to community based health interventions	Pharmacy Council: Richard Silumbe
11:30-12:00 pm	Engaging private drug outlets in TB case finding – Pilot results and lessons learned	NTLP: Jerome Ngowi SIAPS: Dr. Kakanda
12:00-12:30 pm	Plenary Discussion	All
12:30-12:50 pm	Potential implications of intervention scale up	SIAPS
12:50pm-1:20 pm	Discussions and way forward	All
1:20-1:35 pm	Official closing	MOHSW/NTLP
1:35-2:30 pm	Lunch	All



Group photo from the dissemination meeting

## ANNEX B. PRESENTATION



### Engaging Private Drug Outlets in TB Case Finding

Pilot Dissemination Meeting: February 12, 2014



USAID FROM THE AMERICAN PEOPLE  
SIAPS Systems for Improved Access to Pharmaceuticals and Services

### Presentation Outline

- Background
- Rationale
- Objective of the intervention
- Implementation steps
- Key achievements and findings
- Challenges
- Take home messages



USAID FROM THE AMERICAN PEOPLE  
SIAPS Systems for Improved Access to Pharmaceuticals and Services

### Background

- The National TB and Leprosy Program implements strategic plan IV in line with the New Stop TB Strategy and HSSP III
- PPM for TB control is a priority and contributes 20% of the total number of annual TB cases notified
- The private sector for health is comprised of private hospitals, retail pharmacies, ADDOs, private laboratories, CSOs, and NGOs
- However, historically private sector engagement had been limited to private health facilities



USAID FROM THE AMERICAN PEOPLE  
SIAPS Systems for Improved Access to Pharmaceuticals and Services

### Why Engage Private Retail Drug Outlets?

- Contribute to national TB strategy and global initiatives that encourage the use of PPM approaches to increase TB case detection
- Evidence shows that 40% of clients use drug outlets as the first point of contact for seeking health care services in Tanzania
- Support 2010 WHO and IFP joint recommendation to engage the pharmaceutical sector and pharmacists

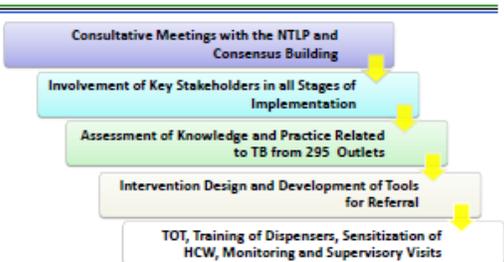
### Objective of the Intervention

- To increase early TB case detection through engagement of retail private drug outlets



USAID FROM THE AMERICAN PEOPLE  
SIAPS Systems for Improved Access to Pharmaceuticals and Services

### Implementation Steps



```
graph TD; A[Consultative Meetings with the NTLF and Consensus Building] --> B[Involvement of Key Stakeholders in all Stages of Implementation]; B --> C[Assessment of Knowledge and Practice Related to TB from 295 Outlets]; C --> D[Intervention Design and Development of Tools for Referral]; D --> E[TOT, Training of Dispensers, Sensitization of HCW, Monitoring and Supervisory Visits];
```



USAID FROM THE AMERICAN PEOPLE  
SIAPS Systems for Improved Access to Pharmaceuticals and Services

### Involvement of Key Stakeholders




- Technical working group was formed at the national level involving the following members:
  - NTLP
  - Pharmacy council
  - Tanzania Food and drug Authority
  - MSH
  - PATH
  - PST
  - Community pharmacy representatives
- District and Regional teams were involved:
  - Regional pharmacists
  - Regional TB & Leprosy Coordinator
  - District TB and Leprosy Coordinators
  - District Pharmacists; ADDO association

### Assessment of Knowledge and Practice Related to TB



- A baseline assessment was conducted in August 2011 in Dar es Salaam and Morogoro; 122 private pharmacies and 173 ADDOs were visited

**Selection criteria:**

- Dar es salaam: High TB burden and high number of retail pharmacies; contributes 22% of all notified cases nationwide; urban population
- Morogoro: Ranks 7th in national TB case notification; has had Accredited Drug Dispensing Outlets (ADDOs) in operation for many years; peri-urban population



### Summary Baseline Assessment Results (1)



- 85% of dispensers had medical background: nurse assistants, medical attendants, etc.
- 99% of dispensers had not received TB related training in the previous three years
- Dispensers' knowledge of TB symptoms and mode of transmission was inadequate
- Many private drug outlets reported seeing clients with TB-like symptoms (61%)



### Summary Baseline Assessment Results (2)



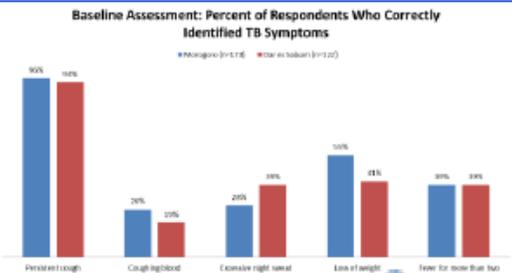
- Demand for anti-TB medicines was relatively high
  - 65% for pharmacies
  - 57% for ADDOs
- Very limited availability of TB related IEC materials
  - 2 out of 295 outlets had IEC materials
- Lack of structured system for referring TB suspects to TB diagnostic centers



### Summary Baseline Assessment Results (3)



Baseline Assessment: Percent of Respondents Who Correctly Identified TB Symptoms



Symptom	Morogoro (n=117)	Dar es Salaam (n=122)
Persistent cough	90%	90%
Cough with blood	26%	20%
Excessive night sweat	20%	33%
Loss of weight	50%	41%
Fever for more than two weeks	30%	33%



### Pilot Intervention Design (1)



- The baseline survey dissemination workshop was held in May 2012
- Using findings from the assessment, the NTLP, in collaboration with SIAPS and other stakeholders, designed a pilot intervention to engage private drug outlets in identification of TB presumptive cases and referral to TB diagnostic centers



### Pilot Intervention Design (2)

- Selected interventions
  - Enhance retail pharmaceutical outlet providers' capacity for TB symptom recognition through training and repeated supervisions
  - Fully engage health care workers from TB treatment and diagnostic centers through sensitization workshops
  - Develop formal referral linkage between private retail pharmaceutical outlets and TB diagnostic and treatment centers



### Pilot Intervention Design (3)

- Selected interventions cont.
  - Develop reporting tools, SOPs and IEC materials for retail pharmaceutical outlets
  - Conduct monitoring and evaluation activities to assess implementation and determine the contribution of private retail outlets to TB case detection
  - Dissemination of results, recommendations, and options for scale up



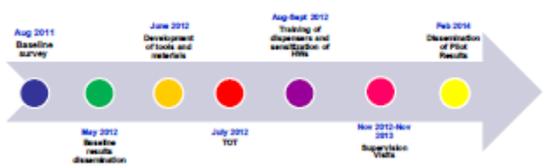
### Pilot Intervention Design (4)

Drug dispensers' proposed roles:

- Identification of TB presumptive cases by taking thorough history for every client:
  - Requesting cough mixture or
  - Presenting with cough symptoms
- Educating TB presumptive cases on TB symptoms, importance of the referral to TB diagnostic centers, and risks associated with not complying
- Facilitate referrals using developed referral forms
- Keep records by retaining copies of referral forms



### Intervention Timeframe

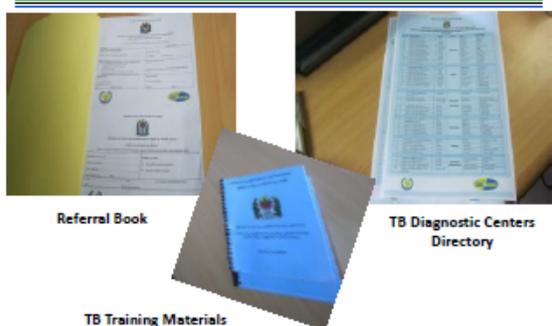



### Adaptation of Tools for Intervention

- The tools that were adapted/developed include:
  - Training materials (TOT, dispensers) adapted from MOHSW community level TB training package
  - Referral Book
  - Job aids/IEC materials
  - TB diagnostic centers register
  - Cough register
  - Supervision checklist
  - Supervision visits flow chart and action chart



### Sample Tools for Referral



Referral Book

TB Diagnostic Centers Directory

TB Training Materials



### Training and Sensitization of HWs





- TOT and training of dispensers conducted
- Topics covered include:
  - Basic facts about TB
  - Referral process
  - Communication skills
- Health care workers from TB diagnostic and treatment centers were oriented on new referral system



### Monitoring and Supportive Supervision



- Three rounds of supervision were conducted for Morogoro region and two rounds were conducted for Dar es Salaam
- The purpose of supervision visits was to:
  - Reinforce knowledge gained during training
  - Help resolve any issue that may affect implementation process
  - Collect information on number of clients referred to the TB diagnostic centers
  - Track outcome of referred clients at TB diagnostic centers




### Key Accomplishments and Findings



### Accomplishments



- 32 TOT trained: regional and districts TB coordinators, community pharmacists, ADDOs trainers, selected clinicians
- 737 dispensers trained: 595 in Morogoro and 142 in Dar es Salaam
- 462 health care workers sensitized from 98 diagnostic and treatment centers
- Referral material printed and distributed
  - 1100 referral books, 1100 TB diagnostic centers directories
  - 200 Cough registers



### Key Findings: Morogoro Supervisory Visits



Supervisory visits made between September 2012 and October 2013	Number of outlets visited	Percentage
Supervision 1	328	74%
Supervision 2	324	73%
Supervision 3	304	68%

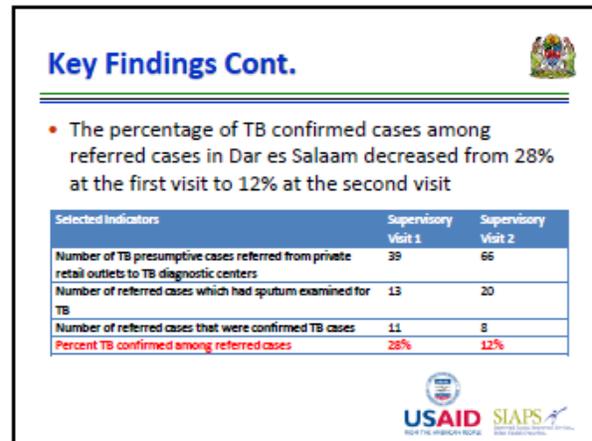
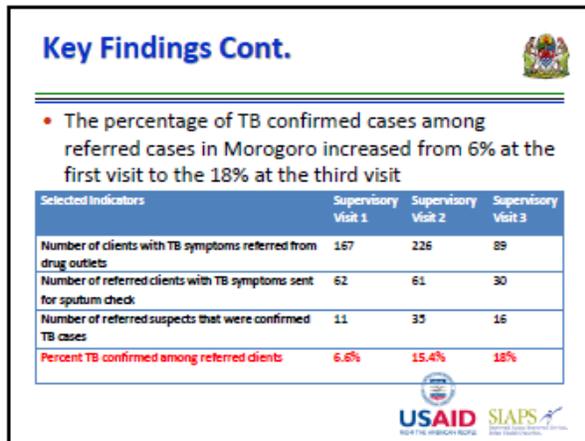
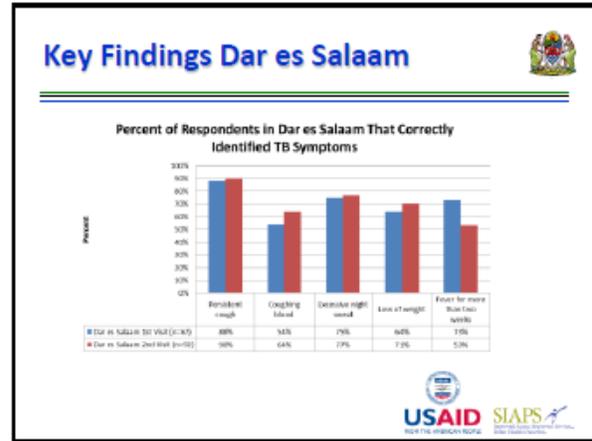
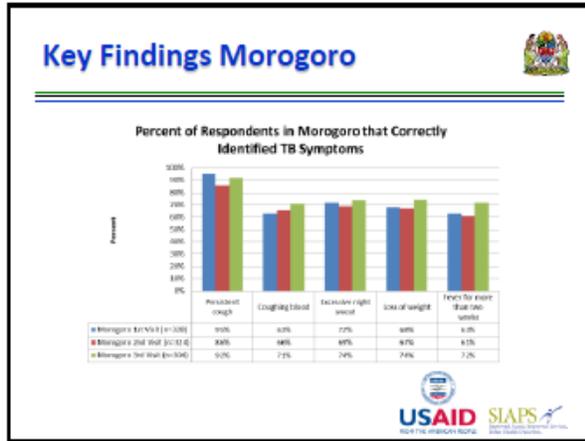


### Key Findings: Dar es Salaam Supervisory Visits



Supervisory visits made between September 2012 and October 2013	Number of pharmacies visited	Percentage
Supervision 1	114	77%
Supervision 2	92	62%





### Challenges

### Key Challenges (1)

- Clients hesitant to accept referral forms to TB diagnostic centers
- Dispenser turnover
  - High turnover of dispensers in both ADDOs and pharmacies, sometimes leaving new dispenser without referral tools
- Attendance
  - Limited attendance at a number of dispenser trainings, particularly in Dar es Salaam where a number of dispensers reported not having permission from their owners to attend the training.

## Key Challenges (2)



- Record keeping
  - Not all referrals were recorded in cough registers
    - Difficult to trace client diagnostic results
  - Challenges returning counter-referral forms to drug outlet; as a result, may have resulted in a lack of feedback to dispensers
- Geographical inaccessibility
  - Inability to visit all drug shops



## Key Challenges (3)



- Referral completion
  - On average, 38% of all clients referred from drug outlets were found in the records of TB diagnostic centers

	Morogoro Visit 1	Morogoro Visit 2	Morogoro Visit 3	Dar es Salaam Visit 1	Dar es Salaam Visit 2	Total
Number of referrals made	167	226	89	39	66	587
Number of referrals tracked at TB diagnostic centers	82	61	30	13	37	223
Percentage of referral completion	49%	27%	34%	33%	56%	38%



## Take Home Messages (1)



- Engaging private outlets in TB case finding needs to go hand in hand with other interventions such as:
  - Creating community awareness to seek care
  - Supportive supervision
  - Sensitization of health workers
  - Development of formal referral linkage with TB diagnostic centers
  - Strengthening record keeping at facility level for referral cases



## Take Home Messages (2)



- To ensure cost effectiveness, implementation of the PPM private outlet intervention needs to be integrated into the existing NTLP coordinating mechanism with close involvement of district teams
- Involvement of relevant stakeholders (e.g. PC, NTP, DTLC/RTLs, ADDOs, partners, pharmacies) is key to successful implementation of the intervention
- Creative approaches are needed to ensure high participation of private drug outlet dispensers in training



## Conclusions



- Retail pharmacies and drug dispensing outlets have the potential to contribute to early TB case detection in Tanzania
- Coordinated efforts are needed to ensure ongoing support to dispensers to help them continue TB case detection
- A key factor that motivated dispensers to refer clients was the opportunity to participate in training to enhance their capacity to identify clients presenting with TB
- Additional sensitization of the community is needed
- These preliminary results indicate there is room to enhance TB referral mechanism, and hence early case detection, through engagement of dispensers from private drug outlets



## Acknowledgements



- NTLP
- USAID
- SIAPS
- PATH
- Tanzania Food and Drug Authority (TFDA)
- Pharmaceutical Society of Tanzania (PST)
- Pharmacy Council of Tanzania
- Private Sector-Pharmacies and ADDOs

