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DISSEMINATION WORKSHOP REPORT

Improving availability of medicines and supplies at the health facility level in the Lake Zone, Tanzania



SEPTEMBER 2014

This technical report was prepared by University Research Co., LLC (URC) for review by the United States Agency for International Development (USAID) and authored by Naiman Msangi of Management Sciences for Health (MSH) under The USAID Diagnosis and Management of Severe Febrile Illness (Tibu Homa) Program. The Tibu Homa Program is managed by URC under Cooperative Agreement No. 621-A-00-11-00011-00 and is made possible by the generous support of the American people through USAID.

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DISCLAIMER

The contents of this report are the sole responsibility of University Research Co., LLC (URC) and do not necessarily reflect the views of the United States Agency for International Development (USAID) or the United States Government.

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Acronyms

ACT	Artemisinin combination therapy
CHMT	Council Health Management Team
CM	Case management
DMO	District Medical Officer
HMTC	Hospital Medicines and Therapeutic Committee
MSH	Management Sciences for Health
MoHSW	Ministry of Health and Social Welfare
mRDT	Malaria rapid diagnostic test
MSD	Medical Stores Department
NHIF	National Health Insurance Fund
PHCMTC	Primary Health Care Medicines and Therapeutic Committee
PQIT	Pediatric quality improvement teams
RHMT	Regional Health Management Team
RMO	Regional Medical Officer
R&R	Report and request forms
SCM	Supply chain management
THP	Tibu Homa Program
URC	University Research Co., LLC
USAID	United States Agency for International Development

ABSTRACT

Over the past three years, the Tibu Homa Program (THP) has been implementing an intervention to improve case management of children under five with fever in the Lake Zone (Kagera, Mara, Mwanza, Geita, Shinyanga, and Simiyu regions) of Tanzania through health facility system strengthening. The Lake Zone was identified by the Ministry of Health and Social Welfare (MOHSW) and the United States Agency for International Development (USAID) because of its high under-five mortality rate, above the national average, and a high prevalence of malaria.

The Tibu Homa Program is implemented by the University Research Co., LLC (URC) in collaboration with Management Sciences for Health (MSH) and Amref Health Africa. The goal of Tibu Homa is to reduce morbidity and mortality of children under five years of age in the Lake Zone of Tanzania by improving proper diagnosis and treatment of severe febrile illness. The program's supply chain management (SCM) team contributes to improving case management by ensuring increased availability of medicines and supplies at the facility level.

At the beginning of the program there were rampant stock-outs of essential medicines and supplies at the facility level leading to inappropriate diagnosis and treatment of under-fives. The major cause of stock-outs was poor quantification and forecasting caused by problems in documentation of information at the facility level needed for proper quantification and correct forecasting of medicines and supplies.

To address the gaps identified Tibu Homa and the Regional and Council Health Management Teams (RHMTs/CHMTs) trained facility staff using the classroom method and carried out on-the-job training using logistic mentors. Specifically, logistic mentorship focused on:

- Documentation of information needed to quantify and forecast
- Correct use of consumption data for reporting and requesting
- Managing inventory and tracking consumption of medicines and supplies
- Improved communication between facilities and the District Medical Officers
- Timely submission of reporting and requesting forms
- Re-distribution of medicines and supplies between facilities and within facilities

Results from these interventions show a tremendous improvement in the availability of commodities in Tibu Homa-supported facilities. For instance, on average, 93% of the reporting facilities (170) had more than 10 of the 22 tracer items in April-June 2014 compared to 42% at baseline in January 2012.

The R/CHMTs are expected to maintain these gains through regular supportive supervision and mentorship, an intervention shown to work well. It is recommended that health managers adopt this approach mainly by diversifying sources of funding instead of waiting for disbursement from the central government.

Training and consistent supportive supervision and mentorship give quicker results than embarking into classroom training alone. It is recommended that the R/CHMTs institute a culture of supervising and mentoring the health facilities under their jurisdiction and advocate for the health facilities to have their internal mechanism of self-supervision and assessment.

I. INTRODUCTION

The goal of the USAID-funded Tibu Homa Program (THP) is to reduce morbidity and mortality of children under five years of age in the Lake Zone of Tanzania (Mwanza, Mara, Kagera, Shinyanga, Simiyu, and Geita regions) by improving proper diagnosis and treatment of severe febrile illness. The program works to increase availability and accessibility of essential facility-based curative and preventive child health services, ensure sustainability of critical child health activities, and increase linkages within the community to promote healthy behaviors.

The THP supply chain management (SCM) team contributes to improving case management by ensuring increased availability of medicines and supplies at the facility level.

A desk review conducted in 2011 showed gaps in SCM systems, including frequent stock-out of artemisinin combination therapy (ACT), unavailability of or wrong morbidity and consumption data, gaps in reporting and requesting systems, inventory management, distribution, and high prices in the private sector. The major cause of stock-outs was poor quantification and forecasting caused by problems in documentation of information at the facility level that could contribute to proper quantification and correct forecasting of medicines and supplies. Other causes included dependence on one financing mechanism (government), poor information sharing between the facilities, the District Medical Officer (DMO), teams, and the Medical Stores Department (MSD), and generally poor inventory management.

II. METHODOLOGY

To address the gaps stated above, Tibu Homa designed various interventions to contribute to improving case management through improved availability of medicines and supplies at the facility level. These interventions included:

- 1) Training of pediatric quality improvement teams (PQITs) on supply chain management
- 2) Working with regional and district teams to support PQITs through monthly supportive supervision visits
- 3) Reorienting the regional/district's logistic mentors
- 4) Conducting monthly logistic mentorship in collaboration with logistic mentors
- 5) Revitalizing and monitoring the functionality of Hospital and Primary Health Care Medicines and Therapeutic Committees (HMTCs/PHCMTCs) using the Ministry of Health and Social Welfare (MOHSW)-approved guidelines.

The training of PQITs in SCM focused on documentation of consumption data, use of such data in quantification and forecasting, proper inventory management, rational use of medicines, and adherence to R&R submission calendar using the national guidelines. After the trainings, Tibu Homa in collaboration with R/CHMTs, strengthened SCM systems at the facility level by introducing stock-out monitoring forms to monitor the availability of essential medicines and supplies, on job logistic mentorship to ensure health care workers have improved skills in:

- Documentation of information needed to quantify and forecast
- Correct use of consumption data for reporting and requesting
- Managing inventory and tracking consumption of medicines and supplies
- Improved communication between facilities and the DMOs office
- Timely submission of report and request (R&R) forms
- Re-distribution of medicines and supplies between facilities and within facilities

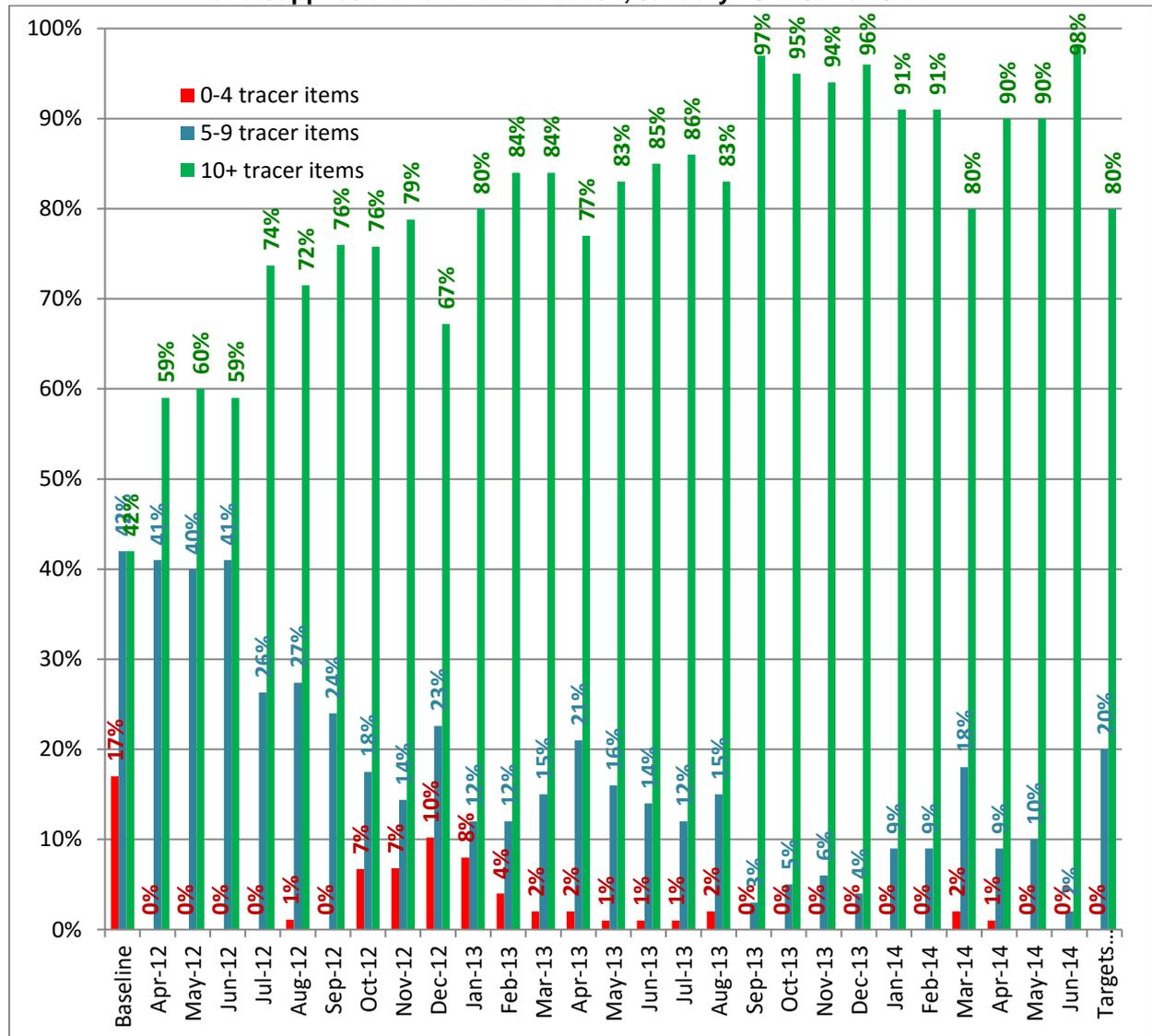
Finally, Tibu Homa has revitalized medicines and therapeutic committees at the hospital and primary health care levels. The aim of revitalizing these committees is to build their capacity in overseeing medicines and supplies management, thereby improving availability of

commodities to contribute to improved case management of febrile illness in children under five years of age.

III. RESULTS

Tibu Homa identified and is monitoring the availability of 22 essential febrile illness-related medicines and supplies (also referred to as tracer items) at the facility level. The availability of these commodities has notably improved in Tibu Homa-supported facilities. Key results show that 98% of the reporting facilities (169) had more than 10 tracer items in June 2014 compared to 42% at the baseline conducted in January 2012 (Figure 1).

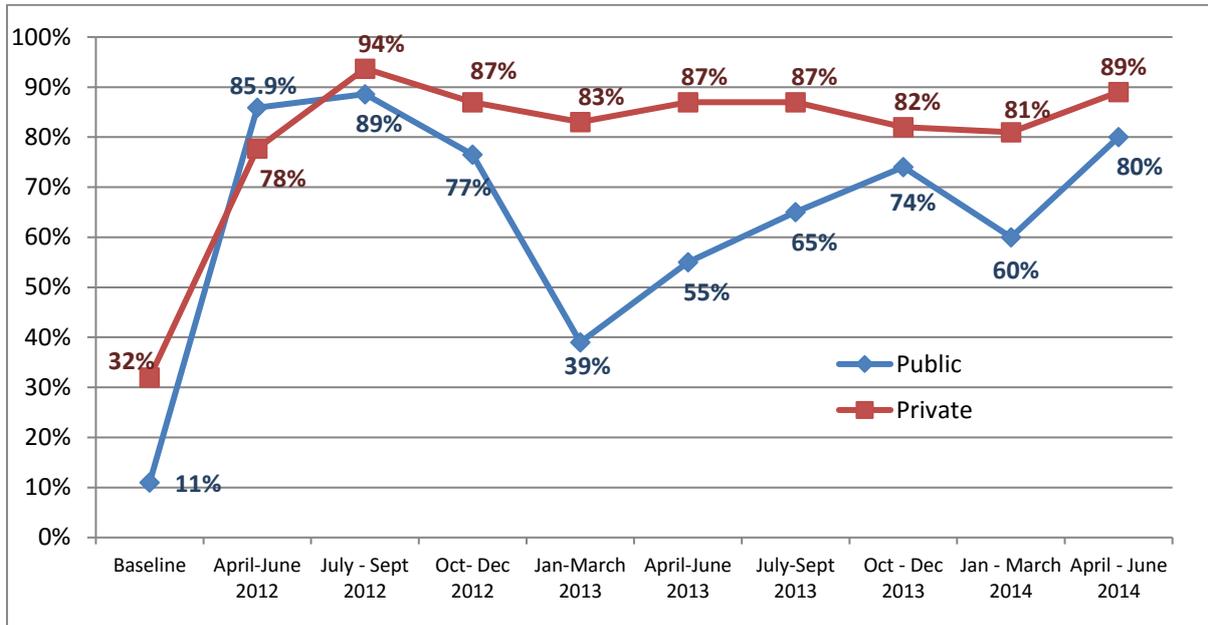
Figure 1: Proportion of facilities stocked with tracer list of essential first-line medicines and supplies at the time of the visit, January 2012-June 2014



A. Availability of Artemisinin Combination Therapy

The availability of ACT in Tibu Homa-supported public and private health facilities have also improved. In January 2012, only 11% of public facilities and 32% of private facilities had ACT in stock and had not had stock-outs in the previous seven days. By June 2014, the proportion of facilities that had ACT in stock had increased to 80% in public health facilities and 89% in private health facilities (Figure 2).

Figure 2: Proportion of government and private health facilities reporting no stock-out of ACT for seven days in a row or longer in each quarter for treatment of uncomplicated malaria, January 2012-June 2014

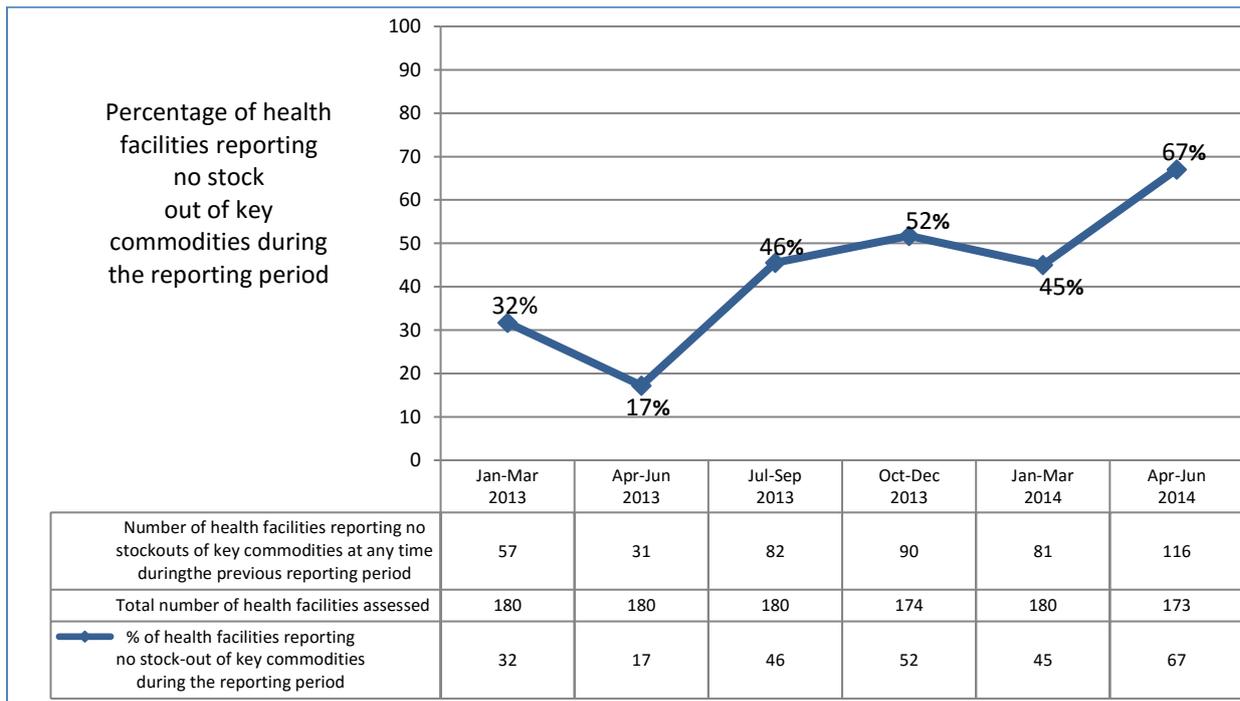


Source: Lake Zone Health Facility Data 2012 - 2014

B. Availability of ACT and mRDT

There has been an overall improvement in the availability of key commodities (malaria rapid diagnostic tests [mRDTs] and ACT combined) for the past one year. In the period January-March 2013, the percentage of facilities reporting no stock-out of key commodities was 32%, compared to 67% in the quarter April-June 2014. This improvement is mainly due to better pulling of commodities by facility health care workers.

Figure 3: Lake Zone Percentage of health facilities reporting no stock-out of key health commodities (mRDT & ACT) during the reporting period (Jan 2013 – June 2014)



IV. DISCUSSION

The improved availability of commodities especially in public health facilities which was observed over time is due to improved pulling systems¹ by health care workers with improved stocks at the zonal MSD. At baseline in January 2012, the proportion of facilities which had stocked more than 10 out of 22 tracer items stood at 42% compared to 80% in March 2014 (Figure 1). The availability of supplies in private health facilities is always better than public health facilities because of available coping strategies² in the supply chain (use of alternative funding, purchasing from private sector, etc.). Some of the districts that have adapted such coping strategies, including Karagwe District in Kagera Region which has good stock levels of ACT and other essential medicines in its health facilities. Tibu Homa has started an initiative in collaboration with R/CHMTs and the National Health Insurance Fund (NHIF) regional authorities to mobilize communities to contribute to the Community Health Fund as a sustainable alternative source of funding in the public facilities.

Availability of key commodities (ACT and mRDTs) is another important parameter that is tracked, as these two items are crucial in reaching the required standard treatment guidelines where all children presented with fever are to be tested using mRDT or microscopy; those who are malaria positive are supposed to be treated as per national policy. In January 2013 when the program started tracking key commodities, the proportion of facilities which had no stock-out was 32%; this has improved to 44% at the end of March 2014 (Figure 3). There could be several reasons subscribing to this scenario but the major contributing factor is the improved supply chain management by the health staff, availability at the MSD, and consistent supportive supervision and mentorship, which is conducted monthly.

V. CONCLUSION AND RECOMMENDATIONS

The experience attained to date by the Tibu Homa Program shows that the rampant stock-out of essential commodities can be eliminated or significantly reduced, even in limited-resource settings. The gains reported came mainly from health facility staff improvements in logistics management leading to proper quantification and forecasting. The initial classroom trainings followed by on-the-job training mentorship have worked well. Monthly supportive supervision visits introduced by the program show that facility staff are abiding by the stipulated guidelines. They know that the team from the CHMT will definitely visit them and discuss the tasks that they have mutually agreed to accomplish. Moreover, barriers in communication have also been addressed, and facilities can easily call their district heads for emergency orders or vice versa.

Tibu Homa Program recommends that the R/CHMTs institute a culture of supervising and mentoring the health facilities under their jurisdiction and advocate for the health facilities to have their internal mechanism of self-supervision and assessment.

¹ A pulling system is a method whereby health care workers initiate and send their requests for medicines and supplies from MSD according to their needs.

² Coping strategies are tactics used by health care workers who seek medicines and supplies that are unavailable from MSD, through private vendors outside of the MSD system, and complete payment often using private funds or other alternative sources of funding, such as NHIF, Community Health Funds, and user fees charged to patients.

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