

# Exploring the pharmaceutical situation in Dodoma Region

The baseline health facility survey in Dodoma reveals strengths and weaknesses

## Results

### Strengths

- National medicines Policy
- Standard Treatment Guidelines
- Integrated Logistic System
- Health Facility Governing Committees
- Infrastructure & communication means
- Zonal Medical Stores Department
- Local School of Pharmacy
- Interest and investment in pharmaceutical sector

### Weaknesses

- Availability of medicines 54%
- Order fulfilment by Medical Stores Department 59%
- Supply management by non-pharmaceutical staff in 94% of facilities
- Poor record keeping & documentation
- Access and use of complementary medicines funds cumbersome and inefficient
- Facilities with good storage practice 51%

As a first activity after the Dodoma Health Project launch in July 2011, a comprehensive baseline study at health facility level was conducted. It would form the basis and benchmark against which impact of planned interventions can be measured and progress monitored.

A questionnaire was elaborated in collaboration with local, regional and national stakeholders, and a list of 26 tracer medicines was developed. After pre-testing and revision, the questionnaire was administered by four senior Tanzanian pharmacists recruited for the data collection. All 270 health facilities of the Dodoma Region (full sample) were included in the survey.

### Context

At the time of the study, important strengths were already in place in the country. A National Medicines Policy (NMP), Standard Treatment Guidelines (STG), the Integrated Logistic System (ILS), administrative and governing structures and infrastructure (health facilities and roads) are available. There is significant interest and investment in the pharmaceutical sector from the government of Tanzania (GoT) and donors. A zonal Medical Stores Department (MSD) supplies Dodoma Region, and health facilities order medicines based on needs through the ILS. Communication and infrastructure possibilities are widely available, including Internet and mobile phones. Dodoma has a school of pharmacy and a regional training centre that facilitates local training courses. Health Facility Governing Committees (HFGC) members are appointed and offer a bridge to the community, translating needs and issues.

Despite these strengths, there is work to be done on the management of medicines. While policy, guidelines, structures and systems are in place, implementation and processes are weak. Access to medicines is severely hampered and consequently quality of services is insufficient. Procedures are bureaucratic and cumbersome. The involvement of a large number of partners and donors leads to a very fragmented supply system and financial flow. In addition, there is limited information sharing among partners and donors. These shortcomings mean that the supply side of the health system discourages health seeking behaviours and enrolment in Community Health Funds (CHF).

### Baseline Survey Findings

The survey revealed complex and systemic weaknesses of the whole supply chain at all levels including aspects of financing, human resources, health information, governance, supply and record keeping skills, bureaucratic procedures and service delivery, as well as issues with Medical Stores Department (MSD) leading to significant stock-outs of medicines at facility level.



A pharmacy store  
 in Dodoma Region (K. Wiedenmayer)

Of the 270 health facilities (HF), 247 (91.5%) were open and staffed at the time of the survey.

### Human Resources

Out of the 247 facilities surveyed, only 5 health facilities, notably hospitals, employed a trained pharmacist, 7 HF had a pharmacy technician and 2 HF had a pharmacy assistant. In 233 of 247 open and staffed HF (94.4%), medicines management was done by non-pharmaceutically trained clinical cadres comprising clinical officers, nurses and medical attendants. These results indicate a severe shortage of pharmaceutically trained health workers.

**Table 1: Staff managing medicines at health facility (N=247)**

Cadre	Number	Percent %
Pharmacist	5	2
Pharmacy technician	7	2.8
Pharmacy assistant	2	0.8
<b>Total pharmaceutical staff</b>	<b>14</b>	<b>5.6</b>
Clinical officer	72	3.1
Medical attendant	105	45
Nurse	56	24
<b>Total non-pharmaceutical staff</b>	<b>233</b>	<b>94.4</b>

### Availability of medicines

Public health facilities stock essential medicines based on the Essential Medicines List. Standard Treatment Guidelines and National Essential Medicines List were available in 40% of HF.

Availability of medicines, evident with significant stock-out levels, is a major problem. The more remote a health facility, the more stock-outs have been observed. Mean availability of 26 tracer medicines in all health facilities of Dodoma region was 53.4% with a significant variability between types of HF. Corresponding mean stock-out rates in all facilities were in the order of 47%.

To understand performance from the side of MSD, the order fulfilment rate was measured. This rate indicates the percentage of medicines ordered as compared to number of medicines delivered to the HF. The survey revealed that a mean of 58.6% of the 26 tracer medicines ordered from MSD were actually delivered to facilities.

**Table 2: Availability of tracer medicines and Good Storage Practice by type of facility**

Type of facility	Number	Mean availability %	GSP in %
Dispensary	216	52.4	50
Health centre	24	55.9	63
District/referral hospital	7	77.3	56
<b>Total</b>	<b>247</b>	<b>53.4</b>	<b>56</b>

### Financing

Facilities have the possibility of using complementary funds for the purchase of medicines such as income from CHF and NIHF. However, procedures to access these funds are complicated, cumbersome and lengthy; they also vary between districts. 60% of staff involved in medicines supply had never accessed complementary funds in situations of stock-outs, particularly in dispensaries.

### Storage, supply and record keeping skills

An important indicator of good pharmaceutical management is record keeping and inventory management. This indicator was measured by comparing the ledger books with the physical inventory, counting numbers of units of all tracer medicines. The study findings indicate a significant imbalance and inadequate book keeping practice. In some cases, medicines were received but not accounted for when dispensed. In other cases, medicines were received and not entered in the ledger book but instead directly brought to the store. Both situations indicate poor book and inventory keeping, and might hint to improper handling, if not leakage. Only 51% of all health facilities had all conditions fulfilled for good storage practice.



### Dodoma Health Project Tanzania - Background

Health Promotion and System Strengthening (HPSS) or Tuimarishe Afya Project is part of the development cooperation between Tanzania and Switzerland. The HPSS project was launched in 2011 and supports Dodoma Region in the areas of health insurance, community health promotion, pharmaceutical management and management of maintenance and repair services for a period of 10 years. The project is funded by the Swiss Agency for Development and Cooperation (SDC) and implemented by the Swiss Tropical and Public Health Institute (Swiss TPH).

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