



# Stock out or in stock?

## Access to medicines in Tanzania



### 1. Introduction

Two out of three families in Tanzania report that one family member was ill in the last month. Although initial advice and treatment may be sought at a drug store, most of these patients will eventually look for treatment at a health facility. Can patients get the medicines they require at these facilities? How often are stock outs reported? This brief reports new findings on these and other questions on access to medicines in Tanzania, presenting the most recent data on this topic available from health facilities and patients.

The findings are based on the fourth round of *Sauti za Wananchi*, Africa's first nationally representative mobile phone survey. Calls were made between 17 June and 3 July 2013; data include responses from 1722 households and 92 health facilities. The data also include observations by respondents who carried out a monitoring exercise; monitoring being completed in 132 health facilities and 61 pharmacies. This brief also presents findings from the Service Delivery Indicators Survey (SDI, 2010); and the *Sauti za Wananchi* baseline survey which was implemented between October 2012 and January 2013. The health module of the baseline survey was conducted among 1,679 households (phone interviews) and 114 health facilities (facility visits).

The key findings are:

- 69% of health facility heads mention lack of medicines as one of their three main problems
- 41% of patients are not able to obtain prescribed medicines at the health facility; but they largely do acquire these medicines from other sources

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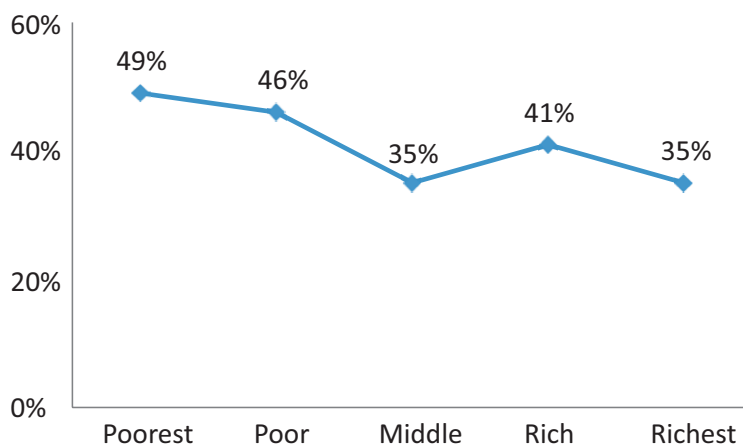
- 24% of the medicines on a list of essential drugs in the 2010 SDI survey were not available
- 96% of health facilities provide vaccinations and these are largely in stock

## 2. Ten facts about medicines in Tanzania

### **Fact 1: 41% of patients buy medicines before seeking treatment**

A sizable minority of patients (41%) seek diagnosis and treatment at a drug store before going to a health facility. As Figure 1 below shows, this applies to patients regardless of levels of wealth. However, the percentage of patients visiting a drug store first is higher among poorer households. One of every two (49%) poor patients engages in informal diagnosis and obtains medication without a prescription from a health facility.

**Figure 1: Patients seek care and buy drugs from pharmacies before seeking care at hospitals**



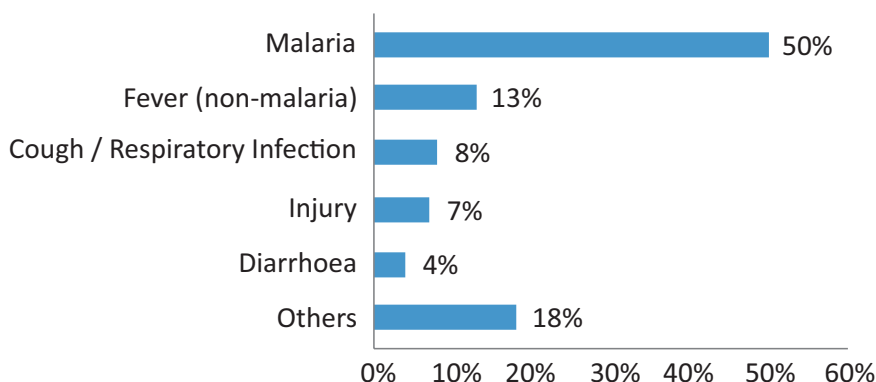
**Source of data:** *Sauti za Wananchi*, Baseline Survey-Mobile Phone Interviews, January 2013.

### **Fact 2: Malaria is the most common diagnosis**

At health facilities, half of those who seek treatment are diagnosed with malaria. The next most common diagnosis, for 13% of patients, is general fever (excluding malaria). Note that these figures should be treated with some caution: correctly diagnosing malaria is often a challenge due to lack of test materials. The numbers reported here are, however, broadly in line with official morbidity incidence statistics.<sup>1</sup>

<sup>1</sup> For example, see Ministry of Health, Department of Policy and Planning (2008), <http://www.moh.go.tz/documents/HMIS%20Abstract%202008.pdf>

**Figure 2: Problems affecting patients the last time they visited a health facility**

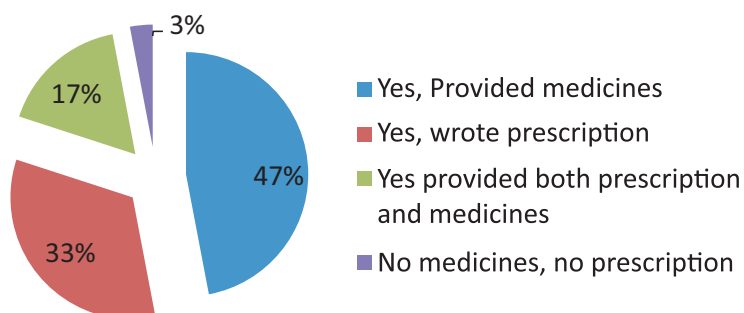


**Source of data:** *Sauti za Wananchi*, Baseline Survey, October-December 2012.

### Fact 3: Health providers nearly always prescribe medication

When visiting a health facility, 97% of patients leave with either a prescription or medication or both.

**Figure 3: Did health worker provide /prescribe medication?**



**Source of data:** *Sauti za Wananchi*, Mobile Phone Survey - Round 4, June 2013.

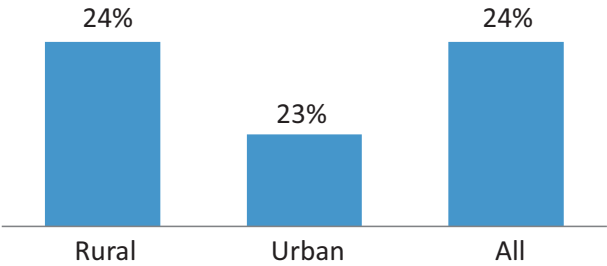
### Fact 4: Drug stock-outs are common

The 2010 Service Delivery Indicators (SDI) Survey Tanzania involved visits to 175 public primary health facilities across Tanzania and assessed, among other issues, the availability of medicines from a list of essential drugs and vaccines, through direct observation. The list of medicines included Oral Rehydration Salt, Paracetamol, Alu and Metronidazole as well as other antibiotics and medicines. Figure 4 below shows stock-outs as a percentage share of the 14 basic drugs on the list. On average, 24% of the items on the list were not available. Note that stock-out measures are very sensitive to the number of different medicines checked. In this respect, the fact that Tanzania does not have an officially accepted and regularly monitored list of essential medicines is problematic.<sup>2</sup>

<sup>2</sup> For example, the Tanzania Ministry of Health and Social Welfare reports in its Medicine Price Monitor (2009) an availability of 44% in public facilities based on a list of 41 essential medicines; similarly, Health Action International reports medicine availability in Tanzanian public facilities of 43.3% in 2012 based on a list of 50 medicines (<http://www.haiweb.org/MedPriceDatabase>).

Focusing on malaria - which presents the most common health problem according to Fact 2 above – the SDI data show that anti-malaria medication (Alu, either adult or child dosage, or both) is available in 81% of health facilities. The *Sauti za Wananchi* citizen monitors report that anti-malaria medication is available in 90% (113 out 132) of the health facilities visited.

**Figure 4: Stock out of drugs at facilities (Tanzania SDI, 2010)**

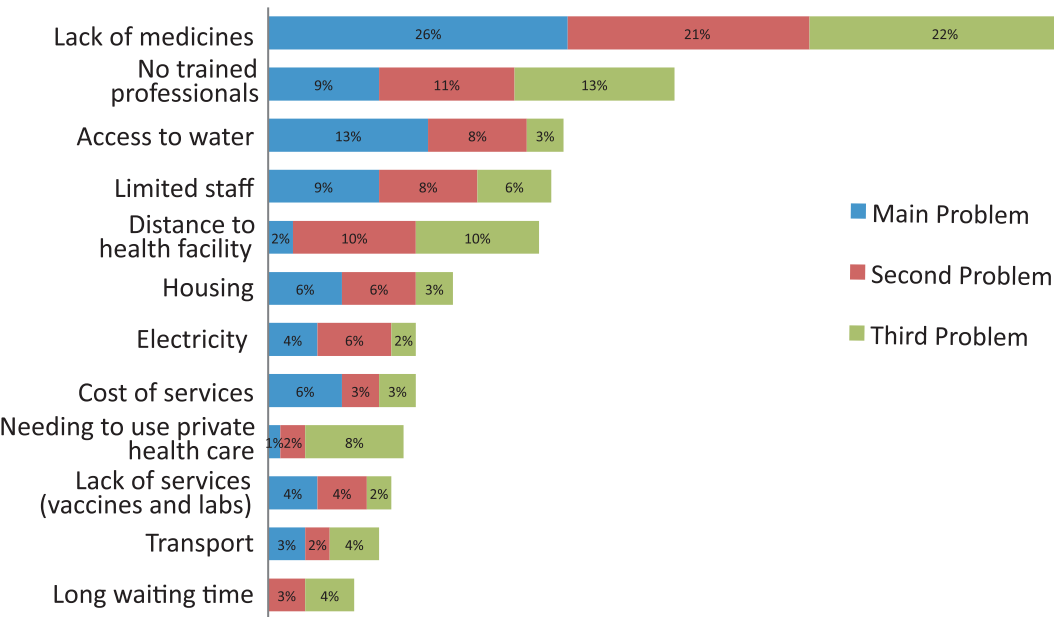


**Source of data:** Service Delivery Indicator (SDI) Survey - Tanzania, 2010.

**Fact 5: Lack of drugs is the main concern for health facility heads**

The *Sauti za Wananchi* baseline health facility survey (face to face interviews) asked heads of health facilities to describe the three main problems affecting the quality of health care in their communities. The facility heads reported, in order of priority, the problems listed in Figure 5. Lack of medicines at the health facility was mentioned as the main problem by 26% and as one of the three main problems by 69% of the heads of health facilities.

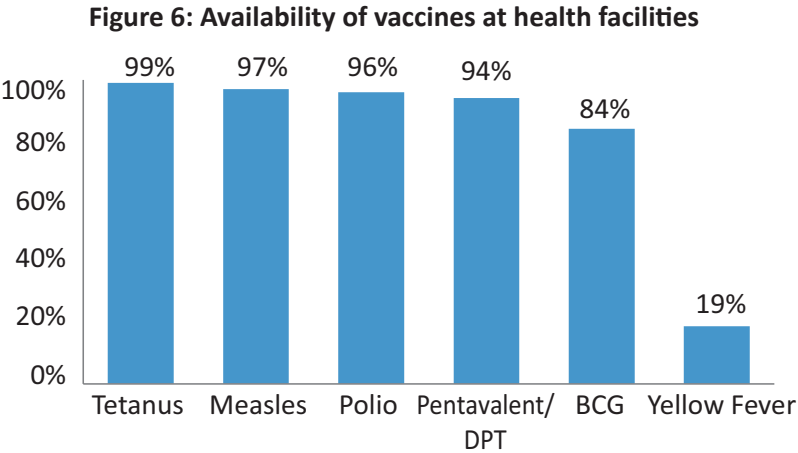
**Figure 5: Major problems facing health facilities**



**Source of data:** *Sauti za Wananchi*, Baseline Survey, October-December 2012.

**Fact 6: Health facilities are well stocked with vaccinations**

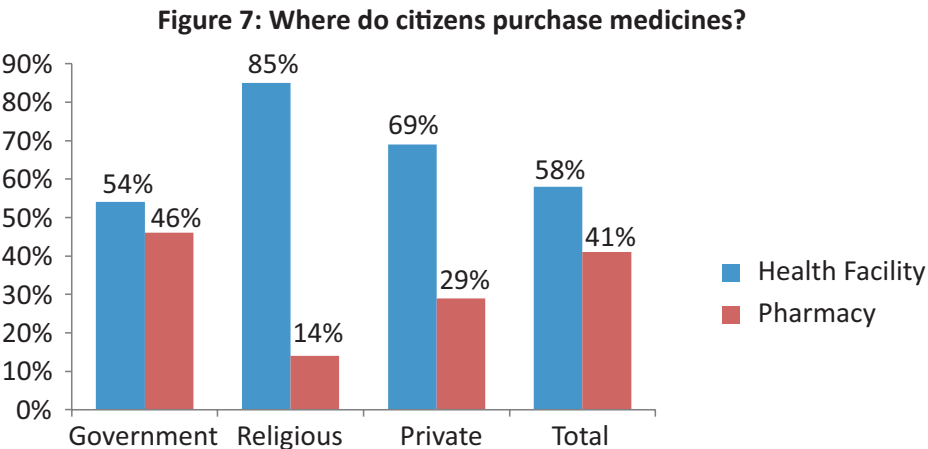
According to interviews with the heads of health facilities, 96% of health facilities provide vaccinations. Most health facilities (between 83% and 98%) had stocks of BCG, Pentavalent, Polio, (for Measles and Tetanus). These findings tally with the high infant immunization rates in Tanzania; e.g. the 2010 Tanzania Demographic and Health Survey reports 88% DPT3 (the final dose for immunization against diphtheria, pertussis (whooping cough) and tetanus) immunization coverage of 1-2 year olds.



**Source of data:** *Sauti za Wananchi*, Mobile Phone Survey - Round 4, June 2013.

**Fact 7: Patients often cannot obtain medicines at public facilities**

41% of patients are not able to obtain the medicines required directly at the health facility and are required to visit other pharmacies. As Figure 7 shows, religious and private facilities are more likely to provide medication to patients than government facilities. Yet nearly all patients (99%, not reported in Figure 7) report accessing the medication they need. This means that in many cases patients turn to private pharmacies.

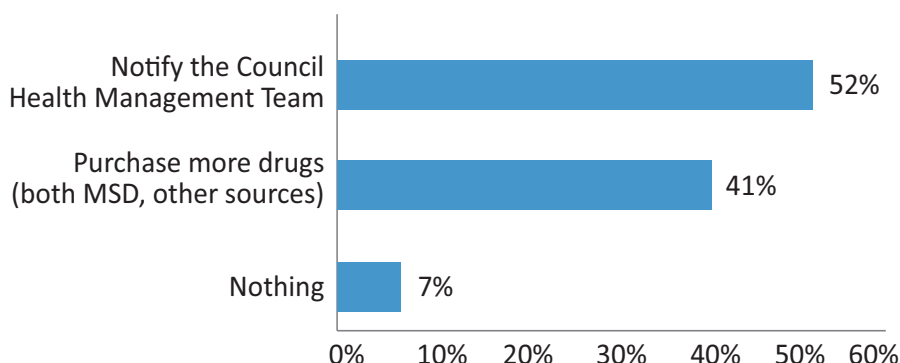


**Source of data:** *Sauti za Wananchi*, Mobile Phone Survey - Round 4, June 2013.

## Fact 8: Health facility heads follow up on stock-outs

Given the reported lack of medicine at health facilities, *Sauti za Wananchi* asked the heads of health facilities what action they take if the facility is out of medicine. As illustrated in Figure 8 below, 52% of them notify the district health officer; another 40% report purchasing medicines. The action taken depends on the type of facility. For example, lower level health facilities such as dispensaries do not order directly from the Medical Stores Department (MSD).

**Figure 8: Steps taken by health facility officials during stock outs**

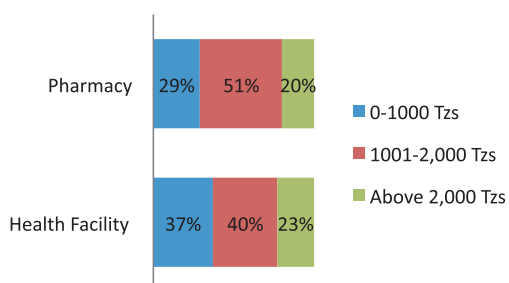


**Source of data:** *Sauti za Wananchi*, Baseline Survey, October-December 2012.

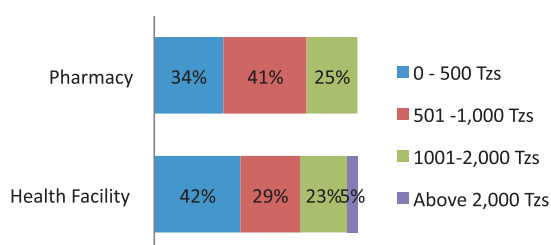
## Fact 9: Malaria treatment is more expensive in pharmacies

Artemether-lumefantrine (Alu) was the malaria medicine prescribed to 61% of the patients who suffered from malaria the last time they visited a health facility. Given the high incidence of malaria, Alu is clearly an essential medicine. Do providers adhere to the officially recommended price of TZS 1,000 per adult dose (TZS 500 per child dose)?<sup>3</sup>

**Figure 9: Cost of adult dose of Alu**



**Figure 10: Cost of child dose of Alu**



**Source of data:** *Sauti za Wananchi*, Mobile Phone Survey - Round 4, June 2013.

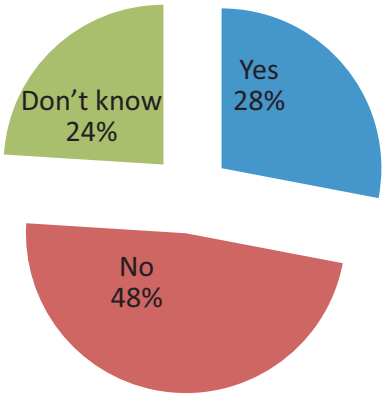
<sup>3</sup> Under the Affordable Medicines Facility for Malaria (AMFm) pilot, the recommended retail price for an adult dose of Alu is TZS 1,000 (USD 0.64). This has been promoted widely through television and radio public service announcements across Tanzania. Starting in July and August 2011, this recommended price was also added to printed materials for promoting AMFm subsidized Alu. Moreover, on 25 June 2011 the Permanent Secretary at the Ministry of Health and Social Welfare (MHSW) issued a press release making it clear that Alu should be dispensed at TZS 1,000 for an adult dose and at TZS 500 for a child's dose.

Figure 9 and Figure 10 show the cost of a dose of anti-malaria medication (Alu) for adults and children, respectively, as recorded by *Sauti za Wananchi* citizen monitors in pharmacies and health facilities (this excludes cost of diagnosis, consultation). For adult and child doses, anti-malaria medication is over-priced at both health facilities and pharmacies. Figure 9 shows that 71% of drug store customers and 63% of patients at health facilities pay above the recommended price of TZS 1,000 for an adult dose of anti-malaria medication.

**Fact 10: Patients buy medicines from shops owned by health facility workers**

*Sauti za Wananchi* asked patients who bought medicines outside health facilities about the staff of the private pharmacies they visited. As illustrated in Figure 11, 28% report that they bought medicine from a drug store owned by a person working at a government health facility or a member of their family. While this does not prove that in these cases medicines are diverted from public facilities, this situation raises questions about potential conflicts of interest.

**Figure 11: Government health workers or family members ownership of pharmacies**



**Source of data:** *Sauti za Wananchi*, Mobile Phone Survey - Round 4, June 2013.

**3. Conclusion**

Access to medicine is a key element of any health system. Access is determined by ready availability of essential medicines as well as affordability – particularly in Tanzania, where 93% of the population lacks health insurance, according to the 2010 Tanzania Demographic and Health Survey. This brief provided key facts on access to medicines in Tanzania based on some of the most recent data available from *Sauti za Wananchi*.

The main findings are that curative medicine stock outs at health facilities are a common problem; at the same time vaccinations, an important preventive medicine, are nearly universally available. Several different types of data support this conclusion, including facility drugs stock data, phone interviews and conversations with households

and heads of facilities. However, this brief also finds that consumers do have alternative ways to obtain medicines outside facilities.

These findings point to several problems. The first concerns accountability: when stocks of essential medicines run out, public facilities should be able to replenish them in good time. If this is not the case, this indicates that there are too few drugs in the public supply system (e.g. because of insufficient funds); or the day-to-day ordering and logistics of the system are not able to deliver stocks to the right place at the right time (this can be a supply problem at the level of the Medical Stores Department – but facilities may also fail to order in time); or that the system is leaking – either funds or drugs are ending up outside the system, e.g. in private pharmacies; or a combination of these factors.

Total pharmaceutical expenditures – with a value of medicines delivered through health facilities at \$8 per capita in 2006/07 – are considered insufficient (Tanzania Health System Assessment 2010, USAID). Moreover, anti-malarials and other essential medicines make up less than half of these expenditures.

A further issue is that medicine supply limitations may affect prescriptions: health workers may be inclined to prescribe an alternative if the preferred medicine is not available. Some evidence that this is happening is that a majority of facility heads complain about stock outs while a majority of patients report obtaining medication at the facility when they are ill. Finally, patients may face higher prices outside the health facility than inside, again reducing access to medicines for many people.

An in-depth assessment of national pharmaceutical budget allocations, of technical failures in the medical supply system and of accountability to citizens at various levels is required so that all citizens can obtain and afford the medicines to which they are entitled.

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\* Please note that for the sake of readability Sauti za Wananchi briefs report means without confidence intervals. However, these are available on request.