

Healthcare Delivery Environment and Performance in Tanzania

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Introduction

Good health is indispensable towards promoting the wellbeing of people as well as the nation's development (World Bank, 2016). Tanzania like many other developing countries, has marked health as a priority matter that needs much attention - making the country committed to goal 3 of the Sustainable Development Goals of 2030 (Lee & Tarimo, 2018). As the nation strives to make access to health care inclusive to the entire population, it has adopted various initiatives such as the Big Results Now, MKUKUTA, and the first and second Five Year Development Plans, which collectively operationalize the National Development Vision 2025. Further, Tanzania is also implementing the Health Sector Strategic Plan 2015 - 2020 (HSSP IV) with focus on improving the performance of health facilities and staffs as well as ensuring adequate supply and availability of drugs and health sector staffs. In line with enhancement of Universal Health Coverage, the government has made substantial progress in the health sector through decentralization of primary health care system, improvement in the health financing system, including the establishment of the Community Health Funds which have paved the way for smooth supply and demand for quality health services in the country (Wang & Rosemberg, 2018)

The health financing system of Tanzania depends primarily on tax revenues, support from the development partners; out-of-pocket payments, private and social insurance for the health service users. Public health expenditure as percentage of Gross Domestic Product (GDP) has increased from 2.5 percent in 2012/13 to 3.5 percent in 2015/16. (UNICEF, 2017). Despite the various efforts and the diverse sources of health sector financing, there are still challenges that impact on access and quality of health services. The health budget as a percentage of the total national budget declined from 10 per cent in the FY 2013/2014 to 5.9 per cent in the FY 2019/20, significantly lower than the levels recommended by the Abuja Declaration agreement which calls for the allocation of at least 15 per cent of the total government budget to the health sector (Sikika, 2019). The health sector is still faced with inadequate fully trained health staffs, limited public health financing, poor infrastructure and long distance to the health care facilities (Swere, 2016). Even worse, there is still a wide disparity towards quality access to health services between urban and rural residents and between the rich and the poor (Wang & Rosemberg, 2018)

REPOA, in collaboration with the World Bank, conducted a survey to assess outcomes of primary education and health services. The survey looked at the inputs, commitments and competencies of service providers in these sectors. The survey was conducted in two rounds in 2014 and 2016/17. The two surveys were preceded by a pilot conducted in 2010 in Tanzania and Senegal. This provided Tanzania with an advantage of having data that could assess changes over a period in three waves. The survey covered 400 health facilities in Tanzania, assessing health providers and the health delivery environment.

This brief provides findings in the health sector, covering the three areas; inputs, competencies and commitments. Comparisons over time have been made where possible to show the trend of the situation.

Input availability

On the availability of inputs (electricity, water and sanitation) in health facilities, results showed that more than half of Tanzanian facilities (56%) had access to electricity, clean water and improved sanitation. Most of the facilities were equipped with vaccines. However, 54 per cent of the refrigerators were found to be non-compliant with the regulation of temperature. The facilities also had more than half of the priority drugs (53 per cent) available for mothers while generally, only 12 per cent of facilities had all 14 tracer drugs in stock.

Provider effort

The results show that only 16 per cent of health providers were absent from the facility. However, the absence was more predominant in Dar es Salaam where 25 per cent were not found in the facility. Doctors, especially in urban areas, were the most likely to be absent. Their absence was more likely not to have been approved. Caseload was very minimal with the average health worker attending to patients on an average of 8 outpatients per day.

Provider ability

Health providers could correctly diagnose only 62 percent of five common conditions. There was a significant difference between public providers in rural areas who managed to diagnose less than half (47 percent) of the conditions and those in the urban areas who correctly diagnosed 68 percent of conditions. Only 6 percent of the nurses could correctly diagnose at least 4 of the cases.

Availability of health providers

Human Resources for Health (HRH) play a vital role towards improvement of the health care services. Based on the SDI findings, Tanzania was experiencing shortage of human resources in its health facilities where they were staffed with 14.1 percent health workers. Urban facilities had more staff (78 percent) compared to rural facilities (22 percent). Public facilities had fewer staff members than their private counterparts. Over two thirds of health workers were nurses. Although only 10 percent of Tanzania's population lived in Dar es Salaam, the city was home to 41 percent of all doctors. Further, only 25 percent of the country's health workforce and merely 7 percent of all doctors served almost 85 percent of the majority who are mostly poor residing in the rural areas. These stark service delivery inequalities are likely to translate to deterioration of citizens' welfare especially rural dwellers.

Drugs

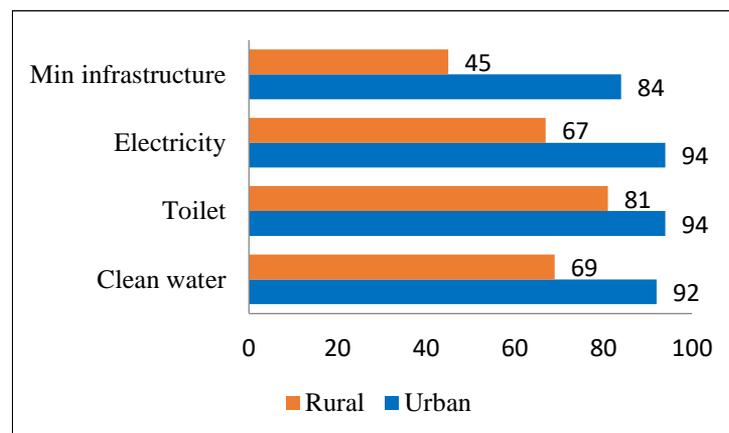
When availability of drugs in the health facilities was assessed by the SDI survey, there was an average of 67 percent of the drugs in the facilities.

The level of availability of the 14 tracers was at 64 percent. With just 2/3 of the tracers available, public facilities had a significantly lower score compared to the private ones. It is alarming that only 12 percent of the facilities had all the tracers available. Virtually, no rural public facility (1 percent) had all the tracer drugs on stock and unexpired. Neither drugs for children nor drugs for mothers were widely available with average scores of 54 percent and 40 percent, respectively.

Given the national concern about maternal mortality and efforts to improve maternal health outcomes, the availability of tracer drugs for women was unsettlingly low. Rural facilities did consistently and significantly worse than urban facilities in terms of drugs availability.

Infrastructure

In terms of accessibility of infrastructure (water, sanitation and electricity), only 62 percent of the health facilities had access to clean water, improved toilets, and electricity. There was a large difference, however, between rural and urban facilities (37 percent for public vs. 83 percent urban). Rural health facilities particularly faced limited access to electricity, clean water and toilets. The indicator for infrastructure steadily improved with the level of the facility starting from 46 percent for dispensaries, 78 percent for health centers and 85 percent for district hospitals. However, a larger share of dispensaries in Dar es Salaam had a better access to infrastructure (85 percent) when compared to health centers in rural areas (56 percent). 73 percent of facilities in Tanzania had access to clean water and 68 percent had access to electricity. The public sector lagged the private sector for all three-basic infrastructure.



Results in figure 1 show there was a huge gap in the availability of electricity, toilets and clean water between the rural and urban areas. Access to clean water (92%), toilets (94%) and electricity (94%) was higher in urban health facilities than the rural health facilities with clean water (69%), toilets (81%), and electricity (67%).

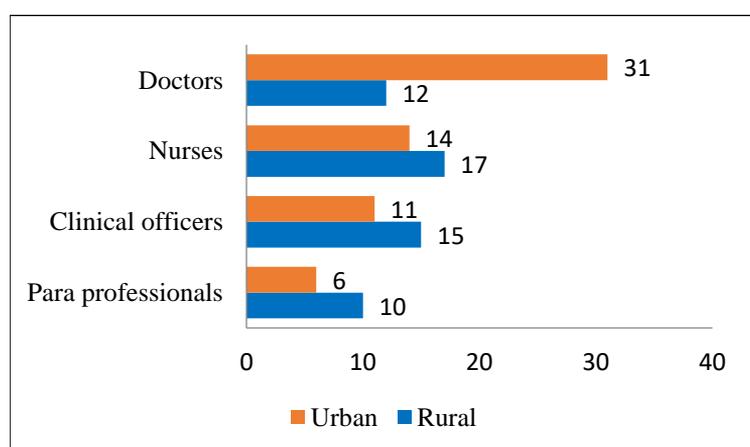
Provider effort: What providers do?

In countries which experience shortages in human resources for health, it is usually a concern that health workers are overworked i.e. their caseload unsustainably high, potentially compromising the quality of service. In Tanzania, however, the SDI data suggest that a large share of health providers, especially those in moderately sized facilities, had very low caseload levels. The average caseload in Tanzania stood at 7.8 outpatients per provider per day. Private for profit facilities had the highest, albeit still low, daily caseload with 11.3 outpatients seen by the average health provider. The outpatient workload decreased with the size of the facility with district hospital staff consulting only 3.6 patients per day. Health staff that worked in urban dispensaries were the busiest and saw 12.7 outpatients a day. Despite the shortage in health personnel, providers' caseload in Tanzania was low suggesting that there was a room for significant improvement of health providers' productivity without jeopardizing quality.

Compared to African (even Asian) standards, absenteeism in Tanzania's health sector was relatively minimal at 16 percent although it slightly increased from 14 percent in 2014. Absenteeism was higher in Dar es Salaam where 25 percent health providers were absent. Absence was particularly high in Dar es Salaam's health centers (24 percent) and hospitals (26 percent). Staff in private not-for-profit facilities were as likely to be absent as those in public or other private facilities (difference in absence rates were positive but not statistically significant).

Four major themes were observed in relation to absence rate: (i) Absence rates were similar in dispensaries while significant differences were observed in health centers; (ii) Facilities with staff in excess of six workers relative to facilities with 2 or fewer workers were found to have higher absence rates; and (iii) 31 percent of urban doctors were absent from the facility at any point in time; and (iv) While absence in private (non-profit) facilities was 37 percent lower than public facilities.

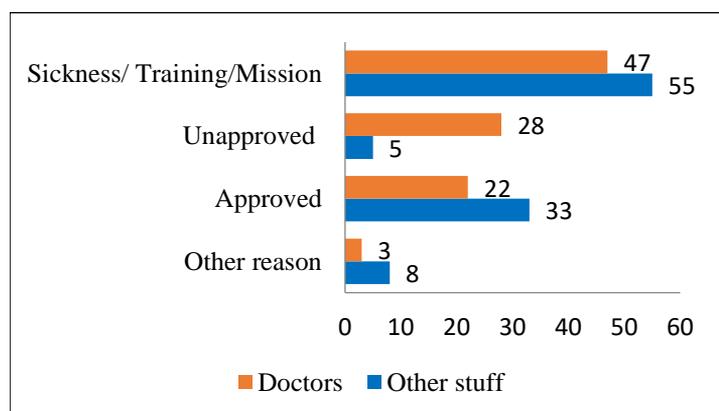
Figure 2. Absence rates by cadre



Absenteeism was more acute for doctors compared to other staff. Nurses were more likely to be absent than clinical officers and para-medical professionals. Results in figure 2 show that urban doctors (31 percent) were more likely to be absent than their counterparts serving in rural areas (12 percent).

This may be due to opportunities for moonlighting or other income generating activities. However, it is possible that absence can be improved by more prudent sanctioning policy of absence. This suggests that management improvements and better organization and management of staff can potentially improve the availability of staff for service delivery.

Figure 3. Reasons for absence (% of all absences)



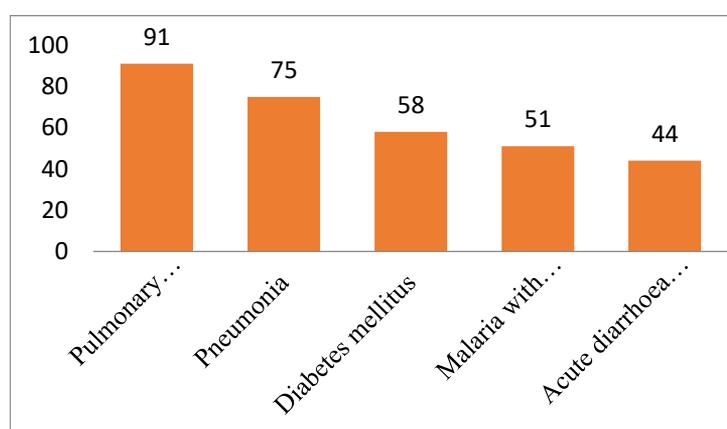
Provider Ability: What providers know?

The SDI survey assessed providers' ability and knowledge using two process quality indicators (the adherence to clinical guidelines in five tracer conditions, and the management of two maternal and newborn complications), and an outcome quality indicator (diagnostic accuracy in five tracer conditions).

The results show that providers were able to correctly diagnose 62 percent of tracer conditions. Urban providers as a whole significantly outperformed their rural counterparts (68 percent versus 47 percent). Across cadres, clinical officers perform at par with doctors, but nurses' score was just slightly above half that of clinical officers. It is also noteworthy that more than half of the private-for-profit providers (51 percent) performed worse than providers in both the public (58 percent) and not-for-profit sectors (67 percent). Within the public sector, rural providers found less than half (48 percent) of the cases. The best performers are doctors in rural facilities who accurately diagnosed 80 percent of cases. Nurses in faith-based organizations performed the worst by diagnosing only 18 percent of cases.

Furthermore, only 45 percent of the providers were able to correctly diagnose at least 4 of the conditions and 22 percent managed to correctly diagnose all 5 conditions. Almost 2 out of 3 providers could not identify a case of severe dehydration, a fatal condition for children. On the other hand, 1 out of 4 providers could not correctly diagnose more than one case. Only 4 percent of the nurses correctly diagnosed all 5 cases, and almost half of them (48 percent) diagnosed at most one case. The diagnostic accuracy rate varied across case conditions, ranging from 44 percent for acute diarrhea with severe dehydration to 91 percent for pulmonary tuberculosis. More than 1 out of 3 providers could not diagnose diabetes, and about 25 percent of the health providers misdiagnosed pneumonia. Even for very common, but dangerous, conditions such as acute diarrhea with severe dehydration or malaria with anemia, more than half clinicians were unable to offer correct diagnosis for the former.

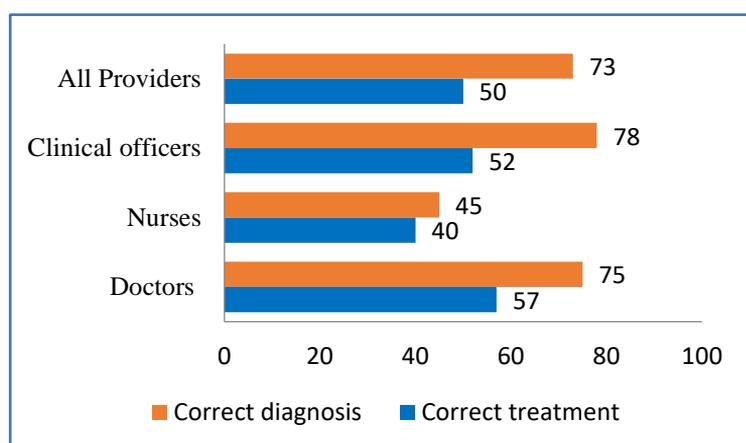
Figure 4. Diagnostic accuracy (% providers who correctly diagnosed clinical case)



Diagnosis accuracy was higher in pulmonary tuberculosis and lower in acute diarrhea with severe dehydration. Since Malaria is recognized as Tanzania's burden of disease, a closer look was taken at the malaria case. The diagnosis of malaria with anemia was the second least accurate at 51 percent.

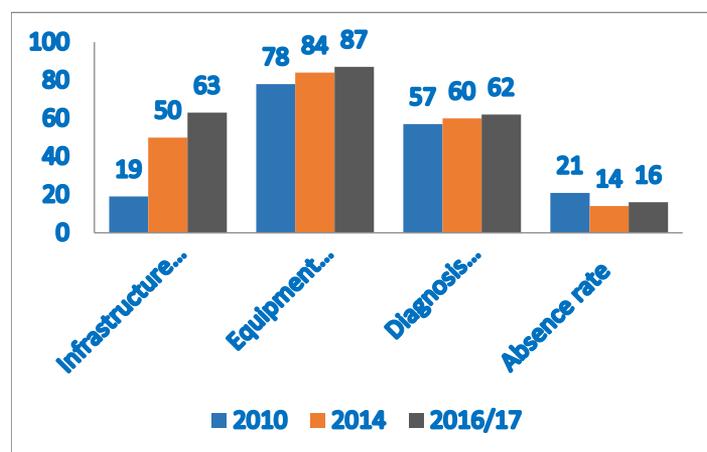
Despite of a very large majority (89 percent) of providers arriving at the diagnosis of malaria, the majority among them did not take the additional required step to identify the presence of anemia.

Figure 5. Diagnostic and Treatment Accuracy (% providers offering correct diagnosis and treatment).



Clinical officers displayed the largest gap between the correct diagnosis and the correct treatment. Interestingly, nurses have a low diagnostic accuracy score but in contrast to doctors and clinical officers they provide the right treatment. Nearly every time they correctly diagnosed the condition presented to them but lagged behind better trained providers in the share of correct treatments.

Figure 6. Trends in service delivery in Tanzania



Tanzania recorded notable progress in nearly all areas of service delivery between 2010, 2014 and 2017. The most impressive progress was in the availability of equipment and

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infrastructure, as well as diagnosis accuracy, which showed satisfactory increase in percentage over time. Between 2010 and 2016/17 equipment, infrastructural availability and diagnosis accuracy increased by 44 percentage, 9 percentage and 5 percentage respectively. However, in terms of absenteeism of health providers over time, the absence rate dropped from 21 percent in 2010 to 14 percent in 2014, but later slightly increased to 16 percent in 2016/17. It must however be noted that there is wider disparity in the absence rate, diagnostic accuracy, equipment and infrastructural availability between the rural areas and urban areas. Attention needs to be paid to reducing geographical inequality in the quality of services available to the citizens.

Conclusion and Recommendations

Since Health lays a vital foundation for human welfare and national development, the health sector still demands huge priority. However, Tanzania still lags behind in the equitable provision of health services where adequate availability of health providers, medical equipment and diagnosis accuracy are dominantly found in the urban areas than in the rural areas. Access to quality health services is also still limited to the poor compared to the rich. Hence, the government in collaboration with different stakeholders needs to continue investing heavily in the health sector to improve the quality and equity delivery of health services to the entire population.

In addition, findings from SDI survey of 2016/17 show that there is still a challenge of inadequate knowledge and ability among healthcare providers towards delivering quality services. Caseload per provider is still relatively low, while the health providers' absence rate has slightly increased. Based on the findings, there is a need to expand the health sector budget to cater for all the necessary inputs in health facilities across the country which will assist in the effective delivery of quality health services.

Also, the government needs to frequently upgrade health providers' skills as well as employing more qualified health workers to cater for shortage. More follow ups and supervision of healthcare providers is highly needed to reduce absenteeism. Further, in order to enhance quality delivery of health services, health workers, particularly those with outstanding performance need to be highly motivated with financial rewards, job promotion as well as recognition.

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