Better medicines for children in The United Republic of Tanzania

Assessment of the prices and availability of medicines for children in The United Republic of Tanzania

Executive summary
This report describes a field study carried out in The United Republic of Tanzania to measure the availability and prices of paediatric medicines using the second edition of the World Health Organization/Health Action International standardized methodology. Data on the prices and availability of 50 paediatric medicines were collected from a sample of health facilities in the public, private and nongovernmental organization sectors in Dar es Salaam, Manyara, Mbeya, Mtwara, Mwanza, Shinyanga, and Tabora regions. In total, the survey team collected data from 143 facilities. Data were also collected on government procurement prices from the Medical Stores Department. For each medicine, data were collected on the highest priced generics and lowest priced generics products found at each facility. Medicine prices are expressed as median price ratio (MPR), which are ratios relative to the Management Sciences for Health International Reference Prices for 2009. Using the salary of the lowest-paid unskilled government worker, affordability was calculated as the number of days' wages needed to purchase medicines for standard treatments of common conditions.

The availability of paediatric medicines assessed in this survey was low in all sectors. In the public sector, the mean availability of all generic medicines in the basket was only 32.0%, while availability of medicines on the national essential medicines list was higher at 45.3%. This suggests patients seeking care in the public sector must go without medicines or purchase them elsewhere, such as in the private sector. Here, the mean availability of the basket of medicines studied was only slightly higher than in the public sector (34.4%). Among nongovernmental organizations, mean availability of the basket of medicines studied was similar to that observed in the public and private sectors (32.1%). In the private sector medicines were, on average, more available in urban areas than in rural areas, while in the public and nongovernmental organization sectors availability did not vary significantly between urban and rural areas.

When availability was analysed by therapeutic areas, oral rehydration solution for the treatment of diarrhoea showed moderate availability, ranging from 57.4% in the public sector to 72.9% in the private sector. However, dispersible zinc tablets were consistently less available (29.8%, 43.8%, and 33.3% in the public and private and nongovernmental organization sectors, respectively). Antibiotics had variable availability depending on the medicine and sector surveyed. For example, benzylpenicillin injection had reasonable availability in all three sectors (87.2%, 66.7% and 87.5% in the public, private and nongovernmental organization sectors, respectively). Amoxicillin suspension had high availability in private and nongovernmental organization facilities, but was only available in 55% of the public facilities surveyed. Ceftriaxone injection had poor availability in all sectors (57.1%, 25.0% and 22.9% in the public, private and nongovernmental organization sectors,
respectively), as did gentamicin injection (21.3%, 6.3% and 18.8% in the public, private and nongovernmental organization sectors, respectively). For antiasthmatics, beclometasone inhaler was not available in any public or nongovernmental facilities, and was only available in 6.3% of private facilities. While salbutamol inhaler had higher availability in all three sectors, it should be noted that it is listed on the national essential medicines list as a level D medicine (regional and referral hospitals) and as such availability in the public sector only reflects availability at this level of care.

Opioid analgesics, namely morphine suspension and tablets, were not available in any facilities in any sector. Anticonvulsants also showed consistently low availability in all sectors. With the exception of phenobarbital injection in the public sector, the availability of the anticonvulsants surveyed was consistently less than 20% in all sectors, and was often 0%.

In the public sector procurement agency, the Medical Stores Department, only 27 of the 50 medicines surveyed were in stock at the time of the survey. On average, prices were 0.80 times international reference prices, indicating a good level of purchasing efficiency. However, three medicines had median price ratios substantially higher than international reference prices: epinephrine injection (MPR=1.73), phenobarbital injection (MPR=2.38), and gentamicin injection (MPR=3.14). In the public sector health facilities, generic medicines were found to have a median MPR of 0.96, ranging from 0.17 for artemether+lumefantrine dispersible tablet to 13.41 for albendazole chewable tablet. Public sector patient prices were, on average, 19.4% higher than the public sector procurement prices. In some cases patient prices were significantly higher than procurement prices. For example, albendazole chewable tablets cost 16 times the procurement price at health facilities.

In the private sector, lowest price generics had a median MPR of 2.22, however within the basket median price ratios ranged from 1.49 for a salbutamol inhaler to 14.9 for albendazole chewable tablets. One quarter of the lowest priced generic medicines in the basket had median price ratios greater than 3.66, that is, prices nearly four times higher than the international reference prices. Minimal price variation was observed across private sector facilities. The lowest priced generic medicines in the private sector were priced 154.9 % higher than in the public sector. This means that a patient buying a generic medicine in the private sector would pay 154.9% times more than if the same medicine were purchased in the public sector, if it was available. In the private sector, both highest priced and lowest priced generics were found for 10 medicines, indicating that for these products private sector outlets are stocking at least two generic equivalents. Highest priced generics had a median MPR of 5.34, and were found to be on average 96% more expensive than their corresponding lowest priced generics.
Among nongovernmental organizations, the lowest priced generic medicines in the basket were found to have a median MPR of 2.41, corresponding to prices 9.8% and 154.9% more than those in the private and public sectors, respectively.

The affordability data indicated that the treatment of acute cases such as pneumonia, malaria, and diarrhoea with lowest priced generics cost between 0.1 and 0.3 days' wages in the private sector and between 0.1 and 0.2 days' wages in the nongovernmental organization sector, while in the public sector it was free. The treatment of malaria with artemether-lumefantrine was subsidized in both public and nongovernmental organization sectors. The treatment of asthma using the lowest priced generic salbutamol inhaler cost 0.9 and 0.7 days' wages in the private and nongovernmental organization sectors, respectively, while in the public sector it was free. Although these treatments appear relatively affordable it should be noted that other treatment costs such as consultation fees and diagnostic tests have not been included; total treatment costs would therefore be considerably higher.

In conclusion, the availability of paediatric medicines assessed in this survey was low across all sectors. While the public sector dispenses most medicines for children free of charge, low availability may lead people to purchase medicines in the private sector or go without treatment. In the private and nongovernmental organization sectors some medicines cost several times their international reference price and may not be affordable for the poorest segments of the population. Therefore the availability, price and affordability of paediatric medicines in The United Republic of Tanzania should be improved in order to ensure equity in access to basic medical treatments, especially for the poor. Also sustained availability of medicines is crucial to assist the country in reaching the goals it has set within the National Road Map Strategic Plan to Accelerate the Reduction of Maternal, Newborn and Child Deaths in The United Republic of Tanzania, 2008-2015; Health Sector Strategic Plan III, 2009-2015; Mkakati wa Kukuza Uchumi na Kupunguza Umaskini Tanzania (National Strategy for Growth and Reduction of Poverty II, 2010-2014); as well as the Millennium Development Goals. Progress will require a multi-faceted approach, as well as the review and refocusing of policies, regulations and educational interventions.