SP availability and (mis)use in sub-Saharan Africa: Antimalarial market data from 8 countries

The ACTWatch Group*

Background
As evidence of reduced chloroquine efficacy against plasmodium falciparum mounted in the 1990’s, sulfadoxine-pyrimethamine (SP) became first-line malaria treatment in many endemic countries in sub-Saharan Africa (SSA). Between 2002-2005, countries in SSA adopted artemisinin combination therapies (ACT) as first-line treatment. SP is still recommended by the WHO and used across SSA for intermittent preventive treatment of malaria during pregnancy (IPTp). We examine availability and distribution of SP using national antimalarial market survey trend data collected by the ACTWatch project.

Methods
Repeat cross-sectional malaria medicine outlet surveys were conducted between 2009-2014 in Benin, the Democratic Republic of the Congo (Kinshasa and Katanga provinces), Kenya, Madagascar, Nigeria, Tanzania, Uganda and Zambia. A census of public and private outlets with potential to distribute antimalarials was conducted among a representative sample of administrative units. A drug audit documented product information, retail price and amount distributed to consumers during the last week for all antimalarials in stock.

Results
Trends in SP availability, among all public health facilities
With the exception of Zambia, all countries experienced recent public sector declines in SP availability. During the most recent survey round, fewer than half of the public sector had SP in stock with the exception of high availability in Uganda and Zambia (>50%) and moderate availability in Katanga (35%).

Relative SP market share
SP market share ranged from approximately one-quarter of all antimalarials distributed in Benin, Kenya and Uganda to over 40% in Katanga and Tanzania. With the exception of Zambia, SP was primarily distributed by the private sector, most commonly by drug stores. One-quarter to one-third of all antimalarials distributed were SP courses sold by drug stores in Tanzania, Nigeria, Kinshasa, Katanga. In Kenya and Madagascar, SP distribution by pharmacies accounted for approximately 10% of all antimalarial distribution.

Discussion
The widespread availability and use of SP is likely a key barrier to increasing uptake of quality-assured ACT for malaria case management. SP is relatively inexpensive, and frequently dispersed in the private sector, most commonly by drug stores. Available evidence suggests that SP is marketed and distributed for managing malaria in people of all ages, rather than restricted to use for IPTp. The SP market is unique in each country, dominated in some by local manufacturers and in others by imports from India or China. The diversity of the SP market and the high relative market share suggest ongoing high demand for this medicine despite discontinuation of its use for case management due to drug resistance. Drug quality of the numerous products manufactured locally or imported is unknown but of interest given high availability and use including use for IPTp.

The decline in SP availability among public health facilities is concerning because IPTp is an important intervention for pregnant women in malaria endemic countries. Some countries including Kenya have recently identified specific sub-national target areas for IPTp. Declines in readiness for IPTp at national level in countries like Kenya may be explained by this targeting.

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