

Evidence for Malaria Medicine Policy

The private sector distribution chain of antimalarials and RDTs in Zambia

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Background

- In 2002, Zambia adopted ACTs as firstline malaria treatment
- Private sector plays an important role in providing access to ACTs
- Price & availability of antimalarials in the private sector is largely determined by what happens at higher levels of the distribution chain
- National Malaria Control Strategy advocates use of RDTs for improved case management

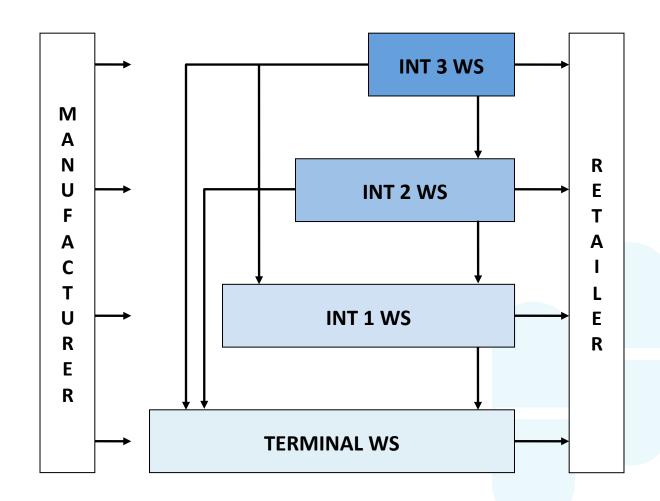
Supply Chain Study Objectives

- Develop maps of the private sector distribution chain for antimalarials and RDTs
- 2. Estimate mark-ups for antimalarials and RDTs
- 3. Examine factors affecting drug selection, volumes & price

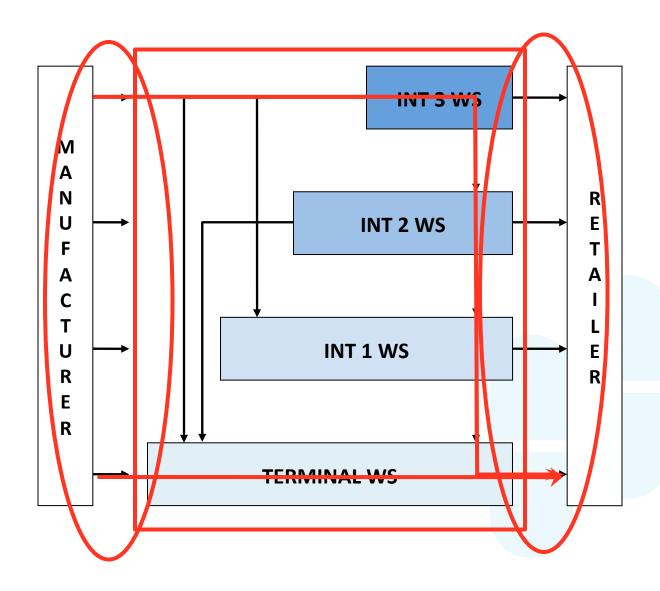
Methods

- Review of key documents
- In-depth interviews with key stakeholders
- Nationally representative structured survey administered to drug wholesalers
 - Data collected February to May 2009
 - 57 wholesalers (WS) identified in Zambia
 - Sample selected by tracing back suppliers of antimalarial retailers/outlets from 38 sub-districts across the country

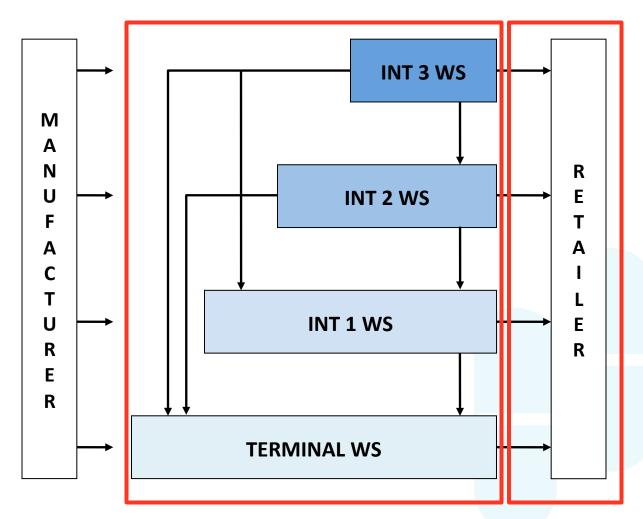
Antimalarial Distribution Chain Interactions



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Supply higher levels: 19%

Supply retailers: 100%

Wholesale customers for antimalarials

- Most frequently cited customers at all supply chain levels included:
 - pharmacies/drug stores
 - drug wholesalers
 - private clinic/surgery/ hospitals (commercial

- or mining)
- public health centres
- public hospitals
- mission clinic /hospital

Antimalarial wholesalers that:	Supply Retailers	Supply Higher Levels
Sell to Medical Stores Limited	21%	50%
Sell to customers in other countries	15%	10%

Pharmaceutical Licensing

- The majority of wholesalers (WS) reported to have a wholesale pharmacy license:
 - WS that supply retailers: 75.6%
 - WS that supply higher levels: **100.0%**

Antimalarial wholesalers that:	Supply Retailers	Supply Higher Levels
Import antimalarials	49%	90%
Reported to have pharmacy importer license	70%	90%
Sell to retail customers	57%	20%
Reported to have retail pharmacy license	28%	0%

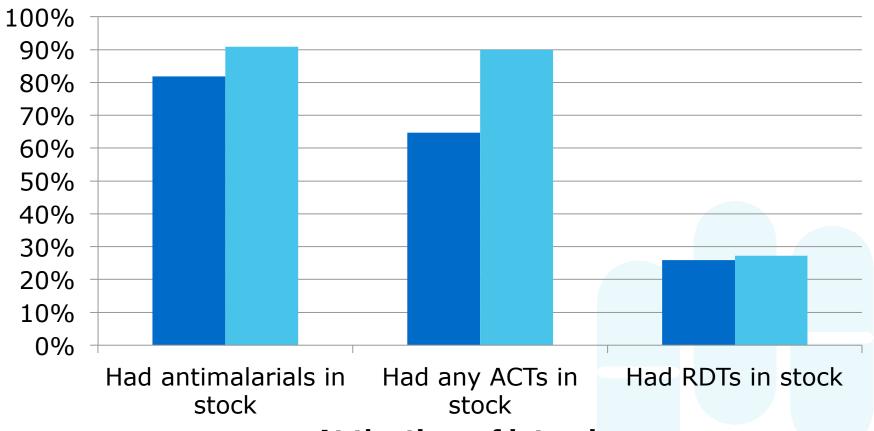
Pharmaceutical Regulation & Provision of Credit

Antimalarial wholesalers that:	Supply Retailers	Supply Higher Levels
Had been visited by a pharmaceutical inspector in the past 1 year	98%	100%
Stored drugs in a dry area, out of direct sunlight & off the floor	86%	100%

- Wholesalers generally offered credit facilities to customers (median days of credit):
 - WS that supply retailers: 62.8% (30 days)
 - WS that supply higher levels: **80.0%** (60 days)

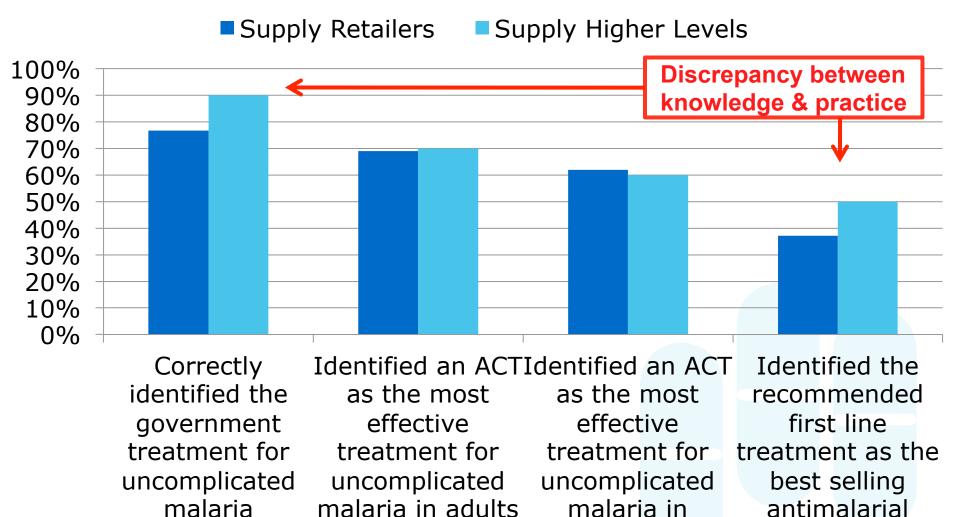
Wholesale Availability of Antimalarials, ACTs & RDTs





At the time of interview, % of antimalarial wholesalers that...

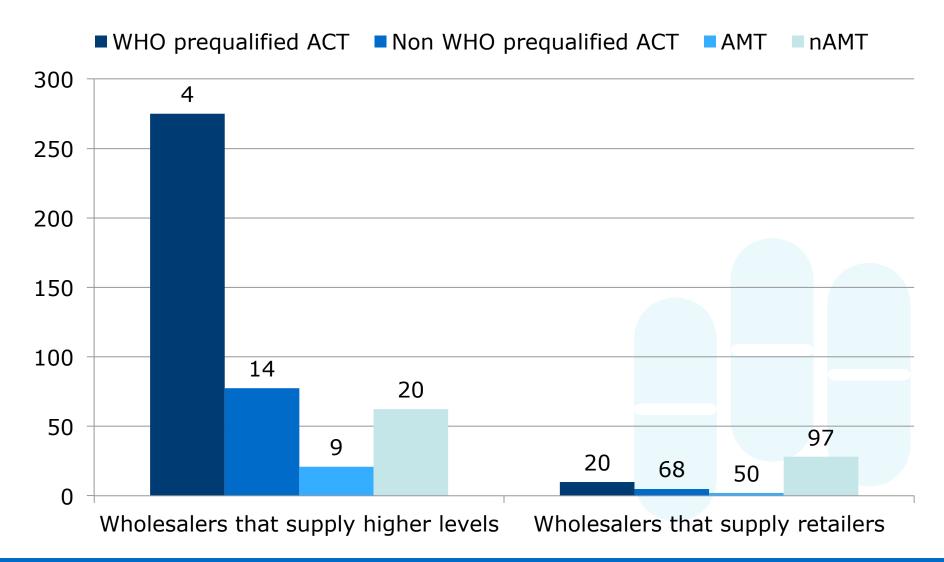
Wholesaler Knowledge & Practice



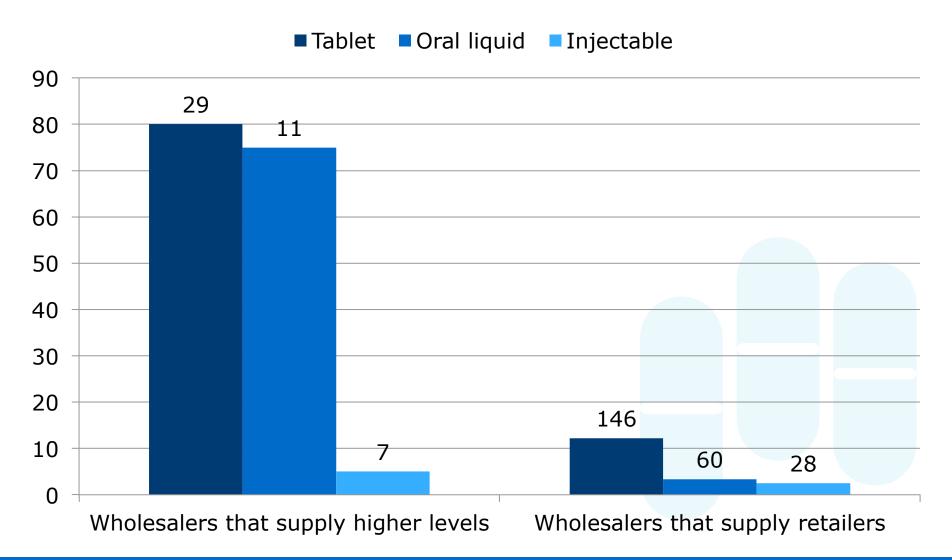
% of antimalarial wholesalers that...

children

Median volumes in AETDs (n) sold in the past week by Wholesaler & Antimalarial Type



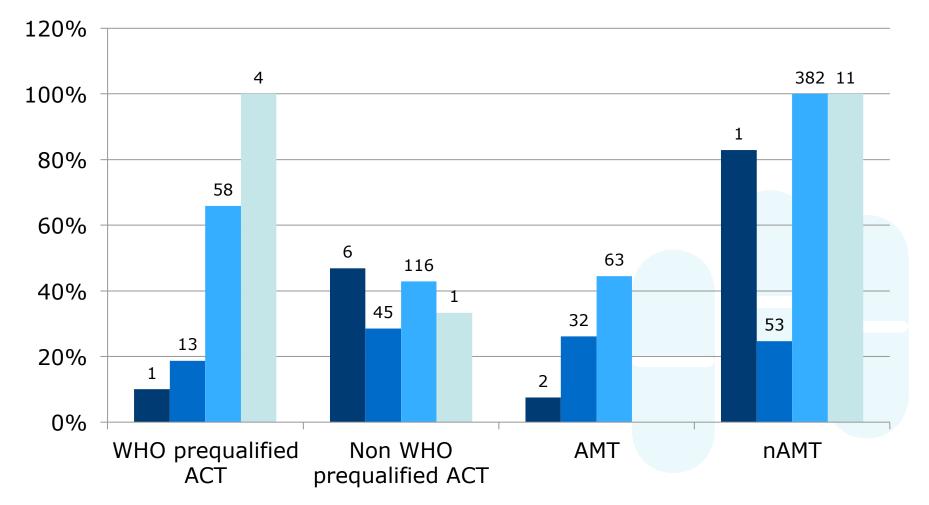
Median volumes in AETDs (n) sold in the past week by Wholesaler Type & Dosage Form



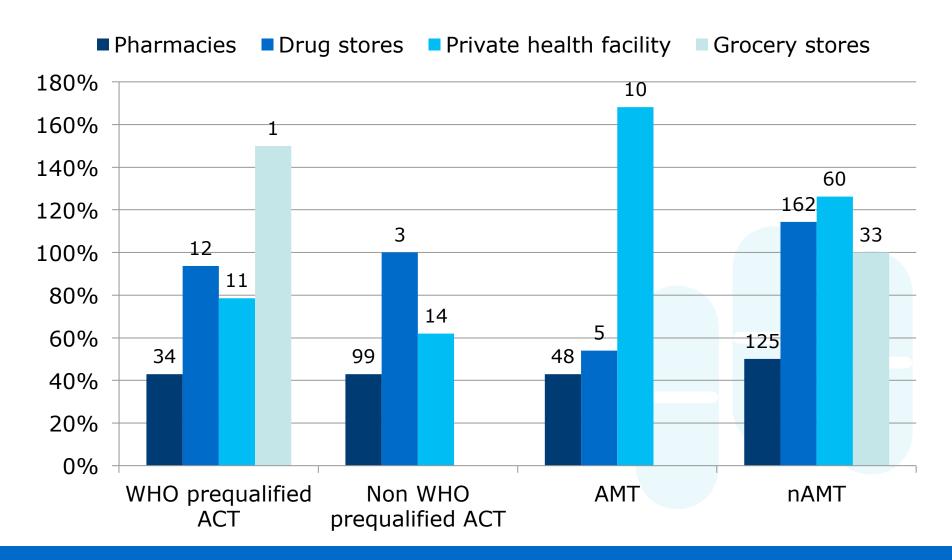
Median % Price Mark-Ups (n) by Provider & Antimalarial Type

- Wholesalers that supply higher levels
- Private retail outlets & providers

- Wholesalers that supply retailers
- Public health facilities



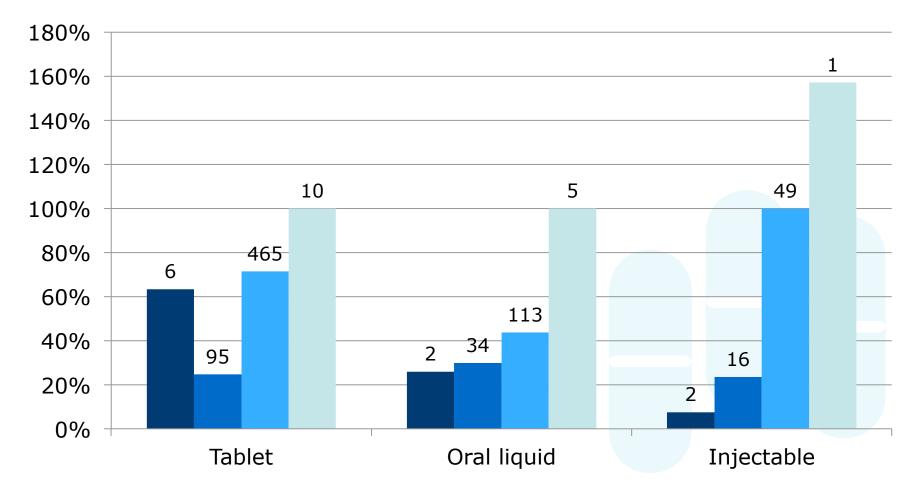
Median % Price Mark-Ups (n) among Private Retail Outlets & Providers by Antimalarial Type



Median % Price Mark-Ups (n) by Provider Type & Dosage Form

- Wholesalers that supply higher levels
- Private retail outlets & providers

- Wholesalers that supply retailers
- Public health facilities



Factors Influencing ACT Access

Decision to stock

- Consumer demand
- Supplier price
- Product availability
- Perceived product effectiveness
- Recommended by government
- Authorised distributorships

Mark-ups

- Costs
- Volume of purchase
- Degree of competition
- Payment method
- Product availability
- Bonuses/discounts
- Product expiration date
- Type of antimalarial
- Authorised distributorships
- Other services offered

Next Steps

- Further investigate the determinants of wholesaler mark-ups and product availability
- Conduct comparative analysis of indicators across the ACTwatch countries

We acknowledge the valuable contributions of:

- ACTwatch Central Team
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Please send any questions or comments to benjamin.palafox@lshtm.ac.uk