



# Healthy Supply Chains for Healthy Communities

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New Challenges in Managing the Global Supply Chain

- Putting the Pieces Together

# BACKGROUND

- Malaria is a bigger public health problem in Africa than HIV/AIDS
  - Malaria kills over 2m people annually more than AIDS has killed in 15years.
  - 75-90% cases in Sub-Saharan Africa
  - Ghana: 40% of outpatient visits, and 61% of under 5 admissions to hospital
  - 1 in 9 children die before the age of 5; Malaria responsible for 25% of that mortality (UNAIDS 2006, PMI 2006, WHO 2005)
- Child mortality
- Cost to economy
- Recent public policy response
  - Multi-drug resistance problem
    - Monotherapies vs. Artemisinin combination therapies (ACTs)
  - Intervention goals
    - Affordability, access and effectiveness

# BACKGROUND

- Interface between public policy implementation and private sector delivery
  - Private sector contribution
  - Selective subsidy
  - Branding considerations
  - Financing challenges
  - Supply chain adjustments
- It is important to understand the complexities of ACT delivery in the private sector

# PRELIMINARY STUDY

## OBJECTIVES:

- Identify supply chain constraints from a private sector perspective
- Examine how these constraints affect access to ACTs at the point of sale in terms of price and availability

# DATA

- In-depth interviews with healthcare officials and practitioners
- 174 pharmacies from all 8 sub-metropolitan areas in Accra
- 13 wholesale distributors of ACTs

# PRELIMINARY RESULTS – retail outlets

- Inventory
  - Ordering and holding costs, stockouts

Inventory held	Percentage of respondents
month	28
week	31
days	41

- Days of inventory versus order lead time
- Easier credit access may increase levels of inventory held
- Major complaints: Supplier irregularities (37% ), temporary stockouts (27%) and inconsistent pricing (24%)

# PRELIMINARY RESULTS – retail outlets

- Financing
  - Credit facilities: terms and quantum
    - Premised on good supplier relationships
    - 30 day or 14 day credit usually by postdated checks
- Supplier relationships
  - Size dynamics, loopholes for fakes
    - Without resources, the smaller retailers face the temptation to source cross-border imitations (respondents advised against using certain suppliers)

# PRELIMINARY RESULTS – retail outlets

- Branding and demand
  - Perception – efficacy, side effects
  - Prescription – medical representatives

Artesunate formulation	Artemether formulation
1 <sup>st</sup> line of treatment	2 <sup>nd</sup> line
Cheaper	Easier to administer
Water soluble	Oil soluble
Neurological side effects	Heart-related side effects
Perceived most effective by 25%	Perceived most effective by 49%
18% of stocked antimalarials	23% of stocked antimalarials



# PRELIMINARY RESULTS – retail outlets

- Pricing
  - Mark ups
    - >30% by 77 percent of respondents
    - 20-30% by 15 percent of respondents
    - <20% by 8 percent of respondents
  - Prices
    - Average lower limit \$3 (min \$1.93)
    - Average upper limit \$7.6 (max \$11.5)
- Health vs Affordability
  - Evaluation of trade-offs

# PRELIMINARY RESULTS – distributors

- Direct ordering
  - Technology, VMI, systems approach
- Universal pricing policy
  - MSRP, monitoring

# NEXT STEPS

- Recommend a structure to engage the distribution system in a way that makes effective drugs available and affordable

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