

OPERATIONAL RESEARCH PRIORITIES FOR MANAGING FEBRILE ILLNESS



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Background



- ❖ Before year 2000 Zanzibar was experiencing malaria Prevalence $> 30-40\%$ in OPD and Malaria accounted for $> 50\%$ of admitted cases,
- ❖ Two earlier attempts to eliminate the disease were not successful and high resurgence occurred once intervention were stopped.
- ❖ These engaged traditional control measures



Integrated Strategies used by ZMCP



Major interventions:

- Malaria Case management using ACTs accompanied by improved malaria diagnosis methodologies (RDTs + Microscopes)
- Vector control (ITN/LLITN and IRS)
- Malaria in pregnancy
- Malaria advocacy (IEC/BCC)

Supportive interventions:

- SM&E
- Environmental Management
- Operational Research

Malaria Case Management

Objective: Improve early recognition and effective treatment of malaria cases at all health care facilities in Zanzibar

- Screening before treatment (microscopy or Rapid Diagnostic Test)
- Treatment of malaria by using ACTs (Amodiaquine + Artesunate)- 1st Line
- Artemether-Lumefantrine (Coartem)-Alternative medicine.
- Quinine- For severe malaria/Artesunate Inject.

Malaria Vector Control



Malaria Vector Control



- Indoor Residual Spraying (IRS) in all eligible houses



Vector Control



- **Objective:** Increase household ownership and use of ITNs among the general population in all districts of Zanzibar
- Percentage of children under five sleeping under treated nets
- Percentage of pregnant women sleeping under treated net
- Percentage of general population sleeping under treated net

Prevention of malaria during pregnancy



Comprises of three main interventions

1. Intermittent Preventive Therapy
2. Malaria case management in pregnancy
3. Use of Insecticide Treated nets during pregnancy

Other maternal care: HIV testing and pregnancy monitoring.

Pregnant are most likely to harbor malaria parasites without showing signs and symptoms

- Most vulnerable due to weak immune system
- Malaria affects both
 - Unborn baby and mother

Behavioural Change Communication for MALARIA CONTROL



- To increase understanding about Malaria, its causes, recognition of signs and symptoms, treatment control and prevention.
- Mass media
- Community groups
- Malaria in School
- NGOs involvement

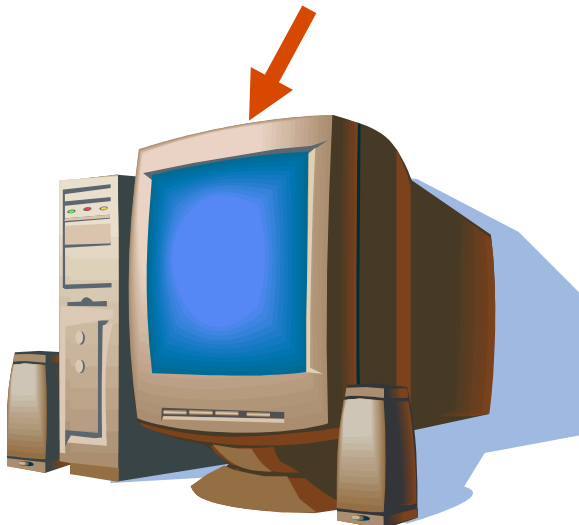


Supportive Interventions

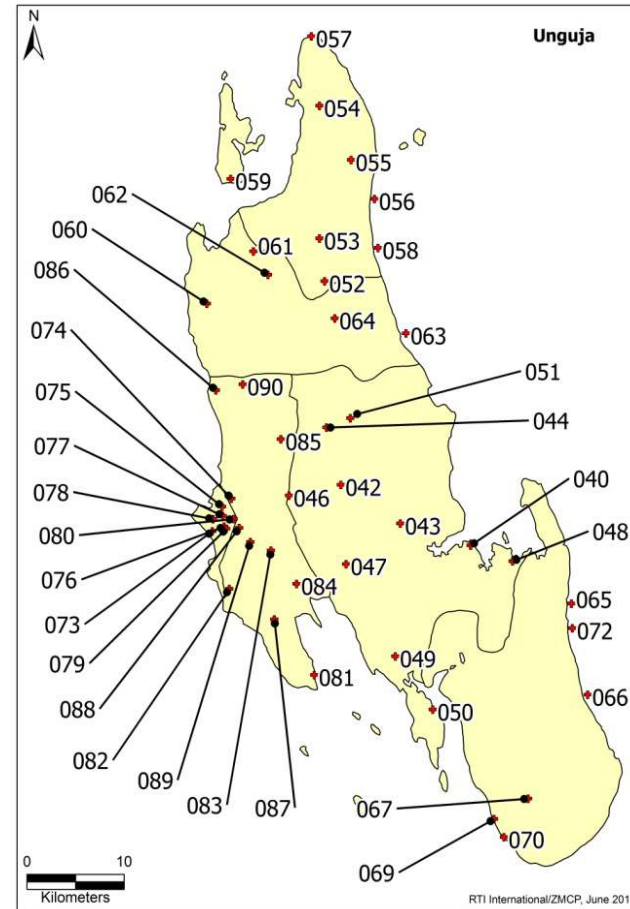
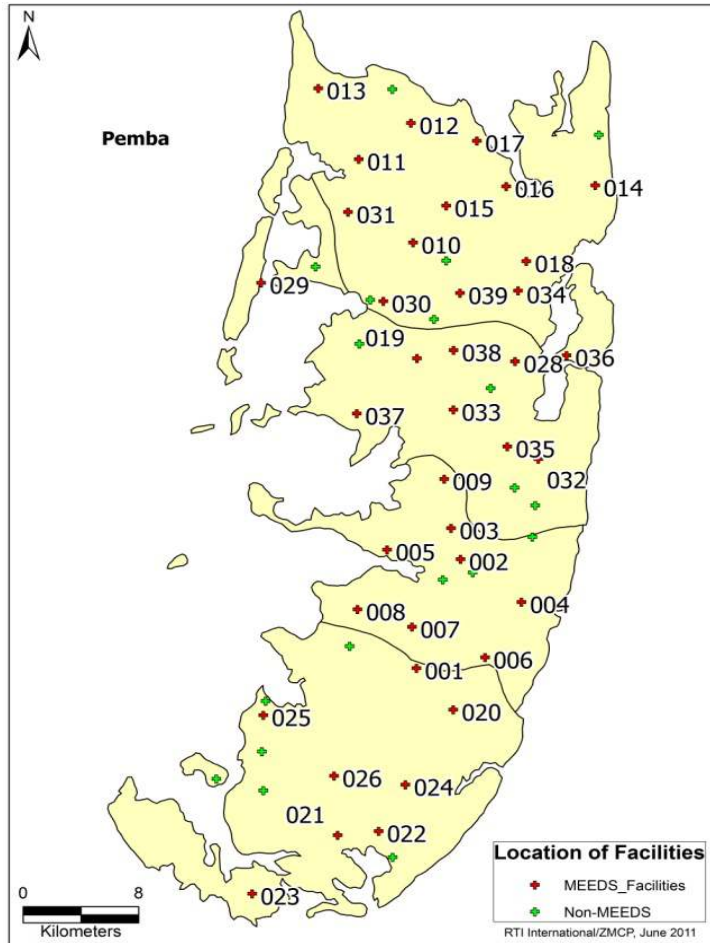


SURVEILLANCE, MONITORING AND EVALUATION
Zanzibar Malaria Epidemic Early Detection System (MEEDS)

disease trends
morbidity and mortality

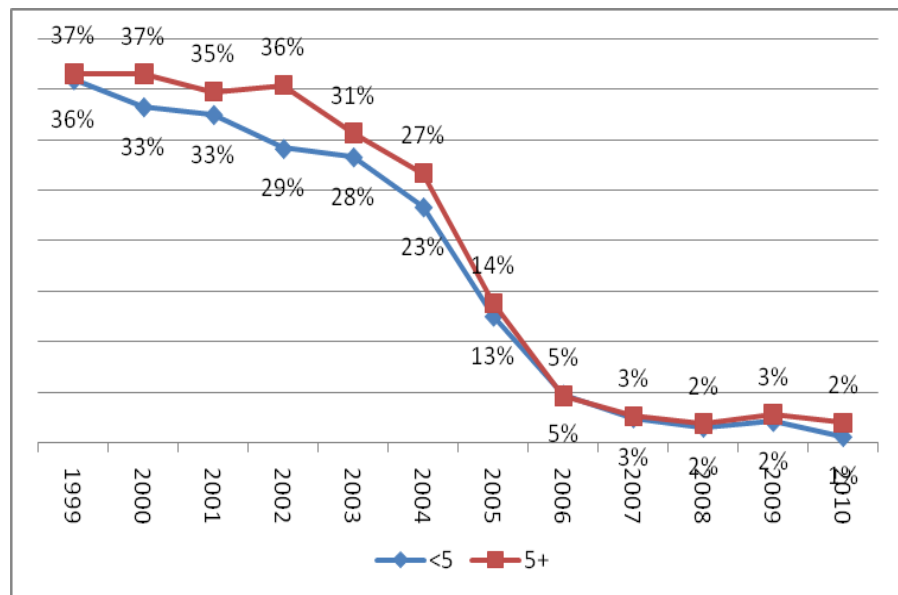


MEEDS System in Zanzibar – 142 Gvt HF's



Zanzibar's recent and marked decrease in malaria prevalence positions it as uniquely hypoendemic among the AMFm pilot countries

Positivity Rates: Zanzibar Malaria Early Epidemic Detection System



Source: ZMCP-MEEDS SYSTEM

Epidemiology

- After IRS, LLIN, and ACT interventions in 2004, parasite prevalence fell from 25% in 2003 to less than 1% in 2010 (THMIS 2008)
- Parasite prevalence is 0.8%, ranging from 0% in Stone Town to 3.7% in northern Pemba (THMIS 2008)

Path to Elimination

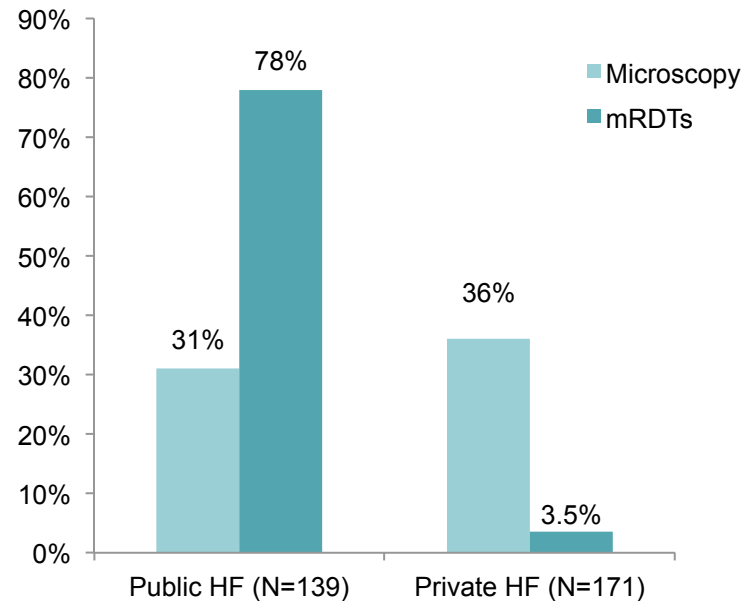
- Political will for elimination by 2015
- ZMCP target: 100% of malaria cases to be confirmed by RDT or microscopy by 2014
- Patients access diagnosis and treatment free in public sector facilities since 2007

AMFm highlighted existing issue of a private sector with limited diagnostic capacity and high anti-malarial sales

Private Sector Landscape

- 26% of people seeking treatment for fever use the private sector (ZMCP, 2010)
- Zanzibar's 1LB sold ~150,000 doses of ACTm into the private sector market from June-Dec 2011 (CHAI analysis, 2012)

Availability of Diagnostics by Sector

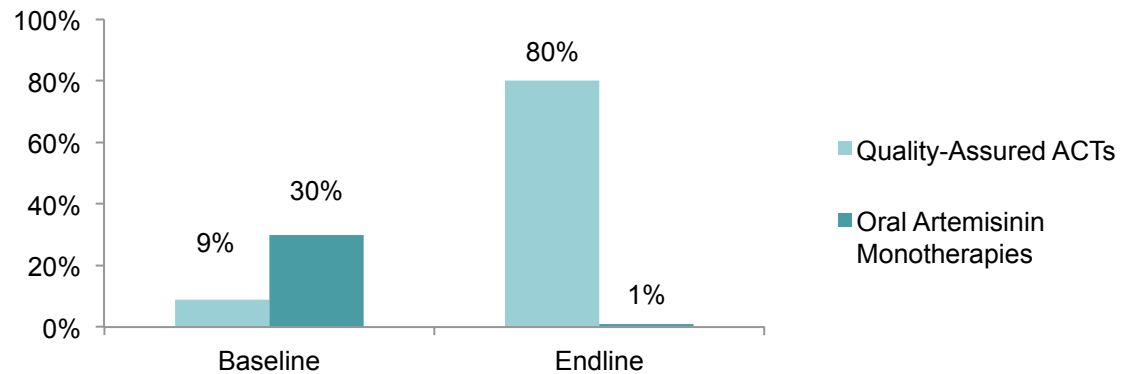


AMFm Phase I Independent Evaluation Outlet Survey (Baseline – 2010)

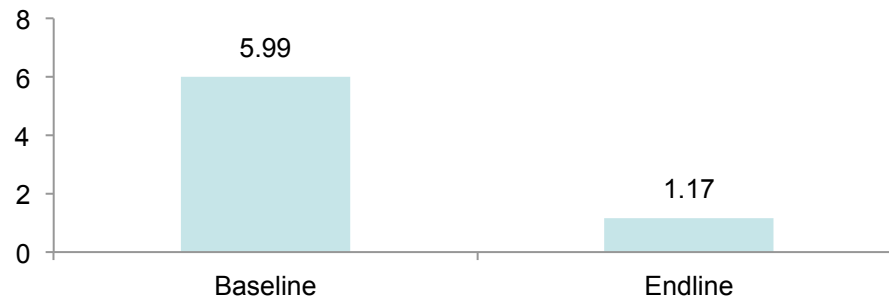
Zanzibar demonstrated important progress on key AMFm benchmarks, but needs to address a lack of diagnostic capacity in a low endemic environment

- Goal: To ensure all people with malaria receive & use a complete dose of ACT.

Availability



Affordability

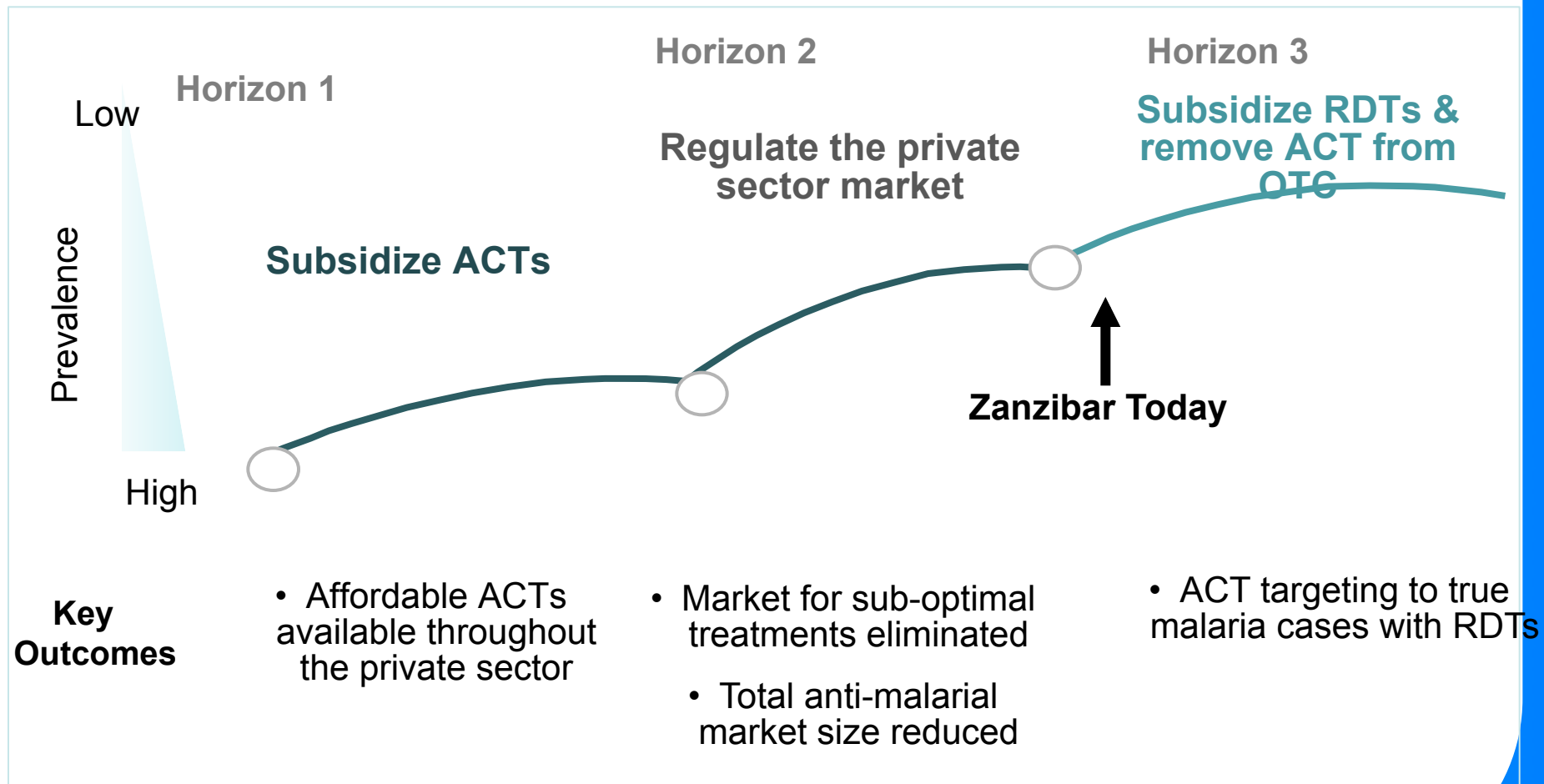


Market Share

Market share of quality-assured ACTs increased from **2% to 61%** in private for-profit outlets

(AMFm Independent Evaluation, 2012)

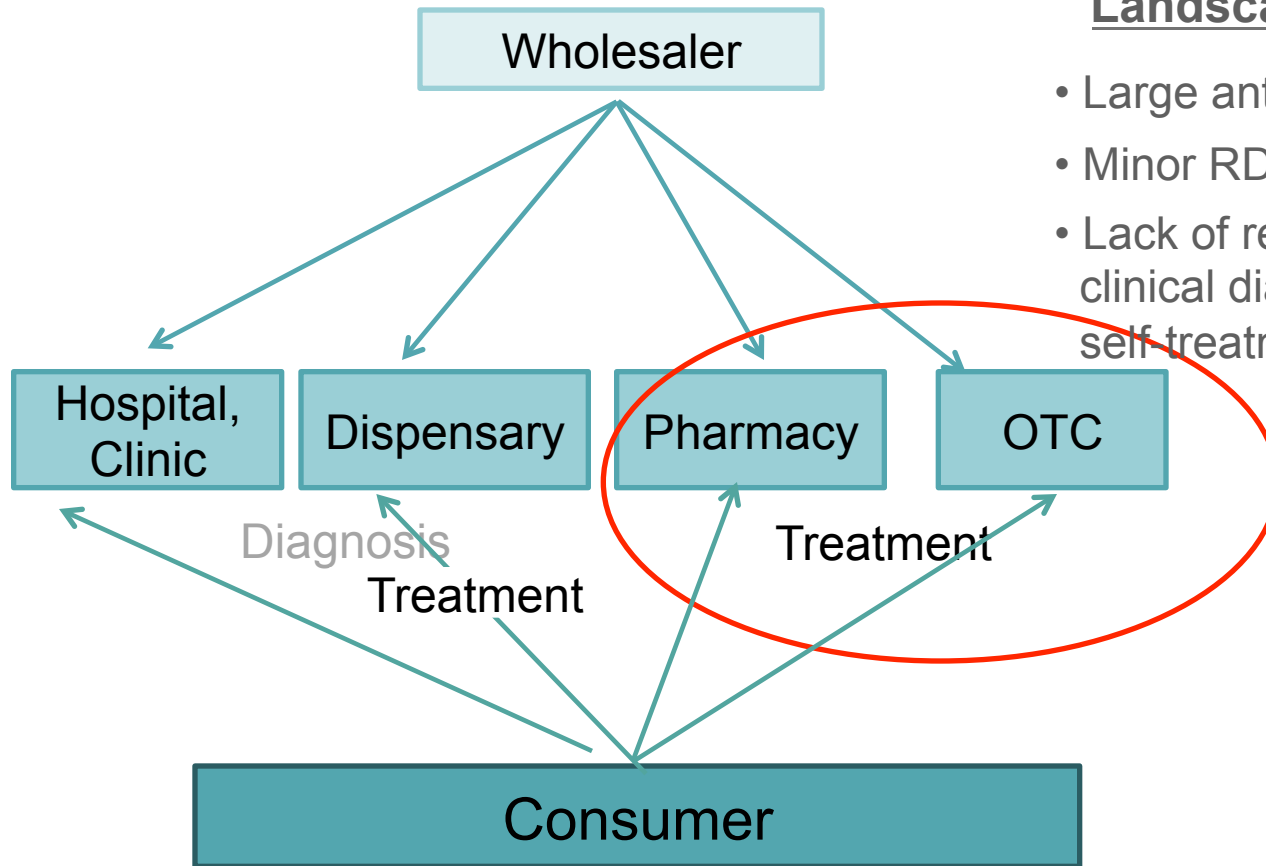
The AMFm operational research explores shifting to diagnostics as an exit strategy from subsidized drugs in a context of high treatment seeking behavior in the private sector



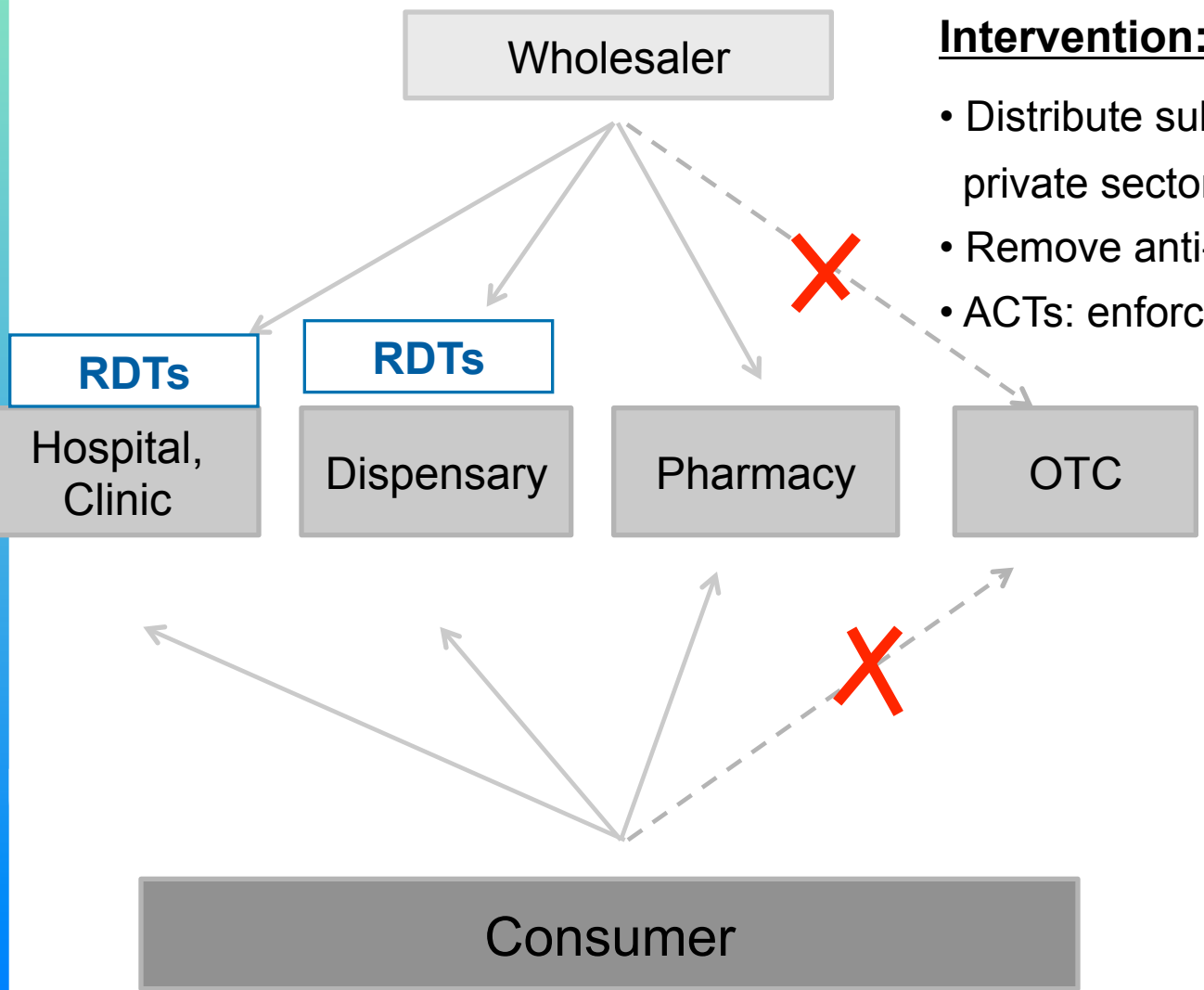
The AMFm operational research targets ACTs to confirmed cases by leveraging the private sector supply chain to roll out diagnostics, supported by strong regulation

Landscape pre-intervention:

- Large anti-malarial sales volume
- Minor RDT market
- Lack of regulation enables clinical diagnosis, presumptive self-treatment



Use a structural intervention to shift supply-side and demand-side dynamics of malaria case management toward diagnosis in the private sector



Intervention:

- Distribute subsidized RDTs through private sector supply chain
- Remove anti-malarials from OTCs
- ACTs: enforce prescription-only status

The intervention aims to target ACTs to confirmed cases by leveraging the private sector supply chain, supported by strong regulation

Rollout of RDTs

Izmir Pharmacy: AMFm First Line Buyer

- Roll out subsidized RDTs in private health facilities
- Distribute using the AMFm First Line Buyer and private supply chain
- Recommended retail price of 500 TZS (\$.32)

Regulatory Support

Zanzibar Food and Drugs Board (ZFDB) & Zanzibar Malaria Control Program (ZMCP)

- Remove all anti-malarials from over-the-counter (OTC) shops through a series of inspections
- Enforce ACTs as Prescription Only Medicines

DIRECTION: Zanzibar's approach to channel malaria cases toward facilities with diagnosis will inform other countries experiencing a reduction in malaria endemicity

April 2012

May 2012

September 2012

March 2013



Gather baseline data on diagnostic availability in the Zanzibar private sector and treatment seeking for fever illness

Launch pilot to better target anti-malarial treatment:

- Introduce subsidized RDTs in private HF's
 - Limit access to antimalarial

Conduct follow-up evaluation (midline, Endline) to assess impact of intervention

- 1 Are anti-malarials effectively removed from OTC shops?
- 2 Are RDTs available in private facilities and sold at the recommended retail price?

RESULTS EXPECTED: NOVEMBER 2012

- 1 Is there an change in the proportion of febrile patients receiving a malaria diagnosis?
- 2 Does treatment seeking shift from the informal retail sector to facilities with diagnostic capacity?

RESULTS EXPECTED: NOVEMBER 2012



SAVING LIVES: BUYING TIME
IS POSSIBLE
LET US WORK TOGETHER

Thank you