

IOM/Center for Disease Dynamics, Economics & Policy (CDDEP) meeting on the Affordable Medicines Facility – malaria (AMFm)

September 17-18, 2012, The National Academies, 2101 Constitution Avenue, NW, Washington, DC



Independent Evaluation (IE) of Phase 1 of the Affordable Medicines Facility - malaria: *Methodology*

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Independent Evaluation Team:

ICF International:

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LSHTM:

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Content

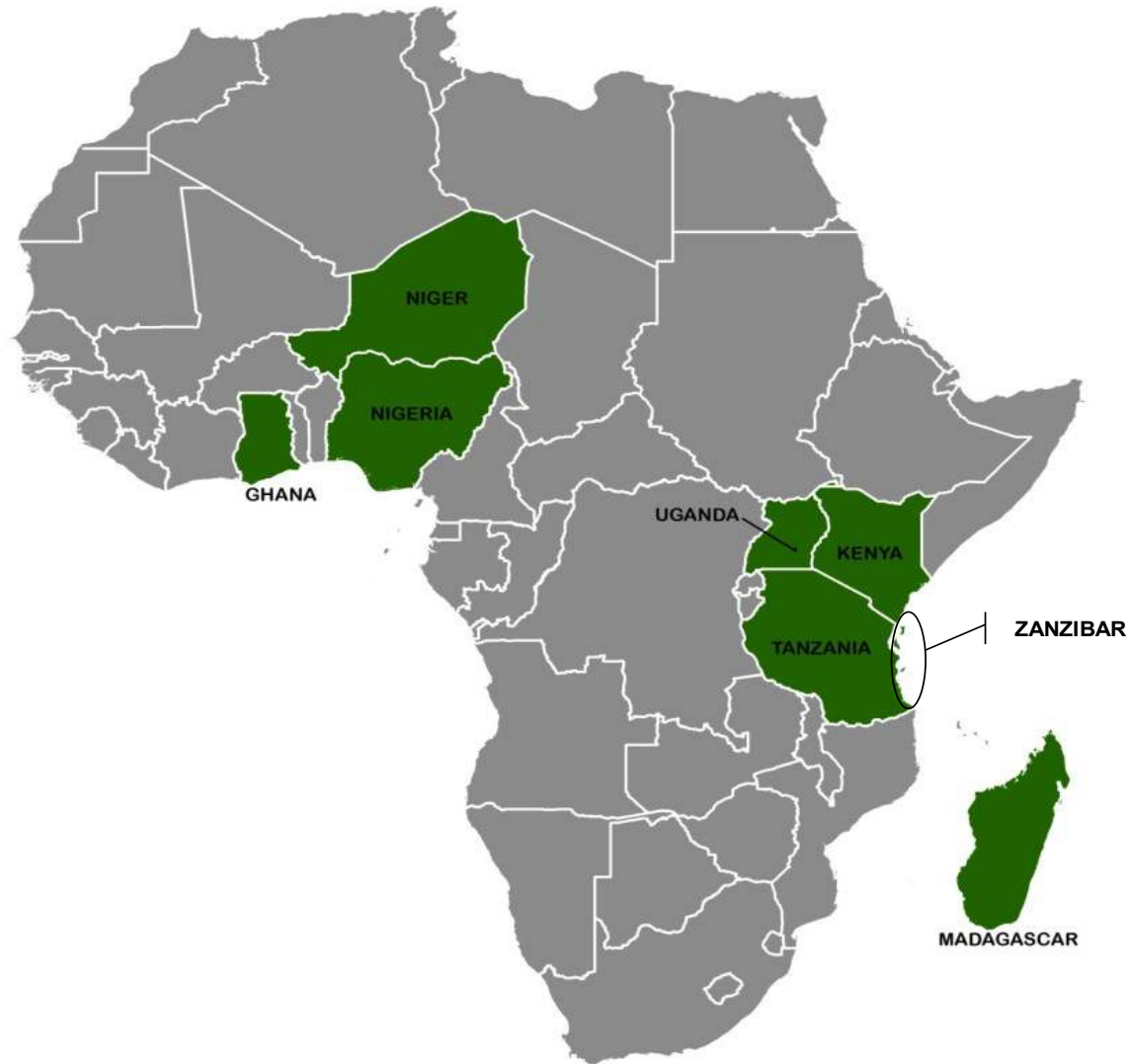
- Evaluation Framework
- Evaluation Approach
- Strengths and Limitations

Independent Evaluation Partners

Institution	Country covered
<i>Independent Evaluation</i>	
ICF International	
LSHTM	
<i>Outlet Surveys</i>	
APHRC	Kenya
CRDH/CIERPA	Niger
DNDi/KATH	Ghana
IHI - IMPACT 2 Project	Tanzania mainland
PSI - ACTwatch Project	Kenya, Madagascar, Nigeria, Uganda, Zanzibar
<i>Country case studies</i>	
Abdinasir Amin	Kenya
Catherine Adegoke	Nigeria
Diadier Diallo	Niger
Elizabeth Juma	Ghana
Sergio Torres Rueda	Madagascar
IE members	Tanzania mainland, Uganda, Zanzibar

Institution	Country covered
<i>Remote Area Surveys</i>	
APHRC	Kenya
KATH	Ghana
<i>AMFm logo study</i>	
AIHD	Kenya
INSTAT	Madagascar
TNS RMS Ghana	Ghana
TNS RMS Nigeria Limited	Nigeria

Location of AMfm Phase 1 Pilots



Evaluation Framework

Evaluation Questions

Question 1: Has the AMFm mechanism helped increase the **availability** of **Quality-Assured Artemisinin-based Combination Therapies (QAACTs)** to patients across the public, private for-profit and not-for-profit sectors, in rural/urban areas?

Question 2: Has the AMFm mechanism helped to reduce the **cost of QAACTs** to patients at public, private for-profit and not-for-profit outlets in rural/urban areas to a price comparable to the price of most popular antimalarial?

Question 3: Has the AMFm mechanism helped increase **use of QAACTs**, including among vulnerable groups, such as poor people, rural residents and children?

Question 4: Has the AMFm mechanism helped increase the **market share of QAACTs** relative to all antimalarial treatments in the public, private for-profit and not-for-profit sectors in rural/urban areas?

Key Indicators

Availability:

Outlets with QAACTs in stock as a proportion of all outlets stocking antimalarials

Affordability:

- Median cost to patients of an Adult Equivalent Treatment Dose (AETD) of QAACTs
- Median cost to patients of AETD/pediatric dose of QAACTs for a 2-year old

Market share:

Total volume of QAACTs sold/distributed in the last week, as a proportion of the total volume of all antimalarials sold/distributed in the last week

For detailed definitions of the indicators, see Table 1.5.1 in the IE report

Key Indicators, *cont.*

Use:

- **All children**
 - Under five years with fever who received **ACT/any antimalarial** treatment
 - Under five years with fever who received **ACT** treatment the same day/next day after fever onset
- **Children from poor households**
 - Under five with fever in the two lowest wealth quintiles who received **ACT/any antimalarial** treatment
 - Under five with fever in the two lowest wealth quintiles who received **ACT** treatment the same day/next day after fever onset

For detailed definitions of the indicators, see Table 1.5.1 in the IE report

What are QAACTs and AETDs?

- **QAACTs:**

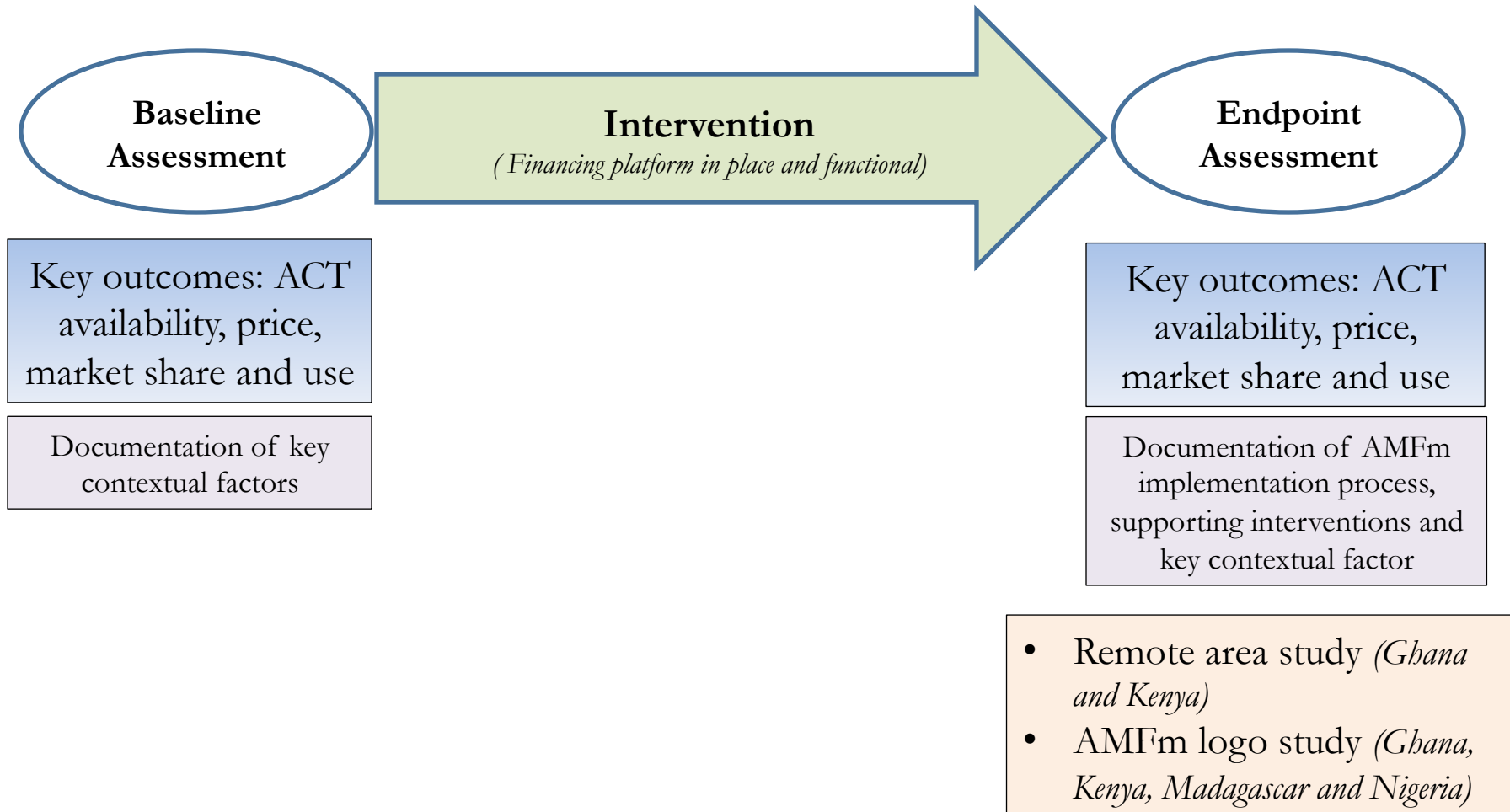
- Must be WHO pre-qualified and/or authorized for marketing by a Stringent Drug Regulatory Authority (SDRA)
- Otherwise, an ACT must be evaluated and recommended for use by an independent panel of technical experts hosted by WHO's Department for Essential Medicines and Pharmaceutical Policies.

- **AETD:**

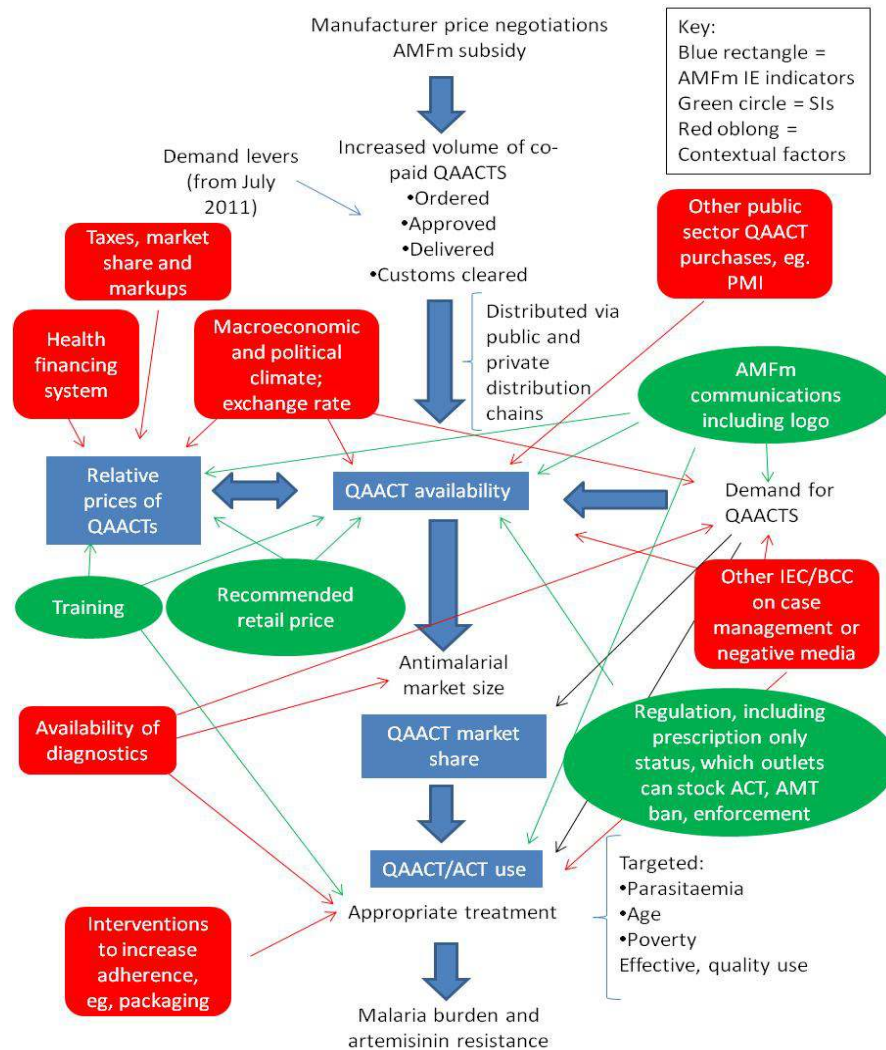
The number of milligrams (mg) of an antimalarial drug needed to treat a 60 kg adult

Evaluation Design

Pre-and Post-test Design



Evaluation Design - Theory of Change



- Depicts AMFm causal pathways
- Makes explicit what the IE measures directly
- Locates the potential influence of the implementation process
- Identifies supporting interventions and how they are expected to operate
- Considers the main contextual factors with potential to influence AMFm outputs and outcomes
- Used to interpret changes over time in key indicators and plausible relationship with AMFm

Evaluation Approach

Evaluation Tools

- Outlet surveys - *Primary data*
- Household surveys - *Secondary data (DHS, MIS, MICS, ACTwatch)*
- Implementation process and context- *Primary data*
- Remote area outlet surveys - *Primary data*
- AMFm logo: Quantitative & qualitative - *Primary data*
- Operational research – *Summary of key findings from other groups*
- Measures of success based on defined benchmarks

Evaluation Tools - Outlet Surveys, *cont.*

Timing of outlet surveys

	Date of first arrival of copaid drugs in the country	Baseline	Endline
		Time between midpoint of fieldwork and first arrival of copaid drugs (in months)	Time between first arrival of drugs and midpoint of fieldwork (in months)
Pilots			
Ghana	2-Aug-10	0	15-1/2
Kenya	10-Aug-10	(2)*	15
Madagascar**	14-Oct-10	5	14
Niger	3-Feb-11	5	9-1/2
Nigeria**	25-Jan-11	15	9-1/2
Tanzania - mainland	10-Oct-10	0	13-1/2
Uganda	23-Apr-11	4-1/2	7
Zanzibar	21-Apr-11	7	6-1/2

* In Kenya, the first arrival of copaid drugs in the country was 2 months before the start of baseline fieldwork.
 ** Surveys conducted by ACTwatch were used as the IE baseline in Madagascar and Nigeria.

Note: Based on arrival of drugs, regardless of whether supporting interventions were in full operation.

Evaluation Tools - Outlet Surveys, *cont.*

Content of the questionnaire

- Outlet identification
- Screening questions
- Outlet characteristics
- Provider knowledge
- Availability and stockouts of antimalarials and diagnostic tests
- Experience of AMFm supporting interventions
- Audit of antimalarials and RDTs

Methods and tools for outlet surveys were adapted from those developed for the ACTwatch project

Evaluation Tools - Household Survey Data, *cont.*

Timing of arrival of copaid ACTs and timing of household surveys

	Months between baseline household survey fieldwork and arrival of first copaid ACTs	Months between arrival of first copaid ACTs and endline household survey fieldwork
Ghana	21-1/2	15
Kenya	0	na
Madagascar DHS	19	na
Madagascar ACTwatch	7	18-1/2
Niger	58-1/2	15
Nigeria	17	16
Tanzania – mainland	8	16
Uganda MIS	17	na
Uganda ACTwatch	25	12
Zanzibar	14	10

Evaluation Tools – Implementation Process and Context

Purpose and approach

- Document the contextual factors that may have influenced the effectiveness of AMFm, and the implementation process
- Approach included:
 - Key informant interviews (KIIs) with stakeholders
 - Review of documents

Evaluation Tools - Additional Studies

Objective and scope

- **Remote areas study**
 - To examine the availability, price and market share of ACTs at endline in areas considered remote
 - Countries: Ghana and Kenya
- **AMFm logo study**
 - To assess whether or not the logo achieved the intended effect in marketing and public awareness
 - Countries: Ghana, Kenya, Madagascar and Nigeria



Evaluation Tools - Success Metrics

- Determine how ‘success’ would be assessed in relation to the AMFm outcomes
- E2Pi developed recommendations for success metrics for 1 year after the effective start date of AMFm
- Operationalized by the IE team

Evaluation Tools - Success Metrics

Objective	Success benchmark
Availability	1. Percentage point change from baseline to endline in the percentage of outlets stocking ALL QAACTs (both with and without the AMFm logo)
Price	2. Ratio of the median price of QAACTs with the AMFm logo to the median price of the most popular antimalarial which is not a QAACT in private for-profit outlets 3. Difference between the median price of QAACTs with the AMFm logo and the median price of AMT tablets in private for-profit outlets
Use	4. Percentage point increase from baseline in percentage of children under age 5 years with fever in the last 2 weeks who received ACT treatment
Market share	5. Percentage point change from baseline to endline in the market share of ALL QAACTs 6. Percentage point change from baseline to endline in the market share of AMTs (all oral dosage forms)

Strengths and Limitations

Selected Evaluation Strengths

- Covered all 8 operational pilots, comprising wide range of contexts
- Plausibility argument using carefully documented process and context
- Nationally representative outlet surveys, drawing on ACTwatch methods
- Standardized approaches for data collection and analysis across pilots
- Study conducted by a team that were independent from those implementing and funding AMFm

Selected Evaluation Limitations

- Not possible to create comparison areas within pilots
- Findings should be extrapolated with caution to countries with very different antimalarial markets
- Short duration between AMFm implementation and endline data collection in some countries
- Long lags between baseline data collection and AMFm rollout in several countries
- Influence of seasonality on timing of surveys

Thank You !