Beyond AMFm: Analysis of options developed by the AMFm Working Group

Institute of Medicine AMFm meeting

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INNOVATIVE IDEAS CATALYTIC ACTION
RESULTS FOR DEVELOPMENT INSTITUTE

Context

1. The private sector plays a critical role in malaria case management in many countries, but without subsidy ACTs are too expensive for most patients.
2. The Independent Evaluation shows that AMFm met most of its objectives in 5 of 7 pilot countries, and was transformative in some settings.
3. The Global Fund and its donors are facing resource constraints. If the initiative is to continue in some form, proponents must make a strong case and find ways to get the greatest benefit from limited resources.
4. Decisions are taking place while the Global Fund is considering big changes in its model.

Modification options outlined by the GFATM AMFm Working group

Option 1: Full integration into standard Global Fund processes

- No dedicated fund: money for private-sector subsidy from country grants/allocations

Option 2: Partially integrated, hybrid model

- Dedicated fund continues, but countries required to match contributions from GFATM grants or other sources
- Measures to ration limited funds

Option 2A: Tiered subsidy

- In some countries ACTs subsidized at a lower rate

Option 2B: Child targeting

- Only formulations/packs for children subsidized

The Working Group supported inclusion of RDTs in some form in all options.

Option 1: Full integration

Rationale:

Integrating support for private-sector case management into GFATM procedures and funding it from standard GFATM grants would allow countries to set priorities under their broader malaria strategies.

How it would work:

- Countries would decide whether and how to subsidize private-sector ACTs (and RDTs) with their GFATM resources.
- GFATM technical review could take into account guidelines on private-sector subsidy.
- Countries would have the option of continuing current system of copayments made centrally from Geneva, but using funds from country malaria grants.

Full integration: advantages and risks

Advantages

1. Greater predictability of funding for countries.
2. Greater country ownership and control of malaria program design.

Risks

1. There are some suggestions that countries may not make private sector malaria treatment a priority. *This could make integration equivalent to termination*.
2. Unless donors increase their total contributions to GFATM to account for AMFm, integration means less total funding for malaria.
3. Making copayments to manufacturers at the country level could introduce delays and uncertainty for suppliers, leading to higher prices. This risk could be mitigated by keeping these functions at the central level.

Option 2: Partial integration, hybrid funding

Rationale:

Continued but partial support from a dedicated fund would help to sustain access to treatment in the private sector while requiring countries to devote resources to this component of their malaria strategies.

How it would work:

- Eligibility could be quite broad, but country prioritization would probably be necessary to ration resources.
- Countries would be required to contribute some share of the subsidy from their standard GFATM grants or from their own budgets (matching).
- **The matching requirement would increase over time, allowing the dedicated fund to be phased out and moving AMFm toward complete integration.**
- As in the pilot, subsidy payments (copayments) would be made directly to manufacturers from a dedicated AMFm fund.

Option 2A: Tiered subsidy

Rationale:

In some countries it may be possible to meet the objectives of AMFm with a lower level of subsidy.

This would allow limited resources to be stretched further and could allow inclusion of additional countries

How it would work:

- Qualifying countries would be assigned to full, partial, or no subsidy according to objective criteria.
- If resources were insufficient to cover projected demand, countries would be prioritized.
- **Participating countries that do not qualify for subsidy could still benefit from access to low manufacturer prices and other measures to reduce prices to consumers.**

Tiered subsidy: advantages and risks

Advantages

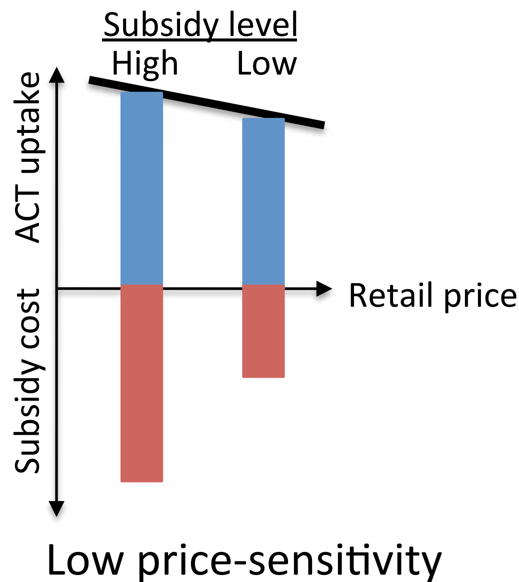
1. Ability to tailor subsidy level to local conditions
2. Greater cost-effectiveness from a donor perspective
3. Potential to conserve resources and therefore reach more countries

Risks

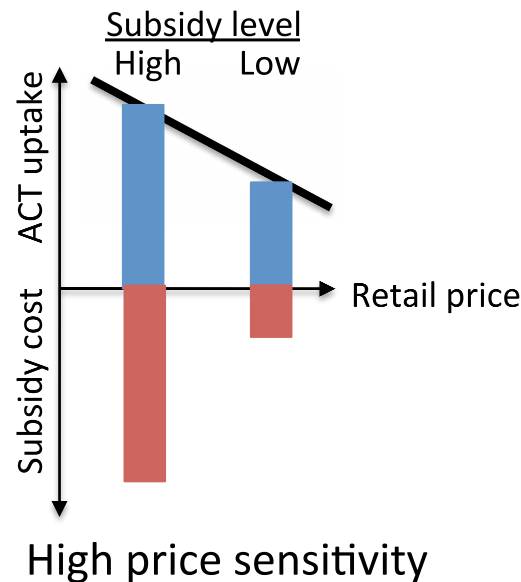
1. Higher prices resulting from reduced subsidy will hinder access and reduce ACT use (see next slide).
2. Criteria for assigning countries to different subsidy level may be controversial.

Consequences of reduced subsidy

- Reduced subsidy means lower cost to donors per ACT course
- It also means higher costs to first-line-buyers, higher retail prices, and reduced access, especially for the poor.
- The impact on prices and access is difficult to quantify, as there are few studies to draw on. One study in Kenya suggests some scope for reducing subsidy without limiting access.*

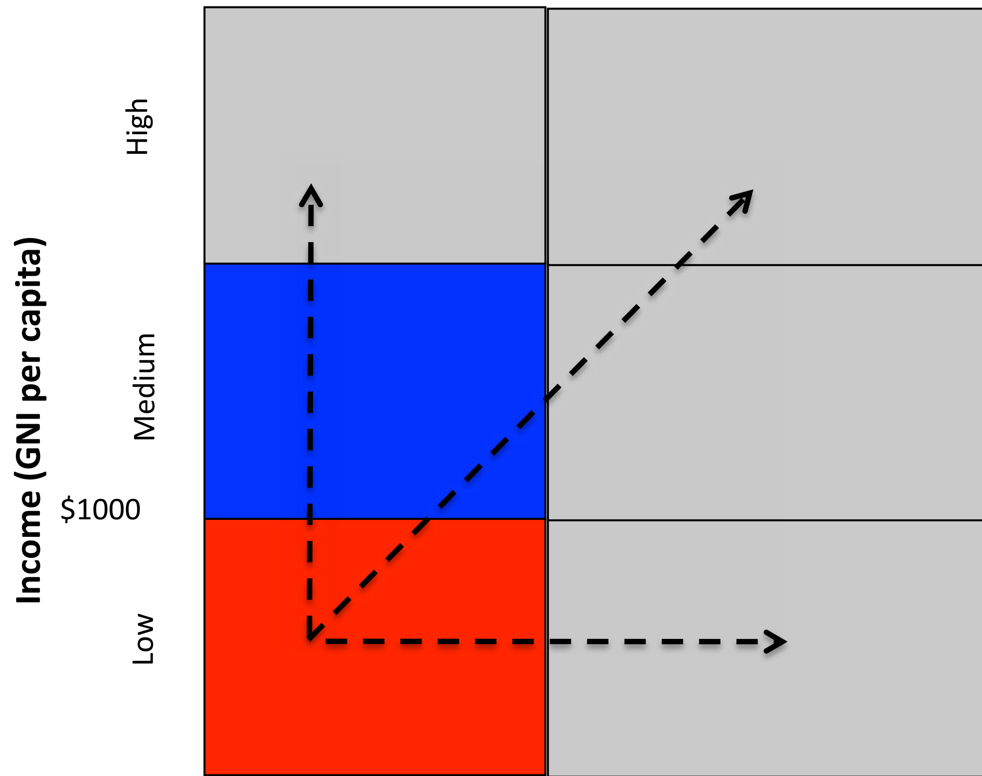


Low price-sensitivity



High price sensitivity

*Cohen, Dupas, Schaner (2012)

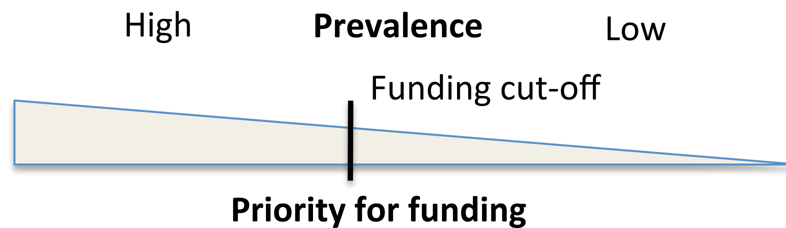


Full Subsidy

Partial Subsidy

Mass Market (*no subsidy*)

Graduation paths



Annual subsidy costs for the private sector with and without tiering

not including supporting interventions and RDTs

Millions $US

$300
$250
$200
$150
$100
$50
$0

Nigeria
DRC
Uganda

Countries Receiving Partial Subsidy in Tiered Model
Countries Receiving Full Subsidy in Tiered Model

Full Subsidy | Tiered Subsidy | Full Subsidy | Tiered Subsidy

All countries (>25% private-sector tx)

Pilot countries

Assumed market shares
Full subsidy: 43%
Partial subsidy: 25%
(No subsidy: 16%)

Malaria cases treated in the private sector

Fraction of need met 43% 34% 43% 31%

Malaria cases treated (millions)

100
90
80
70
60
50
40
30
20
10
0

Countries Receiving Partial Subsidy in Tiered Model

Countries Receiving Full Subsidy in Tiered Model

All countries (>25% private-sector tx)

Pilot countries

With $100 million/year, all countries with prevalence above 40% could be funded (private sector only, not including supporting interventions and RDTs)

Number of countries: full and partial subsidy

Total cases treated (millions)*

Prevalence >40% — 8, 3 — $60.1, $28.9 — 64

Prevalence 20-40% — 6, 1 — $48.8, $3.0 — 75

Prevalence <20% — 8 — $53.4 — 79

<25% Treated in Private Sector — 4, 9 — $1.8, $2.4 — 79

All

$0 $50 $100 $150 $200 $250

Millions $US

*Includes unsubsidized countries

Decreasing returns with lower prevalence

80
70
60
50
40
30
20
10
0

Cases treated (millions)

.5
Pr.>.4
.3
.2
.1

$0 $50 $100 $150 $200 $250

Subsidy cost (millions $US)

People treated in all countries

People Treated in subsidized countries

Additional costs

Public sector ACTs

- Including the public-sector adds considerably to subsidy cost.
  - 26% of expenditure in the pilot
  - 24% in our projections
- This may not be the best way to support ACTs in the public sector

Supporting interventions

- Accounted for about 27% of Phase I costs
- On-going costs might be lower in pilot countries

RDTs

- The AMFm WG supports inclusion of RDTs in the next version of AMFm
- Subsidizing RDTs in the private sector could add 40% or more to costs, if drugs shops are included.
- But projects are likely to be scaled up slowly, as much remains to be learned. Impact on cost will probably be small initially.

Costs including the public sector

	Private	Public
Prevalence >40%	$89.0	$28.1
Prevalence 20-40%	$51.8	$15.3
Prevalence <20%	$53.4	$18.4
<25% Treated in Private Sector	$4.2	$5.5
All		

$0 $50 $100 $150 $200 $250 $300

Millions of $US

Option 2B: Targeting Children

Rationale:

The great majority of deaths from malaria are in children (86% in <5's, according to WHO). Yet 50% of private sector AMFm courses have been for adults packs.

Subsidizing only child packs/formulations might more effectively target limited resources to those who are most at risk.

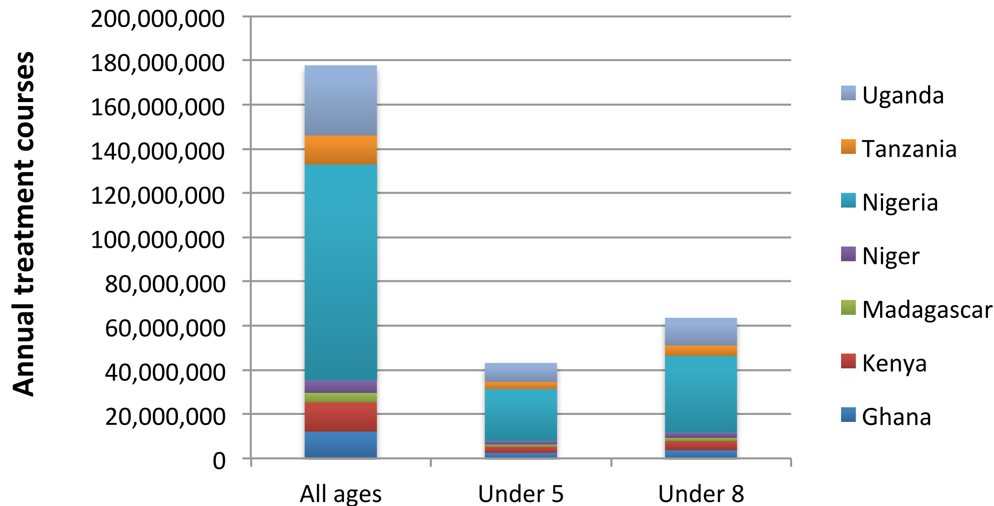
How it would work:

- Only child/packs formulation would be eligible for subsidy. (Alternatively, the subsidy level could be higher for child than for adult packs.)
- Prices of adult packs would be reduced as far as possible by other means.
- If targeting were successful, country eligibility could be quite broad, although it might still be necessary to prioritize by prevalence.

Focusing on children: challenges and risks

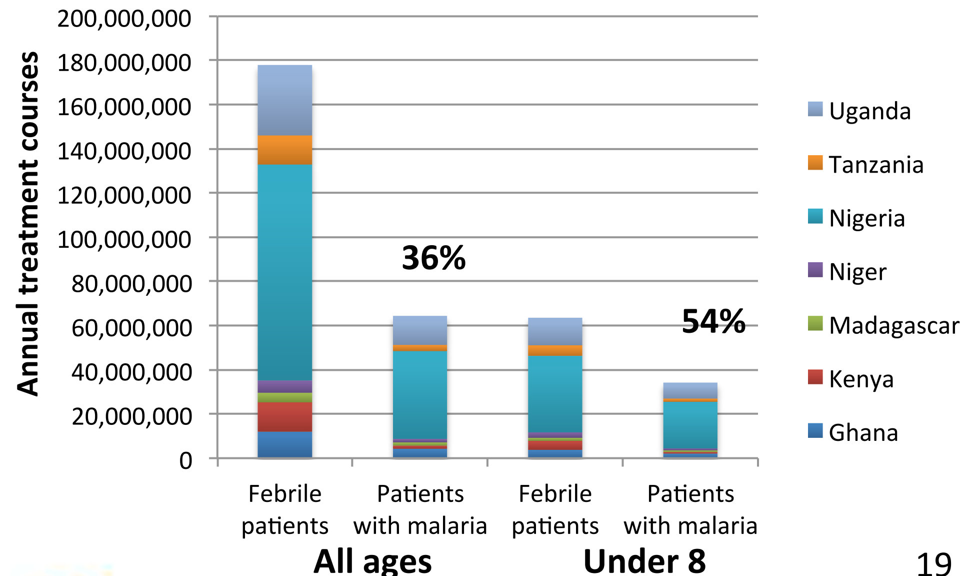
1. Some adults will buy the subsidized child packs
   - Scale of practice very difficult to predict, as there's little data from previous child-targeted subsidy projects.
   - Use by adults would erode savings from targeting, but value for money almost certainly still higher than without targeting.
2. Use of child packs by adults may increase under-dosing, with implications for resistance.
   - Some evidence suggests adults are aware of the need to "stack" (use multiple child packs)
3. Restricting the subsidy could weaken support for AMFm among retailers and the public.
4. Manufacturer prices for child packs may rise somewhat.

Targeting children: Demand and efficiency



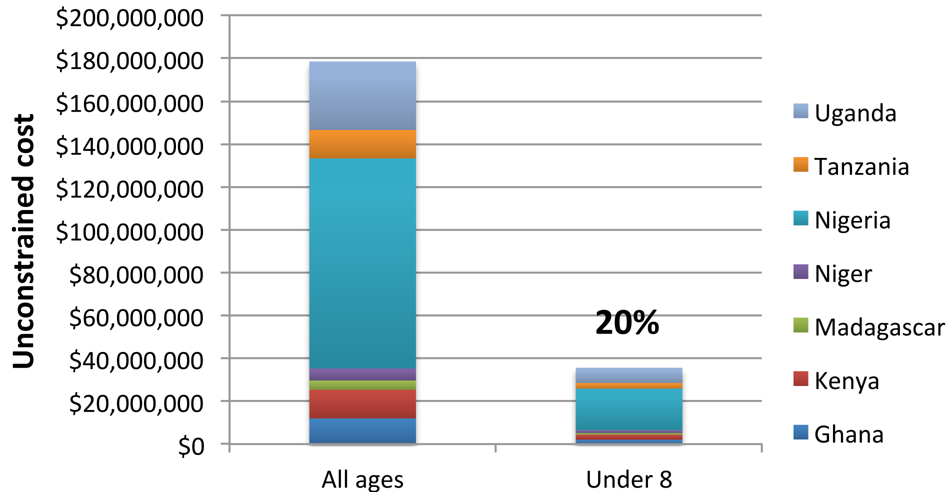
Estimated demand from children <8 is only 36% of all-ages demand…

…and a higher share of demand is for patients with malaria.



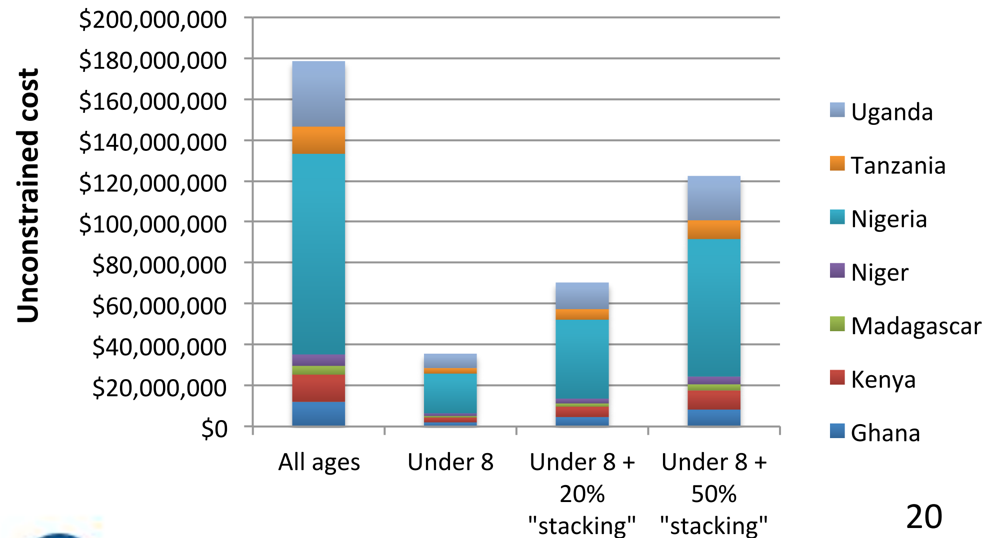
Source: analysis of data from CHAI model

Costs



Since child packs are less expensive, cost savings are even greater…

…but the savings would be eroded if many adults bought the subsidized child packs.



Source: analysis of data from CHAI model

Summary

1. The case for ACT subsidy in the private sector in some countries remains strong. But resource constraints will require difficult choices.
2. Full integration into malaria programs and funding from standard GFATM grants is ultimately desirable, but continued partial support from a dedicated fund may be necessary to ensure continuity and encourage countries to make private sector subsidy a priority.
3. Either reducing the subsidy level in some countries (tiered subsidy) and focusing the subsidy on children could help stretch limited funding and increase value for money.

EXTRA SLIDES

Distribution of income and prevalence

Prevalence in children 2-10 (MAP)

70%
60%
50%
40%
30%
20%
10%
0%

Burkina Faso
Côte d'Ivoire
Benin
Mali
Central African Republic
Togo
Cameroon
Nigeria
Mozambique
Uganda
Sierra Leone
Malawi
Ghana
DRC
Guinea
Madagascar
Niger
Chad
Tanzania
Burundi
Kenya
Sudan
Somalia
Ethiopia
Rwanda

$0 $200 $400 $600 $800 $1,000 $1,200 $1,400 $1,600

GNI per capita

Only countries with >25% private sector malaria treatment shown

Costs including the public sector

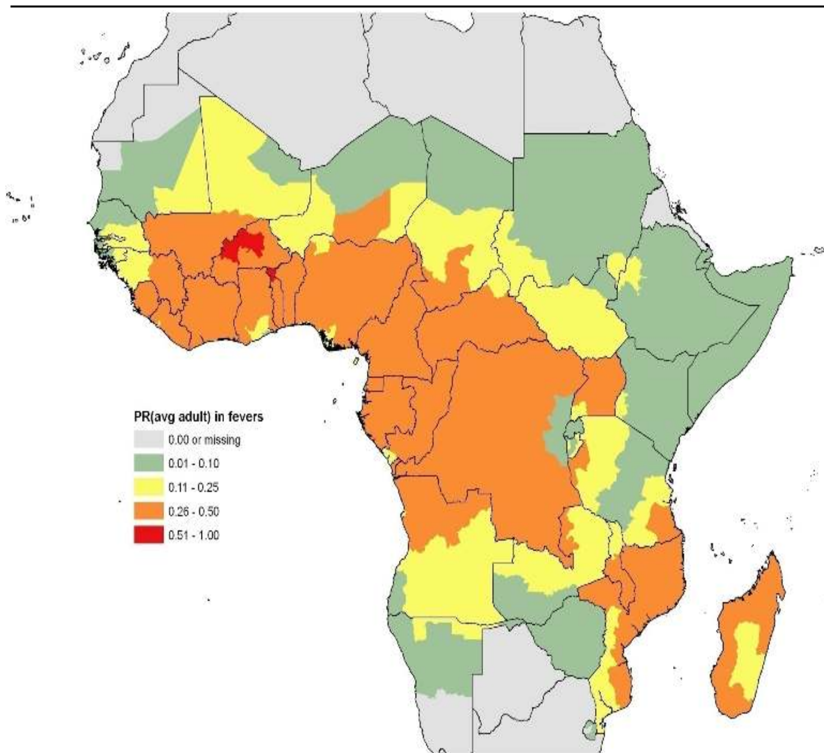
	Private	Public
Pilot Countries	$86.0	$32.7
Prevalence >40%	$37.3	$14.9
Prevalence 20-40%	$40.3	$9.7
Prevalence <20%	$30.6	$4.5
<25% Treated in Private Sector	$4.2	$5.5
All	$198.4	

$0 $50 $100 $150 $200 $250 $300

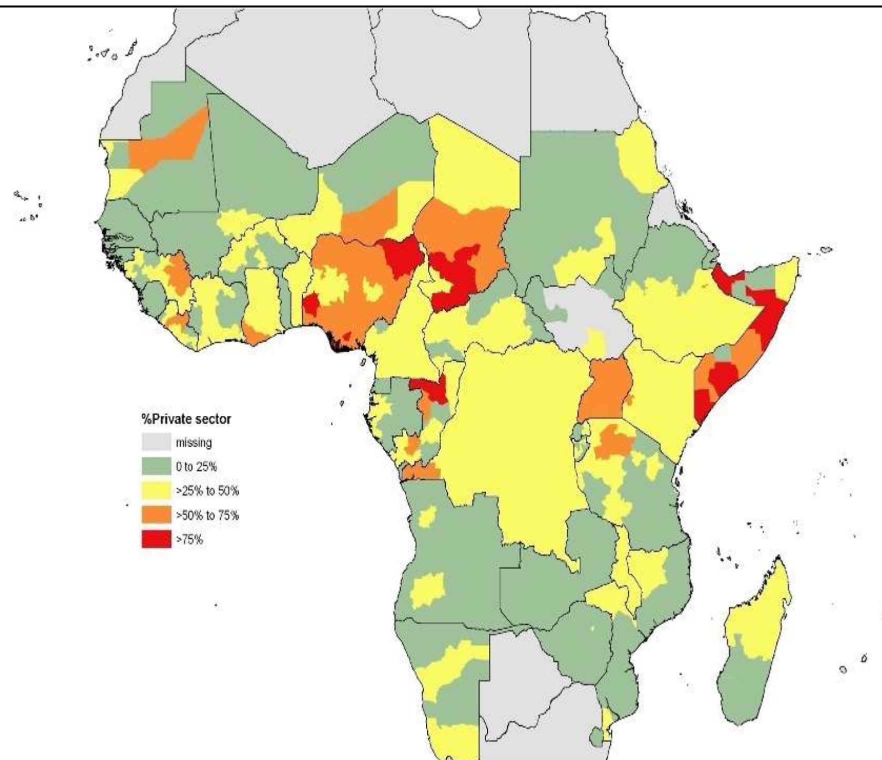
Millions of $US

Geography of prevalence in patients with fevers and treatment-seeking

Malaria Prevalence in Febrile Patients (All Ages)



Fraction receiving treatment in private sector



Alternatively, $100 million/year could fund the private sector in all current pilot countries.

Number of countries: full and partial subsidy

Total cases treated (millions)*

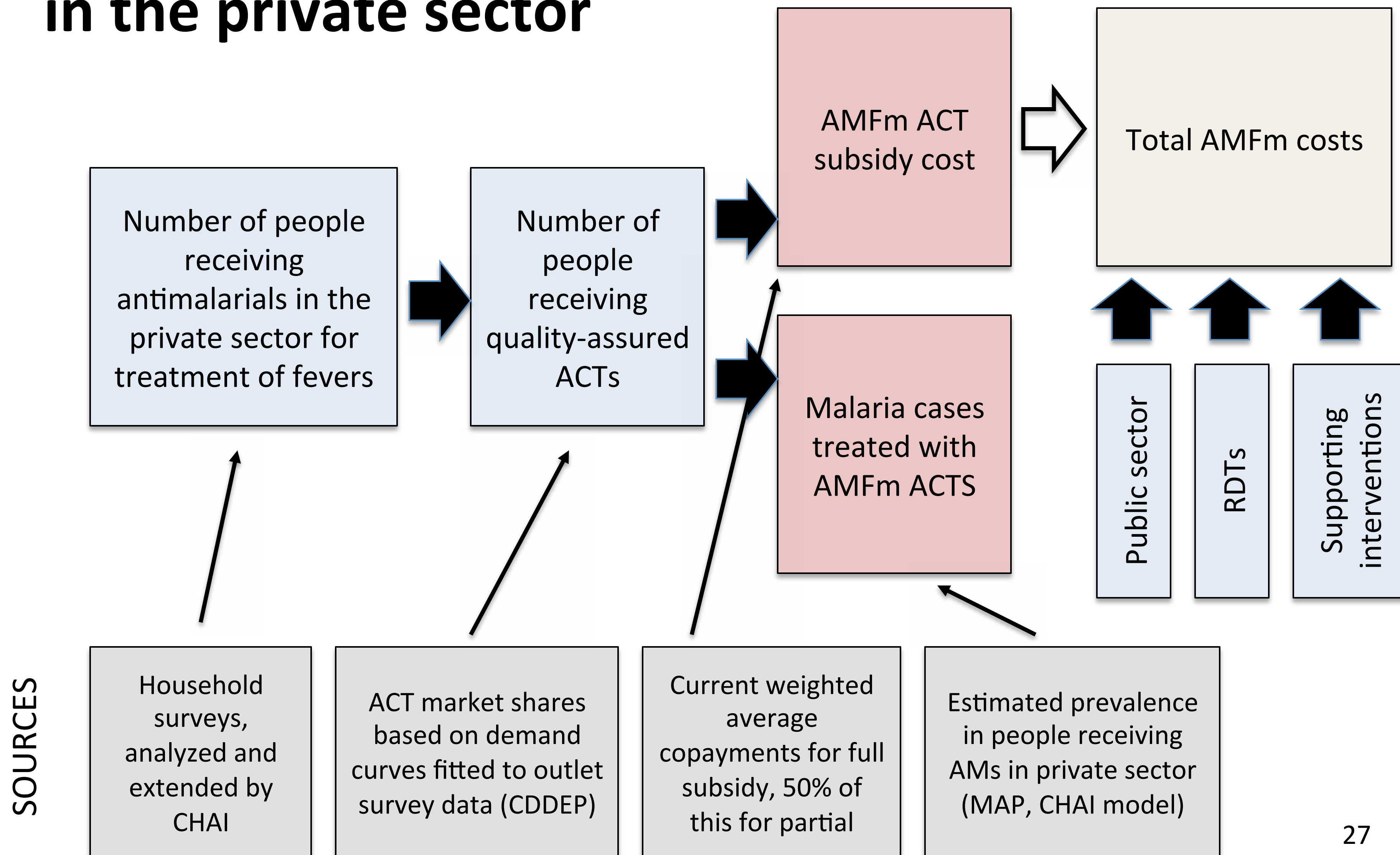
	Number of countries	Millions of Dollars	Total cases treated (millions)*
Pilot Countries	5 / 2	$58.6 / $27.4	57
Prevalence >40%	7 / 2	$32.8 / $4.5	69
Prevalence 20-40%	4	$40.3	78
Prevalence <20%	6	$30.6	79
<25% Treated in Private Sector	4 / 9	$1.8 / $2.4	79
All			

New countries

0 50 100 150 200 250

Millions of Dollars

Approach to estimating costs and cases treated in the private sector



Conclusions on Option 2B

1. Successful targeting to children could allow limited resources to be focused on those most at risk, results in more deaths averted per subsidy dollar.
2. Could allow subsidy to be expanded to additional countries.
3. Gains could be eroded by "leakage" of subsidized courses to adults; extent of use by adults is difficult to predict.
4. Other risks include loss of political support and resistance from FLBs and retailers.

Conclusions on tiered subsidy option

1. Offering different levels of subsidy in different countries may enable some AMFm objectives to be met at lower cost.
2. Lower subsidy will mean higher prices; impact on access depends on how markets respond and household price sensitivity.
3. One way to assign countries to different subsidy levels is by per capita income.
4. Prioritizing countries by prevalence in children increases the chance that subsidized ACTs will go to patients with malaria.