Diagnosis in the AMFm

4th Meeting of the Case Management Working Group
Geneva
6-7 July 2010

The launch of AMFm coincides with increased international and country-level emphasis on parasite-confirmed diagnosis

The AMFm does not include a copayment to lower the price of RDTs

However, countries are still using the AMFm as a tool to introduce or strengthen diagnosis

Guidance from RBM HWG & GF to AMFm-eligible countries

- WHO promotes parasite-based diagnosis and treatment of malaria, with noted exceptions due to implementation constraints
- Using ACT cost savings from existing GF grants, countries can request funding for RDTs in AMFm applications; requests will be reviewed by the TRP to determine feasibility and absorptive capacity
- Due to implementation challenges and unanswered questions, if the private sector has not previously deployed RDTs, countries should consider proposing Operational Research first to test a model
Through targeted expansion or operational research, AMFm proposals build on existing efforts to strengthen diagnosis

<table>
<thead>
<tr>
<th>Country</th>
<th>Host Grant/ Other Sources</th>
<th>AMFm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cambodia</td>
<td>RDT procurement, training, and deployment through private sector and CHWs</td>
<td>OR on social marketing of RDTs in the private sector (includes packaging in local language)</td>
</tr>
<tr>
<td>Ghana</td>
<td>RDT procurement, training, and deployment through CHWs</td>
<td>Training and OR on private sector (LCS &amp; pharmacy) sales of subsidized RDTs, including training, IEC-BCC and supervision</td>
</tr>
<tr>
<td>Kenya</td>
<td>NA</td>
<td>Training of public and private sector includes diagnosis message</td>
</tr>
<tr>
<td>Madagascar</td>
<td>RDT procurement and training in public sector</td>
<td>OR on RDTs in the depot-level private sector, including training: RDTs through the formal private sector (PMI)</td>
</tr>
</tbody>
</table>

RDTs in AMFm country proposals

AMFm-related Operational Research activities

Outstanding questions & next steps
Through targeted expansion or operational research, AMFm proposals build on existing efforts to strengthen diagnosis.

<table>
<thead>
<tr>
<th>Host Grant/ Other Sources</th>
<th>AMFm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Niger</td>
<td>No resources – aim to find resources for RDT deployment</td>
</tr>
<tr>
<td>Nigeria</td>
<td>RDT procurement and training for public and formal private sectors</td>
</tr>
<tr>
<td>Tanzania</td>
<td>RDT procurement and training for public sector – increasing emphasis on advocacy and training to public health clinicians for better adherence</td>
</tr>
<tr>
<td>Zanzibar</td>
<td>Training on microscopy and RDT usage in public sector; QA-QC strengthening</td>
</tr>
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5 will test deployment in the private sector through OR (1/2)

Research questions target steps in SUPPLY CHAIN for proper case management.

**Functional supply chain map**

- **IMPORATION/DISTRIBUTION**
  - Wholesaler buys quality RDTs and distributes at low price

- **STOCK MANAGEMENT**
  - Shops maintain stock of RDTs
  - Shopkeeper promotes testing for febrile customers

- **DIAGNOSIS**
  - Test result followed and appropriate drug sold to patient

- **DRUG SELECTION/PROVISION**
  - Staff provides patient with guidance on adherence

- **INSTRUCTIONS/FOLLOW UP**
  - Patient takes correct treatment for underlying disease and adheres

**Research questions**

- Which RDT is the best product for deployment in X country’s private sector?
- By procuring and selling highly subsidized RDTs to private sector shops, what is the impact on ACT stocking and price to patient?
- What are dispenser perceptions of RDTs – ease of use, reliability, acceptance?
- What is feasibility and safety of RDTs at this level of care?
- What is the cost effectiveness of introducing RDTs in the private sector? Does the introduction of RDTs lead to rational use of ACTs?
- What are adherence rates to results? What treatment or referral is offered for negatives? How do RDTs affect prescribing behavior?

*Most countries’ proposals include research questions that span this case management continuum.*
5 will test deployment in the private sector through OR (2/2)
Research questions target steps in DEMAND CHAIN for proper case management

Functional **demand** chain map

<table>
<thead>
<tr>
<th>Demand Chain Stage</th>
<th>Research Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient takes correct treatment for underlying disease and adheres</td>
<td>What are rates of patient acceptance results?</td>
</tr>
<tr>
<td>Drug Selection/Purchase</td>
<td>What is consumer demand and willingness-to-pay when RDTs are available at subsidized rates?</td>
</tr>
<tr>
<td>Demand for/Acceptance of Diagnosis</td>
<td>What proportion of febrile consumers are parasite-positive?</td>
</tr>
<tr>
<td>Selection of Health Provider</td>
<td>What are consumer perceptions of RDTs – ease of use, reliability, acceptance?</td>
</tr>
<tr>
<td>Treatment-Seeking Decision</td>
<td></td>
</tr>
</tbody>
</table>

*Most countries' proposals include research questions that span this case management continuum*

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**Contents**

- RDTs in AMFm country proposals
- AMFm-related Operational Research activities
- Outstanding questions & next steps
Prices, Diagnostic Tests, and the Demand for Malaria Treatment
Evidence from a Randomized Trial*

Study Questions:

• How do demand and uptake for RDTs vary with price (even highly subsidized prices)?
• How do demand and uptake of ACTs vary with price?
• Can RDTs and ACTs be bundled in such a way as to incentivize diagnosis?
• What are current rates of overtreatment for malaria in the private sector, and will consumers use RDTs to reduce that?

* Unpublished data, CHAI OR study in Western Kenya

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**RDT Result 1: Most ACT Buyers Want to be Tested, Regardless of RDT Price**

Only a minority (20%) of ACT buyers don’t redeem RDT vouchers, even at Ksh15.

<table>
<thead>
<tr>
<th>Share Treatment Seekers Redeeming RDT Voucher</th>
<th>Free</th>
<th>Ksh15, Refund</th>
<th>Ksh15</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>84%</td>
<td>70%</td>
<td>80%</td>
</tr>
</tbody>
</table>

* Unpublished data, CHAI OR study in Western Kenya
Overtreatment: 32% of ACT takers (53% of ≥5 yrs) do not have malaria

RDTs only modestly improve targeting because most people who test negative go on to purchase ACTs

* Unpublished data, CHAI OR study in Western Kenya
Preliminary Conclusions

Behavioral patterns related to RDTs hard to understand

RDTs are popular among treatment seekers & very little price sensitivity (at low prices)

But RDTs used for infants who don’t need them & used more at low ACT prices

Adherence to results is poor: Without Provider Pressure

• Adherence to results must improve for any RDT subsidy to be cost-effective

• This should be aimed at patients, not just providers

• BCC campaign should try to understand perceptions about malaria & diagnosis to guide messaging

* Unpublished data, CHAI OR study in Western Kenya

Operational Research on RDTs:
Evidence from a randomized demand-side trial – Busia, Kenya

Assessing the feasibility of malaria diagnosis in private sector supply chains

<table>
<thead>
<tr>
<th>Research question</th>
<th>Can RDTs be introduced into the private retail sector in a way that aligns supplier incentives with effective patient treatment?</th>
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</thead>
<tbody>
<tr>
<td>Intended impact</td>
<td>Understand: (1) Supply side of RDTs in private sector- will shop-keepers stock RDTs at affordable prices? (2) Do vouchers for free access stimulate RDT adoption? (3) Do training and targeted IEC-BCC affect appropriate use &amp; adherence?</td>
</tr>
<tr>
<td>Design</td>
<td>Phase 1: Sell subsidized RDTs to shop owners, provide basic and premium (social welfare component) training and vouchers to HHs. Phase 2: Introduce information and persuasion approaches to IEC-BCC</td>
</tr>
<tr>
<td>Partners/ location</td>
<td>FIND/Uganda</td>
</tr>
<tr>
<td>Timeline</td>
<td>January 2010 – January 2011</td>
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</table>
Outstanding questions

- Is there guidance to countries for effective training and IEC-BCC to the private sector – with and without diagnosis capacity?
- How will quality assurance and control be addressed in the private sector?
- Given decentralized usage and constraints in achieving training coverage, what product/packaging changes can suppliers make for safe, easy, accurate use of RDTs?
- Some countries test subsidized RDT distribution in the private sector – what would be the commercially scalable answer to this?
- What pragmatic approaches can be implemented to ensure safety: appropriate sharps usage and hazardous waste disposal, among others?