Market interventions to improve access to quality medicines and diagnostics:

Generating evidence for malaria medicine policy in the Asia-Pacific region

Population Services International

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1. Problem summary

2. Generating evidence for market intervention policy

3. Monitoring market interventions in the Asia-Pacific region

4. Conclusion and priority actions for the GMS and Asia-Pacific region
1. Problem summary
Problem summary

- Artemisinin resistance (and oAMT) threatens progress
- Access to quality treatment remains inadequate
- Market failure driven by those most at-risk
- Market intelligence fragmented & inconsistent
- Standardized monitoring of markets is needed
Problem summary

- Monitoring is needed to:
  - Provide a regional picture of the total market for malaria products and services
  - Monitor the readiness of market components addressing malaria elimination
  - Monitor the performance of market components addressing malaria elimination
2. Generating evidence for market intervention policy
Relative volumes of antimalarials sold during the past week in public vs. private outlets

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**ACTwatch**: assessing impact of market intervention policy

### Effect of the Affordable Medicines Facility—malaria (AMFm) on the availability, price, and market share of quality-assured artemisinin-based combination therapies in seven countries: a before-and-after analysis of outlet survey data

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### Summary

**Background** Malaria is one of the greatest causes of mortality worldwide. Use of the most effective treatments for malaria remains inadequate for those in need, and there is concern over the emergence of resistance to these treatments. In 2010, the Global Fund launched the Affordable Medicines Facility—malaria (AMFm), a series of national-scale pilot programmes designed to increase the access and use of quality-assured artemisinin-based combination therapies (QAACCTs) and reduce that of artemisinin monotherapies for treatment of malaria. AMFm involves manufacturer price negotiations, subsidies on the manufacturer price of each treatment purchased, and supporting interventions such as communications campaigns. We present findings on the effect of AMFm on QAACCT price, availability, and market share, 6–15 months after the delivery of subsidised ACTs in Ghana, Kenya, Madagascar, Niger, Nigeria, Uganda, and Tanzania (including Zanzibar).

**Methods** We did nationally representative baseline and endpoint surveys of public and private sector outlets that stock antimalarial treatments. QAACCTs were identified on the basis of the Global Fund’s quality assurance policy. Changes in availability, price, and market share were assessed against specified success benchmarks for 1 year of AMFm implementation. Key informant interviews and document reviews recorded contextual factors and the implementation process.

**Findings** In all pilots except Niger and Madagascar, there were large increases in QAACCT availability (25.8–51.9 percentage points), and market share (15.9–40.3 percentage points), driven mainly by changes in the private for-profit sector. Large falls in median price for QAACCTs per adult equivalent dose were seen in the private for-profit sector in six pilots, ranging from US$1.28 to $4.82. The market share of oral artemisinin monotherapies decreased in Nigeria and Zanzibar, the two pilots where it was more than 5% at baseline.

**Interpretation** Subsidies combined with supporting interventions can be effective in rapidly improving availability, price, and market share of QAACCTs, particularly in the private for-profit sector. Decisions about the future of AMFm should also consider the effect on use in vulnerable populations, access to malaria diagnostics, and cost-effectiveness.
3. Monitoring market interventions in the Asia-Pacific region
Monitoring market interventions in the Asia-Pacific region

Cambodia since 2009
Myanmar since 2012 (private)

Thailand?
Laos?
Vietnam?
Yunan, China?
India?
Bangladesh?

Non-GMS APMEN States?
Case study: Cambodia

- Increasing access to ACT & RDT since 2000
- Social marketing project established in 2002 for the private sector (with PSI from 2003)
- First ACTwatch outlet survey conducted in 2009*
- Additional surveys completed in 2011 & 2013

*Between 2000 and 2009 data only available regarding ACT and RDT distribution
Availability of antimalarials among all outlets with antimalarials in stock on the day of survey (2009-2011)
Total market for antimalarials sold or distributed nationwide by sector (2009 & 2011)
Cambodia surveys

- Quantify improvements in ACT & RDT availability in the public vs. private sector
- Demonstrated the impact of stock-outs in the private sector in 2011
- Quantify changes in relative market share of various antimalarials and the role of public vs. private sectors over time
- Highlighted the demand for cocktail use and challenges related to RDT adoption in the private sector
- Continue to quantify the decline in availability of oAMT
Case study: Myanmar

Genetically determined artemisinin resistance in *Plasmodium falciparum* emerged along the Thailand—Myanmar border at least 8 years ago and has since increased substantially.

At this rate of increase, resistance will reach rates reported in western Cambodia in 2—6 years.

Rationale for intervention

- In 2011, PSI ascertained that the private sector was importing around 1.6M AETD of oAMT per year into Myanmar

- Rapid replacement of oAMT became a key objective of the national resistance containment strategy (MARC)

- Supply of subsidized ACT into a highly centralized private sector supply chain commenced in October 2012 (and FDA banned oAMT imports)

- Follow on survey completed in June 2013 to assess impact to date
Operational scale & reach

PSI has distributed over 1.3 million courses of ACT through AA Medical Ltd between October 2012 and December 2013*

*this includes free samples to promote the product

AMTR Project Townships are those that receive intensified product promotion activity, as opposed to just sales
Availability of ACT in Myanmar’s Private Sector (2012 & 2013)
Relative ratio of QA ACT to oAMT sold in ‘pure’ private sector priority outlets (2012 – 2013)

Relative market share (excluding other antimalarials)

- Quality assured artemisinin combination therapy
- Oral artemisinin monotherapy
94% of target outlets are selling QA ACT at a price less than or equal to the cost of a partial dose of the most common artemisinin monotherapy at baseline

Year two target exceeded by 24%
Myanmar surveys

• Quantify significant improvements in ACT availability in the private sector

• Quantify changes in relative market share of various antimalarials

• Demonstrate that price is no longer a barrier to ACT access among those deemed most at risk of malaria

• Inform RDT promotional activity among private sector providers to improve general case management practices
4. Conclusion

- Significant progress made in scaling up case management in recent years in the region

- However, the private sector is still important (a major threat if ignored, an opportunity if managed)

- Region produces the bulk of global ACT supply (but also oAMT)

- Innovative subsidy mechanisms, combined with supportive interventions, can dramatically change the relative ratio of ACT to oAMT
ACTIONS FOR THE GMS:

a) Baseline assessment of drug markets (public and private) in priority Tier 1 & 2 resistance containment zones throughout the GMS (and India/Bangladeshi-Myanmar borders)

b) Assessment of the evidence from this baseline to determine appropriate mechanisms needed to address availability of oAMT, and/or lack of ACT

a) Follow on monitoring in intervention areas to assess impact over time
ACTIONS FOR THE ASIA PACIFIC:

a) Conduct a series of Rapid Supply Chain Assessments in key elimination countries to assess gaps or other issues in the general antimalarial/diagnostics supply chain

a) Based on the results of the above, identify priority countries that justify having routine antimalarial market monitoring and implement as in the GMS
Support for ACTwatch:

BILL & MELINDA GATES foundation

UK aid from the British people
Questions?