


Appendix 12. Slide show presented 21 March 2003
(Pictures removed to reduce file size)

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**Improving the Supply,
Distribution and Use of
Antimalarial Drugs
in the Private Sector**

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Retail Drug Outlets

Part 1 Pharmacy

- Staffed by pharmacist
- Dispenses part 1 & part 2 registered products

Part 2 Pharmacy (Duka la Dawa Baridi)

- Staffed by person with basic knowledge of pharmaceutical or medical science e.g. pharmacy assistants
- Dispenses part 2 drugs only
- To be phased out and replaced with ADDOs

General shop (Duka la Kawaida)

- Staffed by anybody
- Regulations unclear but generally sells some part 2 drugs

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Visited

Outlets	Organisations	
• Part 1 Pharmacies/Wholesalers	• Multi lateral donors	2
• Part 2 Pharmacies	• Bilateral donors	2
• General shops	• NGOs	3
• General Wholesalers	• Manufacturers	1
• Health facilities	• Regions	2
• Private Laboratories	• Zonal training centres	2
• Private dispensaries	• CHMTs	3
• Traditional healers	• Mini-Lab	1
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**Malaria Medium Term
Strategic Plan 2002-2007**

Community level target

- Correct treatment of <5s within 24 hours raised from 19% to 60%

Operational targets

- 60% of <5s appropriately managed by caretaker within 24 hours
- 80% of households receive targeted IEC
- Part 2 pharmacies, shops and kiosks sell only high quality registered 1st line antimalarials at correct dose
- Proportion of shopkeepers with correct information raised from 15% to 60%
- 50% of community health workers e.g. VHWs and traditional healers to provide correct advice

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Good Things Happening

- New Act brought in to regulate drugs
- New drugs registration procedure introduced
- Quality assurance initiative introduced
 - GMP being introduced by local manufacturers
 - Mini-labs introduced at borders
- Provision of clear national malaria treatment guidelines

Good Things Happening

- Wide choice of pharmaceutical wholesalers
- Part 1 and Part 2 pharmacies well stocked with a range of antimalarials
- Antimalarials stocked by some general stores
- Drugs generally in date
- Generally drugs not available in informal sector e.g. hawkers, traditional healers

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National Treatment Guidelines

Uncomplicated malaria:

1 st line	SP (or SMP) tablets + PCL	- General Sales
2 nd line	AQ tablets	- General Sales
3 rd line	QN tablets	- Prescription only

(AQ or QN syrup only where child unable to take tablets)

Severe malaria:

QN tablets & injectable	- Prescription only
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Registered Imported Antimalarials

Drug	Tab/caps	Susp/Liquid	Injection	Total
SP	12	0	1	13
SMP	1	0	0	1
AQ	8	4	0	12
QN	10	1	9	20
ART	11	1	3	15
Other	5	1	0	6
Total	47	7	13	67

No local product yet registered but temporary approval given pending registration

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Registration

- Unregistered drugs found in circulation
- Illegal drugs widely available

Mini-Labs

- Established at points of entry Sirari, Arusha, DSM, DSM harbour
- At Regional centres e.g. Mtwara
- Initially to test antimalarials (SP & QN) and TB drugs

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Mini-Labs

Problems

- Reference drugs stored at wrong temperature
- Subject to user error and misinterpretation by technician, needs glasses?
- Delay in reporting and taking action
- How can this information be used?

Mini-Labs

What they are useful for:

- Testing a drug at the time of importation and before distribution
- Testing bulk stock at MSD store e.g. A drug near expiry date

• Should test AQ and SMP as well as SP, QN and ART at least those that come through DSM

• Should test all batches of drugs made locally before distribution

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Mini-Labs

What they are not useful for:

- Random testing of small samples, impossible to withdraw drug if it fails.
- Testing the overall effectiveness of the supply system and the quality of storage.

Manufacturers' Packaging

- Instructions only in English
- Dosing incomplete
- Dosing Inconsistent with NMCP Guidelines
- Only 1 set of instructions
- Generic name too small

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Manufacturers' Packaging

- Make inclusion of Swahili a requirement of registration at least for antimalarials
- Ensure dosing conforms with National guidelines e.g. SMP & AQ
- Include extra cards showing the dosing instructions
- Pack blisters in individual boxes
- Supply measuring spoon with all syrups
- Print generic name at least as big as brand name

Packaging

Why tubs are not suitable for Part 2 pharmacies and general shops

- Many, especially the general shops do not have enough turnover to use contents quickly
- No dosing information available
- Risk of contamination
- Risk of drugs being spoilt

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Drug Wholesalers

- Some had poor stock management
- Some had inadequate packing for distribution
- Some had good stock control
- Some had satisfactory packaging

Part 2 Pharmacies

- Established even in small villages
- Carry a wide range of drugs
- Generally quite well organised
- Part 1 drugs in Part 2 pharmacies
- Health facilities send patients to buy part 1 drugs
- Some Part 2 Pharmacies may provide injections

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Safety of Injections

- Used syringes are getting into the environment
- Injectables may be sold by Part 2 pharmacies

• Further investigation is needed to assess the size of the problem

Part 2 Pharmacies

- Generally staffed by nurse assistants
- Limited knowledge about antimalarials and their doses
- Patchy availability of IEC materials
- Rarely available in remote villages away from main roads

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Private Laboratories

- Being established with increasing frequency
- Offering microscopy services for ≈200/=
- Lab tests often not available at public facilities

Private Laboratories

- Some laboratories are in the same building as Part 2 pharmacies
- Some are unsafe and badly run
- Some while on separate sites are owned by Part 2 pharmacy owners

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General Stores

Amodiaquine frequently the drug of choice

SP rarely available

Many shops have no antimalarials

Most general wholesalers do not stock antimalarials

General Shops

- Encourage the purchase of approved antimalarials only
- Encourage stocking of SP and AQ in areas away from Part 2 pharmacies
 - Emphasise they are both legal
 - Inform the public
 - Encourage general wholesalers to stock and promote them
 - Encourage manufacturer to pack in smaller boxes e.g. boxes of 10 packs instead of 30 packs

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Supervision/ Inspection

- Part 2 pharmacies inspected by either the Regional Pharmacist or the CHMT for pharmacy matters
- Part 2 pharmacies inspected by Health Assistants for environmental health
- For general shops inspection is only made by Health Assistants

Supervision/ Inspection

- Regulations are not well understood by wholesalers, shop keepers and inspectors
- There is confusion over the classes of drugs, which will increase with the new Act (4 part classification)
- There is also confusion over brand names related to generic groups
- Health Assistants are the only inspectors of general shops but do not know about drugs and are not authorised to confiscate illegal drugs

• List of registered general sales drugs by brand name to be made widely available

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Supervision/ Inspection

- Inspection is sporadic
- Inspectors cover many outlets and often lack transport

- Health Assistants should be provided with bicycles on a lease/buy basis
- CHMT staff should be provided with motor cycles on a lease/buy basis
- For ADDOs ward level inspectors are to be trained

Information to the Consumer

- They delay getting treatment
- They do not understand generic groups
- Patients fear the side effects of SP especially Steven-Johnson Syndrome
- Patients do not know the dosage
- They may choose to under dose
- They try to make do with antipyretics
- People do not recognise symptoms of severe malaria

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Training of Retailers

- Some small scale retail malaria training has been carried out by Care, MSF and some CHMTs
- There will be training to introduce ADDOs

- NMCP should be involved in the approval of all malaria training materials
- NMCP should evaluate the usefulness of training interventions

Why no more training?

- For training to be effective:
 - It will involve very large numbers of people
 - It must be repeated frequently because of high turnover of retailers
 - It must include regular refresher training and on-the-job monitoring
- Developing training will take District staff away from routine work, they are already away too much
- Communications package a better way to change retail behaviour

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Communications Strategy

- Target audience
 - Parents of children under 5
 - Adults & school age children
 - Owners & Sellers in Part 2 pharmacies
 - Owners & Sellers in General shops
 - Owners & Staff in Wholesalers
 - Health Assistants
 - Dispensary/Health Centre staff

Communications Strategy

Increase knowledge about

- Early treatment
- Drug choice
- Which drugs can be stocked where
- Registered products
- Avoiding injections
- Dose
- Storage and handling
- Side effects
- Recognising severe symptoms e.g. convulsions

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Communications Strategy

- Key features for developing strategies
 - Continuous not one-off
 - Use social marketing techniques e.g. road shows, theatre, mass media
 - Support existing products
 - Contracted out

IEC Materials

- Produced in 2001 for policy change
- Patchy availability in Part 2 shops
- Rarely distributed to general shops

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IEC Materials

- Posters must be printed on durable materials and replaced frequently
- Redesign for shopkeepers to include AQ tablets and syrup as well as SP

Communications Strategy

- Options for implementation
 - Districts purchase using their funds
 - NMCP purchases nationally from multiple contractors
 - NMCP contracts out purchasing to third party
 - Working through local manufacturers

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Price

Anti Malarial drugs often too expensive for people to buy a full dose or to buy at all so they buy an antipyretic instead

Price

- Retail price of adult dose :
 - SP 120/= to 900/= (3 tabs)
 - SMP 750/= to 2,100/= (3 tabs)
 - AQ 400/= to 800/= (8 tabs)
 - QN 1,260/= to 4,200/= (42 tabs)

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Price

- Are mark-ups too high?

Prices for the same product:

• SP to 1 st wholesaler	90/= for 3 tablets	
• SP sub wholesalers	133/= for 3 tablets	+ 48%
• SP to retailers	150/= for 3 tablets	+ 13%
• SP to patients	300/= to	+100%
	500/= for 3 tablets	+233%

• Campaign to reduce prices e.g. SP to <200/=

Recommended Retail Price

Works for cigarettes why not drugs?

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Artemisinin based Combination Therapies

Price for adult dose likely to be
between 1,000/= and 3,000/=

All the issues raised in this presentation will still
have to be addressed.

In addition 3 key choices will have to be made with
implications for the private market.

Artemisinin based Combination Therapies

**Choice 1: Which combination should be
chosen?**

- Will it be simple enough for people to follow in the private and public sectors?
- Will the safety profile allow for retail distribution?
- Either choose a combination that does not include a widely available monotherapy
- Or withdraw the available monotherapy from the market

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Artemisinin based Combination Therapies

**Choice 2: Should it be available to confirmed
malaria cases only?**

- Must be a prescription only medicine
- Cannot be sold through general shops

Artemisinin based Combination Therapies

**Choice 3: Should you subsidise the combination
in the private market?**

Option 1: Unsubsidised private market

- Majority will not be able to afford combination therapy in the private sector
- Powerful incentive for theft
- Will still need to ensure the appropriate use of the remaining mono-therapies in the private sector

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Artemisinin based Combination Therapies

**Choice 3: Should you subsidise the combination
in the private market?**

Option 2: Subsidised private market

- Subsidise the manufacturer
- Subsidise through a procurement agency
- Subsidise an over branded product
- Use a voucher system for most vulnerable group
- ⇒ High cost with many operational problems

Conclusions

- The private sector must always be considered in choices about malaria drug policy
- Many opportunities exist to improve the quality of malaria treatment received by retail customers
- This will be achieved through:
 - Concerted action by the Pharmacy Board and NMCP at national level to ensure that all antimalarials in the retail market are high quality, suitably presented
 - Communication package will be developed to change behaviour of providers and consumers of retail products at the local level