# The private commercial sector distribution chain for malaria treatment in Cambodia

## Findings from a rapid survey

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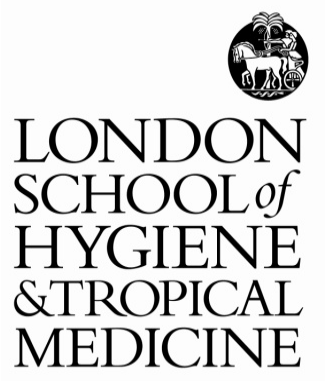

# Executive Summary

In November 2008, the Global Fund to Fight AIDS, Tuberculosis and Malaria launched the first phase of a new global subsidy on ACT, known as the Affordable Medicines Facility-malaria (AMFm). The primary objectives of the AMFm are:

1) To make ACT available and affordable to all patients through both the public and private sectors, and
2) To delay the onset of artemisinin resistance by displacing artemisinin monotherapies from the market.

Through a co-payment applied at the manufacturer level, the AMFm will enable public and private (both for profit and not-for-profit) suppliers in approved countries to purchase high-quality ACTs at a fraction of current prices. As a result, it is expected that ACT will be sold through private shops at a price similar to that of older and less effective drugs, thereby dramatically increasing patients' capacity to purchase and use ACT.

The AMFm has been designed to ensure that primary suppliers – who operate at the top of the distribution chain and are the first point of entry for drugs into the country - maintain any pre-existing purchasing relationships with manufacturers, and to minimize disruption to the operation of the distribution chain. Gaining a comprehensive understanding of public and private sector ACT distribution channels is therefore needed to ensure successful implementation of the AMFm, and ultimately to maximize ACT access in each country.

Cambodia is one of the 11 countries eligible to apply for the first phase of the AMFm that will operate for 18 months. The AMFm country application form requests a description of the current distribution chain for antimalarials across the public and private sectors. The description will serve as a key input into the selection and design of supporting interventions to ensure safe and effective distribution of co-paid ACTs under the AMFm. While there is information available on the public and NGO distribution chains, little is currently known and understood about the actors and operations of the private commercial sector distribution chain.

The objective of the rapid distribution chain survey was therefore to assist Cambodia in the development of an effective AMFm implementation plan, by providing an understanding of the current private commercial sector distribution chain for antimalarials. This report presents the findings of a series of semi-structured interviews conducted with government officials and private importers and wholesalers of malaria treatment.

Four private commercial importers were identified to regularly serve the private commercial sector distribution chain for malaria treatment. There was some indication that their number may have been higher, notably from looking at the range of antimalarial drugs available in the retail market. In Cambodia, there is no legal distinction between retail and wholesale pharmacies and a total of 1213 businesses are registered to stock pharmaceutical drugs in general. Estimates of the number of wholesale pharmacies operating in the distribution chain for malaria treatment were not available at

the time of this rapid survey, a knowledge gap that will be addressed by the ACTwatch Supply Chain Study report which is due at the beginning of 2010.

In the relatively highly concentrated import market for malaria treatment, each company supplied most provinces, with wide-reaching and well-organised distribution and promotion systems. In the capital city, wholesalers always purchased antimalarials from local importers and in turn also served the provincial market.

Wholesale suppliers reported applying between 3% and 45% mark-up, with importers adding somewhat higher markups than wholesalers in the capital city or provincial towns. This situation might have reflected their limited number as well as the relatively higher distribution and promotion costs they reported facing. Yet in the retail sector where more numerous medicines sellers are expected to operate, mark ups could be higher, ranging from 26% to 88%.

Uptake of co-paid ACT was discussed with respondents who all welcomed the AMFm initiative. Barriers to the distribution of ACT have also been identified, mainly around the regulatory environment, the costs of distributing and promoting antimalarials and the risk associated with entering a relatively small and concentrated antimalarial market reported to be, in some instances, dominated by cheaper substandard or counterfeit drugs.

# Contents

## Acknowledgements

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Thanks also to the staff of Population Services International for their support in-country, and to our interviewees from the National Centre for Parasitology, Entomology and Malaria Control, the Department of Drugs and Food of the Ministry of Health, importers, wholesalers and retailers for participating in this research study.

This study was undertaken as part of ACTwatch, a collaboration between Population Services International (PSI) and the London School of Hygiene & Tropical Medicine (LSHTM), and funded by the Bill & Melinda Gates Foundation (www.actwatch.info). It draws on data collected by PSI for the pilot of the Outlet Survey, conducted in November 2008. We are grateful to Kate O'Connell, ACTwatch Principal Investigator, and Phok Sochea, the Cambodia Country Programme Coordinator for facilitating use of these data.

The views expressed in this report remain those of the authors. Questions and comments should be directed to the LSHTM research team, by contacting Edith Patouillard (edith.patouillard@lshtm.ac.uk).

# Abbreviations

| | |
|---|---|
| A+M | Artesunate+Mefloquine |
| ACT | Artemisinin Combination Therapy |
| AM | Antimalarial drugs |
| AMFm | Affordable Medicine Facility For malaria |
| AMT | Artemisinin Monotherapy |
| BTB | Battambang |
| BTM | Banteay Meanchey |
| CF | Clinton Foundation, Cambodia country office |
| COD | Cash on Delivery |
| CQ | Chloroquine |
| DDF | Department of Drugs and Food of the Ministry of Health of the Kingdom of Cambodia |
| DHA | DiHydroArtemisinin |
| LSHTM | London School of Hygiene and Tropical Medicine |
| MOH | Ministry of Health |
| Namt | non-Artemisinin Monotherapies |
| OTC | Over-the-counter |
| PP | Piperaquine |
| Prim | Primaquine |
| PSI | Population Services International, Cambodia country office |
| SP | Sulphadoxine-Pyrimethamine |

# 1. Introduction

Cambodia is one of the 11 countries eligible to apply for the first phase of the AMFm. To develop an effective AMFm implementation plan that will ensure co-paid ACT reaches patients who seek care in the private commercial health sector, Cambodia needs a better understanding of the structure of the distribution chain for antimalarial drugs and of the business practices of suppliers who operate at different levels of the chain. The aim of this report is to address this need, by presenting the findings of a rapid survey on the private commercial sector distribution chain for antimalarials drugs in Cambodia.

The report starts by describing the methods used for conducting the study. It then presents the findings on the structure and functioning of the distribution chain that serves the private commercial market for antimalarials followed by a discussion of the potential barriers to ACT distribution.

# 2. Methods

To address the objectives of this rapid study, 18 semi-structured interviews were conducted, of which 5 were with public and private sector informants (Table 1) and 13 with private commercial suppliers of antimalarial and pharmaceutical drugs in general operating at different levels of the chain (Table 2).

The 5 public and private sector informants were identified through consultation with the Clinton Foundation (CF) office in Cambodia and through the snowball sampling technique[1]. Participants were selected due to their expert knowledge on the overall structure and characteristics of the private commercial antimalarial distribution chain and challenges that might inhibit implementation and success of the AMFm in Cambodia.

**Table 1: List of interviews with public and private informants working in organisations involved in the public and private antimalarial distribution chain in Cambodia**

| No. | Organisation |
|---|---|
| **1** | National Centre for Parasitology, Entomology and Malaria Control, Ministry of Health |
| **2** | Department of Drugs and Food, Ministry of Health |
| **3** | Drug Regulation Bureau of the Department of Drugs and Food, Ministry of Health |
| **4** | Pharmaceutical Trade Bureau of the Department of Drugs and Food Ministry of Health |
| **5** | Population Services International, Cambodia Country Office |

Private commercial suppliers of antimalarial and pharmaceutical drugs in general (Table 2) were identified from the:

[1]The snowball sampling technique consists of asking initial respondents to identify new study participants, who are subsequently invited to take part in the study. This technique is repeated with each respondent until no new participants are being identified.

- List of registered importers of pharmaceutical drugs as at November 2008, available from the Department of Drugs and Food of the Ministry of Health

- List of businesses directly supplying retail outlets and private for-profit health facilities, compiled using data on retailers' top two supply sources for antimalarials drugs, collected by PSI during the ACT Watch outlet pilot survey[2] conducted in November 2008

- Snowball sampling technique conducted during each interview

**Table 2 Interviews with suppliers of antimalarial and pharmaceutical drugs in general**

| No | Business type | Product type reported to be stocked | List from which the business was identified |
|---|---|---|---|
| **1** | Importer distributor | ACT* | DDF* |
| **2** | Importer distributor | ACT and AMT | DDF/ OS* |
| **3** | Importer distributor | Chloroquine | DDF |
| **4** | Importer distributor | - | OS |
| **5** | Importer distributor | - | DDF |
| **6** | Importer distributor | - | DDF |
| **7** | Importer distributor | - | OS** |
| **8** | Wholesaler | - | OS** |
| **9** | Wholesaler | ACT | OS |
| **10** | Wholesaler | ACT; AMT some time ago | OS |
| **11** | Wholesaler | ACT and AMT | OS |
| **12** | Wholesaler | ACT some time ago | OS |
| **13** | Retailer | ACT | OS |

*ACT=Artemisinin Combination Therapy; AMT=Artemisinin Monotherapy; DDF= Department of Drugs and Food of the Ministry of Health; OS= ACTwatch PSI Pilot Outlet Survey; **Businesses reported as top 2 suppliers for AM during OS although business reports not selling AM. One reason for this might be that retailers actually reported top two supply sources for drugs in general

Interviewees were contacted by the CF or a member of the LSHTM research team, informed about the study objectives and invited to participate in the study. At the appointed time and place, the LSHTM researcher accompanied by a trained note taker/translator obtained consent.

Using a prepared semi-structured interview guide, public and private sector informants working in organisations at the top of the chain were asked about the overall structure of the private commercial sector distribution chain for antimalarials in the country; their own role in the distribution chain; broad estimates of the number of suppliers at each level; their perceptions of key factors affecting antimalarial supply and the effectiveness of regulation; and their views of how the private sector will respond to co-paid ACT.

Interviews with private commercial suppliers were conducted with the person most knowledgeable about the import and/or wholesale market for antimalarials and pharmaceutical drugs in general. Using a semi-structured guide, each participant was asked questions about key aspects of market structure (e.g. horizontal/vertical integration), provider conduct (e.g. whether they distribute or purchaser collects, credit policies to customers, access to trade credit, marketing techniques, vertical

[2] A description of the ACTwatch Pilot Outlet Survey is available in the ACTwatch Household and Outlet Survey Protocols for Cambodia, www.actwatch.info

restraints, pricing and stocking decision, competition and collusion, perceptions of the appropriateness of regulations and the enforcement capacity of authorities; the role of antimalarials in their portfolio); and finally how their business and the market for antimalarials would respond to the Affordable Medicines Facility - malaria. As many of the issues to be discussed in the interviews may be perceived to be sensitive for commercial or regulatory reasons, only written notes were taken, rather than tape recording interviews. All interviews took place in Phnom Penh and its surroundings[3] between 20th April and 5th May 2009.

## 3. The private commercial sector distribution chain: structure and business practices

A stylized map of the private commercial sector distribution chain for antimalarials drugs is shown in Figure 1.

Registered importers of antimalarial drugs receive supplies from overseas manufacturers (Belgium, China, France and Thailand), with whom they are in an 'exclusive distributionship' agreement or 'long term partnership'. Agreement and partnership terms vary, sometimes including rules about selling prices and order volumes, embedded sales teams, manufacturer's in-country product promotion and sales team training.

Importers always use the same source of supply so their stocking decision is influenced mainly by product availability from suppliers. Importers order supplies 2-3 times per year and they receive supplies within 1-3 months. Procured quantities are influenced by:

- Stocks remaining from the previous season
- Market research at provincial and district levels conducted by importers' own sales teams during their day-to-day activities
- Market research conducted by overseas manufacturers
- Surveillance data available from Ministry of Health[4]

Promotion is a key aspect of their business, through promotion teams visiting customers every day in the capital city and at least once a month in provinces. Importers sometimes use different sales teams for different customers. They send sales representatives to retail outlets and medical representatives to private clinics and doctors. Promotion is therefore tailored to the customers and products, with a relatively more technical promotion to private clinics and doctors[5]. Promotion teams are generally based in provinces. In some instances, promotion teams also conduct sales activities from their vans.

Distribution is also an important activity for importers, as all have wide-reaching and well-organised distribution networks for supplying most, if not all provinces, at varying frequency depending on

[3] Because of time constraint it was not possible to travel to provinces and operational districts to interview businesses operating at these levels.
[4] Included MOH reports and health facility admission records.
[5] For example, action of the drug, side effects, etc.

market volumes and transport costs. Importers warehouse in the capital city, or close by[6]. They do not have provincial stocking facilities or distribution centres, although as mentioned above some conduct van sales alongside promotion activities. Their distribution teams are often distinct from their promotion teams and they distribute supplies to their customers who have ordered in advance. In case of urgent orders outside the planned distribution schedule, importers hire private transport. Importers reported that they directly supply prescription and pharmacy-only drugs to registered outlets only, including wholesale and retail pharmacies, private clinics and doctors. When supplying consumer goods products, they also distribute to general shops, petrol stations, etc. Some importers prefer bypassing wholesale pharmacies, especially at provincial level to avoid additional mark ups along the distribution chain. Importers themselves mark-up antimalarial drugs at 15-45%, depending mainly on costs (especially promotion), consumer demand and the degree of competition they face.

**Table 3 Mark-up on antimalarial drugs applied by interviewed importers**

| Product | Mark-up |
|---|---|
| ACT | 15% |
| Non-Artemisinin monotherapies tablet | 30% |
| Artemisinin monotherapies non-tablet | 45-55% |
| Pharmaceutical drugs in general | 16-49% |

To boost sales, importers offer bonuses and gifts to their customers. Bonuses ('buy 10, get 1 free' 'buy 20, get 3 free') are generally used in transactions with wholesalers whilst gifts (fans, fridge) are generally given to retailers when they order a certain volume or amount within a given period. Discounts (2-10%) are also offered, sometimes on top of bonuses and gifts, generally depending on whether consumers buy on cash or on credit. When giving credit, it is generally for a one month period and payment is collected by distribution teams or another team dedicated to payment collection. Credit is generally offered to wholesalers in the capital city, but somewhat more rarely to consumers in the provinces, as the risk of non-payment is reported to be relatively higher.

There are 156 companies registered for the import/export of pharmaceutical drugs and medical equipment[7]. However, only a third of these are currently 'active' or regularly importing products whilst the remainder includes companies which import upon government tender bids. The rapid survey identified 4 private commercial importers[8] of antimalarial drugs who regularly supply the private commercial sector distribution chain. From the official list of registered antimalarial drugs[9], it is likely that additional private commercial importers exist if it is assumed that they are generally in exclusive distributionship agreement with manufacturers of a particular product (Table 4). Overall another 8 importers could therefore handle antimalarials, of which 2 ACT, 3 AMT and 3 nAMT. This would put the total number of importers of antimalarials at 12.

[6] There was no evidence of distribution centre outside the capital city and its surroundings. None of the interviewed importers of antimalarials drugs and pharmaceutical drugs in general kept supplies at provincial level.
[7] List of registered companies available from the Department of Drugs and Food of the Ministry of Health.
[8] All 4 private commercial importers were invited to participate in the rapid survey, out of which 3 accepted to be interviewed whilst 1 could not be interviewed within the study timeframe.
[9] List available at the time of the rapid survey is dated 30 March 2008.

**Table 4: Antimalarial drugs registered in Cambodia and importer name, where available**

| AM type | Generic name (formulation or brand name, where available) | Manufacturer name | Country of origin | Importer name |
|---|---|---|---|---|
| **AMT** | Artemether (suppositories, ampoules, suspension) | Dafra Pharma | Belgium | Zifam-Sudima Pharmaceutical |
| **AMT** | Artemether (ampoules) | Kunming Pharma | China | Not identified |
| **AMT** | Artemether (suspension or syrup) | Traphaco, Hanoi | Vietnam | Not identified |
| **AMT** | Artesunate (tablets) | Binh Dinh Pharma | Vietnam | Not identified |
| **ACT** | Artemisinin+PP+Primaquine (Artequick tablets) | Artepharm | China | Cyspharma |
| **ACT** | DHA+PP (Artekin tablets) | Holleykin(Guangzhou) Pharma. | China | Not identified |
| **ACT** | DHA+PP (Duo Cotexcin tablets) | Zhejiang Holley Nanhu Pharm | China | Not identified |
| **nAMT** | Chloroquine (Nivaquine tablets) | Rhone Poulenc Rorer | France | Roussel Cambodge |
| **nAMT** | Chloroquine (Nitaquin tablets) | Utopian | Thailand | Intermohosot |
| **nAMT** | Chloroquine (Tablets) | Acdhon Co | Thailand | Not identified |
| **nAMT** | Mefloquine (Tablets) | PharmaDanica A/S | Denmark | Not identified |
| **nAMT** | Quinine (Ampoules) | A.N.B Lab | Thailand | Not identified |

Source: Adapted from the list of registered pharmaceutical products in Cambodia available at the time of the study

Registered wholesale pharmacies located in the capital city never import from overseas manufacturers and always receive from importers or other wholesalers. Wholesale pharmacies stock small quantities of a wide range of drugs in the premises of their outlets (they do not have stocking facilities elsewhere). Their stocking decision is influenced by consumer demand and suppliers' promotion, through TV ads and sales promotion teams. They often change their sources of supply, depending on product prices and availability from suppliers. They receive daily visits from all importers' promotion teams from which they can place their order directly, or by phone when needed. They receive supplies within a few hours or the following day from distribution teams. In addition, they can buy directly from importers' van sales teams, although this seems to be relatively less common. This is not surprising as promotion and distribution are generally distinct activities in importers' business practices. When served by other wholesalers, it is generally to satisfy an immediate consumer demand for a product that is out-of-stock. In this case, they choose the closest business with the product in stock and they go to collect it.

Wholesalers pay importers cash on delivery (COD) or on credit. The decision of whether to buy using cash or on credit is influenced by the discount they can get with paying COD. Discount rates vary from 2 to 10%. Credit is generally received for 30 days. Wholesalers also receive bonuses from

importers in the form of free products when buying a given volume. When buying from other wholesalers, it is in small quantities (generally it is a unit purchase) and payment is cash. In some instances, wholesalers might borrow products from one another and return them a few days later when they have received supplies of the corresponding product. No discount or bonuses seem to be received for between-wholesaler trade.

Wholesalers in the capital city mark up drugs at around 3-25%. Their pricing decision is influenced by the degree of competition they face, product availability and bonuses/discount received. They tend to partially pass bonuses through to customers in the form of lower prices to boost sales. They serve provincial wholesale and retail pharmacies, doctors and private clinics, through a somewhat *ad hoc* distribution system using private taxis and public buses. They do not have distribution teams and rarely conduct promotion activities at provincial levels.

Provincial wholesale and retail pharmacies receive supplies directly from importers or from wholesale pharmacies located in the capital city. They order by phone or directly from importers' sales teams. They receive their stocks within a week if located in a relatively large market such as BTB, BMC or Pursat provincial cities, or up to every 2-3 months for a smaller and more remote market, e.g. Mondulkiri. They pay cash on delivery, or sometimes on credit at the time of the next order or two, which would typically range from 15 to 45 days. Their mark-up was estimated to vary between 15 and 35%.[10]

Data on the number of registered wholesale pharmacies are not readily available from official listings. This is because there is no legal distinction between pharmacies that wholesale and those that retail. The ACTwatch distribution chain study will address this knowledge gap by conducting a census of wholesalers, both registered and unregistered, who handle antimalarials drugs in Cambodia. These data are expected to be available in the first half of 2010.

At retail level, there is a wide range of outlet types that sell pharmaceutical products (Box 1). Retailers receive supplies from all levels of the private commercial sector distribution chain, although providers, especially unregistered ones, might tend to purchase their supplies locally, at commune and/or district levels.[11] In this situation, it is expected that they collect their supplies by foot or using bicycles and motorcycles. Credit might be offered to local or regular customers. Retail mark-ups were estimated to range between 26 and 88%.[12]

Nationwide, there are 519 pharmacies managed by registered pharmacists, 126 Depots A that are registered drug outlets managed by assistant pharmacists and 568 Depots B that are managed by registered nurses or midwives[13]. These 3 types of registered outlets are legally authorized to handle

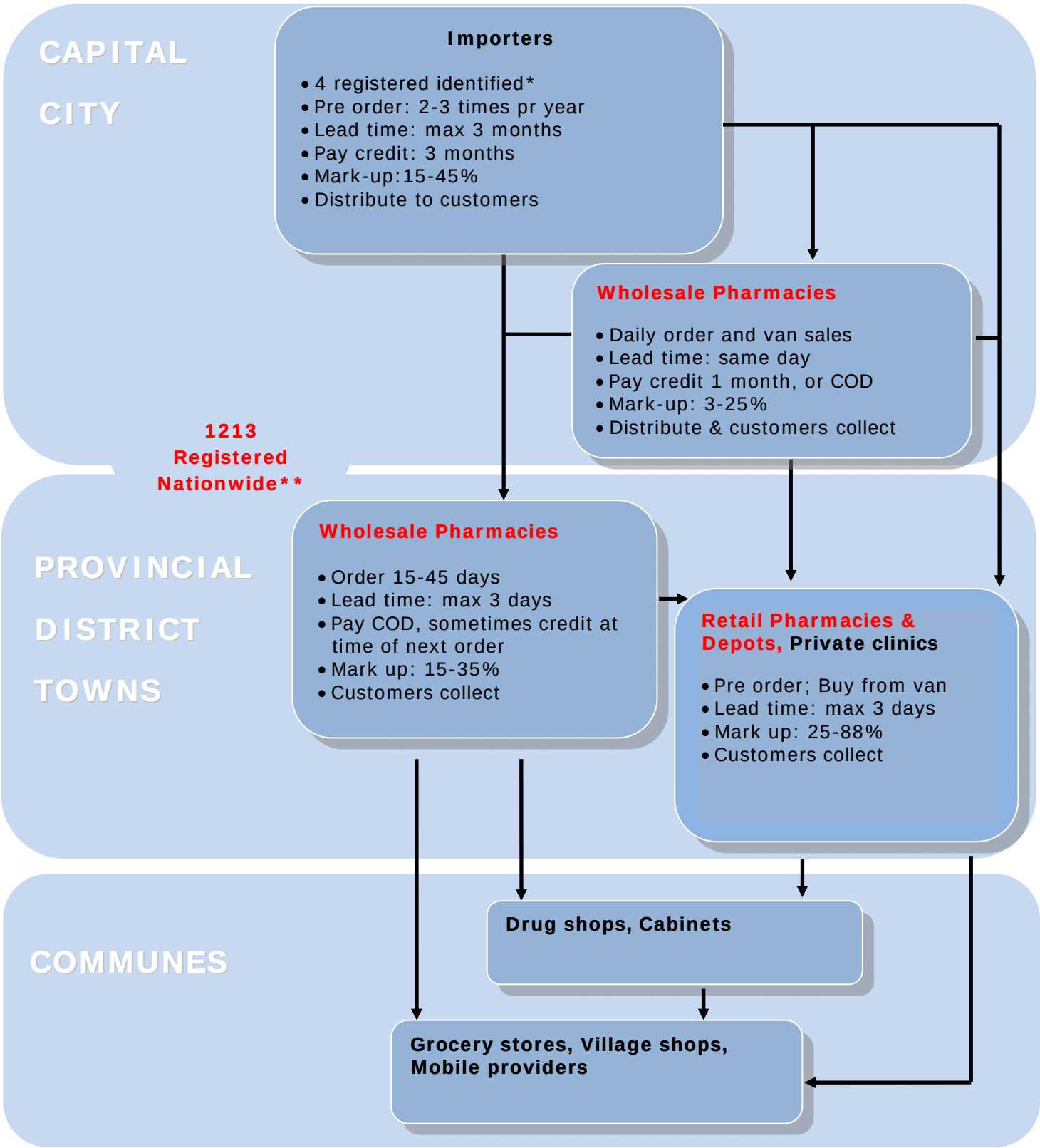
[10] Provincial wholesalers were not interviewed. Mark ups at this level of the chain were estimated by interviewed importers.
[11] ACTwatch Outlet Pilot Survey data, Cambodia. A description of the ACTwatch Pilot Outlet Survey is available in the ACTwatch Household and Outlet Survey Protocols for Cambodia, www.actwatch.info
[12] Mark up data specific to subsidized ACT Artesunate + Mefloquine (Malarine Adult). Include deviation from retail recommended price, PSI MAP study, September 2007.
[13] Pharmacies are required to be staffed by a university level pharmacist; Depot A by a pharmacy assistant; Depot B by a nurse/midwives (depot B licenses are no longer issued).

different types of therapeutic products[14]. However in practice, any drug may be found in both registered and unregistered outlets (Box 1), and there is rarely a need for a prescription[15].

Some years ago, it was estimated that 450 illegal drug sellers operated in Phnom Penh alone and 2800 nationwide[16]. The latest data estimate that 1420 pharmacies operate illegally, mainly within private medical practice cabinets and that overall 7,000 illegal medicine sellers operate across 10 provinces[17].

[14] Good Pharmacy Practice: department of Drugs and Food, Ministry of Health Cambodia. Final English Version January 2006 and LSHTM interview
[15] Buying Time, Saving Lives. Institute of Medicine, 2004
[16] MOH data cited in Buying Time, Saving Lives, Institute of Medicine, 2004
[17] Personal communication, Clinton Foundation Cambodia country office, May 2009

**Figure 1: The private commercial sector distribution chain for antimalarial drugs**




→ Flow of supplies across chain levels

*Excludes PSI. Actual number of registered importers could be 12 (see section 3)

**For pharmaceutical drugs in general, not-AM specific

**Box 1: Range of health and non-health retail outlets selling pharmaceutical drugs in Cambodia**

**Registered Health Outlets**

**Pharmacy**
Outlet staffed with a university-level pharmacist. Registered with the Ministry of Health to sell prescription-only drugs, pharmacy-only drugs and over the counter drugs. Identified by a pharmacy signboard.

**Depot A pharmacy**
Outlet staffed with a pharmacy assistant. Registered with the Ministry of Health to sell Depot A Pharmacy Controlled Drugs. Identified by a Depot A signboard.

**Depot B pharmacy**
Outlet staffed with a nurse or midwife. Registered with the Ministry of Health for selling OTC drugs only. Identified by a Depot B pharmacy signboard.

**Clinical Pharmacy**
Outlet staffed with a qualified provider - medical doctor or medical assistant, or semi-qualified provider - nurse, midwife, laboratory technician or provider who received short-term medical training along the Thai border after the Khmer Rouge regime. Registered at the Ministry of Health to provide diagnosis and selling prescription-only, pharmacy-only and OTC drugs. Identified by a clinical pharmacy signboard stating the name of the provider.

**Non-registered Health Outlets**

**Cabinet**
Outlet staffed with a qualified or semi-qualified provider (as above), but not registered with the Ministry of Health. Provides diagnosis and medicines. No pharmacy signboard.

**Drug Store**
Outlet smaller than a pharmacy. Not registered with the Ministry of Health. Staffed with a non-qualified provider. Commonly found in village areas and markets. No pharmacy signboard.

**SQHN Clinic**
Outlet part of a franchised network of 75 clinics. Staffed with a qualified health provider. Provides diagnosis and sells all kind of drugs. Identified by Sun logo.

**Mobile provider**
Itinerant provider working in the surroundings of his/her home. Has some medical training. Provides diagnosis and sells medicines to individuals and retail outlets in rural areas. Can be identified by asking the village chief.

**Non-health or general outlets**

**Grocery/Convenience Store**
Small business at the front of a house selling pharmaceutical products alongside general consumer goods, such as food, beverages, household equipment.

**Village Shop**
Business smaller than grocery store. Sells a limited range of general consumer goods and pharmaceutical products.

**Mobile vendors**
Itinerant provider selling pharmaceutical products alongside general consumer goods.

*Source: Adapted from ACTwatch Outlet Survey Protocol for Cambodia. A description of the ACTwatch Pilot Outlet Survey is available in the ACTwatch Household and Outlet Survey Protocols for Cambodia, www.actwatch.info*

# 4. Potential barriers to ACT distribution

Three factors that may inhibit the number of active registered importers of pharmaceutical drugs were identified.

## 4.1 Regulatory environment

Many respondents perceived the legal process for importing pharmaceutical products to be lengthy, opaque and relatively costly, creating incentives for some businesses to operate illegally. First, only drugs that are registered with the MOH can be legally imported in Cambodia. Registering a drug includes the submission of several documents[18] and the payment of US$250[19]. Second, once a drug is registered companies must obtain an import permit from the MOH for each shipment, at a cost of US$50[20]. Following recent regulatory changes, the time to obtain a permit has decreased significantly from 30-45 days to 1-3 days, depending on the number of permits to be processed by the MOH. However, repeat applications required at each shipment were reported to be time consuming. Third, obtaining customs clearance is also said to be time consuming, including the submission of various documents and the payment of a fee[21] and 10% VAT. Storage costs at sea/airport may also apply.

## 4.2 Access to capital

Importers reported the need for better access to capital. One importer reported that the minimum value his/her company may import from his supplier is $200,000. At lower levels of the distribution chain, wholesale pharmacies never purchased directly from overseas manufacturers because they handle volumes that are too small, lack capital and access to capital and do not have connections/knowledge of manufacturers.

## 4.3 The market for malaria treatment

The market for malaria treatment is considered to be relatively small. First, importers reported that most patients seek care in the public health sector because antimalarials are provided free. Second, they reported that amongst those patients who seek care in the private commercial sector, the majority buy Malarine, the highly subsidized drug distributed by PSI, or if Malarine is not available,

[18] These include documents on drug provenance, marketing authorisation in country of origin, manufacturer contact details, manufacturer's GMP-certificate, qualitative and quantitative data on methods of preparation, ingredients, and clinical trial results

[19] US$50 paid to the National Laboratory Control for Drug Quality Testing and US$ 200 to the Department for Drugs & Food for drug registration.

[20] At the time of the rapid survey, this is new regulation. Under previous regulatory arrangements, a fee of $80 was payable for a shipment including less than 50 different products and US$100 for shipment of more than 50 different products, valid for 6 months.

[21] The Malaria Taxes and Tariffs Advocacy Project focuses on identifying taxes, tariffs and non-tariff barriers to end-user access to antimalarial commodities. In Cambodia, data collection took place in 2009. Findings are expected to be available end 2009/beginning 2010.

poor quality products, mostly counterfeit and substandard; the remainder of patients who seek care in the private commercial sector are those with much higher purchasing power who buy more expensive and higher quality drugs, or patients treating Vivax malaria parasites. In this context, importers perceive that it is impossible to enter the market because of the problem of competing with free and highly subsidized products. Companies that do import antimalarial drugs do so because they are in sole distributionship, allowing them to have a monopoly position in their product market.

Interviews with registered active import companies not handling antimalarials, but that expressed interest in importing antimalarials, revealed that it was not possible for companies to provide high quality drugs that would compete with government and PSI products given the costs they face, including drug purchase prices and promotion and distribution costs. In addition, they reported that they could not import products already provided by importers handling antimalarials because of sole distribution partnerships.

At lower levels of the distribution chain, some wholesale pharmacies stopped stocking antimalarial drugs in recent years because of the competition they faced from Malarine. Only unregistered businesses and poor quality products, mostly counterfeit and substandard drugs, were perceived to be competitive.

## 5. Uptake of co-paid ACT in the private commercial sector

Overall, importers of antimalarials and pharmaceutical products in general welcomed the AMFm initiative. The following views were expressed:

- PSI's success in promoting and distributing subsidized Malarine demonstrates a positive experience with a high volume/low priced drug business
- Stocking a product supported by MOH/WHO would create positive externalities affecting non- malaria related drugs, by promoting companies' reputation
- Some importers are willing to expand their already wide-reaching distribution network to the most remote areas

Whilst all importers expressed interest in co-paid ACTs, they were nonetheless worried that volumes will be too small and that margins will not cover their promotion and transport costs. They also feared other importers would free-ride on the externalities created by the promotional activities of their sales teams. In this context, they nearly all requested to enter into an exclusive distributionship agreement with the manufacturer.

Importers also enquired whether changes to the legal process for imports would be considered in the context of the AMFm, such as for instance a fast track import process, an exemption of import permit or a decrease of the value added tax rate.

Importers already handling antimalarial drugs expressed interest in importing co-paid ACT because they would increase their overall market share, either by penetrating the market segment for

cheaper antimalarials or the market for the treatment of plasmodium Vivax parasites. They would not, however, stop importing and promoting their current antimalarial product because they considered that the co-paid ACT will not compete with their product (Chloroquine, Artemisinin based suspension and injectable monotherapies, ACT) generally sold to customers who are already familiar with their products, or with different needs (in the case of Chloroquine) and/or who have a higher purchasing power (in the case of ACT).

At wholesale/retail level, the decision to stock co-paid ACT will be influenced by product promotion and intensity of consumer demand. Uptake is expected to be relatively slow until consumer demand picks up and demand for Malarine significantly switches to co-paid ACT.

Adequate stocks of co-paid ACT will need to be available to control the price of the co-paid ACT and avoid speculative activities, such as those experienced by the currently subsidized ACT, Malarine. Wholesalers in the capital city reported that because the demand for Malarine is generally higher than the volumes available, they have the opportunity to sell Malarine at a price above PSI recommended price.

## 6. Concluding remarks

Interviews with private commercial suppliers indicated that the AMFm is a welcome initiative. Various barriers to the distribution of ACT have also been identified, mainly around the regulatory environment, the costs of distributing and promoting antimalarials and the risk associated with entering a relatively small and concentrated market.

These challenges and more importantly how these could potentially be addressed were discussed with private suppliers. This report concludes by reporting some of the suggestions and comments made by our respondents during our interviews:

- There is a potential risk that no importer would start handling co-paid ACT if the import market is opened to all companies. There is a need to consider the feasibility of exclusive distributionship or partnership arrangements between selected importers, drawing on the strength of their distribution network; develop agreement on geographic areas to be supplied by each importer
- Create incentives such as a 'fast track' import process, decrease import permit costs for those companies who import co-paid ACT (these interventions could be applied to an importer's overall product portfolio, i.e. not only on co-paid ACT imports) or apply such discounts to those who meet a threshold of imported volumes
- Provide financial or volume support to mitigate promotional (sales teams) and transport costs
- Concerns on size of the market could be addressed through a communication campaign targeted to importers and wholesalers, focusing on the role the private commercial sector can play in the

provision of malaria treatment in context of public sector capacity and phasing out of Malarine in the AMFm context

- Develop a PSI-inspired promotion campaign (TV ads etc), including communication for interim phase between Malarine and new co-paid ACT.