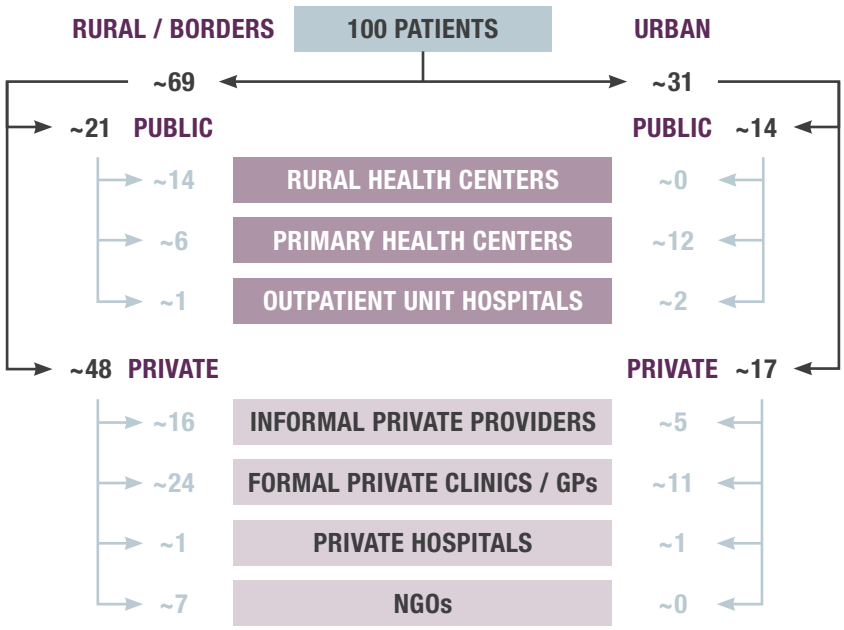
MYANMAR

FIND
Because diagnosis matters

FEVER DIAGNOSTIC PRACTICES

PATIENT FLOW

PATIENT FLOW FOR INITIAL FEBRILE ILLNESS DIAGNOSTICS



MALARIA SPECIFICS – COMMENTS

Diagnosis and treatment of malaria is free and quality assured in the public sector. We estimate that ~35% of the population is seeking care within this sector as a first point of care and many more after referral (in particular from informal private providers).

There is a slight preference for the public sector in urban areas, which correlates with better access to public care

- "There are more than 16,000 CHWs in Myanmar; people in the rural areas are going to seek care from them, from NGO staff and from hospital nurses and doctors. In big cities, people go more to hospitals." APMEN, Program Manager

It is estimated that almost 65% of patients seek treatment for fever from the private sector, both formal and informal

- PSI commenced the scale-up of RDTs in private sector outlets with the purpose of reducing drug waste, decreasing the risk of resistance to non-artemisinin partner drugs, and improving case management of malaria and non-malaria fever. The project has been expanded to 51 townships and should be continued by the government
- "RDTs are used at the community level as well as at the private pharmacy level." APMEN, Program Manager

Despite the fact that malaria diagnosis and treatment is free and quality assured, only 35% of febrile patients first seek care within the public sector

Sources: Interviews, Advention

FEVER AND MALARIA DIAGNOSTIC ALGORITHM AND PRACTICES

DIAGNOSTIC GUIDELINES

Mass screening is undertaken: No

First-line malaria diagnosis at hospitals: Microscopy preferred

First-line malaria diagnosis at lower-level facilities and at community level through village malaria workers: RDTs

Type of RDT used: Pf + Pv specific (Combo)

TREATMENT GUIDELINES

Treatment guidelines recommend directly observed therapy (DOT) until completion of treatment and Pf case follow-up to monitor treatment response with microscopy or RDT

First-line treatment of unconfirmed malaria: No treatment

First-line treatment of Pf: Artemether-lumefantrine; Artesunate+Mefloquine (AL; AS+MQ) or DHA-Pip with single low-dose primaquine (PQ)

First-line treatment of Pv: Chloroquine + Primaquine (CQ+PQ)

Treatment of severe malaria: Artemether; Artesunate; Quinine (AM; AS; QN)

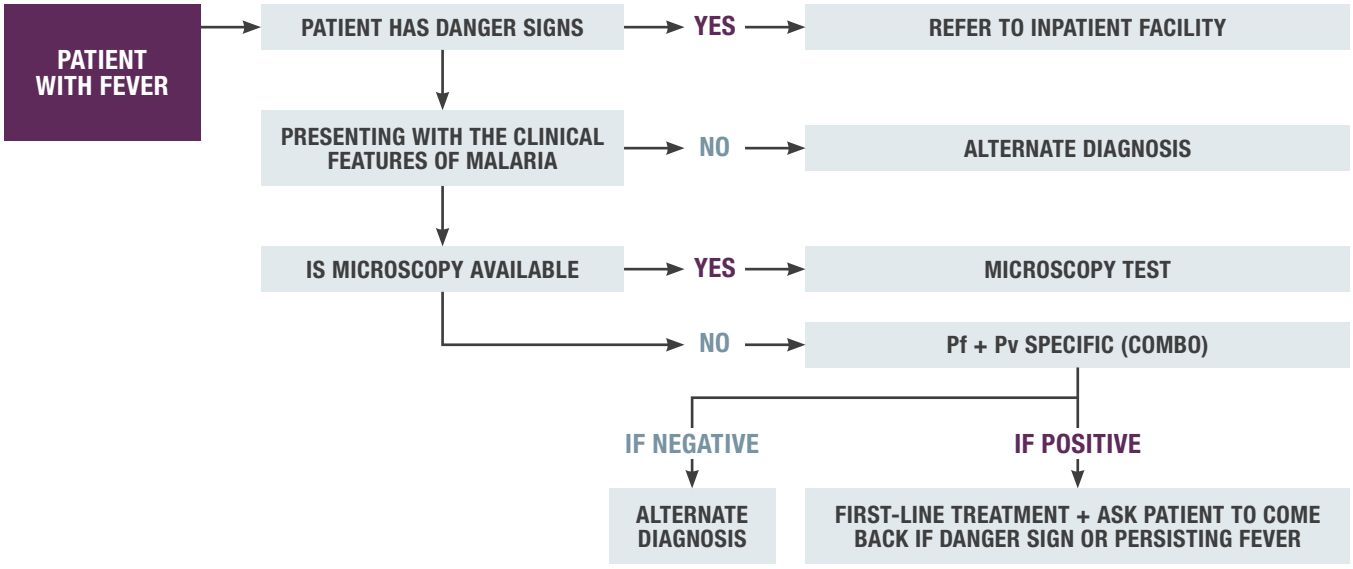
ADHERENCE TO GUIDELINES

Adherence to the national malaria treatment policy is not uniform among healthcare providers, in part due to a significant portion of suspected patients receiving treatment from the private sector without necessarily being tested

LEGEND

- FULLY ALIGNED
- GENERALLY ALIGNED
- RARELY OR NOT ALIGNED

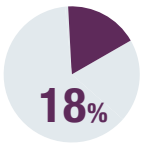
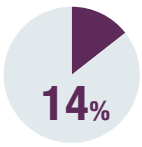
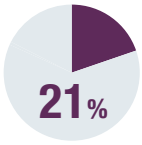
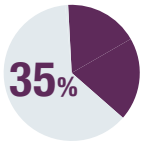
FEBRILE ILLNESS DIAGNOSTIC ALGORITHM



Myanmar's malaria treatment guideline is designed to avoid further drug resistance with no treatment recommendation for unconfirmed malaria, adoption of DOT and case follow-up to monitor treatment response; unfortunately adoption in the private sector is limited

Sources: WHO, interviews, Advention

MALARIA TESTING PRACTICES AT DIFFERENT HEALTH FACILITY LEVELS

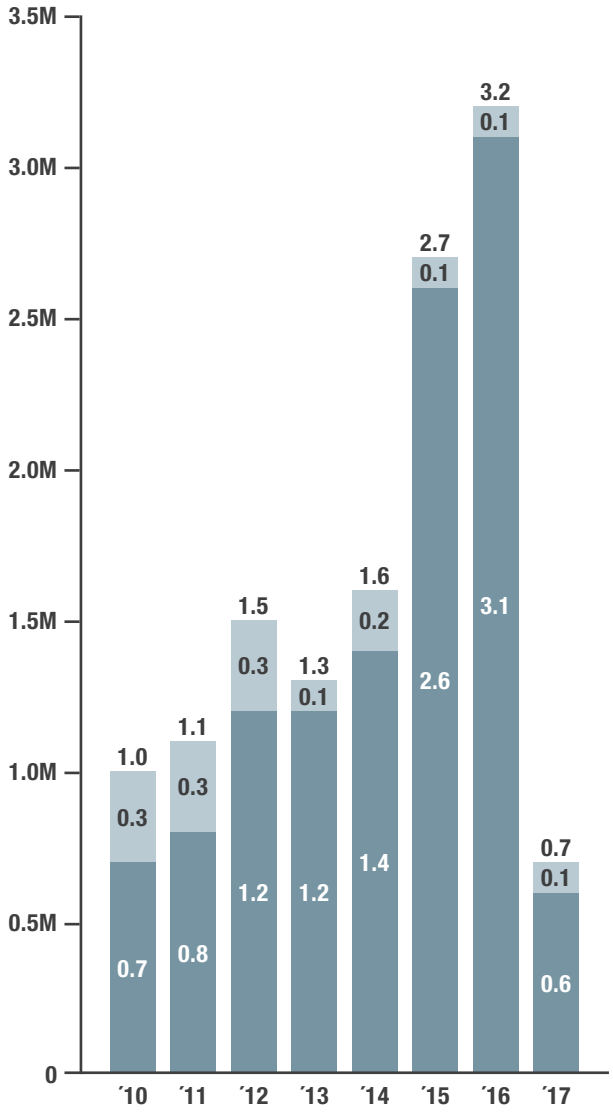
	HEALTH FACILITY	NUMBER OF FACILITIES	SHARE OF FEVER PATIENTS (EST.)	PREFERRED MALARIA DIAGNOSTIC TOOL	LEVEL OF RDT USE (MALARIA DIAGNOSTIC)
PUBLIC	Public hospital	1K		Microscopy	Medium / Limited
PUBLIC	Primary and Secondary Health Center	87		Microscopy and RDTs	High
PUBLIC	Rural Health Center	~2K		RDTs	High
PRIVATE	Informal private providers	n.c.*		RDTs	Medium
PRIVATE	Formal private clinics / GPs	>4K		RDTs	Medium and growing
PRIVATE	Private hospitals	~200		RDTs	Medium
PRIVATE	NGOs	n.c.		RDTs	High

RDTs are widely used in Myanmar and more commonly at the community level both in public and private facilities

Note: (*) not communicated. Sources: interviews, MoHS, Advention

MALARIA TESTING PRACTICES

MALARIA TESTS PERFORMED



LEGEND

RDTs MICROSCOPY

IDENTIFIED MALARIA RDTs USED

SD Bioline Malaria Ag P.f/P.v POCT

Pf-HRP2	$0.42 / test
Any malaria with pLDH-pan	>0.2M RDTs since 2017

Abbott

SD Bioline Malaria Ag P.f/P.v

Pf-HRP2	$0.36 / test
Any malaria with pLDH-pan	>10.3M RDTs since 2012

Abbott

AccessBio CareStart™ Malaria HRP2/pLDH(Pf/Pv) Combo

Pf-HRP2	$0.46 / test
Pv-pLDH	0.9M RDTs since 2011

ACCESSBIO

Malaria is mainly tested with RDTs

Sources: WHO, USAID-PMI, Global Fund, Advention

MALARIA TESTING LANDSCAPE

		PRIORITY COUNTRIES*						
		VIET NAM	CAMBODIA	S. AFRICA	INDIA	PAKISTAN	MYANMAR	THAILAND
HEALTHCARE INFRASTRUCTURE	Population (M)	95	16	56	1,324	193	53	69
	Healthcare expenditures per capita ($)	115-120	65-70	84	60-70	35-40	55-59	217-225
	Health insurance coverage	~70%	–	~16% => NHI	~5-10%	~19%	Negligible	~98%
	Universal health coverage index	73	55	67	56	40	60	75
	Patients with fever being tested (%)**	80%	69%	82%	71%	68%	55%	83%
	Main distribution network	NIMPE	CNM	NDOH	State MoHs	Mix public/ private	NVBDCP/ CMSD	BVBD
MALARIA DIAGNOSTIC FUNDING & PROCUREMENT	Last year total malaria funding ($M)	16	20	24	226	38	78	21
	Share of government funding (%)	~18%	~3%	~100%	~73%	~58%	~8%	~40%
	Main procurement decision maker	NMCP	CNM/ UNOPS	NDOH / Malaria programme	National and state MoHs	GF / NMCP	NMCP/ PMI	NMCP
	Procurement concentration level	High	High	High	Low	Medium	Medium	High
MALARIA DIAGNOSTIC PRACTICES	Health facilities performing RDTs	Health posts	Lower level facilities	Lower level facilities	Sub-Health/ Primary HC	GPs, clinics	Lower level facilities, clinics	Lower level facilities
	Share of RDT in malaria diagnostic (% of patients)	~19%	~74%	~63%	~13%	~20%	~96%	~5%
	Community HCW RDT knowledge	Yes	Yes	Yes	No	Yes	Yes	Yes
	Quality management system performance	High	Medium	High	Medium	Medium	Low	High

NIMPE: National Institute of Malaria, Parasitology, and Entomology (also CNM); **NDOH**: National Department of Health; **MoH**: Ministry of Health; **NVBDCP**: National Vector Borne Disease Control Programme; **CMSD**: Central Medical Store Depot; **BVBD**: Bureau of Vector-Borne Disease; **NMCP**: National Malaria Control Programme; **UNOPS**: United Nations Office for Project Services; **GF**: The Global Fund; **PMI**: Project Management Institute

Notes: (*) Last available year; (**) As per Advention's assumption based on interviews (base case scenario). Sources: WHO, World Bank, GF, interviews, Advention

MALARIA RDT STAKEHOLDERS MAP

		VIET NAM	CAMBODIA	S. AFRICA	INDIA	PAKISTAN	MYANMAR	THAILAND
WHO IS PAYING FOR MALARIA RDTs?	Ministry of Health							
	Donors							
	Patients / Private insurances							
WHO IS SELECTING MALARIA RDTs?	Ministry of Health / NMCP	++ ★	++ ★	++	++	++ ★	++ ★	++ ★
	Donors	+	++			++	++	++
	Private sector	+	+	+	++		+	+

WHO ARE THE MAIN INFLUENCERS REGARDING MALARIA RDT SELECTION?

MoHs/NMCPs

Local manufacturers

LEGEND

★ HEAVY USE OF DONOR'S PROCUREMENT POOLING SYSTEM

☆ USE OF DONOR'S PROCUREMENT POOLING SYSTEM

Malaria RDTs are mostly financed by international donors, except in India, Pakistan and South Africa

NMCPs are key decision makers regarding RDT selection in all countries

Source: Advention