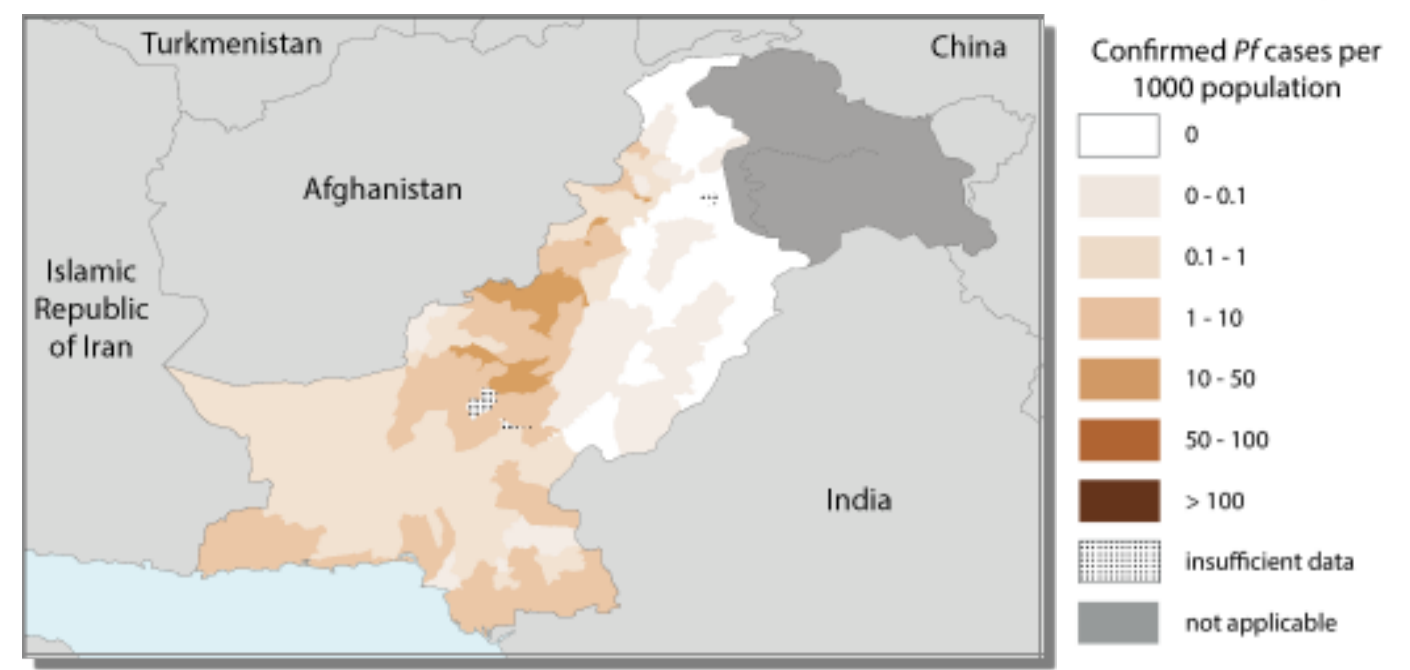
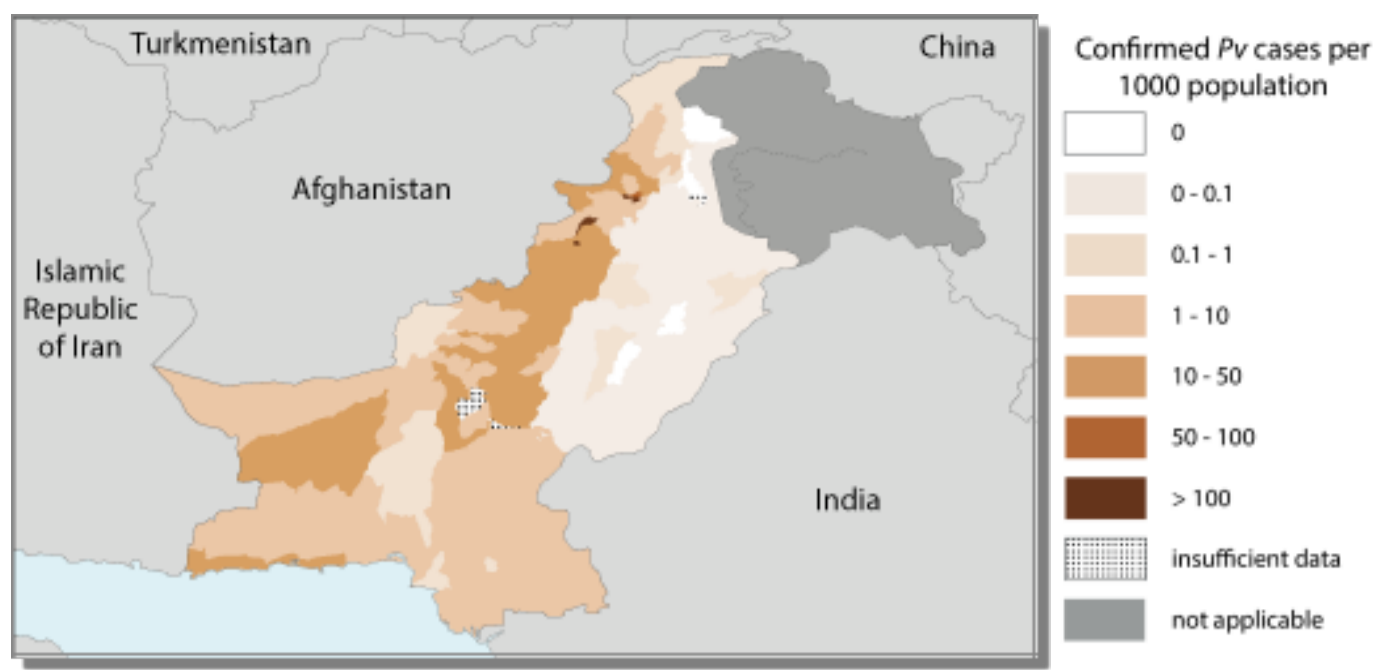


Pakistan

Eastern Mediterranean Region



I. Epidemiological profile

Population (UN)	2016	%
High transmission (> 1 case per 1000 population)	55,900,000	29
Low transmission (0-1 cases per 1000 population)	134,000,000	69
Malaria-free (0 cases)	3,260,000	2
Total	193,200,000	

Parasites and vectors			
Plasmodium species:	<i>P. falciparum</i> (21%), <i>P. vivax</i> (79%)		
Major anopheles species:	<i>An. culicifacies</i> , <i>An. stephensi</i>		
Reported confirmed cases (health facility):	318,449	Estimated cases:	[874,000–1,933,000]
Confirmed cases at community level:	-		
Reported deaths:	33	Estimated deaths:	1,100 [210–2,000]

II. Intervention policies and strategies

Intervention	Policies/strategies	Yes/No	Adopted
ITN	ITNs/ LLINs distributed free of charge	Yes	2008
	ITNs/ LLINs distributed to all age groups	Yes	2008
IRS	IRS is recommended	Yes	1961
	DDT is authorized for IRS	No	-
Larval control	Use of larval control recommended	Yes	1961
IPT	IPT used to prevent malaria during pregnancy	N/A	-
Diagnosis	Patients of all ages should receive diagnostic test	Yes	2011
	Malaria diagnosis is free of charge in the public sector	Yes	1961
Treatment	ACT is free of charge for all ages in public sector	Yes	2009
	The sale of oral artemisinin-based monotherapies (oAMTs)	Is banned	2008
	Single dose of primaquine is used as gametocidal medicine for <i>P. falciparum</i>	Yes	2012
	Primaquine is used for radical treatment of <i>P. vivax</i>	Yes	2009
	G6PD test is a requirement before treatment with primaquine	Yes	2009
	Directly observed treatment with primaquine is undertaken	No	-
	System for monitoring adverse reactions to antimalarials exists	No	-
Surveillance	ACD for case investigation (reactive)	No	-
	ACD of febrile cases at community level (pro-active)	No	-
	Mass screening is undertaken	No	-
	Uncomplicated <i>P. falciparum</i> cases routinely admitted	No	-
	Uncomplicated <i>P. vivax</i> cases routinely admitted	No	-
	Foci and case investigation undertaken	-	-
	Case reporting from private sector is mandatory	No	-

Antimalarial treatment policy	Medicine	Year adopted
First-line treatment of unconfirmed malaria	CQ	-
First-line treatment of <i>P. falciparum</i>	AS+SP+PQ	2013
Treatment failure of <i>P. falciparum</i>	AL; QN	2013
Treatment of severe malaria	AS; QN	2007
Treatment of <i>P. vivax</i>	CQ+PQ(14d & 8w)	2007
Dosage of Primaquine for radical treatment of <i>P. vivax</i>		0.25 mg/Kg (14 days)
Type of RDT used		P.f + P.v specific (Combo)

Therapeutic efficacy tests (clinical and parasitological failure, %)

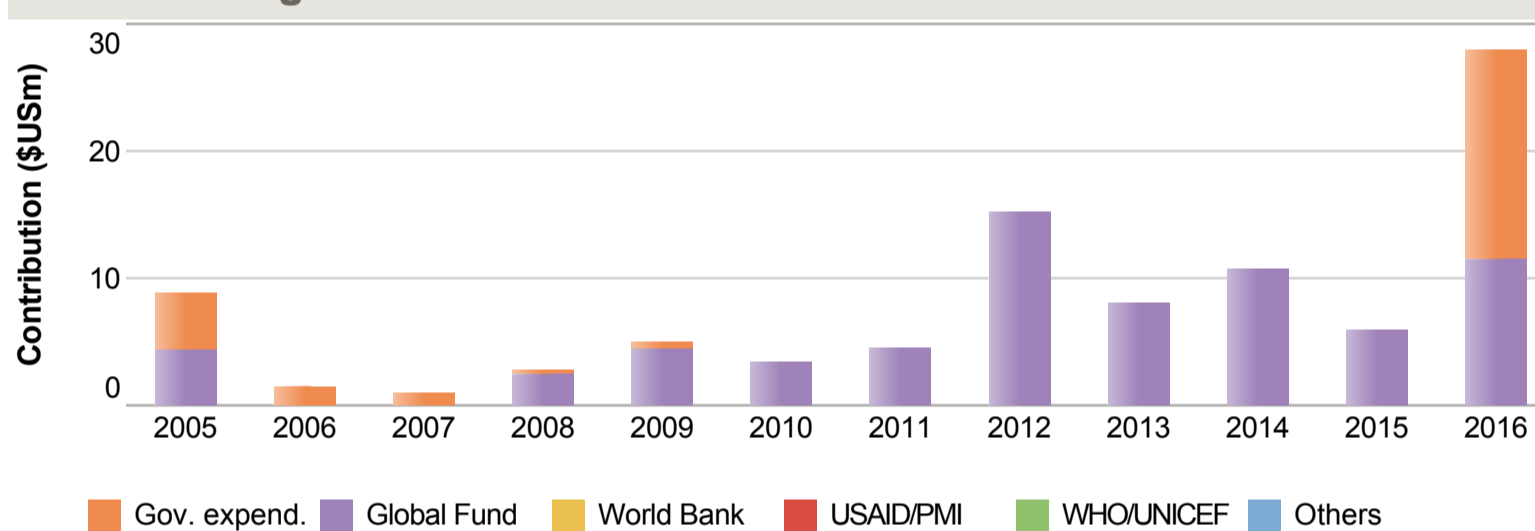
Medicine	Year(s)	Min	Median	Max	Follow-up	No. of studies	Species
AL	2012-2013	0	0.6	1.2	28 days	2	<i>P. falciparum</i>
AS+SP	2011-2012	0	0.55	1.5	28 days	4	<i>P. falciparum</i>
CQ	2013-2013	0	0	0	28 days	1	<i>P. vivax</i>

Insecticide resistance tests (mosquito mortality, %)

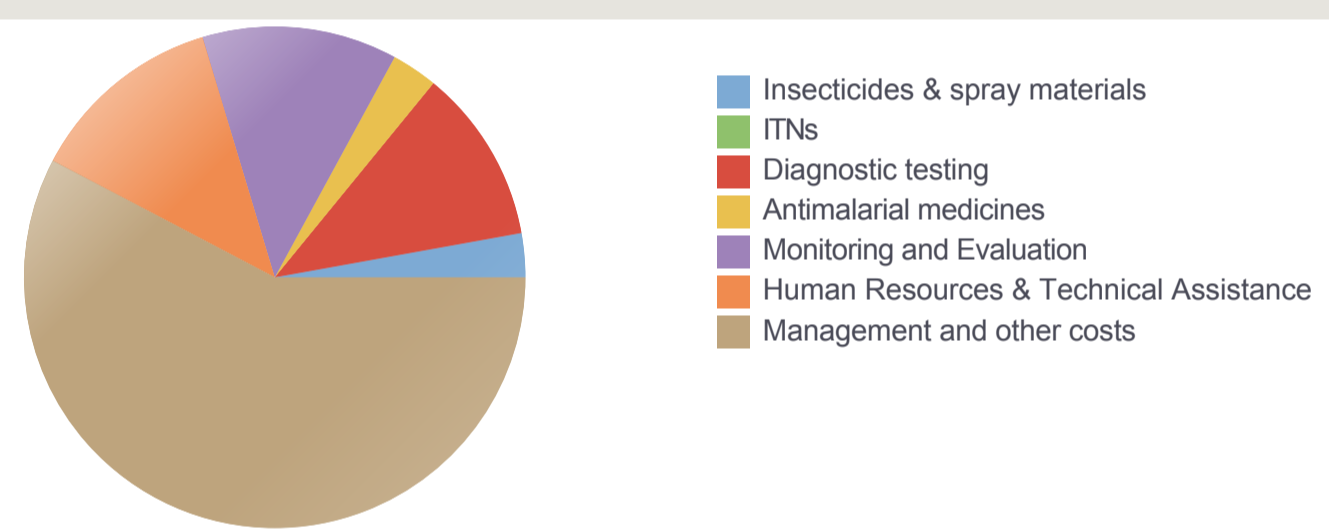
Insecticide class	Years	Min	Mean	Max	No. of sites	Species
Pyrethroids	2011-2013	0.2	0.7	1	20	<i>An. culicifacies s.l.</i> , <i>An. stephensi</i>
Organochlorines	2011-2013	0.3	0.4	0.5	20	<i>An. culicifacies s.l.</i> , <i>An. stephensi</i>
Organophosphates	2011-2013	0.3	0.6	1	20	<i>An. culicifacies s.l.</i> , <i>An. stephensi</i>

III. Financing

Sources of financing

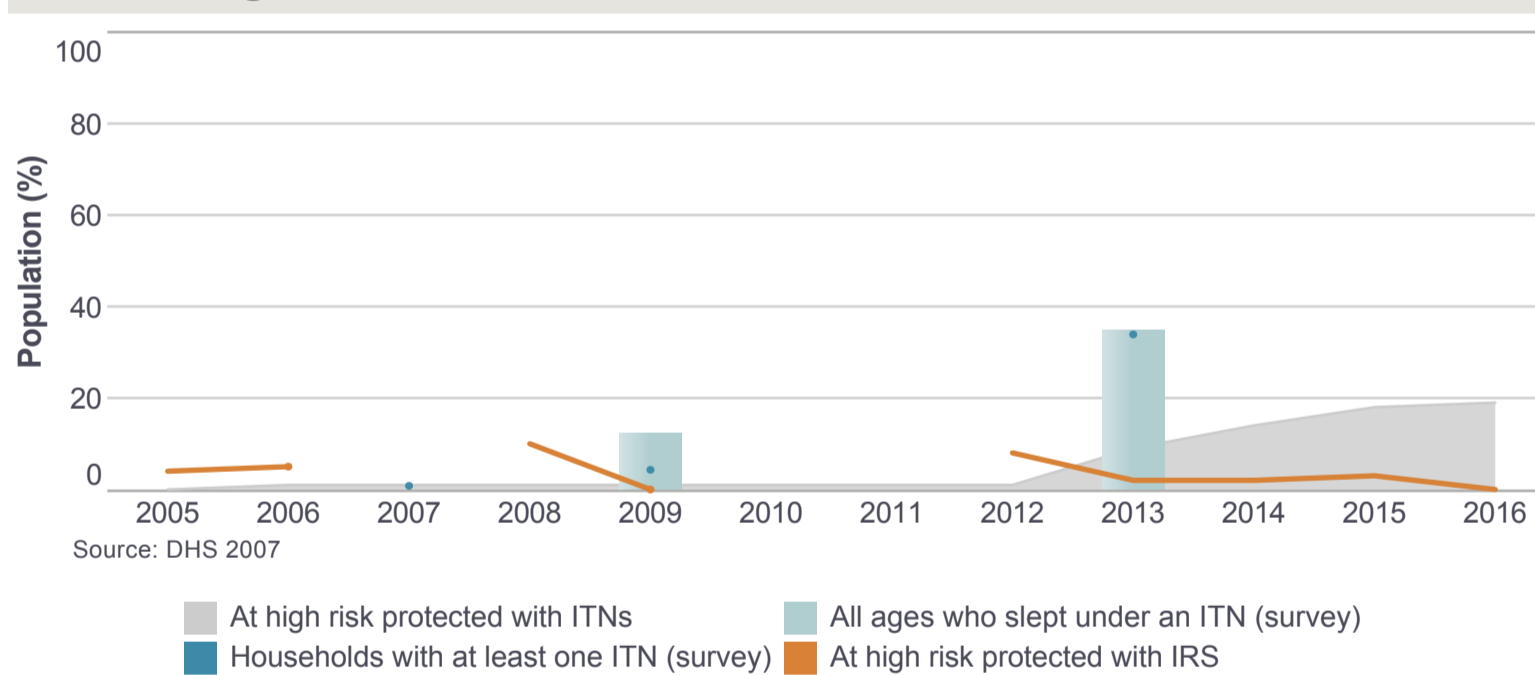


Government expenditure by intervention in 2016

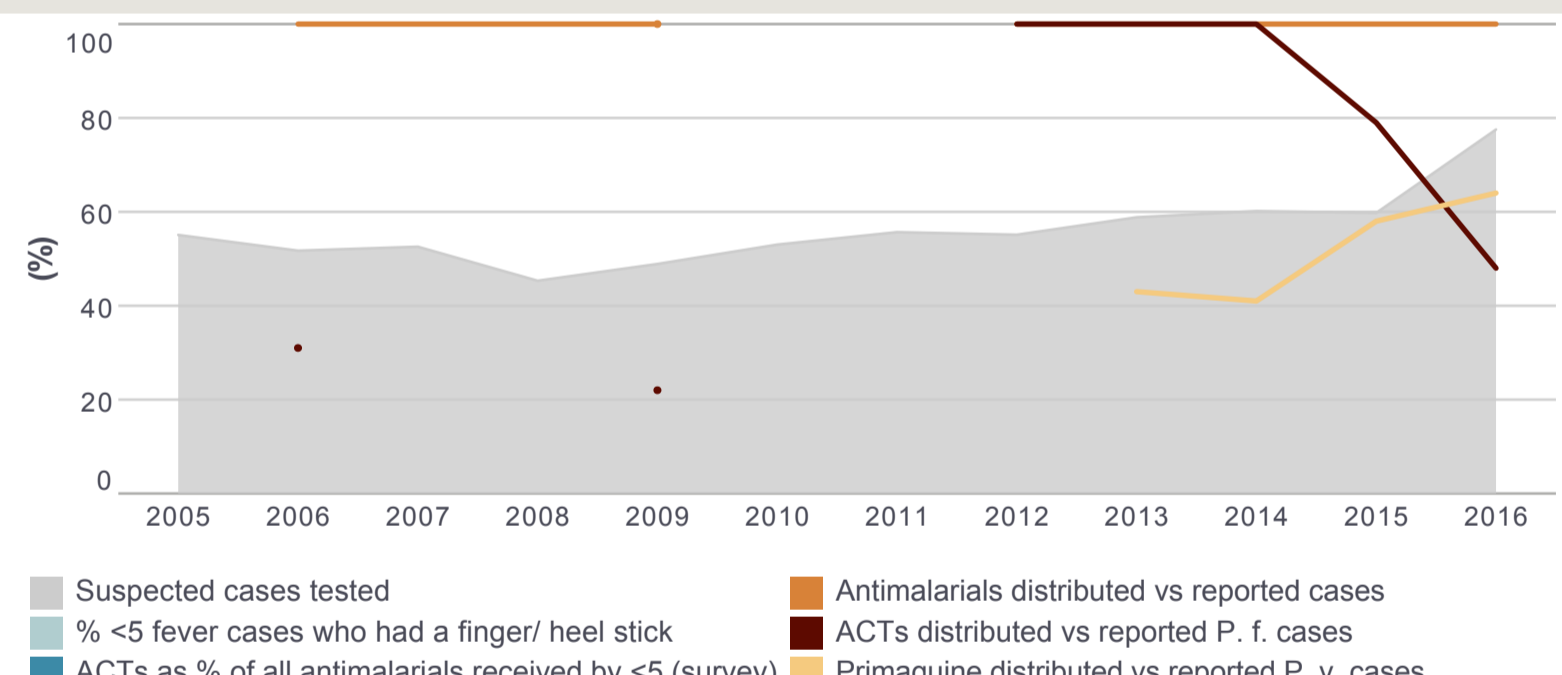


IV. Coverage

Coverage of ITN and IRS

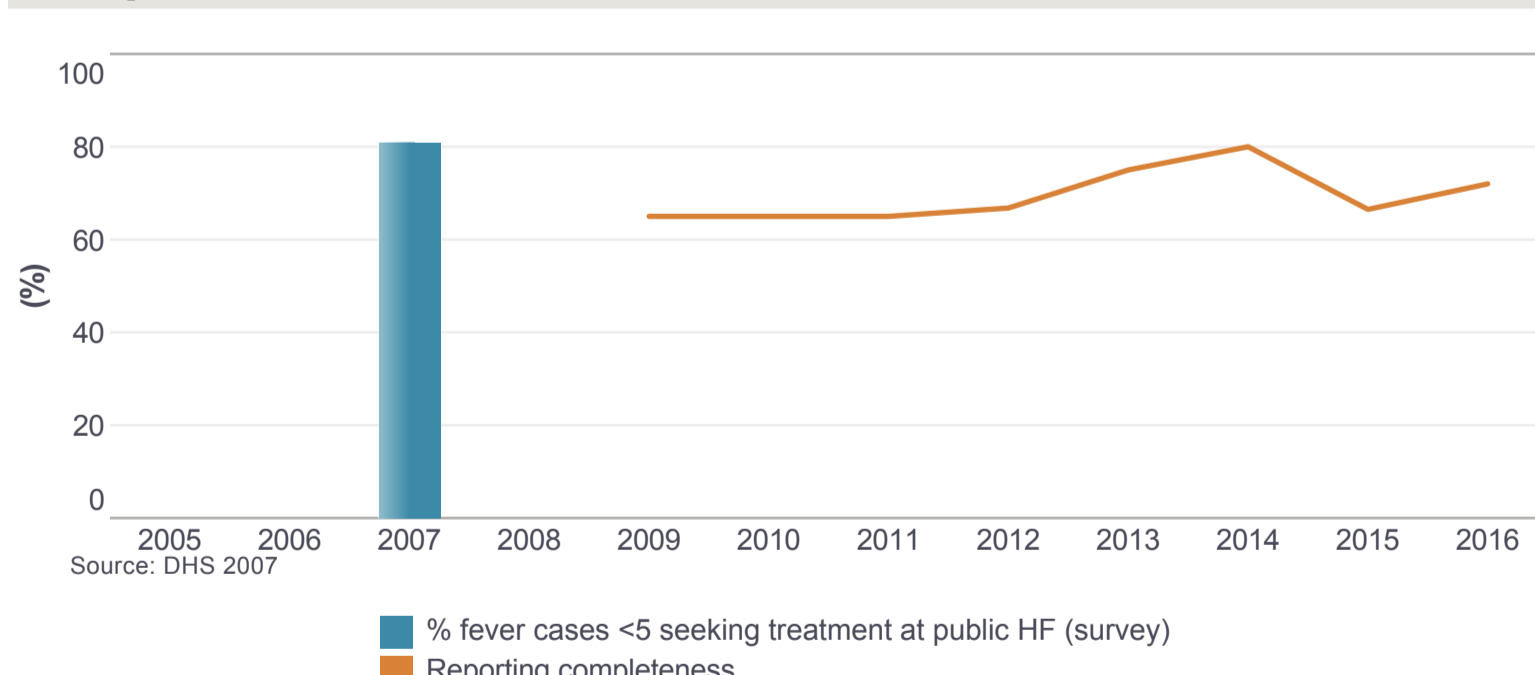


Cases tested and treated in public sector

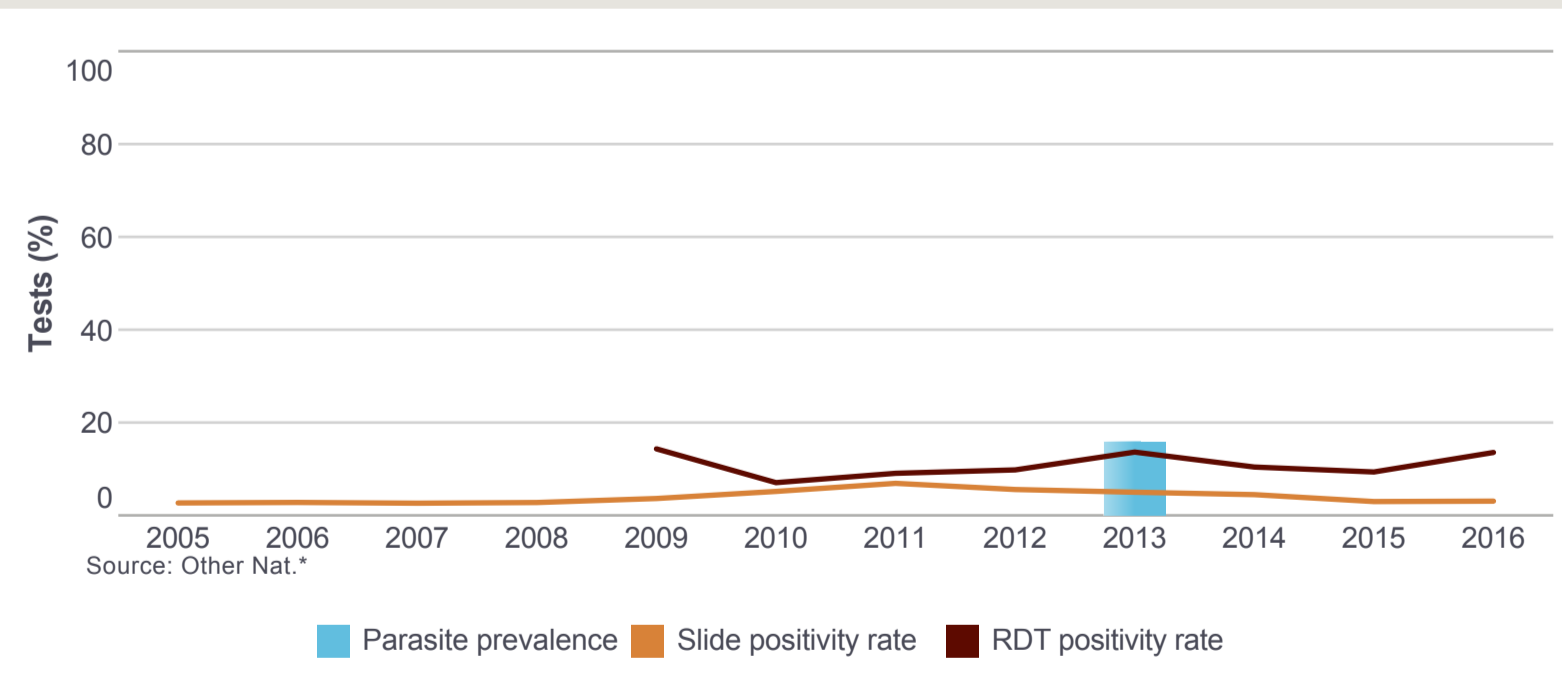


V. Impact

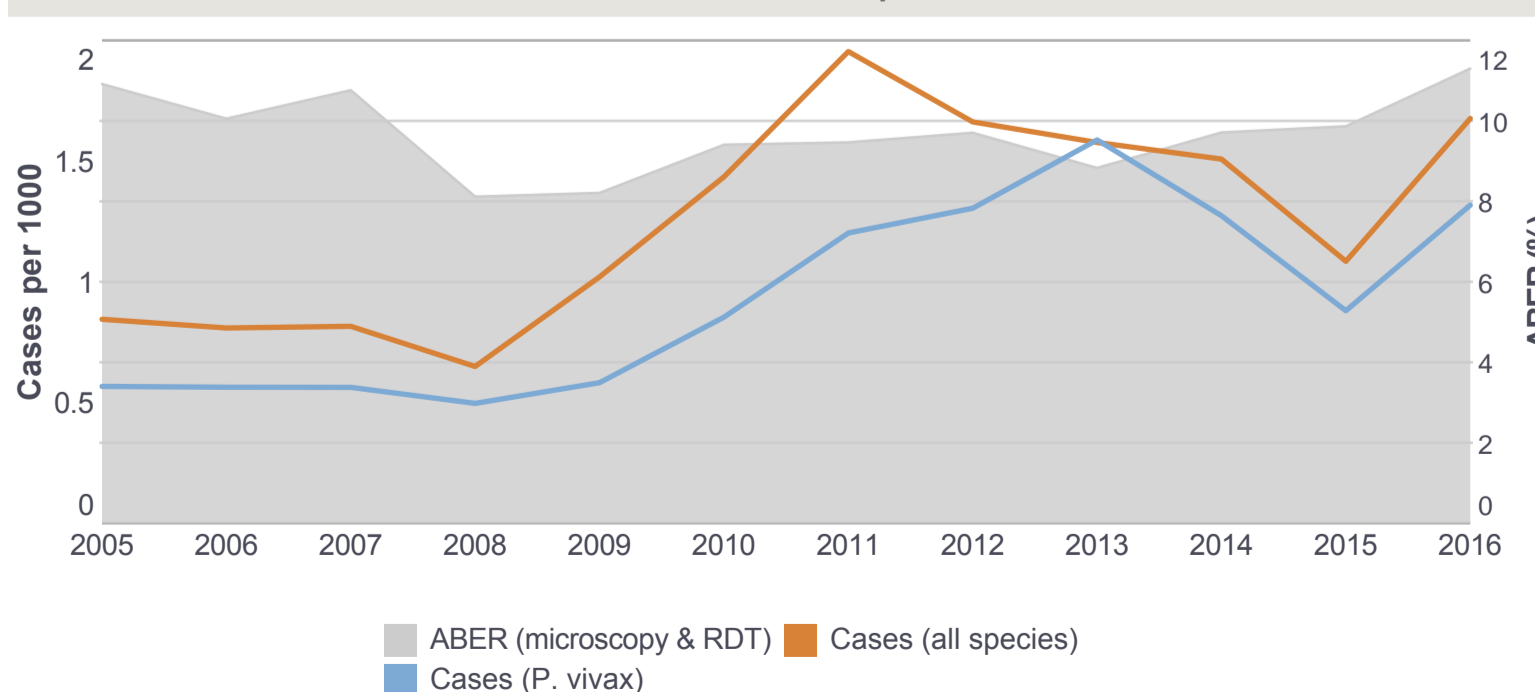
Cases treated



Test positivity



Confirmed malaria cases per 1000 and ABER



Malaria admissions and deaths (per 100 000)

