Supplemental Table 1. Concordance between blood smear microscopy and LDR-FMA			
Concordance	**LDR-FMA**	**Blood Smear**	**Count**
100%	F	F	121
	V	V	61
	M	M	9
	FV	FV	9
	FM	FM	2
	NEG	NEG	468
75%	F	FV	1
	F	FM	2
	F	NEG	94
	V	FV	3
	V	VM	1
	V	NEG	91
	M	NEG	30
	O	NEG	13
	FV	F	23
	FV	V	17
	FM	F	12
	FM	M	8
	FO	F	4
	VM	V	3
	VM	M	5
	VO	V	4
	MO	M	1
	FVM	FV	3
	FVM	FM	1
	FVM	VM	1
	FVO	FV	1
	NEG	F	26
	NEG	V	24
	NEG	M	4
	NEG	O	1
50%	F	V	6
	V	F	13
	V	M	5
	M	F	4
	M	V	3
	O	V	1
	O	M	1
	FV	NEG	20
	FM	NEG	10
	FO	FV	2
	FO	NEG	7
	VM	NEG	8
	VO	NEG	5
	MO	NEG	3
	FVM	F	5
	FVM	V	7
	FVM	M	4
	FVO	F	3
	FVO	V	1
	FMO	F	1
	FVMO	FV	1
	NEG	VO	1
25%	FV	M	2
	FV	O	1
	VM	F	1
	FVM	NEG	7
	FMO	NEG	3
	VMO	NEG	4
	FVMO	F	5
	FVMO	M	1
0%	FVMO	NEG	4

Supplemental Table 1 legend - F = *P. falciparum*. V = *P. vivax*. M = *P. malariae*. O = *P. ovale*. NEG = non-infected. Concordance between blood smear microscopy and LDR-FMA for the detection of *Plasmodium* species was assessed (n = 1182) by counting the number of tests that were in complete agreement divided by the total number of tests. Weighted Kappa (K_w) scores were calculated for all 16 possible combinations of *Plasmodium* species infected samples (single, double, triple, and quadruple species) and non-infected samples. Counts for 100% concordance between blood smear and LDR-FMA were multiplied by 1; by 0.75 if 3 of 4 tests were concordant (e.g. LDR FMA FVM-positive:O-negative vs blood smear FV-positive:MO-negative); by 0.50 if 2 of 4 tests were concordant; by 0.25 if 1 of 4 tests were concordant. Sensitivity, specificity and K_w calculations were performed using SAS.