Supplemental Figure 1 Prevalence of coinfections stratified by age groups
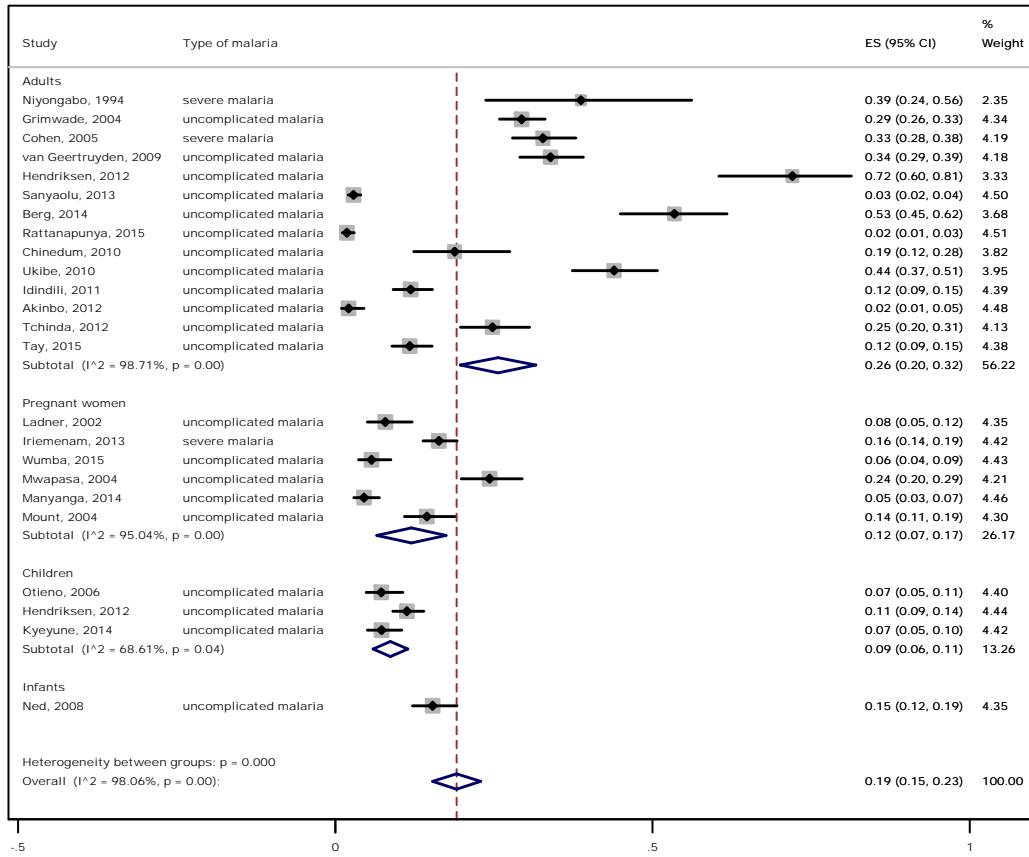
Study	Type of malaria	ES (95% CI)	% Weight
Adults			
Niyongabo, 1994	severe malaria	0.39 (0.24, 0.56)	2.35
Grimwade, 2004	uncomplicated malaria	0.29 (0.26, 0.33)	4.34
Cohen, 2005	severe malaria	0.33 (0.28, 0.38)	4.19
van Geertruyden, 2009	uncomplicated malaria	0.34 (0.29, 0.39)	4.18
Hendriksen, 2012	uncomplicated malaria	0.72 (0.60, 0.81)	3.33
Sanyaolu, 2013	uncomplicated malaria	0.03 (0.02, 0.04)	4.50
Berg, 2014	uncomplicated malaria	0.53 (0.45, 0.62)	3.68
Rattanapunya, 2015	uncomplicated malaria	0.02 (0.01, 0.03)	4.51
Chinedum, 2010	uncomplicated malaria	0.19 (0.12, 0.28)	3.82
Ukibe, 2010	uncomplicated malaria	0.44 (0.37, 0.51)	3.95
Idindili, 2011	uncomplicated malaria	0.12 (0.09, 0.15)	4.39
Akinbo, 2012	uncomplicated malaria	0.02 (0.01, 0.05)	4.48
Tchinda, 2012	uncomplicated malaria	0.25 (0.20, 0.31)	4.13
Tay, 2015	uncomplicated malaria	0.12 (0.09, 0.15)	4.38
Subtotal (I^2 = 98.71%, p = 0.00)		0.26 (0.20, 0.32)	56.22
Pregnant women			
Ladner, 2002	uncomplicated malaria	0.08 (0.05, 0.12)	4.35
Iriemenam, 2013	severe malaria	0.16 (0.14, 0.19)	4.42
Wumba, 2015	uncomplicated malaria	0.06 (0.04, 0.09)	4.43
Mwapasa, 2004	uncomplicated malaria	0.24 (0.20, 0.29)	4.21
Manyanga, 2014	uncomplicated malaria	0.05 (0.03, 0.07)	4.46
Mount, 2004	uncomplicated malaria	0.14 (0.11, 0.19)	4.30
Subtotal (I^2 = 95.04%, p = 0.00)		0.12 (0.07, 0.17)	26.17
Children			
Otieno, 2006	uncomplicated malaria	0.07 (0.05, 0.11)	4.40
Hendriksune, 2012	uncomplicated malaria	0.11 (0.09, 0.14)	4.44
Kyeyune, 2014	uncomplicated malaria	0.07 (0.05, 0.10)	4.42
Subtotal (I^2 = 68.61%, p = 0.04)		0.09 (0.06, 0.11)	13.26
Infants			
Ned, 2008	uncomplicated malaria	0.15 (0.12, 0.19)	4.35
Heterogeneity between groups: p = 0.000			
Overall (I^2 = 98.06%, p = 0.00);		0.19 (0.15, 0.23)	100.00

-.5   0   .5   1

Table S1. Summary of excluded studies and reason for exclusion.

No.	Study	Reasons[+]
1.	Cuadros, 2011 [5]	No data on anaemia
2.	Mouala, 2008 [6]	No data on anaemia
3.	Hewitt, 2006 [8]	Review
4.	Blumberg, 2007 [9]	Review
5.	Simooya,1988 [44]	No data on anaemia
6.	Greenberg, 1991 [45]	No data on anaemia
7.	Kalyesubula, 1997 [46]	No data on anaemia
8.	Chandramohan,1998 [47]	Review
9.	Bastos, 1999 [48]	No data on anaemia
10.	French, 2000 [49]	No data on anaemia
11.	Whitworth, 2000 [50]	No data on anaemia
12.	Rowland-Jones, 2002 [51]	Review
13.	Ayisi, 2003 [52]	Not an association study
14.	Kassa, 2005 [53]	No data on Hb in co-infected group
15.	Kublin, 2005 [54]	No data on anaemia in confected groups.
16.	Patnaik, 2005 [55]	No data on anaemia
17.	Bronzan,2007 [56]	No separate data on HIV and malaria co-infection
18.	Jaworowski, 2007 [57]	No data on anaemia
19.	Mehta, 2008 [58]	No data on anaemia
20.	Newman, 2009 [59]	No data on anaemia
21.	Imani,2011 [60]	No data on anaemia
22.	Wariso, 2011 [61]	No data on anaemia

23.	Laar, 2013 [62]	No separate data on Hb in both groups
24.	Turner, 2013 [63]	No separate data on Hb in co-infected group

+ not meeting inclusion criteria and/or meeting exclusion criteria

Table 2. The methodological assessment of the included studies in meta-analysis

	Domain assessment					
	Selection bias caused by the inadequate selection of participants	Selection bias caused by the inadequate confirmation and consideration of confounding variable	Performance bias caused by the inadequate measurement of exposure	Detection bias caused by the inadequate blinding of outcome assessments	Attrition bias caused by the inadequate handling of incomplete outcome data	Reportin caused selective outcome
	Low	Unclear	Low	Unclear	Low	Low
	High	High	Low	Unclear	Low	Low
	High	Low	Low	Unclear	Low	Low
	Low	Unclear	Low	Unclear	Low	Low
	Low	Low	Low	Unclear	Low	Low
	Low	Unclear	Low	Unclear	High	Low
	Low	Low	Low	Unclear	Low	Low
	Low	Unclear	Low	Unclear	Low	Low
)]	Low	Unclear	Low	Unclear	Low	Low
	Low	Low	Low	Unclear	High	Low
	Low	High	Low	Unclear	Low	Low
	Low	Unclear	Low	Unclear	Low	Low
	Low	Low	Low	Unclear	Low	Low
	Low	High	Low	Unclear	Low	Low
	Low	Low	Low	Unclear	Low	Low
2	Low	Low	Low	Unclear	Low	Low
	Low	High	Low	Unclear	Low	Low
	Low	High	Low	Unclear	Low	Low

	Low	Low	Low	Unclear	Low	Low
4	Low	Low	Low	Unclear	High	Low
	Low	Low	Low	Unclear	Low	Low
,	Low	Low	Low	Unclear	Low	Low
5	Low	High	Low	Unclear	High	Low

Source of domain assessment: [16]