

## SUPPLEMENTARY TEXT 1

**Operating procedures for ELISA.** The standardized dried blood spots (1 cm diameter containing  $\approx 40$   $\mu\text{L}$  of blood) were eluted by incubation in 400 mL of phosphate-buffered saline (PBS-Tween 0.1%) at 4°C for 24 hours. Maxisorp plates (Nunc, Roskilde, Denmark) were coated with the Pf merozoite surface protein 119 (MSP1-19)/Pf CSP peptide (Vaximax, France) at a concentration of 1  $\mu\text{g}/\text{mL}$  in coating buffer (PBS + Phenol Red 1%) at 4°C overnight. After washing (with a solution of PBS-Tween 0.1% + NaCl), the plates were blocked for 1 hour under stirring at room temperature with 150 mL of saturation buffer (PBS-Tween 0.1% + milk powder 3%). Thereafter, each eluted sample was incubated in duplicate for 2 hours under stirring at room temperature at 1/20 dilution in sample dilution buffer (PBS-Tween 0.1% + milk powder 1% + sodium azide 0.02%). Antihuman IgG coupled to the peroxidase (Invitrogen) was incubated at a 1/3,000 dilution for 1 hour under stirring at room temperature. Substrate TMB one (3,3',5,5'-tetramethylbenzidine) (Promega) was added for 30 minutes at room temperature protected from light then stopping the reaction with 0.2 M  $\text{H}_2\text{SO}_4$ , and absorbance was measured at 450 nm. In parallel, each test sample was assessed in a blank well containing no Pf MSP1-19/Pf CSP peptide (ODn) to measure nonspecific reactions. Individual results were expressed as the  $\Delta\text{OD}$  value:  $\Delta\text{OD} = \text{OD}_x - \text{OD}_n$ .  $\text{OD}_x$  and  $\text{OD}_n$  represent the mean of individual optical density (OD) in two antigen wells and one blank well containing no Pf MSP1-19/Pf CSP peptide, respectively. Specific anti-Pf MSP1-19/Pf CSP IgG responses were also assayed in nonmalaria-exposed individuals (negative samples from France:  $n = 18$ ) to quantify the nonspecific background Ab level and to calculate the cut-off value (mean [ $\Delta\text{OD}_{\text{neg}}$ ] + 3SD). Based on our findings, a participant was classified as an immune responder to Pf MSP1-19 and Pf CSP if  $\Delta\text{OD}$  was  $> 0.162$  and  $> 0.115$ , respectively.

All peptide batches were shipped in lyophilized form and then suspended in ultrafiltered water and frozen in aliquots at  $-20^\circ\text{C}$  until use.

SUPPLEMENTAL TABLE 1  
Seroprevalence in antibody response to CSP per age group and surveys

Village	Survey of blood collection	Total population	Blood collection date	Characteristic of blood spot		Median age (range) (years)	Pf CSP antibody prevalence %							
				Number of dry blood spot	Male		Female	Age (years)						
								Male	Female	Total	0-4	5-15	16-59	60 up
Htoo Pyin NyarTPN														
M0	May 20, 2013	373	257	145	112	27.4 (1-66)	% (95% CI) (n/N)	5.5 (2.6-11.0) (8/145)	3.6 (1.2-9.4) (4/112)	4.7 (2.6-8.2) (12/257)	16.7 (0.9-63.5) (1/6)	3.9 (1.0-11.7) (3/77)	4.8 (2.2-9.6) (8/167)	0.0 (0.0-43.9) (0/7)
M3	August 23, 2013	406	267	143	124	25.1 (1-66)	% (95% CI) (n/N)	21.7 (15.4-29.5) (31/143)	21.0 (14.4-29.4) (26/124)	21.4 (16.7-26.9) (57/267)	0.0 (0.0-15.5) (0/27)	16.0 (8.9-26.7) (12/75)	28.7 (21.9-36.5) (45/157)	0.0 (0.0-40.2) (0-8)
M6	November 7, 2013	434	300	159	141	24.6 (0-66)	% (95% CI) (n/N)	3.1 (1.2-7.6) (5/159)	5.0 (2.2-10.3) (7/141)	4.0 (2.2-7.1) (12/300)	0.0 (0.0-11.2) (0/39)	0.0 (0.0-5.4) (0/85)	7.1 (3.9-12.4) (12/169)	0.0 (0.0-43.9) (0/7)
M9	January 28, 2014	464	307	160	147	24.0 (0-66)	% (95% CI) (n/N)	3.1 (1.2-7.5) (5/160)	3.4 (1.3-8.2) (5/147)	3.3 (1.7-6.1) (10/307)	0.0 (0.0-10.0) (0/46)	1.2 (0.1-7.2) (1/86)	5.4 (2.7-10.4) (9/166)	0.0 (0.0-37.1) (0/9)
M12	April 23, 2014	473	264	138	126	22.2 (0-66)	% (95% CI) (n/N)	3.6 (1.3-8.7) (5/138)	2.4 (0.6-7.3) (3/126)	3.0 (1.4-6.1) (8/264)	0.0 (0.0-9.8) (0/45)	1.2 (0.1-7.3) (1/85)	5.4 (2.4-11.2) (7/130)	0.0 (0.0-43.9) (0/7)
M15	July 14, 2014	492	234	127	107	24.4 (0-66)	% (95% CI) (n/N)	2.4 (0.6-7.3) (3/127)	0.9 (0.1-5.8) (1/107)	1.7 (0.6-4.6) (4/234)	0.0 (0.0-13.0) (0/33)	1.5 (0.1-9.3) (1/66)	2.4 (0.6-7.3) (3/127)	57.1 (20.2-88.2) (4/7)
M18	October 8, 2014	501	266	139	127	22.8 (0-66)	% (95% CI) (n/N)	5.0 (2.2-10.5) (7/139)	2.4 (0.6-7.3) (3/127)	3.8 (1.9-7.0) (10/266)	0.0 (0.0-9.8) (0/45)	2.5 (0.4-9.7) (2/79)	5.2 (2.3-10.7) (7/136)	16.7 (0.9-63.5) (1/6)
Tar Au Ta														
M0	June 14, 2013	740	402	192	210	26.7 (0-80)	% (95% CI) (n/N)	17.7 (2.7-24.0) (34/192)	9.1 (5.7-14.0) (19/210)	13.2 (10.1-17.0) (53/402)	7.1 (3.7-35.8) (1/14)	0.7 (0.0-4.7) (1/135)	18.5 (13.8-24.2) (43/233)	40.0 (20.0-63.6) (8/20)
M3	September 12, 2013	785	308	145	163	22.5 (0-70)	% (95% CI) (n/N)	26.9 (20.0-35.0) (39/145)	23.9 (17.8-31.4) (39/163)	25.3 (20.6-30.6) (78/308)	4.7 (0.8-17.1) (2/43)	17.3 (11.0-25.9) (19/110)	35.5 (27.7-44.0) (50/141)	50.0 (24.0-76.0) (7/14)
M6	November 26, 2013	789	205	102	103	23.7 (1-70)	% (95% CI) (n/N)	16.7 (10.3-25.6) (17/102)	9.7 (5.0-17.5) (10/103)	13.2 (9.0-18.8) (27/205)	3.6 (0.2-20.2) (1/28)	7.1 (2.7-16.6) (5/70)	16.0 (9.5-25.3) (15/94)	46.2 (20.4-73.9) (6/13)
M9	February 18, 2014	814	292	143	149	21.5 (0-80)	% (95% CI) (n/N)	18.9 (13.0-26.5) (27/143)	14.8 (9.7-21.7) (22/149)	16.8 (12.8-21.7) (49/292)	5.4 (1.4-15.8) (3/56)	6.8 (2.8-14.8) (6/88)	24.8 (18.0-33.1) (34/137)	54.6 (24.6-81.9) (6/11)
M12	May 15, 2014	833	250	114	136	19.2 (0-70)	% (95% CI) (n/N)	12.3 (7.1-20.1) (14/114)	5.2 (2.3-10.7) (7/136)	8.4 (5.4-12.7) (21/250)	1.6 (0.1-9.7) (1/63)	0.0 (0.0-6.6) (0/69)	16.5 (10.3-25.1) (18/109)	22.2 (4.0-59.8) (2/9)
M15	August 6, 2014	861	305	150	155	21.5 (0-80)	% (95% CI) (n/N)	14.7 (9.6-21.6) (22/150)	10.3 (6.2-16.5) (16/155)	12.5 (9.1-16.8) (38/305)	1.8 (0.1-10.8) (1/56)	2.0 (0.4-7.9) (2/98)	20.7 (14.4-28.7) (28/135)	43.8 (20.8-69.5) (7/16)
M18	October 30, 2014	879	196	94	102	18.9 (0-70)	% (95% CI) (n/N)	11.7 (6.3-20.4) (11/94)	6.9 (3.0-14.1) (7/102)	9.2 (5.7-14.3) (18/196)	2.0 (0.1-12.2) (1/49)	1.8 (0.1-10.6) (1/57)	16.9 (9.9-27.0) (14/83)	28.6 (5.1-69.7) (2/7)

(continued)

SUPPLEMENTAL TABLE 1  
Continued

Village	Survey of blood collection	Total population	Blood collection date	Characteristic of blood spot		Pf CSP antibody prevalence %							
				Number of dry blood spot	Median age (range) (years)	Gender		Age (years)					
						Male	Female	Total	0-4	5-15	16-59	60 up	
Ka Nu Hta													
M0	June 14, 2013	348	323	178	145	29.0 (1-73)	7.9 (95% CI) (n/N)	4.1 (1.7-9.2) (6/145)	6.2 (3.9-9.6) (20/323)	0.0 (0.0-34.5) (0/10)	1.2 (0.1-7.1) (1/87)	8.0 (4.9-12.7) (17/213)	15.4 (2.7-46.3) (2/13)
M3	September 12, 2013	417	275	148	127	27.9 (1-73)	26.4 (95% CI) (n/N)	26.8 (19.5-35.5) (34/127)	26.5 (21.5-32.3) (73/275)	13.0 (3.4-34.7) (3/23)	17.6 (10.1-28.5) (13/74)	32.7 (25.8-40.5) (55/168)	20.0 (3.5-55.8) (2/10)
M6	December 11, 2013	435	261	140	121	28.0 (0-73)	12.9 (95% CI) (n/N)	4.1 (1.5-9.9) (5/121)	8.8 (5.8-13.1) (23/261)	0.0 (0-19.2) (0/21)	2.8 (0.5-10.7) (2/71)	12.0 (7.5-18.3) (19/159)	2.0 (3.5-55.8) (2/10)
M9	March 5, 2014	449	303	155	148	25.9 (0-73)	2.6 (95% CI) (n/N)	4.1 (1.7-9.0) (6/148)	6.6 (4.2-10.2) (20/303)	0.0 (0.0-11.4) (0/38)	2.4 (0.4-9.0) (2/85)	9.5 (5.7-15.2) (16/169)	18.2 (3.2-52.2) (2/11)
M12	May 26, 2014	469	301	160	141	24.9 (0-73)	7.5 (95% CI) (n/N)	2.1 (0.6-6.6) (3/141)	5.0 (2.9-8.3) (15/301)	0.0 (0.0-10.7) (0/41)	1.2 (0.1-7.3) (1/85)	8.3 (4.8-13.8) (14/169)	0.0 (0.0-43.9) (0/7)
M15	August 21, 2014	485	303	164	139	25.8 (0-70)	8.5 (95% CI) (n/N)	2.9 (0.9-7.7) (4/139)	5.9 (3.7-9.4) (18/303)	0.0 (0.0-10.2) (0/43)	4.2 (1.1-12.5) (3/72)	7.9 (4.5-13.1) (14/178)	10.0 (0.5-45.9) (1/10)
M18	November 13, 2014	495	285	155	130	24.6 (0.70)	5.2 (95% CI) (n/N)	1.5 (0.3-6.0) (2/130)	3.5 (1.8-6.6) (10/285)	0.0 (0.0-9.1) (0/49)	0.0 (0.0-6.9) (0/66)	6.3 (3.2-11.5) (10/160)	0.0 (0-34.5) (0/10)
Htee Kaw Taw													
M0	July 4, 2013	899	487	238	249	26.2 (0-94)	8.8 (95% CI) (n/N)	6.4 (3.8-10.4) (16/249)	7.6 (5.5-10.4) (37/487)	0.0 (0.0-16.7) (0/25)	3.0 (1.1-7.2) (5/167)	10.1 (6.9-14.4) (28/277)	22.2 (7.4-48.1) (4/18)
M3	October 7, 2013	979	524	263	261	24.1 (0-89)	19.0 (95% CI) (n/N)	23.4 (18.5-29.1) (61/261)	21.2 (17.8-25.0) (111/524)	10.2 (3.8-23.0) (5/49)	12.0 (7.9-17.8) (22/183)	28.6 (23.4-34.4) (79/276)	55.6 (12.1-58.5) (5/16)
M6	January 8, 2014	1,029	493	241	252	21.9 (0-78)	5.0 (95% CI) (n/N)	4.4 (2.3-7.9) (11/252)	4.7 (3.1-7.0) (23/493)	0.0 (0.0-7.1) (0/64)	2.1 (0.1-5.5) (4/195)	7.2 (4.3-11.6) (16/223)	27.3 (7.3-60.7) (3/11)
M9	May 1, 2014	1,070	478	241	237	22.6 (0-78)	4.2 (95% CI) (n/N)	3.4 (1.6-6.8) (8/237)	3.8 (2.3-6.0) (18/478)	0.0 (0.0-6.8) (0/67)	4.3 (0.2-4.7) (2/166)	5.9 (3.4-10.0) (14/236)	22.2 (4.0-59.8) (2/9)
M12	June 24, 2014	1,192	512	257	255	21.8 (0-89)	3.9 (95% CI) (n/N)	1.6 (0.5-4.2) (4/255)	2.7 (1.6-4.7) (14/512)	0.0 (0.0-6.8) (0/88)	1.1 (0.2-4.4) (2/178)	4.7 (2.5-8.5) (11/233)	7.7 (0.4-3.8) (1/13)
M15	September 16, 2014	1,217	504	264	240	21.8 (0-78)	5.3 (95% CI) (n/N)	1.7 (0.5-4.5) (4/240)	3.6 (2.2-5.7) (18/504)	1.2 (0.1-7.6) (1/82)	3.4 (1.4-7.7) (6/175)	4.7 (2.5-8.5) (11/235)	0.0 (0.0-30.1) (0/12)
M18	December 8, 2014	1,236	471	233	238	19.9 (0-78)	2.6 (95% CI) (n/N)	1.7 (0.5-4.5) (4/238)	2.2 (1.1-4.1) (10/471)	1.3 (0.1-7.9) (1/78)	1.0 (0.2-4.0) (2/198)	3.3 (1.4-7.4) (6/181)	7.1 (0.4-35.8) (1/14)

CI = confidence interval.

SUPPLEMENTAL TABLE 2  
Seroprevalence in antibody response to MSP-1<sub>19</sub> per age group and surveys

Survey of blood collection	Total population	Blood collection date	Characteristic of blood spot		PfMSP1-19 antibody prevalence %										
			Number of dry blood spot		Gender		Age (years)								
			Male	Female	Male	Female	Total	0-4	5-15	16-59	60 up				
Htoo Pwin Nyar															
M0	373	May 20, 2013	145	111	256	145	111	27.2 (1-66)	49.7 (95% CI) (41.3-58.0) (72/145)	46.0 (36.5-55.6) (51/111)	48.1 (41.8-54.4) (123/256)	16.7 (0.9-63.5) (1/6)	30.8 (21.1-42.4) (24/78)	56.6 (48.7-64.2) (94/166)	66.7 (24.1-94.0) (4/6)
M3	406	August 23, 2013	148	130	278	148	130	25.3 (1-66)	49.3 (95% CI) (41.1-57.6) (73/148)	44.6 (36.0-53.6) (58/130)	47.1 (41.2-53.2) (131/278)	21.4 (9.0-41.5) (6/28)	40.5 (29.8-52.2) (32/79)	54.0 (46.0-61.8) (88/163)	62.5 (25.9-89.8) (5/8)
M6	434	November 7, 2013	158	141	299	158	141	24.6 (0-66)	58.2 (95% CI) (50.1-65.9) (92/158)	55.3 (46.7-63.6) (78/141)	56.9 (51.0-62.5) (170/299)	33.3 (19.6-50.3) (13/39)	56.0 (44.7-66.6) (47/84)	61.5 (53.7-68.8) (104/169)	85.7 (42.0-99.3) (6/7)
M9	464	January 28, 2014	160	146	306	160	146	23.9 (0-66)	80.0 (95% CI) (72.8-85.7) (128/160)	76.0 (68.1-82.5) (111/146)	78.1 (73.0-82.5) (239/306)	58.7 (43.3-72.7) (27/46)	82.6 (72.6-89.6) (71/86)	80.0 (72.9-85.7) (132/165)	100.0 (62.9-100.0) (9/9)
M12	473	April 23, 2014	138	125	264	138	125	22.2 (0.66)	82.6 (95% CI) (75.0-88.3) (114/138)	75.2 (66.5-82.3) (94/125)	78.8 (73.3-83.5) (208/264)	60.0 (44.4-73.9) (27/45)	79.5 (69.0-87.3) (66/83)	83.9 (76.1-89.5) (109/130)	100.0 (51.7-100.0) (6/6)
M15	492	July 14, 2014	137	108	235	137	108	24.3 (0-66)	72.3 (95% CI) (63.9-79.4) (99/137)	75.9 (66.8-83.4) (82/108)	77.0 (71.0-82.1) (181/235)	58.8 (40.8-74.9) (20/34)	72.7 (60.2-82.6) (48/66)	82.8 (74.9-88.7) (106/128)	100.0 (56.1-100.0) (7/7)
M18	501	October 8, 2014	139	127	266	139	127	22.8 (0-66)	82.7 (95% CI) (75.2-88.4) (115/139)	79.5 (71.3-86.0) (101/127)	81.2 (75.8-85.6) (216/266)	68.9 (53.2-81.4) (31/45)	82.3 (71.7-89.6) (65/79)	84.6 (77.1-90.0) (115/136)	83.3 (36.5-99.1) (5/6)
Tar Au Ta															
M0	740	June 14, 2013	193	209	402	193	209	26.7 (0-80)	74.6 (95% CI) (67.8-80.5) (144/193)	73.2 (66.6-79.0) (153/209)	73.9 (69.2-78.1) (297/402)	21.4 (5.7-51.2) (3/14)	53.3 (44.6-61.9) (72/135)	87.1 (82.0-91.0) (203/233)	95.0 (73.1-99.7) (19/20)
M3	785	September 12, 2013	151	171	322	151	171	22.1 (0-70)	64.2 (95% CI) (56.0-71.8) (97/151)	60.2 (52.5-67.5) (103/171)	62.1 (56.5-67.4) (200/322)	10.6 (4.0-23.9) (5/47)	45.7 (36.5-55.2) (53/116)	88.3 (81.6-92.8) (128/145)	100.0 (73.2-100.0) (14/14)
M6	789	November 26, 2013	100	102	202	100	102	24.0 (1-70)	71.0 (95% CI) (60.9-79.4) (71/100)	68.6 (58.6-77.3) (70/102)	69.8 (62.9-75.9) (141/202)	19.2 (7.3-40.0) (5/26)	57.1 (44.8-68.7) (40/70)	89.3 (80.7-94.4) (83/93)	23.1 (6.2-54.0) (13/13)
M9	814	February 18, 2014	142	149	291	142	149	21.5 (0-80)	81.0 (95% CI) (73.4-86.9) (115/142)	81.9 (74.6-87.5) (122/149)	81.4 (76.4-85.6) (237/291)	39.3 (26.8-53.3) (22/56)	84.1 (74.4-90.7) (74/88)	96.3 (91.2-98.6) (131/136)	90.9 (57.1-99.5) (10/11)
M12	833	May 15, 2014	113	136	249	113	136	19.2 (0-70)	77.0 (95% CI) (67.9-84.2) (87/113)	80.2 (72.3-86.3) (109/136)	78.7 (73.0-83.5) (196/249)	33.3 (22.3-46.4) (21/63)	86.6 (75.5-93.3) (58/67)	98.2 (92.9-99.7) (108/110)	100.0 (62.9-100.0) (9/9)
M15	861	August 6, 2014	150	157	307	150	157	21.6 (0-80)	78.7 (95% CI) (71.1-84.8) (118/150)	79.6 (72.3-85.5) (125/157)	79.2 (74.1-83.5) (243/307)	32.1 (20.7-46.1) (18/56)	79.0 (69.5-86.3) (79/100)	96.3 (91.1-98.6) (129/134)	100.0 (77.1-100.0) (17/17)
M18	879	October 30, 2014	94	102	196	94	102	18.9 (0-70)	71.3 (95% CI) (60.9-79.9) (67/94)	69.6 (59.6-78.1) (71/102)	70.4 (63.4-76.6) (138/196)	26.5 (1.5-41.3) (13/49)	77.2 (63.9-86.8) (44/57)	90.4 (81.4-95.5) (75/83)	85.7 (42.0-99.3) (6/7)

(continued)

SUPPLEMENTAL TABLE 2  
Continued

Survey of blood collection	Total population	Blood collection date	Characteristic of blood spot		PI MSP1-19 antibody prevalence %							
			Number of dry blood spot	Median age (range) (years)	Gender		Age (years)					
					Male	Female	Total	0-4	5-15	16-59	60 up	
Htoo Pinyin Nyar												
Ka Nu Hta												
M0	348	June 14, 2013	321	178	143	75.9 (95% CI) (68.8-81.8) (n/N)	65.7 (57.3-73.3) (94/143) (n/N)	71.3 (66.0-76.2) (229/321) (n/N)	20.0 (3.5-55.8) (2/10) (n/N)	53.5 (42.5-64.2) (46/86) (n/N)	79.3 (73.0-84.4) (168/212) (n/N)	100.0 (71.7-100.0) (13/13) (n/N)
M3	417	September 12, 2013	272	146	126	76.7 (95% CI) (68.9-83.1) (n/N)	69.8 (60.9-77.5) (88/126) (n/N)	73.5 (67.8-78.6) (200/272) (n/N)	18.2 (6.0-41.0) (4/22) (n/N)	55.6 (43.4-67.1) (40/72) (n/N)	86.9 (80.6-91.4) (146/168) (n/N)	100.0 (65.6-100.0) (10/10) (n/N)
M6	435	December 11, 2013	260	139	121	81.3 (95% CI) (73.6-87.2) (n/N)	70.3 (61.2-78.0) (85/121) (n/N)	76.2 (70.4-81.1) (198/260) (n/N)	45.5 (25.1-67.3) (10/22) (n/N)	60.9 (48.4-72.2) (42/69) (n/N)	85.5 (78.9-90.4) (136/159) (n/N)	100.0 (65.6-100.0) (10/10) (n/N)
M9	449	March 5, 2014	304	156	148	90.4 (95% CI) (84.4-94.3) (n/N)	84.5 (77.4-89.7) (125/148) (n/N)	87.5 (83.1-90.9) (266/304) (n/N)	68.4 (51.2-82.0) (26/38) (n/N)	82.4 (72.2-89.5) (70/85) (n/N)	93.5 (88.4-96.6) (159/170) (n/N)	100.0 (67.9-100.0) (11/11) (n/N)
M12	469	May 26, 2014	300	159	141	84.3 (95% CI) (77.5-89.4) (n/N)	80.9 (73.2-86.8) (114/141) (n/N)	82.7 (77.8-86.7) (248/300) (n/N)	46.3 (31.0-62.4) (19/41) (n/N)	82.4 (72.1-89.5) (70/85) (n/N)	90.5 (84.8-94.3) (153/169) (n/N)	100.0 (51.7-100.0) (6/6) (n/N)
M15	485	August 21, 2014	302	163	139	76.1 (95% CI) (68.6-82.2) (n/N)	74.8 (66.6-81.6) (104/139) (n/N)	75.5 (70.2-80.2) (228/302) (n/N)	39.5 (25.4-55.6) (17/43) (n/N)	68.1 (55.9-78.3) (49/72) (n/N)	85.9 (79.7-90.5) (152/177) (n/N)	100.0 (65.6-100.0) (10/10) (n/N)
M18	495	November 13, 2014	285	155	130	79.4 (95% CI) (72.0-85.3) (n/N)	76.2 (67.7-83.0) (99/130) (n/N)	77.9 (72.5-82.5) (222/285) (n/N)	42.9 (29.1-57.7) (21/49) (n/N)	77.3 (65.0-86.3) (51/66) (n/N)	87.6 (81.2-92.1) (141/161) (n/N)	100.0 (62.9-100.0) (9/9) (n/N)
Htee Kaw Taw												
M0	899	July 4, 2013	488	237	251	65.0 (95% CI) (58.5-71.0) (n/N)	57.0 (50.6-63.1) (143/251) (n/N)	60.9 (56.4-65.2) (297/488) (n/N)	16.7 (5.5-38.2) (4/24) (n/N)	48.5 (40.8-56.3) (82/169) (n/N)	70.8 (65.0-76.0) (196/277) (n/N)	83.3 (57.7-95.6) (15/18) (n/N)
M3	979	October 7, 2013	533	267	266	59.6 (95% CI) (53.4-65.4) (n/N)	56.0 (49.8-62.0) (149/266) (n/N)	57.8 (53.5-62.0) (308/533) (n/N)	20.0 (10.5-34.1) (10/50) (n/N)	43.7 (36.5-51.2) (80/183) (n/N)	72.5 (66.9-77.6) (206/284) (n/N)	75.0 (47.4-91.7) (12/16) (n/N)
M6	1,029	January 8, 2014	496	240	256	64.6 (95% CI) (58.1-70.6) (n/N)	57.4 (51.1-63.5) (147/256) (n/N)	60.9 (56.4-65.2) (302/496) (n/N)	20.0 (11.5-32.1) (13/65) (n/N)	53.9 (46.6-61.0) (104/193) (n/N)	77.5 (71.4-82.7) (176/227) (n/N)	81.8 (47.8-96.8) (9/11) (n/N)
M9	1,070	May 1, 2014	479	243	236	67.5 (95% CI) (61.2-73.3) (n/N)	58.9 (52.3-65.2) (139/236) (n/N)	63.3 (58.8-67.6) (303/479) (n/N)	19.1 (11.0-30.8) (13/68) (n/N)	56.0 (48.1-63.5) (94/168) (n/N)	80.8 (75.0-85.5) (189/234) (n/N)	77.8 (40.2-96.1) (7/9) (n/N)
M12	1,192	June 24, 2014	513	258	255	58.5 (95% CI) (52.2-64.6) (n/N)	51.0 (44.7-57.3) (130/255) (n/N)	54.8 (50.4-59.1) (281/513) (n/N)	20.5 (12.9-30.7) (18/88) (n/N)	49.7 (42.2-57.3) (89/179) (n/N)	71.2 (64.9-76.9) (166-233) (n/N)	61.5 (32.3-84.9) (8/13) (n/N)
M15	1,217	September 16, 2014	506	264	242	68.6 (95% CI) (62.5-74.0) (n/N)	67.4 (61.0-73.1) (163/242) (n/N)	68.0 (63.7-72.0) (344/506) (n/N)	33.7 (24.0-45.0) (28/83) (n/N)	61.7 (54.0-68.9) (108/175) (n/N)	83.9 (78.4-88.2) (198/236) (n/N)	83.3 (50.9-97.1) (10/12) (n/N)
M18	1,236	December 8, 2014	469	231	238	67.5 (95% CI) (61.0-73.4) (n/N)	60.9 (54.4-67.1) (145/238) (n/N)	64.2 (59.6-68.5) (301/469) (n/N)	29.5 (20.0-41.1) (23/78) (n/N)	64.0 (56.8-70.6) (126/197) (n/N)	78.9 (72.1-84.5) (142/180) (n/N)	71.4 (42.0-90.4) (10/14) (n/N)

CI = confidence interval.

SUPPLEMENTAL TABLE 3  
Seroprevalence in antibody response to gSG6-P1 per age group and surveys

Village	Survey blood collection	Total population	Blood collection date	Characteristic of blood spot		Median age (range) (years)		Antibody prevalence %					
				Number of dry blood spot	Male	Female	Age (years)						
							Male	Female	Total	0-4	5-15	15-59	60 up
								Gender					
Htoo Pyin Nyar													
M0	May 20, 2013	373	258	146	112	27.3 (1-66)	45.2 (37.0-53.6)	42.9 (33.7-52.6)	44.2 (38.1-50.0)	33.3 (6.0-75.9)	41.0 (30.2-52.8)	45.2 (37.6-53.1)	66.7 (24.1-94.0)
							(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)
M3	August 23, 2013	406	283	154	129	24.8 (1-66)	57.8 (49.6-65.6)	60.5 (51.5-68.9)	59.0 (53.0-64.8)	51.7 (32.9-70.1)	53.7 (42.4-64.6)	63.0 (55.1-70.3)	57.1 (20.2-88.2)
							(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)
M6	November 7, 2013	434	300	158	142	24.8 (0-66)	49.4 (41.4-57.4)	49.3 (40.9-57.8)	49.3 (43.6-55.1)	43.6 (28.2-60.2)	57.8 (46.5-68.4)	45.6 (38.0-53.4)	71.4 (30.3-94.9)
							(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)
M9	January 28, 2014	464	307	160	147	23.9 (0-66)	50.0 (42.0-58.0)	36.1 (28.4-44.4)	43.3 (37.7-49.1)	34.8 (21.8-50.3)	47.7 (36.9-58.7)	43.4 (35.8-51.3)	44.4 (15.3-77.3)
							(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)
M12	April 23, 2014	473	260	135	125	22.8 (0-66)	60.7 (51.9-68.9)	68.0 (59.0-75.9)	64.2 (58.0-70.0)	65.1 (49.0-78.6)	63.4 (52.0-73.6)	65.9 (57.0-73.9)	33.3 (6.0-75.9)
							(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)
M15	July 14, 2014	492	233	127	106	24.3 (0-66)	80.3 (72.1-86.6)	76.4 (67.0-83.9)	78.5 (72.6-83.5)	70.6 (52.3-84.3)	83.1 (71.3-90.9)	77.2 (68.7-84.0)	100.0 (56.1-100.0)
							(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)
M18	October 8, 2014	501	265	139	126	23.0 (0-66)	83.5 (76.0-89.0)	81.7 (73.7-87.9)	82.6 (77.4-86.9)	82.2 (67.4-91.5)	78.2 (67.2-86.5)	85.3 (78.0-90.6)	83.3 (36.5-99.1)
							(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)
Tar Au Ta													
M0	June 14, 2013	740	404	192	212	26.8 (0-80)	68.2 (61.1-74.7)	62.7 (55.8-69.2)	65.3 (60.5-69.9)	42.9 (18.8-70.4)	58.1 (49.3-66.4)	72.4 (66.1-78.0)	50.0 (28.8-71.2)
							(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)
M3	September 12, 2013	785	322	149	173	22.2 (0-70)	77.2 (69.5-83.5)	71.7 (62.7-78.5)	74.2 (69.0-78.8)	63.6 (47.7-77.2)	70.3 (61.1-78.2)	78.8 (71.1-84.9)	92.9 (64.2-99.6)
							(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)
M6	November 26, 2013	789	201	98	103	24.1 (1-70)	75.5 (65.6-83.4)	81.6 (72.4-88.3)	78.6 (72.2-83.9)	72.0 (50.4-87.1)	73.2 (61.2-82.7)	82.6 (73.0-89.4)	92.3 (62.1-99.6)
							(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)
M9	February 18, 2014	814	292	144	148	21.7 (0-80)	46.5 (38.3-55.0)	47.3 (39.1-55.6)	46.9 (41.1-52.8)	40.0 (27.3-54.8)	51.1 (40.3-61.9)	45.7 (37.2-54.3)	63.6 (31.6-87.6)
							(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)
M12	May 15, 2014	833	249	114	135	19.3 (0-70)	59.6 (50.0-68.6)	56.3 (47.5-64.7)	57.8 (51.4-64.0)	39.7 (27.8-52.8)	59.1 (46.3-70.8)	66.7 (57.0-75.2)	66.7 (30.9-91.0)
							(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)
M15	August 6, 2014	861	307	152	155	21.3 (0-80)	92.1 (86.3-95.7)	93.5 (88.1-96.7)	92.8 (89.2-95.4)	94.7 (84.5-98.6)	92.0 (84.4-96.2)	92.5 (86.4-96.2)	93.8 (67.7-99.7)
							(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)
M18	October 30, 2014	879	195	93	102	19.5 (0-70)	57.0 (46.3-67.1)	74.5 (64.8-82.4)	66.2 (59.0-72.7)	47.8 (33.1-62.9)	76.8 (63.3-86.6)	72.1 (61.2-81.0)	28.6 (5.1-69.7)
							(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)	(95% CI) (n/N)

(continued)

SUPPLEMENTAL TABLE 3  
Continued

Survey blood collection Village	Total population	Blood collection date	Characteristic of blood spot		Median age (range) (years)		Antibody prevalence %						
			Number of dry blood spot	Female	Male	Female	Male	Gender		Age (years)			
								Total	0-4	5-15	15-59	60 up	
Htoo Pyin Nyar													
Ka Nu Hta													
M0	348	June 14, 2013	325	180	145	29.1 (2-73)	55.6 (95% CI) (n/N)	51.7 (43.3-60.0) (75/145)	53.8 (48.3-59.3) (175/325)	33.3 (9.0-69.1) (3/9)	40.2 (30.0-51.3) (35/87)	59.3 (52.4-65.8) (128/216)	69.2 (38.9-89.7) (9/13)
M3	417	September 12, 2013	277	147	130	28.1 (1-73)	% (95% CI) (n/N)	51.5 (42.7-60.3) (67/130)	49.5 (43.4-55.5) (137/277)	30.4 (14.1-53.0) (7/23)	38.4 (27.4-50.5) (28/73)	56.7 (49.0-64.2) (97/171)	50.0 (20.1-79.9) (5/10)
M6	435	December 11, 2013	263	141	122	28.1 (0-73)	% (95% CI) (n/N)	52.5 (43.3-61.5) (64/122)	57.4 (51.2-63.4) (151/263)	59.1 (36.7-78.5) (13/22)	55.7 (43.4-67.4) (39/70)	56.5 (48.5-64.2) (91/161)	80.0 (44.2-96.5) (8/10)
M9	449	March 5, 2014	301	155	146	25.9 (0-73)	% (95% CI) (n/N)	49.3 (41.0-57.7) (72/146)	48.5 (42.8-54.3) (146/301)	43.2 (27.5-60.4) (16/37)	45.2 (34.5-56.4) (38/84)	52.1 (44.3-59.8) (88/169)	36.4 (12.4-68.4) (4/11)
M12	469	May 26, 2014	298	160	138	25.1 (0-73)	% (95% CI) (n/N)	39.1 (31.1-47.8) (54/138)	40.6 (35.0-46.4) (121/298)	31.7 (18.6-48.2) (13/41)	47.6 (36.7-58.7) (40/84)	38.4 (31.0-46.4) (63/164)	55.6 (22.7-84.7) (5/9)
M15	485	August 21, 2014	300	162	138	26.0 (0-70)	% (95% CI) (n/N)	96.4 (89.4-97.3) (133/138)	95.3 (92.1-97.3) (286/300)	81.0 (65.4-90.9) (34/42)	97.1 (89.1-99.5) (68/70)	97.8 (94.0-99.3) (174/178)	100.0 (65.6-100.0) (10/10)
M18	495	November 13, 2014	282	154	128	24.6 (0-70)	% (95% CI) (n/N)	86.4 (79.7-91.2) (133/154)	85.1 (80.3-89.3) (240/282)	63.3 (48.3-76.2) (31/49)	84.6 (73.1-92.0) (55/65)	91.2 (85.4-94.9) (145/159)	100.0 (62.9-100.0) (9/9)
Htee Kaw Taw													
M0	899	July 4, 2013	490	241	249	26.4 (0-94)	% (95% CI) (n/N)	92.9 (88.8-95.7) (224/241)	94.8 (91.0-97.1) (236/249)	91.7 (71.5-98.6) (22/24)	92.2 (86.8-95.6) (154/167)	95.0 (91.6-97.2) (267/281)	94.4 (70.6-99.7) (17/18)
M3	979	October 7, 2013	535	269	266	24.5 (0-89)	% (95% CI) (n/N)	88.5 (80.6-89.4) (230/269)	86.2 (82.0-90.5) (231/266)	81.6 (67.5-90.8) (40/49)	85.7 (79.6-90.3) (156/182)	86.8 (82.2-90.4) (249/287)	94.1 (69.2-99.7) (16/17)
M6	1,029	January 8, 2014	500	243	257	22.1 (0-78)	% (95% CI) (n/N)	78.2 (72.4-83.1) (190/243)	85.6 (80.6-89.5) (220/257)	75.8 (63.4-85.1) (50/66)	81.9 (75.6-86.9) (158/193)	84.8 (79.3-89.0) (195/230)	63.6 (31.6-87.6) (7/11)
M9	1,070	May 1, 2014	478	240	238	22.4 (0-78)	% (95% CI) (n/N)	87.9 (83.0-91.6) (211/240)	86.6 (81.4-90.5) (206/238)	77.9 (65.9-86.7) (53/68)	86.9 (80.6-91.4) (146/168)	89.7 (84.9-93.2) (209/233)	100.0 (62.9-100.0) (9/9)
M12	1,192	June 24, 2014	527	269	258	21.7 (0-89)	% (95% CI) (n/N)	85.1 (80.2-89.0) (229/269)	89.1 (84.6-92.6) (230/258)	87.6 (78.6-93.4) (459/527)	88.8 (83.1-92.8) (166/187)	85.7 (80.5-89.8) (204/238)	84.6 (53.7-97.3) (11/13)
M15	1,217	September 16, 2014	506	266	240	21.6 (0-78)	% (95% CI) (n/N)	81.2 (75.9-85.6) (216/266)	85.0 (79.7-89.1) (204/240)	82.1 (71.9-89.3) (69/84)	85.8 (79.6-90.4) (151/176)	81.3 (75.6-85.9) (191/235)	81.8 (47.8-96.8) (9/11)
M18	1,236	December 8, 2014	467	233	234	20.0 (0-78)	% (95% CI) (n/N)	82.8 (77.2-87.3) (193/233)	87.2 (82.1-91.1) (204/234)	84.0 (73.3-91.1) (63/75)	85.4 (79.6-89.8) (170/199)	84.9 (78.6-89.7) (152/179)	85.7 (56.2-97.5) (12/14)

CI = confidence interval; MSP-1<sub>19</sub> = merozoite surface protein 119.