

- 1 **Supplemental Table 1:** Characteristics of the specimens used for assay development (2004). Dry blood
- 2 spots abbreviated as DBS

Type of sample	Criteria	Number of samples		OV-16 ELISA positive results
A. Assay development, determination of standard curve and cut off value				
Positive	Presence of ≥ 1 nodule	Sera	62	38 (61%)
		DBS	25	15 (60%)
		Total	87	53 (60.9%)
Negative	Non endemic area	Sera	19	0
		DBS	355	1 (0.3%)
		Total	374	1(0.3%)
B. OV-16 ELISA versus skin snip microscopy				
Positive	Presence of microfilariae [MF] (skin snips from scapula or iliac crest)	33		28 (84.8%)
Negative	MF negative	29		12 (41.4%)
	Total:	62		
C. Performance against a blind panel of samples				
Positive	MF+ or nodule positive	18		11 (61.1%)
Negative	Schistosomiasis	6		0
	Lymphatic filariasis	6		0
	<i>T. solium</i> cysticercosis	5		0
	Non endemic USA	7		0

	Total	42	
D. Post-Development Performance on a community survey			
Site 1	Meso endemic	85	26 (30.6%)
Site 2	Meso endemic	87	45 (52.9%)
Site 3	Meso endemic	70	16 (22.9%)
Site 4	Meso endemic	86	26 (30.2%)
	Total endemic	328	113 (34.4%)
Site 5	Non endemic	93	0
Site 6	Non endemic	73	0
Site 7	Non endemic	83	0
Site 8	Non endemic	99	1 (1%)
	Total non-endemic	348	1 (0.3%)

3 **Supplemental Table 2:** Specimens used for the determination of cut-offs by Receiver Operator

4 Characteristics (ROC) analysis.

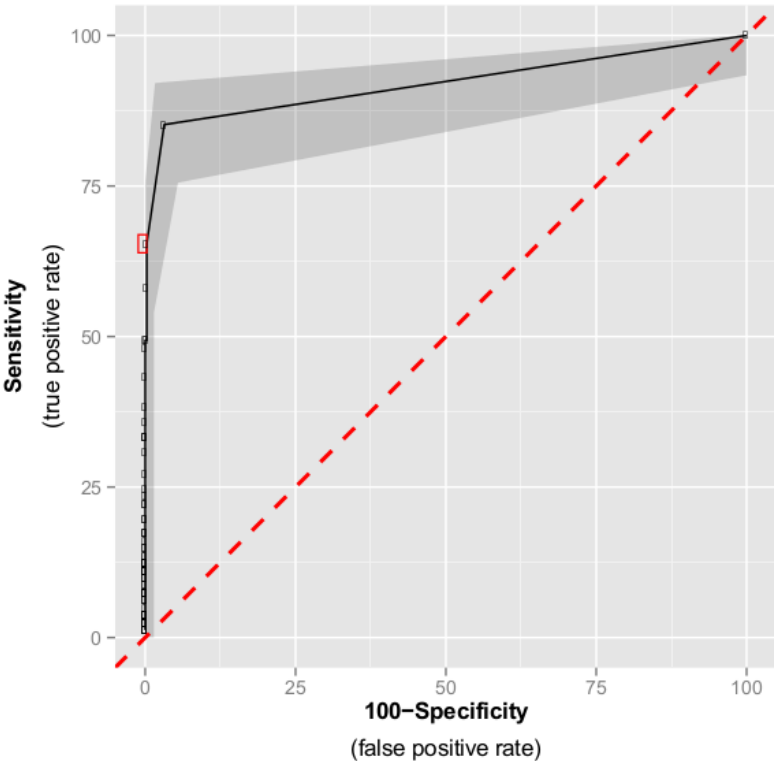
Initial development and determination of standard curve				
Positive	Presence of ≥ 1 nodule	Sera	62	38 (61%)
		DBS	25	15 (60%)
		total	87	53 (60.9%)
Negative	Non endemic area	Sera	19	0
		DBS	355	1 (0.3%)
		Total	374	1(0.3%)

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6 **Supplemental Table 3.** Number of people with nodules or microfilariae detected between 2003 and 2009 and enrolled in 2014 and 2015. The
7 columns describe total number people surveyed in each year; number enrolled for this report including serological classification. Numbers in
8 parentheses are the percentages relative to the total number examined by column.

Group	2003				2006				2007				2009			
	Survey	This study	sero-positive	sero-negative	Survey	This study	Sero-positive	Sero-negative	Survey	This study	Sero-positive	Sero-negative	Survey	This study	Sero-positive	Sero-negative
Presence nodules	31 (25)	11 (18)	4 (31)	7 (15)	32 (25)	15 (14)	14 (28)	1 (3)	13 (13)	13 (13)	6 (30)	7 (9)	8 (15)	3 (21)	1 (50)	2 (17)
Microfilariae (MF) positive	7 (6)	1 (2)	0	1 (2)	7 (6)	7 (7)	6 (12)	1 (2)	0	0	0	0	1 (2)	0	0	0
Nodule MF (+)	11 (9)	0	0	0	7 (6)	5 (5)	5 (10)	0	0	0	0	0	1 (2)	0	0	0
Negative	77 (61)	48 (80)	9 (69)	39 (83)	81 (64)	79 (75)	25 (50)	54 (96)	85 (87)	84 (87)	14 (70)	70 (91)	43 (81)	11 (79)	1 (50)	10 (83)
Total examined	126	60	13	47	127	106	50	56	98	97	20	77	53	14	2	12

Supplemental Figure 1: ROC determination of the cutoff at 40 activity units (OD about 0.05).



Supplemental Figure 2: Boxplots comparing antibody waning and initial antibody titers among OV-16 serology positive individuals. Group “OV-16” represents individuals positive to serology alone, and “OV MF” represents those positive by serology and microfilariae in skin snips. Pane 2a shows the estimated rates of waning of anti-OV-16 antibody responses (no statistically significant differences, $p = 0.40$). Pane 2b shows antibody titers by group (statistically significant difference, $p=0.0013$).2a

2b

