1   Antibodies to VAR2CSA and Merozoite Antigens in Pregnant Women living in Yaoundé, Cameroon

2   on Pregnancy Outcomes

3

4   **Supplemental Information**

5

6   Table S1. Information on the age of women in the 4 gravidity groups

Grav	N Obs	Mean	Std Dev	Minimum	25th Pctl	Median	75th Pctl	Maximum
1	361	21.4	4.0	14.0	19.0	21.0	23.0	40.0
2	289	23.9	4.4	15.0	20.0	23.0	26.0	40.0
3	220	25.8	4.0	16.0	23.0	25.0	28.0	41.0
4+	472	30.4	4.9	18.0	27.0	30.0	34.0	43.0

7

8

9   Table S2

10   Supplemental Table 2: The Influence of Antibodies to FV2 and Merozoite Antigens on Pregnancy Outcome in

11   PM- Women

	Anemia	**High parasitemia***	**LBW**	**Pre-term delivery**
FV2	1.535 (1.039, 2.266)	n/a	1.136 (0.761, 1.696)	1.506 (1.056, 2.148)
MSP1$_{42}$	1.012 (0.697, 1.469)	n/a	0.863 (0.594, 1.254)	0.843 (0.599, 1.186)
MSP2	1.156 (0.766, 1.746)	n/a	0.864 (0.579, 1.289)	1.339 (0.905, 1.982)
MSP3	1.166 (0.717, 1.895)	n/a	1.043 (0.641, 1.697)	1.122 (0.726, 1.734)
MSP11	1.369 (0.724, 2.589)	n/a	1.468 (0.811, 2.658)	1.951 (1.153, 3.302)
AMA1	1.168 (0.683, 1.997)	n/a	0.942 (0.563, 1.576)	1.711 (0.985, 2.971)
EBA-175	1.289 (0.828, 2.009)	n/a	1.237 (0.796, 1.924)	1.343 (0.894, 2.016)
Pf41	0.927 (0.638, 1.348)	n/a	0.803 (0.549, 1.175)	0.992 (0.704, 1.398)
ORs with 95% CI reported were based on logistic models, adjusted for age and gravidity. * Parasitemia not available for PM- women				

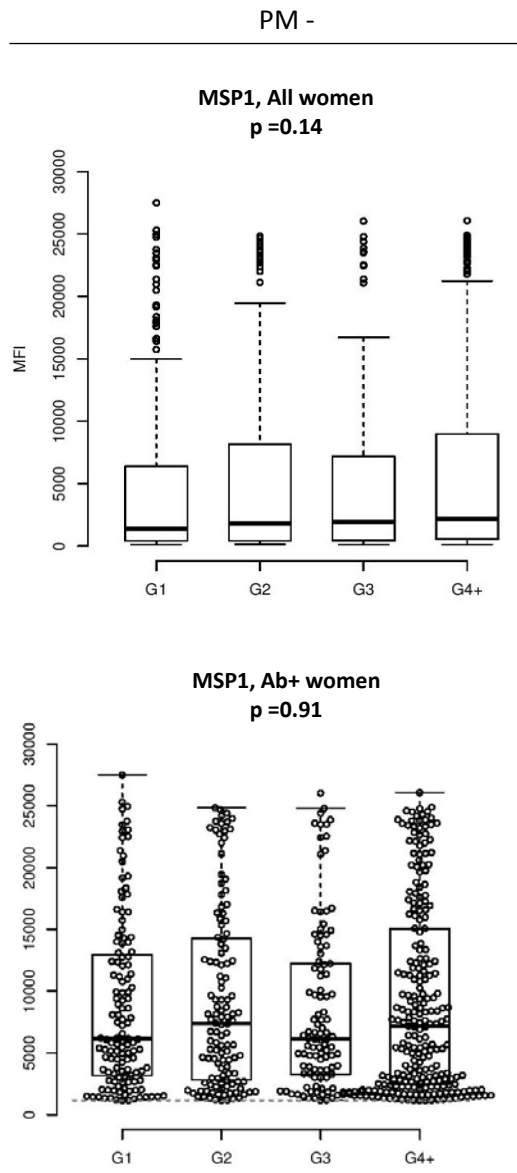12
13

14   FIG. S1
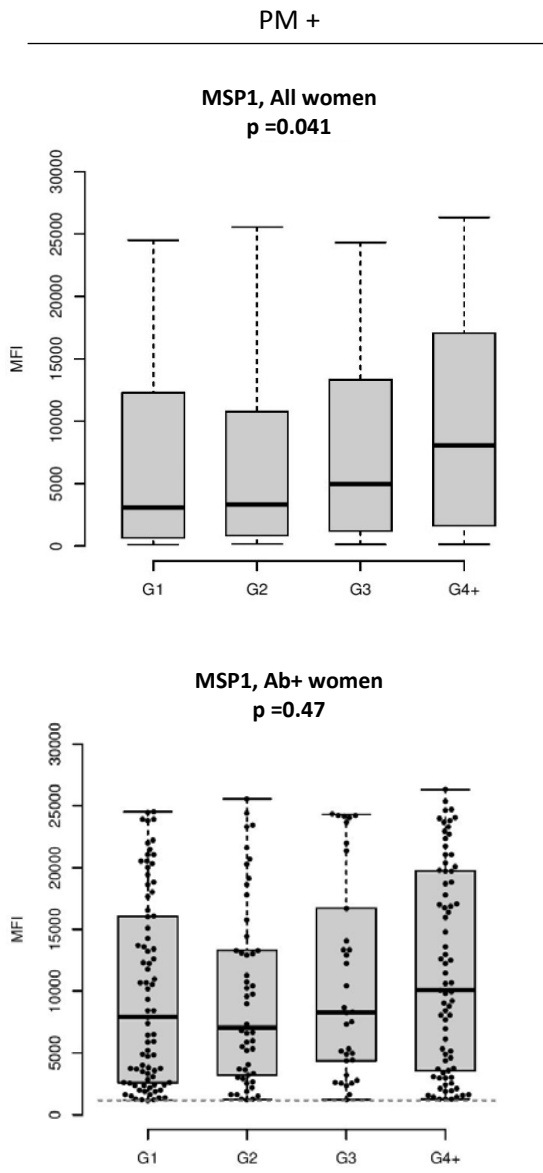
16   **A**
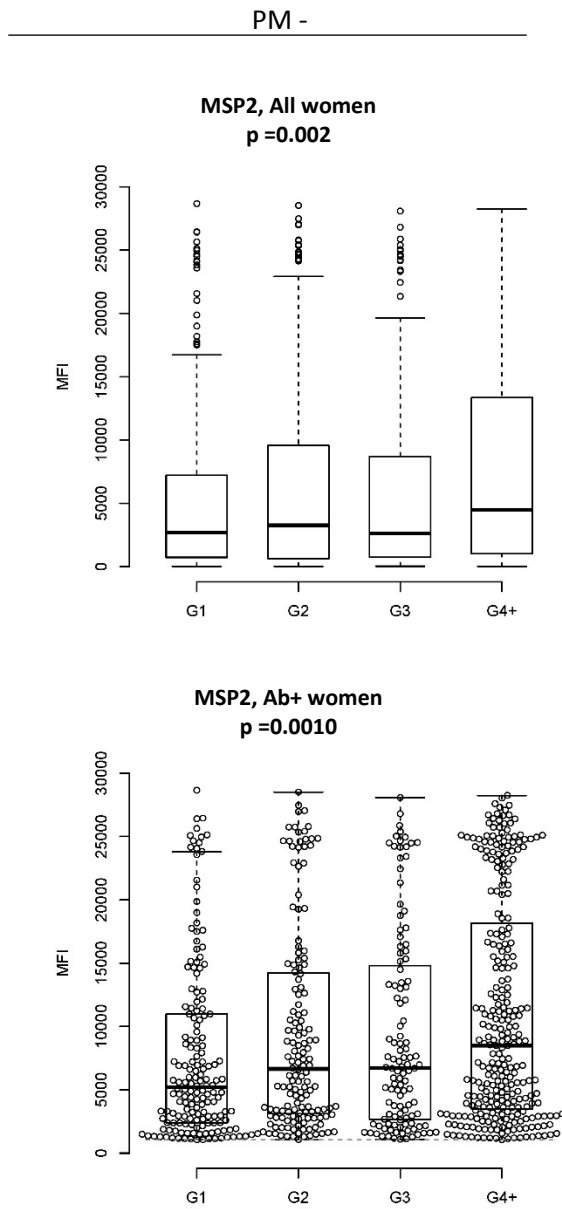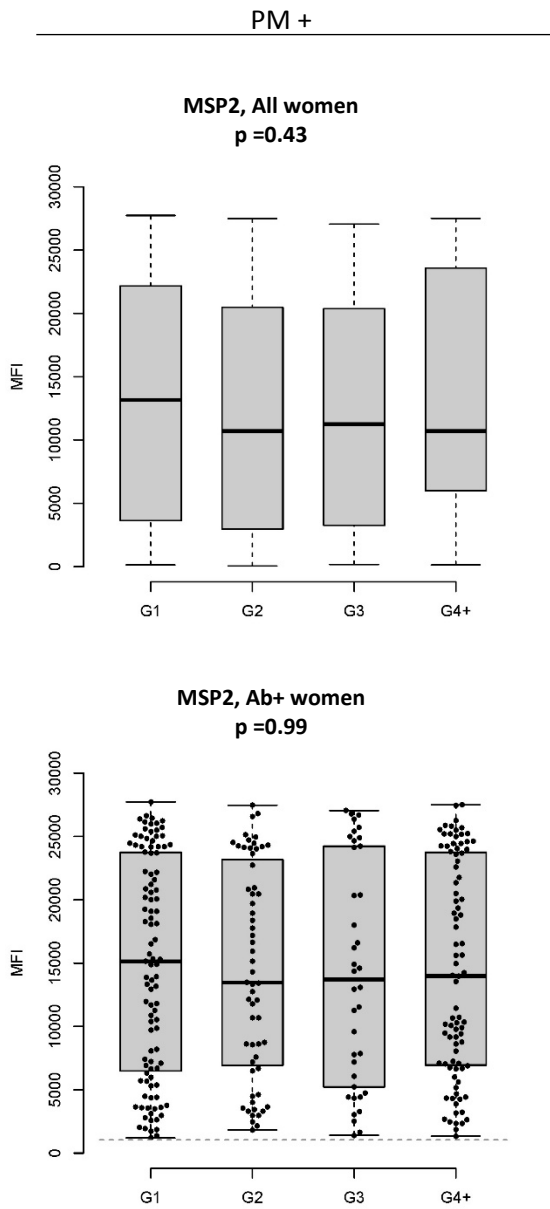

CM controls

28   **B**

US female controls
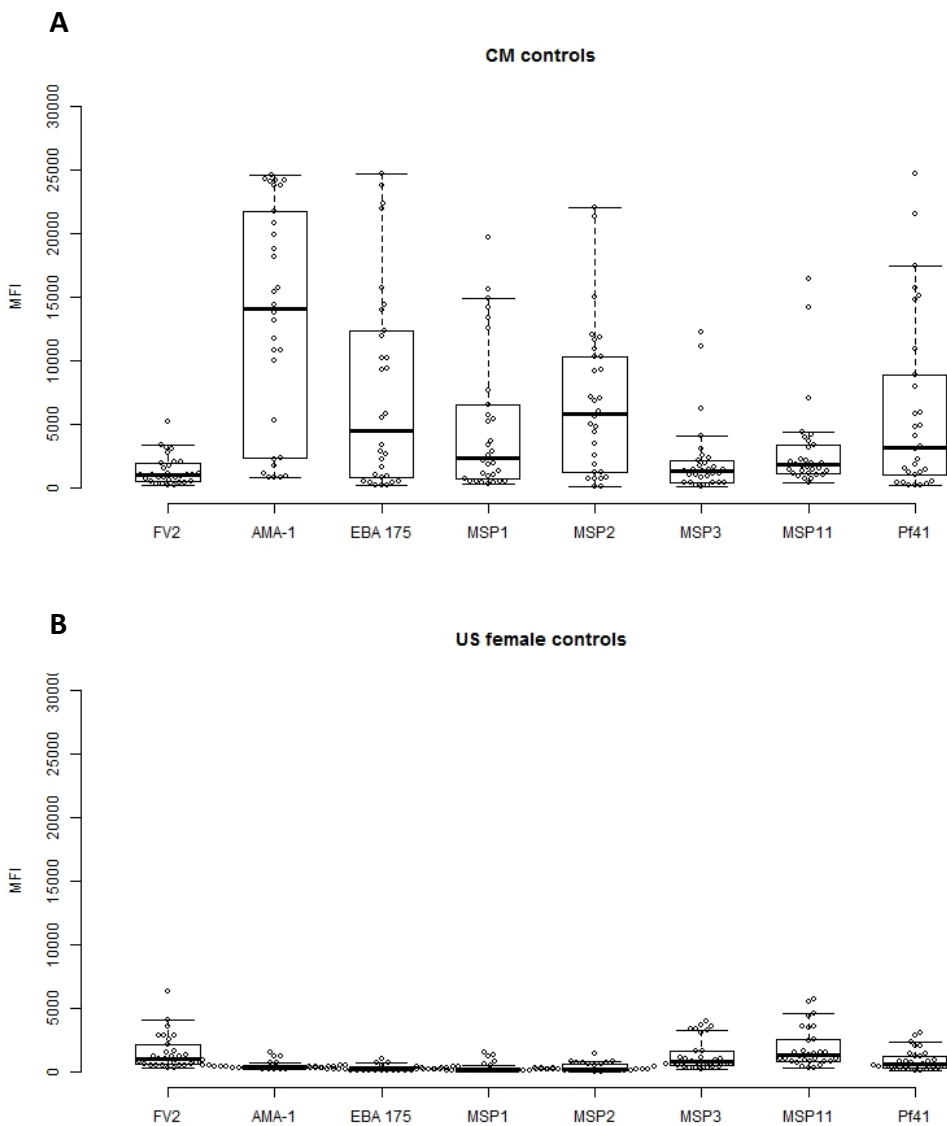
Supplemental Figure. 1 Distribution of Ab levels in the controls used to determine the cut-off for positivity (mean + 2SD). (**A**) Data for 30 Cameroonian male adults who had Ab to the merozoite antigens, but not FV2. (**B**) Data for 30 plasma samples collected at delivery from US negative control women who lacked Ab to the merozoite antigens. Cut-off values for Ab positivity for each antigen was, FV2:3709; AMA1:1138; EBA-175:739; MSP1$_{42}$:1153; MSP2:1042; MSP3:3850; MSP11:5046; Pf41:2563.
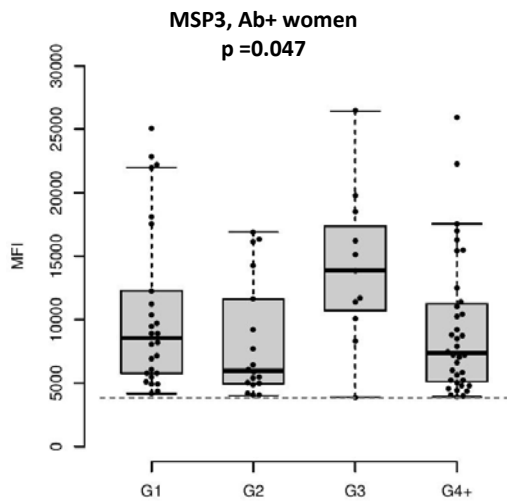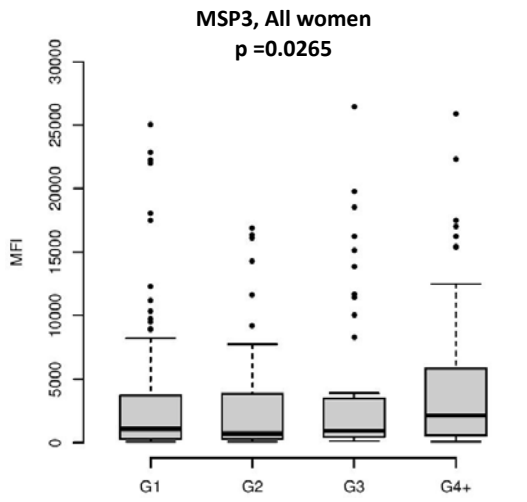
46   Fig. S2

PM +

MSP1, All women
p =0.041

MSP1, Ab+ women
p =0.47

PM -

MSP1, All women
p =0.14

MSP1, Ab+ women
p =0.91

132

133

PM +

MSP2, All women
p =0.43

MSP2, Ab+ women
p =0.99

PM -

MSP2, All women
p =0.002

MSP2, Ab+ women
p =0.0010

134

135

136

137

138

139

140

141

142

PM +

MSP3, All women
p =0.0265

MSP3, Ab+ women
p =0.047

PM -

MSP3, All women
p =0.0068

MSP3, Ab+ women
p =0.82

143

144

PM +

MSP11, All women
p =0.0085

MSP11, Ab+ women
p =0.79

PM -

MSP11, All women
p =0.27

MSP11, Ab+ women
p =0.26
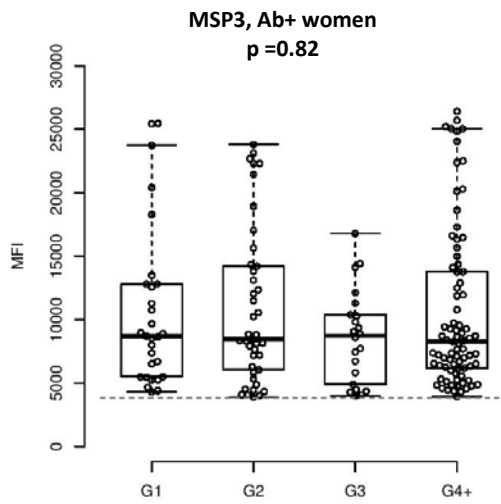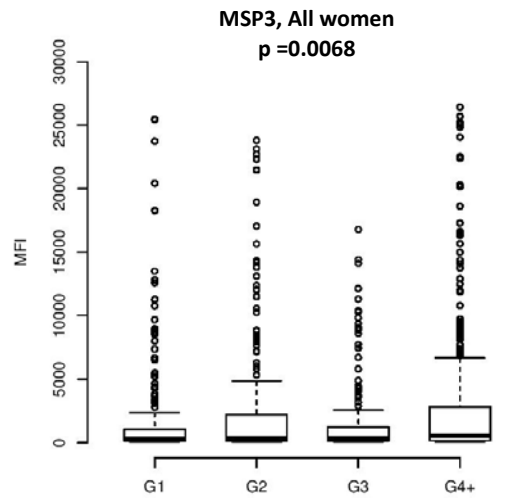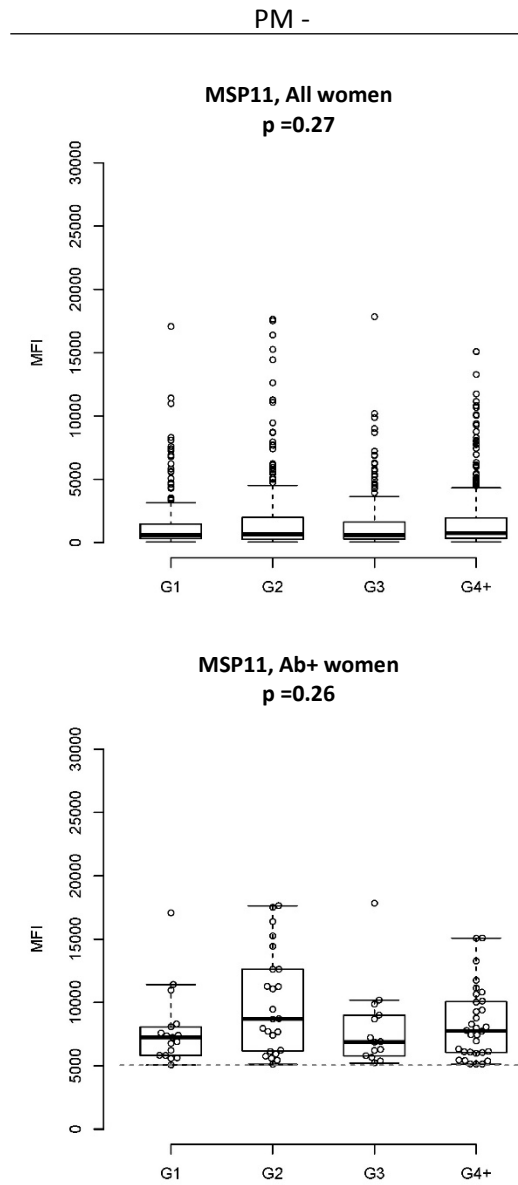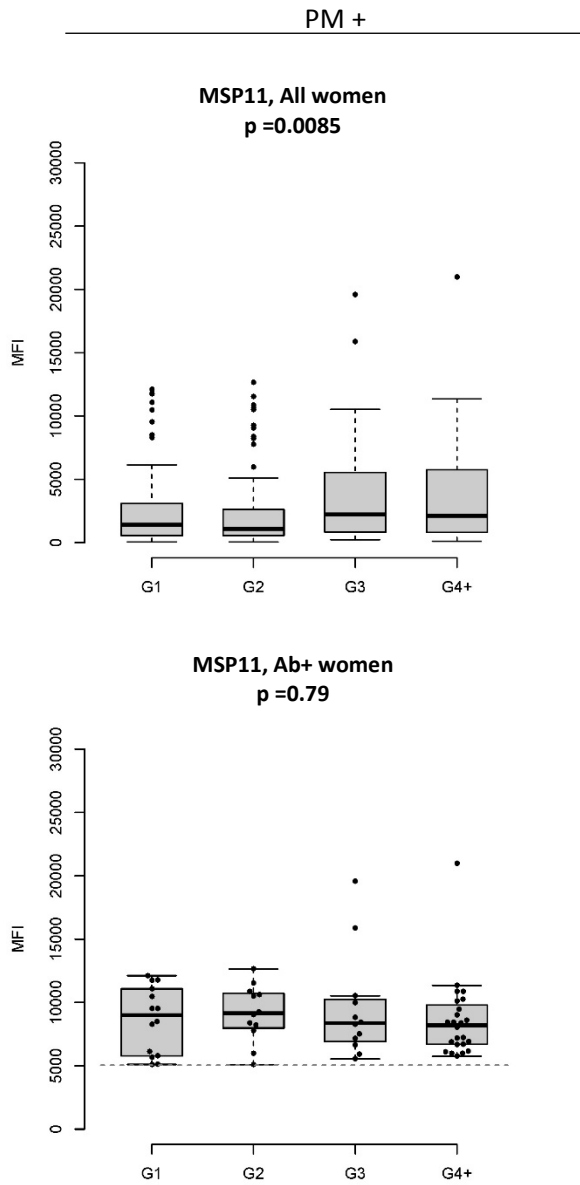
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	PM +	PM -

PM +

AMA1, All women
p =0.40

MFI

G1 G2 G3 G4+

PM -

AMA1, All women
p =0.22

MFI

G1 G2 G3 G4+

AMA1, Ab+ women
p =0.45

MFI

G1 G2 G3 G4+

AMA1, Ab+ women
p =0.11

MFI

G1 G2 G3 G4+
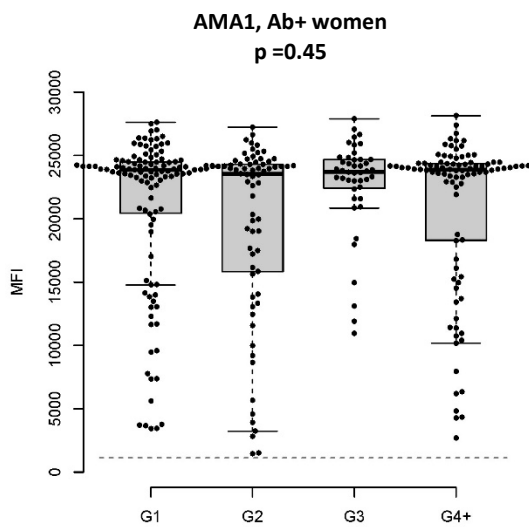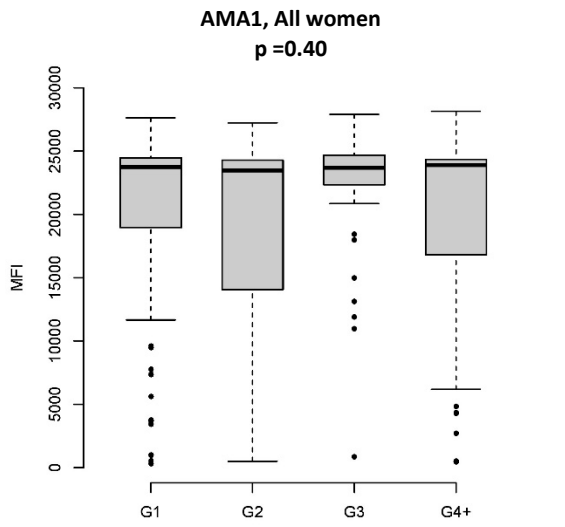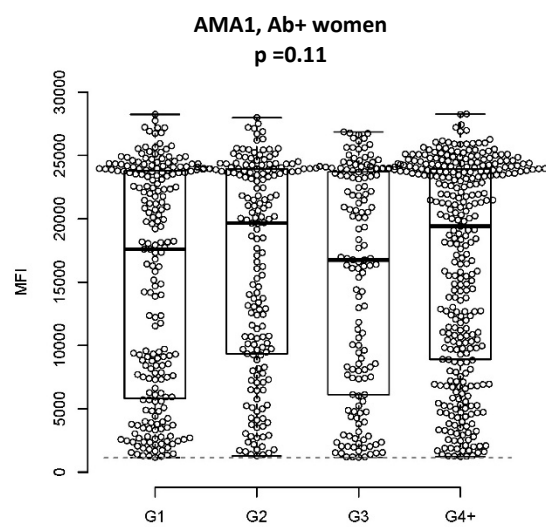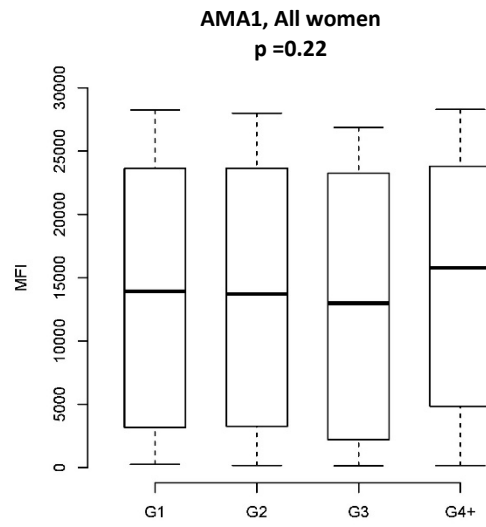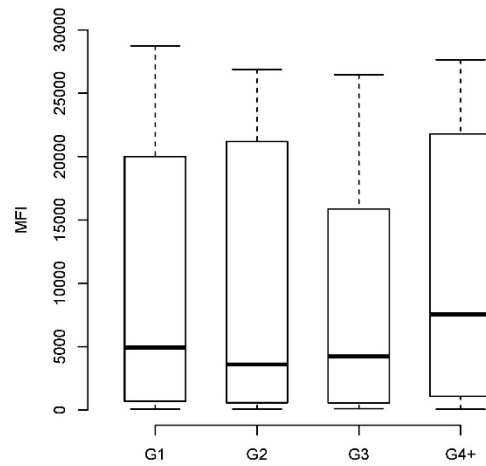
EBA-175, All women
p =0.031
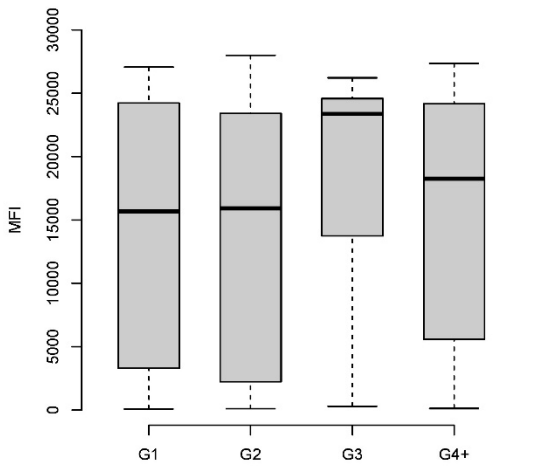
EBA-175, All women
p =0.077

EBA-175, Ab+ women
p =0.21
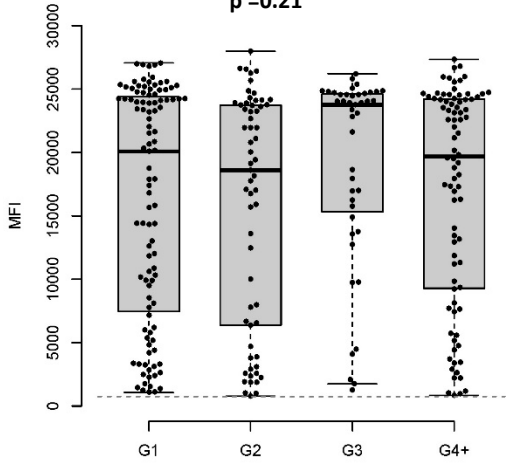
EBA-175, Ab+ women
p =0.44

154

155

PM +

PM -

Pf41, All women
p =0.69

Pf41, All women
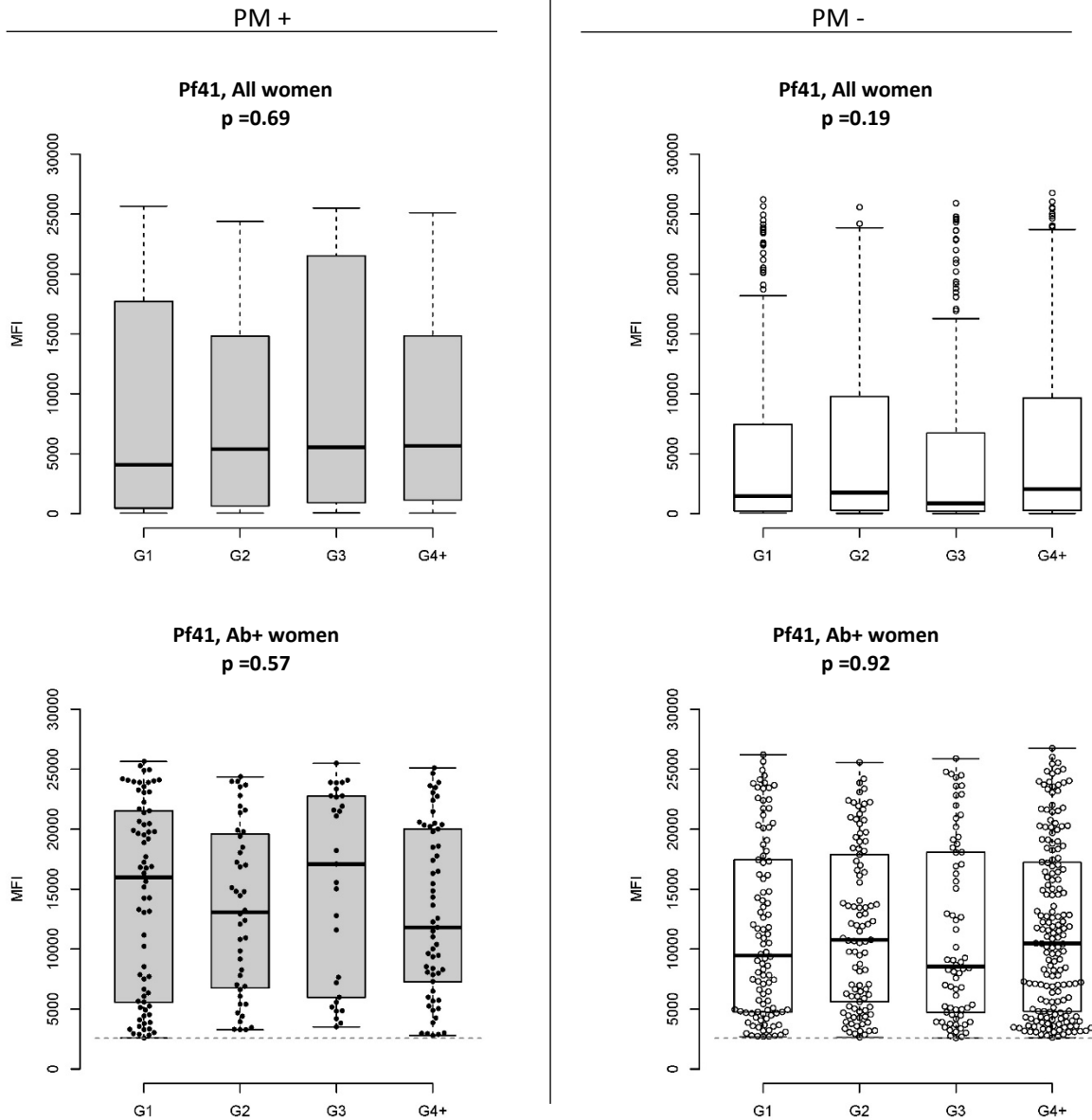**p =0.19**

Pf41, Ab+ women
p =0.57

Pf41, Ab+ women
p =0.92
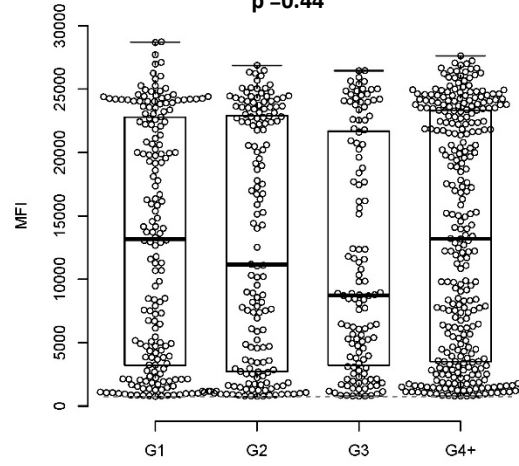
156

157   Supplemental Figure 2. Distribution of mean Ab levels in PM+ (n=328) and PM- (n=1,014) women, and in

158   women who have Ab, stratified by gravidity (G). P values were based on the Cochran-Armitage trend tests.

159   Boxes illustrate the median and IQR of the median fluorescence intensity (MFI)