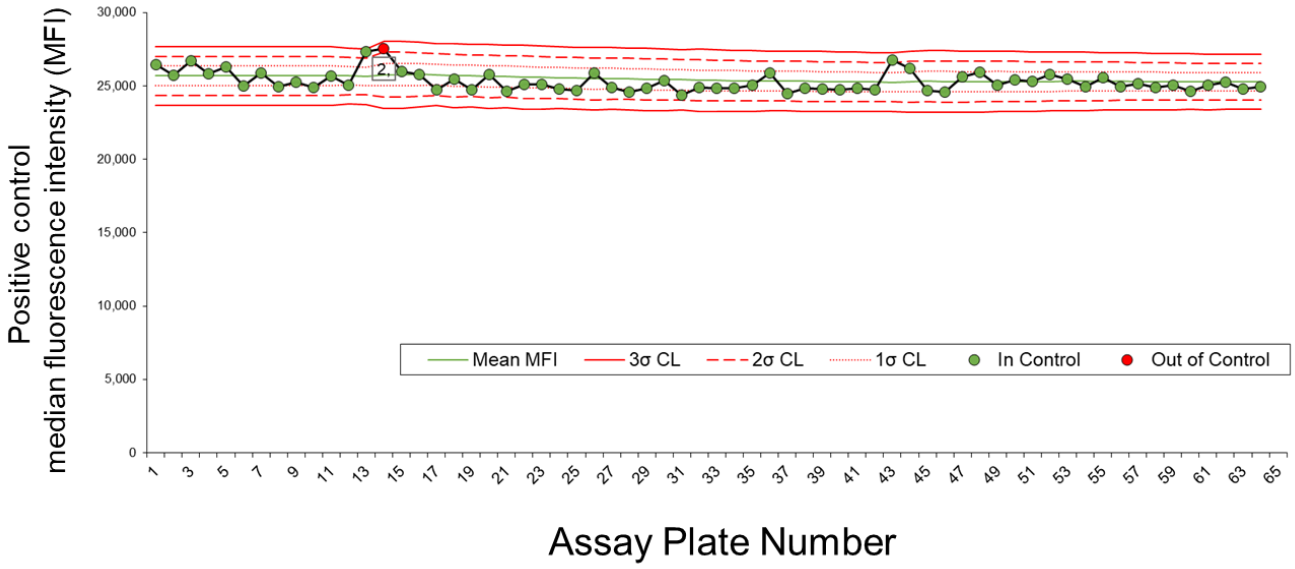
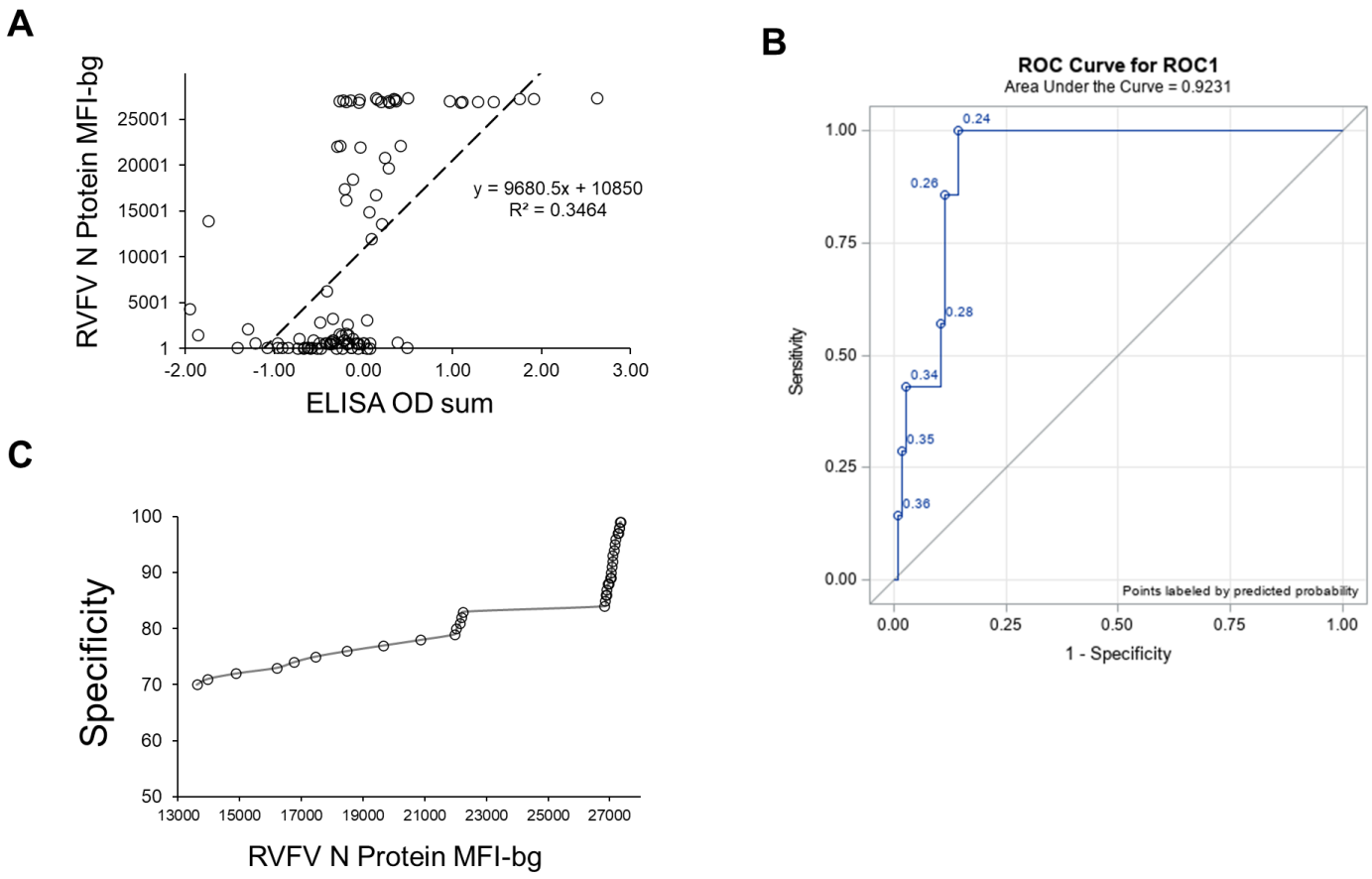
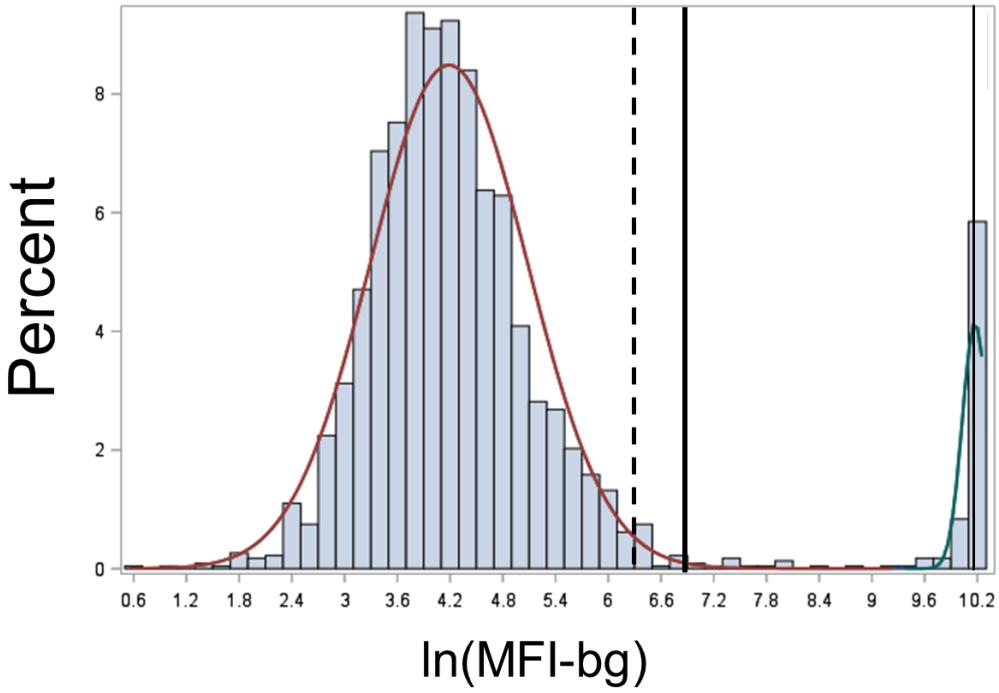
Supplemental Files



Supplemental Figure 1. Shewart chart for assay signal value of RVFV N antigen IgG positive control included on each assay plate. Solid black line displays moving average with green points the median fluorescence intensity (MFI) reading for each of the 64 assay plates. Red lines display different levels of standard deviation from the moving average. The red dot shows a single assay plate (#14) that would have been rejected on the basis of two consecutive plates with standard deviations of greater than two sigma. Control values for the malaria, lymphatic filariasis, and CHIKV control values for plate #14 were within proper limits.



Supplemental Figure 2. Comparison of MBA results to ELISA for RVFV IgG serology on subset of study samples (n=98). (A) Scatterplot showing assay signals for subset of specimens assayed by both the MBA and ELISA platforms. Hashed line shows linear regression with regression estimates displayed in plot. (B) Receiving operator characteristic (ROC) curve for MBA data with ELISA results considered gold standard in determining RVFV seropositivity or seronegativity. (C) By ROC estimates, the change in specificity of the MBA in correctly classifying a true negative by increasing MBA assay signal.

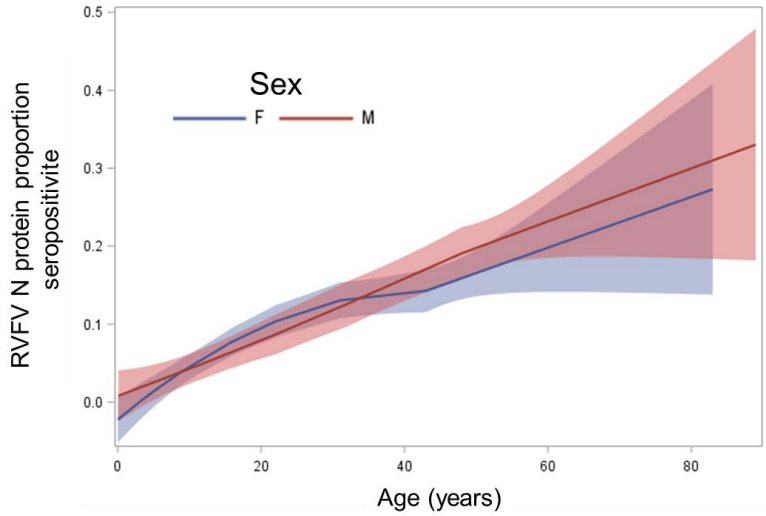


Supplemental Figure 3. Log-transformed MBA signal to RVFV N protein and fitting to two-component finite-mixture model. Seropositivity threshold values shown as generated through the serum panel of U.S. residents (hashed vertical line), two-component FMM (solid thick vertical line), and ROC curve with ELISA results (solid thin vertical line).

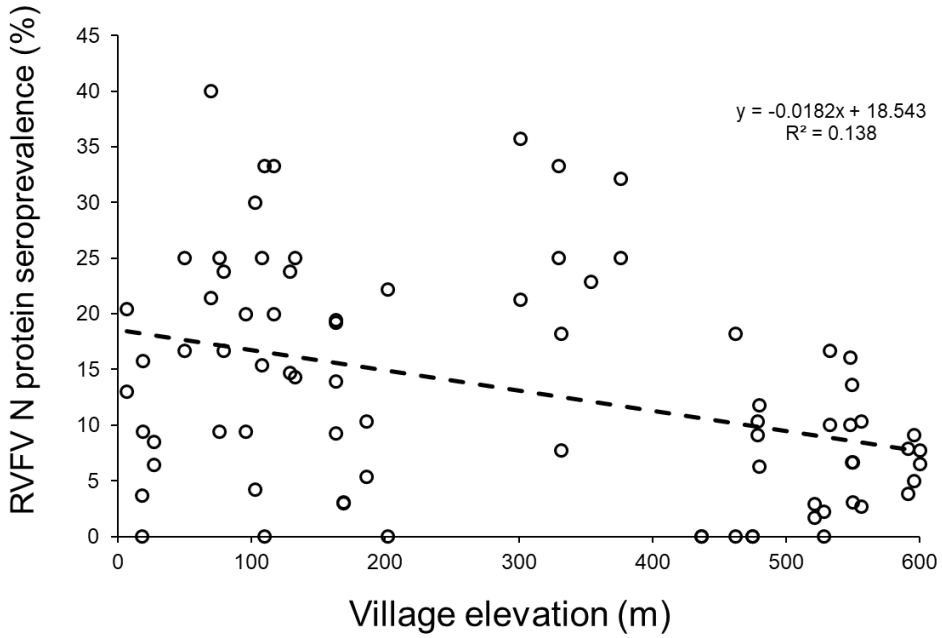
A

Age category	% Female
0-4 years	51.7%
5-9 years	53.0%
10-14 years	48.9%
15-20 years	67.6%
21-30 years	61.0%
31-40 years	57.6%
41-50 years	50.0%
51-70 years	52.5%
>70 years	33.3%

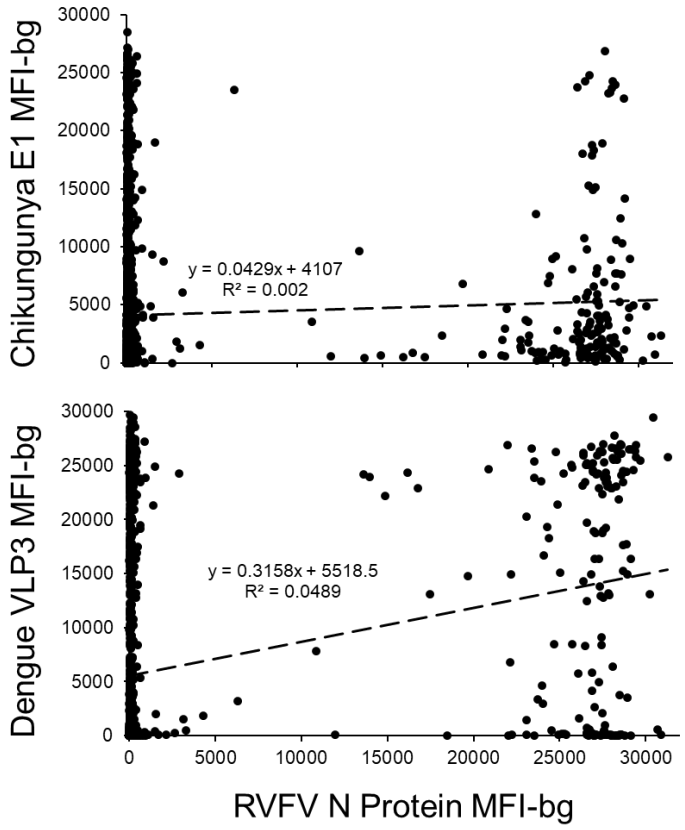
B



Supplemental Figure 4. Enrolled participant sex percentages by age and N protein seropositivity by age and sex. (A) Tabulation of participant percentages enrolled by sex as divided into age categories. (B) Seropositivity to RVFV N protein by age and divided by female (F, blue line) and male (M, red line) participants. Shading indicates 95% confidence interval.



Supplemental Figure 5. Correlation between village elevation and seroprevalence to RVFV N protein: Mozambique 2013/2014. Linear regression shown by hashed line with regression estimates displayed in chart.



Supplemental Figure 6. Scatterplots showing comparison of MBA signal to RVFV N protein versus dengue 3 virus VLP or chikungunya E1 antigen for study population. Plots shown with linear regression fitting as hashed line with model estimates.