Ebola vaccine? Family first! Evidence from using a brief measure on Ebola vaccine demand in a national household survey during the outbreak in Sierra Leone

SUPPLEMENTAL MATERIAL

Suppl. Table 1. Multilevel logistic regression model for expressing high demand for Ebola vaccine among respondents in a national household survey, Sierra Leone, December 2014

	Multivariable Model	
	aOR ‡ (95%CI)	P value †
Perceived first recipient		
Politicians	*Reference*	
Me/my family	13.0 (7.8-21.6)	0.000
Pregnant women	5.7 (1.9-17.5)	0.003
Children	4.7 (2.4-9.1)	0.000
People who live in worst affected areas	2.9 (1.7-5.1)	0.000
Healthcare workers/burial teams	2.0 (1.4-2.8)	0.000
Other	2.0 (0.9-4.2)	0.051
The team offering an Ebola vaccine	1.4 (0.9-2.1)	0.157
Geographic region		
Western Area	*Reference*	
North Province	1.4 (0.8-2.3)	0.188
Eastern Province	1.8 (0.9-3.4)	0.057
Southern Province	1.1 (0.5-2.5)	0.891
Gender		
Male	*Reference*	
Female	0.9 (0.8-1.1)	0.426
Age	1.0 (0.9-1.0)	0.242
Education		
None	*Reference*	
Primary	1.1 (0.8-1.5)	0.633
Secondary or higher	1.6 (1.2-2.1)	0.001
Religion		
Islam	*Reference*	
Christianity	1.0 (0.6-1.7)	0.881

N=3,290 respondents; 250 (7%) had one or more missing responses that were excluded

‡ Adjusted odds ratio (aOR) is adjusted for region of residence, sex, age, education, and religion

† Wald statistical p value from multiple logistic regression model

CI = confidence interval

Suppl. Table 2. Reliability testing for ultra-brief measure of Ebola vaccine demand among respondents in a national household survey, Sierra Leone, December 2014

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                                 item-test      item-rest        interitem
Item            Obs   Sign     correlation    correlation      correlation      alpha

vax_need        3479   +          0.7187         0.3774           0.9297        0.9636
vax_accept~f    3467   +          0.9224         0.8019           0.3375        0.5047
vax_accept~m    3435   +          0.9144         0.7763           0.3778        0.5484

Test scale                                                        0.5491        0.7851
```

Suppl. Table 3. Eigenvalues and proportion of variance explained by extracted factors

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   Factor       Eigenvalue    Difference         Proportion    Cumulative

   Factor1         2.13687       1.34469             0.7123        0.7123
   Factor2         0.79218       0.72123             0.2641        0.9764
   Factor3         0.07095          .                0.0236        1.0000
```

LR test: independent vs. saturated: chi2(3)   = 7168.34 Prob>chi2 = 0.0000
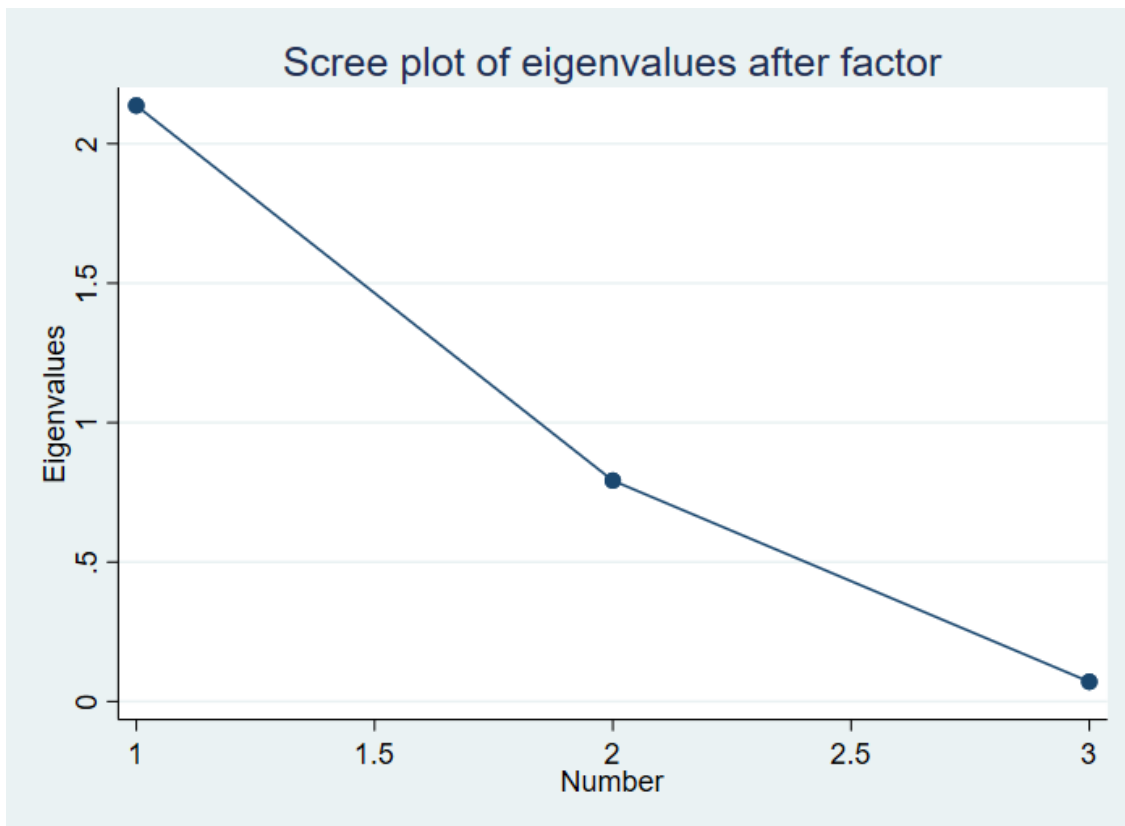
Suppl. Figure 1. Scree plot from Exploratory Factor Analysis showing eigenvalues for the construct of high Ebola vaccine demand, Sierra Leone, December 2014