

Table 1: Model deviance with the percentage of deviance explained by predictor variable

Model	Deviance	Percentage of deviance explained
Filoviridae		
NULL	1891.41	0
Binomial	839.24	65
ZIB	764.38	69
Binomial.iCAR	268.52	100
ZIB.iCAR	267.14	100
Coronaviridae		
NULL	1889.18	0
Binomial	629.11	69
ZIB	548.47	74
Binomial.iCAR	63.09	100
ZIB.iCAR	67.01	100
Henipavirus		
NULL	1862.74	0
Binomial	635.28	70
ZIB	627.49	71
Binomial.iCAR	113.44	100
ZIB.iCAR	116.76	100

Table 2: Empirical mean and standard deviation including standard error of the mean and quantiles for each variable. The significant variables are highlighted.

Empirical mean and standard deviation for each variable plus standard error of the mean and quantiles									
ZIB iCAR filoviridae outbreak model									
Variable	Mean	SD	Naive SE	Time-series SE	2.50%	25%	50%	75%	97.50%
beta.(Intercept)	-5.01	0.34	0.01	0.03	-5.67	-5.24	-5.01	-4.77	-4.31
beta.tmin	2.50	0.54	0.01	0.06	1.41	2.14	2.49	2.87	3.62
beta.tmax	-1.27	0.42	0.01	0.04	-2.13	-1.55	-1.26	-0.98	-0.48
beta.precipitation	1.50	0.27	0.01	0.03	1.01	1.31	1.49	1.67	2.05
beta.land cover	-0.62	0.23	0.01	0.02	-1.04	-0.77	-0.62	-0.45	-0.16
beta.altitude	1.32	0.39	0.01	0.04	0.59	1.06	1.30	1.57	2.14
beta.lc_modification	1.16	0.23	0.01	0.02	0.75	1.00	1.15	1.33	1.64
beta.population density	1.37	0.51	0.01	0.03	0.48	1.00	1.33	1.70	2.50
gamma.(Intercept)	814.89	620.53	13.88	9.43	37.19	339.15	694.18	1159.63	2390.27
Vrho	9.90	0.07	0.00	0.01	9.75	9.85	9.92	9.96	10.00
Deviance	267.14	19.04	0.43	1.65	231.46	254.56	266.45	279.73	305.03
ZIB iCAR coronaviridae outbreak model									
Variable	Mean	SD	Naive SE	Time-series SE	2.5%	25.0%	50.0%	75.0%	97.5%
beta.(Intercept)	-6.26	0.62	0.01	0.04	-7.58	-6.66	-6.22	-5.82	-5.12
beta.tmin	4.31	2.63	0.06	0.53	-1.09	2.75	4.35	5.92	9.36
beta.tmax	-0.99	2.19	0.05	0.38	-5.07	-2.42	-0.97	0.34	3.56
beta.precipitation	-1.85	0.72	0.02	0.09	-3.21	-2.33	-1.89	-1.37	-0.38
beta.land cover	-0.26	0.45	0.01	0.02	-1.14	-0.56	-0.27	0.02	0.64
beta.altitude	2.21	0.66	0.01	0.10	0.95	1.77	2.20	2.63	3.51
beta.lc_modification	2.52	0.56	0.01	0.03	1.47	2.15	2.50	2.90	3.69
beta.population density	3.76	0.83	0.02	0.06	2.15	3.19	3.75	4.31	5.43
gamma.(Intercept)	776.97	587.09	13.13	14.20	38.15	320.45	639.27	1123.57	2115.22
Vrho	9.92	0.05	0.00	0.01	9.84	9.88	9.92	9.96	10.00
Deviance	59.01	10.23	0.23	0.72	40.72	51.93	58.34	65.40	81.11
ZIB iCAR Henipavirus outbreak model									
Variable	Mean	SD	Naive SE	Time-series SE	2.50%	25%	50%	75%	97.50%
beta.(Intercept)	-8.27	1.11	0.02	0.25	-11.53	-8.84	-8.19	-7.58	-6.35
beta.tmin	-3.65	1.37	0.03	0.20	-6.26	-4.49	-3.67	-2.88	-0.66
beta.tmax	2.35	1.14	0.03	0.18	-0.02	1.67	2.35	3.10	4.53
beta.precipitation	2.41	0.41	0.01	0.04	1.62	2.13	2.43	2.71	3.12
beta.land cover	0.29	0.27	0.01	0.02	-0.23	0.11	0.29	0.47	0.83
beta.altitude	-9.05	2.42	0.05	0.53	-16.27	-10.32	-8.84	-7.60	-4.95
beta.lc_modification	2.14	0.37	0.01	0.03	1.41	1.89	2.13	2.39	2.88
beta.population density	0.00	0.16	0.00	0.01	-0.31	-0.10	0.00	0.11	0.30
gamma.(Intercept)	817.58	628.34	14.05	18.91	51.19	321.06	676.77	1198.10	2297.75
Vrho	9.88	0.06	0.00	0.01	9.80	9.83	9.87	9.92	9.99
Deviance	116.76	12.93	0.29	0.83	93.46	107.92	115.86	124.60	144.91