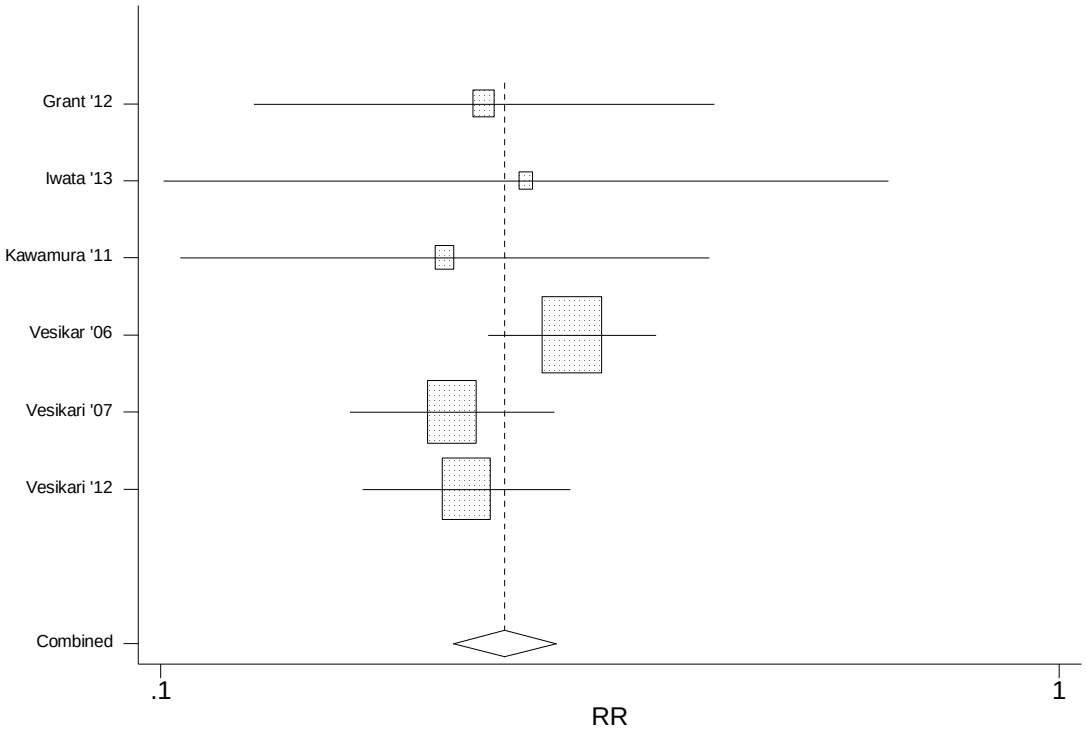
Appendix:

Supplemental Figure 1: Rotavirus Diarrhea: Vaccine Efficacy, Developed



Meta-analysis (exponential form)

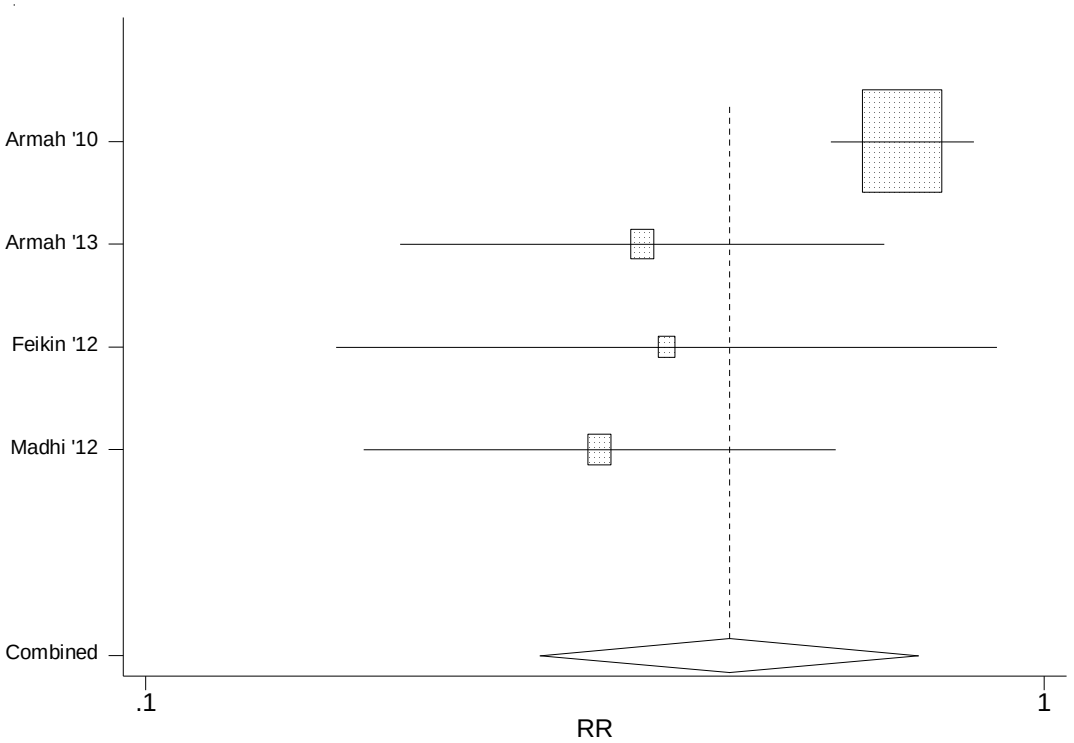
Method	Pooled Est	95% CI Lower	95% CI Upper	Asymptotic z_value	Asymptotic p_value	No. of studies
Fixed	0.241	0.211	0.276	-21.006	0.000	6
Random	0.241	0.211	0.276	-21.006	0.000	

Test for heterogeneity: Q= 4.288 on 5 degrees of freedom (p= 0.509)
Moment-based estimate of between studies variance = 0.000

Study	Weights Fixed	Weights Random	Study Est	95% CI Lower	95% CI Upper
Grant '12	11.06	11.06	0.23	0.13	0.41
Iwata '13	4.46	4.46	0.25	0.10	0.64
Kawamura '11	8.38	8.38	0.21	0.11	0.41
Vesikar '06	83.81	83.81	0.29	0.23	0.36
Vesikari '07	56.42	56.42	0.21	0.16	0.27
Vesikari '12	54.29	54.29	0.22	0.17	0.29

Appendix:

Supplemental Figure 2: Rotavirus Diarrhea: Vaccine Efficacy, Sub Saharan Africa



Meta-analysis (exponential form)

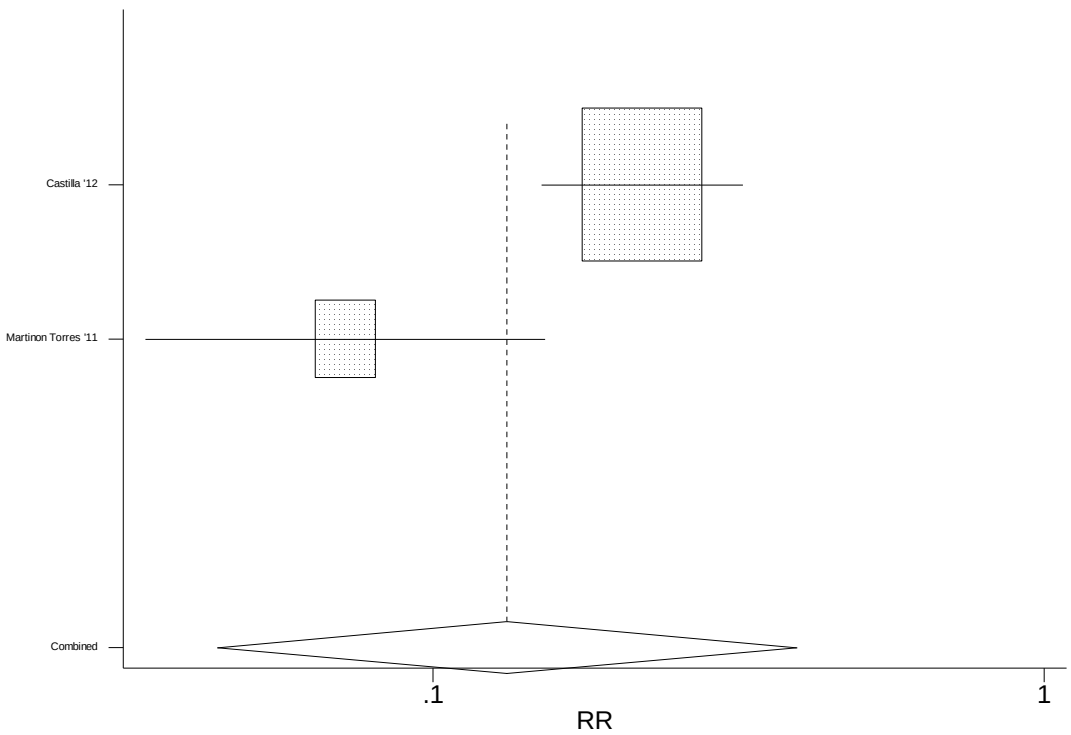
Method	Pooled Est	95% CI Lower	95% CI Upper	Asymptotic z_value	Asymptotic p_value	No. of studies
Fixed	0.612	0.518	0.721	-5.838	0.000	4
Random	0.446	0.274	0.724	-3.265	0.001	

Test for heterogeneity: Q= 10.393 on 3 degrees of freedom (p= 0.016)
Moment-based estimate of between studies variance = 0.163

Study	Weights Fixed	Weights Random	Study Est	95% CI Lower	95% CI Upper
Armah '10	115.05	5.81	0.69	0.58	0.83
Armah '13	9.98	3.79	0.36	0.19	0.66
Feikin '12	5.37	2.86	0.38	0.16	0.89
Madhi '12	10.50	3.87	0.32	0.17	0.59

Appendix:

Supplemental Figure 3: Rotavirus Diarrhea: Vaccine Effectiveness, Developed



Meta-analysis (exponential form)

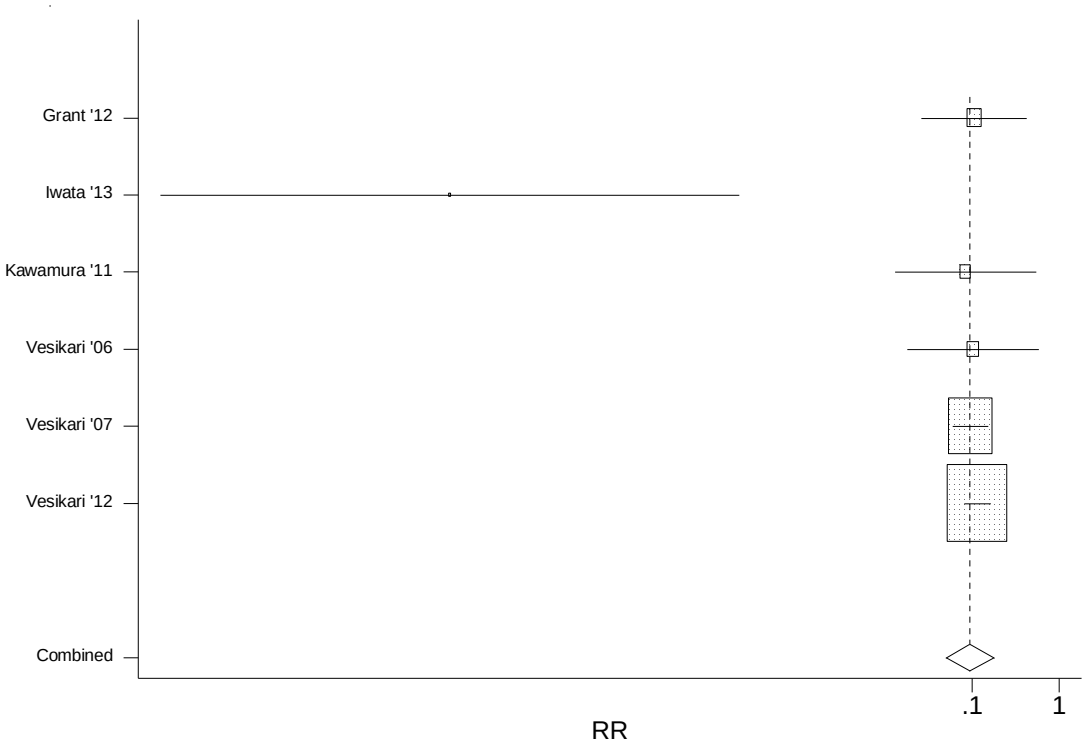
Method	Pooled Est	95% CI Lower	95% CI Upper	Asymptotic z_value	Asymptotic p_value	No. of studies
Fixed	0.175	0.125	0.246	-10.081	0.000	2
Random	0.132	0.044	0.393	-3.637	0.000	

Test for heterogeneity: Q= 6.759 on 1 degrees of freedom (p= 0.009)
Moment-based estimate of between studies variance = 0.532

Study	Weights Fixed	Weights Random	Study Est	95% CI Lower	95% CI Upper
Castilla '12	26.77	1.76	0.22	0.15	0.32
Martinon Torres '11	6.79	1.47	0.07	0.03	0.15

Appendix:

<u>Supplemental Figure 4</u>: Severe Rotavirus Diarrhea: Vaccine Efficacy, Developed



Meta-analysis (exponential form)

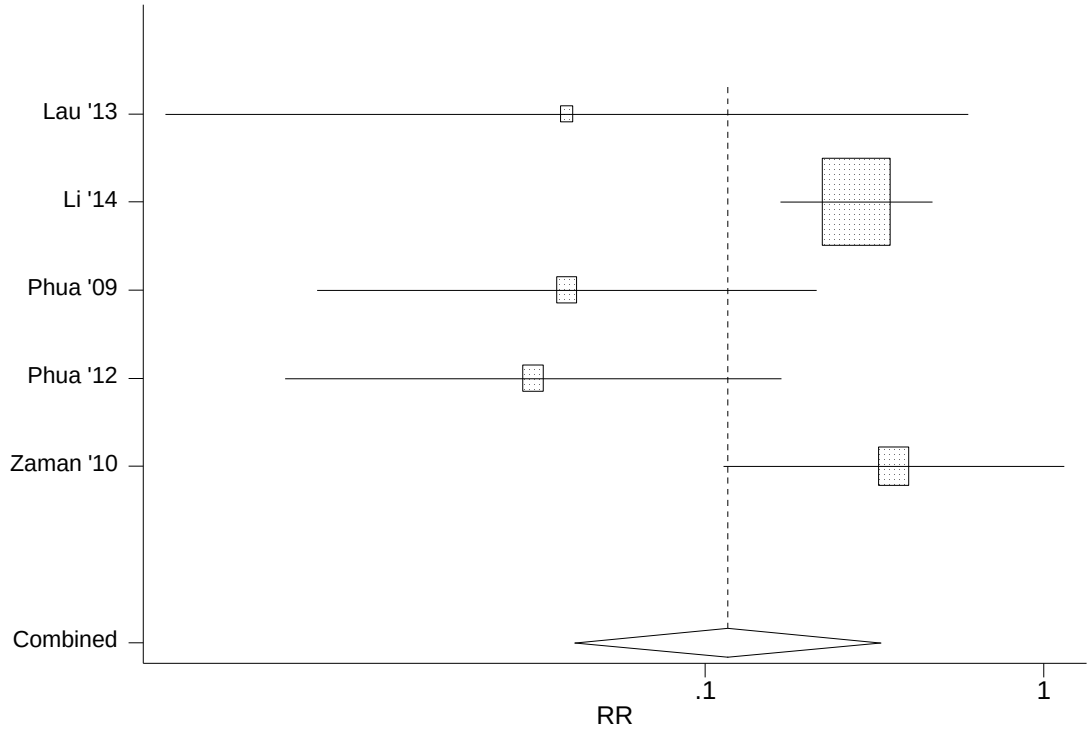
Method	Pooled Est	95% CI Lower	95% CI Upper	Asymptotic z_value	Asymptotic p_value	No. of studies
Fixed	0.105	0.081	0.137	-16.755	0.000	6
Random	0.094	0.050	0.177	-7.303	0.000	

Test for heterogeneity: Q= 13.073 on 5 degrees of freedom (p= 0.023)
Moment-based estimate of between studies variance = 0.271

Study	Weights Fixed	Weights Random	Study Est	95% CI Lower	95% CI Upper
Grant '12	1.98	1.29	0.11	0.03	0.42
Iwata '13	0.07	0.06	0.00	0.00	0.00
Kawamura '11	1.10	0.85	0.08	0.01	0.54
Vesikari '06	1.27	0.94	0.10	0.02	0.58
Vesikari '07	17.90	3.06	0.10	0.06	0.15
Vesikari '12	33.15	3.32	0.11	0.08	0.16

Appendix:

Supplemental Figure 5: Severe Rotavirus Diarrhea: Vaccine Efficacy, East Asia/ SE Asia



Meta-analysis (exponential form)

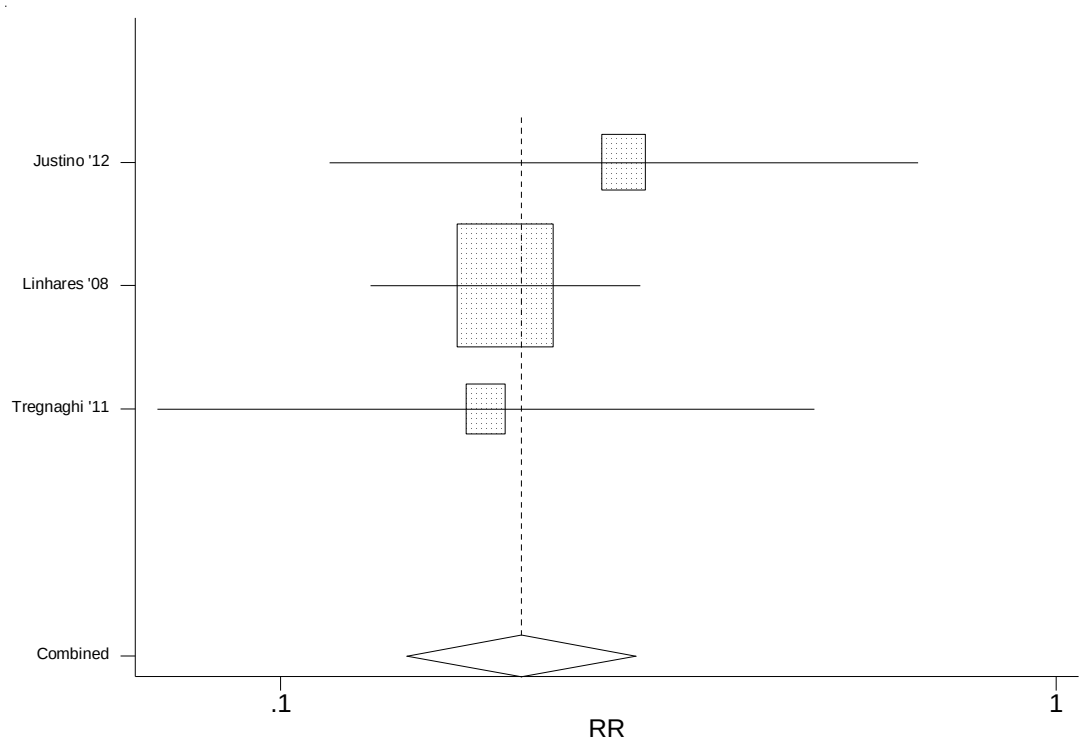
Method	Pooled Est	95% CI Lower	95% CI Upper	Asymptotic z_value	Asymptotic p_value	No. of studies
Fixed	0.210	0.137	0.324	-7.070	0.000	5
Random	0.116	0.041	0.329	-4.056	0.000	

Test for heterogeneity: Q= 12.216 on 4 degrees of freedom (p= 0.016)
Moment-based estimate of between studies variance = 0.843

Study	Weights Fixed	Weights Random	Study Est	95% CI Lower	95% CI Upper
Lau '13	0.52	0.36	0.04	0.00	0.60
Li '13	14.51	1.10	0.28	0.17	0.47
Phua '09	1.33	0.63	0.04	0.01	0.21
Phua '12	1.35	0.63	0.03	0.01	0.17
Zaman '10	2.86	0.84	0.36	0.11	1.15b

Appendix:

Supplemental Figure 6: Severe Rotavirus Diarrhea: Vaccine Efficacy, Latin America and the Caribbean



Meta-analysis (exponential form)

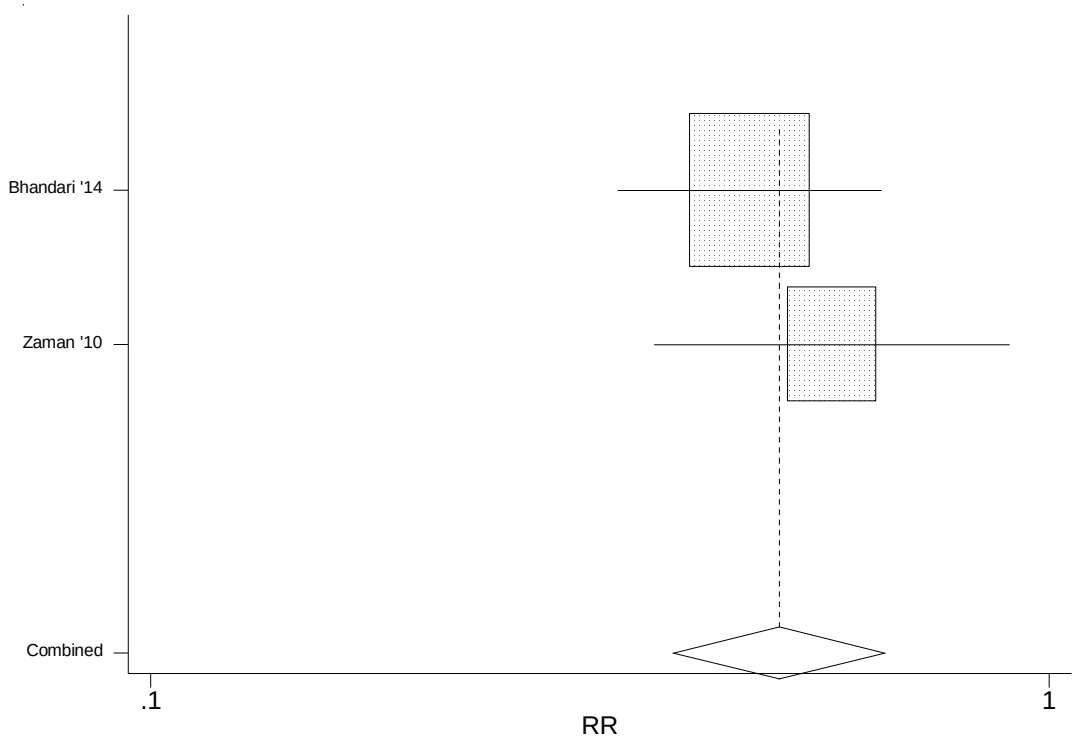
Method	Pooled Est	95% CI Lower	95% CI Upper	Asymptotic z_value	Asymptotic p_value	No. of studies
Fixed	0.204	0.145	0.287	-9.141	0.000	3
Random	0.204	0.145	0.287	-9.141	0.000	

Test for heterogeneity: Q= 0.563 on 2 degrees of freedom (p= 0.754)
Moment-based estimate of between studies variance = 0.000

Study	Weights Fixed	Weights Random	Study Est	95% CI Lower	95% CI Upper
Justino '12	5.04	5.04	0.28	0.12	0.66
Linhares '08	24.03	24.03	0.19	0.13	0.29
Tregnaghi '11	4.05	4.05	0.18	0.07	0.49

Appendix:

Supplemental Figure 7: Severe Rotavirus Diarrhea: Vaccine Efficacy, South Asia



Meta-analysis (exponential form)

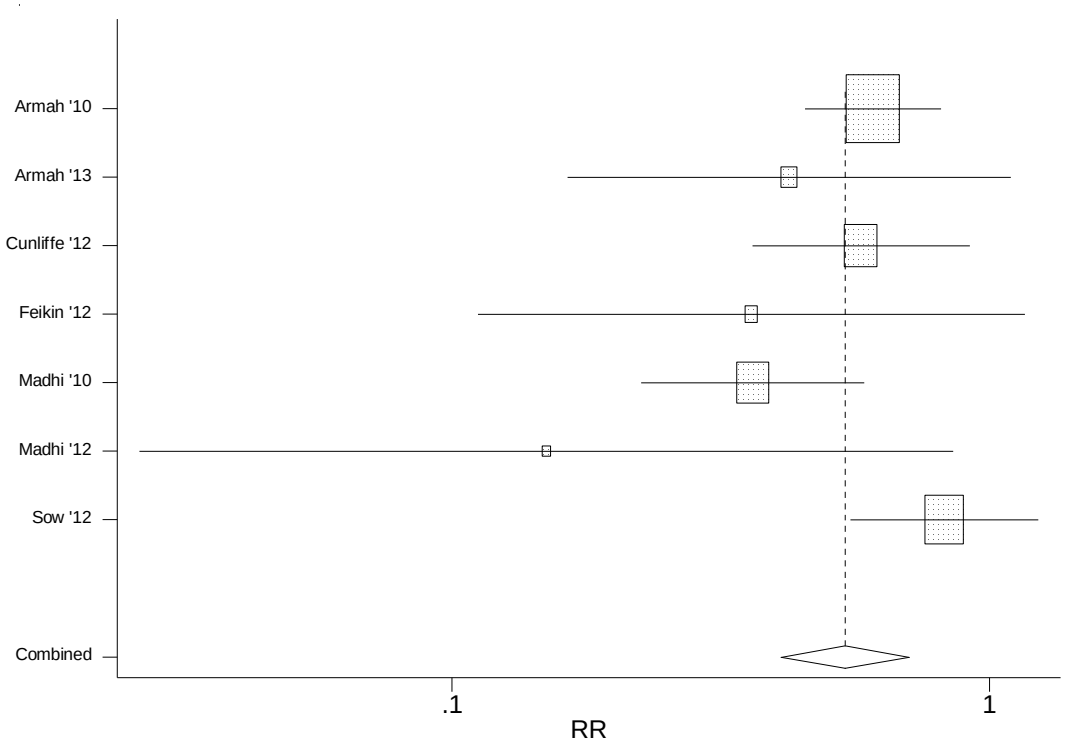
Method	Pooled Est	95% CI Lower	95% CI Upper	Asymptotic z_value	Asymptotic p_value	No. of studies
Fixed	0.500	0.381	0.656	-5.013	0.000	2
Random	0.500	0.381	0.656	-5.013	0.000	

Test for heterogeneity: Q= 0.534 on 1 degrees of freedom (p= 0.465)
Moment-based estimate of between studies variance = 0.000

Study	Weights Fixed	Weights Random	Study Est	95% CI Lower	95% CI Upper
Bhandari '14	33.74	33.74	0.46	0.33	0.65
Zaman '10	18.59	18.59	0.57	0.36	0.90

Appendix:

Supplemental Figure 8: Severe Rotavirus Diarrhea: Vaccine Efficacy, Sub Saharan Africa



Meta-analysis (exponential form)

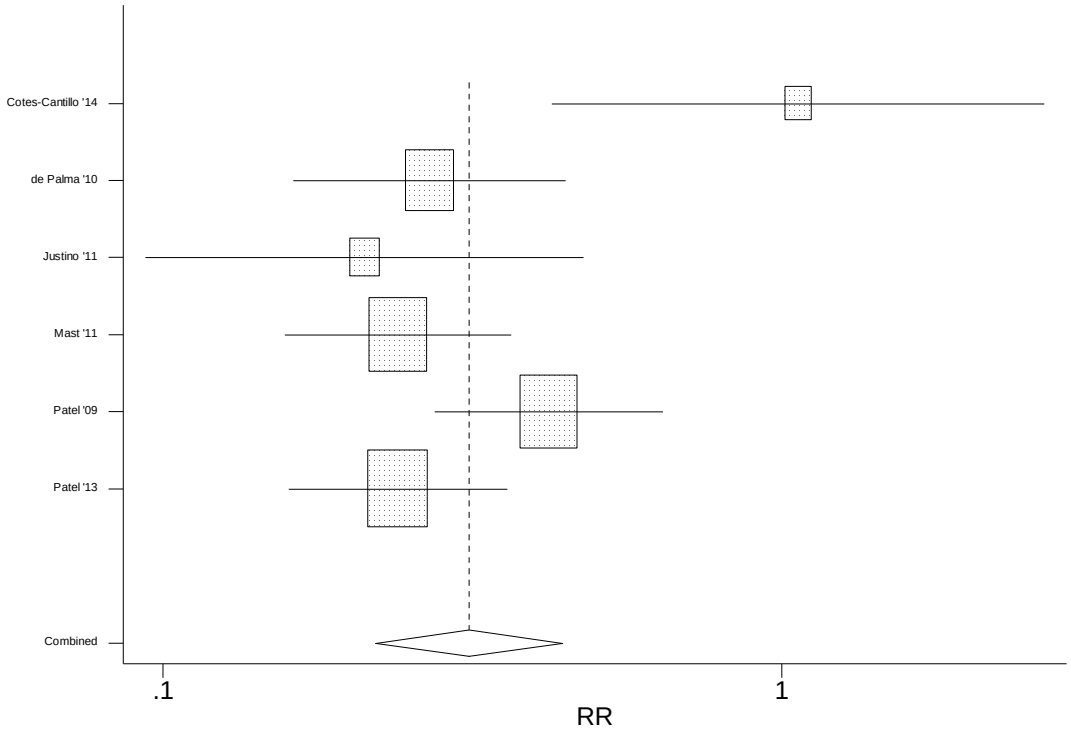
Method	Pooled Est	95% CI Lower	95% CI Upper	Asymptotic z_value	Asymptotic p_value	No. of studies
Fixed	0.570	0.474	0.686	-5.963	0.000	7
Random	0.539	0.409	0.709	-4.422	0.000	

Test for heterogeneity: Q= 10.072 on 6 degrees of freedom (p= 0.122)
Moment-based estimate of between studies variance = 0.049

Study	Weights Fixed	Weights Random	Study Est	95% CI Lower	95% CI Upper
Armah '10	45.69	14.13	0.61	0.45	0.81
Armah '13	4.27	3.53	0.42	0.16	1.09
Cunliffe '12	17.78	9.51	0.58	0.36	0.92
Feikin '12	2.81	2.47	0.36	0.11	1.16
Madhi '10	16.90	9.26	0.36	0.23	0.58
Madhi '12	1.27	1.19	0.15	0.03	0.86
Sow '12	23.77	10.99	0.82	0.55	1.23

Appendix:

Supplemental Figure 9: Severe Rotavirus Diarrhea: Vaccine Effectiveness, Latin America & Caribbean



Meta-analysis (exponential form)

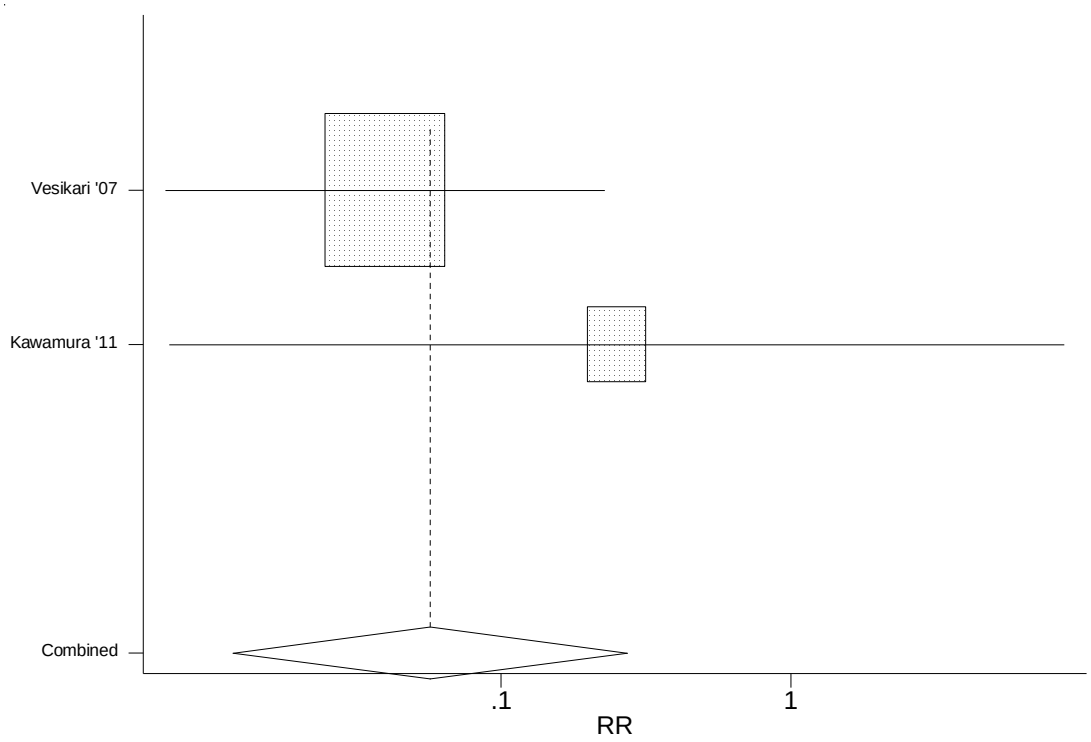
Method	Pooled Est	95% CI Lower	95% CI Upper	Asymptotic z_value	Asymptotic p_value	No. of studies
Fixed	0.298	0.243	0.365	-11.621	0.000	6
Random	0.312	0.221	0.442	-6.576	0.000	

Test for heterogeneity: Q= 12.884 on 5 degrees of freedom (p= 0.024)
Moment-based estimate of between studies variance = 0.108

Study	Weights Fixed	Weights Random	Study Est	95% CI Lower	95% CI Upper
Cotes-Cantillo '14	4.59	3.07	1.06	0.43	2.65
de Palma '10	15.02	5.72	0.27	0.16	0.45
Justino '11	5.79	3.56	0.21	0.09	0.48
Mast '11	21.86	6.50	0.24	0.16	0.36
Patel '09	21.40	6.46	0.42	0.27	0.64
Patel '13	23.37	6.62	0.24	0.16	0.36

Appendix:

Supplemental Figure 10: Rotavirus Hospitalizations: Vaccine Efficacy, Developed



Meta-analysis (exponential form)

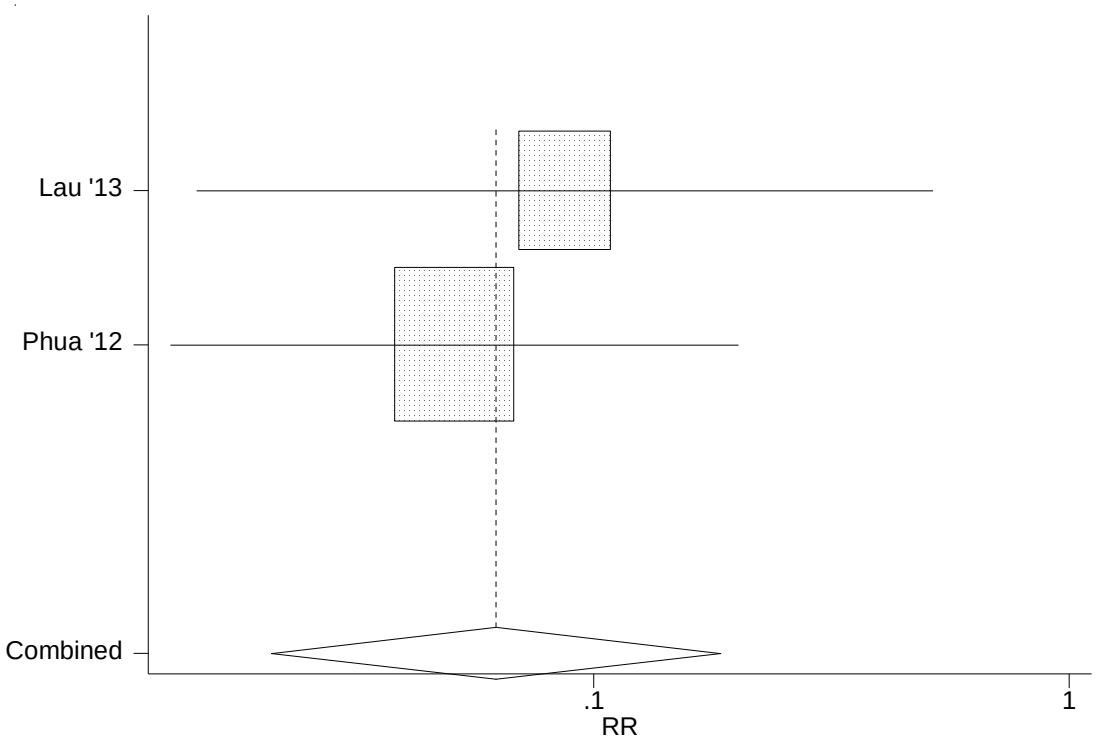
Method	Pooled Est	95% CI Lower	95% CI Upper	Asymptotic z_value	Asymptotic p_value	No. of studies
Fixed	0.057	0.012	0.272	-3.594	0.000	2
Random	0.057	0.012	0.272	-3.594	0.000	

Test for heterogeneity: Q= 0.830 on 1 degrees of freedom (p= 0.362)
Moment-based estimate of between studies variance = 0.000

Study	Weights Fixed	Weights Random	Study Est	95% CI Lower	95% CI Upper
Vesikari '07	1.27	1.27	0.04	0.01	0.23
Kawamura '11	0.31	0.31	0.25	0.01	8.71

Appendix:

Supplemental Figure 11: Rotavirus Hospitalizations: Vaccine Efficacy, East Asia/ SE Asia



Meta-analysis (exponential form)

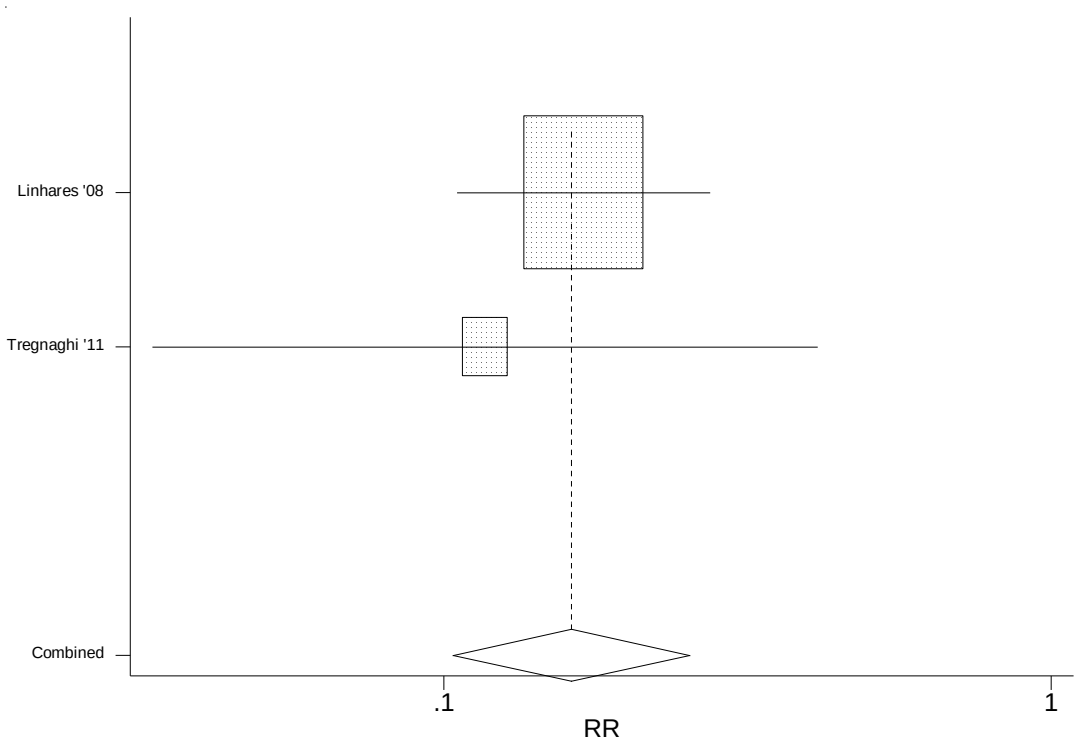
Method	Pooled Est	95% CI Lower	95% CI Upper	Asymptotic z_value	Asymptotic p_value	No. of studies
Fixed	0.062	0.021	0.185	-5.003	0.000	2
Random	0.062	0.021	0.185	-5.003	0.000	

Test for heterogeneity: Q= 0.216 on 1 degrees of freedom (p= 0.642)
Moment-based estimate of between studies variance = 0.000

Study	Weights Fixed	Weights Random	Study Est	95% CI Lower	95% CI Upper
Lau '13	1.21	1.21	0.09	0.01	0.52
Phua '12	2.04	2.04	0.05	0.01	0.20

Appendix:

Supplemental Figure 12: Rotavirus Hospitalizations: Vaccine Efficacy, Latin America & Caribbean



Meta-analysis (exponential form)

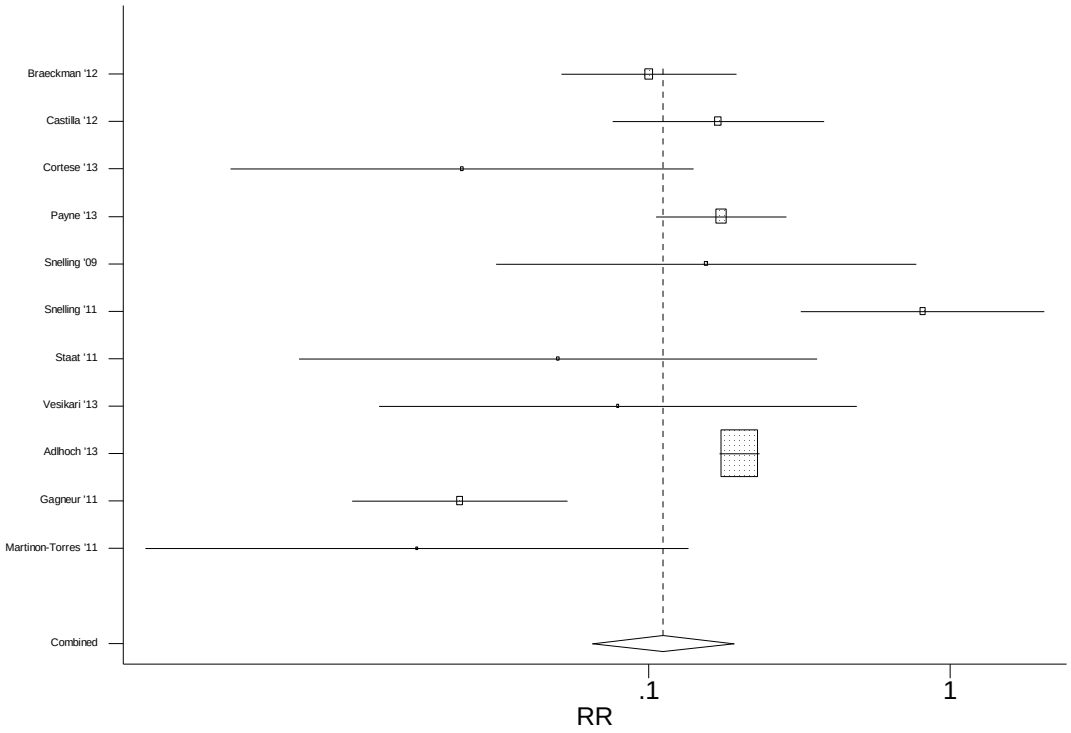
Method	Pooled Est	95% CI Lower	95% CI Upper	Asymptotic z_value	Asymptotic p_value	No. of studies
Fixed	0.162	0.104	0.254	-7.950	0.000	2
Random	0.162	0.104	0.254	-7.950	0.000	

Test for heterogeneity: Q= 0.295 on 1 degrees of freedom (p= 0.587)
Moment-based estimate of between studies variance = 0.000

Study	Weights Fixed	Weights Random	Study Est	95% CI Lower	95% CI Upper
Linhares '08	16.67	16.67	0.17	0.11	0.27
Tregnaghi '11	2.42	2.42	0.12	0.03	0.41

Appendix:

Supplemental Figure 13: Rotavirus Hospitalizations: Vaccine Effectiveness, Developed



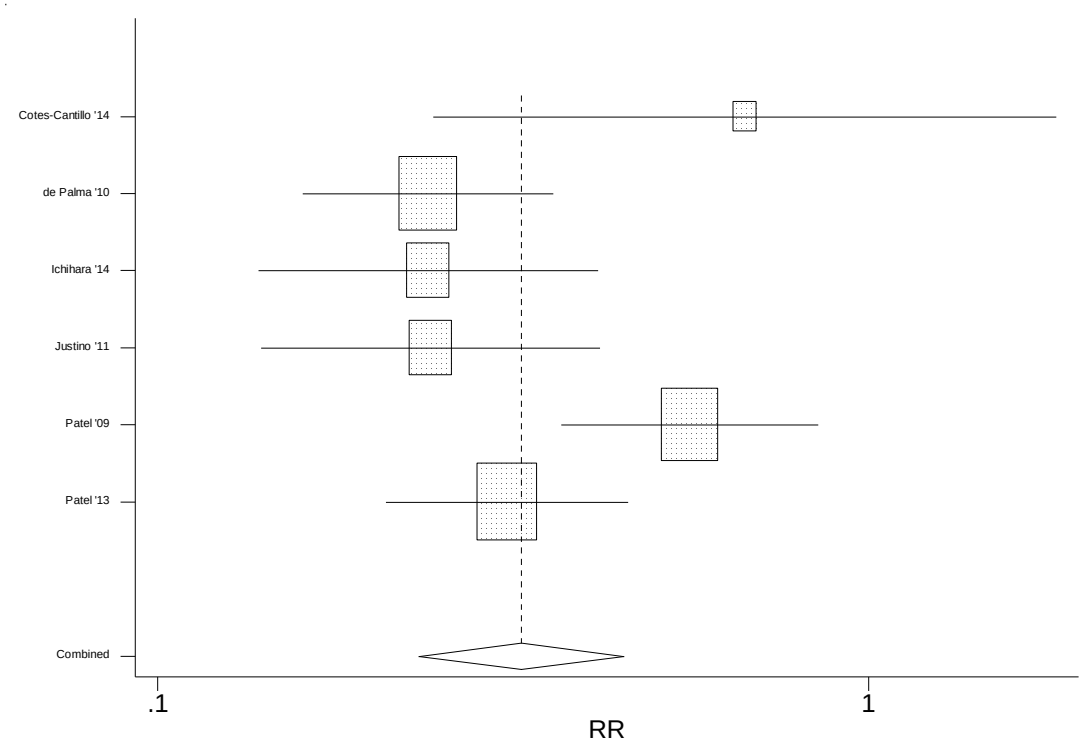
Meta-analysis (exponential form)

Method	Pooled Est	95% CI Lower	95% CI Upper	Asymptotic z_value	Asymptotic p_value	No. of studies
Fixed	0.180	0.157	0.206	-25.110	0.000	11
Random	0.111	0.065	0.191	-7.979	0.000	

Test for heterogeneity: Q= 50.823 on 10 degrees of freedom (p= 0.000)
Moment-based estimate of between studies variance = 0.508

Appendix:

Supplemental Figure 14: Rotavirus Hospitalizations: Vaccine Effectiveness, Latin America & Caribbean



Meta-analysis (exponential form)

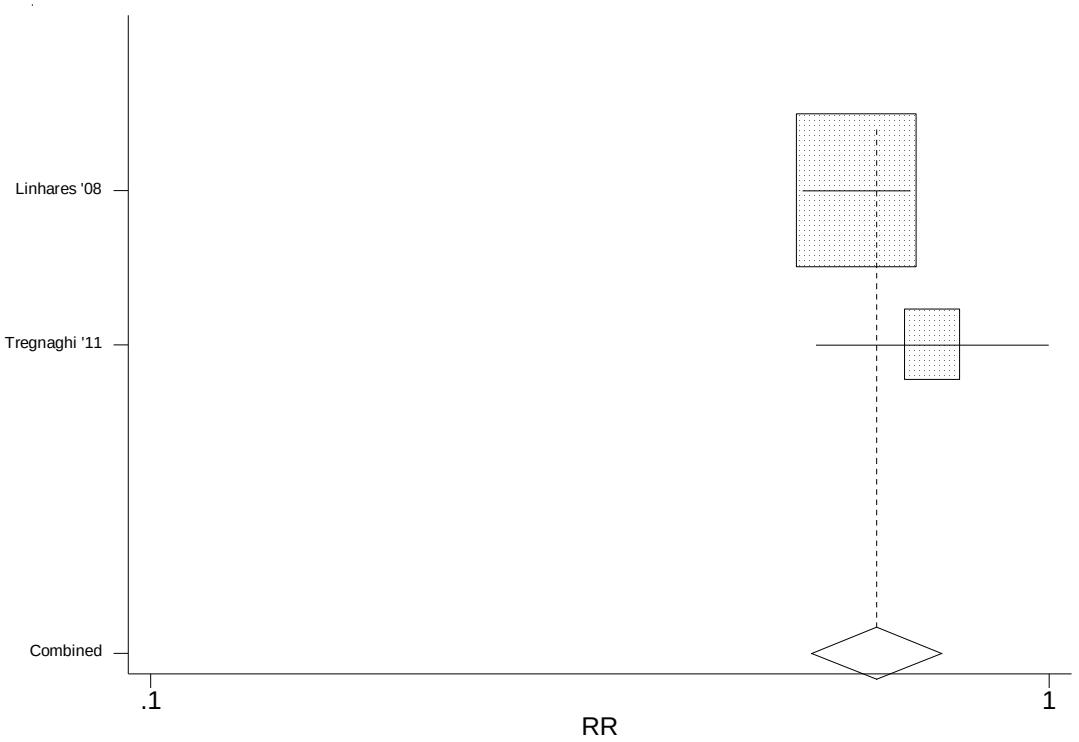
Method	Pooled Est	95% CI Lower	95% CI Upper	Asymptotic z_value	Asymptotic p_value	No. of studies
Fixed	0.321	0.264	0.391	-11.340	0.000	6
Random	0.324	0.233	0.452	-6.653	0.000	

Test for heterogeneity: Q= 13.018 on 5 degrees of freedom (p= 0.023)
Moment-based estimate of between studies variance = 0.100

Study	Weights Fixed	Weights Random	Study Est	95% CI Lower	95% CI Upper
Cotes-Cantillo '14	3.77	2.74	0.67	0.24	1.83
de Palma '10	23.37	6.98	0.24	0.16	0.36
Ichihara '14	12.73	5.59	0.24	0.14	0.42
Justino '11	12.79	5.60	0.24	0.14	0.42
Patel '09	22.21	6.87	0.56	0.37	0.85
Patel '13	24.99	7.12	0.31	0.21	0.46

Appendix:

Supplemental Figure 15: Severe Non-specific Diarrhea: Vaccine Efficacy, Latin America & Caribbean



Meta-analysis (exponential form)

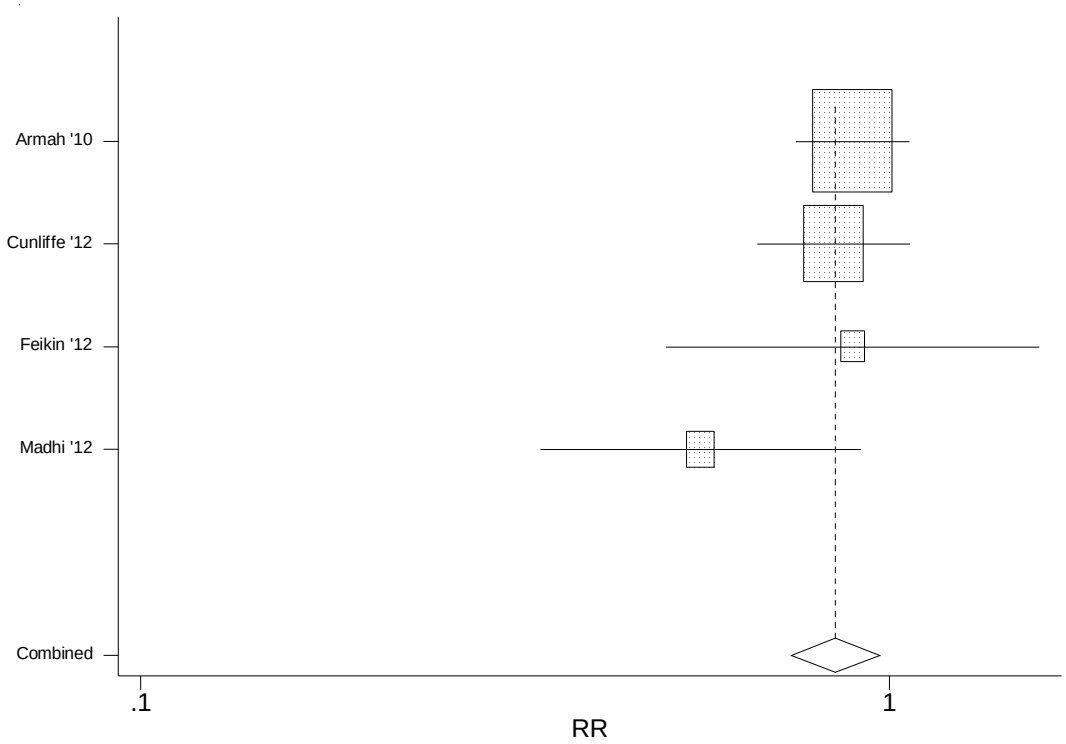
Method	Pooled Est	95% CI Lower	95% CI Upper	Asymptotic z_value	Asymptotic p_value	No. of studies
Fixed	0.631	0.557	0.715	-7.227	0.000	2
Random	0.642	0.543	0.759	-5.197	0.000	

Test for heterogeneity: Q= 1.353 on 1 degrees of freedom (p= 0.245)
Moment-based estimate of between studies variance = 0.005

Study	Weights Fixed	Weights Random	Study Est	95% CI Lower	95% CI Upper
Linhares '08	203.35	101.48	0.61	0.53	0.70
Tregnaghi '11	43.37	35.72	0.74	0.55	1.00

Appendix:

Supplemental Figure 16: Severe Non-specific Diarrhea: Vaccine Efficacy, Sub Saharan Africa



Meta-analysis (exponential form)

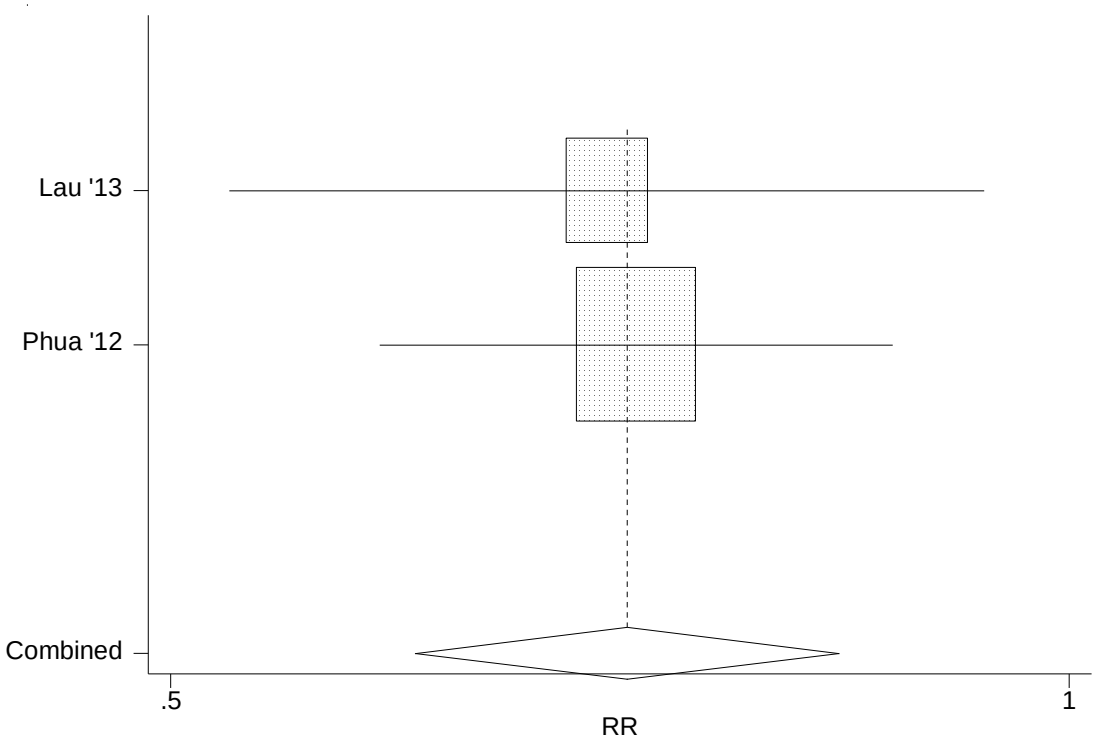
Method	Pooled Est	95% CI Lower	95% CI Upper	Asymptotic z_value	Asymptotic p_value	No. of studies
Fixed	0.849	0.745	0.968	-2.450	0.014	4
Random	0.847	0.739	0.971	-2.390	0.017	

Test for heterogeneity: Q= 3.118 on 3 degrees of freedom (p= 0.374)
Moment-based estimate of between studies variance = 0.001

Study	Weights Fixed	Weights Random	Study Est	95% CI Lower	95% CI Upper
Armah '10	126.60	113.54	0.89	0.75	1.06
Cunliffe '12	70.46	66.22	0.84	0.67	1.06
Feikin '12	11.68	11.55	0.89	0.50	1.59
Madhi '12	15.85	15.63	0.56	0.34	0.92

Appendix:

Supplemental Figure 17: Severe Non-specific Hospitalization: Vaccine Efficacy, East Asia/ SE Asia



Meta-analysis (exponential form)

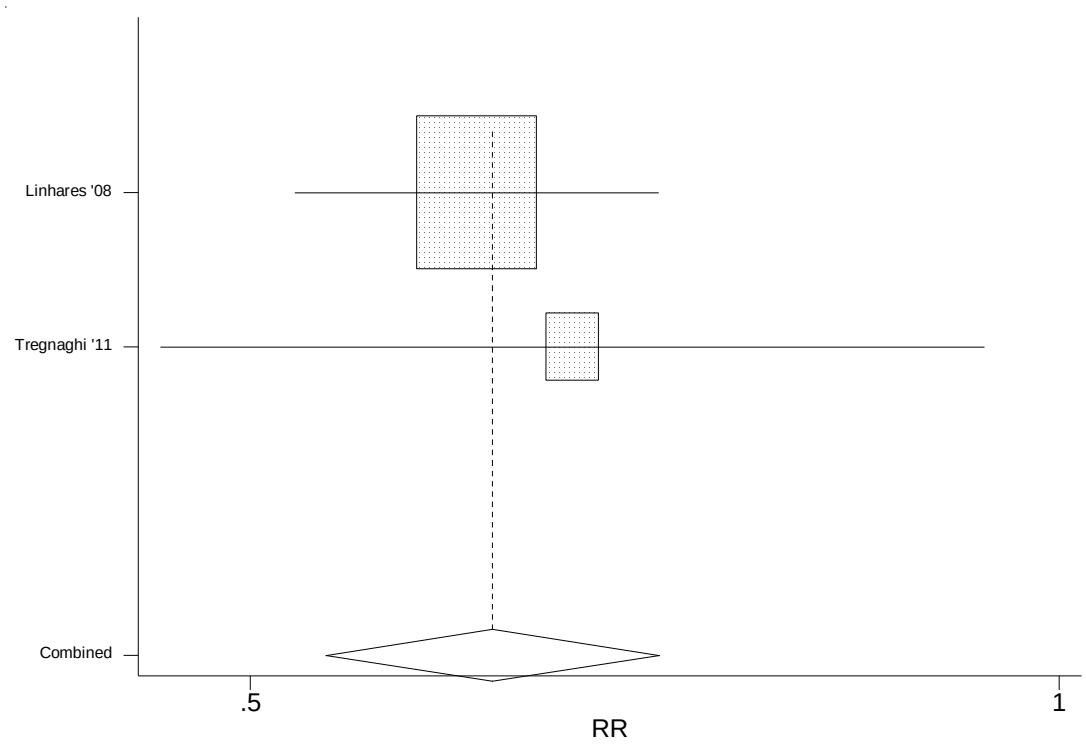
Method	Pooled Est	95% CI Lower	95% CI Upper	Asymptotic z_value	Asymptotic p_value	No. of studies
Fixed	0.711	0.604	0.837	-4.088	0.000	2
Random	0.711	0.604	0.837	-4.088	0.000	

Test for heterogeneity: Q= 0.016 on 1 degrees of freedom (p= 0.900)
Moment-based estimate of between studies variance = 0.000

Study	Weights Fixed	Weights Random	Study Est	95% CI Lower	95% CI Upper
Lau '13	45.39	45.39	0.70	0.52	0.94
Phua '12	98.10	98.10	0.72	0.59	0.87

Appendix:

Supplemental Figure 18: Severe Non-specific Hospitalization: Vaccine Efficacy, Latin America & Caribbean



Meta-analysis (exponential form)

Method	Pooled Est	95% CI Lower	95% CI Upper	Asymptotic z_value	Asymptotic p_value	No. of studies
Fixed	0.615	0.533	0.710	-6.674	0.000	2
Random	0.615	0.533	0.710	-6.674	0.000	

Test for heterogeneity: Q= 0.174 on 1 degrees of freedom (p= 0.676)
Moment-based estimate of between studies variance = 0.000

Study	Weights Fixed	Weights Random	Study Est	95% CI Lower	95% CI Upper
Linhares '08	157.90	157.90	0.61	0.52	0.71
Tregnaghi '11	30.83	30.83	0.66	0.46	0.94