

APPENDIX

Supplementary material

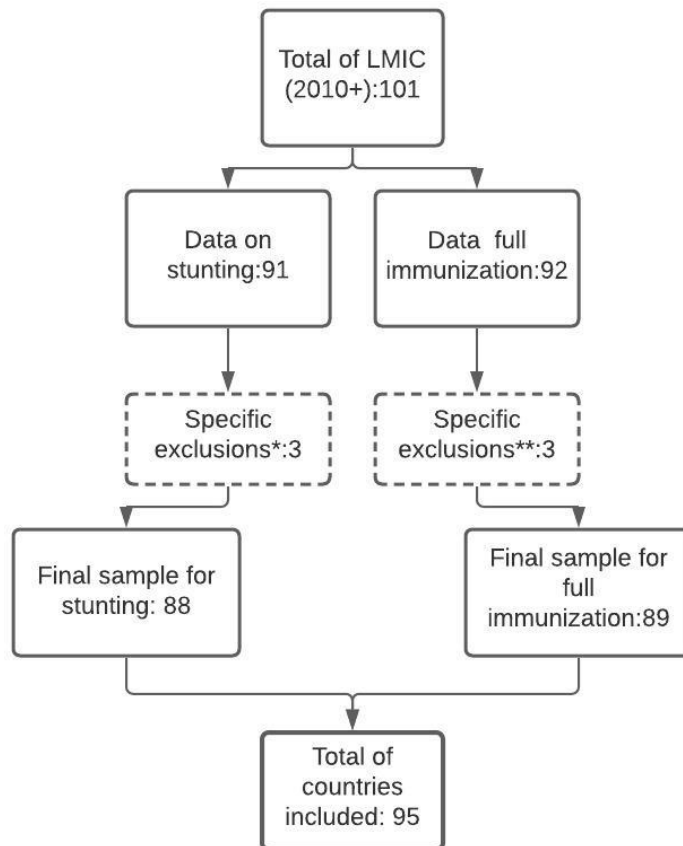


Figure A1. Survey selection flowchart

**Exclusions from analyses of stunting: Barbados, Kazakhstan and Saint Lucia*

***Exclusions from analyses of full immunization: Cuba, Kosovo and Ukraine*

Table A1. Countries included in article, year of survey, percentage of female headed household and number of children with information for stunting and full immunization.

Country	Year	FHH (any male)	FHH (no male)	N of children with information for stunting	N of children with information for full immunization
Afghanistan	2015	0.8%	0.9%		5772
Albania	2017	6.2%	11.1%	2578	
Algeria	2012	7.6%	2.9%	13726	2832
Angola	2015	11.4%	23.1%	7601	2819
Armenia	2015	15.8%	17.3%	1585	343
Bangladesh	2014	3.9%	8.6%	6636	1421
Belize	2015	15.5%	17.5%	2418	503
Benin	2017	6.6%	18.3%	13065	2477
Bhutan	2010	21.1%	6.8%	5838	
Bosnia_and_Herzegovina	2011	7.9%	11.0%	2153	516
Burkina_Faso	2010	2.5%	7.4%	6891	2760

Burundi	2016	6.7%	22.0%	6336	2578
CAR	2010	5.7%	16.2%	10243	2109
Cambodia	2014	17.1%	9.7%	4869	1425
Cameroon	2018	8.4%	17.6%	4930	1726
Chad	2014	5.9%	16.2%	10947	2849
Colombia	2010	17.3%	16.7%	17824	3435
Comoros	2012	25.8%	13.4%	2862	627
Congo_Brazzaville	2014	6.5%	18.3%	8729	1773
Congo_Democratic_Republic	2017	8.2%	20.3%	20885	4251
Costa_Rica	2011	20.5%	16.0%		449
Cote_d'Ivoire	2016	4.8%	12.7%	8949	1784
Dominican_Republic	2013	21.2%	18.7%	3573	691
Egypt	2014	5.2%	7.8%	13956	3036
El_Salvador	2014	18.6%	16.0%	7225	1504
Eswatini	2014	16.4%	29.2%	2638	540
Ethiopia	2016	8.2%	17.2%	9542	1896
Gabon	2012	10.0%	20.0%	4090	1167
Gambia	2018	10.4%	11.0%	9718	1895
Georgia	2018	15.9%	16.1%	2022	

Ghana	2017	10.2%	23.2%	8797	1681
Guatemala	2014	9.8%	15.3%	12120	2371
Guinea	2018	7.0%	11.7%	4005	1392
Guinea_Bissau	2014	12.6%	10.1%	7523	1591
Guyana	2014	17.6%	16.8%	2997	688
Haiti	2016	23.9%	21.1%	6680	1174
Honduras	2011	13.3%	14.7%	10626	2206
India	2015	7.5%	7.1%	228392	46583
Indonesia	2017	6.0%	8.9%		3407
Iraq	2018	6.0%	3.0%	16355	3205
Jamaica	2011	23.0%	23.2%		314
Jordan	2012	6.3%	6.6%	6181	1940
Kazakhstan	2015	17.9%	18.1%		1103
Kenya	2014	8.8%	23.4%	20394	3951
Kiribati	2018	20.2%	6.3%	2143	453
Kosovo	2013	8.9%	4.8%	1510	
Kyrgyzstan	2018	13.1%	16.2%	3436	643
Lao	2017	7.6%	6.4%	11346	2215
Lesotho	2018	18.1%	23.0%	3141	667

Liberia	2013	19.4%	15.8%	3817	1402
Madagascar	2018	7.3%	14.9%	12444	2590
Malawi	2015	9.1%	21.6%	5704	3227
Maldives	2016	30.6%	13.7%	2509	585
Mali	2018	6.0%	11.4%	9476	1940
Mauritania	2015	15.4%	22.3%	10058	2131
Mexico	2015	13.2%	13.3%	7855	1536
Moldova	2012	10.7%	25.3%	1669	386
Mongolia	2018	8.2%	13.3%	5932	1077
Montenegro	2013	7.7%	13.6%	1366	266
Mozambique	2011	11.6%	23.9%	10400	2197
Myanmar	2015	10.3%	12.2%	4537	891
Namibia	2013	18.5%	25.5%	2603	963
Nepal	2016	9.3%	22.0%	2288	952
Niger	2012	2.4%	13.5%	5336	2145
Nigeria	2018	3.8%	14.2%	12198	5982
North_Macedonia	2011	7.7%	8.3%	1317	282
Pakistan	2017	5.5%	6.9%	3396	1844
Panama	2013	16.9%	15.0%		1323

Papua_New_Guinea	2016	7.0%	10.4%	4094	1792
Paraguay	2016	26.2%	12.5%	4419	1012
Peru	2018	13.2%	15.5%	22188	4403
Philippines	2017	11.0%	9.7%		1958
Rwanda	2014	9.1%	21.9%	3787	1516
Sao_Tome_and_Principe	2014	8.5%	26.3%	1944	391
Senegal	2017	17.5%	12.8%	11696	2312
Serbia	2014	13.0%	15.5%	2406	524
Sierra_Leone	2017	13.6%	17.7%	11399	2289
South_Africa	2016	17.0%	25.6%	1451	643
South_Sudan	2010	19.3%	22.7%	6073	1683
State_of_Palestine	2014	3.4%	5.8%	6939	1538
Sudan	2014	6.0%	8.2%	12422	2641
Suriname	2018	25.2%	15.4%	3390	
Tajikistan	2017	13.6%	7.2%	5864	1259
Tanzania	2015	8.4%	16.1%	9820	2067
Thailand	2015	22.2%	15.0%	11208	2500
Timor_Leste	2016	7.3%	10.2%	6612	1410
Togo	2017	6.8%	20.5%	4908	973

Tunisia	2018	6.6%	8.9%	3287	656
Turkey	2013	6.6%	8.3%	2688	
Turkmenistan	2015	16.7%	7.3%	3715	787
Uganda	2016	8.2%	22.8%	5137	2826
Vietnam	2010	16.0%	10.2%	3563	760
Yemen	2013	3.4%	4.4%	14137	2999
Zambia	2018	8.7%	18.1%	9446	1880
Zimbabwe	2019	11.5%	26.3%	5965	1153

Table A2. Distribution of household groups and N of countries with information for child outcomes for each region.

Region	MHH % (IQ interval)	FHH (any male) % (IQ interval)	FHH (no male) % (IQ interval)	Number of countries with information	
				Immunization	Stunting
	P<0.001	P<0.001	P<0.001		
West & Central Africa	75.1 (69.7 – 81.3)	7.6 (5.9 – 10.4)	16.2 (12.7 – 20.0)	22	22
Eastern & Southern Africa	66.7 (58.9 – 71.3)	10.2 (8.4 – 17.0)	22.8 (18.1 – 23.9)	18	18

Middle East & North Africa	88.3 (86.4 – 90.9)	6.0 (4.3 – 6.5)	6.2 (3.7 – 8.0)	8	8
Eastern Europe & Central Asia	77.4 (68.0 – 82.7)	11.8 (7.7 – 15.8)	12.4 (8.3 – 16.2)	10	13
South Asia	85.4 (68.7 – 87.5)	7.5 (3.9 – 21.1)	7.1 (6.8 – 13.7)	6	6
East Asia & the Pacific	78.5 (73.5 – 85.5)	10.3 (7.3 – 17.1)	10.2 (8.9 – 12.2)	11	9
Latin America & Caribbean	65.6 (60.1 – 71.3)	17.6 (13.3 – 23.0)	17.5 (15.0 – 17.5)	14	12

Table A3. Quintiles distribution for all countries and world regions according to household groups

	MHH	FHH (any male)	FHH (no male)
West Africa			
Q1	20.4 (19.7; 21.2)	15.0 (12.9; 17.1)	22.7 (18.7; 26.8)
Q2	19.7 (19.1; 20.4)	16.7 (15.4; 18.0)	19.7 (18.2; 21.3)
Q3	19.4 (19.0; 19.9)	19.2 (17.3; 21.0)	20.0 (18.0; 22.0)
Q4	20.0 (19.4; 20.6)	22.2 (20.4; 22.6)	20.8 (19.0; 22.6)
Q5	20.4 (19.4; 21.3)	26.9 (23.6; 30.2)	16.7 (14.4; 19.1)

Eastern & Southern Africa

Q1	17.8 (16.8; 18.7)	19.6 (18.3; 20.8)	24.8 (21.8; 27.9)
Q2	19.3 (18.5; 20.1)	19.3 (18.2; 20.5)	21.1 (19.5; 22.6)
Q3	19.7 (19.2; 20.1)	20.6 (19.8; 21.5)	18.4 (17.2; 19.6)
Q4	20.9 (19.9; 22.0)	19.5 (18.4; 20.7)	18.6 (16.7; 20.6)
Q5	22.3 (21.0; 23.5)	21.0 (18.7; 23.2)	17.0 (14.2; 19.8)

Middle East & North Africa

Q1	18.8 (17.5; 20.0)	18.6 (15.7; 21.5)	23.4 (19.0; 27.9)
Q2	19.6 (18.9; 20.3)	19.6 (16.5; 22.6)	21.0 (20.1; 21.9)
Q3	20.0 (19.5; 20.5)	19.3 (17.0; 21.5)	20.3 (16.6; 24.0)
Q4	20.3 (19.4; 21.1)	21.6 (18.7; 24.5)	19.5 (16.8; 22.2)
Q5	21.4 (20.6; 22.2)	21.0 (17.4; 24.6)	15.7 (13.0; 18.5)

Easter Europe & Central**Asia**

Q1	20.8 (19.9; 21.7)	18.1 (16.7; 19.6)	26.9 (19.9; 33.8)
Q2	19.6 (19.2; 20.0)	17.6 (16.0; 19.1)	16.8 (12.8; 20.9)
Q3	19.6 (19.3; 20.0)	18.9 (17.6; 20.2)	17.2 (12.9; 21.5)

Q4	19.8 (19.3; 20.2)	21.9 (20.4; 23.5)	17.4 (13.2; 21.6)
Q5	20.2 (19.4; 21.0)	23.5 (20.4; 26.5)	21.7 (11.9; 21.4)

South Asia

Q1	20.0 (19.2; 20.8)	14.4 (9.7; 19.0)	25.5 (18.1; 32.9)
Q2	19.7 (18.9; 20.5)	18.3 (15.5; 21.1)	21.9 (18.9; 25.0)
Q3	19.1 (18.5; 19.7)	19.9 (17.0; 22.8)	20.7(18.5; 22.8)
Q4	20.0 (19.0; 21.0)	22.1 (17.6; 26.5)	19.1 (14.3; 23.9)
Q5	21.2 (20.4; 22.0)	25.4 (17.6; 33.1)	12.8 (9.8; 15.8)

East Asia & the Pacific

Q1	21.4 (20.2; 22.7)	16.4 (13.6; 19.2)	26.8 (22.3; 31.2)
Q2	21.0 (20.1; 21.9)	18.3 (16.6; 20.0)	21.0 (19.4; 22.5)
Q3	20.1 (19.7; 20.6)	20.2 (18.9; 21.5)	19.5 (17.6; 21.5)
Q4	19.4 (18.6; 20.2)	21.5 (20.0; 22.7)	17.9 (15.7; 20.0)
Q5	18.0 (16.9; 19.1)	23.9 (20.8; 26.9)	14.9 (12.2; 17.6)

Latin America & Caribbean

Q1	20.7 (19.2; 22.2)	14.9 (13.3; 16.6)	18.4 (16.0; 20.7)
Q2	19.6 (19.1; 20.2)	19.7 (18.6; 20.9)	20.0 (18.9; 21.1)

Q3	19.2 (18.7; 19.8)	21.4 (20.6; 22.2)	22.2 (20.7; 23.7)
Q4	19.3 (18.8; 19.9)	23.1 (22.0; 24.2)	21.4 (19.7; 23.1)
Q5	21.1(20.3; 22.0)	20.8 (18.9; 22.8)	18.1 (16.1; 20.0)
All countries			
Q1	20.0 (19.5; 20.4)	16.7 (15.8; 17.6)	23.8(22.0; 25.5)
Q2	19.8 (19.5; 20.0)	18.3 (17.7; 19.0)	20.0 (19.2; 20.8)
Q3	19.6 (19.4; 19.8)	19.9 (19.3; 20.5)	19.7 (18.7; 20.6)
Q4	20.0 (19.7; 20.3)	21.7 (20.9; 22.4)	19.4 (18.4; 20.4)
Q5	20.7 (20.2; 21.2)	23.4 (22.1; 24.6)	17.1 (15.4; 18.8)

West & Central Africa

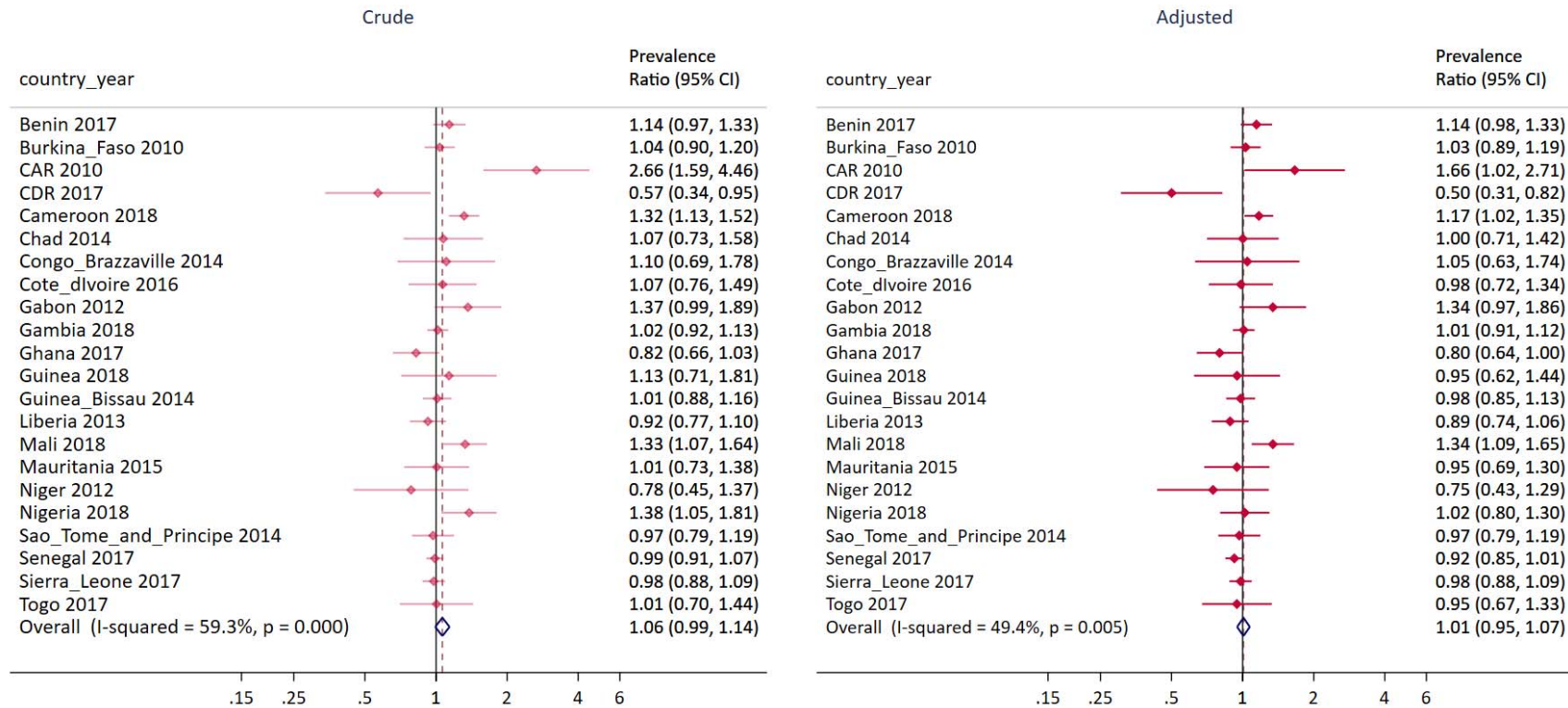


Figure A2. Crude and adjusted prevalence ratio for full immunization in FHH (any male) in West & Central Africa

Eastern & Southern Africa

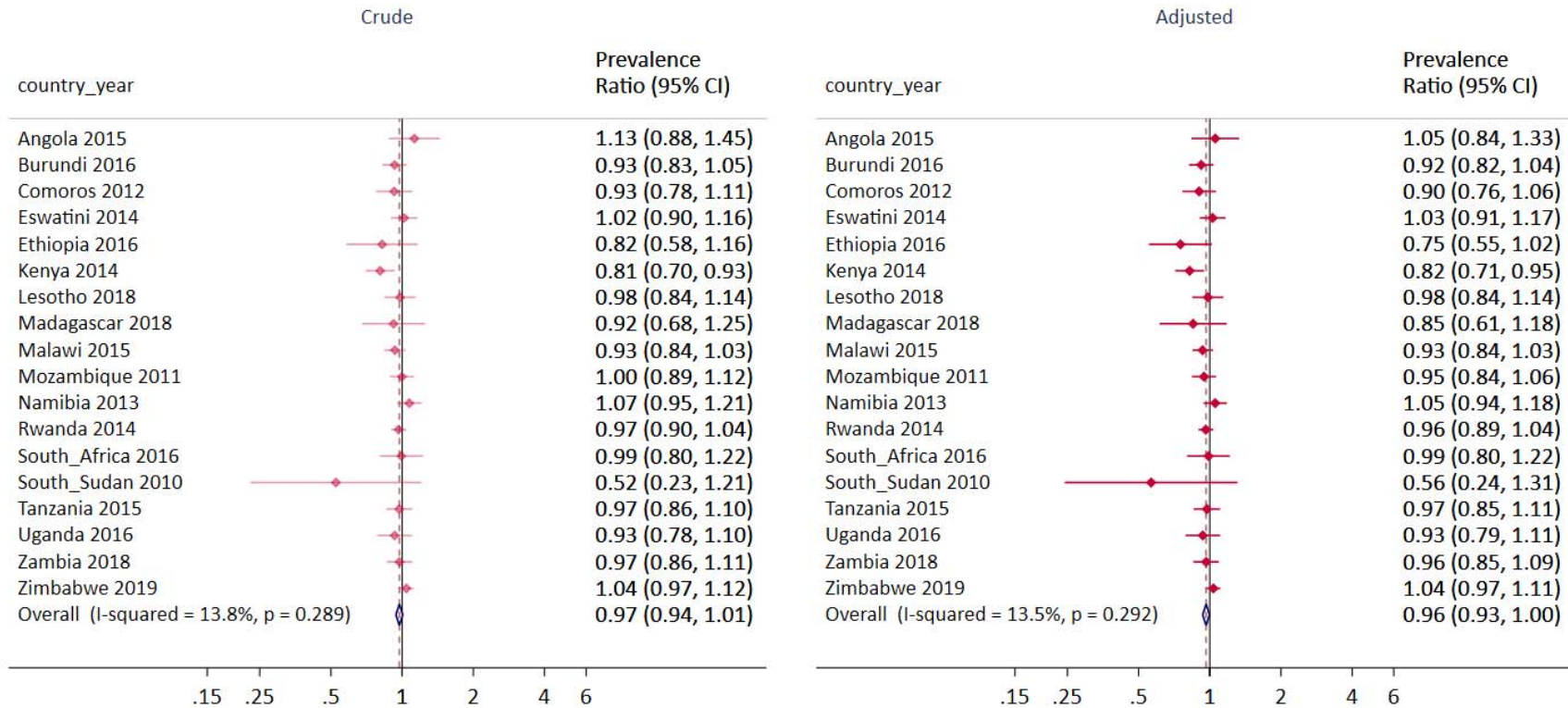


Figure A3. Crude and adjusted prevalence ratio for full immunization in FHH (any male) in Easter & Southern Africa

Middle East & North Africa

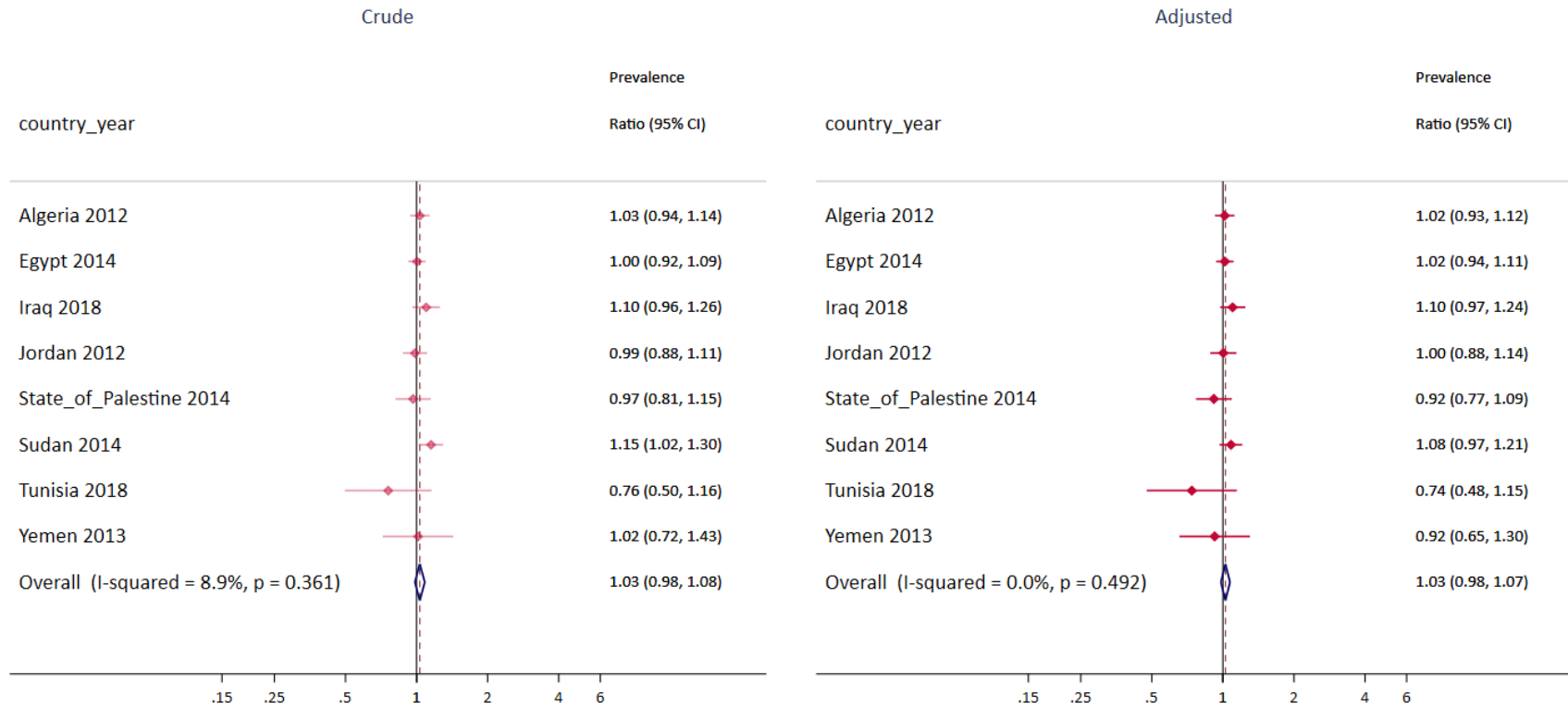


Figure A4. Crude and adjusted prevalence ratio for full immunization in FHH (any male) in Middle East & North Africa

Eastern Europe & Central Asia

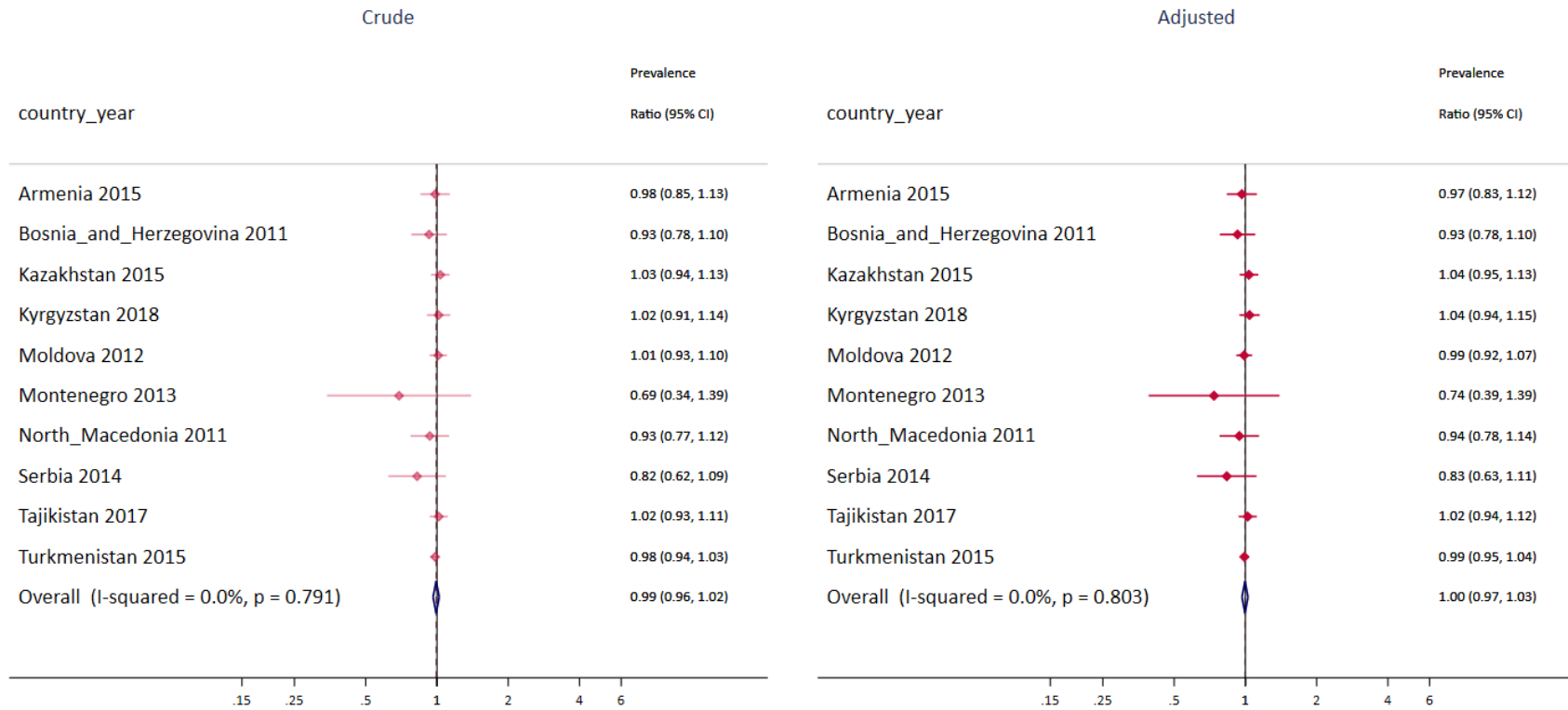


Figure A5. Crude and adjusted prevalence ratio for full immunization in FHH (any male) in Eastern Europe & Central Asia

South Asia

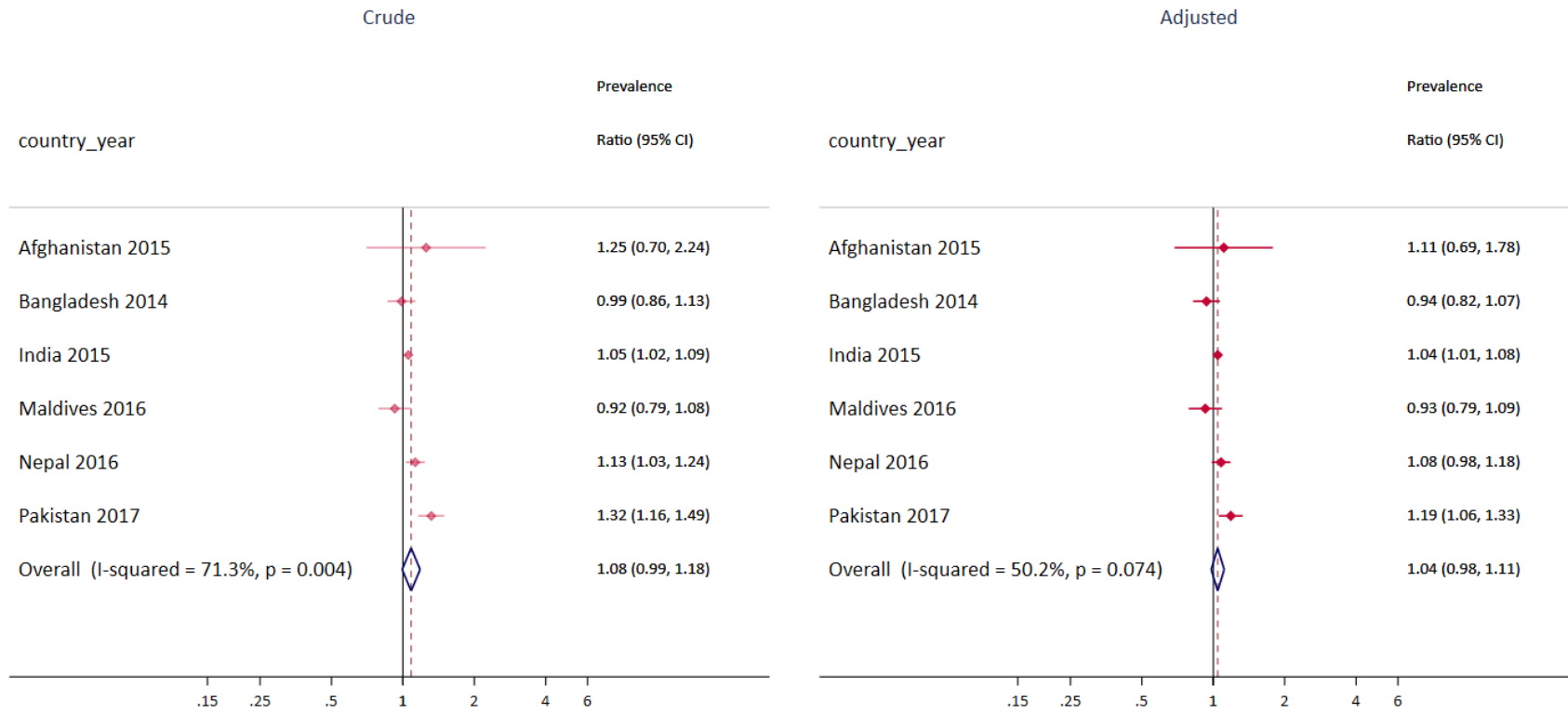


Figure A6. Crude and adjusted prevalence ratio for full immunization in FHH (any male) in South Asia

East Asia & Pacific

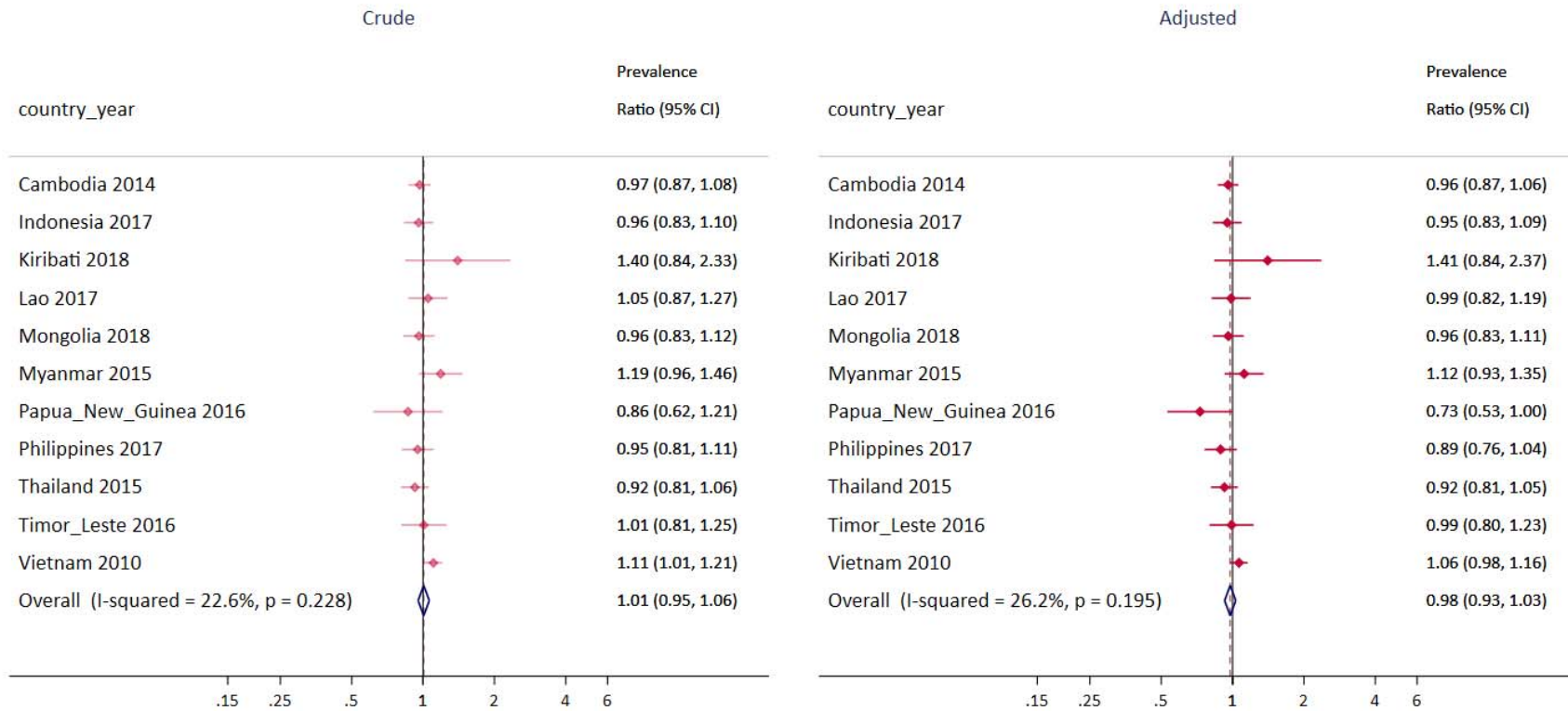


Figure A7. Crude and adjusted prevalence ratio for full immunization in FHH (any male) in East Asia & Pacific

Latin America & Caribbean

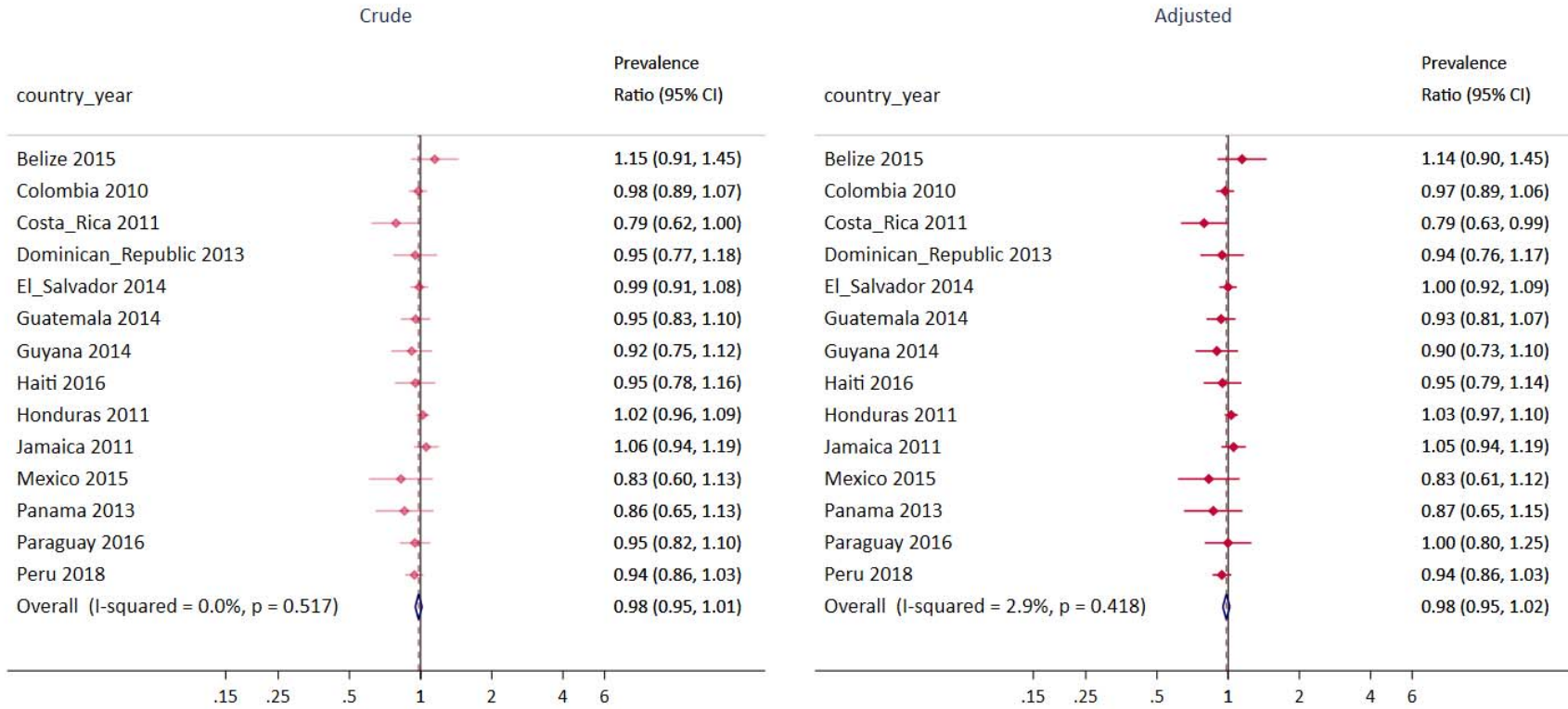


Figure A8. Crude and adjusted prevalence ratio for full immunization in FHH (any male) in Latin America & Caribbean

West & Central Africa

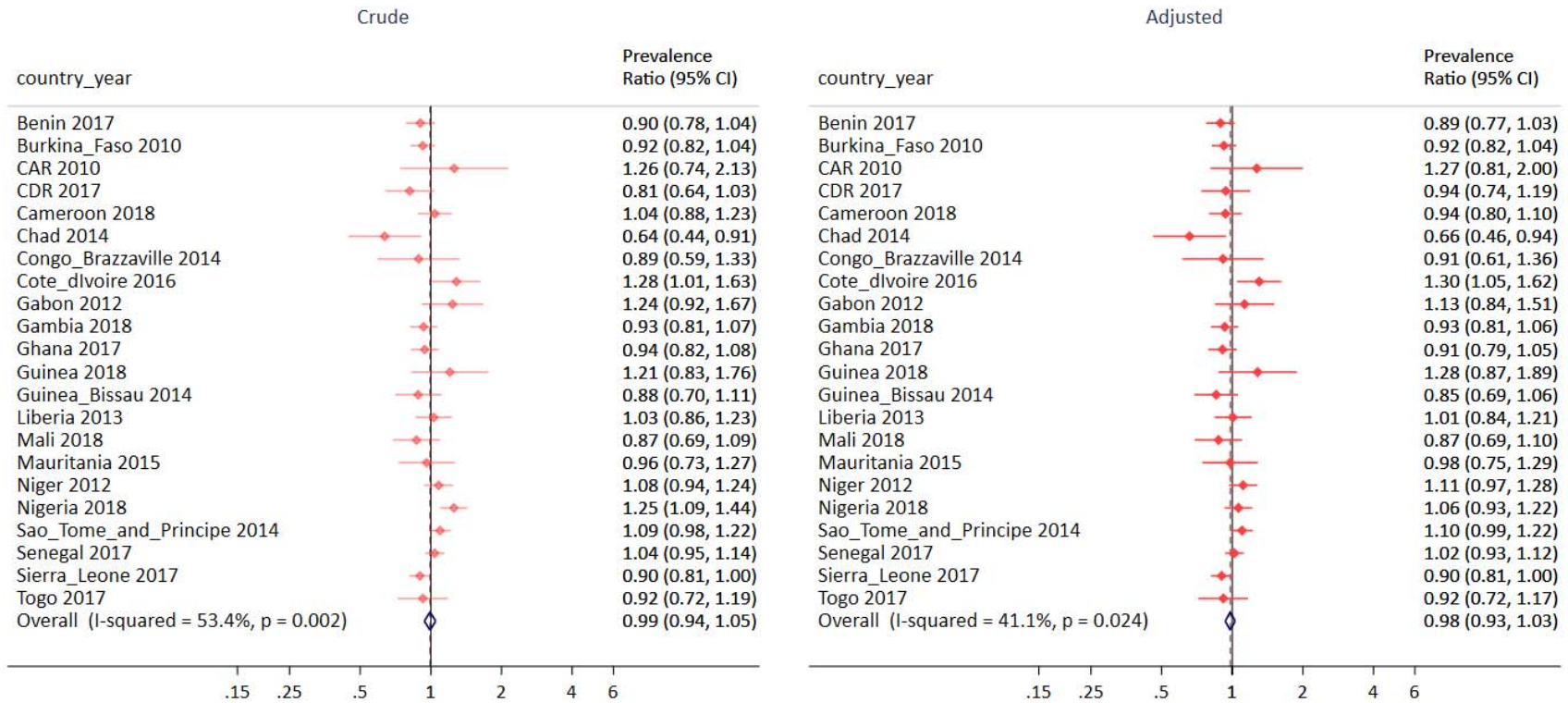


Figure A9. Crude and adjusted prevalence ratio for full immunization in FHH (no male) in West & Central Africa

Eastern & Southern Africa

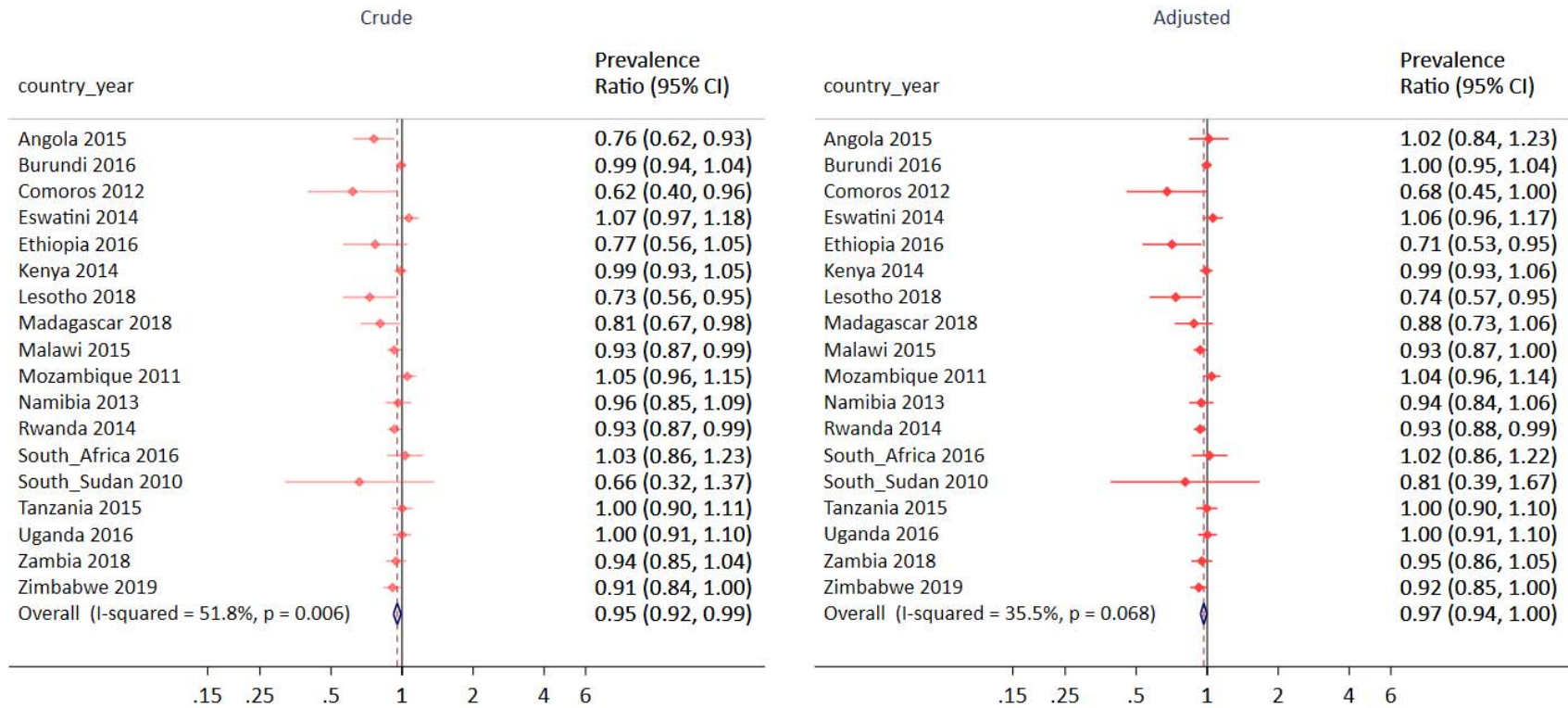


Figure A10. Crude and adjusted prevalence ratio for full immunization in FHH (no male) in Eastern & Southern Africa

Middle East & North Africa

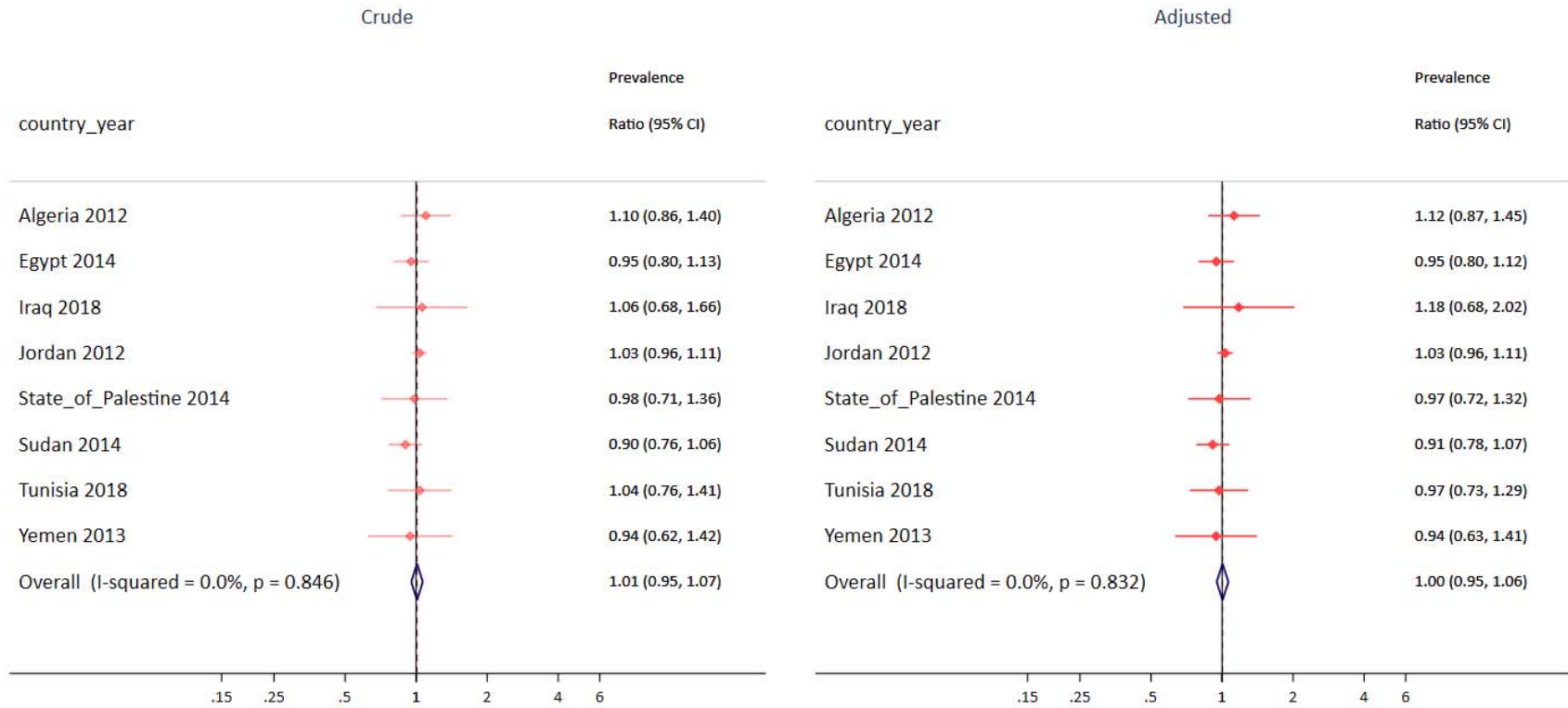


Figure A11. Crude and adjusted prevalence ratio for full immunization in FHH (no male) in Middle East & North Africa

Eastern Europe & Central Asia

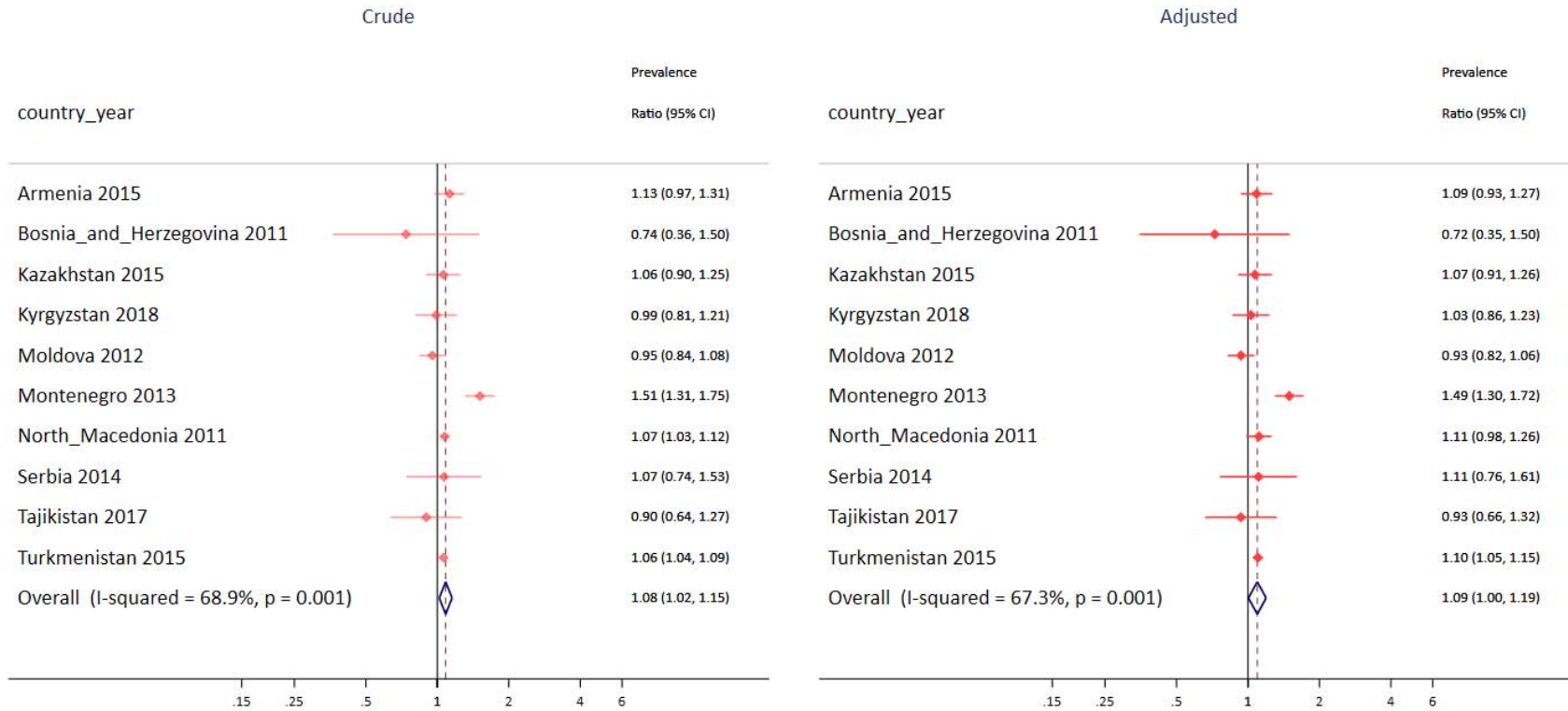


Figure A12. Crude and adjusted prevalence ratio for full immunization in FHH (no male) in Eastern Europe & Central Asia

South Asia

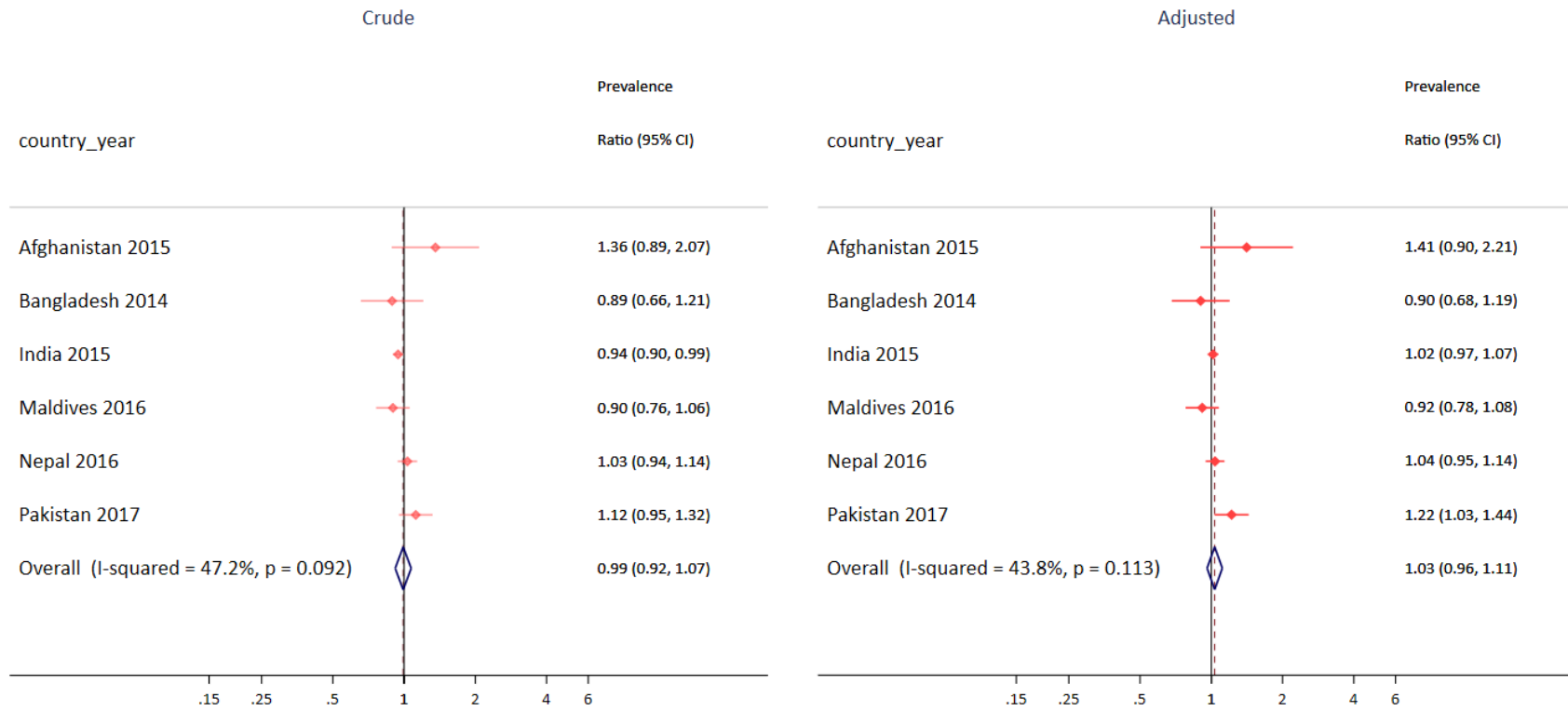


Figure A13. Crude and adjusted prevalence ratio for full immunization in FHH (no male) in South Asia

East Asia & Pacific

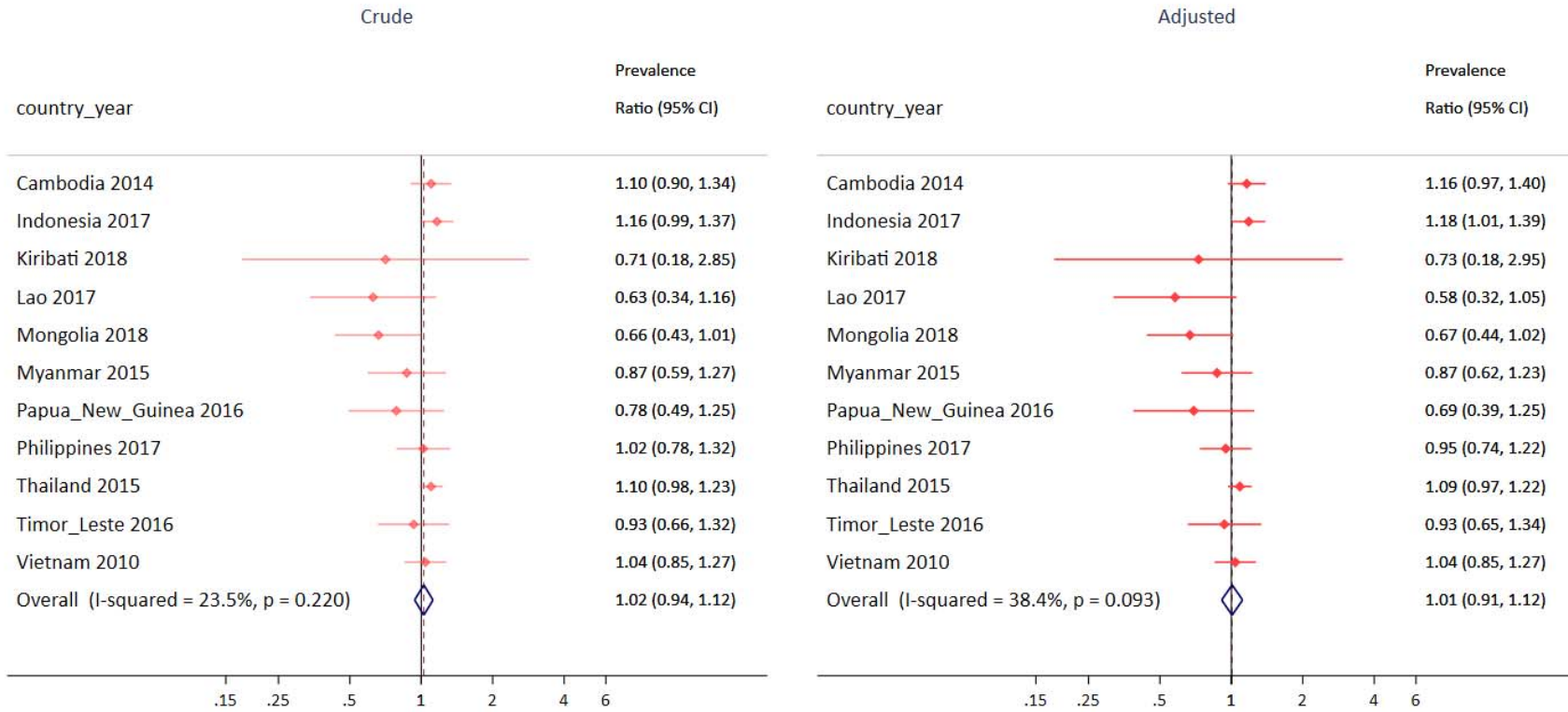


Figure A14. Crude and adjusted prevalence ratio for full immunization in FHH (no male) in East Asia & Pacific

Latin America & Caribbean

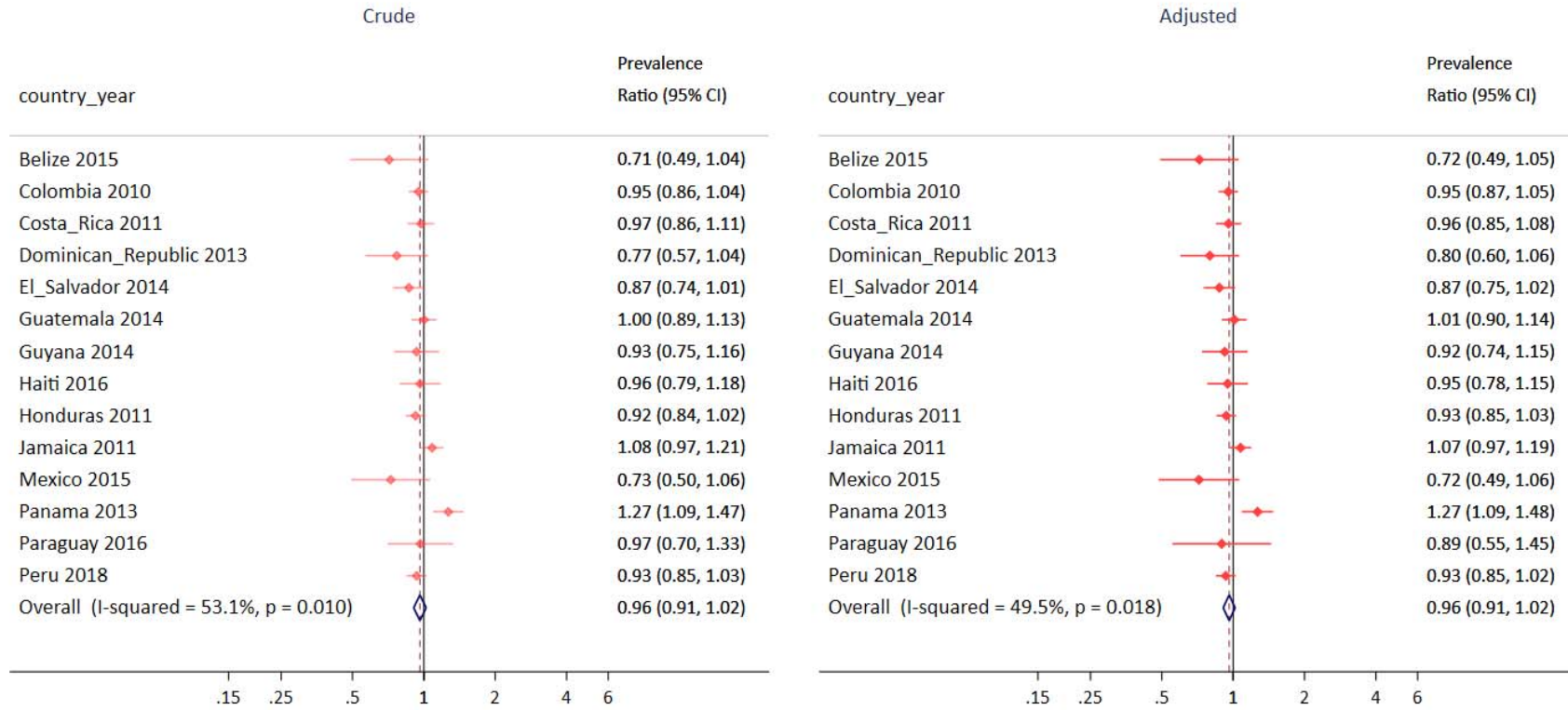


Figure A15. Crude and adjusted prevalence ratio for full immunization in FHH (no male) in Latin America & Caribbean

West & Central Africa

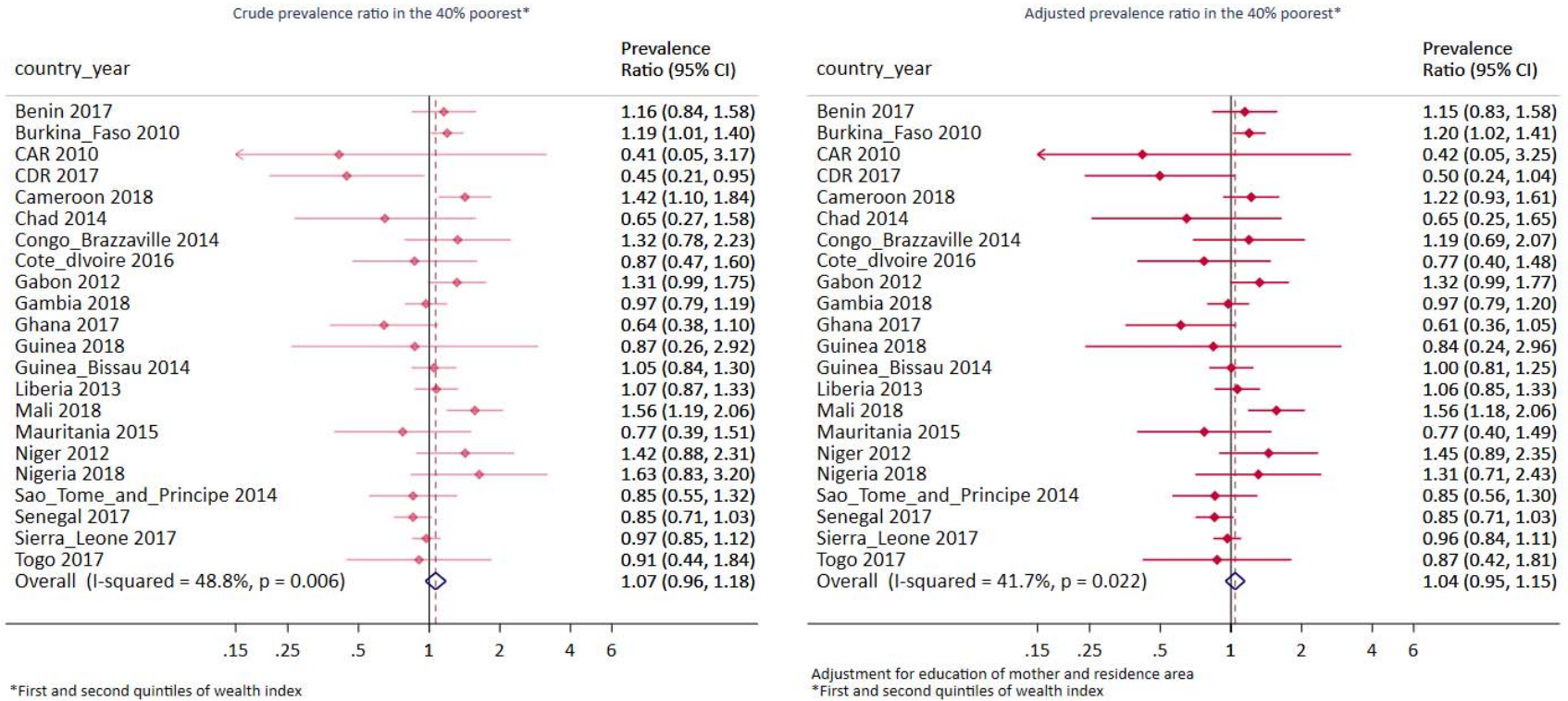


Figure A16. Crude and adjusted prevalence ratio for full immunization in FHH (any male) in West & Central Africa. Analysis restricted to 40% poorest in each country.

Eastern & Southern Africa

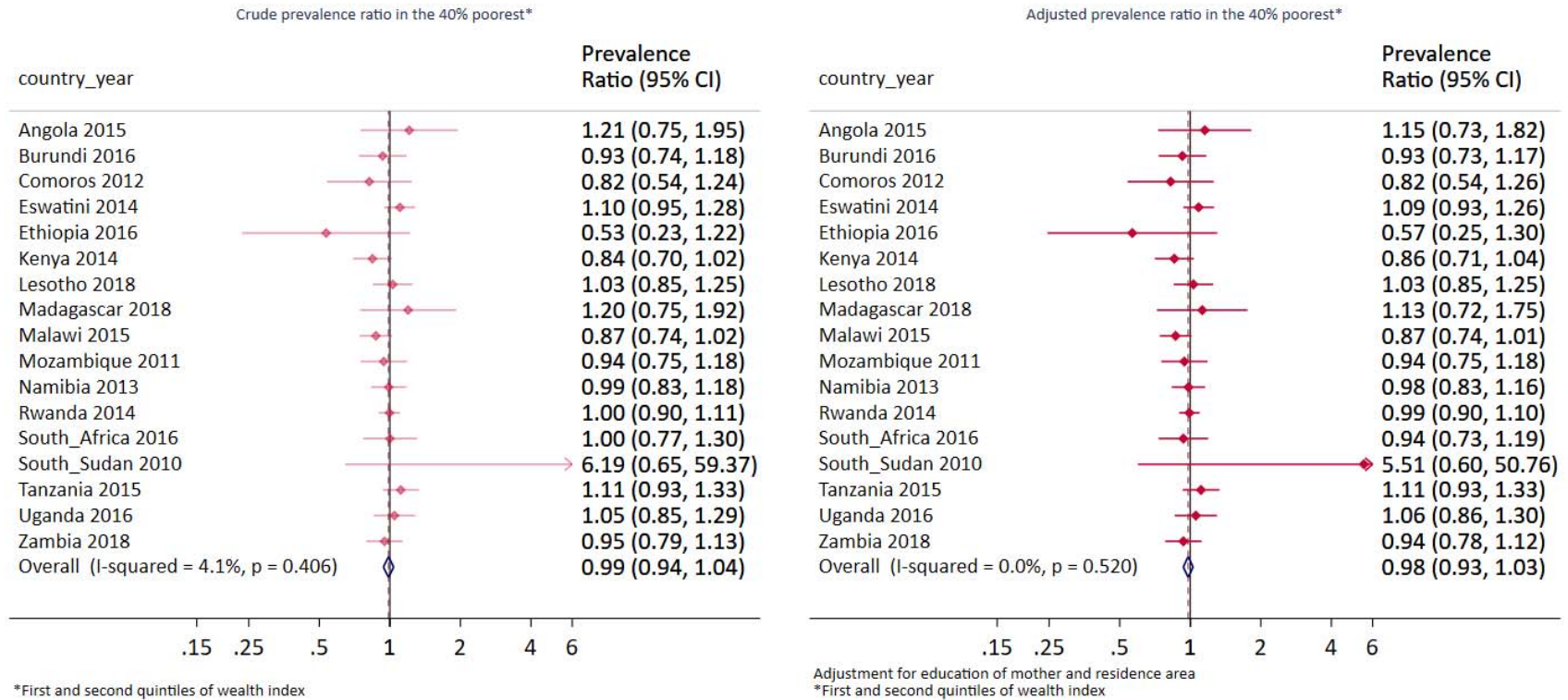


Figure A17. Crude and adjusted prevalence ratio for full immunization in FHH (any male) in Eastern & Southern Africa. Analysis restricted to 40% poorest in each country.

Middle East & North Africa

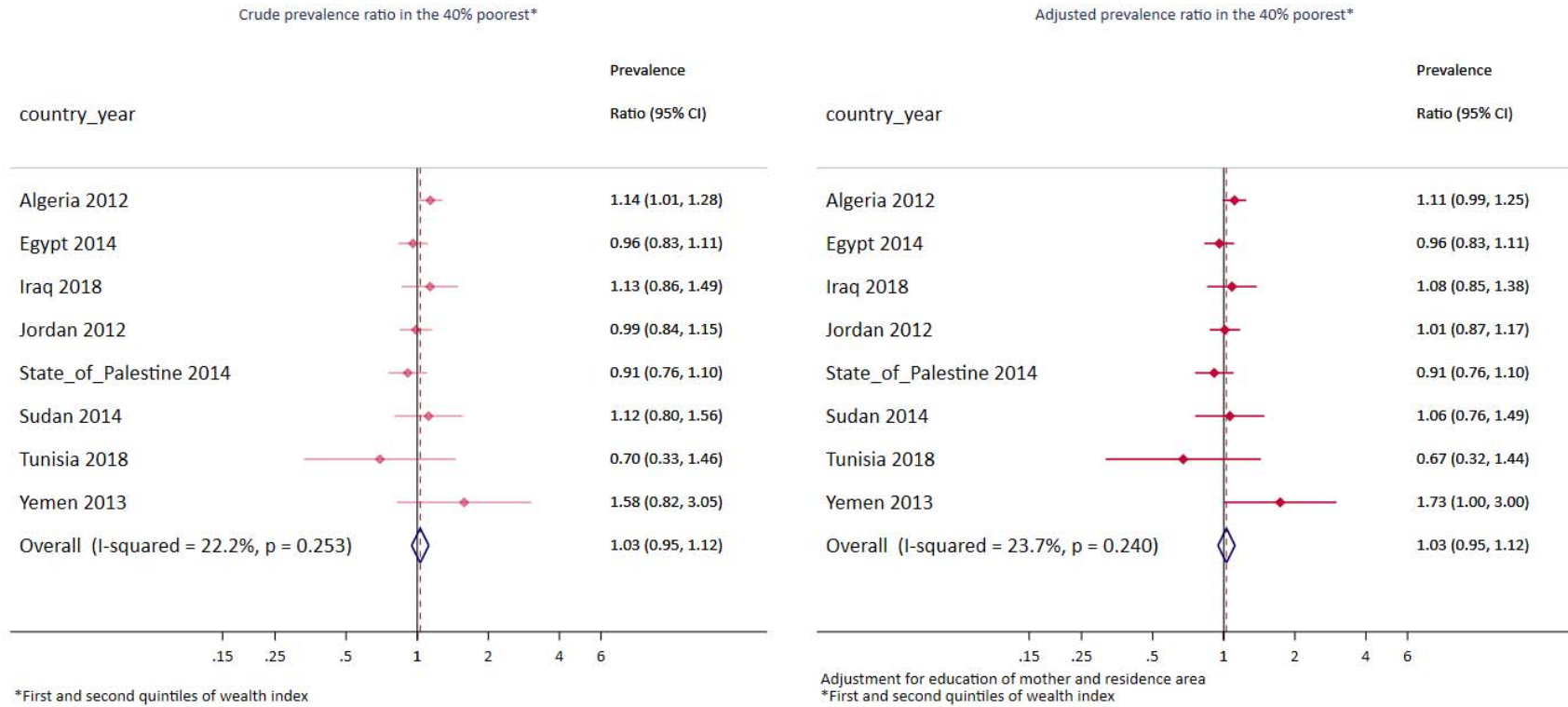


Figure A18. Crude and adjusted prevalence ratio for full immunization in FHH (any male) in Middle East & North Africa. Analysis restricted to 40% poorest in each country.

Eastern Europe & Central Asia

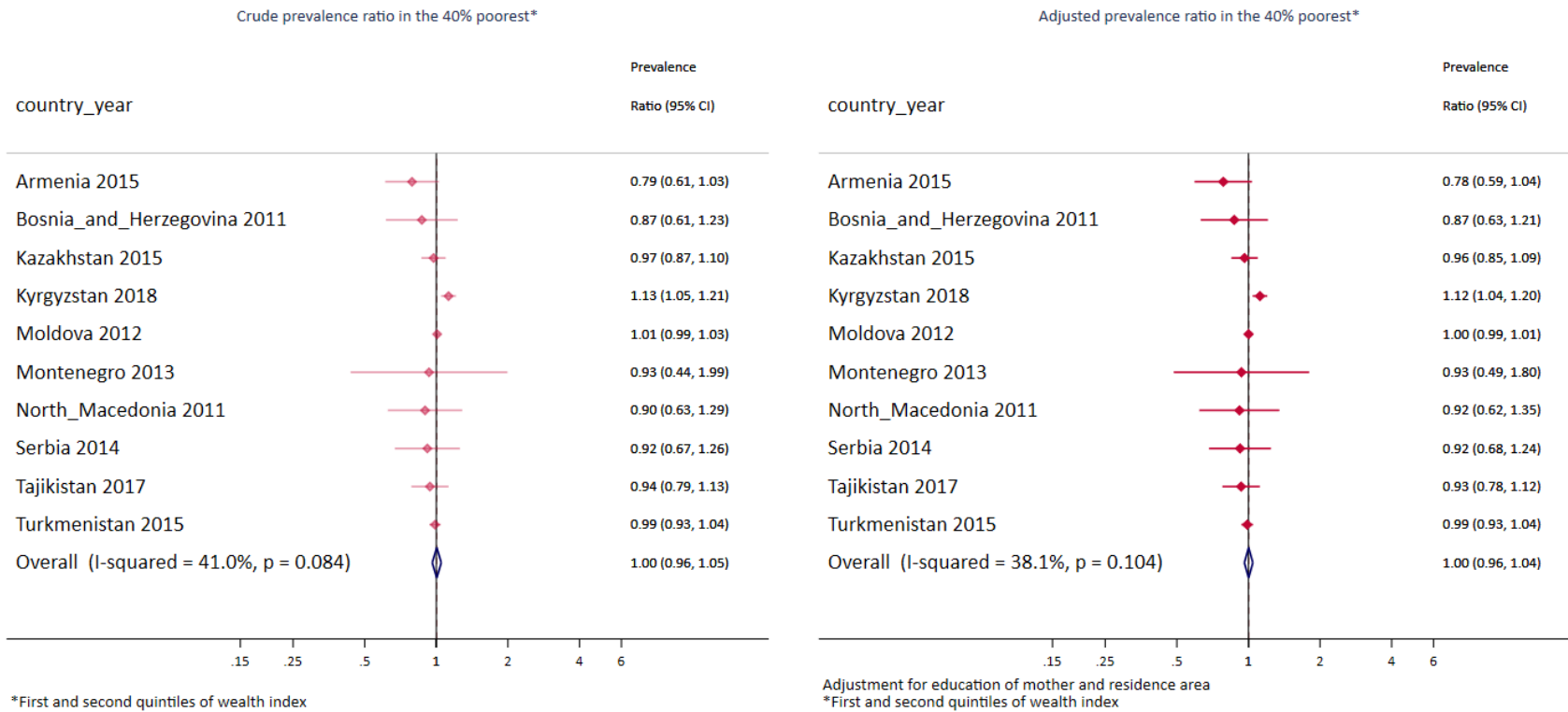


Figure A19. Crude and adjusted prevalence ratio for full immunization in FHH (any male) in Eastern Europe & Central Asia. Analysis restricted to 40% poorest in each country.

South Asia

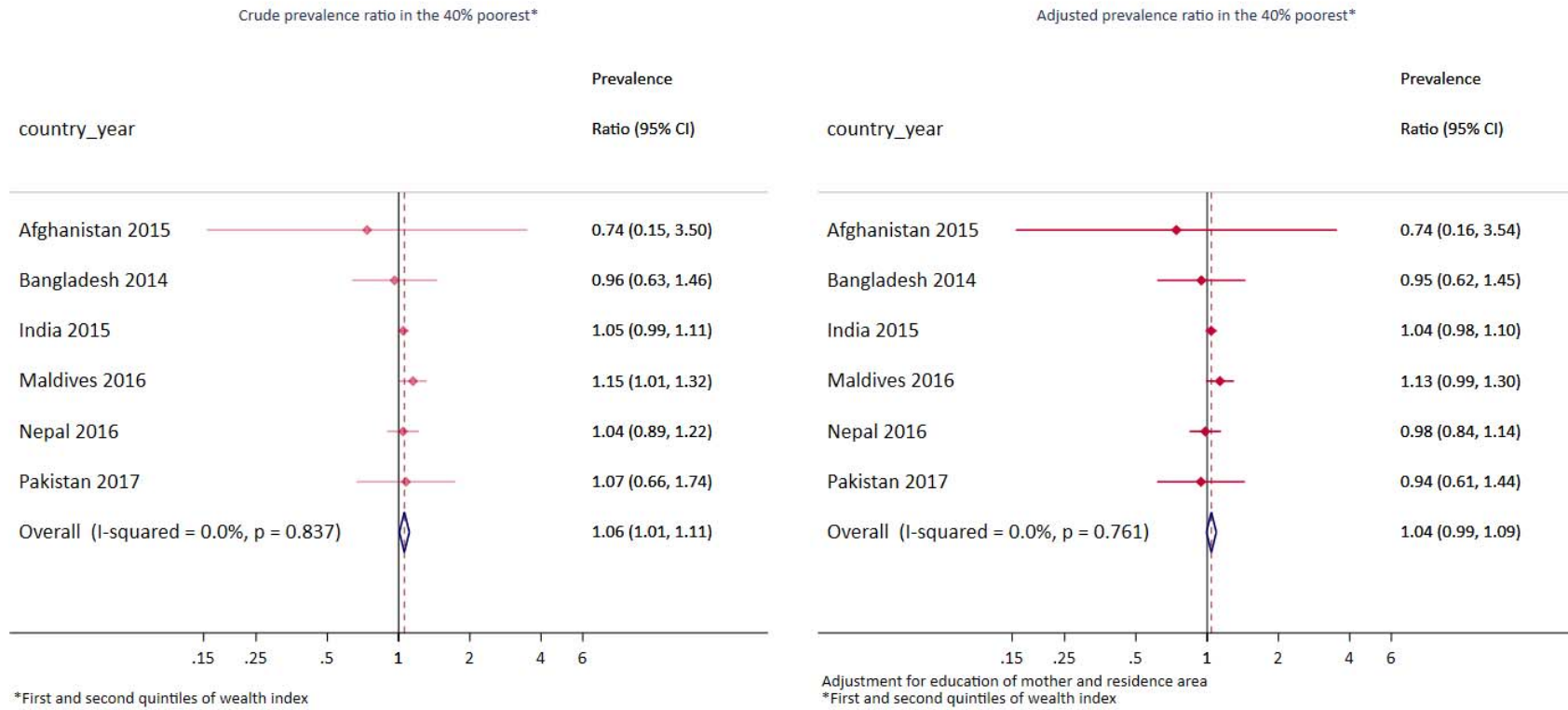


Figure A20. Crude and adjusted prevalence ratio for full immunization in FHH (any male) in South Asia. Analysis restricted to 40% poorest in each country.

East Asia & Pacific

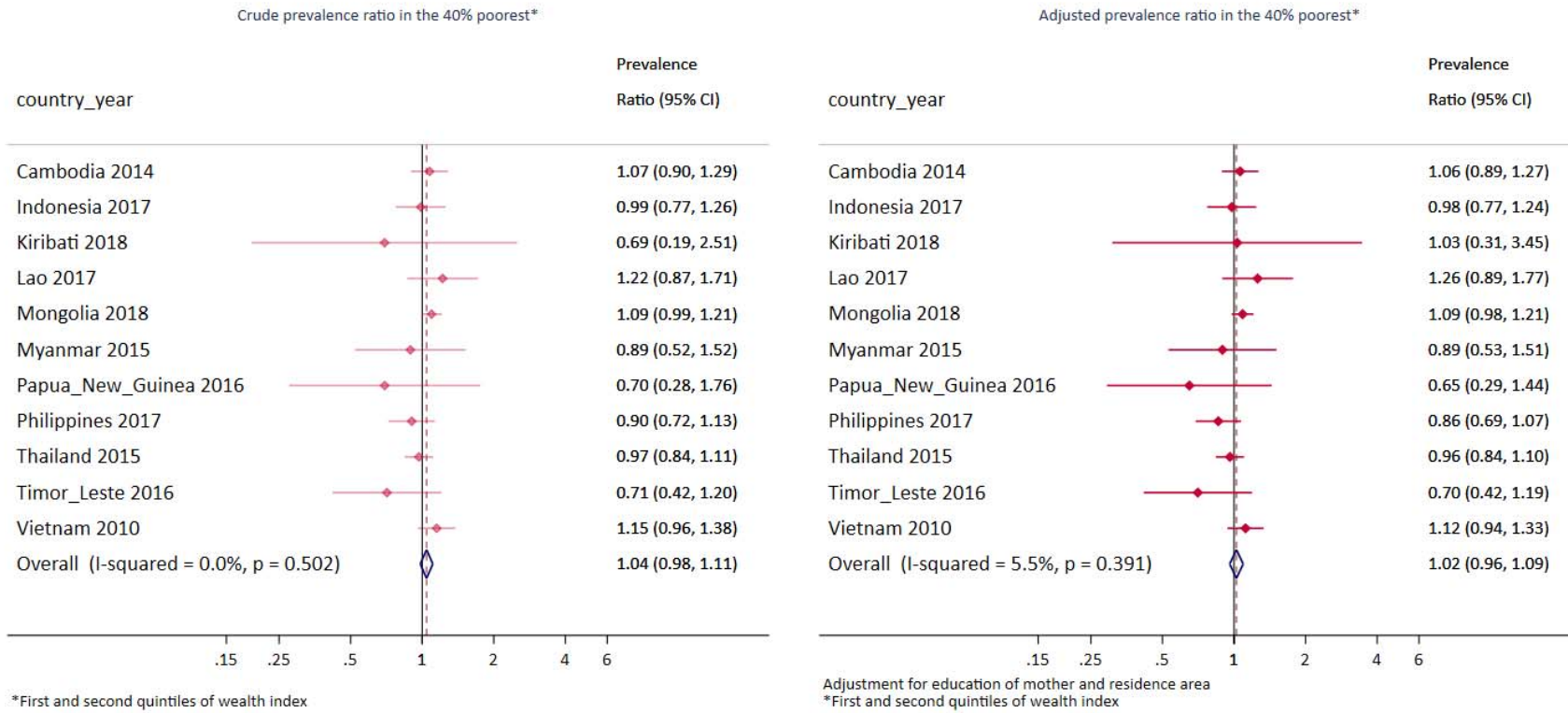


Figure A21. Crude and adjusted prevalence ratio for full immunization in FHH (any male) in East Asia & Pacific. Analysis restricted to 40% poorest in each country.

Latin America & Caribbean

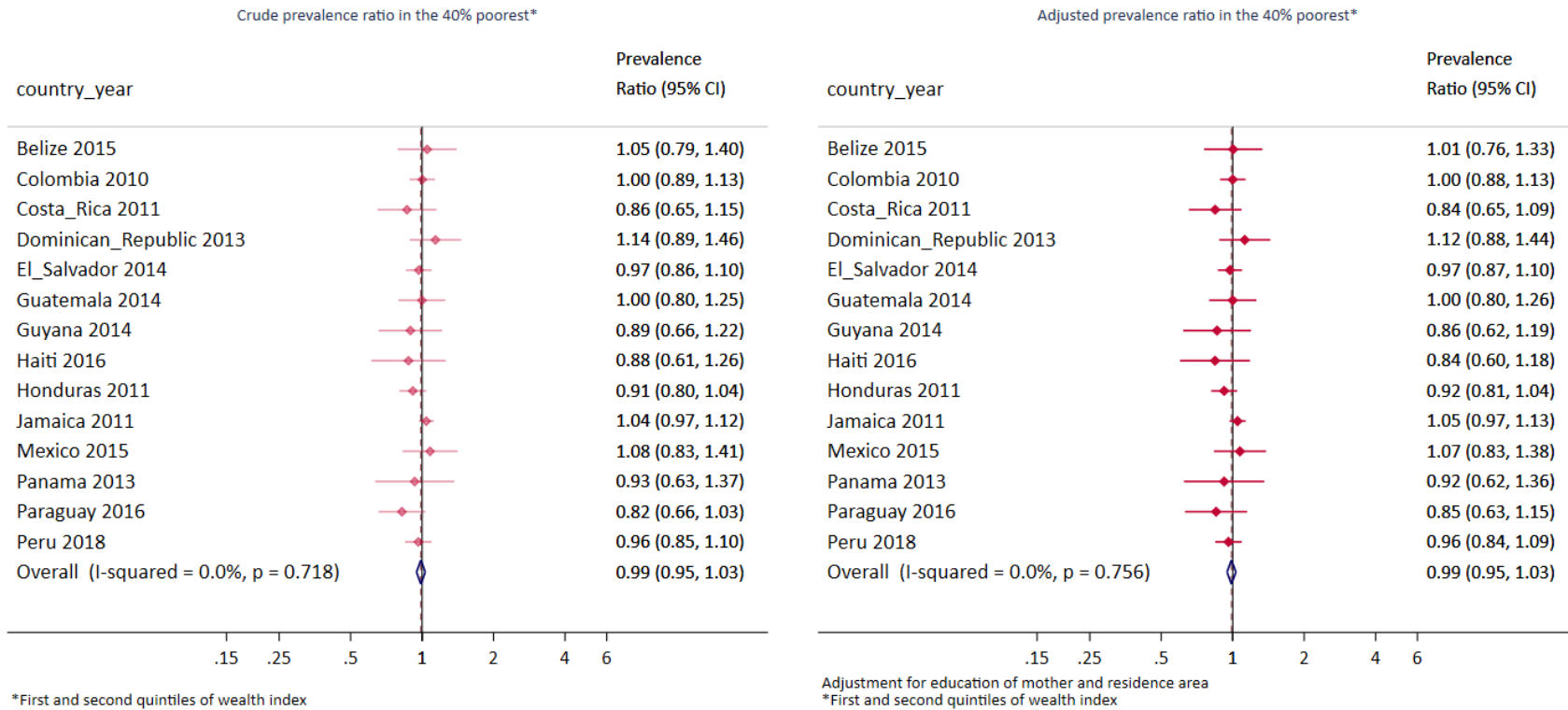


Figure A22. Crude and adjusted prevalence ratio for full immunization in FHH (any male) in Latin America & Caribbean. Analysis restricted to 40% poorest in each country.

West & Central Africa

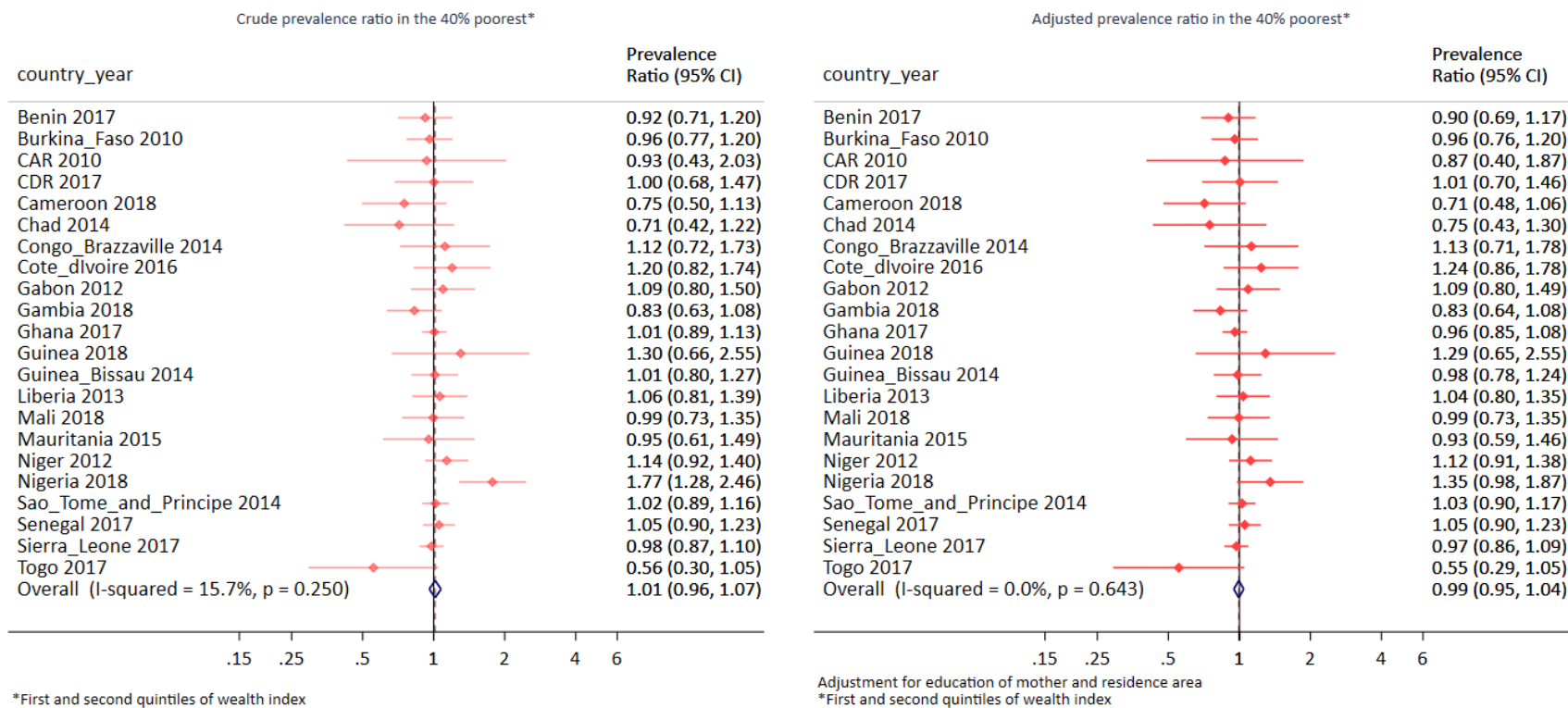


Figure A23. Crude and adjusted prevalence ratio for full immunization in FHH (no male) in West & Central Africa. Analysis restricted to 40% poorest in each country.

Eastern & Southern Africa

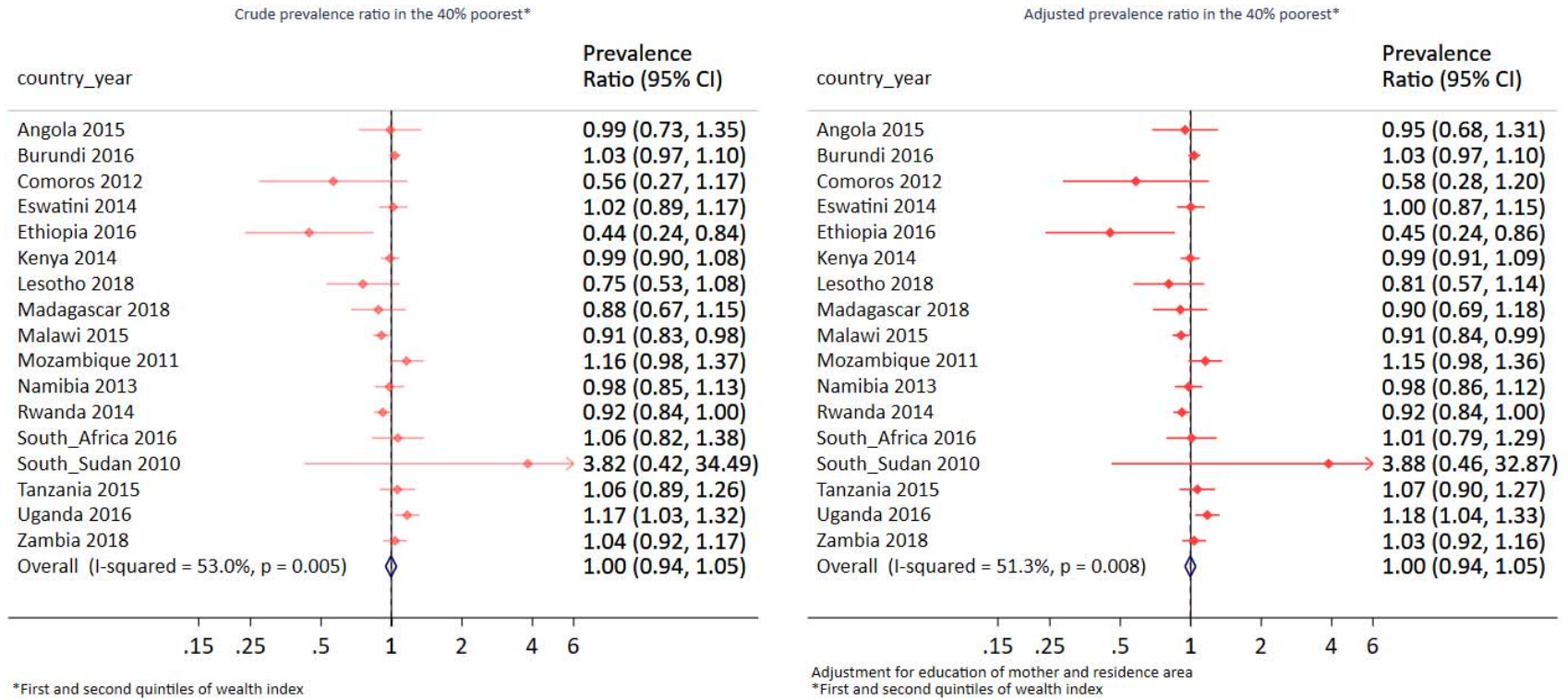


Figure A24. Crude and adjusted prevalence ratio for full immunization in FHH (no male) in Easter & Southern Africa. Analysis restricted to 40% poorest in each country.

Middle East & North Africa

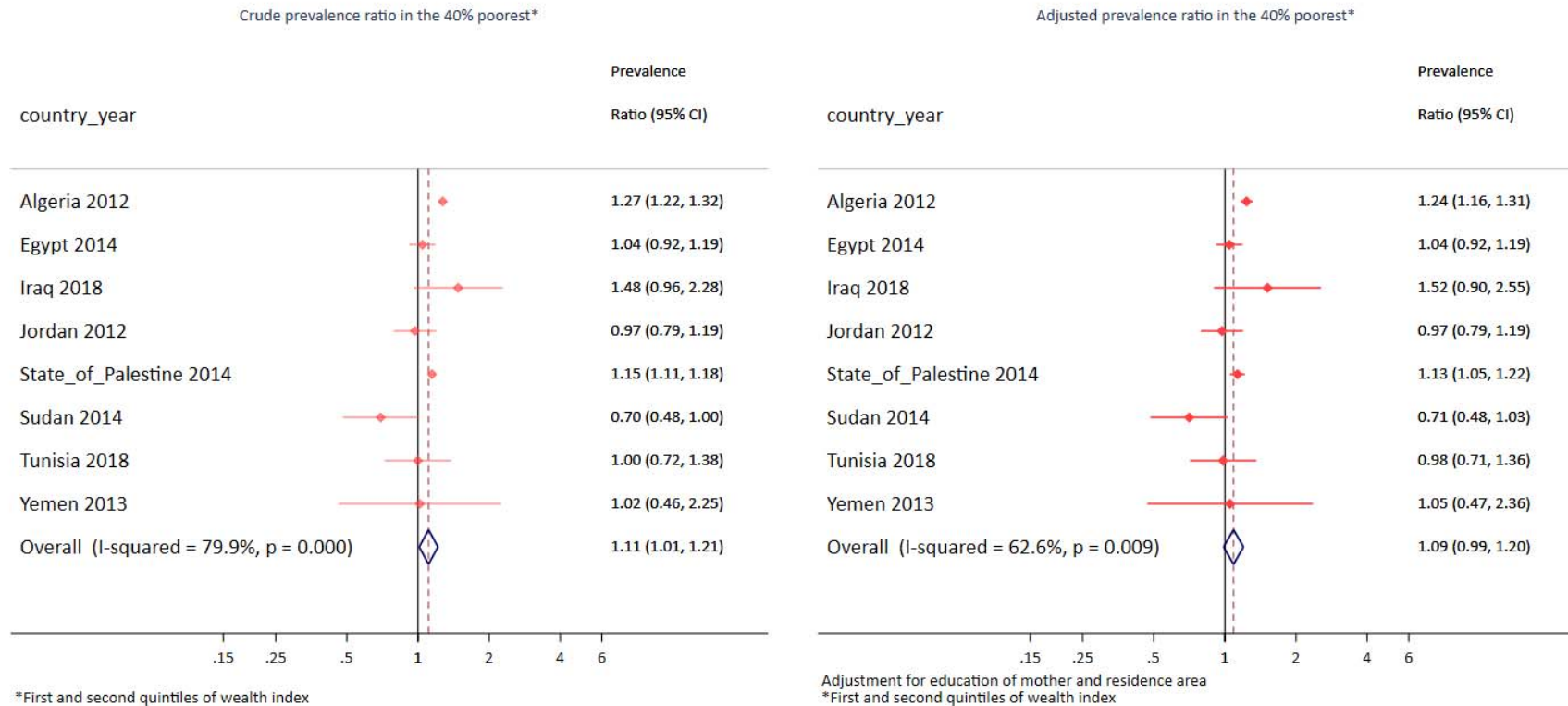


Figure A25. Crude and adjusted prevalence ratio for full immunization in FHH (no male) in Middle East & North Africa. Analysis restricted to 40% poorest in each country.

Eastern Europe & Central Asia

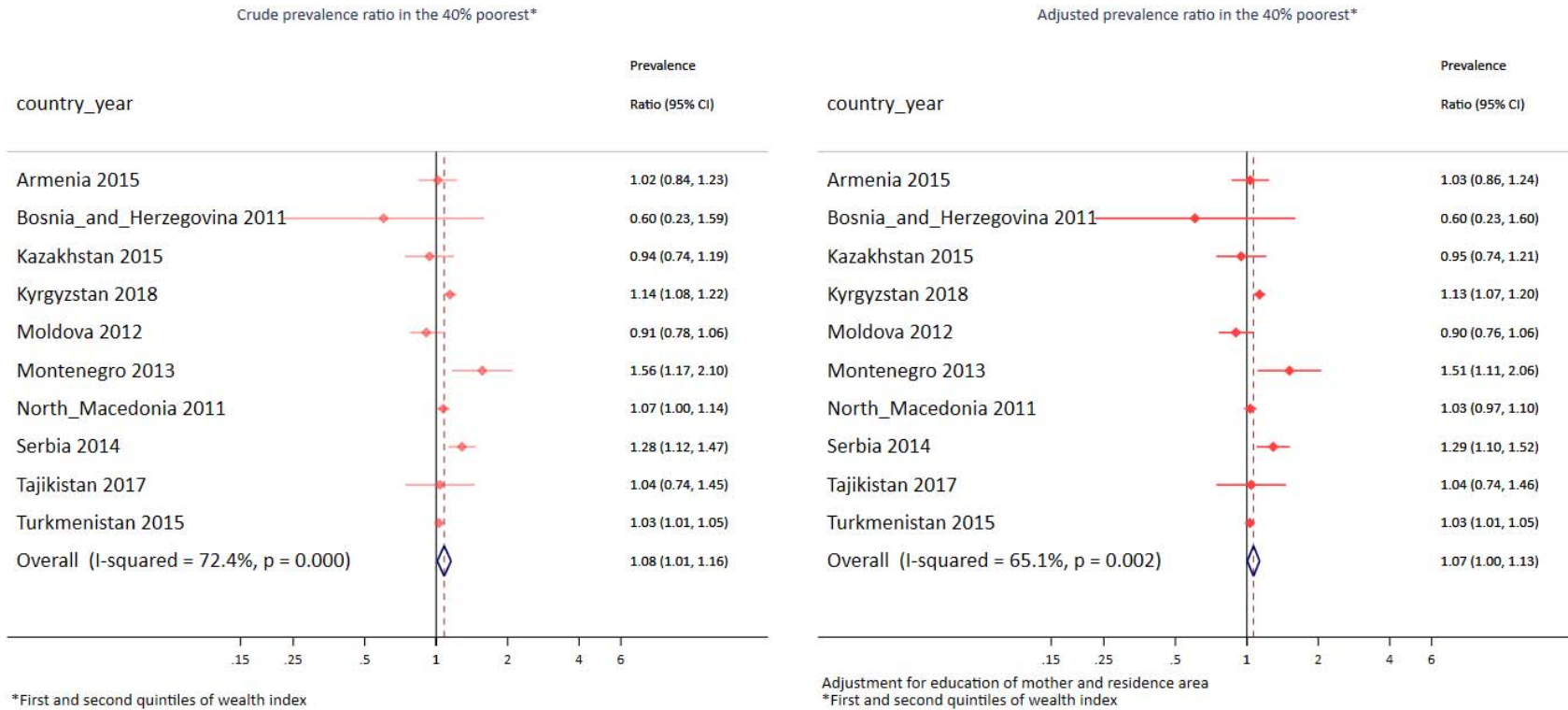


Figure A26. Crude and adjusted prevalence ratio for full immunization in FHH (no male) in Eastern Europe & Central Asia. Analysis restricted to 40% poorest in each country.

South Asia

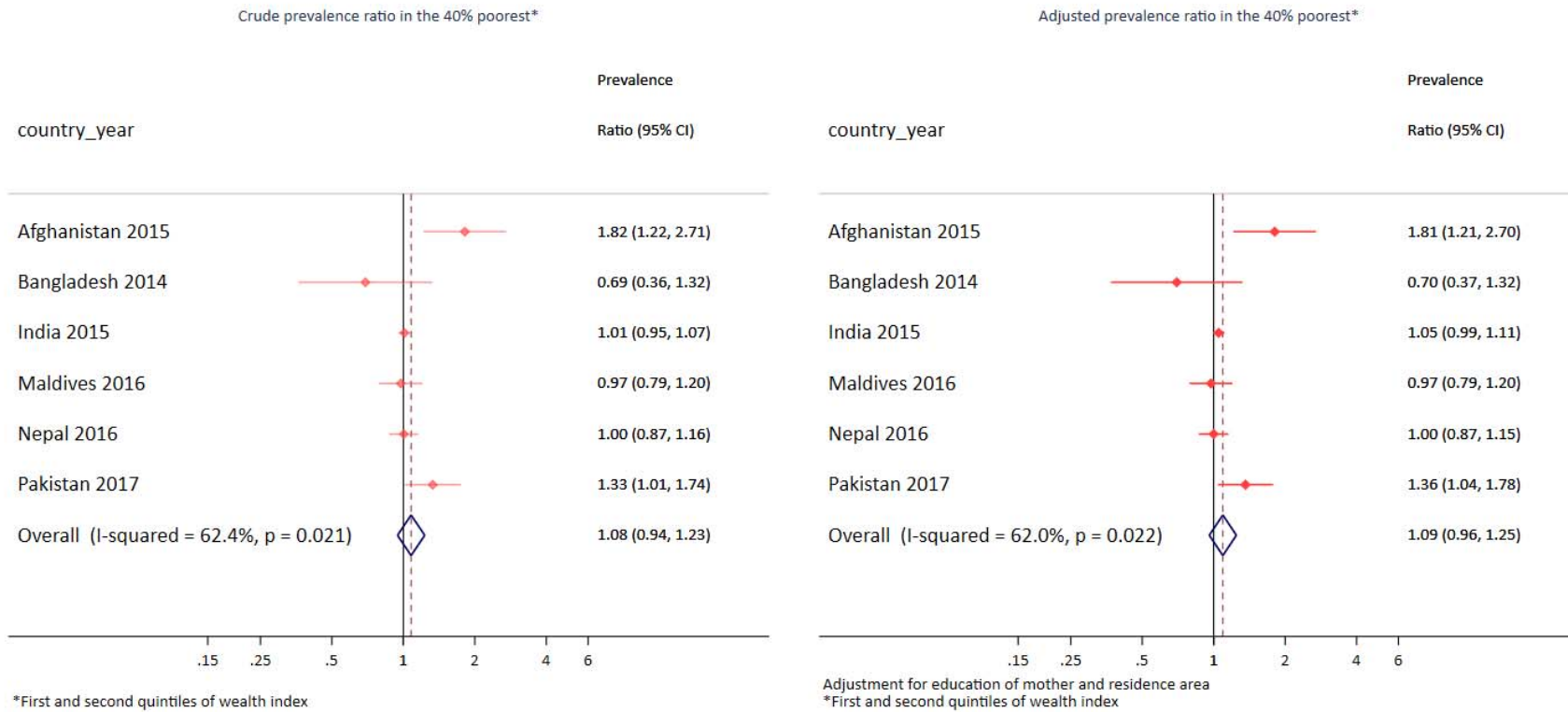


Figure A27. Crude and adjusted prevalence ratio for full immunization in FHH (no male) in South Asia. Analysis restricted to 40% poorest in each country.

East Asia & Pacific

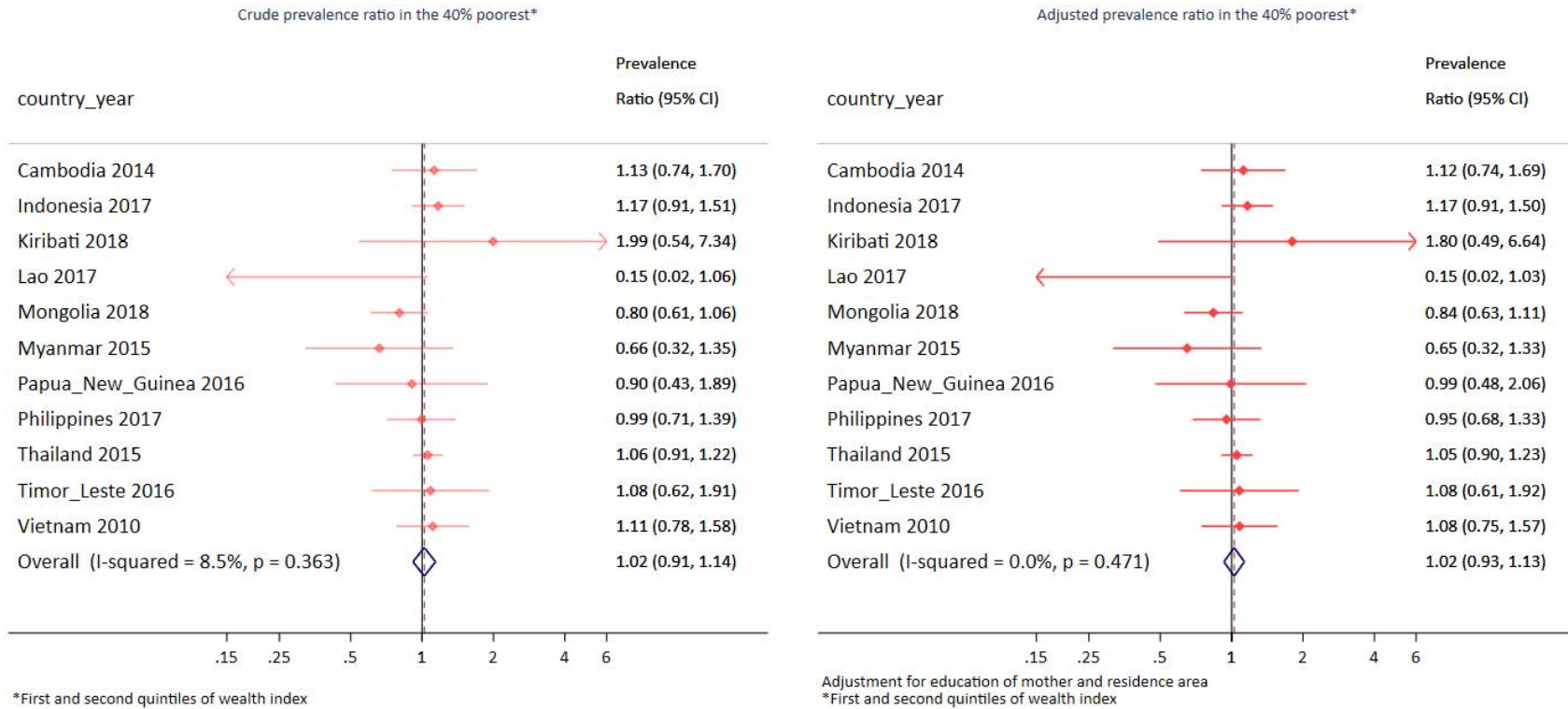


Figure A28. Crude and adjusted prevalence ratio for full immunization in FHH (no male) in East Asia & Pacific. Analysis restricted to 40% poorest in each country.

Latin America & Caribbean

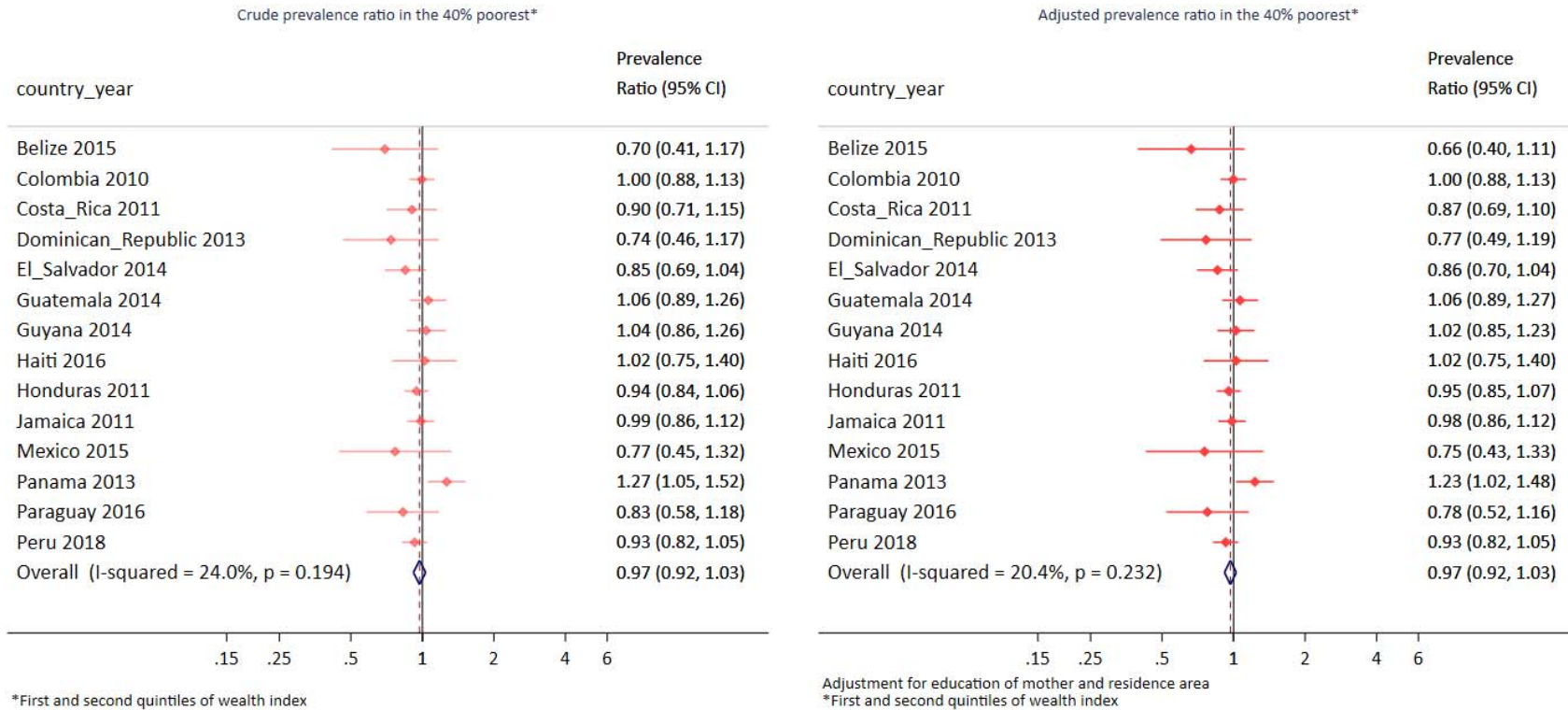


Figure A29. Crude and adjusted prevalence ratio for full immunization in FHH (no male) in Latin America & Caribbean. Analysis restricted to 40% poorest in each country.

West & Central Africa

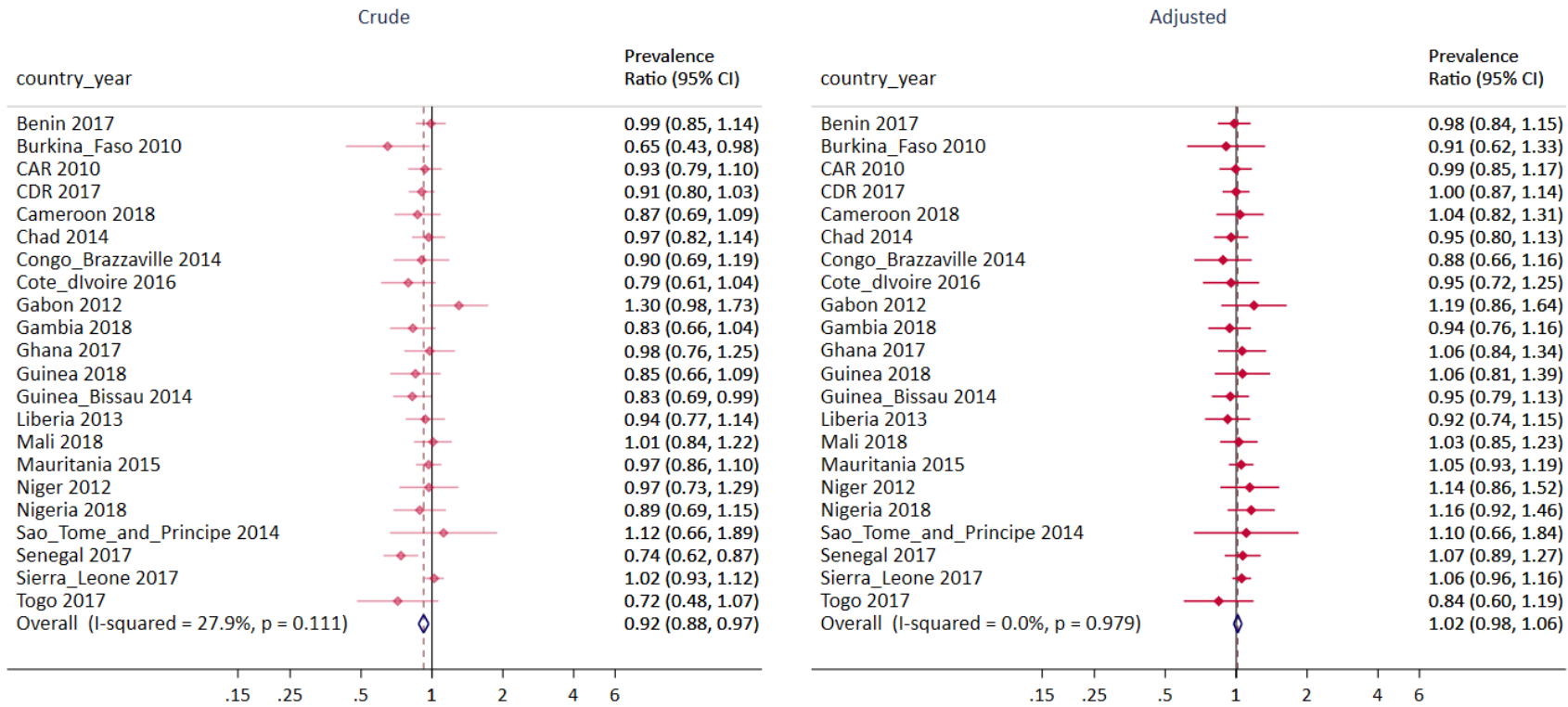


Figure A30. Crude and adjusted prevalence ratio for stunting in FHH (any male) in West & Central Africa

Eastern & Southern Africa

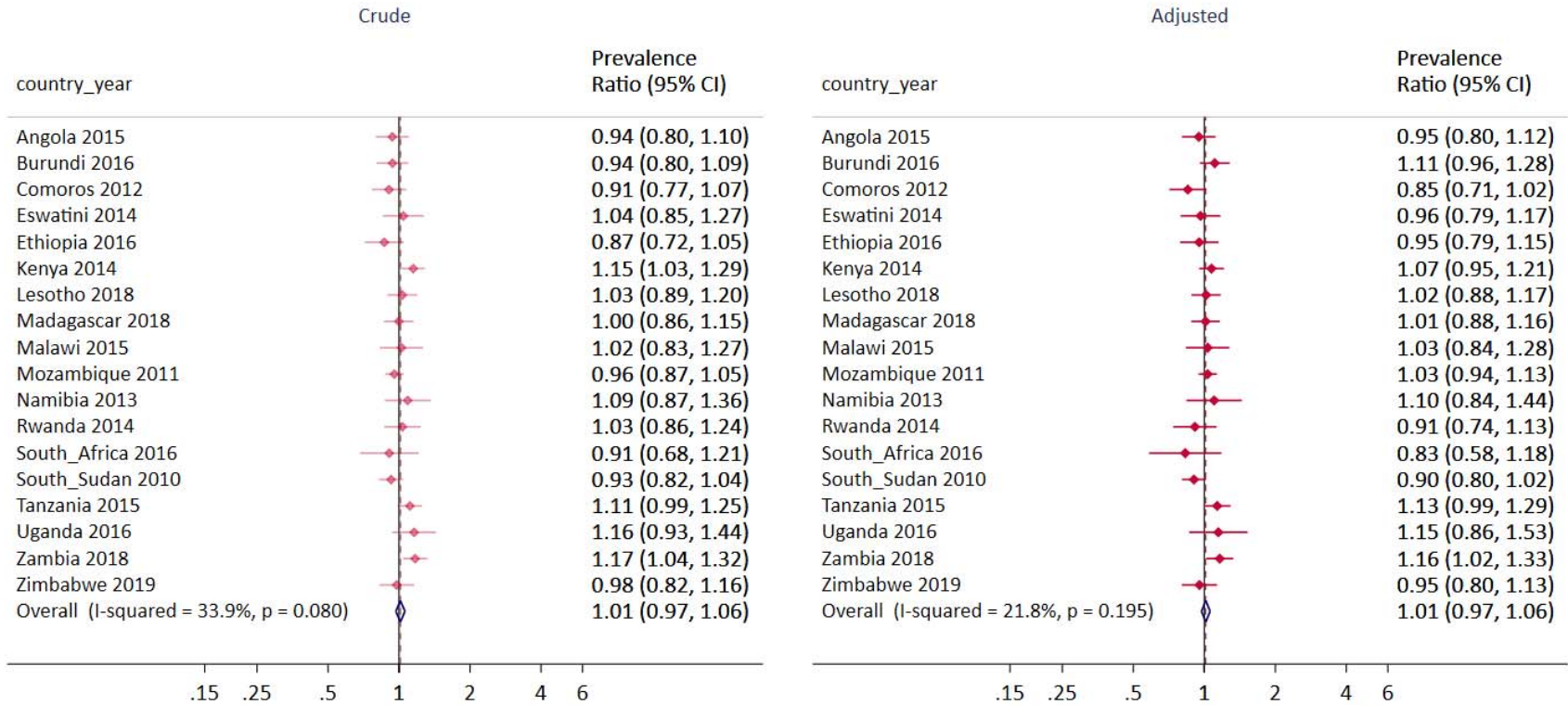


Figure A31. Crude and adjusted prevalence ratio for stunting in FHH (any male) in Eastern & Southern Africa

Middle East & North Africa

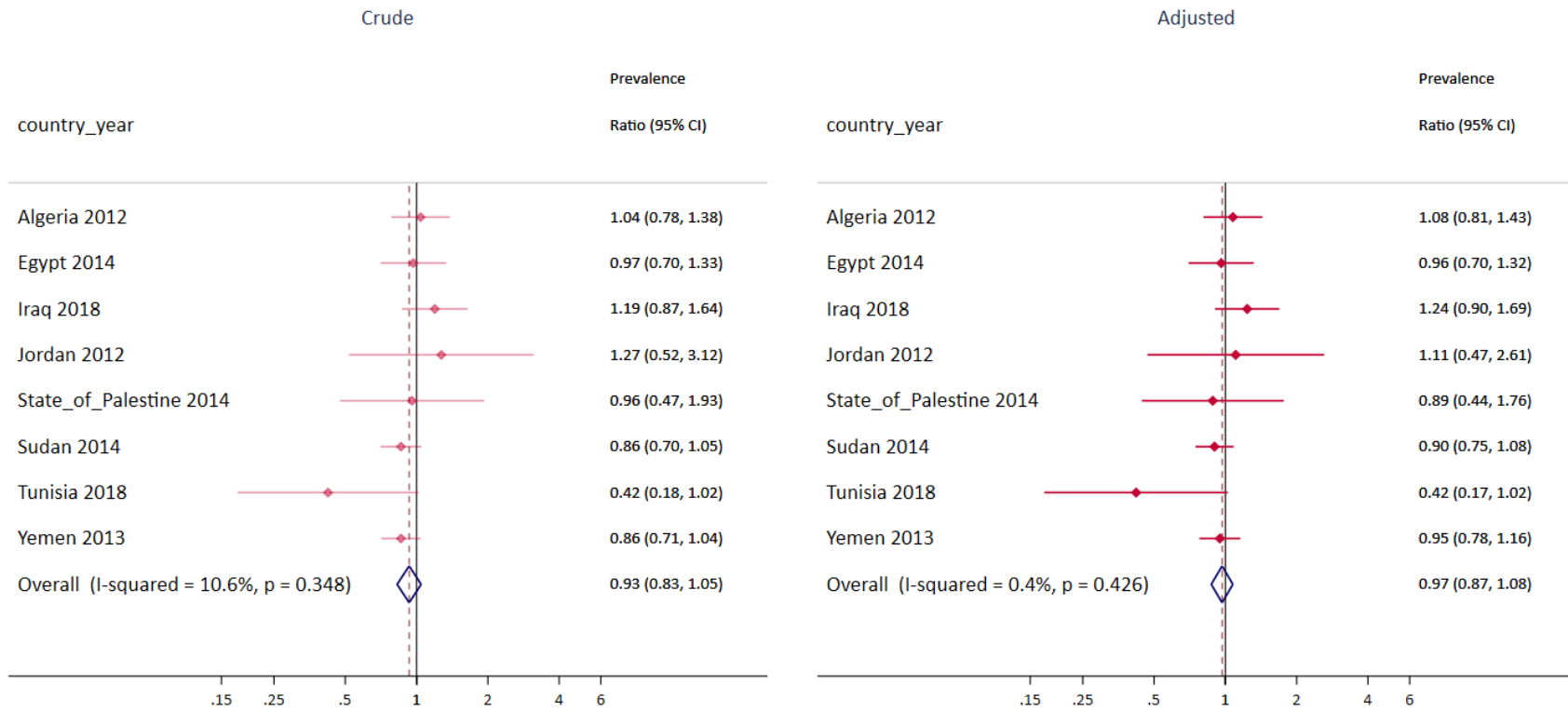


Figure A32. Crude and adjusted prevalence ratio for stunting in FHH (any male) in Middle East & North Africa

Eastern Europe & Central Asia

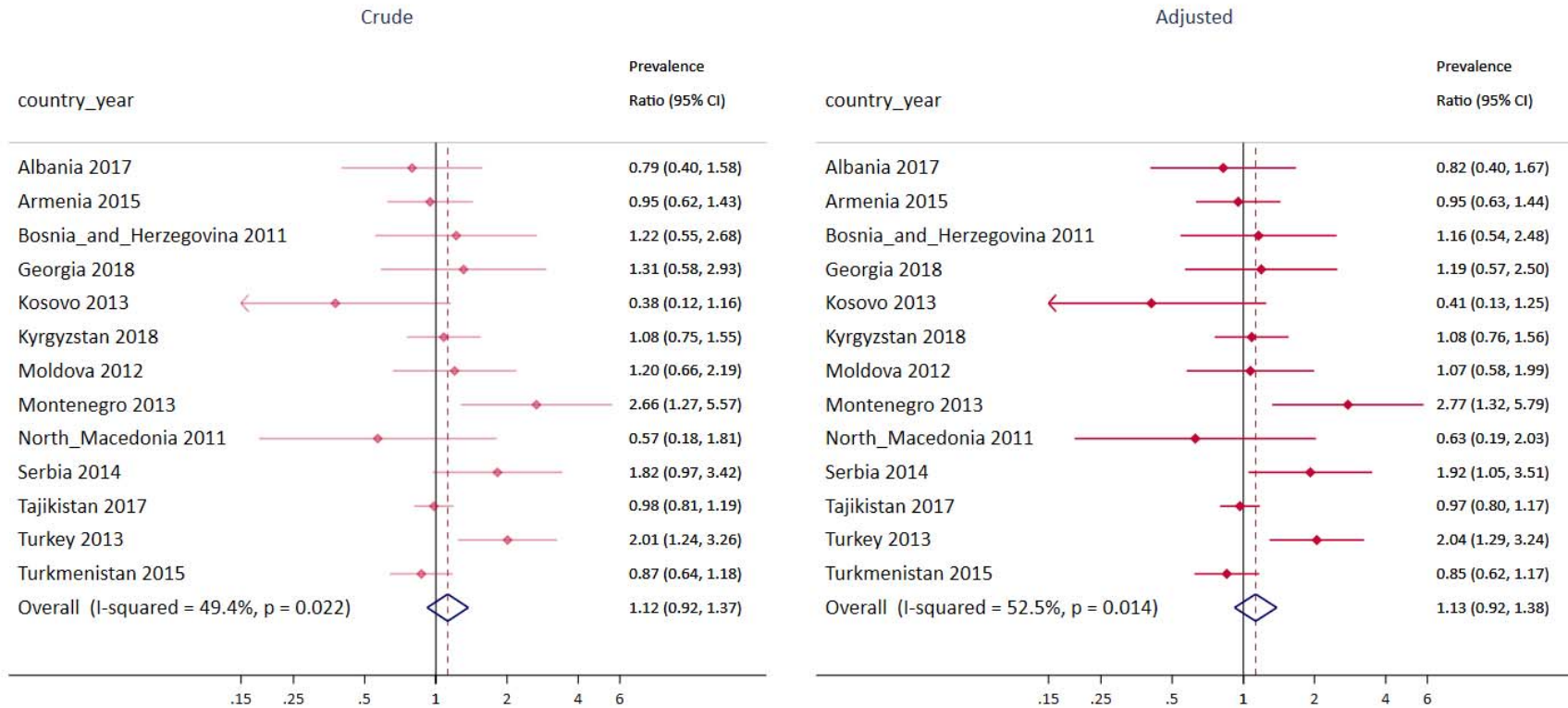


Figure A33. Crude and adjusted prevalence ratio for stunting in FHH (any male) in Eastern Europe & Central Asia

South Asia

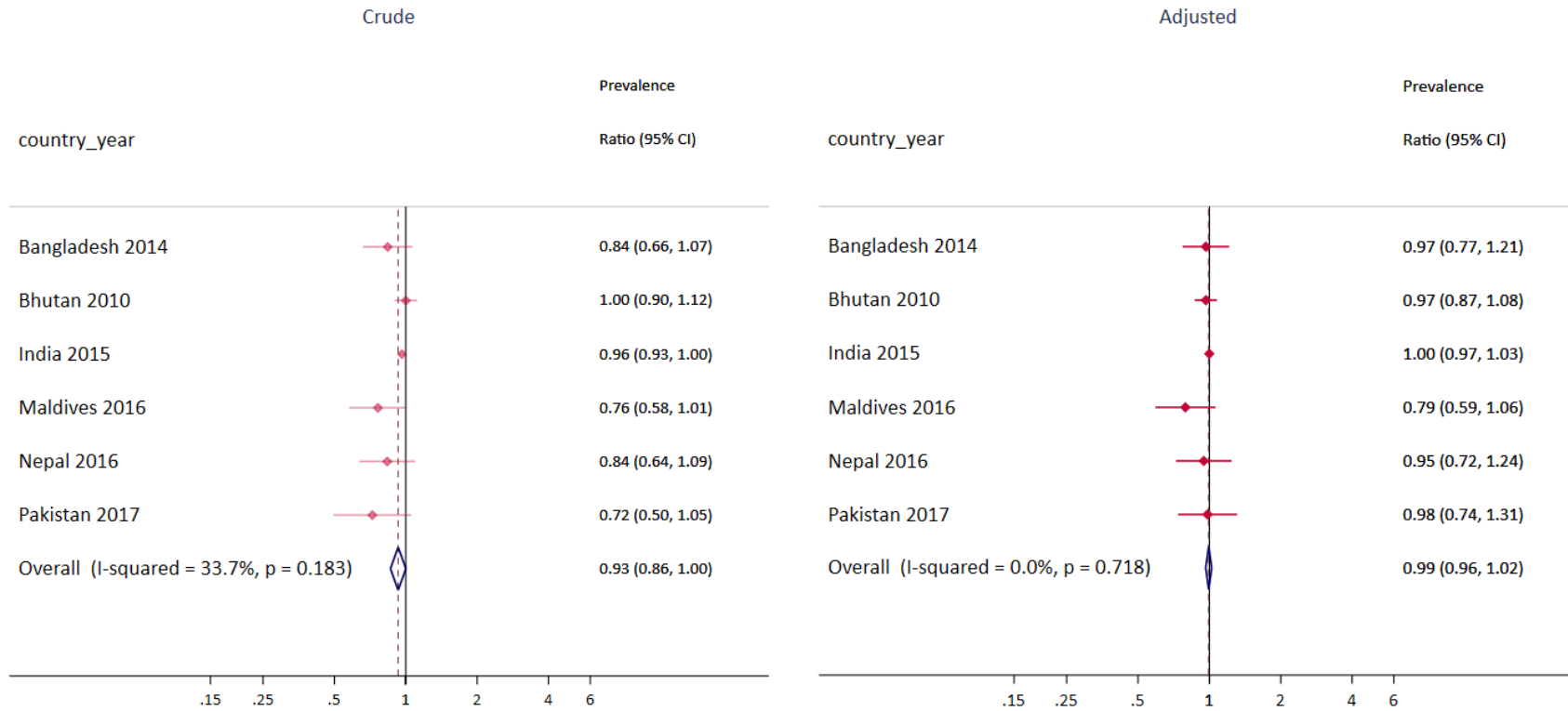


Figure A34. Crude and adjusted prevalence ratio for stunting in FHH (any male) in South Asia

East Asia & Pacific

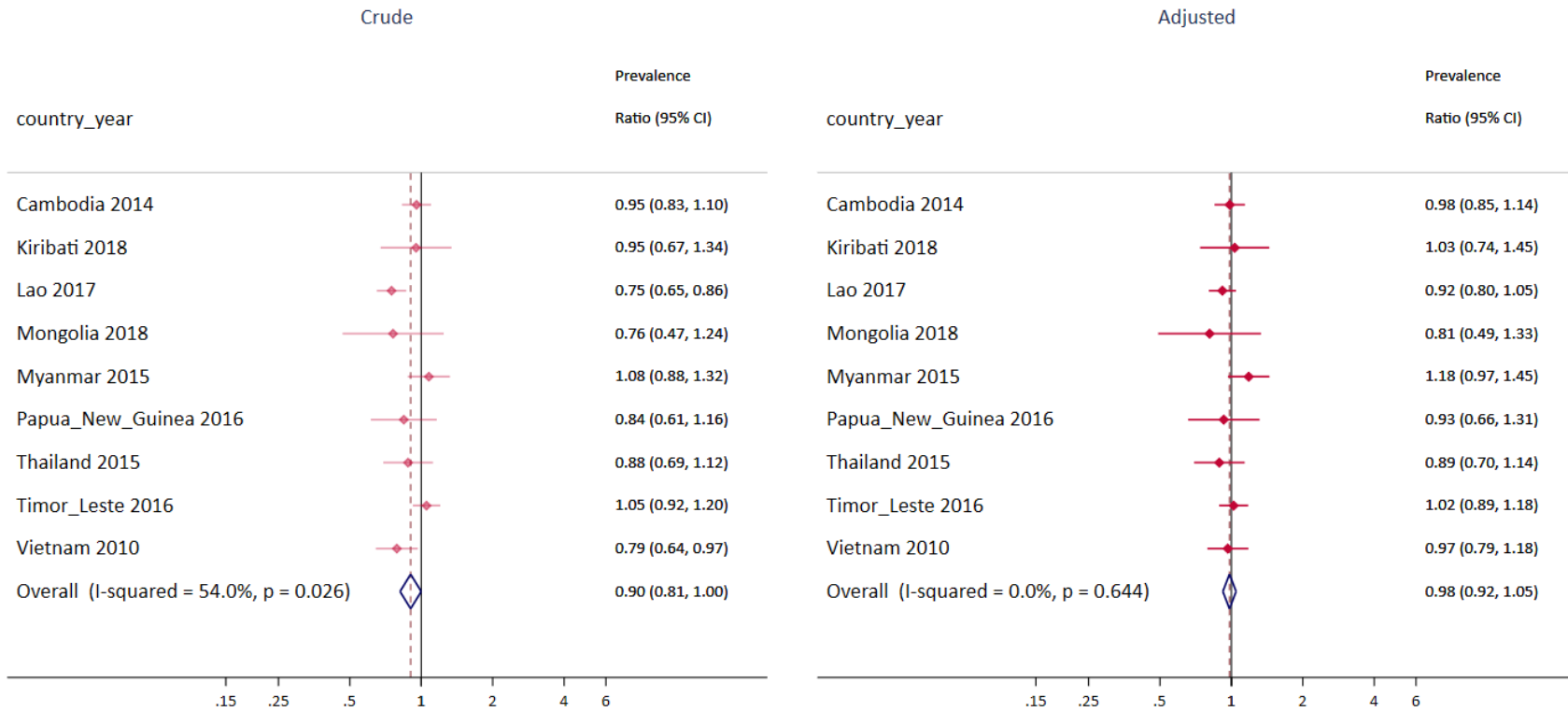


Figure A35. Crude and adjusted prevalence ratio for stunting in FHH (any male) in East Asia & Pacific

Latin America & Caribbean

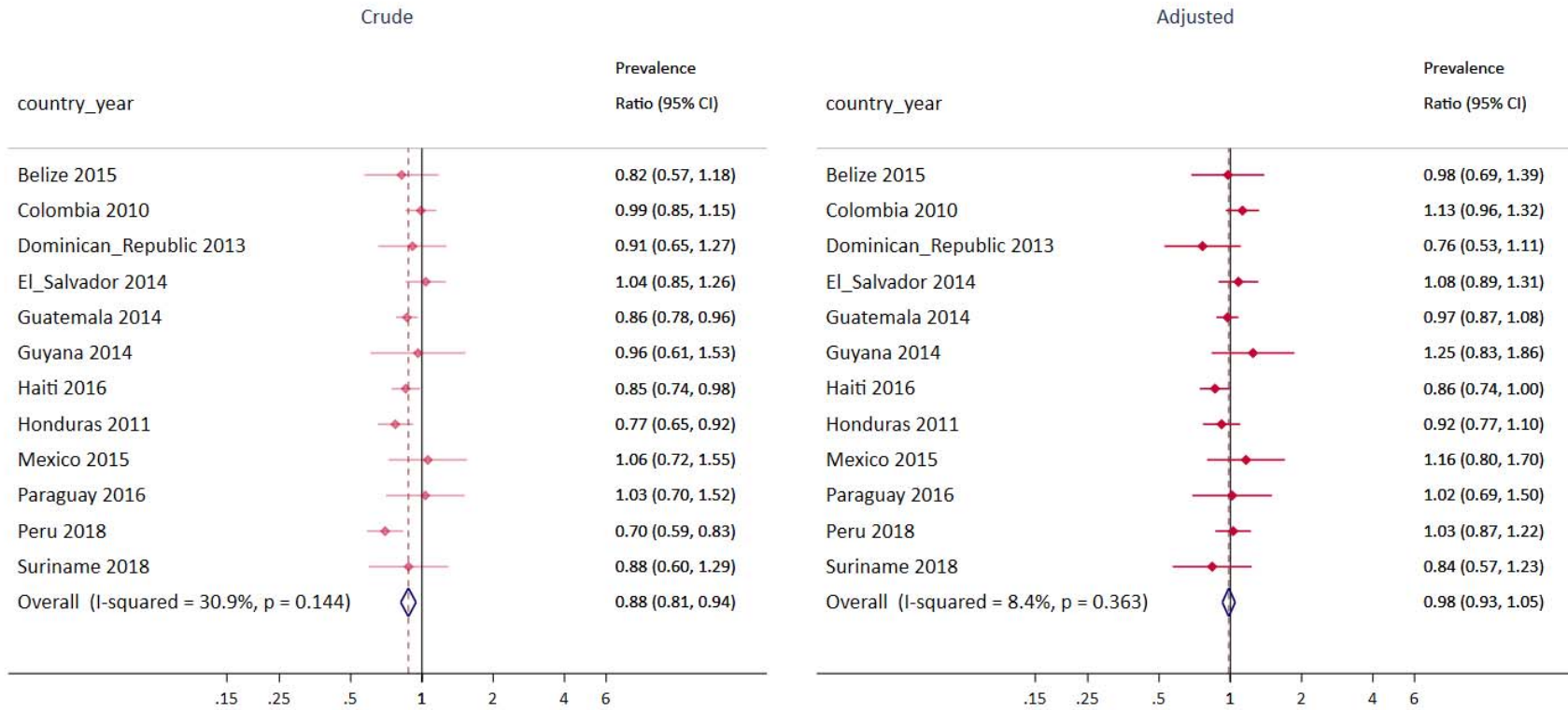


Figure A36. Crude and adjusted prevalence ratio for stunting in FHH (any male) in Latin America & Caribbean

West & Central Africa

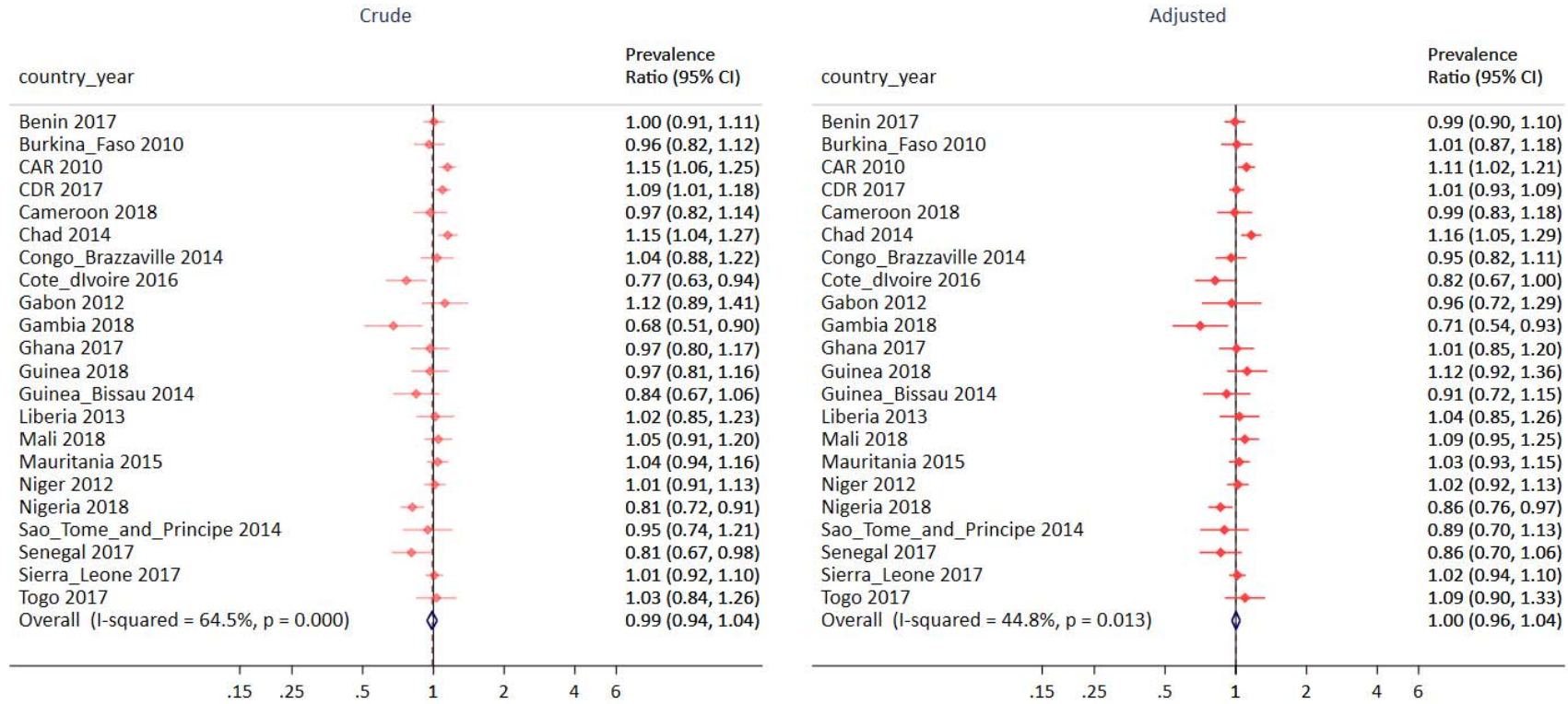


Figure A37. Crude and adjusted prevalence ratio for stunting in FHH (no male) in West & Central Africa

Eastern & Southern Africa

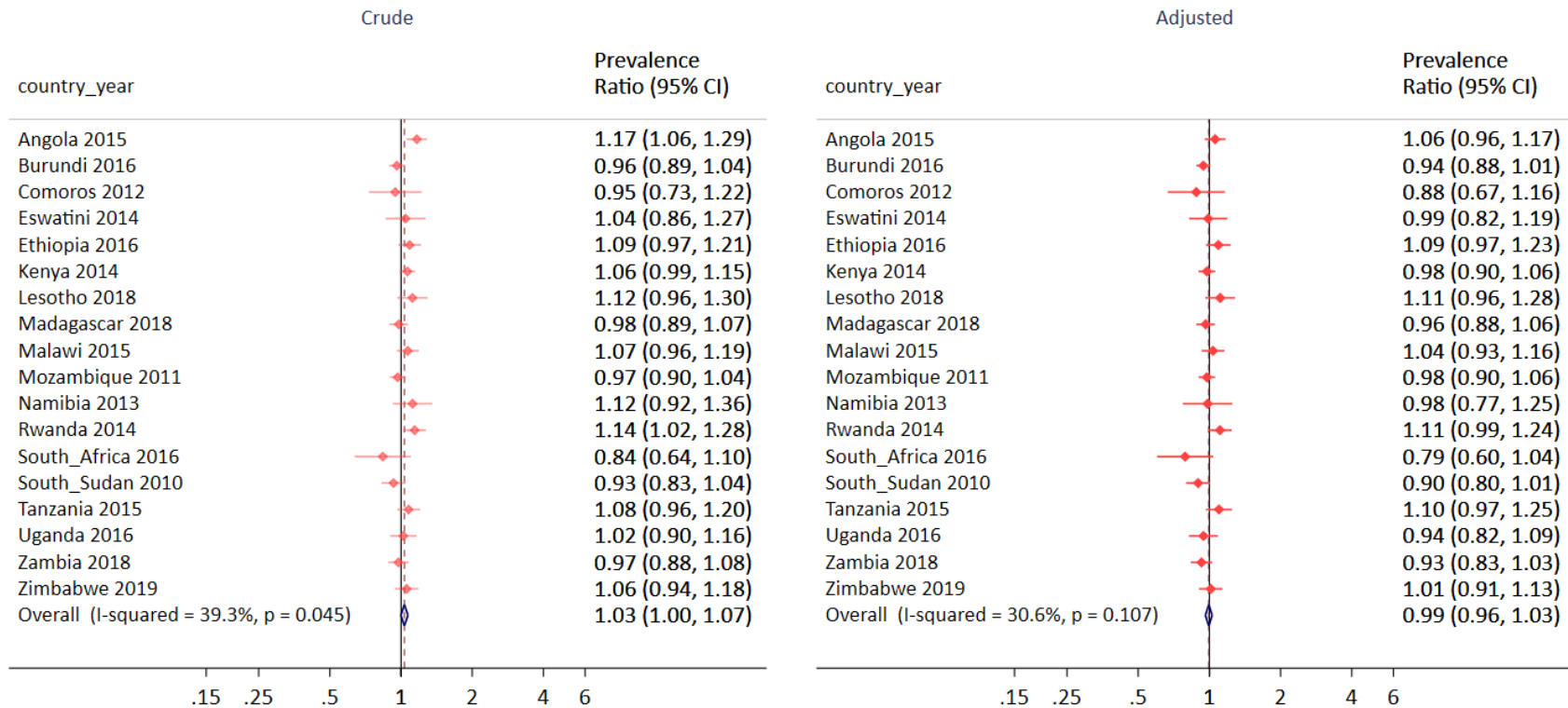


Figure A38. Crude and adjusted prevalence ratio for stunting in FHH (no male) in Eastern & Southern Africa

Middle East & North Africa

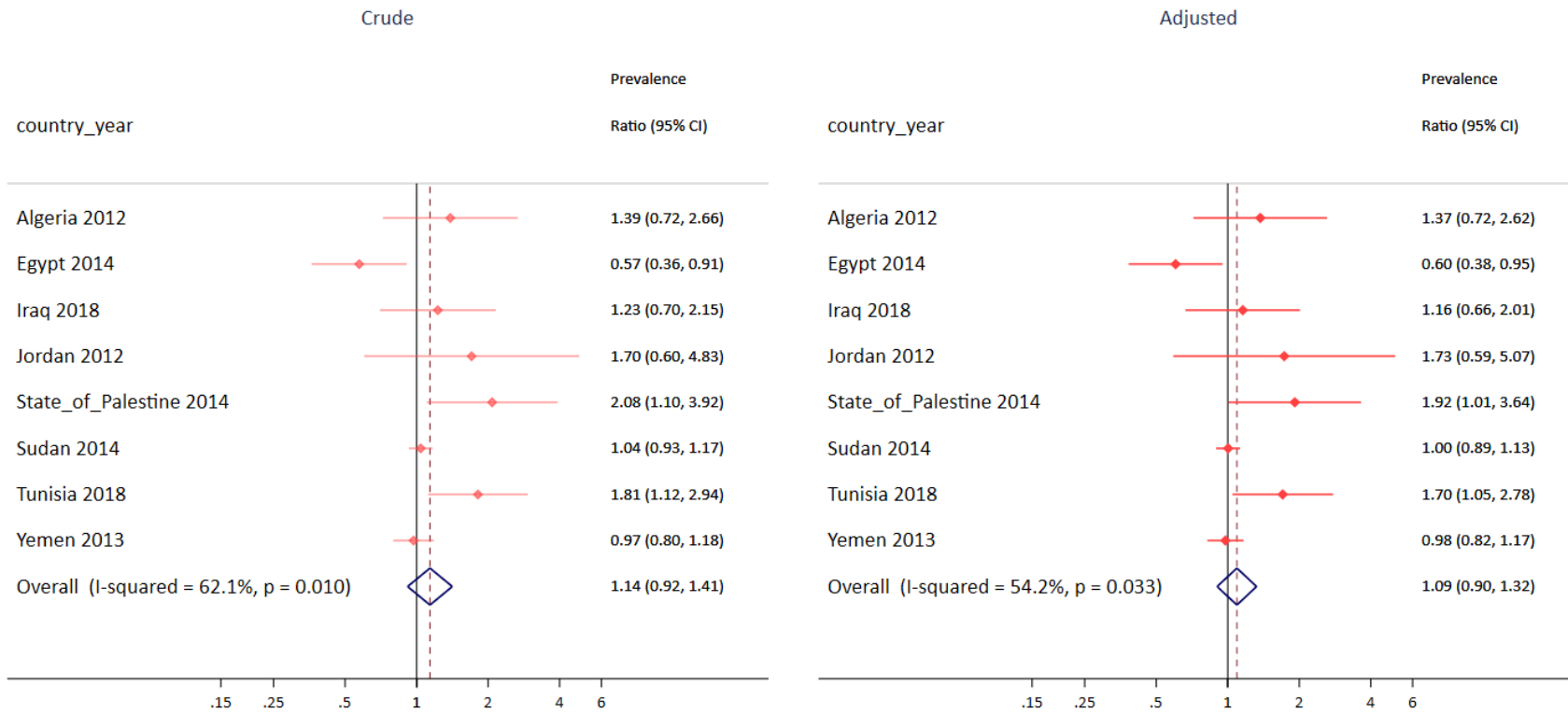


Figure A39. Crude and adjusted prevalence ratio for stunting in FHH (no male) in Middle East & North Africa

Eastern Europe & Central Asia

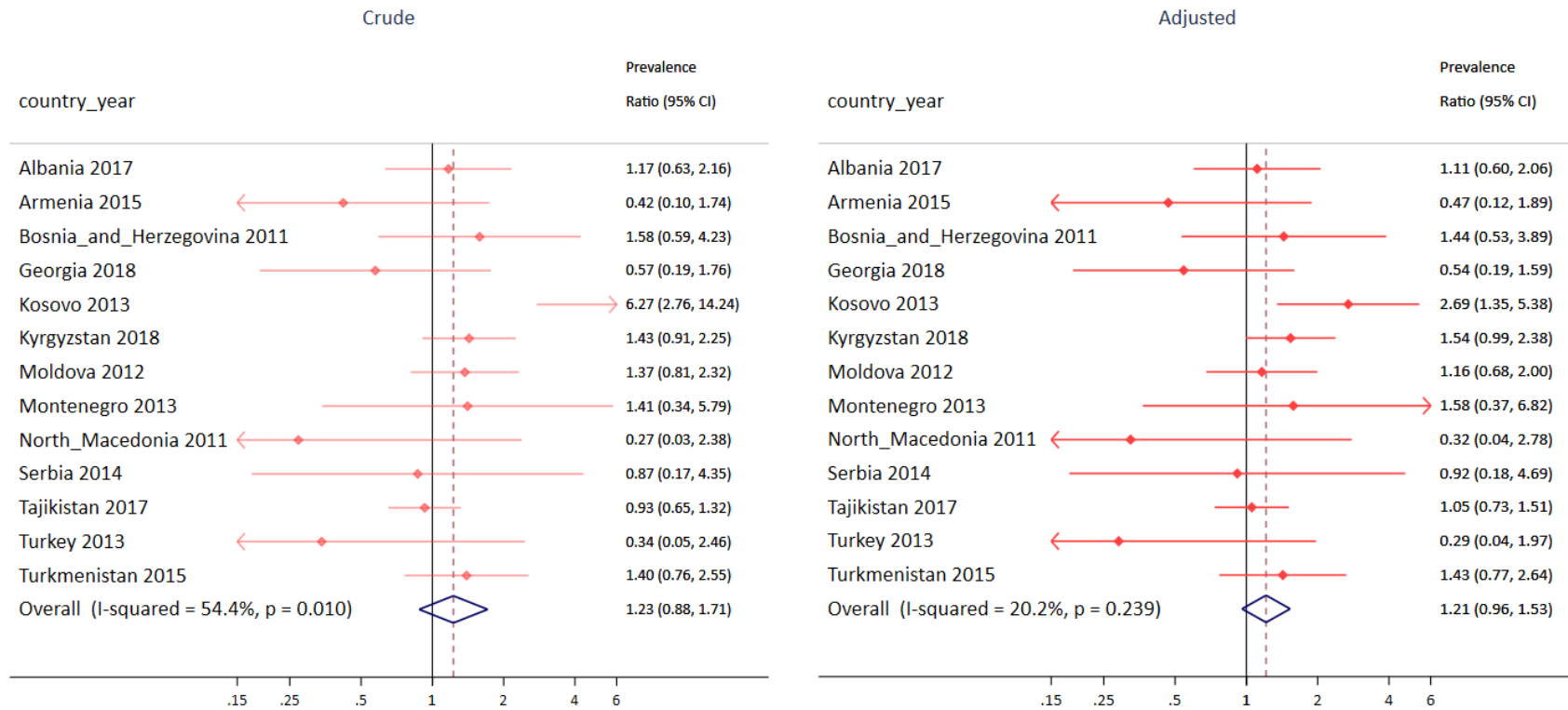


Figure A40. Crude and adjusted prevalence ratio for stunting in FHH (no male) in Eastern Europe & Central Asia

South Asia

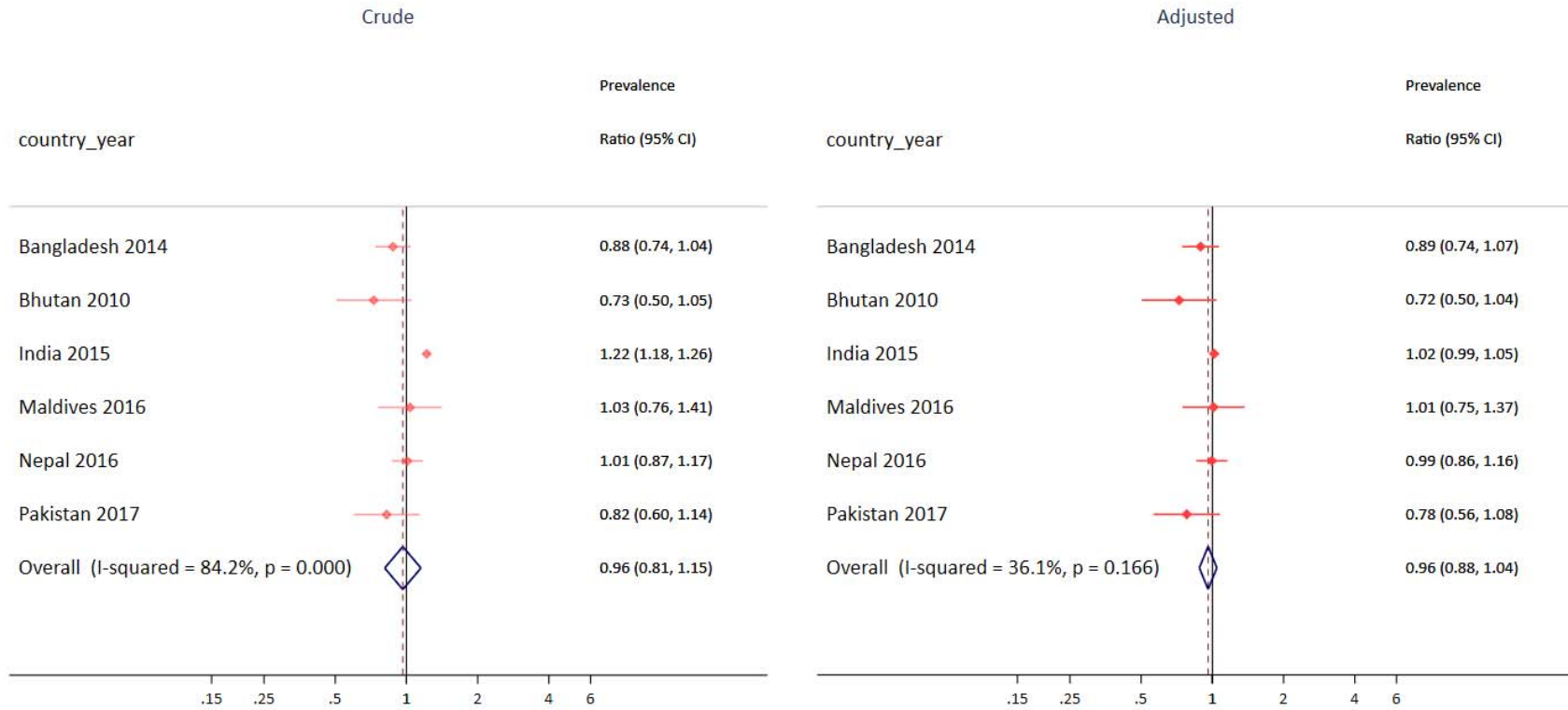


Figure A41. Crude and adjusted prevalence ratio for stunting in FHH (no male) in South Asia

East Asia & Pacific

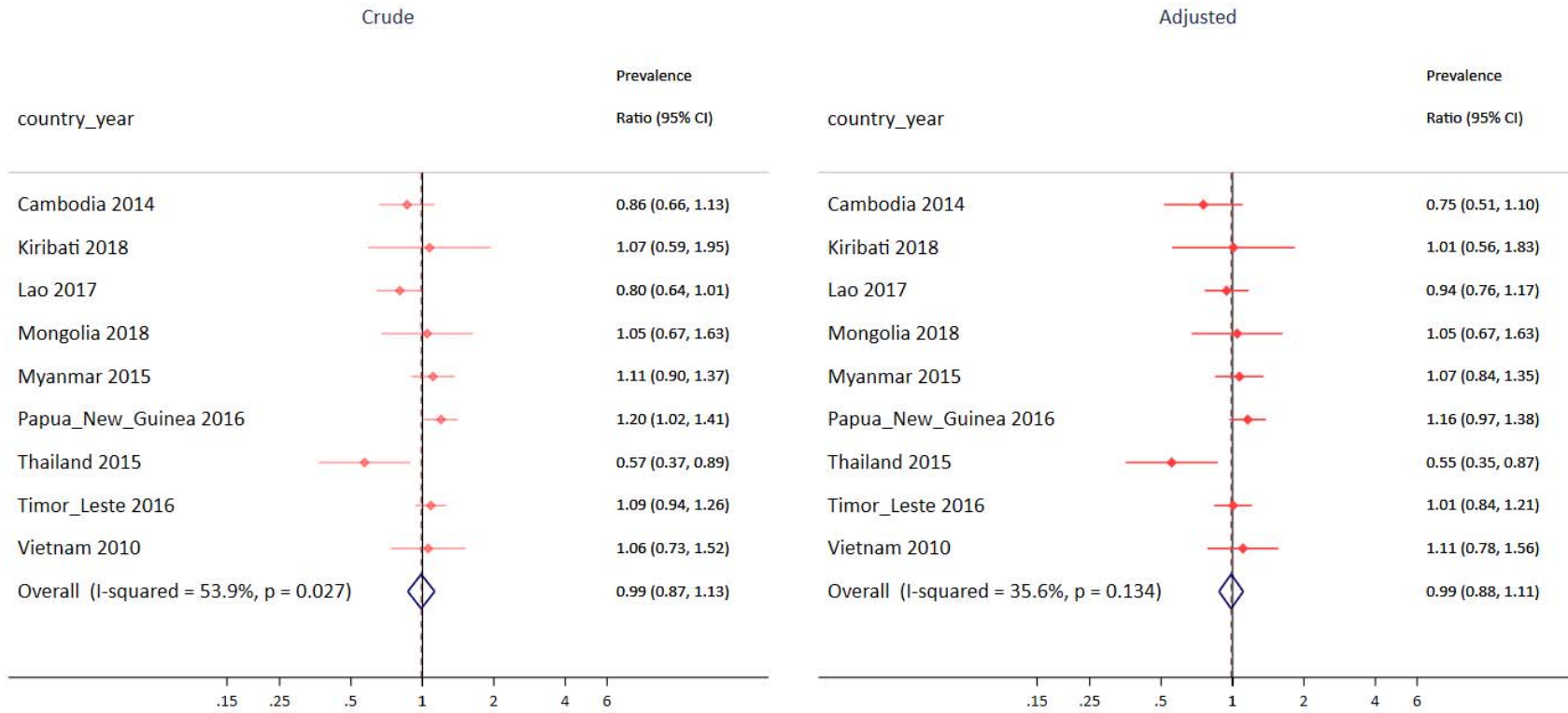


Figure A42. Crude and adjusted prevalence ratio for stunting in FHH (no male) in East Asia & Pacific

Latin America & Caribbean

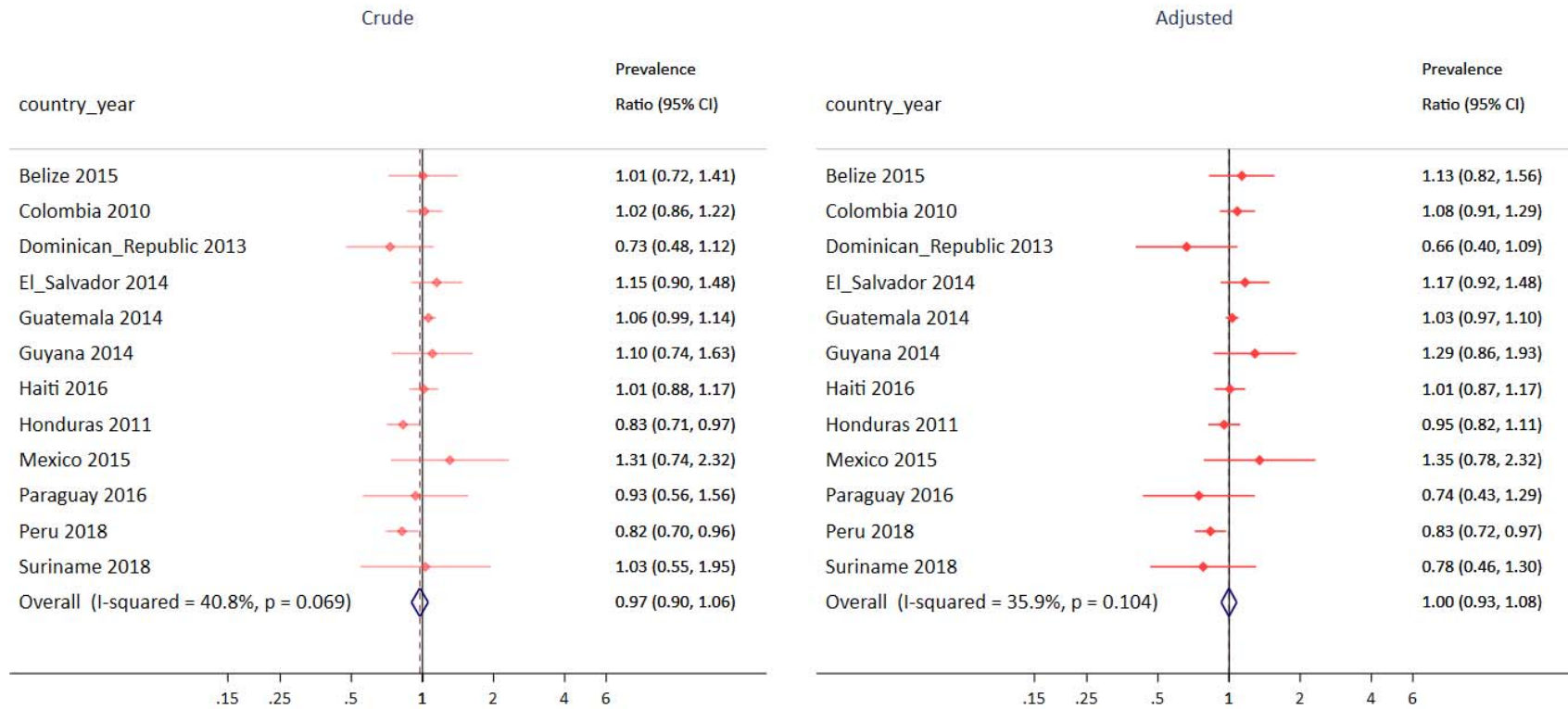


Figure A43. Crude and adjusted prevalence ratio for stunting in FHH (no male) in Latin America & Caribbean

West & Central Africa

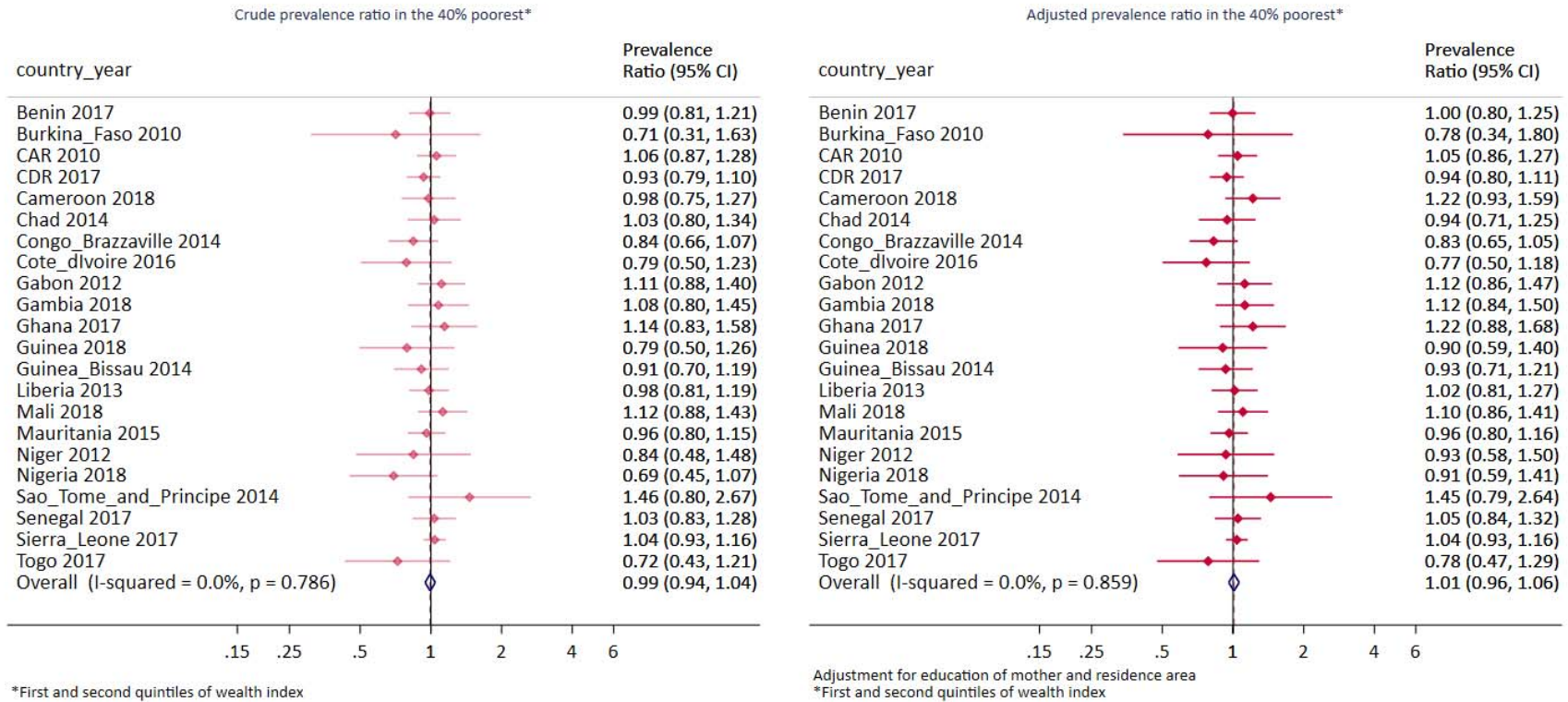


Figure A44. Crude and adjusted prevalence ratio for stunting in FHH (any male) in West & Central Africa. Analysis restricted to 40% poorest in each country.

Eastern & Southern Africa

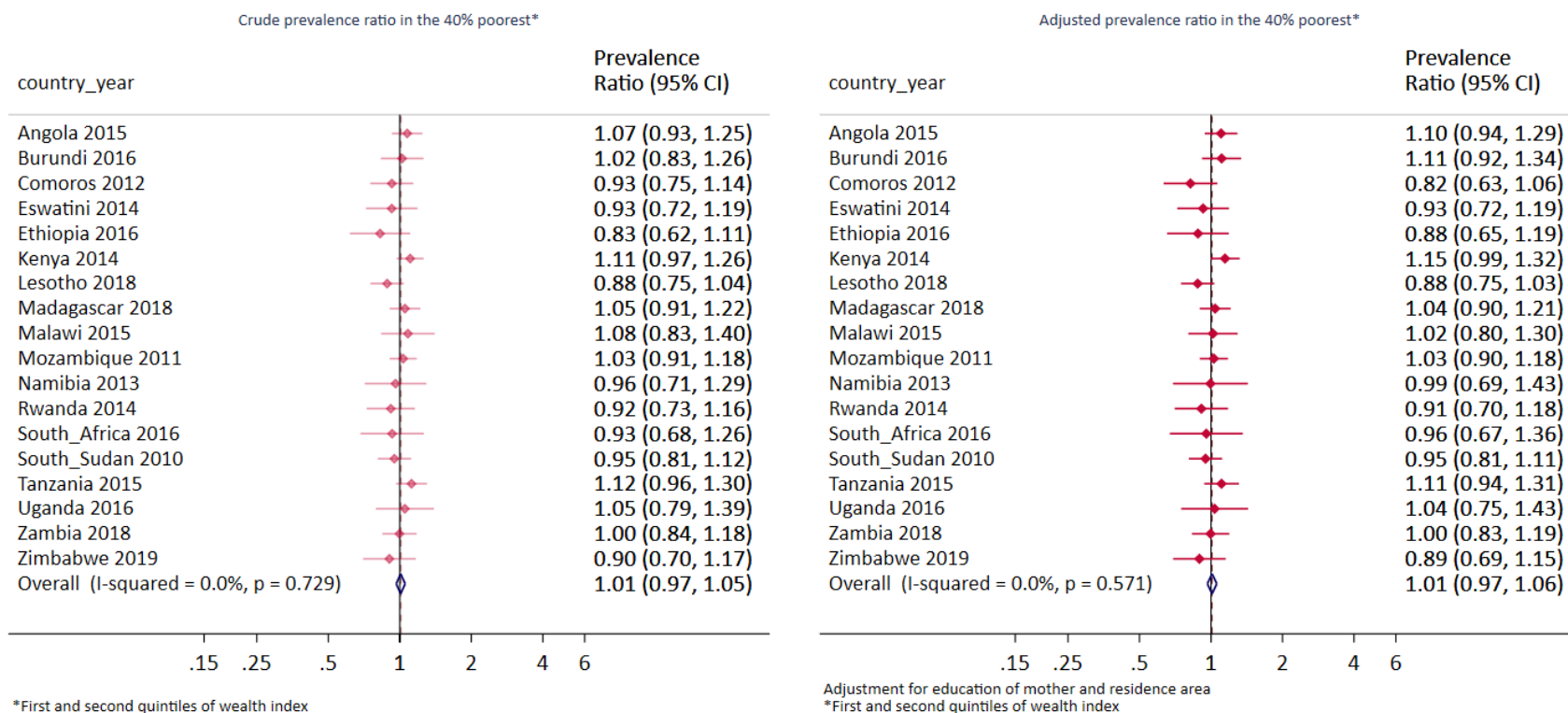


Figure A45. Crude and adjusted prevalence ratio for stunting in FHH (any male) in Eastern & Southern Africa. Analysis restricted to 40% poorest in each country.

Middle East & North Africa

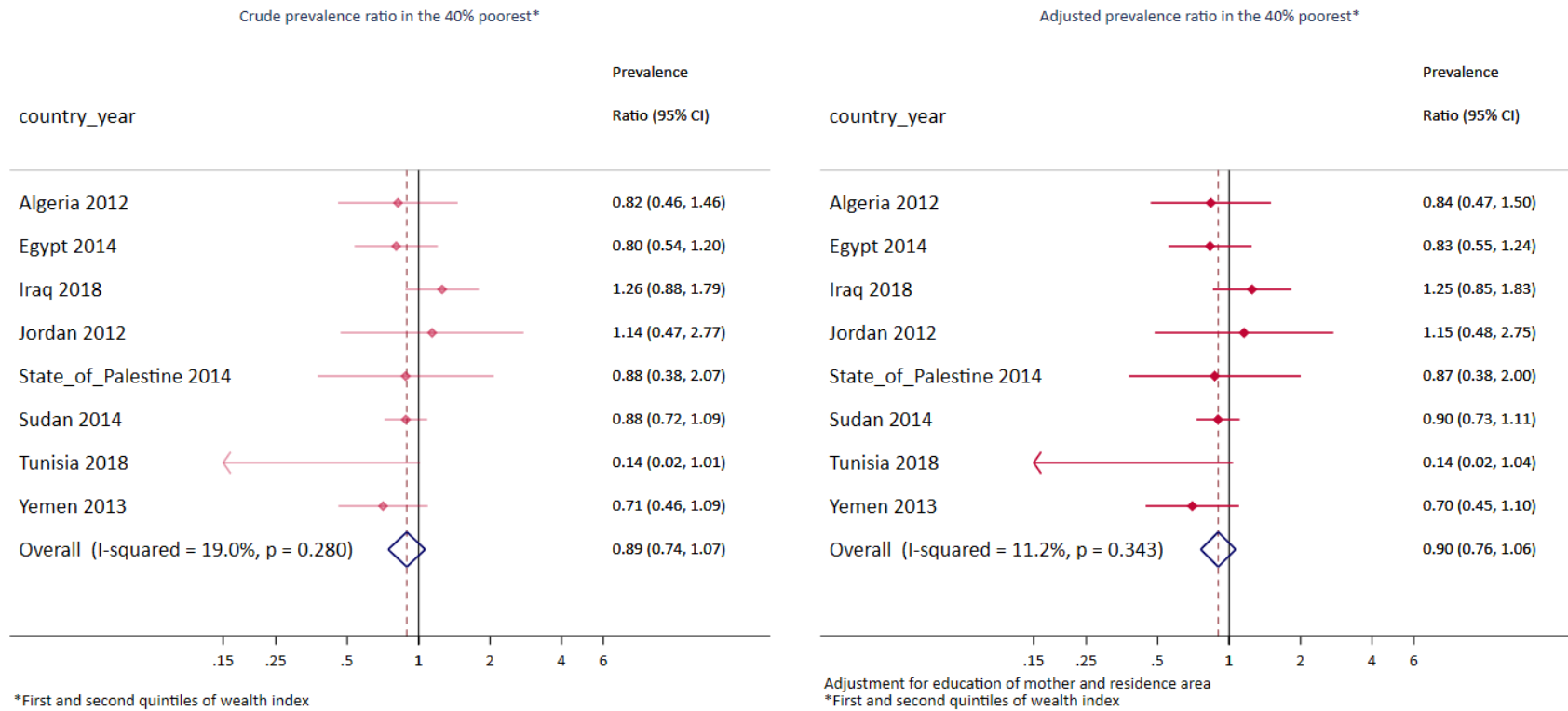


Figure A46. Crude and adjusted prevalence ratio for stunting in FHH (any male) in Middle East & North Africa. Analysis restricted to 40% poorest in each country.

Eastern Europe & Central Asia

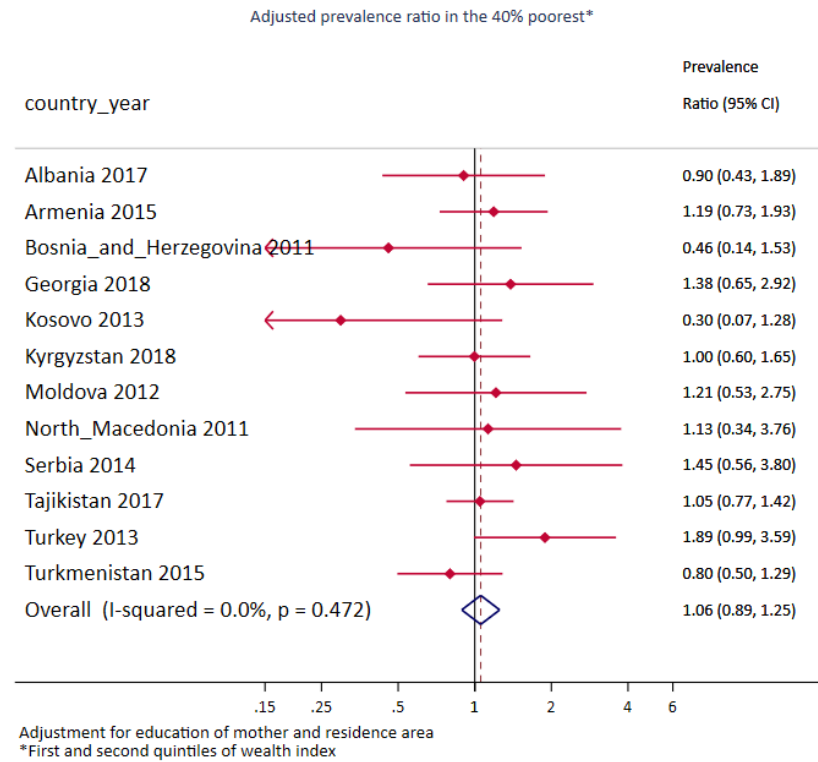
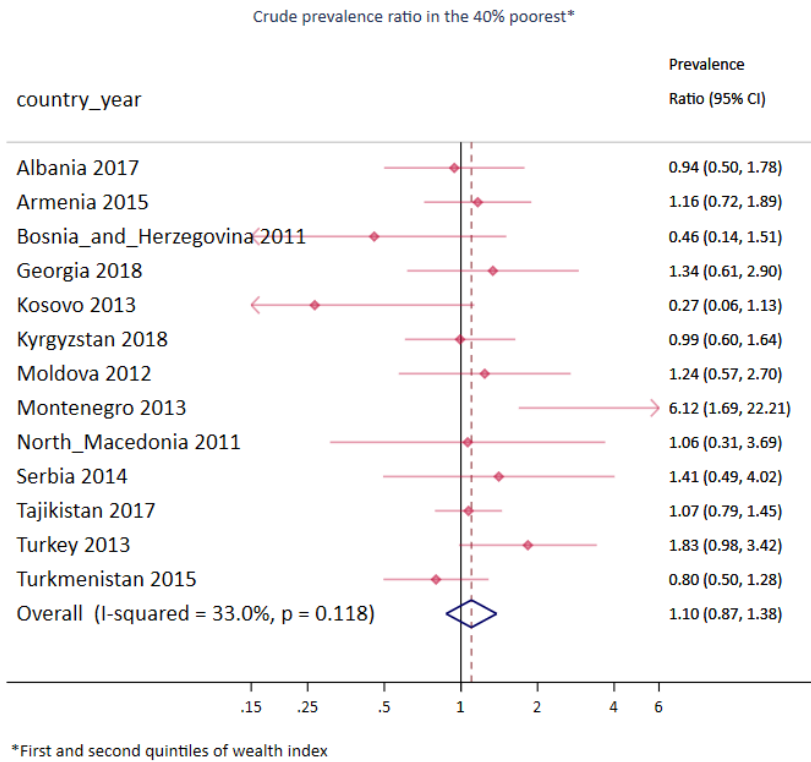


Figure A47. Crude and adjusted prevalence ratio for stunting in FHH (any male) in Eastern Europe & Central Asia. Analysis restricted to 40% poorest in each country.

South Asia

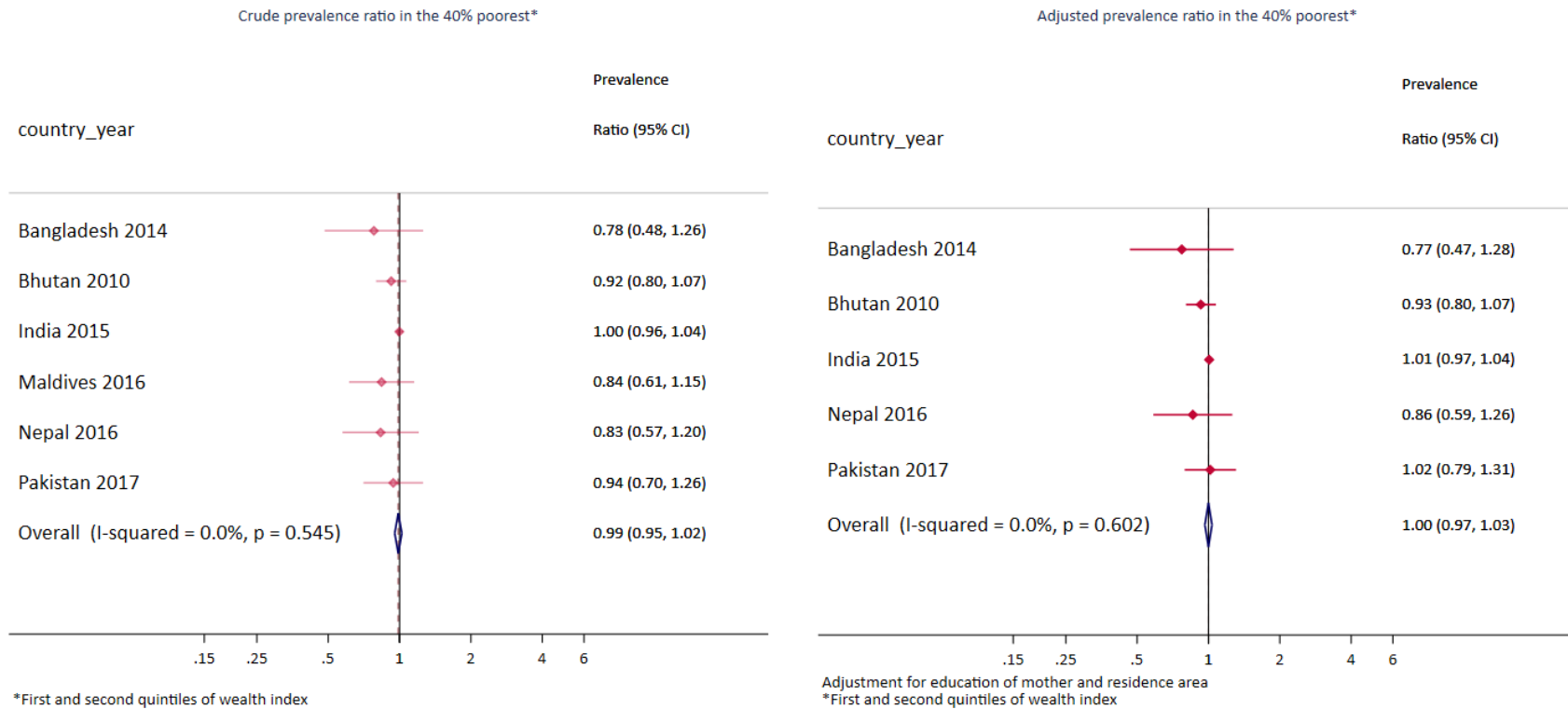


Figure A48. Crude and adjusted prevalence ratio for stunting in FHH (any male) in South Asia. Analysis restricted to 40% poorest in each country.

East Asia & Pacific

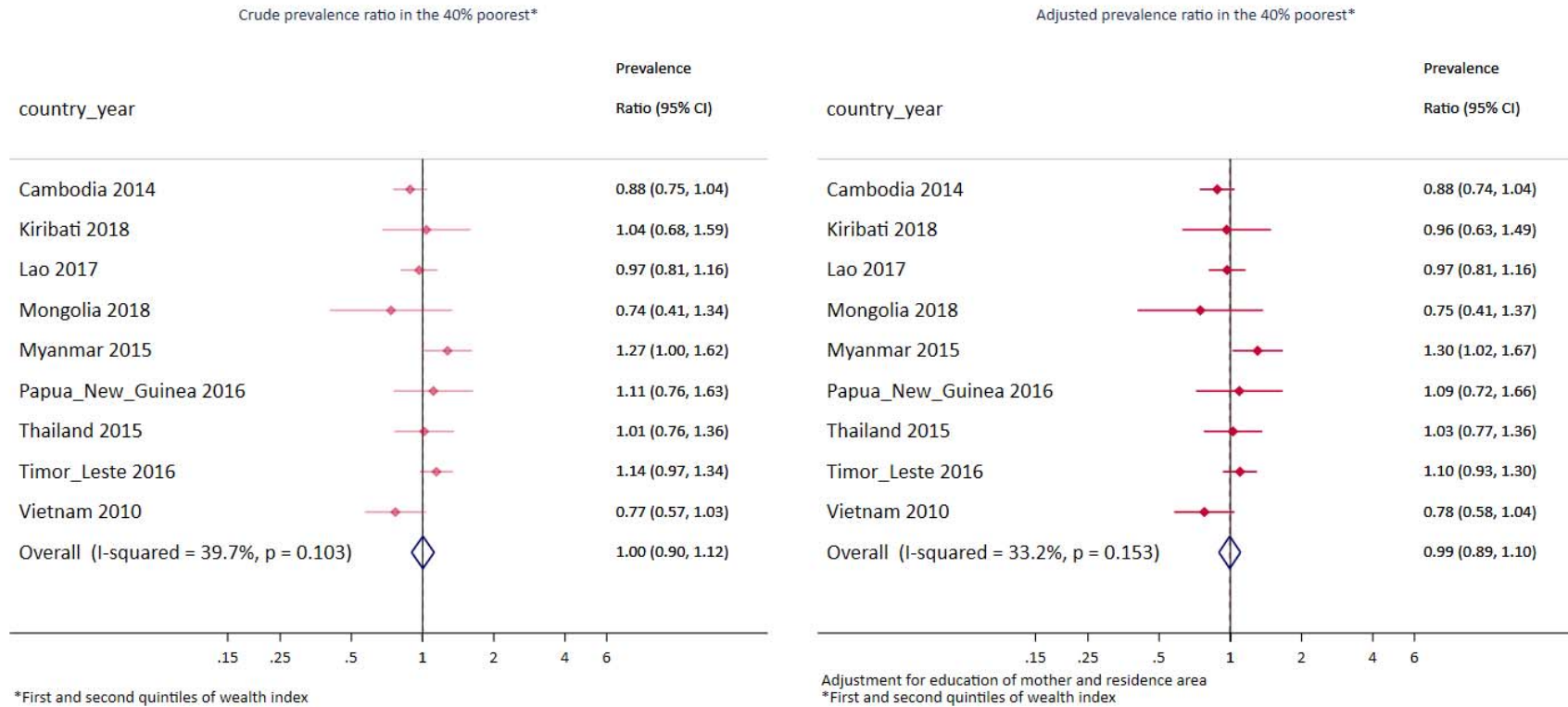


Figure A49. Crude and adjusted prevalence ratio for stunting in FHH (any male) in East Asia & Pacific. Analysis restricted to 40% poorest in each country.

Latin America & Caribbean

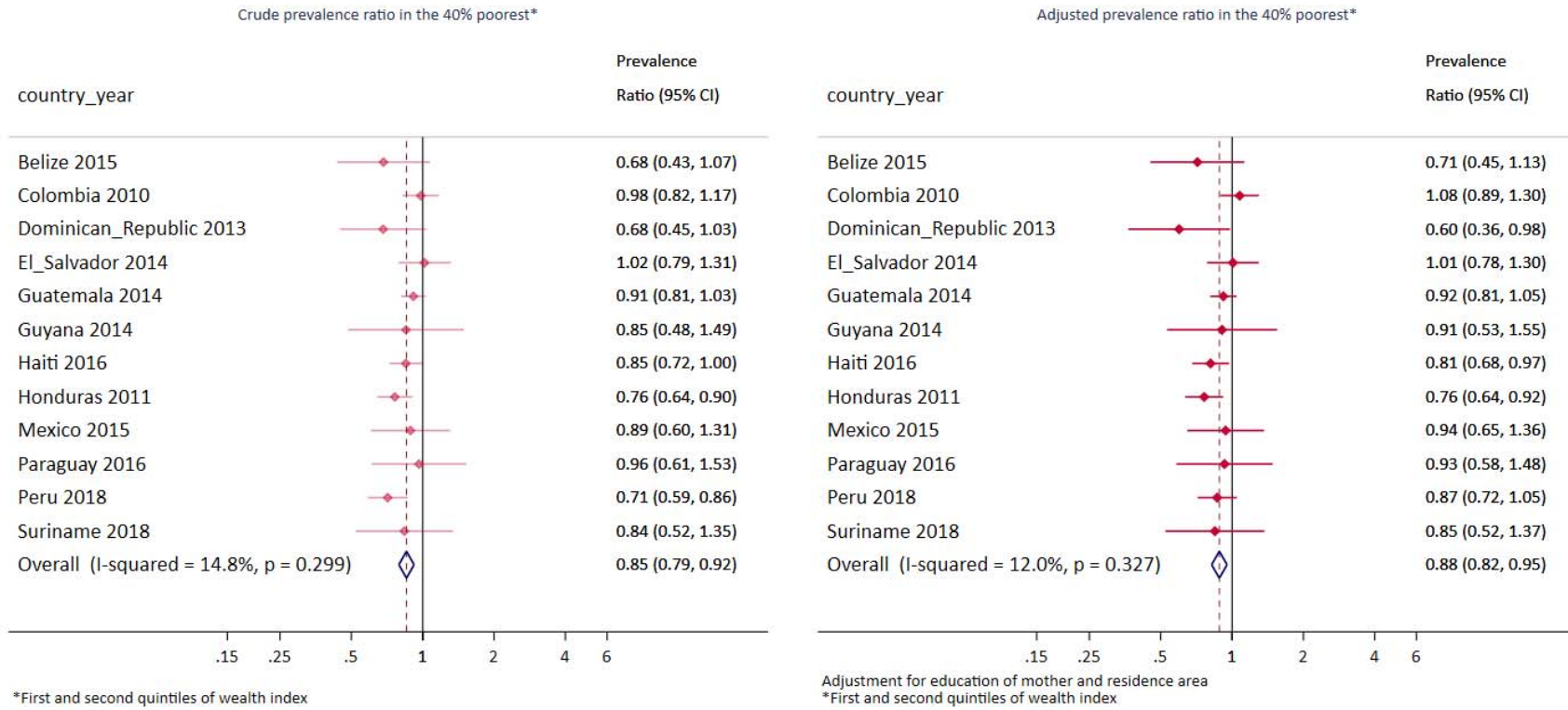


Figure A50. Crude and adjusted prevalence ratio for stunting in FHH (any male) in Latin America & Caribbean. Analysis restricted to 40% poorest in each country.

West & Central Africa

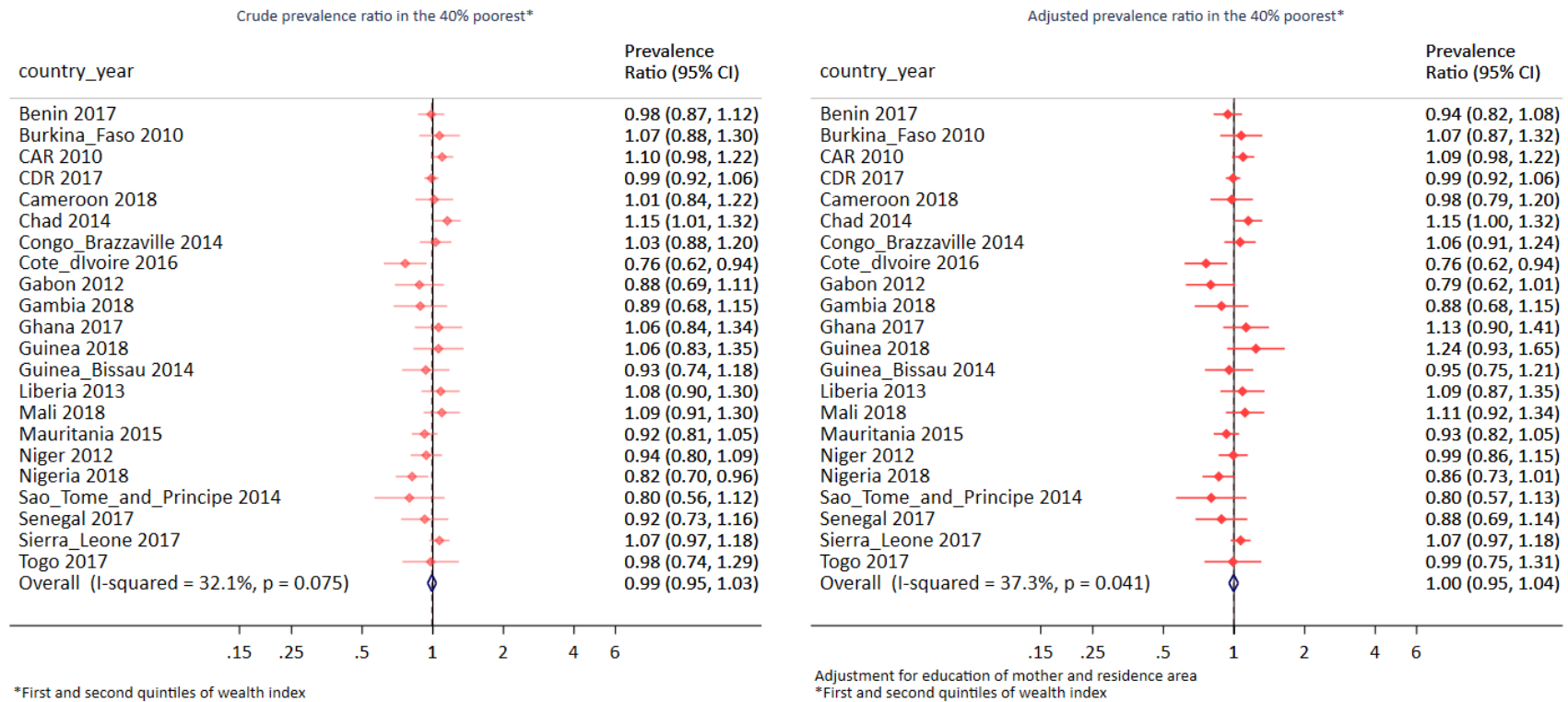


Figure A51. Crude and adjusted prevalence ratio for stunting in FHH (no male) in West & Central Africa. Analysis restricted to 40% poorest in each country.

Eastern & Southern Africa

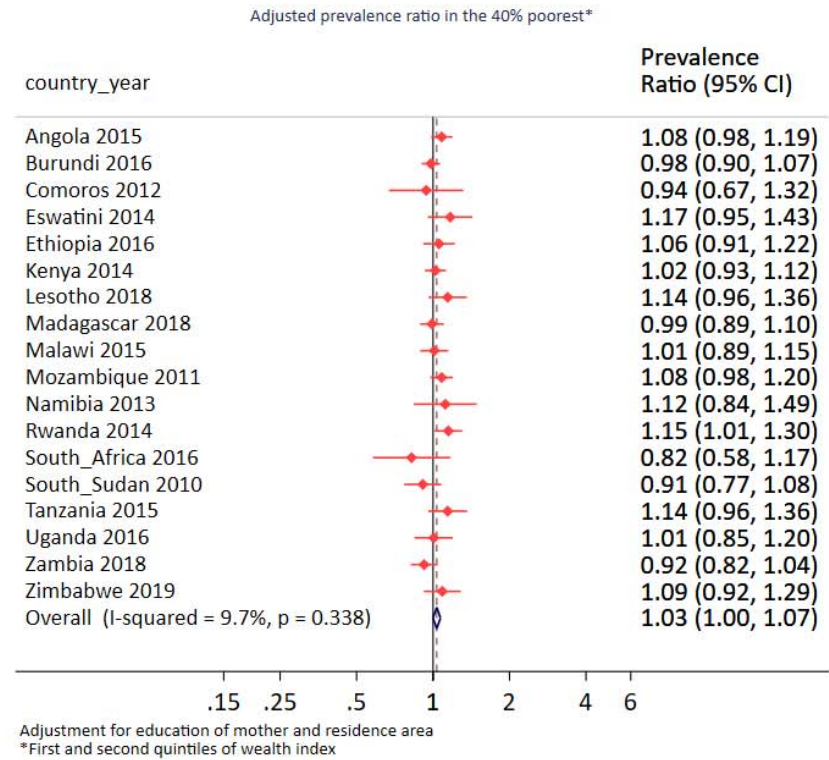
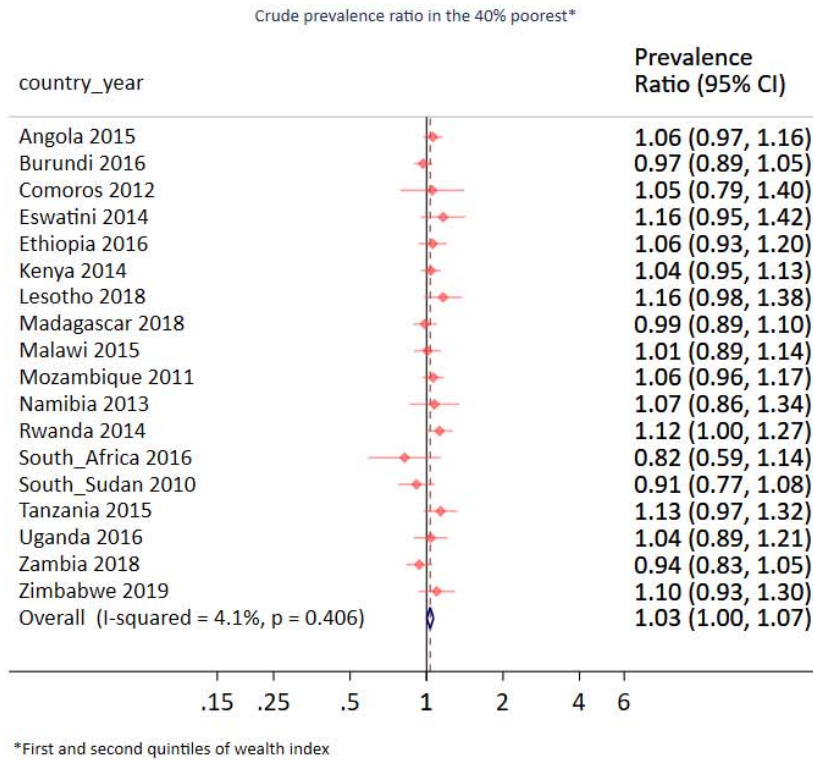


Figure A52. Crude and adjusted prevalence ratio for stunting in FHH (no male) in Easter & Southern Africa. Analysis restricted to 40% poorest in each country.

Middle East & North Africa

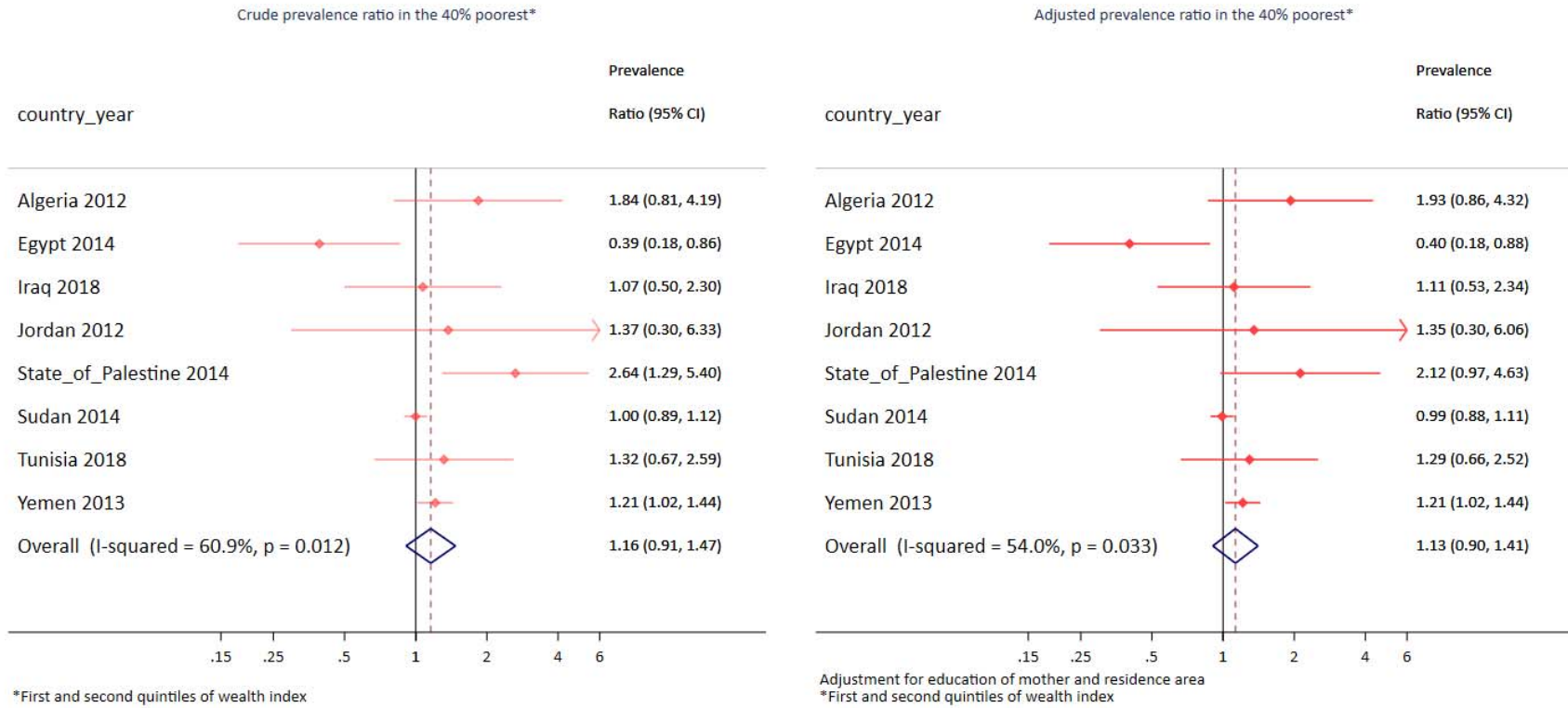


Figure A53. Crude and adjusted prevalence ratio for stunting in FHH (no male) in Middle East & North Africa. Analysis restricted to 40% poorest in each country.

Eastern Europe & Central Asia

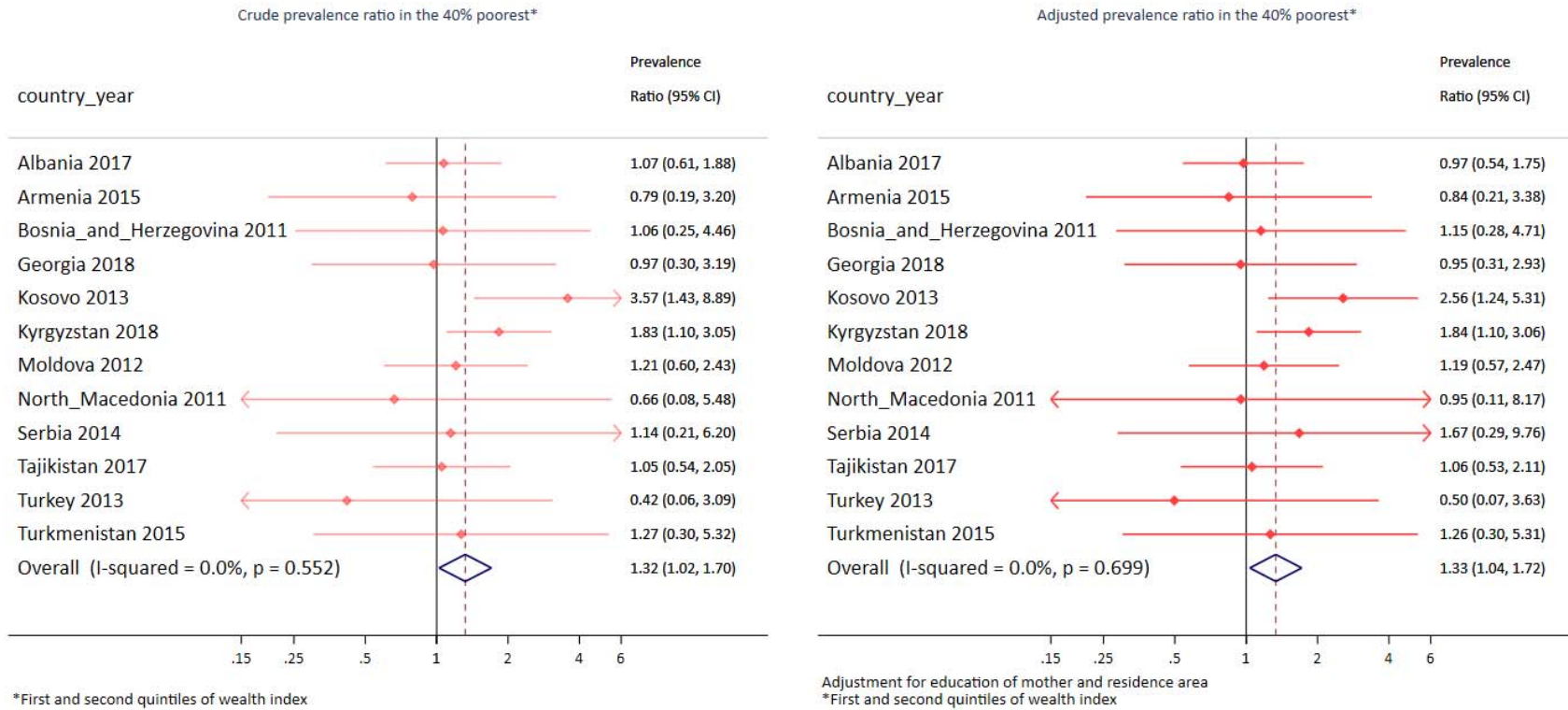


Figure A54. Crude and adjusted prevalence ratio for stunting in FHH (no male) in Eastern Europe & Central Asia. Analysis restricted to 40% poorest in each country.

South Asia

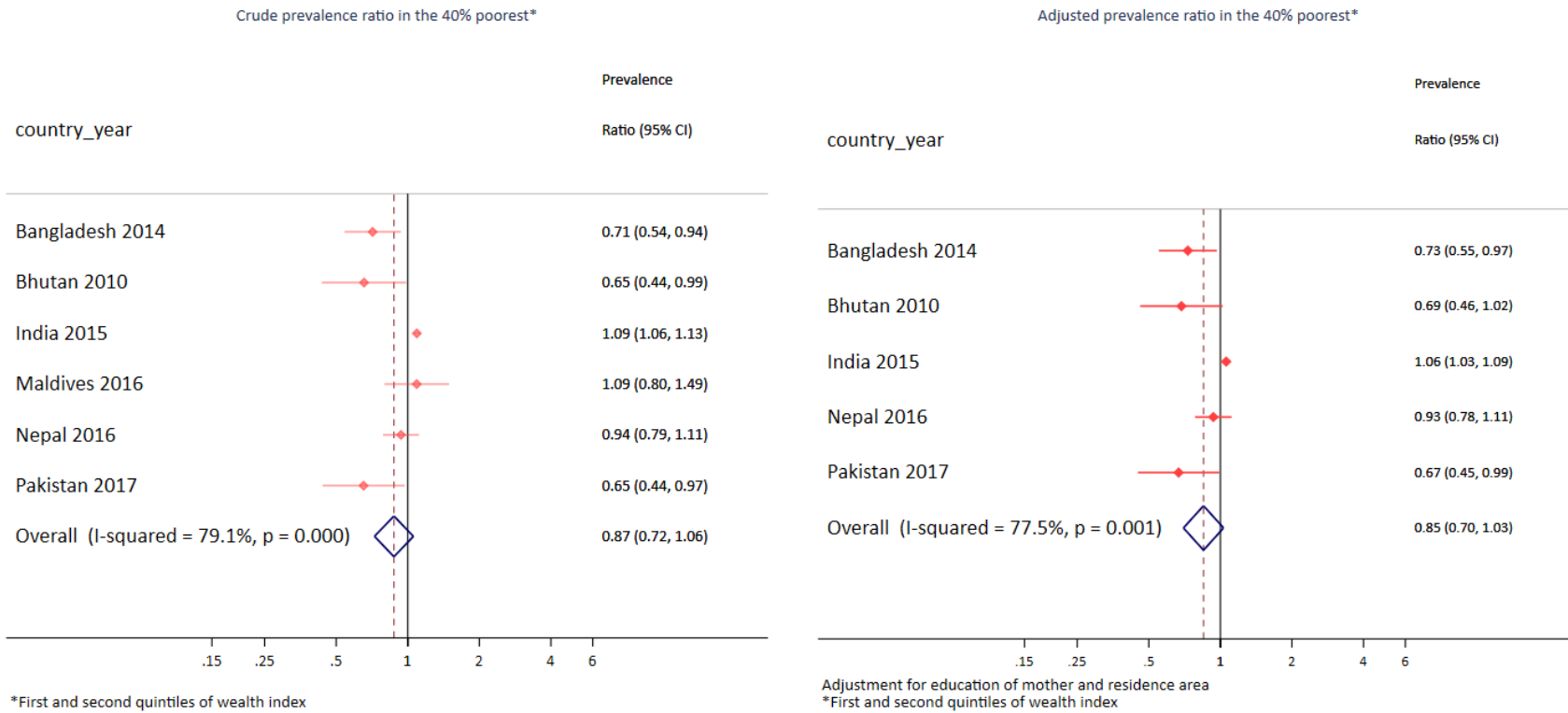


Figure A55. Crude and adjusted prevalence ratio for stunting in FHH (no male) in South Asia. Analysis restricted to 40% poorest in each country.

East Asia & Pacific

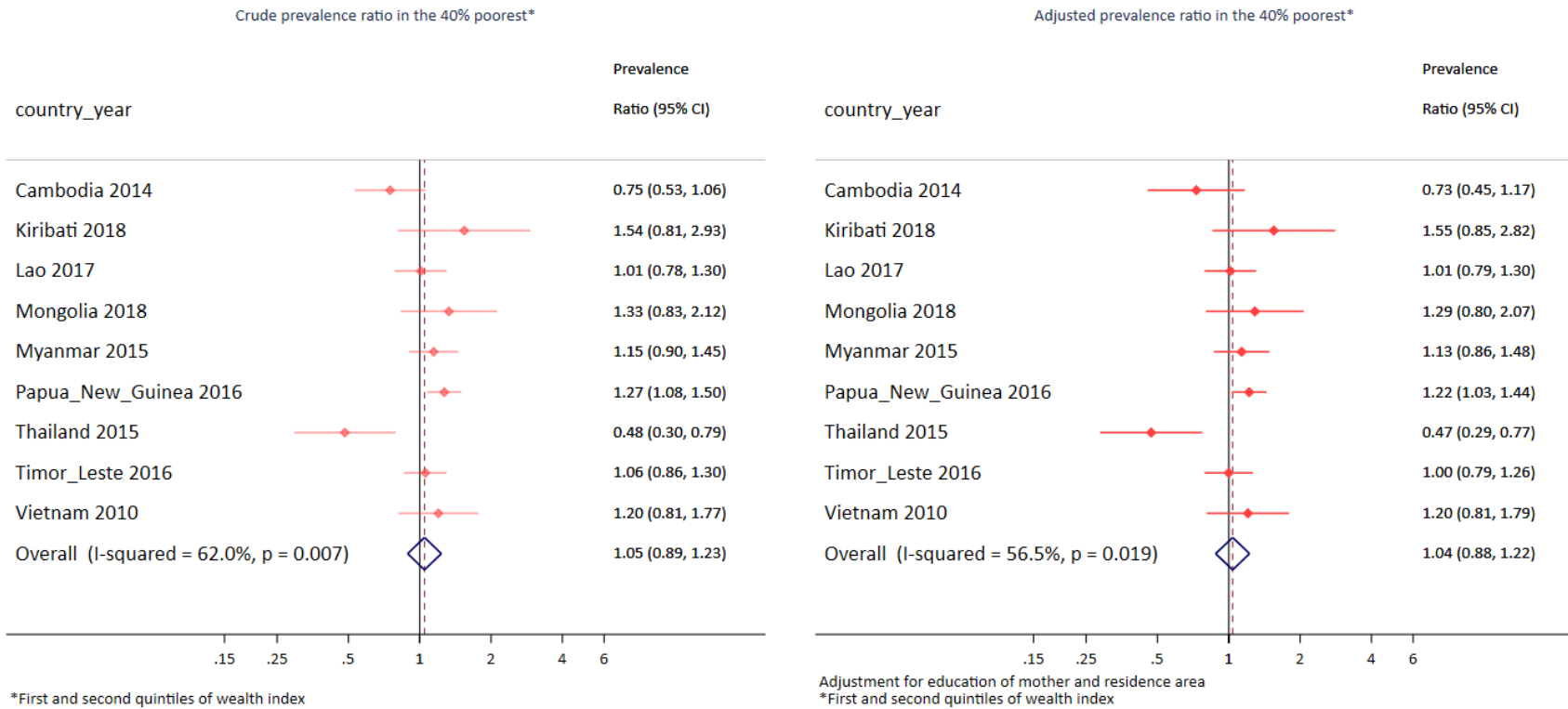


Figure A56. Crude and adjusted prevalence ratio for stunting in FHH (no male) in East Asia & Pacific. Analysis restricted to 40% poorest in each country.

Latin America & Caribbean

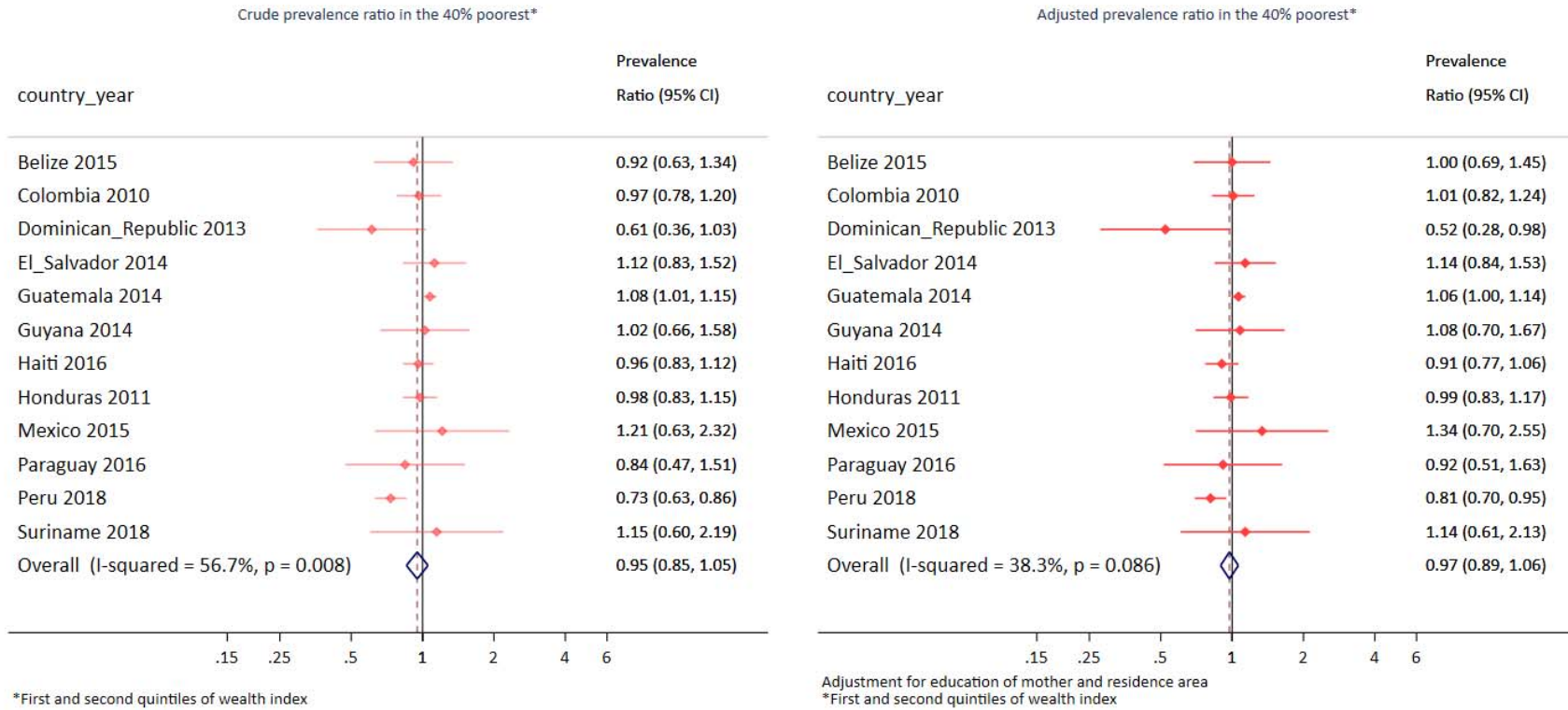


Figure A57. Crude and adjusted prevalence ratio for stunting in FHH (no male) in Latin America & Caribbean. Analysis restricted to 40% poorest in each country.

Table A4. Prevalence ratios of full immunization adjusted for wealth index, maternal education, area of residence and mother living in polygynous union.

Country	Year	FHH any male		FHH no male	
		PR	95% CI	RP	95% CI
Afghanistan	2015	1.11	(0.69 - 1.79)	1.42	(0.91 - 2.21)
Algeria	2012	1.03	(0.93 - 1.13)	1.26	(1.18 - 1.34)
Angola	2015	1.06	(0.84 - 1.33)	1.02	(0.84 - 1.23)
Benin	2017	1.15	(0.98 - 1.33)	0.89	(0.78 - 1.03)
Burkina_Faso	2010	1.03	(0.89 - 1.19)	0.92	(0.81 - 1.04)
Burundi	2016	0.92	(0.82 - 1.04)	1.00	(0.95 - 1.05)
CAR	2010	1.75	(1.07 - 2.86)	1.36	(0.87 - 2.11)
Cambodia	2014	0.96	(0.87 - 1.06)	1.18	(0.97 - 1.43)
Cameroon	2018	1.16	(1.01 - 1.34)	0.93	(0.80 - 1.10)
Chad	2014	1.00	(0.71 - 1.42)	0.66	(0.46 - 0.94)
Comoros	2012	0.90	(0.77 - 1.06)	0.68	(0.45 - 1.01)
Congo_Brazzaville	2014	0.82	(0.46 - 1.47)	0.91	(0.61 - 1.37)
CDR	2017	0.55	(0.34 - 0.90)	0.98	(0.77 - 1.25)
Cote_dIvoire	2016	0.97	(0.71 - 1.33)	1.28	(1.03 - 1.61)
Egypt	2014	1.02	(0.94 - 1.11)	0.95	(0.80 - 1.12)
El_Salvador	2014	1.01	(0.93 - 1.10)	0.89	(0.77 - 1.03)
Eswatini	2014	1.04	(0.91 - 1.18)	1.06	(0.95 - 1.17)
Ethiopia	2016	0.77	(0.57 - 1.05)	0.73	(0.55 - 0.98)
Gabon	2012	1.34	(0.97 - 1.86)	1.13	(0.85 - 1.52)

Gambia	2018	1.03	(0.93 - 1.14)	0.93	(0.81 - 1.06)
Ghana	2017	0.81	(0.65 - 1.01)	0.91	(0.78 - 1.05)
Guinea	2018	0.90	(0.59 - 1.38)	1.24	(0.84 - 1.83)
Guinea_Bissau	2014	1.00	(0.87 - 1.16)	0.87	(0.70 - 1.09)
Guyana	2014	0.92	(0.74 - 1.15)	0.90	(0.72 - 1.14)
Haiti	2016	0.96	(0.80 - 1.15)	0.99	(0.81 - 1.21)
India	2015	1.04	(1.01 - 1.08)	1.02	(0.97 - 1.07)
Iraq	2018	1.10	(0.97 - 1.24)	1.19	(0.69 - 2.04)
Jordan	2012	1.00	(0.88 - 1.14)	1.03	(0.96 - 1.11)
Kenya	2014	0.82	(0.71 - 0.95)	0.99	(0.93 - 1.06)
Kiribati	2018	1.36	(0.80 - 2.30)	0.70	(0.17 - 2.92)
Lao	2017	0.98	(0.81 - 1.19)	0.55	(0.28 - 1.07)
Lesotho	2018	0.97	(0.83 - 1.14)	0.71	(0.54 - 0.95)
Liberia	2013	0.88	(0.74 - 1.06)	1.01	(0.84 - 1.21)
Madagascar	2018	0.86	(0.62 - 1.20)	0.88	(0.72 - 1.07)
Malawi	2015	0.94	(0.85 - 1.03)	0.94	(0.88 - 1.00)
Maldives	2016	0.94	(0.82 - 1.08)	0.97	(0.82 - 1.15)
Mali	2018	1.34	(1.09 - 1.65)	0.87	(0.69 - 1.10)
Mauritania	2015	0.96	(0.70 - 1.32)	0.97	(0.74 - 1.27)
Mozambique	2011	0.95	(0.84 - 1.06)	1.04	(0.96 - 1.14)
Myanmar	2015	1.12	(0.92 - 1.35)	0.87	(0.61 - 1.22)
Namibia	2013	1.05	(0.94 - 1.18)	0.94	(0.83 - 1.06)
Nepal	2016	1.08	(0.98 - 1.19)	1.04	(0.95 - 1.14)

Niger	2012	0.74	(0.43 - 1.28)	1.11	(0.97 - 1.28)
Nigeria	2018	1.03	(0.81 - 1.30)	1.07	(0.93 - 1.22)
Pakistan	2017	1.18	(1.05 - 1.33)	1.21	(1.03 - 1.43)
Panama	2013	0.86	(0.64 - 1.15)	1.25	(1.07 - 1.47)
Papua_New_Guinea	2016	0.73	(0.54 - 1.01)	0.69	(0.38 - 1.26)
Philippines	2017	0.89	(0.76 - 1.04)	0.95	(0.74 - 1.22)
Rwanda	2014	0.96	(0.90 - 1.04)	0.94	(0.88 - 1.00)
Sao_Tome_and_Principe	2014	0.96	(0.78 - 1.19)	1.10	(0.99 - 1.23)
Senegal	2017	0.92	(0.84 - 1.00)	1.02	(0.93 - 1.12)
Sierra_Leone	2017	1.00	(0.89 - 1.11)	0.90	(0.81 - 1.00)
South_Africa	2016	0.99	(0.80 - 1.22)	1.02	(0.86 - 1.22)
South_Sudan	2010	0.61	(0.26 - 1.43)	0.85	(0.41 - 1.75)
State_of_Palestine	2014	0.92	(0.77 - 1.09)	1.00	(0.70 - 1.44)
Sudan	2014	1.10	(0.98 - 1.23)	0.93	(0.79 - 1.09)
Tajikistan	2017	1.02	(0.94 - 1.12)	0.96	(0.68 - 1.35)
Tanzania	2015	0.98	(0.86 - 1.12)	1.00	(0.90 - 1.11)
Thailand	2015	0.94	(0.81 - 1.09)	1.04	(0.90 - 1.20)
Timor_Leste	2016	0.99	(0.80 - 1.23)	0.94	(0.66 - 1.34)
Togo	2017	0.92	(0.64 - 1.30)	0.91	(0.71 - 1.17)
Uganda	2016	0.93	(0.79 - 1.11)	1.00	(0.91 - 1.10)
Vietnam	2010	1.05	(0.97 - 1.15)	1.03	(0.83 - 1.28)
Yemen	2013	0.92	(0.65 - 1.29)	0.94	(0.63 - 1.41)
Zambia	2018	0.97	(0.85 - 1.10)	0.96	(0.87 - 1.06)

Zimbabwe	2019	1.04	(0.97 - 1.11)	0.95	(0.87 - 1.03)
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Table A5. Prevalence ratios of stunting adjusted for wealth index, maternal education, area of residence and mother living in polygynous union.

Country	Year	FHH any male		FHH no male	
		PR	95% CI	RP	95% CI
Algeria	2012	1.06	(0.79 - 1.43)	1.49	(0.73 - 3.04)
Angola	2015	0.94	(0.80 - 1.12)	1.06	(0.96 - 1.17)
Barbados	2012	2.07	(0.78 - 5.47)	1.62	(0.57 - 4.62)
Benin	2017	0.98	(0.83 - 1.15)	0.98	(0.89 - 1.09)
Bhutan	2010	0.97	(0.87 - 1.08)	0.72	(0.49 - 1.06)
Burkina_Faso	2010	0.91	(0.62 - 1.34)	1.02	(0.88 - 1.19)
Burundi	2016	1.11	(0.96 - 1.28)	0.94	(0.88 - 1.01)
CAR	2010	0.98	(0.84 - 1.15)	1.12	(1.02 - 1.22)
Cambodia	2014	0.98	(0.85 - 1.14)	0.75	(0.51 - 1.10)
Cameroon	2018	1.06	(0.84 - 1.34)	1.01	(0.85 - 1.20)
Chad	2014	0.95	(0.81 - 1.13)	1.16	(1.05 - 1.29)
Comoros	2012	0.85	(0.71 - 1.02)	0.89	(0.68 - 1.18)
Congo_Brazzaville	2014	0.97	(0.73 - 1.29)	0.93	(0.79 - 1.09)
CDR	2017	0.98	(0.85 - 1.15)	1.00	(0.92 - 1.08)
Cote_dIvoire	2016	0.96	(0.72 - 1.29)	0.82	(0.65 - 1.02)
Egypt	2014	0.96	(0.70 - 1.32)	0.59	(0.38 - 0.93)
El_Salvador	2014	1.10	(0.90 - 1.34)	1.17	(0.92 - 1.49)
Eswatini	2014	0.86	(0.68 - 1.09)	1.00	(0.81 - 1.24)
Ethiopia	2016	0.96	(0.80 - 1.16)	1.11	(0.98 - 1.25)
Gabon	2012	1.19	(0.86 - 1.63)	0.96	(0.72 - 1.30)
Gambia	2018	0.92	(0.73 - 1.15)	0.74	(0.56 - 0.99)

Ghana	2017	1.04	(0.80 - 1.34)	1.02	(0.86 - 1.23)
Guinea	2018	1.08	(0.82 - 1.41)	1.13	(0.93 - 1.37)
Guinea_Bissau	2014	1.02	(0.84 - 1.24)	0.97	(0.76 - 1.25)
Guyana	2014	1.11	(0.76 - 1.63)	1.32	(0.84 - 2.08)
Haiti	2016	0.86	(0.74 - 1.00)	1.00	(0.85 - 1.17)
India	2015	1.00	(0.97 - 1.03)	1.02	(0.99 - 1.05)
Iraq	2018	1.22	(0.89 - 1.67)	1.26	(0.73 - 2.15)
Jordan	2012	1.09	(0.48 - 2.49)	1.73	(0.59 - 5.07)
Kenya	2014	1.08	(0.95 - 1.21)	0.98	(0.90 - 1.06)
Kiribati	2018	1.00	(0.70 - 1.42)	0.88	(0.47 - 1.64)
Kosovo	2013	0.41	(0.13 - 1.26)	2.66	(1.34 - 5.27)
Lao	2017	0.93	(0.82 - 1.07)	0.95	(0.76 - 1.20)
Lesotho	2018	1.00	(0.85 - 1.19)	1.13	(0.95 - 1.34)
Liberia	2013	0.92	(0.74 - 1.15)	1.02	(0.84 - 1.25)
Madagascar	2018	1.03	(0.89 - 1.20)	0.96	(0.88 - 1.06)
Malawi	2015	1.01	(0.82 - 1.24)	1.02	(0.91 - 1.14)
Maldives	2016	0.79	(0.58 - 1.06)	0.99	(0.72 - 1.36)
Mali	2018	1.03	(0.85 - 1.23)	1.09	(0.95 - 1.25)
Mauritania	2015	1.03	(0.91 - 1.17)	1.07	(0.96 - 1.20)
Mozambique	2011	1.04	(0.95 - 1.13)	0.98	(0.90 - 1.06)
Myanmar	2015	1.18	(0.96 - 1.45)	1.07	(0.84 - 1.36)
Namibia	2013	1.10	(0.84 - 1.44)	0.98	(0.77 - 1.25)
Nepal	2016	0.95	(0.72 - 1.24)	0.99	(0.85 - 1.16)
Niger	2012	1.16	(0.87 - 1.55)	1.03	(0.92 - 1.14)
Nigeria	2018	1.17	(0.92 - 1.47)	0.87	(0.77 - 0.98)
Pakistan	2017	0.99	(0.74 - 1.31)	0.78	(0.56 - 1.08)
Papua_New_Guinea	2016	0.93	(0.66 - 1.30)	1.15	(0.96 - 1.38)
Rwanda	2014	0.91	(0.73 - 1.12)	1.10	(0.99 - 1.24)

Sao_Tome_and_Principe	2014	1.18	(0.70 – 2.00)	0.88	(0.68 - 1.13)
Senegal	2017	1.07	(0.90 - 1.27)	0.86	(0.70 - 1.06)
Sierra_Leone	2017	1.04	(0.94 - 1.15)	1.02	(0.93 - 1.12)
South_Africa	2016	0.83	(0.58 - 1.18)	0.79	(0.60 - 1.03)
South_Sudan	2010	0.89	(0.78 – 1.00)	0.90	(0.80 - 1.02)
State_of_Palestine	2014	0.82	(0.39 - 1.74)	2.10	(0.98 - 4.47)
Sudan	2014	0.85	(0.70 - 1.04)	1.02	(0.90 - 1.15)
Suriname	2018	0.92	(0.62 - 1.37)	0.89	(0.52 - 1.53)
Tajikistan	2017	0.97	(0.08 - 1.18)	1.07	(0.75 - 1.54)
Tanzania	2015	1.14	(1.00 - 1.30)	1.10	(0.97 - 1.25)
Thailand	2015	0.92	(0.71 - 1.20)	0.55	(0.32 - 0.92)
Timor_Leste	2016	1.02	(0.89 - 1.18)	1.00	(0.84 - 1.21)
Togo	2017	0.95	(0.68 - 1.32)	1.11	(0.89 - 1.39)
Uganda	2016	1.15	(0.86 - 1.53)	0.94	(0.82 - 1.09)
Vietnam	2010	0.96	(0.78 - 1.19)	1.22	(0.86 - 1.73)
Yemen	2013	0.95	(0.78 - 1.16)	0.98	(0.82 - 1.17)
Zambia	2018	1.17	(1.02 - 1.33)	0.94	(0.85 - 1.04)
Zimbabwe	2019	0.90	(0.75 - 1.08)	0.98	(0.87 - 1.11)
