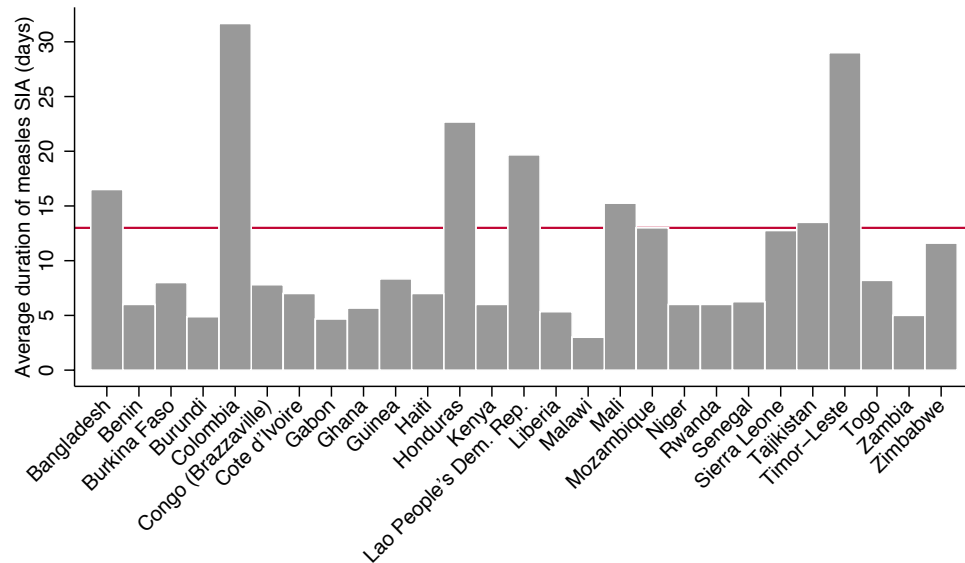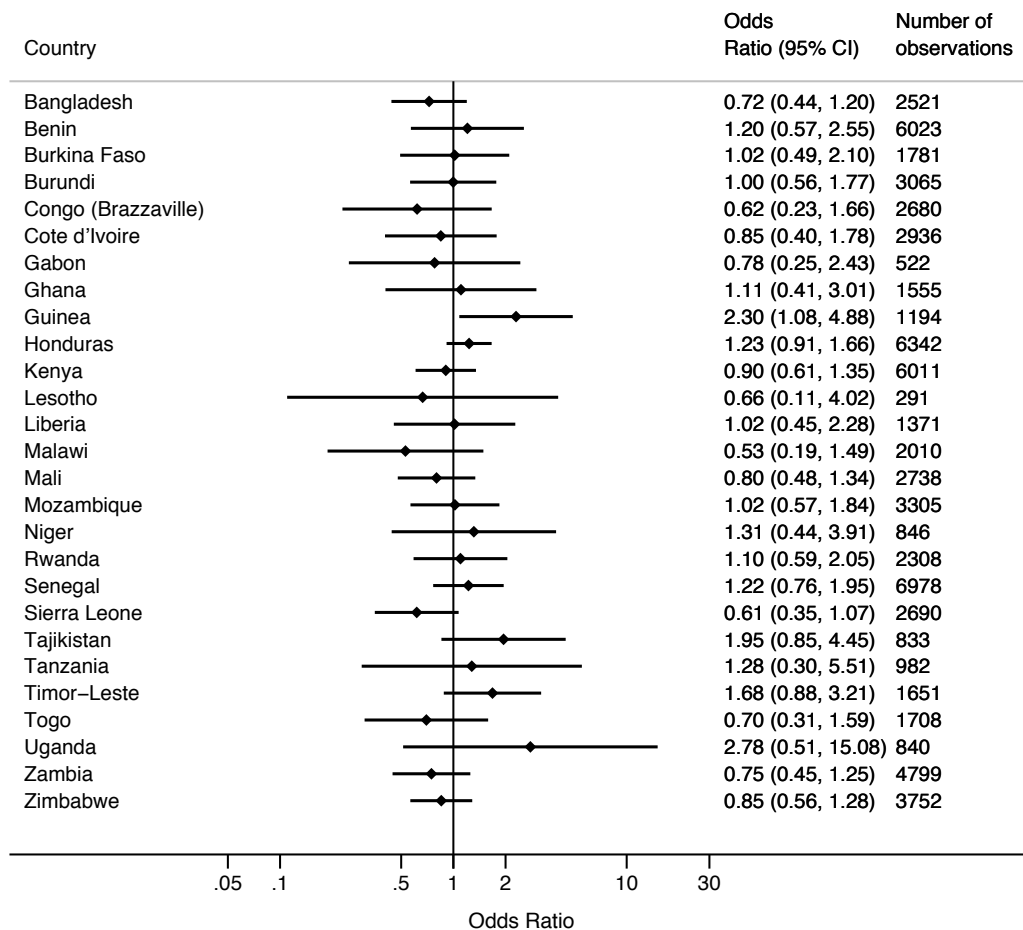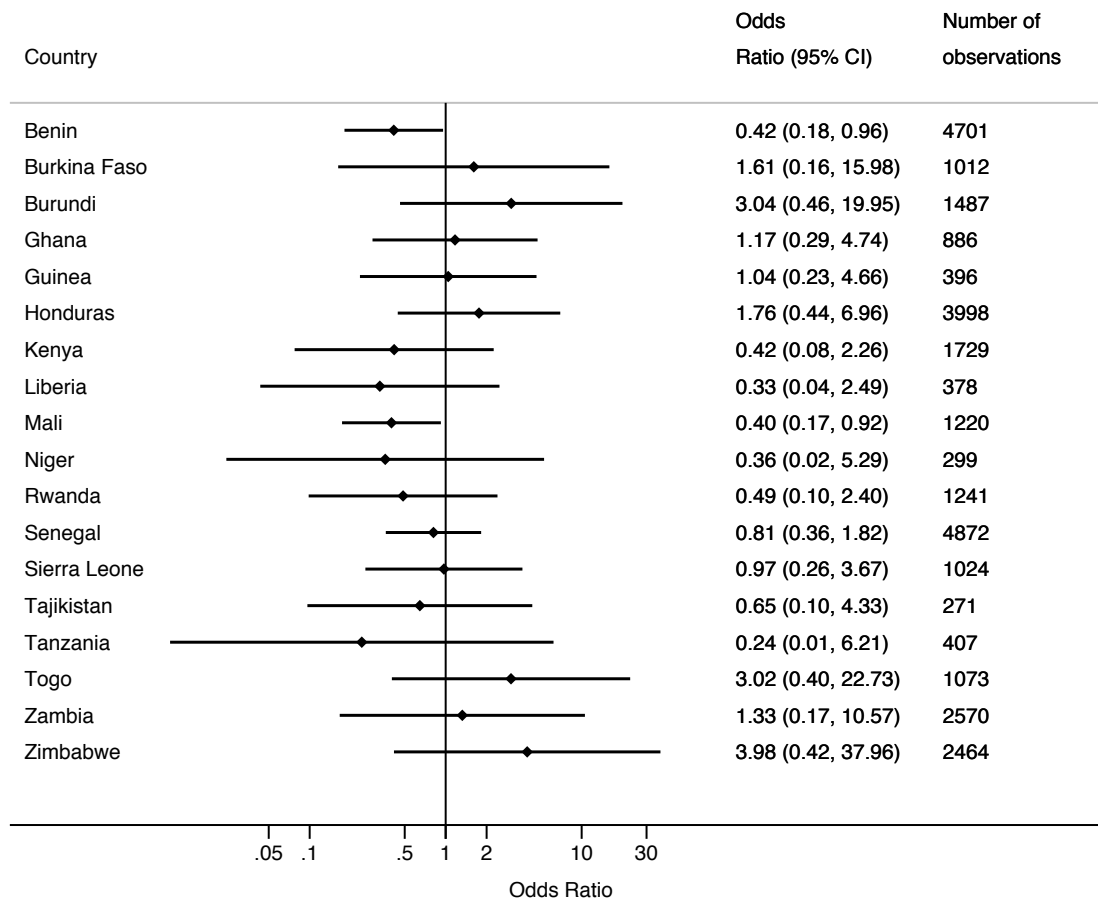# Supplementary appendix

Supplementary Appendix, Figure A1. Average duration of national measles supplementary immunization activities (SIAs) included in our sample

Note: Average duration (red line) for the whole sample was 13 days and median duration was 6 days.

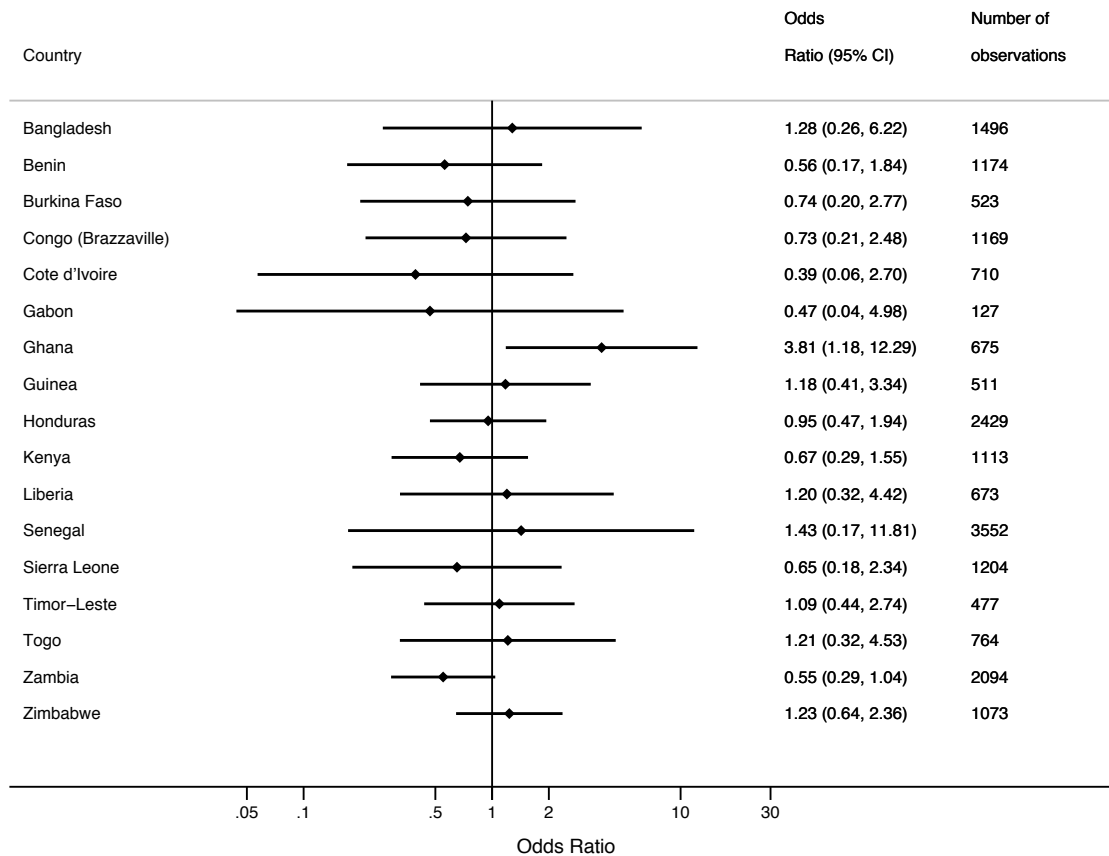| Country	Odds Ratio (95% CI)	Number of observations
Bangladesh	0.72 (0.44, 1.20)	2521
Benin	1.20 (0.57, 2.55)	6023
Burkina Faso	1.02 (0.49, 2.10)	1781
Burundi	1.00 (0.56, 1.77)	3065
Congo (Brazzaville)	0.62 (0.23, 1.66)	2680
Cote d'Ivoire	0.85 (0.40, 1.78)	2936
Gabon	0.78 (0.25, 2.43)	522
Ghana	1.11 (0.41, 3.01)	1555
Guinea	2.30 (1.08, 4.88)	1194
Honduras	1.23 (0.91, 1.66)	6342
Kenya	0.90 (0.61, 1.35)	6011
Lesotho	0.66 (0.11, 4.02)	291
Liberia	1.02 (0.45, 2.28)	1371
Malawi	0.53 (0.19, 1.49)	2010
Mali	0.80 (0.48, 1.34)	2738
Mozambique	1.02 (0.57, 1.84)	3305
Niger	1.31 (0.44, 3.91)	846
Rwanda	1.10 (0.59, 2.05)	2308
Senegal	1.22 (0.76, 1.95)	6978
Sierra Leone	0.61 (0.35, 1.07)	2690
Tajikistan	1.95 (0.85, 4.45)	833
Tanzania	1.28 (0.30, 5.51)	982
Timor–Leste	1.68 (0.88, 3.21)	1651
Togo	0.70 (0.31, 1.59)	1708
Uganda	2.78 (0.51, 15.08)	840
Zambia	0.75 (0.45, 1.25)	4799
Zimbabwe	0.85 (0.56, 1.28)	3752

Odds Ratio: .05 .1 .5 1 2 10 30

Supplementary Appendix, Figure A2. Logistic regression results of the impact of measles supplementary immunization activities (SIAs) on facility delivery: country-specific analysis

Notes: Odds ratios are presented for SIA dummy variable, which is equal to 1 if measles SIA was conducted on day of birth and 0 otherwise. The results are based on country-specific logistic regressions using the same set of covariates as the adjusted models in Table 5 in the main text. Significant results are observed for Guinea only.

Country		Odds Ratio (95% CI)	Number of observations
Benin		0.42 (0.18, 0.96)	4701
Burkina Faso		1.61 (0.16, 15.98)	1012
Burundi		3.04 (0.46, 19.95)	1487
Ghana		1.17 (0.29, 4.74)	886
Guinea		1.04 (0.23, 4.66)	396
Honduras		1.76 (0.44, 6.96)	3998
Kenya		0.42 (0.08, 2.26)	1729
Liberia		0.33 (0.04, 2.49)	378
Mali		0.40 (0.17, 0.92)	1220
Niger		0.36 (0.02, 5.29)	299
Rwanda		0.49 (0.10, 2.40)	1241
Senegal		0.81 (0.36, 1.82)	4872
Sierra Leone		0.97 (0.26, 3.67)	1024
Tajikistan		0.65 (0.10, 4.33)	271
Tanzania		0.24 (0.01, 6.21)	407
Togo		3.02 (0.40, 22.73)	1073
Zambia		1.33 (0.17, 10.57)	2570
Zimbabwe		3.98 (0.42, 37.96)	2464

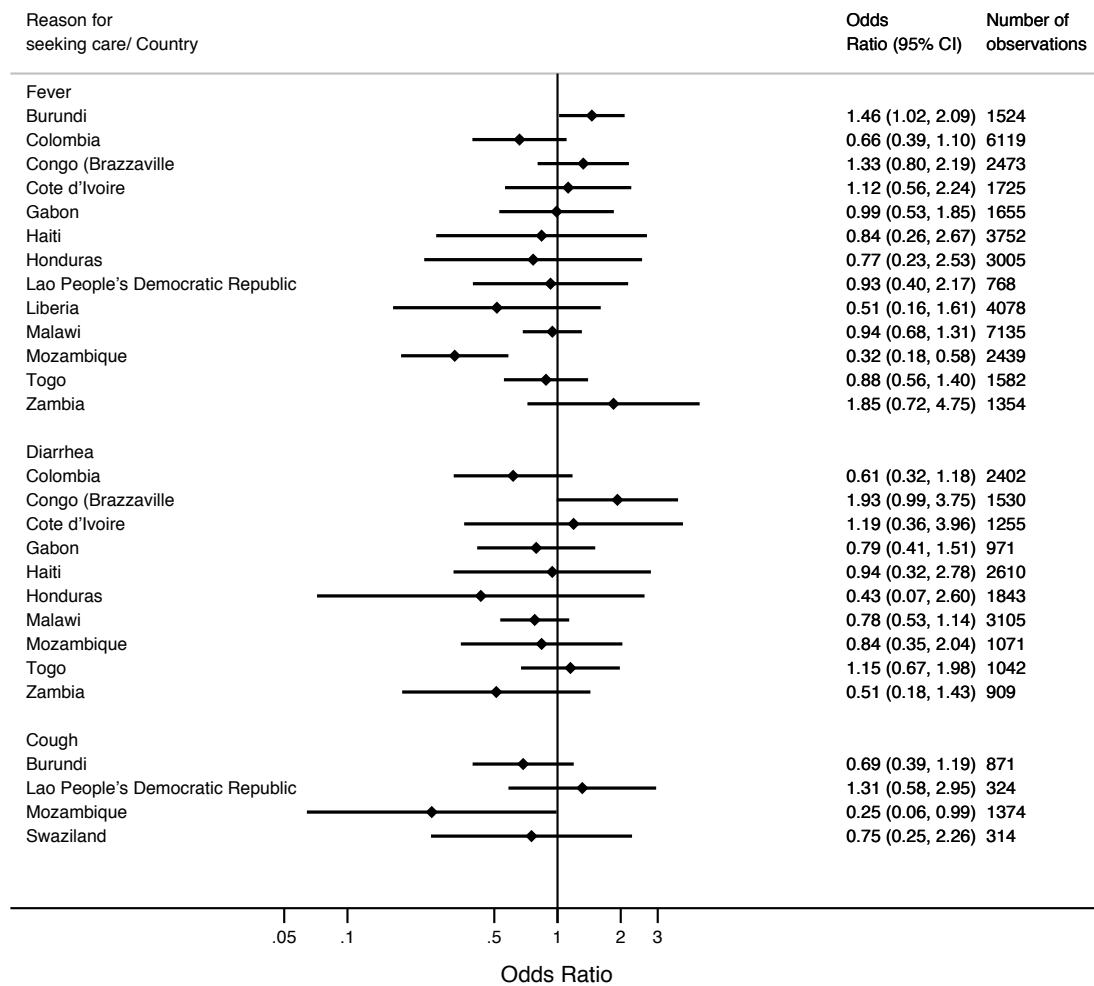Odds Ratio

.05 .1 .5 1 2 10 30

Supplementary Appendix, Figure A3. Logistic regression results of the impact of measles supplementary immunization activities (SIAs) on whether the newborn was weighed at birth if delivered at a facility: country-specific analysis

Notes: Odds ratios are presented for SIA dummy variable, which is equal to 1 if measles SIA was conducted on day of birth and 0 otherwise. The results are based on country-specific logistic regressions using the same set of covariates as the adjusted models in Table 5 in the main text. Significant results are observed for Benin and Mali only.

Country		Odds Ratio (95% CI)	Number of observations
Bangladesh		1.28 (0.26, 6.22)	1496
Benin		0.56 (0.17, 1.84)	1174
Burkina Faso		0.74 (0.20, 2.77)	523
Congo (Brazzaville)		0.73 (0.21, 2.48)	1169
Cote d'Ivoire		0.39 (0.06, 2.70)	710
Gabon		0.47 (0.04, 4.98)	127
Ghana		3.81 (1.18, 12.29)	675
Guinea		1.18 (0.41, 3.34)	511
Honduras		0.95 (0.47, 1.94)	2429
Kenya		0.67 (0.29, 1.55)	1113
Liberia		1.20 (0.32, 4.42)	673
Senegal		1.43 (0.17, 11.81)	3552
Sierra Leone		0.65 (0.18, 2.34)	1204
Timor−Leste		1.09 (0.44, 2.74)	477
Togo		1.21 (0.32, 4.53)	764
Zambia		0.55 (0.29, 1.04)	2094
Zimbabwe		1.23 (0.64, 2.36)	1073

Odds Ratio

Supplementary Appendix, Figure A4. Logistic regression results of the impact of measles supplementary immunization activities (SIAs) on whether the baby received a postnatal check within one week of birth: country-specific analysis

Notes: Odds ratios are presented for SIA dummy variable, which is equal to 1 if measles SIA was conducted on day of birth and 0 otherwise. The results are based on country-specific logistic regressions using the same set of covariates as the adjusted models in Table 5 in the main text. Significant results are observed for Ghana only.

Reason for seeking care/ Country		Odds Ratio (95% CI)	Number of observations
Fever			
Burundi		1.46 (1.02, 2.09)	1524
Colombia		0.66 (0.39, 1.10)	6119
Congo (Brazzaville		1.33 (0.80, 2.19)	2473
Cote d'Ivoire		1.12 (0.56, 2.24)	1725
Gabon		0.99 (0.53, 1.85)	1655
Haiti		0.84 (0.26, 2.67)	3752
Honduras		0.77 (0.23, 2.53)	3005
Lao People's Democratic Republic		0.93 (0.40, 2.17)	768
Liberia		0.51 (0.16, 1.61)	4078
Malawi		0.94 (0.68, 1.31)	7135
Mozambique		0.32 (0.18, 0.58)	2439
Togo		0.88 (0.56, 1.40)	1582
Zambia		1.85 (0.72, 4.75)	1354
Diarrhea			
Colombia		0.61 (0.32, 1.18)	2402
Congo (Brazzaville		1.93 (0.99, 3.75)	1530
Cote d'Ivoire		1.19 (0.36, 3.96)	1255
Gabon		0.79 (0.41, 1.51)	971
Haiti		0.94 (0.32, 2.78)	2610
Honduras		0.43 (0.07, 2.60)	1843
Malawi		0.78 (0.53, 1.14)	3105
Mozambique		0.84 (0.35, 2.04)	1071
Togo		1.15 (0.67, 1.98)	1042
Zambia		0.51 (0.18, 1.43)	909
Cough			
Burundi		0.69 (0.39, 1.19)	871
Lao People's Democratic Republic		1.31 (0.58, 2.95)	324
Mozambique		0.25 (0.06, 0.99)	1374
Swaziland		0.75 (0.25, 2.26)	314

Odds Ratio

.05 .1 .5 1 2 3

Supplementary Appendix, Figure A5. Logistic regression results of the impact of measles supplementary immunization activities (SIAs) on care seeking for child fever, diarrhea, and cough: country-specific analysis

Notes: Odds ratios are presented for SIA dummy variable, which is equal to 1 if measles SIA was conducted during the two-week time period preceding the date of interview and 0 otherwise. The results are based on country-specific logistic regressions using the same set of covariates as the adjusted models in Table 6 in the main text. Significant results are observed for Burundi and Mozambique only.

Supplementary Appendix, Table A1. Logistic regression results of the impact of measles supplementary immunization activities (SIAs) on care-seeking for child fever, diarrhea, and cough: pooled analysis of DHS and MICS data: sensitivity analysis

	Fever	Diarrhea	Cough
SIA	0.99	0.865	0.838
	(0.839 - 1.167)	(0.636 - 1.176)	(0.572 - 1.228)
Urban	1.403**	1.279**	1.337
	(1.272 - 1.547)	(1.104 - 1.481)	(0.886 - 2.016)
Child's age	0.938**	0.939**	0.915*
	(0.918 - 0.957)	(0.904 - 0.975)	(0.849 - 0.986)
No education		*ref.*	
Primary education	1.189**	1.215*	1.344
	(1.079 - 1.310)	(1.027 - 1.437)	(0.962 - 1.877)
Secondary or higher education	1.440**	1.353**	1.254
	(1.292 - 1.605)	(1.121 - 1.633)	(0.910 - 1.728)
1st wealth quintile (poorest)			
2nd wealth quintile	1.195**	1.164*	0.713
	(1.090 - 1.310)	(1.010 - 1.342)	(0.503 - 1.011)
3rd wealth quintile	1.345**	1.169	0.903
	(1.208 - 1.497)	(0.983 - 1.389)	(0.635 - 1.284)
4th wealth quintile	1.327**	1.291*	1.091
	(1.170 - 1.507)	(1.047 - 1.594)	(0.762 - 1.564)
5th wealth quintile (richest)	1.425**	1.258	1.057
	(1.222 - 1.661)	(0.973 - 1.625)	(0.684 - 1.632)
Observations	19,927	8,299	1,509

Notes: Sample limited to countries with SIAs lasting for at least 7 days during the two-week time period. Binary dependent variable equal to 1 if the mother sought care at a facility if the child was ill in the two weeks prior to the survey with each symptom, 0 otherwise. Odds ratios and 95% CI in parentheses. * indicates significant level of p < 0.05; ** indicates significance level of p < 0.01.