

ASTHMA MANAGEMENT AND CONTROL IN CHILDREN, ADOLESCENTS AND ADULTS: GLOBAL ASTHMA NETWORK (GAN) PHASE I CROSS-SECTIONAL STUDY.

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Web table 1. Number of participants and doctor diagnosed asthma per age group, by country income category*, country, and centre (not every centre contributed to all age groups).

Country income category	Country	Centre	Children			Adolescents			Adults		
			Participants	Asthma diagnosis	%	Participants	Asthma diagnosis	%	Participants	Asthma diagnosis	%
High											
	Chile	South Santiago	..	..	..	2750	317	11.5	..	..	..
	Greece	Athens	..	..	..	1934	151	7.8	1897	144	7.6
	New Zealand	Auckland	1538	277	18.0	1885	382	20.3	3002	511	17.0
	Poland	Katowice	..	..	..	3185	282	8.9	2220	100	4.5
	Kingdom of Saudi Arabia	Kingdom of Saudi Arabia	3614	424	11.7	4086	471	11.5	6786	753	11.1
	Spain	A Coruña	3407	278	8.2	3462	594	17.2	..	..	..
	Spain	Bilbao	2707	568	21.0	3379	905	26.8	..	..	..
	Spain	Cantabria	2841	428	15.1	4382	898	20.5	..	..	..
	Spain	Cartagena	3509	296	8.4	3437	399	11.6	6961	715	10.3
	Spain	Salamanca	2388	166	7.0	3485	488	14.0	..	..	..
	Taiwan	Taipei	3036	426	14.0	3474	417	12.0	9690	501	5.2
Upper-middle											
	Argentina	San Francisco	..	..	..	1012	107	11.0	..	..	..
	Brazil	Uruguiana	..	..	..	1058	165	15.6	896	91	10.2
	Costa Rica	Costa Rica	1936	397	20.5	1338	243	18.2	3272	560	17.1
	Ecuador	Quito	..	..	..	3000	100	3.3	..	..	..
	Iran	Karaj	572	52	9.1	754	49	6.5	1175	38	3.2
	Iran	Yazd	2526	73	2.9	5141	251	4.9	4773	102	2.1
	Kosovo	Ferizaj	..	..	..	890	6	0.7	1372	6	0.4
	Kosovo	Gjakova	..	..	..	676	11	1.6	1352	12	0.9
	Kosovo	Gjilan	..	..	..	1200	25	2.1	1835	13	0.7
	Kosovo	Peja	1441	22	1.5	1433	51	3.6	1816	23	1.3
	Kosovo	Pristhina	..	..	..	1056	18	1.7	2006	15	0.7
	Kosovo	Prizren	..	..	..	1427	19	1.3	2712	29	1.1
	Mexico	Aguascalientes	3176	280	8.8	3336	266	8.0	2907	123	4.2
	Mexico	Chihuahua	1969	153	7.8	2180	219	10.0	..	..	..
	Mexico	Ciudad Juarez	2118	83	3.9	2443	136	5.6	2611	91	3.5
	Mexico	Ciudad Victoria	2444	150	6.1	2468	162	6.6	6239	223	3.6
	Mexico	Cordoba	2746	155	5.6	2991	276	9.2	2839	95	3.3
	Mexico	Matamoros	806	44	5.5	2892	219	7.6	1316	41	3.1
	Mexico	Mexicali	2001	137	6.8	2479	162	6.5	2436	124	5.1
	Mexico	Mexico City (North Area)	2515	102	4.1	3375	183	5.4	5231	188	3.6
	Mexico	Michoacan	2166	68	3.1	2504	106	4.2	2232	72	3.2
	Mexico	Monterrey	..	..	..	2641	239	9.0	2118	146	6.9
	Mexico	Oaxaca	1329	36	2.7	2569	137	5.3	..	..	..
	Mexico	Puerto Vallarta	2241	157	7.0	2439	188	7.7	..	..	..
	Mexico	San Luis Potosi	2108	102	4.8	2580	194	7.5	2835	91	3.2
	Mexico	Tijuana	2082	90	4.3	2601	135	5.2	1397	63	4.5
	Mexico	Toluca Rural	2976	54	1.8	3122	96	3.1	7587	105	1.4
	Mexico	Toluca Urban Area	2712	69	2.5	2650	110	4.2	6162	109	1.8
	Mexico	Xalapa	3717	181	4.9	3339	240	7.2	..	..	..
	Russia	Tyumen	2969	125	4.2	3007	155	5.2	2360	34	1.4
	South Africa	Cape Town	..	..	..	3979	491	12.3	..	..	..
	South Africa	Durban	..	..	..	1960	234	11.9	..	..	..
	Thailand	Bangkok	3067	169	5.5	3206	207	6.5	5418	181	3.3

Lower-middle and Low

Cameroon	Yaounde	722	10	1.4	1066	34	3.2	860	17	2.0
Honduras	Tegucigalpa	361	36	10.0	1431	218	15.2	254	48	18.9
India	Bikaner	2600	7	0.3	2702	95	3.5	10495	41	0.4
India	Chandigarh	2473	24	1.0	3000	27	0.9	10386	106	1.0
India	Jaipur	2296	36	1.6	3060	95	3.1	8933	279	3.1
India	Kolkata	..	..	..	2998	162	5.4	7823	171	2.2
India	Kottayam	2099	58	2.8	2091	67	3.2	6940	202	2.9
India	Lucknow	2969	13	0.4	2969	29	1.0	11820	62	0.5
India	Mysuru (Mysore)	2730	37	1.4	3051	54	1.8	11178	144	1.3
India	New Delhi (7)	2516	11	0.4	3024	2	0.07	9449	168	1.8
India	Pune	2404	40	1.7	3030	71	2.3	8000	99	1.2
Nicaragua	Managua	3162	347	11.0	3131	426	13.6	..	..	..
Nigeria	Ibadan	..	..	..	2897	59	2.0	2321	41	1.8
Sri Lanka	Anuradhapura	2180	91	4.2	2989	243	8.1	..	..	..
Sri Lanka	Peradeniya	1492	72	4.8	1696	176	10.4	..	..	..
Sudan	Gadarif	..	..	..	1344	32	2.4	..	..	..
Sudan	Khartoum	..	..	..	1785	39	2.2	..	..	..
Syrian Arab Republic	Damascus	..	..	..	1100	107	9.7	..	..	..
Syrian Arab Republic	Lattakia	1116	101	9.1	1215	92	7.6	..	..	..
TOTAL		101,777	6,445	6.3	157,784	12,532	7.9	193,912	6,677	3.4

* See text for definition

Web table 2. Proportion (and 95% confidence interval clustered by centre) of children receiving inhaled and oral asthma medicines and having a management plan according to the severity of symptoms stratified by country income category*.

	High income countries			Upper-middle income countries			Lower-middle and low income countries		
	Asymptomatic	Mild symptoms	Severe symptoms	Asymptomatic	Mild symptoms	Severe symptoms	Asymptomatic	Mild symptoms	Severe symptoms
Inhaled									
SABA	30.6 (23.4-38.8)	68.8 (40.1-87.9)	81.2 (65.8-90.7)	34.0 (27.3-41.4)	75.2 (69.7-80.0)	85.3 (81.1-88.7)	29.3 (25.9-32.9)	46.4 (39.6-53.3)	55.5 (50.3-60.5)
LABA	1.2 (0.5-2.6)	4.0 (2.4-6.8)	4.6 (1.8-11.4)	1.1 (0.3-3.9)	3.0 (1.0-8.8)	2.8 (1.0-7.8)	4.2 (2.6-6.7)	8.8 (3.8-18.9)	9.5 (4.5-19.0)
ICS	19.6 (13.7-27.1)	40.0 (25.5-56.4)	51.9 (42.7-60.9)	15.2 (12.1-18.9)	38.1 (33.0-43.4)	46.6 (40.0-53.4)	12.6 (9.8-16.0)	23.7 (15.6-34.4)	23.0 (18.4-28.2)
ICS-LABA	8.4 (4.8-14.3)	19.0 (12.3-28.2)	27.7 (18.6-39.1)	9.0 (6.6-12.1)	21.2 (16.6-26.8)	22.8 (19.2-26.9)	7.4 (4.3-12.3)	14.4 (7.0-27.5)	18.0 (13.3-24.0)
Any	36.4 (30.9-42.3)	73.7 (51.1-88.3)	87.6 (74.8-94.4)	41.4 (34.0-49.3)	83.2 (78.3-87.1)	89.7 (83.0-93.9)	38.9 (35.0-43.0)	61.9 (54.5-68.7)	75.6 (71.7-79.1)
Oral									
LTRA	8.0 (2.9-20.0)	18.0 (8.3-34.8)	24.1 (11.2-44.4)	13.8 (8.7-21.3)	31.7 (17.7-50.0)	32.6 (17.5-52.5)	8.4 (3.5-18.7)	17.0 (9.1-29.5)	23.0 (12.4-38.7)
OCS	6.6 (2.9-14.0)	24.3 (17.2-33.1)	38.6 (20.6-60.4)	9.9 (6.2-15.5)	20.7 (11.9-33.6)	29.6 (16.3-47.7)	18.5 (7.7-38.2)	26.8 (11.9-49.7)	30.7 (12.9-57.0)
SABA	11.2 (5.2-22.5)	25.2 (19.2-32.3)	34.6 (28.5-41.3)	16.3 (11.7-22.2)	32.4 (19.9-48.2)	41.4 (24.5-60.5)	9.4 (5.7-15.1)	23.7 (14.9-35.5)	28.3 (15.7-45.6)
Theophylline	1.9 (0.3-12.8)	3.8 (1.2-10.8)	4.8 (1.1-18.6)	2.7 (1.2-6.0)	4.1 (2.7-6.1)	4.1 (2.6-6.4)	10.3 (5.5-18.7)	18.6 (12.0-27.6)	19.8 (9.4-37.0)
Any	19.7 (12.1-30.5)	44.4 (38.4-50.5)	61.5 (55.0-67.7)	31.9 (25.9-38.6)	64.4 (53.1-74.4)	72.5 (58.1-83.3)	39.7 (32.7-47.0)	55.2 (50.0-60.2)	66.4 (58.4-73.6)
Asthma plan	52.3 (36.3-67.8)	58.3 (38.8-75.5)	70.5 (54.6-82.6)	64.4 (53.1-74.3)	69.7 (57.8-79.5)	72.3 (56.3-84.1)	52.7 (42.3-62.8)	57.7 (50.3-64.8)	69.6 (61.9-76.3)

*See text for definitions.

SABA: Short-acting beta2 agonist; LABA: Inhaled long-acting beta2 agonists; ICS: Inhaled corticosteroids; ICS-LABA: combinations of inhaled corticosteroids and long acting beta2 agonists; LTRA: Leukotriene receptor antagonists; OCS: Oral corticosteroids.

Web table 3. Proportion (and 95% confidence interval clustered by centre) of adolescents receiving inhaled and oral asthma medicines and having a management plan according to the severity of symptoms stratified by country income category*.

	High income countries			Upper-middle income countries			Lower-middle and low income countries		
	Asymptomatic	Mild symptoms	Severe symptoms	Asymptomatic	Mild symptoms	Severe symptoms	Asymptomatic	Mild symptoms	Severe symptoms
Inhaled									
SABA	35.5 (27.4-44.5)	66.7 (52.0-78.7)	78.8 (66.3-87.6)	22.0 (18.6-25.7)	48.0 (44.2-51.8)	61.8 (57.0-66.4)	20.3 (13.9-28.5)	38.7 (29.8-48.4)	64.5 (53.0-74.5)
LABA	9.3 (6.0-14.2)	12.7 (8.2-19.1)	21.5 (14.8-30.2)	8.0 (5.5-11.5)	11.7 (7.3-18.3)	19.8 (12.0-30.8)	6.7 (4.3-10.1)	9.2 (5.0-16.5)	33.6 (21.0-49.0)
ICS	14.3 (9.9-20.2)	24.2 (18.5-31.0)	36.6 (28.5-45.5)	9.1 (6.3-13.0)	17.5 (11.4-21.7)	28.4 (21.6-36.4)	9.3 (5.6-15.1)	15.3 (13.1-17.8)	37.2 (28.7-46.5)
ICS-LABA	12.8 (9.0-17.8)	23.5 (17.2-31.2)	34.6 (29.4-40.2)	7.9 (5.7-10.9)	15.2 (12.1-18.9)	21.2 (15.3-28.7)	7.5 (6.3-9.0)	10.7 (7.1-15.7)	34.5 (21.7-50.0)
Any	38.7 (30.8-47.3)	76.1 (67.3-83.1)	86.7 (79.5-91.6)	33.3 (31.1-35.6)	62.9 (57.4-68.1)	78.0 (74.2-81.4)	35.4 (29.0-42.3)	62.4 (56.6-67.9)	82.0 (70.7-89.7)
Oral									
LTRA	8.2 (4.9-13.6)	11.8 (7.2-18.8)	18.3 (11.4-28.0)	6.9 (3.7-12.5)	17.1 (10.4-26.8)	24.1 (16.4-33.9)	7.6 (3.1-17.7)	9.0 (4.2-18.2)	10.5 (7.4-14.7)
OCS	5.5 (3.6-8.4)	8.1 (5.3-12.0)	18.8 (12.9-26.6)	5.5 (3.2-9.4)	8.0 (5.3-11.9)	21.2 (14.9-29.2)	7.3 (3.1-16.4)	7.5 (4.1-13.4)	13.4 (10.2-17.4)
SABA	12.0 (8.3-17.0)	23.5 (15.3-34.4)	37.1 (27.8-47.4)	8.9 (5.3-14.5)	17.6 (11.2-26.7)	32.4 (22.9-43.6)	6.2 (2.6-14.0)	16.8 (10.7-25.2)	16.9 (6.1-38.5)
Theophylline	4.5 (2.7-7.4)	4.4 (2.8-6.9)	10.9 (6.9-16.6)	4.2 (1.8-9.7)	5.6 (2.4-12.4)	10.8 (5.0-21.7)	4.4 (1.5-12.4)	9.2 (4.6-17.7)	8.4 (1.5-12.7)
Any	16.0 (10.8-23.0)	29.5 (20.9-40.0)	47.7 (37.6-57.9)	20.5 (18.6-23.4)	42.7 (36.5-49.1)	64.0 (59.5-68.4)	32.7 (26.2-39.9)	50.6 (40.8-60.3)	68.6 (59.0-76.9)
Asthma plan	39.8 (31.6-48.8)	50.2 (35.9-64.4)	58.8 (49.0-67.9)	56.6 (52.9-60.2)	55.9 (47.5-64.0)	67.1 (62.1-71.8)	53.9 (48.2-59.4)	53.8 (47.8-59.6)	63.7 (47.2-77.5)

*See text for definitions.

SABA: Short-acting beta2 agonist; LABA: inhaled long-acting beta2 agonists; ICS: Inhaled corticosteroids; ICS-LABA: combinations of inhaled corticosteroids and long acting beta2 agonists; LTRA: Leukotriene receptor antagonists; OCS: Oral corticosteroids.

Web table 4. Proportion (and 95% confidence interval clustered by centre) of adults receiving inhaled and oral asthma medicines and having a management plan according to the severity of symptoms stratified by country income category*.

	High income countries			Upper-middle income countries			Lower-middle and low income countries		
	Asymptomatic	Mild symptoms	Severe symptoms	Asymptomatic	Mild symptoms	Severe symptoms	Asymptomatic	Mild symptoms	Severe symptoms
Inhaled									
SABA	22.2 (9.4-44.1)	57.8 (47.2-67.7)	74.2 (70.2-77.7)	24.1 (19.4-29.6)	66.4 (56.4-75.1)	77.4 (68.8-84.2)	18.1 (8.8-33.5)	39.5 (29.7-50.2)	57.4 (41.2-72.2)
LABA	2.8 (0.5-14.1)	7.8 (0.9-44.8)	12.6 (1.1-64.6)	4.3 (2.6-7.1)	23.2 (8.9-48.5)	24.5 (9.4-50.4)	7.9 (3.9-15.5)	8.3 (4.8-14.1)	14.3 (8.7-22.5)
ICS	9.5 (2.4-31.2)	27.9 (18.9-39.1)	36.2 (15.7-63.4)	4.7 (2.7-8.0)	12.7 (7.4-20.9)	30.0 (20.6-41.5)	8.3 (3.8-16.9)	10.1 (6.8-14.9)	17.1 (11.3-25.2)
ICS-LABA	10.7 (2.0-40.9)	29.4 (17.7-44.5)	44.7 (28.6-62.1)	4.8 (3.4-6.7)	14.3 (11.4-17.9)	23.7 (18.2-30.4)	12.3 (5.8-24.3)	23.6 (16.1-33.1)	31.2 (24.6-38.7)
Any	24.8 (8.2-54.7)	64.8 (48.6-78.3)	84.1 (74.5-90.5)	30.7 (25.4-36.5)	74.2 (68.9-78.9)	87.6 (82.5-91.4)	28.8 (12.8-52.6)	67.0 (53.8-78.0)	81.6 (71.7-88.6)
Oral									
LTRA	5.0 (0.2-54.3)	6.8 (0.9-36.6)	12.6 (1.1-66.2)	4.3 (1.8-10.2)	8.3 (2.5-24.6)	20.4 (9.8-37.8)	1.6 (0.3-7.7)	1.4 (0.2-8.4)	5.0 (1.0-22.0)
OCS	4.2 (0.1-66.4)	9.2 (1.7-36.3)	18.0 (2.3-66.7)	4.5 (2.1-9.5)	7.3 (2.1-22.4)	24.6 (11.5-45.0)	1.9 (0.5-7.5)	1.8 (0.4-7.4)	6.2 (2.7-13.6)
SABA	7.2 (0.2-72.6)	18.8 (4.9-50.9)	29.1 (5.3-75.0)	7.6 (4.2-13.5)	11.6 (4.4-27.4)	33.7 (17.2-55.4)	4.7 (1.0-19.0)	10.5 (3.2-29.3)	14.5 (2.8-49.7)
Theophylline	3.3 (0.04-73.2)	5.9 (0.3-55.6)	10.7 (0.4-78.7)	1.7 (0.7-3.7)	4.9 (1.7-13.0)	8.3 (3.9-16.8)	0.2 (0.01-2.0)	1.8 (0.3-11.3)	4.8 (1.3-16.4)
Any	12.5 (1.2-63.8)	33.5 (20.2-50.1)	50.4 (20.6-79.9)	14.7 (9.6-21.7)	35.4 (22.3-51.1)	65.3 (54.4-74.8)	21.5 (10.6-38.9)	45.3 (36.2-54.7)	57.2 (40.7-72.3)
Asthma plan	32.6 (21.4-46.3)	39.9 (35.4-44.5)	50.6 (47.8-53.3)	48.0 (33.9-62.4)	50.1 (36.1-64.1)	69.3 (60.3-77.1)	35.1 (16.2-60.2)	46.4 (30.8-62.7)	66.7 (50.4-79.8)

*See text for definitions.

SABA: Short-acting beta2 agonist; LABA: Inhaled long-acting beta2 agonists; ICS: Inhaled corticosteroids; ICS-LABA: combinations of inhaled corticosteroids and long acting beta2 agonists; LTRA: Leukotriene receptor antagonists; OCS: Oral corticosteroids.

Web table 5. Proportion (and 95% confidence interval clustered by centre) of children receiving inhaled medicines (and their regimens) according to the severity of symptoms stratified by country income category*.

		High income countries			Upper-middle income countries			Lower-middle and low income countries		
		Asymptomatic	Mild symptoms	Severe symptoms	Asymptomatic	Mild symptoms	Severe symptoms	Asymptomatic	Mild symptoms	Severe symptoms
SABA	No	69.4 (61.2-76.6)	31.2 (12.1-60.0)	18.8 (9.3-34.2)	66.0 (58.6-72.7)	24.8 (20.0-30.3)	14.7 (11.3-18.9)	70.7 (67.1-74.1)	53.6 (46.7-60.4)	44.5 (39.5-49.7)
	As needed	25.7 (20.8-31.2)	55.0 (37.2-71.6)	55.7 (47.3-63.8)	29.7 (23.8-36.3)	63.7 (56.1-70.6)	69.1 (61.3-75.8)	22.7 (19.8-25.8)	34.0 (27.9-40.7)	39.2 (35.5-43.1)
	Short courses	3.6 (1.9-6.8)	11.8 (5.4-23.9)	16.7 (11.2-24.1)	3.6 (2.4-5.3)	8.3 (5.5-12.2)	8.7 (6.4-11.7)	5.7 (4.8-6.6)	10.3 (6.6-15.7)	9.9 (8.2-11.9)
	Every day	1.3 (0.6-2.7)	2.0 (1.0-4.5)	8.8 (5.8-13.1)	0.8 (0.3-1.7)	3.3 (1.8-5.8)	7.5 (5.3-10.6)	1.0 (0.5-1.9)	2.1 (0.6-6.6)	6.4 (3.7-10.7)
LABA	No	98.8 (97.4-99.5)	96.0 (93.2-97.6)	95.4 (88.6-98.2)	98.9 (96.1-99.7)	97.0 (91.2-99.0)	97.2 (92.2-99.0)	95.8 (93.3-97.4)	91.2 (81.1-96.2)	90.5 (81.0-95.5)
	As needed	0.8 (0.3-2.1)	3.2 (1.9-5.4)	2.8 (1.1-7.2)	0.6 (0.2-2.4)	1.9 (0.5-6.3)	1.2 (0.3-5.7)	3.4 (2.1-5.6)	4.6 (2.4-8.8)	4.9 (1.2-18.5)
	Short courses	0.2 (0.05-0.8)	0.4 (0.1-1.2)	1.0 (0.4-2.8)	0.2 (0.06-0.8)	0.9 (0.4-2.4)	1.2 (0.5-2.9)	0.7 (0.3-1.8)	3.6 (1.1-10.9)	3.2 (1.6-6.2)
	Every day	0.1 (0.03-0.6)	0.4 (0.1-1.1)	0.7 (0.3-2.0)	0.2 (0.03-1.4)	0.2 (0.03-0.9)	0.4 (0.1-1.0)	..	0.5 (0.04-6.2)	1.4 (0.6-3.2)
ICS	No	80.4 (72.9-86.3)	60.1 (43.6-74.5)	48.1 (39.1-57.3)	84.8 (81.1-87.9)	61.9 (56.6-67.0)	53.4 (46.6-60.0)	87.4 (84.0-90.2)	76.3 (65.6-84.4)	77.0 (71.7-81.6)
	As needed	6.9 (3.6-12.8)	12.9 (8.7-18.6)	17.7 (11.1-27.1)	10.7 (7.6-14.9)	21.7 (16.3-28.3)	28.6 (19.8-39.5)	8.6 (6.5-11.3)	13.9 (6.6-27.0)	8.8 (6.4-12.1)
	Short courses	3.9 (2.6-5.9)	11.3 (7.2-17.2)	13.6 (8.7-20.5)	1.9 (1.1-3.5)	6.6 (7.0-13.7)	4.8 (2.7-8.4)	2.2 (0.8-6.2)	5.7 (3.9-8.1)	6.7 (2.9-14.7)
	Every day	8.7 (3.1-22.4)	15.8 (6.7-33.1)	20.6 (11.4-34.3)	2.6 (1.6-4.1)	9.8 (7.0-13.7)	13.2 (9.2-18.5)	1.7 (1.0-3.1)	4.1 (2.5-6.8)	7.4 (5.7-9.7)
ICS_LABA	No	91.6 (85.7-95.2)	81.0 (71.8-87.7)	72.3 (60.9-81.4)	91.0 (87.9-93.4)	78.8 (73.2-83.4)	77.2 (73.1-80.8)	92.6 (87.7-95.7)	85.6 (72.5-93.0)	82.0 (76.0-87.0)
	As needed	4.1 (1.6-10.1)	7.9 (4.2-14.4)	11.0 (4.9-23.0)	5.5 (3.7-8.2)	10.3 (7.4-14.2)	12.6 (9.7-16.1)	5.2 (3.1-8.4)	6.2 (2.2-15.9)	9.2 (6.8-12.3)
	Short courses	1.5 (0.4-4.8)	4.6 (2.7-7.7)	7.0 (4.5-10.8)	0.9 (0.5-1.6)	3.3 (2.1-5.1)	3.0 (1.9-4.8)	1.2 (0.6-2.5)	4.6 (2.3-9.3)	3.5 (2.5-5.0)
	Every day	2.9 (0.9-8.7)	6.6 (3.6-11.6)	9.7 (4.6-19.4)	2.6 (1.6-4.2)	7.6 (5.4-10.8)	7.3 (5.2-10.1)	1.0 (0.2-3.8)	3.6 (1.8-7.1)	5.3 (2.3-11.7)

*See text for definitions.

SABA: Inhaled short-acting beta2 agonist; LABA: Inhaled long-acting beta2 agonists; ICS: Inhaled corticosteroids; ICS-LABA: combinations of inhaled corticosteroids and long acting beta2 agonists.

Web table 6. Proportion (and 95% confidence interval clustered by centre) of children receiving oral medicines (and their regimens) according to the severity of symptoms stratified by country income category*.

		High income countries			Upper-middle income countries			Lower-middle and low income countries		
		Asymptomatic	Mild symptoms	Severe symptoms	Asymptomatic	Mild symptoms	Severe symptoms	Asymptomatic	Mild symptoms	Severe symptoms
LTRA	No	92.0 (80.0-97.1)	82.0 (65.2-91.7)	75.9 (55.6-88.8)	86.2 (78.7-91.3)	68.3 (50.0-82.3)	67.4 (47.5-82.5)	91.6 (81.3-96.5)	83.0 (70.5-90.9)	77.0 (61.3-87.6)
	As needed	2.4 (0.9-6.5)	3.8 (1.7-7.9)	6.1 (2.7-13.0)	6.4 (4.0-10.1)	13.4 (7.6-22.6)	12.2 (6.8-21.0)	5.2 (2.3-11.2)	6.7 (4.1-10.7)	11.0 (7.3-16.2)
	Short courses	2.6 (0.5-12.1)	6.7 (2.7-15.6)	5.1 (1.6-14.8)	1.3 (0.5-3.6)	3.9 (1.1-13.3)	3.8 (1.5-9.6)	3.2 (1.2-8.0)	8.2 (3.8-16.9)	11.0 (4.9-22.8)
	Every day	2.9 (1.1-7.3)	7.5 (3.7-14.8)	13.0 (6.3-24.9)	6.1 (3.7-10.0)	14.4 (7.0-27.2)	16.6 (8.2-30.8)	..	2.1 (0.9-4.8)	1.1 (0.4-3.1)
SABA	No	88.8 (77.5-94.8)	74.8 (67.7-80.8)	65.4 (58.7-71.5)	83.7 (77.8-88.3)	67.6 (51.8-80.1)	58.6 (39.5-75.5)	90.6 (84.9-94.3)	76.3 (64.5-85.1)	71.7 (54.4-84.3)
	As needed	8.8 (73.8-19.1)	18.8 (12.4-27.4)	23.7 (19.9-27.9)	14.6 (10.4-20.0)	27.6 (16.8-41.9)	34.1 (20.7-50.7)	7.9 (4.8-12.6)	22.7 (14.0-34.6)	21.9 (12.3-35.9)
	Short courses	2.1 (1.0-4.6)	5.9 (2.9-11.7)	7.9 (4.5-13.5)	1.4 (0.8-2.6)	3.9 (2.2-6.8)	5.4 (3.1-9.3)	1.5 (0.8-2.8)	1.0 (0.3-3.8)	4.9 (1.9-12.1)
	Every day	0.3 (0.08-1.0)	0.5 (0.09-3.2)	3.0 (1.4-6.4)	0.3 (0.09-1.1)	0.9 (0.4-2.1)	1.9 (0.8-4.0)	..	..	1.4 (0.4-4.1)
OCS	No	93.4 (86.0-97.1)	75.7 (66.9-82.8)	61.4 (39.6-79.4)	90.1 (84.5-93.8)	79.3 (66.4-88.1)	70.4 (52.3-83.7)	81.5 (61.8-92.3)	73.2 (50.3-88.1)	69.3 (43.0-87.1)
	As needed	5.3 (2.3-11.5)	19.7 (13.9-27.1)	29.1 (15.8-47.2)	8.4 (5.2-13.4)	18.1 (10.4-29.6)	23.3 (13.0-38.1)	13.1 (5.5-27.9)	19.6 (10.5-33.5)	18.4 (9.5-32.5)
	Short courses	1.2 (0.4-3.5)	4.4 (3.0-6.5)	8.8 (4.0-18.2)	0.8 (0.3-1.9)	1.7 (0.8-3.5)	4.2 (2.3-7.8)	5.2 (2.3-11.2)	7.2 (2.2-21.2)	11.0 (4.0-26.8)
	Every day	0.07 (0.005-1.0)	0.1 (0.01-2.0)	0.7 (0.3-2.2)	0.8 (0.3-1.9)	0.9 (0.3-2.7)	2.1 (1.0-4.2)	0.2 (0.1-0.6)	..	1.4 (0.5-4.1)
Theophylline	No	98.1 (87.2-99.7)	96.2 (89.2-98.8)	95.2 (81.4-98.9)	97.3 (94.0-98.8)	95.9 (93.9-97.3)	95.9 (93.6-97.4)	89.7 (81.3-94.5)	81.4 (72.4-88.0)	80.2 (63.0-90.6)
	As needed	1.9 (0.3-12.3)	3.4 (1.1-10.1)	3.7 (0.8-15.8)	1.9 (0.9-4.1)	3.4 (2.1-5.5)	3.1 (2.2-4.4)	7.6 (4.5-12.7)	11.9 (884.1-16.5)	12.7 (5.9-25.3)
	Short courses	0.07 (0.008-0.6)	0.4 (0.1-1.1)	1.0 (0.3-3.4)	0.5 (0.1-2.1)	0.6 (0.3-1.4)	0.8 (0.3-2.4)	2.7 (1.1-6.8)	6.7 (2.7-15.8)	6.7 (3.1-13.9)
	Every day	..	..	..	0.2 (0.05-0.9)	..	0.2 (0.04-0.7)	..	..	0.4 (0.02-5.8)

*See text for definitions.

LTRA: Leukotriene receptor antagonists; SABA: Oral short acting beta2 agonists; OCS: Oral corticosteroids.

Web table 7. Proportion (and 95% confidence interval clustered by centre) of adolescents receiving inhaled medicines (and their regimens) according to the severity of symptoms stratified by country income category*.

		High income countries			Upper-middle income countries			Lower-middle and low income countries		
		Asymptomatic	Mild symptoms	Severe symptoms	Asymptomatic	Mild symptoms	Severe symptoms	Asymptomatic	Mild symptoms	Severe symptoms
SABA	No	64.5 (55.5-72.6)	33.3 (21.3-48.0)	21.2 (12.4-33.7)	78.0 (74.3-81.4)	52.0 (48.2-55.8)	38.2 (33.6-43.0)	79.7 (71.5-86.1)	61.3 (51.6-70.2)	35.5 (25.5-47.0)
	As needed	27.1 (22.0-33.0)	49.0 (40.4-57.6)	44.0 (39.6-48.6)	18.9 (16.1-22.1)	39.4 (35.3-43.5)	44.6 (40.9-48.3)	15.2 (10.5-21.6)	29.5 (21.8-38.5)	41.2 (32.5-50.4)
	Short courses	4.6 (3.1-6.7)	9.8 (6.8-13.7)	17.4 (14.0-21.4)	2.2 (1.6-2.9)	4.6 (3.5-6.2)	9.1 (7.1-11.5)	3.2 (2.0-5.1)	6.9 (3.9-12.1)	17.1 (10.1-27.5)
	Every day	3.8 (1.8-7.6)	8.0 (4.2-14.6)	17.4 (12.3-23.9)	0.9 (0.6-1.4)	4.0 (3.0-5.3)	8.1 (6.6-10.0)	1.8 (0.7-4.7)	2.3 (1.7-3.2)	6.2 (4.9-7.8)
LABA	No	90.7 (85.8-94.0)	87.3 (80.9-91.8)	78.5 (69.8-85.2)	92.0 (88.5-94.5)	88.3 (81.7-92.7)	80.2 (69.2-88.0)	93.3 (89.9-95.6)	90.8 (83.5-95.0)	66.4 (51.0-79.0)
	As needed	7.1 (4.3-11.5)	10.6 (6.7-16.5)	16.5 (11.4-23.3)	6.0 (4.4-8.2)	8.4 (5.3-13.0)	12.8 (8.0-19.9)	4.5 (2.9-6.8)	4.3 (2.9-6.5)	18.5 (10.3-31.0)
	Short courses	1.4 (0.8-2.4)	1.6 (0.9-2.9)	3.1 (1.8-5.2)	1.5 (0.8-2.9)	1.4 (0.6-3.1)	4.0 (2.2-7.4)	1.9 (1.1-3.3)	4.3 (1.6-11.5)	13.0 (5.6-27.2)
	Every day	0.8 (0.4-1.6)	0.5 (0.3-0.8)	1.9 (1.0-3.6)	0.4 (0.2-0.8)	1.9 (0.9-4.0)	2.9 (1.6-5.1)	0.3 (0.06-1.5)	0.6 (0.3-1.1)	2.1 (1.4-3.0)
ICS	No	85.7 (79.8-90.1)	75.8 (69.0-81.5)	63.4 (54.5-71.5)	90.9 (87.0-93.7)	82.5 (78.3-86.0)	71.6 (63.6-78.4)	90.7 (84.9-94.4)	84.7 (82.2-86.9)	62.8 (53.5-71.3)
	As needed	10.1 (6.3-15.9)	15.7 (11.5-21.1)	21.4 (14.8-29.9)	6.7 (4.6-9.7)	11.5 (9.5-13.8)	17.7 (12.9-23.7)	4.9 (3.0-8.0)	7.8 (5.2-11.6)	15.1 (11.3-19.8)
	Short courses	2.4 (1.6-3.5)	5.2 (3.6-7.3)	7.7 (5.2-11.2)	1.6 (1.1-2.4)	3.5 (2.4-5.1)	5.2 (3.8-7.1)	3.0 (1.5-5.9)	4.6 (2.3-9.0)	17.1 (8.9-30.4)
	Every day	1.8 (1.0-3.1)	3.4 (1.7-6.7)	7.5 (5.3-10.5)	0.8 (0.4-1.6)	2.5 (1.4-4.2)	5.5 (3.9-7.7)	1.4 (0.4-4.1)	2.9 (1.5-5.7)	5.0 (3.1-8.0)
ICS-LABA	No	87.2 (82.2-91.0)	76.5 (68.8-82.8)	65.4 (59.8-70.6)	92.1 (89.1-94.3)	84.8 (81.1-87.9)	78.8 (71.3-84.7)	92.5 (91.0-93.7)	89.3 (84.3-92.9)	65.5 (50.0-78.3)
	As needed	8.7 (5.3-14.0)	15.1 (10.0-22.1)	18.8 (13.2-26.0)	5.6 (3.9-8.1)	10.5 (8.1-13.6)	13.4 (9.4-18.7)	4.4 (3.3-5.8)	4.6 (2.4-8.9)	19.5 (10.7-32.9)
	Short courses	1.9 (1.3-2.6)	3.1 (1.8-5.2)	6.9 (5.5-8.6)	1.4 (0.9-2.3)	2.5 (1.3-4.6)	4.8 (3.4-6.9)	2.0 (1.0-3.8)	3.5 (1.5-7.6)	10.2 (3.9-24.3)
	Every day	2.2 (1.3-3.6)	5.3 (3.5-7.7)	8.9 (6.1-12.8)	0.9 (0.5-1.4)	2.2 (1.3-3.5)	3.0 (2.1-4.4)	1.1 (0.5-2.4)	2.6 (1.1-6.2)	4.8 (3.3-7.1)

*See text for definitions.

SABA: Inhaled short-acting beta2 agonist; LABA: Inhaled long-acting beta2 agonists; ICS: Inhaled corticosteroids; ICS-LABA: combinations of inhaled corticosteroids and long acting beta2 agonists.

Web table 8. Proportion (and 95% confidence interval clustered by centre) of adolescents receiving oral medicines (and their regimens) according to the severity of symptoms stratified by country income category*.

		High income countries			Upper-middle income countries			Lower-middle and low income countries		
		Asymptomatic	Mild symptoms	Severe symptoms	Asymptomatic	Mild symptoms	Severe symptoms	Asymptomatic	Mild symptoms	Severe symptoms
LTRA	No	91.8 (86.4-95.1)	88.2 (81.2-92.8)	81.7 (72.0-88.6)	93.1 (87.5-96.3)	82.9 (73.2-89.6)	75.9 (66.1-83.6)	92.4 (82.3-96.9)	91.0 (81.8-95.8)	89.5 (85.3-92.6)
	As needed	5.5 (3.2-9.2)	6.8 (4.4-10.6)	9.2 (6.1-13.5)	4.9 (2.5-9.5)	8.7 (5.4-13.8)	13.1 (8.3-20.2)	4.5 (1.8-10.7)	4.9 (2.7-8.7)	6.6 (4.5-9.8)
	Short courses	1.1 (0.5-2.4)	2.3 (1.0-5.2)	3.3 (1.6-6.5)	1.0 (0.4-2.8)	4.9 (1.5-15.0)	4.6 (1.8-11.2)	2.8 (1.0-7.5)	2.9 (0.9-9.2)	2.8 (1.2-6.0)
	Every day	1.6 (1.0-2.7)	2.6 (1.4-4.8)	5.8 (3.1-10.5)	1.0 (0.6-1.6)	3.4 (1.9-6.3)	6.3 (4.3-9.1)	0.3 (0.1-0.8)	1.2 (0.5-2.6)	1.1 (0.6-2.0)
SABA	No	88.0 (83.0-91.7)	76.5 (65.6-84.7)	62.9 (52.6-72.2)	91.1 (85.5-94.7)	82.4 (73.2-88.8)	67.6 (56.4-77.1)	93.8 (86.0-97.4)	83.2 (74.8-89.3)	83.1 (61.5-93.9)
	As needed	8.8 (0.6-12.8)	18.3 (11.9-27.0)	19.9 (13.6-28.3)	7.5 (4.8-11.7)	14.8 (9.3-22.7)	24.0 (17.1-32.5)	4.8 (18.8-11.7)	13.3 (8.8-19.5)	13.0 (4.9-30.3)
	Short courses	2.0 (1.3-3.2)	2.6 (1.6-4.3)	10.0 (8.0-12.4)	1.0 (0.4-2.4)	1.6 (0.8-3.3)	4.6 (2.8-7.3)	1.0 (0.6-1.7)	3.2 (1.8-5.6)	2.3 (0.8-6.8)
	Every day	1.1 (0.6-2.0)	2.6 (1.6-4.4)	7.1 (4.6-10.9)	0.4 (0.1-1.2)	1.2 (0.6-2.3)	3.8 (2.5-5.7)	0.3 (0.03-3.1)	0.3 (0.06-1.4)	1.5 (0.6-4.1)
OCS	No	94.5 (91.6-96.4)	91.9 (88.0-94.7)	81.2 (73.4-87.1)	94.5 (90.6-96.8)	92.0 (88.1-94.7)	78.8 (70.8-85.1)	92.7 (83.6-96.9)	92.5 (86.6-95.9)	86.6 (82.6-89.8)
	As needed	4.2 (2.6-6.9)	6.5 (4.4-9.5)	12.9 (8.8-18.5)	4.3 (2.7-7.0)	6.8 (4.5-10.1)	15.7 (11.1-21.6)	5.0 (1.9-12.8)	4.9 (2.4-9.7)	9.3 (7.2-11.8)
	Short courses	0.8 (0.5-1.2)	1.4 (0.7-2.6)	3.8 (2.3-6.1)	0.9 (0.3-2.4)	0.9 (0.4-1.8)	3.4 (2.1-5.6)	2.1 (1.2-3.7)	2.0 (1.2-3.5)	2.8 (1.4-5.2)
	Every day	0.5 (0.2-1.3)	0.2 (0.03-1.4)	2.1 (1.1-4.1)	0.3 (0.1-0.7)	0.3 (0.1-0.9)	2.1 (1.3-3.5)	0.2 (0.04-1.0)	0.6 (0.1-2.8)	1.4 (0.6-3.2)
Theophylline	No	95.5 (92.6-97.3)	95.6 (93.1-97.2)	89.1 (83.4-93.1)	95.8 (90.3-98.2)	94.4 (87.6-97.6)	89.2 (78.3-95.0)	95.6 (87.6-98.5)	90.8 (82.3-95.4)	91.6 (87.3-94.4)
	As needed	3.4 (2.0-6.0)	3.8 (2.4-6.1)	8.6 (5.4-13.4)	3.4 (1.6-7.0)	4.7 (2.1-10.3)	8.3 (4.2-15.5)	2.9 (1.0-8.6)	6.6 (4.2-10.5)	6.5 (4.3-9.7)
	Short courses	0.7 (0.4-1.4)	0.3 (0.09-0.8)	1.7 (0.7-3.8)	0.5 (0.2-1.9)	0.8 (0.2-2.6)	1.8 (0.6-5.0)	1.3 (0.3-4.7)	2.6 (0.5-12.0)	1.8 (1.0-3.3)
	Every day	0.3 (0.1-1.1)	0.3 (0.07-1.2)	0.6 (0.2-2.3)	0.3 (0.08-1.2)	0.1 (0.01-0.9)	0.7 (0.2-2.3)	0.2 (0.02-2.1)	..	0.1 (0.01-1.5)

*See text for definitions.

LTRA: Leukotriene receptor antagonists; SABA: Oral short acting beta2 agonists; OCS: Oral corticosteroids.

Web table 9. Proportion (and 95% confidence interval clustered by centre) of adults receiving inhaled medicines (and their regimens) according to severity of symptoms stratified by country income category*.

		High income countries			Upper-middle income countries			Lower-middle and low income countries		
		Asymptomatic	Mild symptoms	Severe symptoms	Asymptomatic	Mild symptoms	Severe symptoms	Asymptomatic	Mild symptoms	Severe symptoms
SABA	No	77.8 (55.9-90.6)	42.2 (32.3-52.8)	25.8 (22.2-29.8)	75.9 (70.4-80.6)	33.6 (24.9-43.6)	22.6 (15.8-31.2)	81.9 (66.5-91.2)	60.5 (49.8-70.3)	42.6 (27.8-58.8)
	As needed	18.8 (9.1-34.7)	46.1 (40.2-52.0)	51.5 (33.8-68.8)	16.0 (11.5-22.0)	50.6 (45.4-55.8)	56.7 (48.3-64.7)	13.4 (6.1-27.1)	33.0 (25.4-41.5)	44.2 (25.6-64.7)
	Short courses	2.1 (0.2-18.7)	7.4 (2.3-21.4)	11.0 (2.9-34.0)	6.9 (1.7-24.0)	14.5 (5.8-31.8)	8.7 (5.6-13.3)	1.6 (0.6-4.2)	2.9 (1.6-5.2)	7.0 (3.3-14.5)
	Every day	1.4 (1.3-1.5)	4.3 (1.6-10.7)	11.7 (9.5-14.2)	1.2 (0.4-3.6)	1.3 (0.5-3.0)	12.0 (7.6-18.5)	3.1 (0.9-10.1)	3.6 (1.3-9.5)	6.2 (3.9-9.8)
LABA	No	97.2 (85.9-99.5)	92.2 (55.2-99.1)	87.4 (35.4-98.9)	95.7 (92.9-97.4)	76.8 (51.5-91.1)	75.5 (49.6-90.6)	92.1 (84.5-96.1)	91.7 (85.9-95.2)	85.7 (77.5-91.3)
	As needed	2.2 (0.4-12.4)	5.9 (0.6-40.0)	8.0 (0.7-51.9)	3.2 (1.6-6.4)	17.6 (6.8-38.3)	15.2 (5.9-33.8)	5.5 (2.4-12.1)	6.5 (3.6-11.4)	9.1 (4.5-17.4)
	Short courses	0.07 (0.009-0.5)	0.9 (0.1-7.7)	2.7 (0.3-19.9)	0.6 (0.4-1.1)	3.1 (1.3-7.3)	4.3 (1.6-10.9)	1.3 (0.4-3.9)	1.8 (0.6-5.2)	4.1 (2.6-6.5)
	Every day	0.5 (0.08-3.2)	1.0 (0.1-9.0)	1.9 (0.2-13.6)	0.5 (0.2-1.3)	2.5 (1.1-5.9)	5.0 (2.4-10.3)	1.1 (0.2-6.7)	..	1.0 (0.4-2.7)
ICS	No	90.5 (68.8-97.6)	72.1 (60.9-81.1)	63.8 (36.6-84.3)	95.3 (92.0-97.3)	87.3 (79.1-92.6)	70.0 (58.5-79.4)	91.7 (83.1-96.2)	89.9 (85.1-93.2)	82.9 (74.8-88.7)
	As needed	6.4 (1.1-30.4)	18.3 (7.1-39.6)	17.5 (4.9-46.5)	3.5 (1.9-6.3)	9.4 (4.4-19.1)	18.5 (11.2-29.1)	5.8 (2.3-14.1)	7.2 (4.1-12.4)	9.9 (5.4-17.5)
	Short courses	2.1 (0.7-6.1)	6.1 (3.9-9.2)	11.2 (8.1-15.2)	0.4 (0.2-0.8)	1.8 (1.0-3.2)	5.1 (4.0-6.4)	1.3 (0.7-2.4)	1.4 (0.5-4.1)	4.5 (2.9-7.0)
	Every day	1.0 (0.3-3.7)	3.5 (1.3-9.3)	7.6 (5.2-10.8)	0.8 (0.3-2.1)	1.5 (0.8-2.6)	6.4 (3.6-11.2)	1.1 (0.2-6.7)	1.4 (0.3-5.8)	2.7 (1.5-4.7)
ICS-LABA	No	89.3 (59.1-98.0)	70.6 (55.5-82.3)	55.3 (37.9-71.4)	95.2 (93.3-96.6)	85.7 (82.1-88.6)	76.3 (69.6-81.2)	87.7 (75.7-94.2)	76.4 (66.9-83.9)	68.8 (61.3-75.4)
	As needed	6.7 (0.8-39.3)	16.2 (3.8-49.1)	18.7 (4.5-52.8)	3.4 (2.1-5.6)	8.2 (7.1-9.4)	11.6 (9.3-14.5)	8.6 (3.3-20.7)	16.3 (9.1-27.5)	20.5 (12.1-32.4)
	Short courses	1.7 (0.4-6.7)	6.9 (4.0-11.7)	9.4 (4.9-17.6)	0.4 (0.2-0.8)	2.4 (1.1-5.2)	4.0 (2.3-7.0)	1.6 (0.7-3.6)	2.9 (0.8-10.0)	4.5 (1.9-10.7)
	Every day	2.3 (0.8-6.1)	6.2 (1.4-23.1)	16.5 (7.3-33.1)	1.0 (0.4-2.6)	3.8 (2.4-6.1)	8.1 (5.9-11.0)	2.1 (0.5-8.7)	4.3 (2.8-6.7)	6.2 (3.6-10.5)

*See text for definitions.

SABA: Inhaled short-acting beta2 agonist; LABA: Inhaled long-acting beta2 agonists; ICS: Inhaled corticosteroids; ICS-LABA: combinations of inhaled corticosteroids and long acting beta2 agonists.

Web table 10. Proportion (and 95% confidence interval clustered by centre) of adults receiving oral medicines (and their regimens) according to the severity of symptoms stratified by country income category*.

		High income countries			Upper-middle income countries			Lower-middle and low income countries		
		Asymptomatic	Mild symptoms	Severe symptoms	Asymptomatic	Mild symptoms	Severe symptoms	Asymptomatic	Mild symptoms	Severe symptoms
LTRA	No	95.0 (45.7-99.8)	93.2 (63.4-99.1)	87.4 (33.8-98.9)	95.7 (89.8-98.2)	91.7 (75.4-97.5)	79.6 (62.2-90.2)	98.4 (92.3-99.7)	98.6 (91.6-99.8)	95.0 (78.0-99.0)
	As needed	3.8 (0.09-61.8)	5.2 (0.4-45.1)	7.4 (0.2-74.8)	2.9 (1.2-6.6)	5.1 (1.5-15.8)	8.9 (4.4-17.4)	1.6 (0.3-7.7)	1.4 (0.2-8.4)	2.7 (0.4-15.1)
	Short courses	0.6 (0.06-5.1)	1.2 (0.2-5.5)	2.5 (0.7-8.9)	0.3 (0.05-1.5)	1.3 (0.2-6.7)	3.0 (1.3-6.5)	..	..	1.9 (0.5-6.4)
	Every day	0.7 (0.2-2.0)	0.4 (0.05-4.0)	2.7 (0.8-8.9)	1.2 (0.4-3.6)	2.0 (0.6-6.9)	8.5 (4.0-17.1)	..	..	0.4 (0.05-3.6)
SABA	No	92.8 (27.4-99.8)	81.2 (49.1-95.1)	70.9 (25.0-94.7)	92.4 (86.5-95.8)	88.4 (72.6-95.6)	66.3 (44.6-82.8)	95.3 (81.0-99.0)	89.5 (70.7-96.8)	85.5 (50.3-97.2)
	As needed	5.3 (0.2-65.6)	14.6 (3.4-45.8)	19.5 (3.0-65.2)	6.8 (3.8-11.9)	10.5 (3.9-25.6)	24.6 (13.2-41.2)	3.9 (0.8-17.6)	7.2 (2.1-22.1)	11.4 (1.7-48.9)
	Short courses	1.6 (0.07-29.1)	2.1 (0.05-46.5)	5.5 (0.7-31.8)	0.4 (0.1-1.3)	1.1 (0.4-3.3)	4.5 (2.2-8.8)	0.3 (0.05-1.9)	1.1 (0.2-6.0)	1.0 (0.2-4.9)
	Every day	0.2 (0.01-3.9)	2.1 (0.2-17.0)	4.1 (2.2-7.4)	0.5 (0.1-1.4)	..	4.6 (2.2-9.1)	0.5 (0.08-3.0)	2.2 (0.7-6.6)	2.1 (0.6-6.6)
OCS	No	95.8 (33.6-99.9)	90.8 (63.7-98.3)	82.0 (33.3-97.7)	95.5 (90.4-97.9)	92.7 (77.6-97.9)	75.4 (55.0-88.5)	98.1 (92.5-99.5)	98.2 (92.6-99.6)	93.8 (86.4-97.3)
	As needed	3.8 (0.08-65.4)	7.7 (1.3-35.3)	12.4 (2.1-48.9)	3.8 (1.6-8.4)	6.2 (1.7-19.8)	19.1 (9.1-35.8)	1.8 (0.4-7.0)	1.4 (0.2-8.2)	4.5 (1.5-13.1)
	Short courses	0.4 (0.03-4.0)	1.3 (0.4-4.0)	4.4 (1.0-17.7)	0.3 (0.08-1.0)	1.1 (0.2-4.9)	3.5 (1.7-7.3)	..	..	1.4 (0.4-5.2)
	Every day	0.07 (0.00-13.8)	0.1 (0.02-1.4)	1.1 (0.0008-62.0)	0.5 (0.2-1.1)	..	2.0 (0.9-4.5)	0.2 (0.02-1.5)	0.4 (0.03-3.7)	0.2 (0.03-1.7)
Theophylline	No	96.7 (26.8-100.0)	94.1 (44.4-99.7)	89.3 (21.3-99.6)	98.3 (96.3-99.3)	95.1 (87.0-98.3)	91.7 (83.2-96.1)	99.8 (98.0-100.0)	98.2 (88.7-99.7)	95.2 (83.6-98.7)
	As needed	3.0 (0.04-72.4)	5.5 (0.3-55.9)	7.9 (0.4-66.9)	1.4 (0.6-3.2)	3.4 (0.9-11.8)	4.6 (2.2-9.2)	..	1.1 (0.1-10.5)	3.9 (1.0-14.0)
	Short courses	0.2 (0.00-32.7)	0.4 (0.04-5.2)	2.2 (0.03-60.6)	0.2 (0.07-0.5)	0.7 (0.2-2.3)	1.8 (0.7-4.9)	1.6 (0.01-2.0)	0.4 (0.03-3.7)	0.6 (0.1-2.6)
	Every day	0.07 (0.009-0.5)	..	0.6 (0.2-2.1)	0.09 (0.01-0.9)	0.7 (0.4-1.5)	1.9 (0.9-4.2)	..	0.4 (0.03-3.7)	0.2 (0.02-1.7)

*See text for definitions.

LTRA: Leukotriene receptor antagonists; SABA: Oral short acting beta2 agonists; OCS: Oral corticosteroids

Web table 11. Association between receiving asthma medicine regimens and the severity of symptoms, having an asthma management plan and country income category among children#.

		Severity of symptoms**†		Asthma plan	Country income category**‡	
		Mild	Severe		Upper Middle	Lower Middle & Low
Inhaled medicines		6.36 (5.40-7.48)	13.8 (11.5-16.5)	2.75 (2.40-3.15)	1.18 (0.80-1.76)	0.74 (0.46-1.18)
	As needed	5.74 (4.91-6.72)	8.07 (6.90-9.44)	2.28 (2.00-2.61)	1.12 (0.71-1.75)	0.43 (0.26-0.72)
SABA	Short courses	7.71 (5.80-10.2)	11.96 (9.08-15.7)	2.19 (1.75-2.75)	0.59 (0.34-1.02)	0.49 (0.26-0.94)
	Every day	6.69 (4.04-11.07)	27.5 (17.9-42.3)	3.52 (2.46-5.05)	0.79 (0.34-1.86)	0.47 (0.17-1.30)
	As needed	2.67 (1.65-4.32)	2.55 (1.57-4.15)	0.83 (0.56-1.22)	0.10 (0.13-0.83)	2.21 (0.31-15.5)
LABA	Short courses	4.36 (1.70-11.1)	6.34 (2.63-15.3)	1.02 (0.54-1.91)	0.24 (0.2-2.82)	5.33 (0.51-55.1)
	Every day	2.19 (0.58-8.21)	4.66 (1.49-14.5)	2.12 (0.77-5.84)	0.24 (0.04-1.56)	1.65 (0.29-9.51)
	As needed	2.63 (2.15-3.22)	3.59 (2.98-4.33)	2.02 (1.70-2.41)	1.49 (1.10-2.01)	0.64 (0.43-0.96)
ICS	Short courses	4.51 (3.75-6.06)	5.05 (3.77-6.77)	1.50 (1.18-1.90)	0.32 (0.22-0.48)	0.35 (0.21-0.58)
	Every day	3.25 (2.54-4.15)	4.87 (3.86-6.14)	3.68 (2.94-4.62)	0.38 (0.22-0.67)	0.20 (0.10-0.41)
	As needed	2.26 (1.73-2.95)	2.87 (2.25-3.66)	1.88 (1.50-2.36)	1.32 (0.86-2.04)	1.07 (0.62-1.85)
ICS-LABA	Short courses	4.19 (2.71-6.47)	4.67 (3.08-7.09)	2.19 (1.53-3.14)	0.53 (0.35-0.79)	0.72 (0.42-1.25)
	Every day	2.92 (2.12-4.03)	3.59 (2.64-4.87)	2.78 (2.06-3.76)	0.88 (0.51-1.52)	0.52 (0.26-1.08)
Oral medicines		3.74 (3.21-4.36)	6.89 (5.91-8.04)	1.86 (1.63-2.12)	2.22 (1.39-3.54)	2.27 (1.32-3.90)
	As needed	2.21 (1.69-2.90)	2.88 (2.24-3.69)	1.85 (1.45-2.35)	3.88 (1.34-11.2)	1.02 (0.30-3.55)
LTRA	Short courses	3.19 (2.22-4.59)	4.50 (3.13-6.46)	1.93 (1.38-2.68)	2.75 (0.1-110.5)	0.20 (0.00-14.8)
	Every day	2.99 (2.24-3.99)	4.54 (3.45-5.97)	2.84 (2.15-3.75)	2.54 (0.64-10.1)	0.04 (0.00-0.24)
	As needed	3.28 (2.67-4.04)	5.41 (4.43-6.60)	1.43 (1.20-1.71)	0.81 (0.18-3.52)	0.21 (0.37-1.15)
OCS	Short courses	3.10 (2.05-4.68)	7.56 (5.22-10.9)	1.45 (1.06-2.00)	0.33 (0.25-4.35)	0.7 (0.00-1.53)
	Every day	1.59 (0.58-4.33)	5.78 (2.67-12.5)	2.76 (1.15-6.60)	2.94 (0.26-32.8)	0.13 (0.004-4.30)
	As needed	2.66 (2.21-3.21)	4.17 (3.49-4.98)	1.48 (1.26-1.75)	1.74 (0.48-6.31)	0.40 (0.09-1.78)
SABA	Short courses	3.03 (2.08-4.42)	5.56 (3.92-7.88)	1.19 (0.89-1.59)	0.82 (0.28-2.41)	0.30 (0.79-1.12)
	Every day	2.73 (1.02-7.33)	11.7 (5.11-26.7)	2.78 (1.32-5.84)	0.90 (0.30-2.71)	0.24 (0.04-1.45)
	As needed	1.65 (1.15-2.37)	2.18 (1.54-3.08)	1.52 (1.10-2.09)	1.41 (0.39-5.15)	2.09 (0.46-9.50)
Theophylline	Short courses	2.40 (1.20-4.81)	4.22 (2.21-8.06)	1.06 (0.61-1.82)	2.70 (0.39-18.6)	4.4 (0.49-39.9)
	Every day	..	1.50 (0.24-9.42)	1.72 (0.18-16.1)	..	..

#Adjusted for all variables in the table, age, and sex at the first level, school at the second and centre at the third level. Reference categories:

†Asymptomatic; ‡High income.

*See text for definitions.

SABA: Short-acting beta2 agonist; LABA: Inhaled long-acting beta2 agonists; ICS: Inhaled corticosteroids; ICS-LABA: combinations of inhaled corticosteroids and long acting beta2 agonists; LTRA: Leukotriene receptor antagonists; OCS: Oral corticosteroids.

Web table 12. Association between receiving asthma medicine regimens and the severity of symptoms, having an asthma management plan and country income category among adolescents[#].

		Severity of symptoms* [†]		Asthma plan	Country income category* [‡]	
		Mild	Severe		Upper Middle	Lower Middle & Low
Inhaled medicines		4.08 (3.66-4.56)	7.96 (7.12-8.89)	2.45 (2.25-2.67)	0.64 (0.46-0.89)	0.86 (0.59-1.24)
	As needed	3.38 (3.01-3.80)	5.07 (4.54-5.66)	2.11 (1.92-2.31)	0.66 (0.38-1.14)	0.49 (0.27-0.91)
SABA	Short courses	3.77 (3.02-4.70)	10.3 (8.50-12.4)	2.37 (2.01-2.79)	0.45 (0.19-1.08)	0.53 (0.20-1.38)
	Every day	4.38 (3.39-5.66)	14.0 (11.3-17.4)	3.71 (3.04-4.52)	0.36 (0.15-0.86)	0.23 (0.09-0.59)
	As needed	1.48 (1.23-1.78)	3.02 (2.59-3.52)	1.45 (1.26-1.67)	0.93 (0.52-1.67)	0.81 (0.42-1.55)
LABA	Short courses	1.16 (0.80-1.68)	3.13 (2.37-4.13)	1.49 (1.15-1.93)	1.33 (0.50-3.57)	2.26 (0.76-6.69)
	Every day	1.80 (1.09-2.99)	4.38 (2.94-6.50)	2.38 (1.61-3.51)	1.44 (0.66-3.13)	0.76 (0.30-1.93)
	As needed	1.70 (1.45-1.99)	3.15 (2.75-3.60)	1.82 (1.61-2.07)	0.62 (0.36-1.06)	0.47 (0.25-0.86)
ICS	Short courses	2.26 (1.72-2.97)	4.85 (3.85-6.10)	1.84 (1.49-2.26)	0.53 (0.28-1.00)	1.02 (0.51-2.07)
	Every day	2.40 (1.73-3.32)	5.83 (4.47-7.61)	3.78 (2.88-4.96)	0.52 (0.31-0.87)	0.52 (0.28-0.95)
	As needed	1.90 (1.61-2.26)	3.21 (2.77-3.72)	1.54 (1.35-1.76)	0.57 (0.33-0.96)	0.53 (0.29-0.96)
ICS-LABA	Short courses	1.82 (1.33-2.49)	4.23 (3.30-5.42)	2.45 (1.93-3.12)	0.60 (0.33-1.11)	0.95 (0.48-1.88)
	Every day	2.62 (1.94-3.55)	4.80 (3.69-6.23)	3.29 (2.54-4.25)	0.28 (0.19-0.43)	0.40 (0.24-0.65)
Oral medicines		2.45 (2.19-2.75)	5.71 (5.16-6.33)	1.53 (1.40-1.68)	1.40 (1.04-1.90)	2.91 (2.07-4.10)
	As needed	1.54 (1.26-1.88)	2.64 (2.23-3.13)	1.54 (1.32-1.80)	1.10 (0.36-3.38)	0.36 (0.10-1.31)
LTRA	Short courses	2.60 (1.86-3.63)	3.78 (2.80-5.12)	1.62 (1.23-2.14)	0.94 (0.10-9.00)	0.25 (0.02-3.30)
	Every day	2.36 (1.69-3.31)	5.26 (3.98-6.94)	2.42 (1.86-3.17)	0.87 (0.31-2.43)	0.11 (0.03-0.40)
	As needed	1.49 (1.21-1.85)	3.78 (3.20-4.46)	1.55 (1.33-1.82)	0.95 (0.28-3.21)	0.46 (0.12-1.82)
OCS	Short courses	1.42 (0.91-2.20)	4.38 (3.17-6.04)	1.71 (1.26-2.33)	0.73 (0.16-3.33)	0.52 (0.09-2.91)
	Every day	0.78 (0.34-1.79)	6.28 (3.96-9.96)	1.36 (0.90-2.08)	0.78 (0.22-2.72)	0.40 (0.09-1.79)
	As needed	2.31 (1.99-2.68)	3.69 (3.23-4.21)	1.52 (1.34-1.71)	0.79 (0.19-3.22)	0.30 (0.06-1.43)
SABA	Short courses	1.70 (1.20-2.38)	5.86 (4.54-7.56)	1.75 (1.38-2.22)	0.40 (0.09-1.79)	0.18 (0.03-1.00)
	Every day	2.83 (1.82-4.39)	9.71 (6.84-13.8)	2.44 (1.79-3.32)	0.41 (0.11-1.51)	0.13 (0.03-0.63)
	As needed	1.33 (1.04-1.70)	2.81 (2.31-3.41)	1.35 (1.13-1.62)	1.11 (0.36-3.42)	0.41 (0.11-1.59)
Theophylline	Short courses	1.16 (0.66-2.02)	2.91 (1.91-4.44)	1.25 (0.85-1.84)	1.15 (0.21-6.39)	0.43 (0.05-3.42)
	Every day	0.55 (0.19-1.62)	2.10 (1.09-4.08)	1.31 (0.70-2.47)	0.94 (0.19-4.65)	0.11 (0.01-0.98)

[#]Adjusted for all variables in the table, age, and sex at the first level, school at the second and centre at the third level. Reference categories:

[†]Asymptomatic; [‡]High income.

*See text for definitions.

SABA: Short-acting beta2 agonist; LABA: Inhaled long-acting beta2 agonists; ICS: Inhaled corticosteroids; ICS-LABA: combinations of inhaled corticosteroids and long acting beta2 agonists; LTRA: Leukotriene receptor antagonists; OCS: Oral corticosteroids.

Web table 13. Association between receiving asthma medicine regimens and the severity of symptoms, having an asthma management plan and country income category among adults[#].

		Severity of symptoms* [†]		Asthma plan	Country income category* [‡]	
		Mild	Severe		Upper Middle	Lower Middle & Low
Inhaled medicines		5.89 (5.02-6.91)	16.0 (13.4-19.1)	2.75 (2.38-3.16)	0.99 (0.47-2.07)	0.96 (0.42-2.17)
	As needed	4.51 (3.84-5.30)	8.67 (7.40-10.2)	2.33 (2.03-2.67)	0.86 (0.45-1.67)	0.61 (0.29-1.27)
SABA	Short courses	3.66 (2.71-4.93)	7.05 (5.9-45)	1.36 (1.06-1.75)	0.73 (0.22-2.41)	0.45 (0.12-1.69)
	Every day	3.33 (2.15-5.17)	17.5 (12.3-25.1)	3.42 (2.54-4.61)	0.74 (0.46-1.19)	0.47 (0.27-0.81)
	As needed	2.68 (1.99-3.62)	4.41 (3.30-5.87)	2.02 (1.59-2.57)	1.00 (0.33-3.05)	1.16 (0.33-4.01)
LABA	Short courses	2.61 (1.36-4.99)	8.11 (4.62-14.3)	1.95 (1.28-3.00)	1.27 (0.42-3.86)	1.73 (0.51-5.85)
	Every day	1.91 (0.99-3.68)	5.49 (3.15-9.58)	3.52 (2.16-5.73)	1.21 (0.41-3.55)	0.49 (0.13-1.81)
	As needed	2.81 (2.21-3.56)	3.76 (3.01-4.68)	2.00 (1.65-2.43)	0.64 (0.34-1.20)	0.39 (0.19-0.80)
ICS	Short courses	3.13 (2.02-4.85)	7.86 (5.35-11.5)	1.77 (1.31-2.39)	0.25 (0.16-0.39)	0.27 (0.16-0.45)
	Every day	2.81 (1.67-4.73)	7.53 (4.83-11.7)	2.75 (1.88-4.03)	0.63 (0.35-1.12)	0.27 (0.13-0.57)
	As needed	2.34 (1.85-2.95)	3.65 (2.93-4.54)	2.15 (1.78-2.61)	0.38 (0.19-0.75)	0.99 (0.47-2.11)
ICS-LABA	Short courses	4.38 (2.84-6.74)	7.26 (4.80-11.0)	1.90 (1.39-2.59)	0.22 (0.13-0.40)	0.31 (0.16-0.60)
	Every day	3.17 (2.18-4.60)	8.05 (5.77-11.2)	2.52 (1.92-3.31)	0.34 (0.24-0.48)	0.36 (0.24-0.54)
Oral medicines		3.88 (3.27-4.60)	9.06 (7.69-10.7)	1.78 (1.55-2.04)	2.15 (1.13-4.09)	2.35 (1.15-4.83)
	As needed	1.68 (1.18-2.39)	2.58 (1.91-3.48)	1.81 (1.37-2.39)	1.14 (0.27-4.90)	0.20 (0.04-1.10)
LTRA	Short courses	3.96 (1.69-9.26)	10.5 (4.97-22.3)	2.63 (1.49-4.64)	1.22 (0.08-17.8)	0.09 (0.03-2.28)
	Every day	1.50 (0.73-3.08)	7.14 (4.30-11.9)	3.16 (1.96-5.10)	2.92 (0.41-21.1)	0.04 (0.02-0.54)
	As needed	2.21 (1.61-3.05)	4.90 (3.75-6.41)	1.99 (1.55-2.56)	1.19 (0.19-7.48)	0.28 (0.03-2.28)
OCS	Short courses	4.09 (1.68-9.96)	15.8 (7.45-33.4)	2.16 (1.31-3.58)	0.68 (0.14-3.25)	0.18 (0.03-1.22)
	Every day	1.04 (0.20-5.42)	8.07 (3.01-21.7)	7.72 (2.26-26.4)	1.21 (0.12-12.2)	0.18 (0.09-3.31)
	As needed	2.80 (2.19-3.59)	4.77 (3.84-5.91)	1.60 (1.32-1.94)	1.63 (0.24-11.2)	0.40 (0.05-3.51)
SABA	Short courses	2.29 (1.21-4.32)	7.56 (4.61-12.4)	1.44 (0.96-2.16)	0.97 (0.17-5.52)	0.21 (0.03-1.60)
	Every day	5.21 (2.32-11.7)	15.1 (7.4-30.7)	4.3 (2.49-7.43)	1.01 (0.30-3.43)	0.64 (0.16-2.58)
	As needed	2.34 (1.56-3.51)	3.24 (2.25-4.65)	1.62 (1.18-2.22)	0.70 (0.15-3.37)	0.16 (0.02-1.12)
Theophylline	Short courses	4.81 (1.43-16.2)	11.9 (4.13-34.5)	2.17 (1.07-4.39)	1.12 (0.15-8.31)	0.14 (0.01-1.85)
	Every day	6.12 (1.16-32.3)	14.0 (3.16-62.2)	1.51 (0.62-3.65)	6.0 (1.30-27.4)	0.39 (0.04-3.44)

[#]Adjusted for all variables in the table, age, and sex at the first level, school at the second and centre at the third level. Reference categories:

[†]Asymptomatic; [‡]High income.

*See text for definitions.

SABA: Short-acting beta2 agonist; LABA: Inhaled long-acting beta2 agonists; ICS: Inhaled corticosteroids; ICS-LABA: combinations of inhaled corticosteroids and long acting beta2 agonists; LTRA: Leukotriene receptor antagonists; OCS: Oral corticosteroids.

Web Table 14. Factors associated to poor control* of asthma among children in the multilevel analysis#.

			All the population	High income countries	Upper-Middle income countries	Lower Middle & Low income countries
Severity of symptoms[†]						
	Mild		2.54 (2.21-2.92)	2.76 (2.24-3.39)	2.42 (1.93-3.03)	2.09 (1.47-2.97)
	Severe		6.32 (5.48-7.30)	7.46 (5.89-9.45)	5.72 (4.59-7.11)	5.58 (3.90-7.98)
Country income category[‡]						
	Upper middle		0.94 (0.57-1.56)	N.A.	N.A.	N.A.
	Lower middle & Low		2.37 (1.33-4.19)	N.A.	N.A.	N.A.
Asthma plan			1.16 (1.03-1.30)	1.02 (0.85-1.22)	1.13 (0.94-1.37)	1.58 (1.18-2.11)
Inhaled medicines[§]						
	SABA	As needed	1.89 (1.64-2.17)	1.91 (1.53-2.39)	1.90 (1.54-2.35)	2.08 (1.44-2.99)
		Short courses	2.60 (2.09-3.24)	2.50 (1.80-3.47)	2.94 (2.03-4.26)	2.03 (1.15-3.56)
		Every day	3.51 (2.51-4.89)	3.91 (2.33-6.54)	3.69 (2.28-6.12)	2.74 (0.99-7.59)
	LABA	As needed	1.08 (0.73-1.59)	1.37 (0.76-2.47)	0.84 (0.40-1.74)	0.97 (0.45-2.06)
		Short courses	0.90 (0.50-1.63)	1.01 (0.33-3.04)	1.28 (0.49-3.33)	0.75 (0.26-2.18)
		Every day	1.03 (0.43-2.47)	1.35 (0.40-4.55)	1.33 (0.28-6.33)	0.42 (0.06-3.23)
	ICS	As needed	1.17 (0.99-1.38)	1.15 (0.86-1.53)	1.36 (1.09-1.69)	0.66 (0.38-1.15)
		Short courses	1.09 (0.87-1.38)	1.27 (0.94-1.73)	0.91 (0.60-1.37)	0.88 (0.43-1.80)
		Every day	1.14 (0.95-1.37)	1.01 (0.78-1.30)	1.47 (1.08-2.01)	1.25 (0.58-2.72)
	ICS-LABA	As needed	1.07 (0.88-1.32)	1.01 (0.70-1.44)	1.20 (0.91-1.59)	0.97 (0.53-1.77)
		Short courses	1.60 (1.17-2.20)	1.31 (0.85-2.04)	2.11 (1.22-3.67)	1.51 (0.57-3.96)
		Every day	1.25 (0.99-1.59)	1.32 (0.93-1.87)	1.15 (0.80-1.66)	1.17 (0.48-2.85)
Oral medicines[§]						
	LTRA	As needed	1.24 (1.00-1.54)	1.32 (0.86-2.03)	1.26 (0.96-1.67)	1.12 (0.61-2.07)
		Short courses	0.95 (0.71-1.27)	1.15 (0.76-1.72)	0.77 (0.46-1.29)	0.97 (0.43-2.20)
		Every day	1.22 (1.00-1.49)	1.15 (0.83-1.58)	1.20 (0.91-1.57)	1.47 (0.23-9.29)
	OCS	As needed	1.86 (1.60-2.17)	2.19 (1.74-2.76)	1.48 (1.17-1.87)	2.65 (1.68-4.20)
		Short courses	1.52 (1.14-2.02)	1.88 (1.25-2.83)	0.95 (0.56-1.63)	2.12 (1.06-4.27)
		Every day	2.03 (1.05-3.92)	1.34 (0.34-5.26)	2.98 (1.28-6.92)	0.32 (0.04-2.76)
	SABA	As needed	1.55 (1.34-1.80)	1.48 (1.16-1.88)	1.72 (1.40-2.11)	1.23 (0.72-2.10)
		Short courses	1.79 (1.35-2.38)	1.89 (1.26-2.83)	2.45 (1.55-3.87)	0.37 (0.13-1.01)
		Every day	2.59 (1.42-4.73)	1.98 (0.84-4.67)	3.47 (1.35-8.93)	2.64 (0.16-43.88)
	Theophylline	As needed	1.06 (0.79-1.41)	1.16 (0.69-1.95)	0.97 (0.60-1.57)	0.85 (0.47-1.53)
		Short courses	0.97 (0.57-1.65)	0.39 (0.12-1.26)	2.38 (0.84-6.73)	0.80 (0.31-2.05)
		Every day	0.42 (0.06-2.99)	..	0.14 (0.01-1.35)	..

*See text for definition of control.

#Adjusted for all variables in the table, age, and sex at the first level, school at the second and centre at the third level.

Reference categories: [†]Asymptomatic; [‡]High income; [§]Not receiving the specific medication.

SABA: Short-acting beta2 agonist; LABA: Inhaled long-acting beta2 agonists; ICS: Inhaled corticosteroids; ICS-LABA: combinations of inhaled corticosteroids and long acting beta2 agonists; LTRA: Leukotriene receptor antagonists; OCS: Oral corticosteroids.

N.A.: Not applicable.

Web Table 15. Factors associated to poor control* of asthma among adolescents in the multilevel analysis#.

			All the population	High income countries	Upper-Middle income countries	Lower Middle & Low income countries
Severity of symptoms†						
	Mild		1.65 (1.49-1.83)	1.58 (1.34-1.86)	1.77 (1.51-2.09)	1.62 (1.232-1.12)
	Severe		3.67 (3.33-4.05)	3.56 (3.03-4.18)	3.74 (3.23-4.33)	4.05 (3.16-5.21)
Country income category‡						
	Upper middle		2.40 (1.34-4.28)	N.A.	N.A.	N.A.
	Lower middle & Low		3.49 (1.84-6.59)	N.A.	N.A.	N.A.
Asthma plan			1.29 (1.19-1.40)	1.36 (1.19-1.55)	1.23 (1.08-1.40)	1.34 (1.09-1.63)
Inhaled medicines§						
SABA	As needed		1.81 (1.63-2.00)	2.02 (1.71-2.39)	1.60 (1.37-1.87)	2.00 (1.54-2.60)
	Short courses		2.46 (2.07-2.91)	3.22 (2.53-4.11)	1.76 (1.31-2.38)	2.23 (1.44-3.45)
	Every day		3.09 (2.55-3.76)	3.57 (2.74-4.65)	2.71 (1.87-3.92)	3.22 (1.75-5.94)
LABA	As needed		1.13 (0.95-1.35)	1.07 (0.82-1.39)	1.32 (1.00-1.75)	0.99 (0.61-1.61)
	Short courses		1.23 (0.92-1.63)	1.99 (1.24-3.19)	0.94 (0.57-1.54)	1.06 (0.61-1.85)
	Every day		1.72 (1.15-2.56)	1.71 (0.93-3.17)	1.91 (1.04-3.52)	1.73 (0.55-5.38)
ICS	As needed		1.24 (1.06-1.45)	1.08 (0.85-1.36)	1.46 (1.14-1.86)	1.21 (0.80-1.85)
	Short courses		1.44 (1.16-1.79)	1.61 (1.17-2.20)	1.57 (1.06-2.33)	0.96 (0.58-1.58)
	Every day		1.31 (1.04-1.66)	0.98 (0.70-1.36)	2.07 (1.34-3.19)	1.43 (0.78-2.62)
ICS-LABA	As needed		0.84 (0.71-0.99)	0.93 (0.73-1.19)	0.71 (0.54-0.93)	0.90 (0.56-1.44)
	Short courses		1.11 (0.87-1.41)	1.04 (0.74-1.48)	1.16 (0.74-1.81)	1.33 (0.75-2.34)
	Every day		0.97 (0.77-1.23)	1.10 (0.82-1.49)	0.63 (0.38-1.06)	0.90 (0.48-1.69)
Oral medicines§						
LTRA	As needed		1.10 (0.92-1.33)	1.28 (0.93-1.76)	1.01 (0.77-1.32)	1.32 (0.81-2.15)
	Short courses		1.20 (0.91-1.57)	1.65 (1.06-2.55)	0.86 (0.56-1.30)	1.81 (0.91-3.63)
	Every day		1.23 (0.97-1.56)	1.30 (0.91-1.86)	1.14 (0.81-1.61)	1.75 (0.54-5.62)
OCS	As needed		1.26 (1.05-1.51)	1.43 (1.05-1.95)	1.17 (0.91-1.52)	1.23 (0.77-1.97)
	Short courses		2.08 (1.48-2.92)	2.49 (1.50-4.13)	1.79 (0.96-3.33)	2.00 (0.93-4.29)
	Every day		1.47 (0.93-2.33)	1.39 (0.69-2.78)	1.34 (0.62-2.88)	1.94 (0.55-6.89)
SABA	As needed		1.37 (1.20-1.56)	1.45 (1.19-1.76)	1.28 (1.04-1.58)	1.45 (1.01-2.08)
	Short courses		1.69 (1.32-2.17)	2.14 (1.56-2.95)	1.23 (0.74-2.03)	1.09 (0.55-2.17)
	Every day		1.38 (1.01-1.88)	1.27 (0.85-1.89)	1.58 (0.87-2.88)	3.55 (0.85-14.82)
Theophylline	As needed		1.01 (0.79-1.28)	0.65 (0.42-1.00)	1.34 (0.93-1.94)	1.09 (0.63-1.89)
	Short courses		1.91 (1.22-2.98)	1.70 (0.80-3.58)	2.05 (0.89-4.74)	1.17 (0.51-2.71)
	Every day		0.98 (0.44-2.16)	1.29 (0.44-3.82)	0.45 (0.12-1.61)	1.74 (0.13-22.64)

*See text for definition of control.

#Adjusted for all variables in the table, age, and sex at the first level, school at the second and centre at the third level.

Reference categories: †Asymptomatic; ‡High income; §Not receiving the specific medication.

SABA: Short-acting beta2 agonist; LABA: Inhaled long-acting beta2 agonists; ICS: Inhaled corticosteroids; ICS-LABA: combinations of inhaled corticosteroids and long acting beta2 agonists; LTRA: Leukotriene receptor antagonists; OCS: Oral corticosteroids.

N.A.: Not applicable.

Web Table 16. Factors associated to poor control* of asthma among adults in the multilevel analysis#.

			All the population	High income	Upper-Middle income	Lower Middle & Low income
Severity of symptoms†						
	Mild		1.86 (1.58-2.19)	2.01 (1.55-2.60)	2.24 (1.68-3.00)	1.23 (0.88-1.71)
	Severe		5.52 (4.72-6.46)	5.26 (4.03-6.86)	6.18 (4.72-8.09)	4.50 (3.28-6.16)
Country income category‡						
	Upper middle		1.48 (0.81-2.70)	N.A.	N.A.	N.A.
	Lower middle & Low		5.15 (2.64-10.0)	N.A.	N.A.	N.A.
Asthma plan			1.21 (1.07-1.38)	1.00 (0.80-1.24)	1.17 (0.95-1.44)	1.71 (1.31-2.23)
Inhaled medication§						
	iSABA	As needed	1.78 (1.53-2.08)	1.17 (0.91-1.52)	2.24 (1.72-2.92)	2.37 (1.70-3.31)
		Short courses	1.37 (1.06-1.77)	1.54 (1.00-2.37)	1.83 (1.23-2.73)	0.70 (0.34-1.45)
		Every day	2.11 (1.57-2.83)	1.38 (0.84-2.26)	2.93 (1.82-4.71)	2.29 (1.07-4.89)
	LABA	As needed	1.65 (1.30-2.10)	1.48 (0.93-2.35)	1.97 (1.38-2.81)	1.19 (0.53-2.70)
		Short courses	1.58 (1.04-2.40)	1.66 (0.72-3.80)	2.57 (1.41-4.68)	1.09 (0.31-3.83)
		Every day	2.35 (1.47-3.75)	1.37 (0.54-3.48)	2.58 (1.39-4.81)	10.8 (1.62-71.6)
	ICS	As needed	1.26 (1.02-1.56)	1.23 (0.86-1.75)	1.45 (1.07-1.98)	1.09 (0.52-2.27)
		Short courses	1.79 (1.29-2.49)	2.19 (1.44-3.33)	2.23 (1.17-4.25)	0.40 (0.11-1.44)
		Every day	1.43 (1.00-2.06)	1.12 (0.63-2.00)	1.97 (1.13-3.44)	0.67 (0.21-2.17)
	ICS-LABA	As needed	0.99 (0.81-1.22)	1.24 (0.89-1.75)	1.10 (0.77-1.57)	0.85 (0.54-1.33)
		Short courses	1.85 (1.32-2.58)	2.07 (1.34-3.19)	1.85 (0.97-3.54)	1.42 (0.48-4.22)
		Every day	1.48 (1.14-1.92)	1.75 (1.18-2.60)	1.60 (1.01-2.52)	1.19 (0.64-2.24)
Oral medication§						
	LTRA	As needed	1.32 (0.98-1.80)	1.09 (0.60-2.00)	1.58 (1.06-2.36)	1.44 (0.52-4.01)
		Short courses	1.34 (0.81-2.20)	0.66 (0.28-1.56)	2.15 (1.08-4.27)	1.12 (0.16-7.94)
		Every day	1.29 (0.87-1.93)	1.17 (0.48-2.85)	1.41 (0.87-2.30)	0.60 (0.03-10.8)
	OCS	As needed	1.20 (0.94-1.54)	2.24 (1.44-3.48)	0.93 (0.67-1.30)	0.82 (0.29-2.30)
		Short courses	1.89 (1.18-3.03)	4.52 (2.21-9.27)	0.90 (0.45-1.81)	5.86 (0.39-87.2)
		Every day	0.75 (0.34-1.66)	3.83 (0.75-19.5)	0.38 (0.14-1.03)	2.67 (0.14-52.0)
	SABA	As needed	1.88 (1.55-2.28)	2.44 (1.76-3.39)	1.69 (1.27-2.26)	2.05 (1.18-3.56)
		Short courses	1.60 (1.09-2.36)	1.44 (0.80-2.59)	2.06 (1.12-3.79)	1.91 (0.46-7.95)
		Every day	2.26 (1.46-3.49)	2.82 (1.42-5.58)	3.30 (1.66-6.58)	0.72 (0.22-2.31)
	Theophylline	As needed	1.25 (0.89-1.76)	0.65 (0.34-1.22)	1.66 (0.99-2.78)	3.32 (0.90-12.3)
		Short courses	1.23 (0.66-2.32)	0.83 (0.31-2.23)	1.09 (0.43-2.76)	8.12 (0.63-105.0)
		Every day	4.18 (1.63-10.7)	7.42 (0.66-83.1)	2.65 (0.87-8.10)	..

*See text for definition of control.

#Adjusted for all variables in the table, age, and sex at the first level, school at the second and centre at the third level.

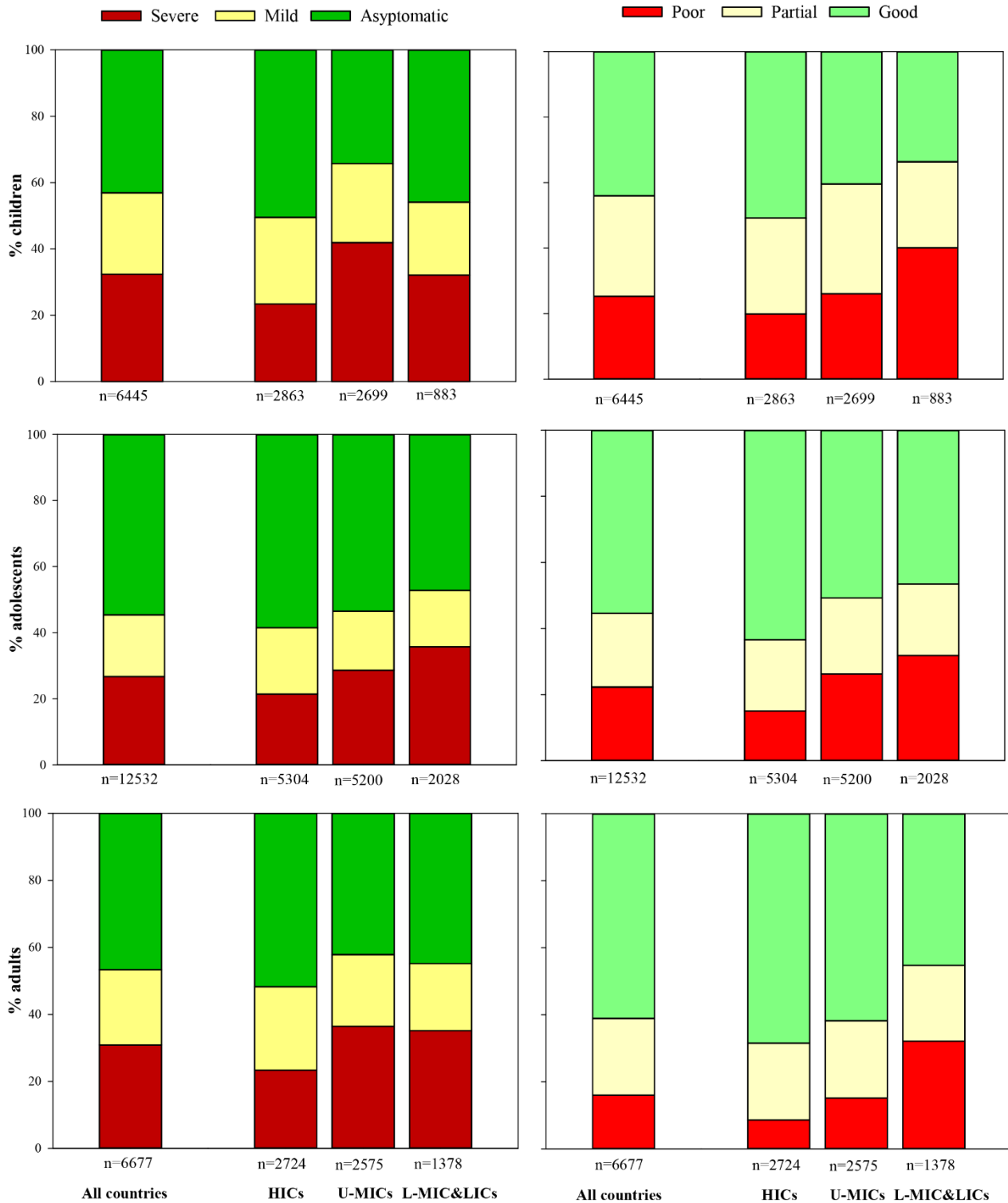
Reference categories: †Asymptomatic; ‡High income category; §Not receiving the specific medication.

SABA: Short-acting beta2 agonist; LABA: Inhaled long-acting beta2 agonists; ICS: Inhaled corticosteroids; ICS-LABA: combinations of inhaled corticosteroids and long acting beta2 agonists; LTRA: Leukotriene receptor antagonists; OCS: Oral corticosteroids.

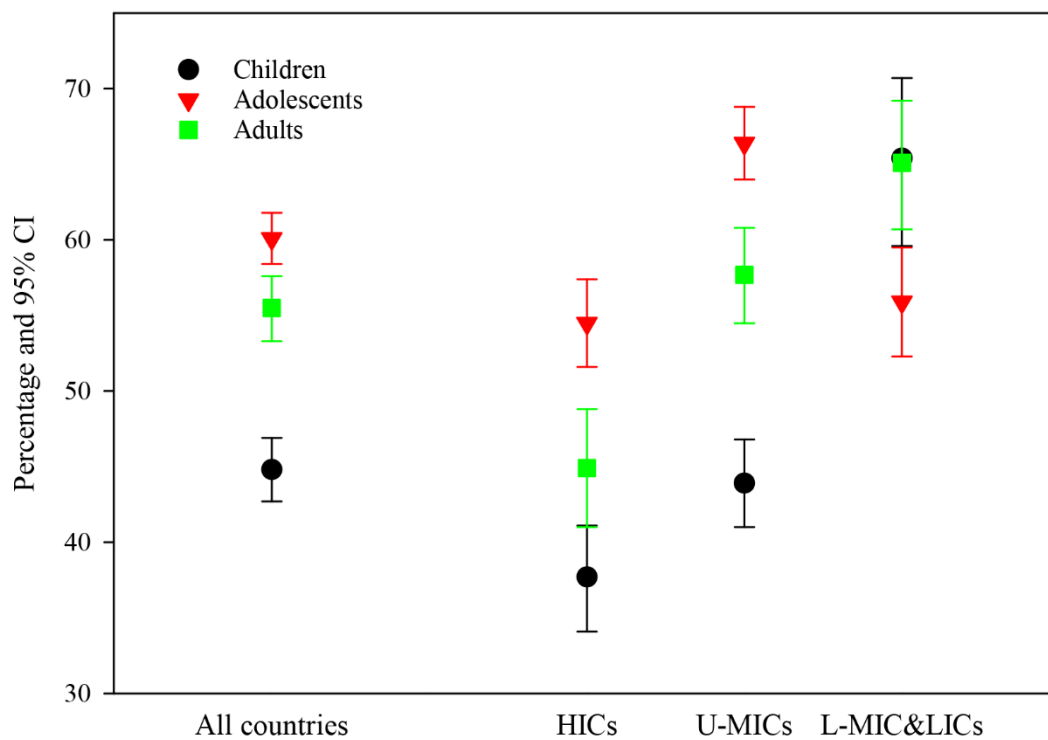
N.A.: Not applicable.

A) Type of asthma symptoms

B) Degree of asthma control



Web figure 1. Proportions of A) severity of symptoms and B) degree of asthma control among children, adolescents, and adults in the whole populations and by country income category. See text for definitions of severity of symptoms and control. (HICs: High Income Countries; U-MICs: Upper-Middle Income Countries; L-MIC&LICs: Lower-Middle and Low Income Countries).



Web figure 2. Proportion of children, adolescents and adults with severe symptoms who were not on inhaled corticosteroids with or without long-acting beta-2 agonists in the whole populations and stratified by country income category. (HICs: High Income Countries; U-MICs: Upper-Middle Income Countries; L-MIC&LICs: Lower-Middle and Low Income Countries).

Global Asthma Network Study Group:

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