

THE LANCET

Global Health

Supplementary appendix 2

This appendix formed part of the original submission and has been peer reviewed. We post it as supplied by the authors.

Supplement to: García-Marcos L, Chiang C-Y, Asher MI, et al. Asthma management and control in children, adolescents, and adults in 25 countries: a Global Asthma Network Phase I cross-sectional study. *Lancet Glob Health* 2023; **11**: e218–28.

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

Supplementary material (web tables, figures and study group).

	Page
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).	3
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.	5
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.	6
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.	7
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.	8
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.	9
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.	10
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.	11
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.	12
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.	13
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.	14
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.	15

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.	16
Web Table 14. Factors associated to poor control of asthma among children in the multilevel analysis.	17
Web Table 15. Factors associated to poor control of asthma among adolescents in the multilevel analysis.	18
Web Table 16. Factors associated to poor control of asthma among adults in the multilevel analysis.	19
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.	20
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.	21
Global Asthma Network Study Group.	22

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 (1.23-1.12)
	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.

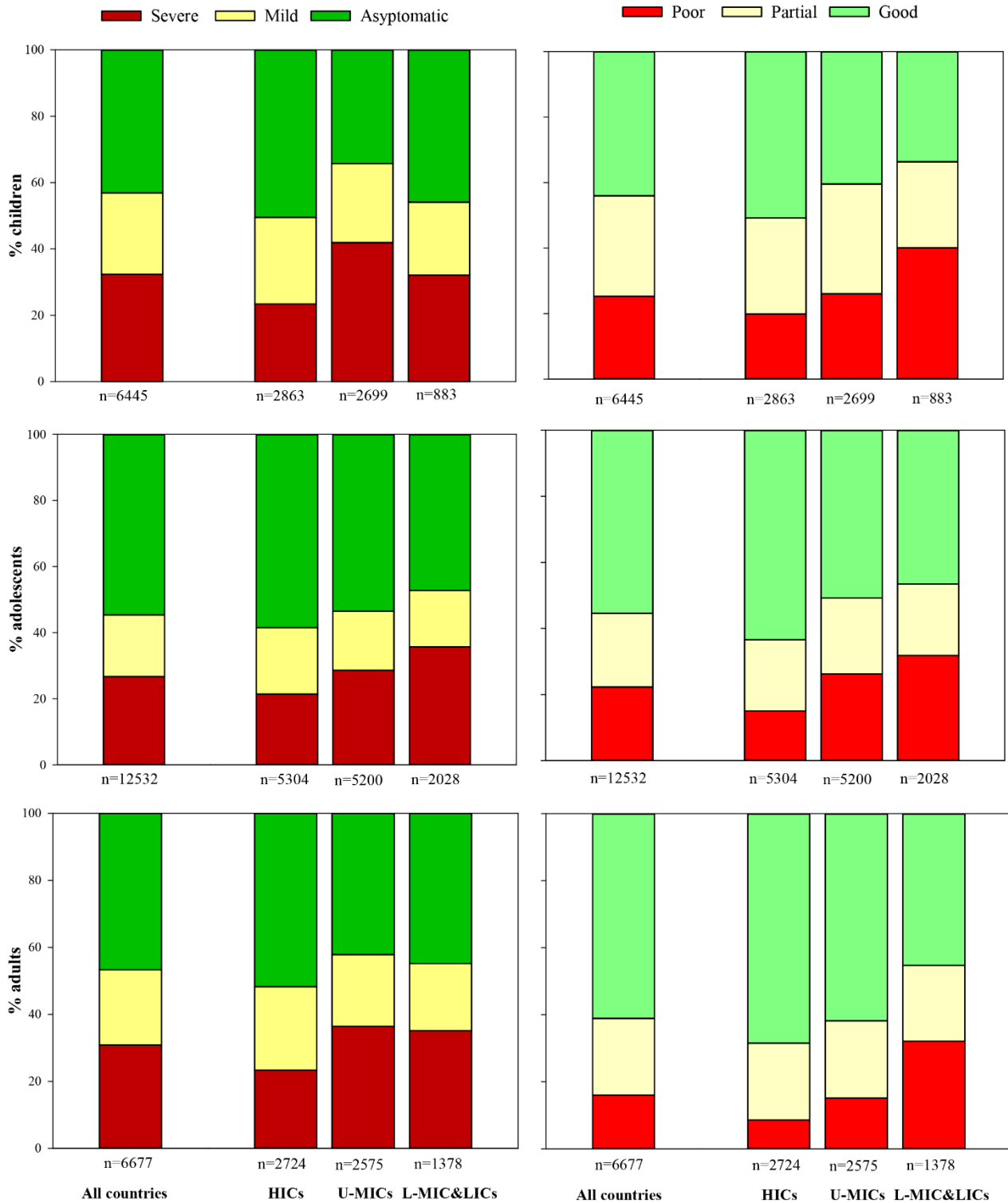
Reference categories: †Asymptomatic; ‡High income category; §Not receiving the specific medication.

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.

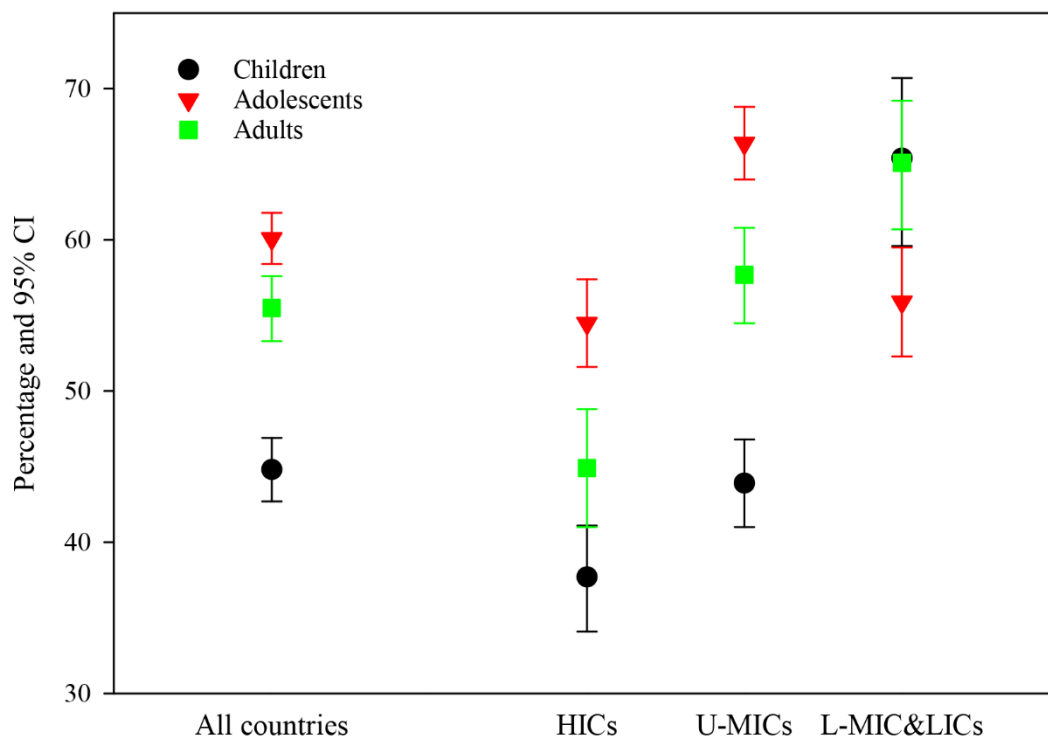
N.A.: Not applicable.

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:

Global Asthma Network Steering Group: MI Asher, Department of Paediatrics: Child and Youth Health, Faculty of Medical and Health Sciences, University of Auckland, Private Bag 92019, Auckland, New Zealand; K Bissell, School of Population Health, Faculty of Medical and Health Sciences, University of Auckland, Auckland, New Zealand; C-Y Chiang, International Union Against Tuberculosis and Lung Disease, Paris, France; and Division of Pulmonary Medicine, Department of Internal Medicine, Wan Fang Hospital, Taipei Medical University; and Division of Pulmonary Medicine, Department of Internal Medicine, School of Medicine, College of Medicine, Taipei Medical University 111 Hsin-Long Road, Section 3, Taipei, 116, Taiwan; A El Sony, Epidemiological Laboratory for Public Health and Research, Khartoum 3 Block3-Building 11, Khartoum, Sudan; P Ellwood, Department of Paediatrics: Child and Youth Health, Faculty of Medical and Health Sciences, Private Bag 92019, University of Auckland, Auckland, New Zealand; L García-Marcos, Pediatric Allergy and Pulmonology Units, Virgen de la Arrixaca University Children's Hospital, University of Murcia and IMIB Bioresearch Institute, Murcia; and ARADyAL Allergy Network, Edificio Departamental-Laib, Avenida Buenavista s/n, 30120 El Palmar, 30394 Murcia Spain; GB Marks, Respiratory & Environmental Epidemiology, University of New South Wales, Goulburn St, Sydney 2085, Sydney, Australia; K Mortimer, Liverpool School of Tropical Medicine, Pembroke Place, Liverpool L3 5QA, United Kingdom and Department of Paediatrics and Child Health, College of Health Sciences, School of Clinical Medicine, University of KwaZulu-Natal, Durban, South Africa; N Pearce, Department of Medical Statistics, London School of Hygiene & Tropical Medicine, Keppel Street, London WC1E 7HT, United Kingdom; DP Strachan, Population Health Research Institute, St George's, University of London, Cranmer Terrace, London SW17 0RE, United Kingdom.

Global Asthma Network International Data Centres:

GAN Global Centre: P Ellwood, E Ellwood, MI Asher, Department of Paediatrics: Child and Youth Health, Faculty of Medical and Health Sciences, Private Bag 92019, University of Auckland, Auckland, New Zealand.

Murcia, Spain: L García-Marcos, Pediatric Allergy and Pulmonology Units, Virgen de la Arrixaca University Children's Hospital, University of Murcia and IMIB Bio-medical Institute, Murcia; and ARADyAL Allergy Network, Edificio Departamental-Laib, Murcia, Spain; V Perez-Fernández, Department of Paediatrics, University of Murcia, and IMIB Bio-medical Research Institute, Murcia, Edificio Departamental-Laib, Avenida Buenavista s/n, 30120 El Palmar, 30394 Murcia Spain; E Morales, Department of Public Health Sciences, University of Murcia, and IMIB Bio-medical Research Institute, Murcia, Edificio Departamental-Laib, Avenida Buenavista s/n, 30120 El Palmar, 30394 Murcia, Spain; A Martínez-Torres, Paediatric Allergy and Pulmonology Units and Nurse Research Group, Virgen de la Arrixaca University Children's Hospital, University of Murcia, and IMIB Bio-health Research Institute, Murcia, Edificio Departamental-Laib, Avenida Buenavista s/n, 30120 El Palmar, 30394 Murcia, Spain.

London, United Kingdom: DP Strachan, Population Health Research Institute, St George's, University of London, Cranmer Terrace, London SW17 0RE, United Kingdom N Pearce, S Robertson, CE Rutter, Department of Medical Statistics, London School of Hygiene & Tropical Medicine, Keppel Street, London WC1E 7HT, United Kingdom RJ Silverwood, Department of Medical Statistics, London School of Hygiene & Tropical Medicine, Keppel Street, London WC1E 7HT, United Kingdom and Centre for Longitudinal Studies, UCL Social Research Institute, University College London, 20 Bedford Way, London WC1H 0AL, United Kingdom.

Global Asthma Network Principal Investigators: Argentina: H Badellino, Clinica Regional Del Este, Pediatric Respiratory Medicine Department, Universidad de Ciencias Empresariales y Sociales (UCES), San Francisco, Argentina (San Francisco); Brazil: M Urrutia-Pereira, Department of Pediatric, Federal University of Pampa, (UNIPAMPA), Uruguaiana, RS, Brazil (Uruguaiana); Cameroon: AE Ndikum, The University of Yaounde 1, Yaounde, Cameroon (Yaounde); GA Ajeegah, The University of Yaounde 1 (Yaounde Adults); Chile: J Mallol, University of Santiago de Chile (USACH) (South Santiago); Costa Rica: ME Soto-Martínez, Respiratory Department, Hospital Nacional de Niños University de Costa Rica, San José, Costa Rica (Costa Rica); Ecuador: A Cabrera Aguilar, Universidad Central del Ecuador and Respiraclinic, Quito, Ecuador (Quito(2)); Greece: K Douros, Pediatric Allergy and Respiratory Unit, 3rd Department of Pediatrics, "Attikon" University Hospital, National and Kapodistrian University of Athens,

School of Medicine, Athens, Greece (Athens); K Priftis, National and Kapodistrian University of Athens (Athens Adults); Honduras: SM Sosa Ferrari, Instituto Nacional Cardiopulmonar (Tegucigalpa); J Sanchez, Instituto Nacional Cardiopulmonar (Tegucigalpa Adults); India: M. Sabir, Kothari Medical & Research Institute, Bikaner, India (Bikaner); SK Kochar, Sardar Patel Medical College (Bikaner Adults); M Singh, Postgraduate Institute of Medical Education and Research, Chandigarh, India (Chandigarh); V Singh*, Asthma Bhawan, Jaipur, India (Jaipur); N Singh, Asthma Bhawan, Jaipur, India (Jaipur Adults); AG Ghoshal, National Allergy Asthma Bronchitis Institute, Kolkata, India (Kolkata (19)); N Sit, National Allergy Asthma Bronchitis Institute (Kolkata (19) Adults); TU Sukumaran, Pushpagiri Institute of Medical Sciences and Research, Thiruvalla, Kottayam, India (Kottayam); S Awasthi, King George's Medical University, Lucknow, India (Lucknow); PA Mahesh, JSS Medical College, JSSAHER, Mysuru, India (Mysuru); SK Kabra, All India Institute of Medical Sciences, New Delhi, India (New Delhi); S Sinha, All India Institute of Medical Sciences (New Delhi Adults); S Salvi, Chest Research Foundation, Pune, India (Pune); M Barne, Chest Research Foundation (Pune Adults); "Iran: M Tavakol, Non-Communicable Diseases Research Center, Alborz University of Medical Sciences, Karaj, Iran and Research Center for Immunodeficiencies, Pediatrics Center of Excellence, Children's Medical Center, Tehran University of Medical Science, Tehran, Iran (Karaj); N Behniafard, Shahid Sadoughi University of Medical Sciences (Yazd); Kingdom of Saudi Arabia: SA Alomary*, General Directorate of Health Programs and Chronic Diseases, Ministry of Health, Riyadh, Kingdom of Saudi Arabia (Kingdom of Saudi Arabia); Kosovo: I Bucaliu-Ismajli, The Principal Center of Family Care (Ferizaj); L Pajaziti, University Hospital Clinic, Clinic of Dermatology, Prishtina, Kosovo (Gjakova); L Hana-Lleshi, General Hospital "Isa Grezda" Gjakova, Kosovo (Gjakova Adults); V Ghashi, Regional Hospital, "Sami Haxhibeqiri" Mitrovica, Kosovo (Gjilan); X Kurhasani, UBT College, Kosovo (Peja); B Gacaferrri-Lumezi, University of Prishtina "Hasan Prishtina", Medical Faculty, Kosovo (Peja 6-7); LN Ahmetaj*, University of Prishtina "Hasan Prishtina", Medical Faculty, Kosovo (Prishtina); V Zhjeqi, University of Prishtina (Prizren); V Lokaj-Berisha, University of Prishtina (Prizren Adults); México: MG Sanchez Coronel, COMPEDIA (Colegio Mexicano de Pediatras Especialistas en Inmunología y Alergia) (Aguascalientes); HL Moreno Gardea, Hospital Angeles Chihuahua (Chihuahua); G Ochoa-Lopez, Department of Pediatric Allergology (Ciudad Juárez); R García-Almaráz, Hospital Infantil de Tamaulipas (Ciudad Victoria); JA Sacre Hazouri, Instituto Privado de Alergia, (Córdoba); N Rodriguez-Perez, Instituto de Ciencias y Estudios Superiores de Tamaulipas (Matamoros); MdJ Ambriz-Moreno, Hospital General de Matamoros, Tamaulipas Mexico, "Dr. Alfredo Pumarejo Lafaurie" (Matamoros Adults); JV Mérida-Palacio, Centro de Investigacion de Enfermedades Alergicas y Respiratorias (Mexicali); BE Del Río Navarro*, Allergy and Clinical Immunology Department, Hospital Infantil de México Federico Gómez, México City, México (Mexico City North); OJ Saucedo-Ramirez, Hospital Angeles Pedregal (Mexico City North Adults); LO Hernández-Mondragón, CRIT de Michoacán (Michoacán); SN González-Díaz, Universidad Autónoma de Nuevo León (Monterrey); A Arias-Cruz, Hospital Universitario (Monterrey Adults); R Garcia-Muñoz, Universidad Regional del Sureste (Oaxaca); MdA Juan Pineda, Universidad de Guadalajara (Puerto Vallarta); Bdc Ramos García, Instituto Mexicano del Seguro Social (San Luis Potosí); CA Jiménez González, Universidad Autonoma of San Luis Potosí (San Luis Potosí Adults); AJ Escalante-Dominguez, Hospital General Tijuana [Isesalud] (Tijuana); FJ Linares-Zapién, Centro De Enfermedades Alergicas Y Asma de Toluca (Toluca Rural); EM Navarrete-Rodriguez, Hospital Infantil de México Federico Gómez, México City, México (Toluca Urban); J Santos Lozano, Medica san Angel (Xalapa); New Zealand: I Asher, Department of Paediatrics, Faculty of Medical and Health Sciences, University of Auckland, Auckland, New Zealand (Auckland); Nicaragua: JF Sánchez, Hospital Infantil Manuel de Jesús Rivera (Managua); Nigeria: AG Falade, University of Ibadan and University College Hospital, Ibadan, Nigeria (Ibadan); Poland: G Brożek, Medical University of Silesia, Katowice, Poland (Katowice); Russia: K Kuzmicheva, Department of Infectious Diseases, Allergology and Immunology, Tyumen State Medical University, Russia (Tyumen); South Africa: HJ Zar, SA MRC Unit on Child & Adolescent Health, Cape Town, South Africa (Cape Town); R Masekela, Department of Paediatrics and Child Health, Nelson R Mandela School of Clinical Medicine, College of Health Sciences, University of KwaZulu Natal, Durban, South Africa (Durban) and ; Spain: A López-Silvarrey Varela, Fundacion Maria Jose Jove (A Coruña); C González Díaz, Universidad del País Vasco UPV /EHU (Bilbao); A Bercedo Sanz, Cantabrian Health Service, Valdecilla Research Institute (IDIVAL), Dobra Health Center, Torrelavega, Cantabria, Spain (Cantabria); L García-Marcos*, Pediatric Allergy and Pulmonology Units, Virgen de la Arrixaca University Children's Hospital, University of Murcia and IMIB Bio-health research Institute, and ARADyAL Allergy Network, Murcia, Spain (Cartagena); J Pellegrini Belinchon, Universidad de Salamanca (Salamanca); Sri Lanka: JC Ranasinghe, Teaching Hospital Peradeniya, Sri Lanka

(Anuradhapura); ST Kudagammana, University of Peradeniya, Sri Lanka (Peradeniya); Sudan: H El Sadig, Ministry of Health, The Epidemiological Laboratory (Epi-Lab), Khartoum, Sudan (Gadarif); M Noor, School of Health Science, Kristiania University College, Oslo, Norway - Epidemiological Laboratory (Epi-Lab), Khartoum, Sudan (Khartoum); Syrian Arab Republic: G Alkhayer, Damascus university, Syrian Private University, Syrian Arab Republic (Damascus); G Dib, National Center for research and training for chronic respiratory disease and co-morbidities, Tishreen University, Lattakia, Syrian Arab Republic (Lattakia); Y Mohammad*, Director of the National Center for research and training for chronic respiratory disease and co-morbidities, Tishreen University, Latakia and Syrian Private University -Damascus, Syrian Arab Republic (Lattakia 6-7); Taiwan: J-L Huang, Department of Pediatrics, Chang Gung Memorial Hospital, New Taipei Municipal TuChen Hospital, and Chang Gung University, Taiwan (Taipei); K-W Yeh, Chang Gung University, Taipei, Taiwan (Taipei Adults); Thailand: S Chinratanapisit, Department of Pediatrics, Bhumibol Adulyadej Hospital, Royal Thai Air Force, Bangkok, Thailand (Bangkok).

*National Coordinators

Global Asthma Network National Co-ordinators not named above: Brazil: D Solé, Division of Allergy and Clinical Immunology, Department of Pediatrics, Escola Paulista de Medicina, Federal University of São Paulo, São Paulo, Brazil; Costa Rica: ME Soto-Quirós, Universidad de Costa Rica, San José, Costa Rica; Kingdom of Saudi Arabia: WA Althagafi, General Directorate of Health Programs and Chronic Diseases, Ministry of Health, Riyadh, Kingdom of Saudi Arabia; Sudan: A El Sony, Epidemiological Laboratory (Epi-Lab) for Public Health, Research and Development, Khartoum, Sudan; Thailand: P Vichyanond, Mahidol University, Bangkok, Thailand.