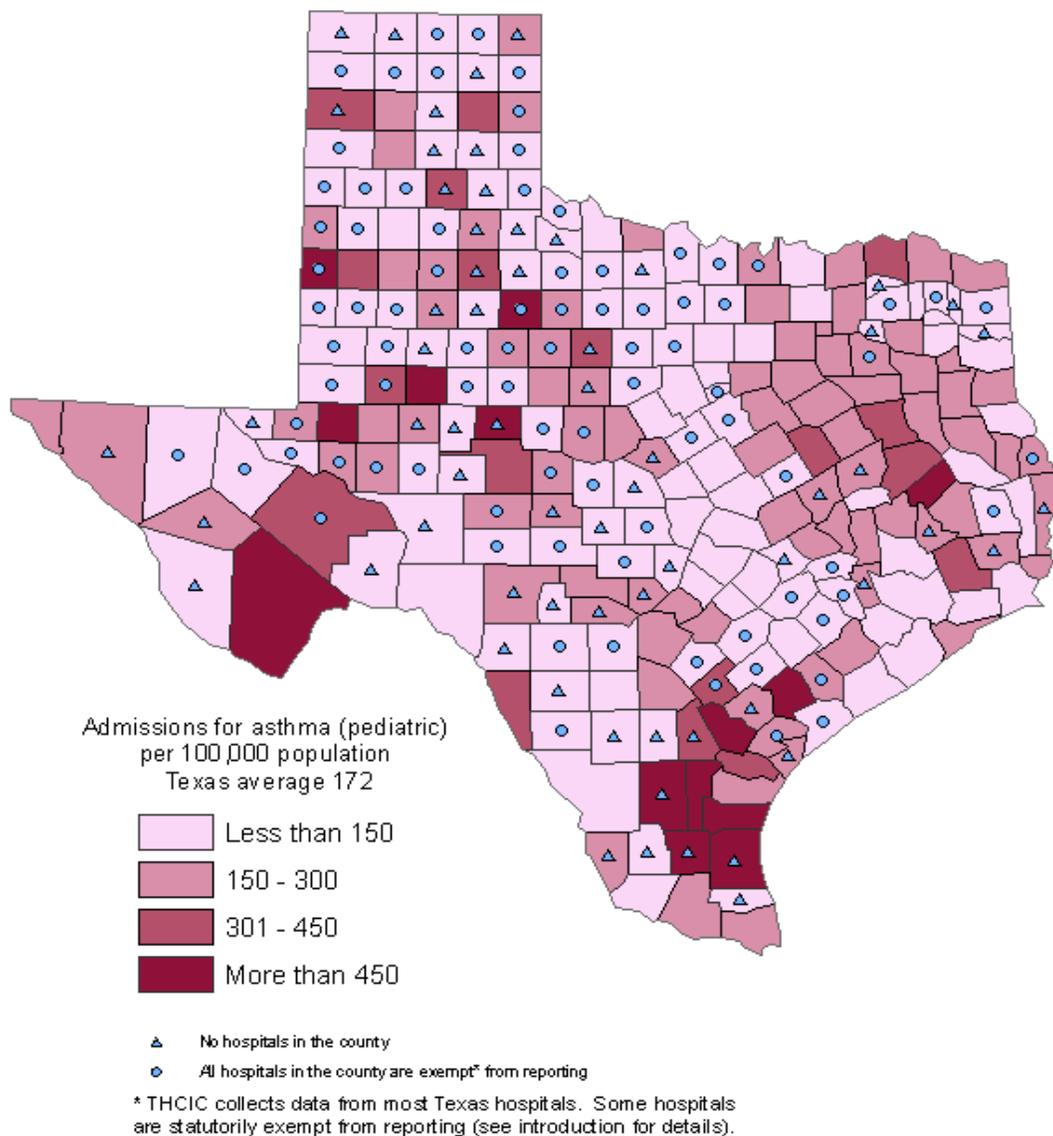# 11. Pediatric asthma

Asthma is the one of the most frequent reasons for hospital admissions among children. Millions of missed school days and parental workdays are attributed to pediatric asthma. Children with asthma have airways that are overly sensitive to certain asthma triggers, which differ from child to child. Some common triggers are exercise, allergies, viral infections, and smoke. Adherence to treatment guidelines – which emphasize appropriate diagnosis of asthma, a physician-patient relationship, management of asthma symptoms with medications, appropriate preventive and maintenance therapy, and adequate follow-up care – can reduce hospital admission rates. Children need to follow a customized asthma management plan to control their symptoms. The severity of a child's asthma can both worsen and improve over time, placing him in a new asthma category that requires different treatment.

Admissions for asthma (pediatric)
per 100,000 population
Texas average 172

Less than 150
150 - 300
301 - 450
More than 450

△ No hospitals in the county
◉ All hospitals in the county are exempt* from reporting

* THCIC collects data from most Texas hospitals. Some hospitals are statutorily exempt from reporting (see introduction for details).

Source: Department of State Health Services, Center for Health Statistics, Texas Health Care Information Collection. Texas Inpatient Hospital Discharge Data, 2002.

11. Pediatric asthma, page 2

Includes data from most Texas hospitals. Some hospitals are statutorily exempt from reporting to THCIC.

County	Admissions	Population	Observed Admissions per 100,000 Population	Risk-Adjusted Admissions per 100,000 Population	99% Confidence Interval for Risk-Adjusted Admissions
State of Texas	11,775	6,100,904	193.0	170.4	
Anderson	57	11,447	497.9	445.2 **	(299.6, 590.8)
Andrews	Less than 5	3,925			
Angelina	28	21,966	127.5	111.6 *	(58.9, 164.3)
Aransas	11	5,205	211.3	200.5	(55.4, 345.5)
Archer	Less than 5	2,355			
Armstrong	0	551	0.0	4.0 *	(0.0, 66.9)
Atascosa	21	12,364	169.8	157.3	(73.9, 240.7)
Austin	Less than 5	6,391			
Bailey	Less than 5	1,936			
Bandera	9	4,474	201.2	191.5	(38.6, 344.5)
Bastrop	13	17,304	75.1	69.8 *	(22.8, 116.8)
Baylor	0	892	0.0	18.4 *	(0.0, 124.5)
Bee	86	7,502	1146.4	1019.7 **	(748.2, 1291.1)
Bell	87	74,430	116.9	86.4 *	(61.2, 111.6)
Bexar	1,072	410,562	261.1	232.2 **	(214.6, 249.8)
Blanco	Less than 5	2,091			
Borden	0	170	0.0	28.6	(0.0, 332.3)
Bosque	Less than 5	4,105			
Bowie	65	21,927	296.4	267.9 **	(186.2, 349.6)
Brazoria	69	71,682	96.3	84.9 *	(59.5, 110.4)
Brazos	69	36,993	186.5	171.6	(121.2, 221.9)
Brewster	13	2,053	633.3	566.5 **	(178.9, 954.1)
Briscoe	Less than 5	477			
Brooks	28	2,435	1150.1	1038.7 **	(557.9, 1519.6)
Brown	23	9,719	236.6	219.3	(108.3, 330.4)
Burleson	10	4,457	224.4	201.7	(44.5, 359.0)
Burnet	Less than 5	8,788			
Caldwell	13	9,668	134.5	121.9	(38.9, 205.0)
Calhoun	Less than 5	5,837			
Callahan	5	3,130	159.8	163.6	(0.0, 332.6)
Cameron	220	118,216	186.1	160.2	(133.0, 187.4)
Camp	Less than 5	3,132			
Carson	Less than 5	1,737			
Cass	6	7,072	84.8	88.6	(5.8, 171.4)
Castro	Less than 5	2,602			
Chambers	7	7,405	94.5	98.3	(13.1, 183.5)
Cherokee	25	12,447	200.8	179.6	(90.8, 268.5)

  * Risk adjusted admission rate is significantly LOWER (based on 99% confidence interval) than Texas average.
 ** Risk adjusted admission rate is significantly HIGHER (based on 99% confidence interval) than Texas average.

11. Pediatric asthma, page 3

County	Admissions	Population	Observed Admissions per 100,000 Population	Risk-Adjusted Admissions per 100,000 Population	99% Confidence Interval for Risk-Adjusted Admissions
State of Texas	11,775	6,100,904	193.0	170.4	
Childress	Less than 5	1,721			
Clay	Less than 5	2,660			
Cochran	6	1,018	589.6	538.2	(1.5, 1075.0)
Coke	6	926	647.7	577.4	(0.0, 1159.8)
Coleman	6	2,109	284.5	258.2	(0.0, 516.8)
Collin	235	159,455	147.4	124.3*	(103.7, 144.9)
Collingsworth	0	776	0.0	22.1*	(0.0, 146.9)
Colorado	Less than 5	5,163			
Comal	34	20,840	163.1	152.7	(89.4, 215.9)
Comanche	Less than 5	3,376			
Concho	Less than 5	612			
Cooke	16	9,997	160.0	152.6	(61.3, 244.0)
Coryell	16	20,792	77.0	69.3*	(26.6, 112.0)
Cottle	0	438	0.0	3.9*	(0.0, 74.2)
Crane	Less than 5	1,148			
Crockett	Less than 5	1,015			
Crosby	5	2,077	240.7	217.6	(0.0, 456.9)
Culberson	Less than 5	890			
Dallam	0	1,970	0.0	0.0*	(0.0, 0.0)
Dallas	1,404	640,152	219.3	187.2**	(174.6, 199.9)
Dawson	Less than 5	3,712			
Deaf Smith	Less than 5	6,068			
Delta	Less than 5	1,320			
Denton	274	135,182	202.7	176.3	(149.6, 203.0)
DeWitt	Less than 5	4,605			
Dickens	Less than 5	480			
Dimmit	Less than 5	3,217			
Donley	Less than 5	919			
Duval	21	3,596	584.0	531.4**	(247.7, 815.1)
Eastland	5	4,265	117.2	120.1	(0.0, 244.2)
Ector	185	36,358	508.8	456.7**	(373.9, 539.4)
Edwards	Less than 5	582			
Ellis	108	34,674	311.5	285.4**	(218.4, 352.5)
El Paso	434	220,547	196.8	173.2	(152.5, 193.9)
Erath	10	8,237	121.4	120.0	(30.8, 209.3)
Falls	Less than 5	4,828			
Fannin	12	7,245	165.6	156.4	(47.8, 265.1)
Fayette	Less than 5	4,981			

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 ** Risk adjusted admission rate is significantly HIGHER (based on 99% confidence interval) than Texas average.

11. Pediatric asthma, page 4

County	Admissions	Population	Observed Admissions per 100,000 Population	Risk-Adjusted Admissions per 100,000 Population	99% Confidence Interval for Risk-Adjusted Admissions
State of Texas	11,775	6,100,904	193.0	170.4	
Fisher	Less than 5	953			
Floyd	Less than 5	2,302			
Foard	0	385	0.0	27.6	(0.0, 225.9)
Fort Bend	106	118,736	89.3	89.2*	(68.9, 109.5)
Franklin	Less than 5	2,196			
Freestone	7	4,253	164.6	152.9	(12.7, 293.1)
Frio	Less than 5	4,584			
Gaines	0	4,812	0.0	10.7*	(0.0, 45.5)
Galveston	125	68,556	182.3	164.6	(128.4, 200.8)
Garza	Less than 5	1,384			
Gillespie	0	4,455	0.0	14.4*	(0.0, 56.4)
Glasscock	Less than 5	421			
Goliad	Less than 5	1,680			
Gonzales	Less than 5	5,122			
Gray	23	5,276	435.9	394.3**	(192.4, 596.1)
Grayson	40	28,616	139.8	128.6	(79.0, 178.2)
Gregg	97	30,141	321.8	289.3**	(216.9, 361.6)
Grimes	17	5,960	285.2	261.0	(106.3, 415.6)
Guadalupe	65	25,832	251.6	233.1	(162.9, 303.4)
Hale	15	10,889	137.8	126.0	(46.5, 205.6)
Hall	Less than 5	989			
Hamilton	0	1,855	0.0	10.9*	(0.0, 67.4)
Hansford	0	1,503	0.0	6.3*	(0.0, 54.3)
Hardeman	0	1,109	0.0	7.8*	(0.0, 70.0)
Hardin	25	12,942	193.2	181.2	(93.7, 268.7)
Harris	1,729	1,020,443	169.4	145.1*	(136.3, 154.0)
Harrison	12	16,321	73.5	78.7*	(27.3, 130.1)
Hartley	0	1,117	0.0	0.0*	(0.0, 0.0)
Haskell	Less than 5	1,347			
Hays	29	27,936	103.8	104.9*	(59.6, 150.3)
Hemphill	0	839	0.0	27.2*	(0.0, 160.5)
Henderson	45	18,121	248.3	223.7	(141.5, 305.8)
Hidalgo	446	214,729	207.7	177.2	(156.0, 198.4)
Hill	18	8,553	210.5	192.1	(81.3, 302.9)
Hockley	24	6,552	366.3	331.3	(165.2, 497.5)
Hood	10	9,966	100.3	99.8	(25.8, 173.9)
Hopkins	Less than 5	8,218			
Houston	19	5,187	366.3	337.7	(149.2, 526.2)

 * Risk adjusted admission rate is significantly LOWER (based on 99% confidence interval) than Texas average.
** Risk adjusted admission rate is significantly HIGHER (based on 99% confidence interval) than Texas average.

11. Pediatric asthma, page 5

County	Admissions	Population	Observed Admissions per 100,000 Population	Risk-Adjusted Admissions per 100,000 Population	99% Confidence Interval for Risk-Adjusted Admissions
State of Texas	11,775	6,100,904	193.0	170.4	
Howard	62	8,029	772.2	692.5 **	(475.9, 909.1)
Hudspeth	Less than 5	1,064			
Hunt	49	20,648	237.3	218.6	(142.6, 294.7)
Hutchinson	6	6,218	96.5	91.6	(1.8, 181.3)
Irion	0	425	0.0	23.5	(0.0, 197.6)
Jack	Less than 5	2,100			
Jackson	11	3,823	287.7	259.8	(67.2, 452.5)
Jasper	11	9,283	118.5	110.2	(29.6, 190.8)
Jeff Davis	Less than 5	496			
Jefferson	94	63,405	148.3	136.5	(102.2, 170.8)
Jim Hogg	Less than 5	1,558			
Jim Wells	102	12,019	848.7	764.3 **	(578.4, 950.1)
Johnson	77	37,665	204.4	188.3	(136.0, 240.5)
Jones	7	4,395	159.3	165.8	(22.2, 309.4)
Karnes	16	3,350	477.6	433.5	(167.9, 699.2)
Kaufman	63	21,713	290.2	265.9 **	(184.1, 347.7)
Kendall	11	6,576	167.3	163.0	(46.6, 279.4)
Kenedy	Less than 5	118			
Kent	0	153	0.0	34.2	(0.0, 383.7)
Kerr	17	9,922	171.3	164.2	(69.1, 259.3)
Kimble	0	1,009	0.0	12.5 *	(0.0, 94.7)
King	0	107	0.0	17.2	(0.0, 313.5)
Kinney	Less than 5	827			
Kleberg	56	8,648	647.6	575.8 **	(385.4, 766.2)
Knox	0	1,116	0.0	10.1 *	(0.0, 80.4)
Lamar	47	12,703	370.0	331.8 **	(212.4, 451.2)
Lamb	0	4,180	0.0	5.7 *	(0.0, 33.1)
Lampasas	6	4,917	122.0	122.0	(5.5, 238.4)
La Salle	Less than 5	1,682			
Lavaca	6	4,404	136.2	131.0	(3.5, 258.6)
Lee	Less than 5	4,591			
Leon	12	3,723	322.4	294.0	(86.4, 501.7)
Liberty	69	19,800	348.5	315.7 **	(222.4, 408.9)
Limestone	24	5,543	433.0	392.6 **	(196.0, 589.1)
Lipscomb	Less than 5	803			
Live Oak	10	2,525	396.0	369.6	(87.0, 652.2)
Llano	0	2,872	0.0	9.8 *	(0.0, 53.2)
Loving	0	11	0.0	54.1	(0.0, 1694.4)

 * Risk adjusted admission rate is significantly LOWER (based on 99% confidence interval) than Texas average.
** Risk adjusted admission rate is significantly HIGHER (based on 99% confidence interval) than Texas average.

11. Pediatric asthma, page 6

County	Admissions	Population	Observed Admissions per 100,000 Population	Risk-Adjusted Admissions per 100,000 Population	99% Confidence Interval for Risk-Adjusted Admissions
State of Texas	11,775	6,100,904	193.0	170.4	
Lubbock	195	64,861	300.6	268.8 **	(221.3, 316.4)
Lynn	Less than 5	1,872			
McCulloch	0	2,012	0.0	11.3 *	(0.0, 66.9)
McLennan	100	59,018	169.4	154.4	(116.6, 192.2)
McMullen	0	174	0.0	43.0	(0.0, 410.6)
Madison	Less than 5	2,815			
Marion	Less than 5	2,432			
Martin	6	1,486	403.7	372.4	(2.7, 742.1)
Mason	0	805	0.0	19.6 *	(0.0, 135.2)
Matagorda	14	10,908	128.3	124.0	(45.1, 202.8)
Maverick	62	17,301	358.4	323.7 **	(222.7, 424.8)
Medina	12	11,354	105.7	102.4	(32.1, 172.6)
Menard	Less than 5	522			
Midland	70	34,292	204.1	186.9	(132.3, 241.5)
Milam	12	6,704	179.0	161.5	(46.7, 276.2)
Mills	Less than 5	1,231			
Mitchell	Less than 5	1,886			
Montague	0	4,578	0.0	3.9 *	(0.0, 25.4)
Montgomery	142	92,468	153.6	141.0 *	(112.1, 169.8)
Moore	Less than 5	6,761			
Morris	0	3,247	0.0	9.3 *	(0.0, 49.0)
Motley	Less than 5	311			
Nacogdoches	32	15,343	208.6	195.0	(111.7, 278.4)
Navarro	28	12,709	220.3	201.5	(108.4, 294.5)
Newton	8	3,703	216.0	203.0	(29.9, 376.1)
Nolan	Less than 5	4,045			
Nueces	293	88,333	331.7	295.6 **	(252.9, 338.4)
Ochiltree	0	2,672	0.0	4.0 *	(0.0, 32.7)
Oldham	Less than 5	709			
Orange	38	22,055	172.3	163.2	(99.6, 226.8)
Palo Pinto	0	6,965	0.0	1.1 *	(0.0, 10.2)
Panola	13	5,605	231.9	214.2	(69.7, 358.8)
Parker	24	24,598	97.6	100.5 *	(53.3, 147.8)
Parmer	0	3,166	0.0	5.2 *	(0.0, 35.2)
Pecos	21	4,396	477.8	433.7 **	(201.7, 665.6)
Polk	33	9,995	330.2	299.1 **	(171.3, 426.9)
Potter	109	33,158	328.7	287.4 **	(218.6, 356.2)
Presidio	Less than 5	2,466			

 * Risk adjusted admission rate is significantly LOWER (based on 99% confidence interval) than Texas average.
** Risk adjusted admission rate is significantly HIGHER (based on 99% confidence interval) than Texas average.

11. Pediatric asthma, page 7

County	Admissions	Population	Observed Admissions per 100,000 Population	Risk-Adjusted Admissions per 100,000 Population	99% Confidence Interval for Risk-Adjusted Admissions
State of Texas	11,775	6,100,904	193.0	170.4	
Rains	Less than 5	2,345			
Randall	79	27,224	290.2	264.7 **	(191.8, 337.5)
Reagan	0	1,045	0.0	16.1 *	(0.0, 108.1)
Real	0	685	0.0	23.1 *	(0.0, 159.0)
Red River	10	3,276	305.2	277.1	(62.2, 492.1)
Reeves	Less than 5	3,603			
Refugio	6	1,964	305.5	280.0	(1.0, 559.0)
Roberts	0	201	0.0	19.4	(0.0, 249.2)
Robertson	13	4,512	288.1	258.7	(81.8, 435.7)
Rockwall	25	14,351	174.2	162.5	(83.8, 241.1)
Runnels	Less than 5	2,864			
Rusk	34	11,410	298.0	271.5	(157.5, 385.5)
Sabine	Less than 5	2,146			
San Augustine	Less than 5	2,101			
San Jacinto	10	5,621	177.9	171.8	(42.6, 301.1)
San Patricio	74	20,754	356.6	320.8 **	(229.0, 412.7)
San Saba	0	1,639	0.0	39.9 *	(0.0, 155.2)
Schleicher	Less than 5	783			
Scurry	Less than 5	3,990			
Shackelford	Less than 5	824			
Shelby	7	6,619	105.8	96.0	(6.9, 185.1)
Sherman	Less than 5	985			
Smith	89	47,648	186.8	168.4	(124.5, 212.4)
Somervell	Less than 5	1,922			
Starr	12	20,846	57.6	42.7 *	(9.2, 76.2)
Stephens	Less than 5	2,266			
Sterling	0	353	0.0	31.4	(0.0, 251.8)
Stonewall	Less than 5	294			
Sutton	Less than 5	1,142			
Swisher	0	2,234	0.0	5.0 *	(0.0, 40.0)
Tarrant	681	427,996	159.1	137.2 *	(124.0, 150.5)
Taylor	115	34,570	332.7	297.5 **	(228.9, 366.0)
Terrell	0	248	0.0	29.3	(0.0, 283.9)
Terry	Less than 5	3,511			
Throckmorton	0	403	0.0	24.6	(0.0, 207.6)
Titus	Less than 5	8,624			
Tom Green	104	27,203	382.3	342.7 **	(259.8, 425.6)
Travis	115	208,674	55.1	35.7 *	(26.0, 45.4)

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** Risk adjusted admission rate is significantly HIGHER (based on 99% confidence interval) than Texas average.

11. Pediatric asthma, page 8

County	Admissions	Population	Observed Admissions per 100,000 Population	Risk-Adjusted Admissions per 100,000 Population	99% Confidence Interval for Risk-Adjusted Admissions
State of Texas	11,775	6,100,904	193.0	170.4	
Trinity	20	3,182	628.6	562.9 **	(252.5, 873.2)
Tyler	5	4,732	105.7	100.4	(0.0, 208.2)
Upshur	10	9,411	106.3	103.2	(25.8, 180.7)
Upton	Less than 5	900			
Uvalde	5	8,176	61.2	54.9 *	(0.0, 115.5)
Val Verde	20	14,462	138.3	119.5	(52.3, 186.8)
Van Zandt	28	12,230	229.0	215.0	(117.0, 313.0)
Victoria	164	24,013	683.0	616.3 **	(498.1, 734.5)
Walker	19	12,573	151.1	153.2	(71.6, 234.8)
Waller	16	9,240	173.2	164.4	(65.8, 263.1)
Ward	Less than 5	3,089			
Washington	Less than 5	7,614			
Webb	100	75,048	133.2	106.7 *	(78.8, 134.5)
Wharton	21	11,502	182.6	168.2	(78.8, 257.6)
Wheeler	Less than 5	1,189			
Wichita	84	34,356	244.5	223.6	(164.0, 283.3)
Wilbarger	Less than 5	3,854			
Willacy	8	6,185	129.3	116.5	(15.0, 218.0)
Williamson	51	84,576	60.3	49.9 *	(31.9, 67.8)
Wilson	11	9,619	114.4	112.2	(32.3, 192.0)
Winkler	Less than 5	1,928			
Wise	6	14,428	41.6	45.8 *	(4.1, 87.4)
Wood	18	8,194	219.7	205.3	(88.3, 322.3)
Yoakum	0	2,238	0.0	8.7 *	(0.0, 54.7)
Young	Less than 5	4,317			
Zapata	8	4,133	193.6	171.1	(20.7, 321.5)
Zavala	Less than 5	3,791			

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