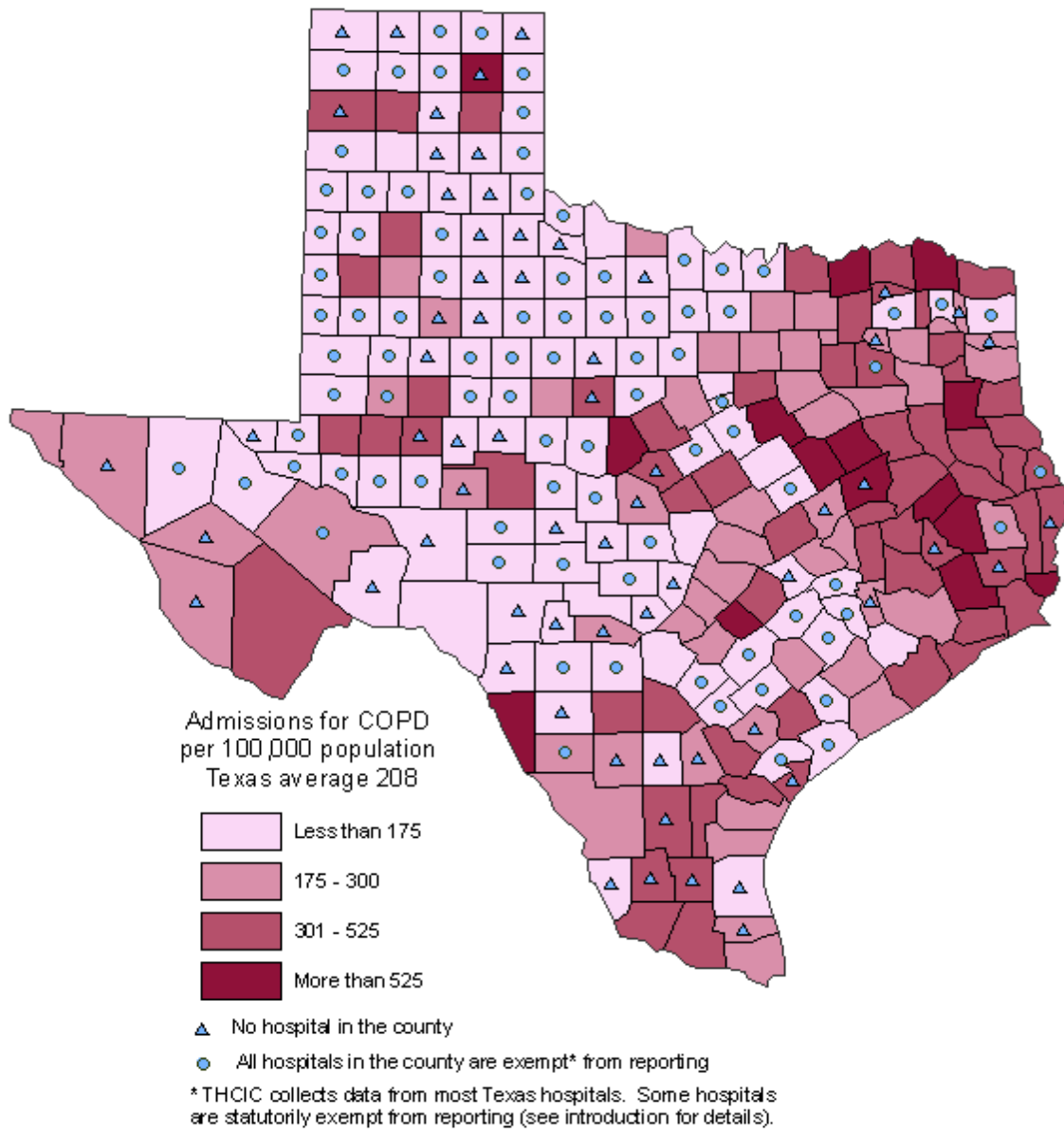


12. Chronic Obstructive Pulmonary Disease (COPD)

As defined by the American Thoracic Society and the European Respiratory Society, COPD is a disorder that is characterized by decreased expiratory flow in the airways of the lungs. It consists of three related diseases: asthma, chronic bronchitis and emphysema. COPD is one of the leading causes of illness and death in the U.S. causing substantial economic burden on individuals and society. Because existing medications cannot modify the progressive decline in lung function, the goal of drug therapy is to lessen symptoms and/or decrease complications. Patient education on smoking cessation, minimizing shortness of breath, and seeking medical attention can improve quality of life.



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

12. Chronic Obstructive Pulmonary Disease (COPD), 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	33,771	15,678,989	215.4	259.0	
Anderson	120	43,138	278.2	320.4	(256.7, 384.1)
Andrews	16	9,026	177.3	164.7	(64.8, 264.6)
Angelina	286	58,616	487.9	494.4 **	(426.6, 562.2)
Aransas	77	17,723	434.5	325.1	(225.0, 425.1)
Archer	11	6,641	165.6	142.1 *	(33.9, 250.3)
Armstrong	Less than 5	1,594			
Atascosa	131	28,584	458.3	490.8 **	(394.1, 587.6)
Austin	26	18,205	142.8	106.7 *	(50.1, 163.3)
Bailey	Less than 5	4,544			
Bandera	39	14,679	265.7	200.8	(114.3, 287.2)
Bastrop	128	46,630	274.5	319.8	(258.6, 381.0)
Baylor	0	3,037	0.0	0.0 *	(0.0, 0.0)
Bee	76	24,775	306.8	372.8 **	(282.2, 463.4)
Bell	245	170,238	143.9	202.5 *	(177.0, 228.0)
Bexar	1,394	1,035,771	134.6	167.4 *	(158.0, 176.8)
Blanco	5	6,775	73.8	9.8 *	(0.0, 37.9)
Borden	0	531	0.0	0.0 *	(0.0, 0.0)
Bosque	12	13,430	89.4	0.0 *	(0.0, 0.0)
Bowie	295	67,967	434.0	429.0 **	(370.3, 487.7)
Brazoria	495	185,574	266.7	326.2 **	(295.2, 357.2)
Brazos	158	119,106	132.7	253.7	(219.6, 287.8)
Brewster	25	6,956	359.4	344.5	(180.1, 508.8)
Briscoe	Less than 5	1,239			
Brooks	26	5,331	487.7	449.1	(234.8, 663.4)
Brown	252	28,238	892.4	870.1 **	(740.7, 999.4)
Burleson	42	12,417	338.2	283.8	(172.1, 395.5)
Burnet	66	28,101	234.9	162.9 *	(106.6, 219.2)
Caldwell	136	25,382	535.8	566.1 **	(455.9, 676.3)
Calhoun	7	14,758	47.4	9.4 *	(0.0, 28.0)
Callahan	41	9,632	425.6	360.5	(217.6, 503.4)
Cameron	530	235,345	225.2	239.9	(216.3, 263.5)
Camp	28	8,511	329.0	274.7	(142.0, 407.5)
Carson	7	4,845	144.5	81.3 *	(0.0, 177.2)
Cass	45	23,061	195.1	107.2 *	(56.8, 157.7)
Castro	Less than 5	5,473			
Chambers	75	19,839	378.1	436.6 **	(327.1, 546.1)
Cherokee	137	35,003	391.4	365.0 **	(289.6, 440.5)

* 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.

12. Chronic Obstructive Pulmonary Disease (COPD), 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	33,771	15,678,989	215.4	259.0	
Childress	Less than 5	5,850			
Clay	8	8,736	91.6	35.2 *	(0.0, 82.1)
Cochran	Less than 5	2,464			
Coke	9	2,918	308.5	141.6	(0.0, 304.5)
Coleman	11	6,797	161.8	5.2 *	(0.0, 25.7)
Collin	397	407,343	97.5	208.1 *	(191.4, 224.8)
Collingsworth	Less than 5	2,327			
Colorado	13	15,221	85.4	0.0 *	(0.0, 0.0)
Comal	157	64,269	244.3	209.3 *	(167.1, 251.4)
Comanche	44	10,189	431.8	311.1	(182.0, 440.2)
Concho	Less than 5	3,242			
Cooke	47	27,637	170.1	133.6 *	(82.2, 185.0)
Coryell	103	53,703	191.8	319.6 **	(262.6, 376.6)
Cottle	Less than 5	1,359			
Crane	Less than 5	2,726			
Crockett	Less than 5	2,792			
Crosby	Less than 5	4,788			
Culberson	Less than 5	1,949			
Dallam	Less than 5	4,214			
Dallas	2,624	1,643,801	159.6	233.9 *	(225.1, 242.7)
Dawson	11	11,000	100.0	76.8 *	(15.0, 138.6)
Deaf Smith	Less than 5	12,328			
Delta	17	4,042	420.5	364.5	(142.7, 586.3)
Denton	544	353,299	154.0	279.5	(258.7, 300.3)
DeWitt	14	15,462	90.5	10.4 *	(0.0, 29.7)
Dickens	5	2,222	225.0	168.0	(0.0, 371.3)
Dimmit	15	6,983	214.8	198.4	(73.8, 323.0)
Donley	Less than 5	2,968			
Duval	43	9,215	466.6	447.1 **	(284.5, 609.8)
Eastland	31	13,945	222.3	106.6 *	(42.0, 171.3)
Ector	333	85,954	387.4	415.1 **	(363.8, 466.4)
Edwards	0	1,499	0.0	0.0 *	(0.0, 0.0)
Ellis	164	85,378	192.1	242.1	(202.7, 281.5)
El Paso	712	477,015	149.3	179.9 *	(165.5, 194.2)
Erath	72	24,840	289.9	291.2	(211.2, 371.2)
Falls	9	13,263	67.9	0.0 *	(0.0, 0.0)
Fannin	166	24,427	679.6	659.6 **	(538.4, 780.8)
Fayette	6	17,323	34.6	0.0 *	(0.0, 0.0)

* 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.

12. Chronic Obstructive Pulmonary Disease (COPD), 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	33,771	15,678,989	215.4	259.0	
Fisher	Less than 5	3,293			
Floyd	Less than 5	5,153			
Foard	0	1,160	0.0	0.0 *	(0.0, 0.0)
Fort Bend	221	280,801	78.7	173.6 *	(155.2, 192.0)
Franklin	41	7,503	546.4	474.7 **	(289.0, 660.3)
Freestone	85	14,342	592.6	561.6 **	(415.6, 707.7)
Frio	39	11,665	334.3	374.6	(242.2, 507.0)
Gaines	5	9,500	52.6	55.1 *	(0.0, 111.5)
Galveston	684	192,663	355.0	382.2 **	(349.3, 415.1)
Garza	7	3,592	194.9	178.3	(13.6, 343.1)
Gillespie	5	17,152	29.2	0.0 *	(0.0, 0.0)
Glasscock	Less than 5	948			
Goliad	19	5,395	352.2	277.3	(109.7, 444.8)
Gonzales	15	13,762	109.0	50.4 *	(5.7, 95.2)
Gray	68	16,812	404.5	337.4	(232.8, 442.1)
Grayson	414	85,244	485.7	462.2 **	(407.9, 516.6)
Gregg	391	83,114	470.4	471.1 **	(415.5, 526.7)
Grimes	88	18,780	468.6	475.3 **	(357.9, 592.8)
Guadalupe	139	68,383	203.3	216.4 *	(174.8, 258.0)
Hale	87	25,011	347.8	337.8	(252.0, 423.7)
Hall	Less than 5	2,673			
Hamilton	12	6,224	192.8	30.9 *	(0.0, 83.1)
Hansford	Less than 5	3,785			
Hardeman	Less than 5	3,381			
Hardin	138	36,046	382.8	391.1 **	(314.1, 468.0)
Harris	4,320	2,536,612	170.3	249.9 *	(242.6, 257.2)
Harrison	128	46,213	277.0	270.5	(214.0, 327.0)
Hartley	Less than 5	4,347			
Haskell	Less than 5	4,562			
Hays	102	81,634	124.9	216.6 *	(178.5, 254.7)
Hemphill	0	2,493	0.0	0.0 *	(0.0, 0.0)
Henderson	188	57,676	326.0	243.1	(195.1, 291.1)
Hidalgo	1,205	399,745	301.4	348.4 **	(326.6, 370.2)
Hill	163	25,148	648.2	598.0 **	(484.2, 711.8)
Hockley	51	16,286	313.1	311.4	(209.2, 413.6)
Hood	66	34,183	193.1	108.2 *	(66.6, 149.8)
Hopkins	21	24,081	87.2	43.6 *	(12.1, 75.1)
Houston	104	18,038	576.6	522.2 **	(396.6, 647.8)

* 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.

12. Chronic Obstructive Pulmonary Disease (COPD), 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	33,771	15,678,989	215.4	259.0	
Howard	118	25,186	468.5	463.1 **	(363.0, 563.2)
Hudspeth	Less than 5	2,277			
Hunt	228	58,713	388.3	398.2 **	(337.3, 459.0)
Hutchinson	16	16,843	95.0	33.9 *	(0.7, 67.1)
Irion	Less than 5	1,332			
Jack	Less than 5	6,865			
Jackson	18	10,541	170.8	118.9 *	(40.4, 197.5)
Jasper	137	26,493	517.1	482.2 **	(382.6, 581.8)
Jeff Davis	6	1,715	349.8	275.3	(0.0, 571.3)
Jefferson	730	185,485	393.6	389.8 **	(356.0, 423.7)
Jim Hogg	17	3,615	470.3	420.1	(168.4, 671.8)
Jim Wells	107	27,926	383.1	384.4 **	(297.7, 471.0)
Johnson	416	98,667	421.6	468.9 **	(418.0, 519.8)
Jones	22	15,889	138.5	137.3 *	(68.6, 206.1)
Karnes	11	12,061	91.2	91.9 *	(27.4, 156.5)
Kaufman	229	56,241	407.2	449.6 **	(383.6, 515.6)
Kendall	37	18,814	196.7	166.4 *	(96.8, 235.9)
Kenedy	0	301	0.0	0.0 *	(0.0, 0.0)
Kent	0	654	0.0	0.0 *	(0.0, 0.0)
Kerr	89	34,935	254.8	80.3 *	(44.9, 115.8)
Kimble	Less than 5	3,493			
King	0	226	0.0	0.0 *	(0.0, 0.0)
Kinney	5	2,620	190.9	7.9 *	(0.0, 48.4)
Kleberg	59	22,497	262.3	296.1	(211.3, 380.8)
Knox	Less than 5	2,945			
Lamar	146	36,376	401.4	357.8 **	(284.6, 431.1)
Lamb	10	10,482	95.4	8.2 *	(0.0, 28.9)
Lampasas	68	13,929	488.2	473.4 **	(337.3, 609.5)
La Salle	10	4,194	238.5	240.6	(63.5, 417.6)
Lavaca	45	14,531	309.7	176.7 *	(95.2, 258.3)
Lee	9	11,738	76.7	38.9 *	(0.0, 81.5)
Leon	79	12,162	649.5	556.6 **	(398.7, 714.5)
Liberty	346	53,939	641.5	698.8 **	(614.9, 782.8)
Limestone	108	16,720	645.9	621.7 **	(479.5, 764.0)
Lipscomb	0	2,300	0.0	0.0 *	(0.0, 0.0)
Live Oak	32	9,489	337.2	286.8	(158.3, 415.2)
Llano	14	14,886	94.0	0.0 *	(0.0, 0.0)
Loving	0	53	0.0	0.0 *	(0.0, 0.0)

* 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.

12. Chronic Obstructive Pulmonary Disease (COPD), 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	33,771	15,678,989	215.4	259.0	
Lubbock	327	182,713	179.0	211.8 *	(186.7, 237.0)
Lynn	Less than 5	4,453			
McCulloch	9	5,873	153.2	32.1 *	(0.0, 86.7)
McLennan	199	158,695	125.4	124.6 *	(103.9, 145.3)
McMullen	Less than 5	682			
Madison	46	10,290	447.0	464.4 **	(307.6, 621.3)
Marion	27	8,649	312.2	207.3	(92.9, 321.8)
Martin	7	3,187	219.7	186.9	(7.9, 366.0)
Mason	Less than 5	2,966			
Matagorda	63	27,046	232.9	225.1	(157.7, 292.5)
Maverick	166	31,350	529.5	575.0 **	(475.1, 674.9)
Medina	47	29,570	158.9	149.2 *	(96.7, 201.8)
Menard	Less than 5	1,807			
Midland	321	83,377	385.0	398.7 **	(347.6, 449.7)
Milam	90	18,176	495.1	441.9 **	(326.7, 557.0)
Mills	18	3,902	461.3	303.5	(97.4, 509.5)
Mitchell	Less than 5	7,462			
Montague	15	14,659	102.3	0.0 *	(0.0, 0.0)
Montgomery	823	235,981	348.8	408.5 **	(377.7, 439.2)
Moore	6	13,589	44.2	54.9 *	(7.9, 102.0)
Morris	34	9,993	340.2	264.0	(143.9, 384.1)
Motley	Less than 5	1,025			
Nacogdoches	186	44,171	421.1	453.2 **	(378.5, 528.0)
Navarro	77	34,083	225.9	206.7	(149.1, 264.3)
Newton	46	11,243	409.1	381.7	(245.6, 517.8)
Nolan	8	11,127	71.9	0.0 *	(0.0, 0.0)
Nueces	526	226,363	232.4	248.5	(224.1, 273.0)
Ochiltree	Less than 5	6,376			
Oldham	5	1,447	345.5	339.0	(0.0, 696.5)
Orange	379	62,309	608.3	612.0 **	(538.9, 685.1)
Palo Pinto	14	20,341	68.8	0.0 *	(0.0, 0.0)
Panola	67	17,129	391.1	350.4	(244.8, 456.1)
Parker	135	70,020	192.8	217.8 *	(176.5, 259.0)
Parmer	Less than 5	6,711			
Pecos	33	12,025	274.4	294.2	(178.7, 409.8)
Polk	216	34,454	626.9	566.1 **	(471.5, 660.7)
Potter	256	82,935	308.7	329.8 **	(283.2, 376.3)
Presidio	18	5,215	345.2	299.8	(122.6, 476.9)

* 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.

12. Chronic Obstructive Pulmonary Disease (COPD), 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	33,771	15,678,989	215.4	259.0	
Rains	26	7,891	329.5	296.1	(153.0, 439.2)
Randall	129	79,598	162.1	169.9 *	(135.8, 204.1)
Reagan	Less than 5	2,137			
Real	Less than 5	2,314			
Red River	73	10,665	684.5	593.8 **	(419.7, 767.9)
Reeves	16	8,875	180.3	156.3 *	(58.2, 254.4)
Refugio	13	5,760	225.7	154.4	(33.3, 275.4)
Roberts	5	656	762.0	724.0	(0.0, 1498.4)
Robertson	35	11,532	303.5	232.9	(127.9, 338.0)
Rockwall	50	36,507	137.0	194.8 *	(140.8, 248.8)
Runnels	12	8,259	145.3	25.3 *	(0.0, 66.2)
Rusk	253	36,131	700.2	678.7 **	(577.6, 779.8)
Sabine	41	8,224	498.6	329.1	(181.3, 476.9)
San Augustine	41	6,821	601.1	474.9 **	(280.1, 669.7)
San Jacinto	94	17,626	533.3	487.8 **	(365.0, 610.6)
San Patricio	157	46,738	335.9	359.5 **	(294.7, 424.3)
San Saba	15	4,509	332.7	197.4	(42.7, 352.1)
Schleicher	Less than 5	2,161			
Scurry	5	11,887	42.1	0.0 *	(0.0, 0.0)
Shackelford	5	2,514	198.9	114.9	(0.0, 273.0)
Shelby	100	18,820	531.3	489.0 **	(370.0, 608.0)
Sherman	Less than 5	2,300			
Smith	388	133,789	290.0	268.3	(235.2, 301.4)
Somervell	7	5,302	132.0	108.3 *	(2.6, 214.0)
Starr	109	35,840	304.1	360.0 **	(286.0, 434.0)
Stephens	5	7,187	69.6	0.0 *	(0.0, 0.0)
Sterling	0	993	0.0	0.0 *	(0.0, 0.0)
Stonewall	Less than 5	1,199			
Sutton	0	2,975	0.0	0.0 *	(0.0, 0.0)
Swisher	12	5,848	205.2	133.3 *	(21.7, 244.9)
Tarrant	2,185	1,099,370	198.8	267.9	(256.4, 279.5)
Taylor	240	91,077	263.5	266.9	(226.9, 306.9)
Terrell	Less than 5	750			
Terry	6	9,212	65.1	21.3 *	(0.0, 56.9)
Throckmorton	Less than 5	1,308			
Titus	8	19,781	40.4	34.4 *	(3.6, 65.3)
Tom Green	245	75,815	323.2	314.4 **	(266.8, 362.0)
Travis	775	642,139	120.7	226.2 *	(212.3, 240.1)

* 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.

12. Chronic Obstructive Pulmonary Disease (COPD), 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	33,771	15,678,989	215.4	259.0	
Trinity	101	10,906	926.1	813.7 **	(612.4, 1015.0)
Tyler	48	16,011	299.8	228.8	(140.4, 317.1)
Upshur	94	27,088	347.0	318.3	(238.2, 398.4)
Upton	5	2,387	209.5	160.8	(0.0, 352.7)
Uvalde	5	18,332	27.3	0.0 *	(0.0, 0.0)
Val Verde	45	31,441	143.1	136.0 *	(87.4, 184.6)
Van Zandt	156	37,894	411.7	352.4 **	(281.2, 423.7)
Victoria	194	60,919	318.5	322.7 **	(268.9, 376.4)
Walker	135	49,815	271.0	355.2 **	(292.8, 417.6)
Waller	43	24,817	173.3	223.3	(153.2, 293.4)
Ward	13	7,418	175.2	116.3 *	(23.7, 208.9)
Washington	15	23,012	65.2	0.0 *	(0.0, 0.0)
Webb	148	132,563	111.6	181.2 *	(153.9, 208.5)
Wharton	72	29,827	241.4	216.3	(153.3, 279.2)
Wheeler	Less than 5	3,833			
Wichita	264	95,608	276.1	281.3	(241.3, 321.4)
Wilbarger	Less than 5	10,173			
Willacy	28	13,805	202.8	211.1	(119.7, 302.6)
Williamson	232	205,348	113.0	197.7 *	(174.8, 220.7)
Wilson	35	24,929	140.4	146.7 *	(89.9, 203.4)
Winkler	8	4,964	161.2	120.7 *	(5.4, 236.1)
Wise	29	38,498	75.3	100.8 *	(62.9, 138.6)
Wood	119	29,859	398.5	288.1	(215.5, 360.7)
Yoakum	Less than 5	5,067			
Young	6	13,408	44.7	0.0 *	(0.0, 0.0)
Zapata	13	8,655	150.2	113.2 *	(28.6, 197.8)
Zavala	Less than 5	7,765			

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

* 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.