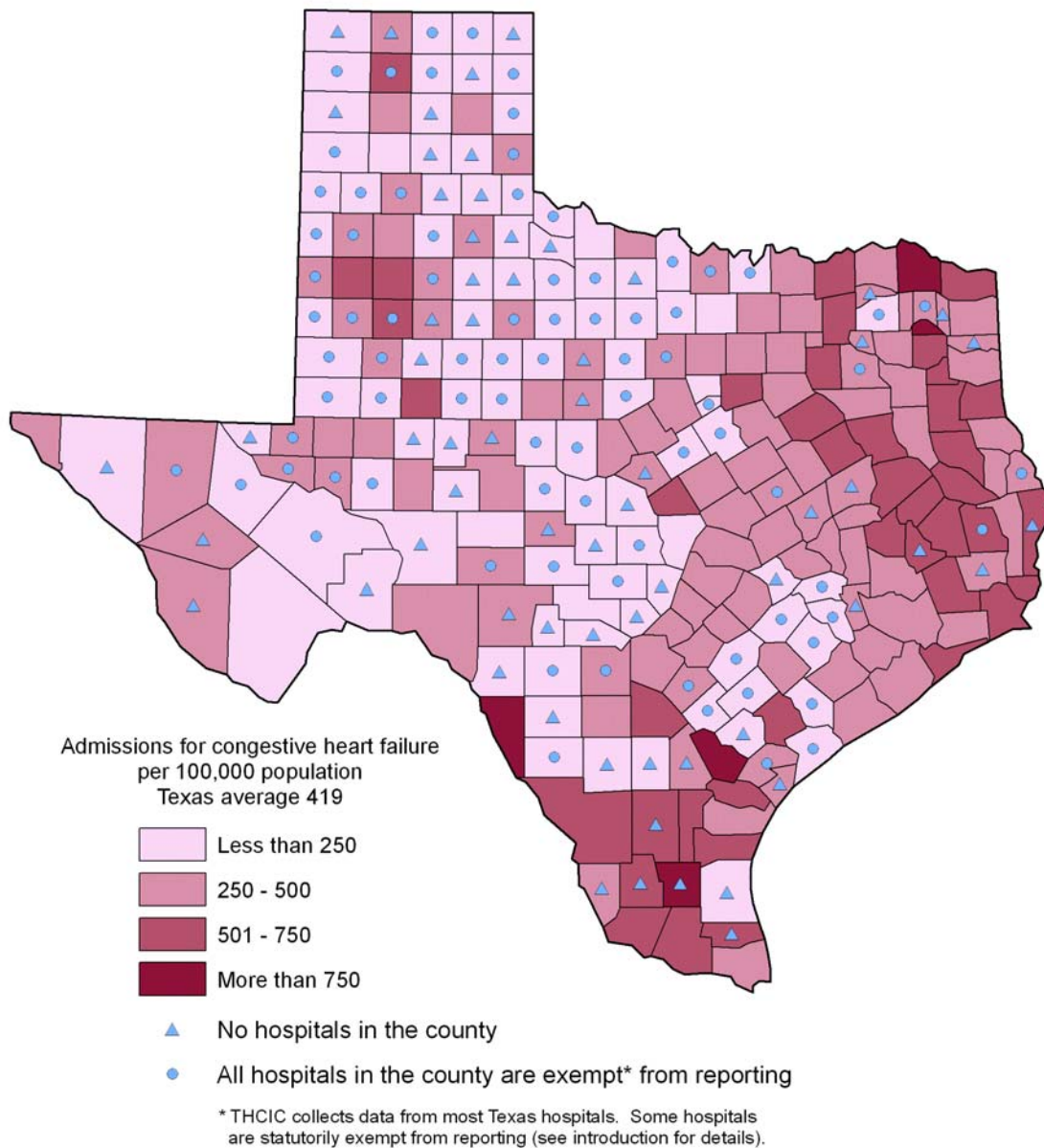


## 7. Congestive Heart Failure

CHF is one of the most common and severe heart diseases affecting Americans, and one of the most common reasons for hospitalization. Congestion is the presence of an abnormal amount of fluid in the tissues, usually because of limitations in the body's ability to return the flow of blood from the arms or legs to the heart and lungs. Though CHF has many possible underlying causes, the end result is an inability of the heart muscle to function well enough to meet the demands of the rest of the body. Nonetheless, it is a serious disorder that may lead to a reduced life expectancy. Hospitalization may be required if symptoms such as shortness of breath and leg swelling are severe or unstable.



Source: Department of State Health Services, Center for Health Statistics. *Texas Hospital Inpatient Discharge Public Use Data File, 2005.*

## Table 7. Congestive Heart Failure Admission Rate

Includes data from most Texas hospitals. Some hospitals are statutorily exempt from reporting to Department of State Health Services.

County	Admissions	Population	Observed Admissions per 100,000 Population	Expected Admissions per 100,000 Population	Risk-Adjusted Admissions per 100,000 Population	99% Confidence Interval for Risk-Adjusted Admissions
State Total	64,949	16,501,931	393.58	392.52	419.07	
Anderson	231	45,261	510.37	418.63	509.52**	(450.7, 568.4)
Andrews	15	9,300	161.29	466.36	144.54*	(21.39, 267.7)
Angelina	444	60,254	736.88	484.22	636.00**	(588.6, 683.4)
Aransas	99	19,078	518.92	663.95	326.64*	(254.7, 398.6)
Archer	13	7,091	183.33	487.98	157.01*	(19.17, 294.9)
Armstrong	7	1,688	414.69	735.16	235.75	(6.16, 465.3)
Atascosa	205	30,686	668.06	428.72	651.24**	(580.6, 721.9)
Austin	62	19,570	316.81	544.46	243.19*	(164.7, 321.7)
Bailey	15	4,758	315.26	561.54	234.64*	(77.96, 391.3)
Bandera	50	15,486	322.87	544.43	247.85*	(159.5, 336.2)
Bastrop	163	51,151	318.66	388.22	343.05*	(285.5, 400.6)
Baylor	Less Than 5					
Bee	221	26,360	838.39	369.06	949.41**	(867.2, 1032)
Bell	661	175,017	377.68	380.90	414.40	(383.0, 445.8)
Bexar	4,160	1,092,266	380.86	409.47	388.73*	(376.6, 400.9)
Blanco	16	7,051	226.92	512.40	185.08*	(50.32, 319.8)
Borden	Less Than 5					
Bosque	26	14,055	184.99	683.51	113.11*	(30.55, 195.7)
Bowie	443	69,675	635.81	493.43	538.53**	(494.8, 582.2)
Brazoria	679	199,288	340.71	352.71	403.72	(373.1, 434.3)
Brazos	285	124,256	229.37	273.51	350.48*	(306.5, 394.4)
Brewster	21	7,357	285.44	483.57	246.70*	(110.8, 382.6)
Briscoe	Less Than 5					
Brooks	56	5,509	1016.52	560.18	758.39**	(612.5, 904.3)
Brown	167	29,107	573.75	574.43	417.43	(354.8, 480.1)
Burleson	60	13,003	461.43	578.72	333.23	(239.9, 426.6)
Burnet	99	31,775	311.57	658.57	197.72*	(141.7, 253.7)
Caldwell	111	26,939	412.04	444.75	387.20	(313.2, 461.2)
Calhoun	30	15,022	199.71	506.75	164.70*	(71.74, 257.7)
Callahan	41	10,446	392.49	587.73	279.10*	(175.7, 382.5)
Cameron	1,214	249,884	485.83	441.91	459.47**	(435.1, 483.9)
Camp	102	8,877	1149.04	567.53	846.16**	(732.0, 960.3)
Carson	15	4,904	305.87	575.97	221.95*	(69.53, 374.4)
Cass	98	23,437	418.14	632.67	276.22*	(209.7, 342.7)
Castro	13	5,364	242.36	508.49	199.20*	(43.93, 354.5)
Chambers	79	21,167	373.22	352.78	442.15	(348.2, 536.1)
Cherokee	189	36,027	524.61	536.67	408.54	(350.3, 466.8)
Childress	8	6,061	131.99	477.31	115.57*	(0.00, 266.2)
Clay	14	8,887	157.53	520.19	126.57*	(7.30, 245.8)
Cochran	15	2,392	627.09	582.39	450.01	(233.0, 667.0)
Coke	21	2,946	712.83	789.14	377.52	(209.7, 545.3)
Coleman	10	6,904	144.84	785.43	77.07*	(0.00, 186.9)
Collin	1,016	460,207	220.77	267.28	345.20*	(322.0, 368.4)
Collingsworth	19	2,340	811.97	757.77	447.83	(255.8, 639.9)
Colorado	18	16,002	112.49	643.36	73.07*	(0.00, 152.8)
Comal	220	71,006	309.83	507.90	254.95*	(212.3, 297.6)

\* 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.

**Table 7. Congestive Heart Failure Admission Rate (cont'd)**

County	Admissions	Population	Observed Admissions per 100,000 Population	Expected Admissions per 100,000 Population	Risk-Adjusted Admissions per 100,000 Population	99% Confidence Interval for Risk-Adjusted Admissions
State Total	64,949	16,501,931	393.58	392.52	419.07	
Comanche	87	10,508	827.94	703.57	491.82	(397.7, 585.9)
Concho	5	3,261	153.33	447.33	143.25*	(0.00, 355.3)
Cooke	75	29,069	258.01	535.08	201.52*	(136.6, 266.5)
Coryell	130	56,205	231.30	258.54	373.90	(306.6, 441.2)
Cottle	Less Than 5					
Crane	12	2,798	428.88	492.50	363.95	(145.7, 582.2)
Crockett	7	2,972	235.53	530.95	185.40*	(0.00, 389.4)
Crosby	23	4,815	477.67	614.79	324.72	(175.9, 473.6)
Culberson	8	1,953	409.63	476.76	359.09	(93.11, 625.1)
Dallam	7	4,342	161.22	428.30	157.31*	(0.00, 345.3)
Dallas	6,035	1,666,566	362.12	342.18	442.30**	(431.6, 453.0)
Dawson	35	11,076	316.00	518.47	254.72*	(147.9, 361.6)
Deaf Smith	27	12,689	212.78	488.60	182.01*	(79.10, 284.9)
Delta	28	4,279	654.36	577.56	473.51	(310.6, 636.4)
Denton	839	391,729	214.18	242.53	369.07*	(342.7, 395.4)
De Witt	20	16,112	124.13	626.82	82.77*	(2.23, 163.3)
Dickens	7	2,253	310.70	600.48	216.25	(0.00, 436.1)
Dimmit	13	7,162	181.51	497.52	152.48*	(16.76, 288.2)
Donley	13	3,169	410.22	686.50	249.74	(76.19, 423.3)
Duval	81	9,317	869.38	538.70	674.48**	(560.2, 788.8)
Eastland	48	14,523	330.51	680.16	203.09*	(121.6, 284.5)
Ector	442	89,041	496.40	428.71	483.93**	(442.4, 525.4)
Edwards	5	1,485	336.70	464.47	302.96	(0.00, 612.0)
Ellis	290	94,353	307.36	374.14	343.34*	(300.2, 386.5)
El Paso	1,862	496,822	374.78	405.34	386.43*	(368.4, 404.5)
Erath	86	26,212	328.09	490.44	279.59*	(208.2, 351.0)
Falls	54	13,251	407.52	606.90	280.63*	(190.4, 370.9)
Fannin	218	25,857	843.10	558.37	631.05**	(563.7, 698.4)
Fayette	22	17,871	123.10	741.04	69.43*	(0.00, 139.7)
Fisher	7	3,268	214.20	796.67	112.37*	(0.00, 270.9)
Floyd	11	5,215	210.93	625.21	141.00*	(0.00, 282.8)
Foard	Less Than 5					
Fort Bend	814	323,125	251.91	277.41	379.53*	(352.4, 406.7)
Franklin	55	7,985	688.79	604.55	476.17	(359.6, 592.8)
Freestone	112	14,739	759.89	538.20	590.09**	(499.1, 681.0)
Frio	36	12,097	297.59	434.69	286.12*	(174.4, 397.9)
Gaines	17	9,973	170.46	428.59	166.22*	(42.17, 290.3)
Galveston	1,221	204,871	595.98	417.64	596.40**	(568.7, 624.1)
Garza	18	3,689	487.94	501.77	406.41	(218.1, 594.7)
Gillespie	28	18,299	153.01	820.09	77.98*	(11.94, 144.0)
Glasscock	Less Than 5					
Goliad	19	5,559	341.79	602.46	237.10*	(97.15, 377.1)
Gonzales	23	14,299	160.85	591.46	113.66*	(25.63, 201.7)
Gray	101	16,764	602.48	642.85	391.69	(313.7, 469.6)
Grayson	475	89,043	533.45	537.49	414.80	(377.8, 451.8)
Gregg	606	85,788	706.39	487.40	605.71**	(566.1, 645.3)

\* 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.

**Table 7. Congestive Heart Failure Admission Rate (cont'd)**

County	Admissions	Population	Observed Admissions per 100,000 Population	Expected Admissions per 100,000 Population	Risk-Adjusted Admissions per 100,000 Population	99% Confidence Interval for Risk-Adjusted Admissions
State Total	64,949	16,501,931	393.58	392.52	419.07	
Grimes	91	19,655	462.99	484.01	399.78	(316.7, 482.9)
Guadalupe	340	74,721	455.03	438.72	433.47	(388.7, 478.3)
Hale	117	25,744	454.47	499.20	380.49	(309.0, 451.9)
Hall	7	2,786	251.26	741.82	141.55*	(0.00, 319.5)
Hamilton	11	6,388	172.20	781.46	92.09*	(0.00, 206.5)
Hansford	Less Than 5					
Hardeman	11	3,416	322.01	737.03	182.60*	(21.41, 343.8)
Hardin	193	38,176	505.55	457.20	462.13	(400.7, 523.5)
Harris	9,432	2,632,813	358.25	322.70	463.98**	(455.2, 472.8)
Harrison	207	47,735	433.64	478.07	379.09	(325.4, 432.8)
Hartley	Less Than 5					
Haskell	9	4,456	201.97	862.06	97.92*	(0.00, 228.3)
Hays	221	92,698	238.41	302.25	329.65*	(281.2, 378.1)
Hemphill	Less Than 5					
Henderson	405	61,565	657.84	579.54	474.40**	(431.5, 517.3)
Hidalgo	2,235	433,294	515.82	400.41	538.39**	(518.9, 557.8)
Hill	182	26,862	677.54	583.95	484.92**	(420.3, 549.6)
Hockley	137	16,910	810.17	470.72	719.31**	(628.5, 810.1)
Hood	122	36,742	332.05	584.37	237.47*	(182.1, 292.8)
Hopkins	37	25,281	146.35	533.04	114.75*	(44.97, 184.5)
Houston	162	18,513	875.06	623.80	586.27**	(511.0, 661.6)
Howard	184	25,582	719.26	511.62	587.55**	(516.7, 658.4)
Hudspeth	Less Than 5					
Hunt	378	62,074	608.95	452.22	562.79**	(514.4, 611.2)
Hutchinson	32	17,004	188.19	567.80	138.52*	(56.07, 221.0)
Irion	Less Than 5					
Jack	15	7,157	209.59	497.92	175.92*	(40.19, 311.6)
Jackson	36	10,866	331.31	563.10	245.90*	(142.4, 349.4)
Jasper	137	26,996	507.48	528.62	401.22	(333.4, 469.1)
Jeff Davis	10	1,791	558.35	616.98	378.22	(134.5, 621.9)
Jefferson	1,360	188,775	720.43	499.70	602.55**	(576.2, 628.9)
Jim Hogg	32	3,654	875.75	603.00	606.98**	(434.5, 779.5)
Jim Wells	229	29,243	783.09	466.20	702.01**	(632.6, 771.4)
Johnson	594	106,780	556.28	377.69	615.56**	(575.1, 656.0)
Jones	24	16,216	148.00	467.40	132.34*	(39.27, 225.4)
Karnes	28	12,461	224.70	491.90	190.91*	(87.51, 294.3)
Kaufman	409	63,271	646.43	385.60	700.63**	(648.7, 752.6)
Kendall	56	20,816	269.02	495.16	227.07*	(147.2, 306.9)
Kenedy	Less Than 5					
Kent	Less Than 5					
Kerr	145	36,392	398.44	812.93	204.84*	(157.8, 251.9)
Kimble	Less Than 5					
King	Less Than 5					
Kinney	9	2,609	344.96	813.87	177.14*	(1.44, 352.8)
Kleberg	167	23,524	709.91	414.66	715.51**	(633.5, 797.6)
Knox	Less Than 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.

**Table 7. Congestive Heart Failure Admission Rate (cont'd)**

County	Admissions	Population	Observed Admissions per 100,000 Population	Expected Admissions per 100,000 Population	Risk-Adjusted Admissions per 100,000 Population	99% Confidence Interval for Risk-Adjusted Admissions
State Total	64,949	16,501,931	393.58	392.52	419.07	
Lamar	245	37,728	649.39	586.05	463.10	(408.7, 517.5)
Lamb	58	10,634	545.42	628.60	362.63	(263.7, 461.6)
Lampasas	117	15,662	747.03	492.05	634.51**	(542.2, 726.8)
La Salle	11	4,355	252.58	447.93	235.67	(52.06, 419.3)
Lavaca	121	14,852	814.71	758.90	448.66	(372.5, 524.8)
Lee	31	12,291	252.22	544.21	193.69*	(94.68, 292.7)
Leon	95	12,690	748.62	650.18	481.21	(392.0, 570.4)
Liberty	380	55,891	679.89	392.65	723.68**	(668.9, 778.4)
Limestone	108	17,400	620.69	542.30	478.34	(395.0, 561.7)
Lipscomb	Less Than 5					
Live Oak	51	9,489	537.46	575.52	390.30	(280.7, 499.9)
Llano	48	15,496	309.76	900.37	143.78*	(75.25, 212.3)
Loving	Less Than 5					
Lubbock	1,030	190,605	540.38	416.36	542.43**	(513.7, 571.2)
Lynn	31	4,441	698.04	537.86	542.40	(376.6, 708.2)
McCulloch	11	6,165	178.43	671.34	111.08*	(0.00, 236.9)
McClennan	630	167,237	376.71	471.38	334.00*	(305.2, 362.8)
McMullen	Less Than 5					
Madison	37	10,658	347.16	481.83	301.12*	(188.2, 414.1)
Marion	59	8,869	665.24	637.90	435.85	(328.1, 543.6)
Martin	Less Than 5					
Mason	5	3,149	158.78	765.21	86.72*	(0.00, 251.6)
Matagorda	144	27,739	519.12	481.71	450.39	(380.3, 520.5)
Maverick	293	33,257	881.02	419.76	877.20**	(808.6, 945.8)
Medina	111	31,593	351.34	473.14	310.35*	(244.1, 376.6)
Menard	9	1,862	483.35	771.72	261.76	(48.39, 475.1)
Midland	277	87,632	316.09	457.48	288.77*	(248.3, 329.3)
Milam	85	18,833	451.34	603.09	312.77*	(236.8, 388.7)
Mills	20	4,025	496.89	797.70	260.34*	(117.6, 403.0)
Mitchell	11	7,780	141.39	473.45	124.81*	(0.00, 258.3)
Montague	78	15,260	511.14	661.45	322.96*	(242.4, 403.6)
Montgomery	1,060	267,434	396.36	351.88	470.76**	(444.3, 497.2)
Moore	70	13,806	507.03	417.42	507.65	(400.8, 614.5)
Morris	70	10,212	685.47	631.61	453.57	(352.7, 554.4)
Motley	6	1,037	578.59	838.74	288.31	(13.98, 562.6)
Nacogdoches	249	46,556	534.84	445.24	502.03**	(445.8, 558.3)
Navarro	268	35,982	744.82	510.45	609.83**	(550.1, 669.6)
Newton	82	11,138	736.22	503.00	611.71**	(503.3, 720.1)
Nolan	17	11,298	150.47	613.76	102.46*	(5.24, 199.7)
Nueces	1,213	233,894	518.61	439.88	492.74**	(467.5, 518.0)
Ochiltree	Less Than 5					
Oldham	Less Than 5					
Orange	451	64,242	702.03	475.62	616.88**	(570.5, 663.3)
Palo Pinto	102	20,846	489.30	574.81	355.76	(281.8, 429.8)
Panola	145	17,781	815.48	570.02	597.91**	(517.5, 678.4)
Parker	238	76,555	310.89	402.18	323.06*	(276.8, 369.3)

\* 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.

**Table 7. Congestive Heart Failure Admission Rate (cont'd)**

County	Admissions	Population	Observed Admissions per 100,000 Population	Expected Admissions per 100,000 Population	Risk-Adjusted Admissions per 100,000 Population	99% Confidence Interval for Risk-Adjusted Admissions
State Total	64,949	16,501,931	393.58	392.52	419.07	
Parmer	5	6,881	72.66	532.64	57.01*	(0.00, 190.7)
Pecos	13	12,212	106.45	418.51	106.31*	(0.00, 219.7)
Polk	285	36,956	771.19	624.75	515.90**	(462.6, 569.2)
Potter	374	85,892	435.43	452.26	402.38	(361.3, 443.5)
Presidio	25	5,325	469.48	600.98	326.49	(183.4, 469.6)
Rains	30	8,875	338.03	551.57	256.13*	(140.3, 372.0)
Randall	203	83,576	242.89	425.83	238.39*	(195.4, 281.4)
Reagan	6	2,189	274.10	441.50	259.47	(0.00, 520.4)
Real	9	2,398	375.31	692.46	226.52	(27.74, 425.3)
Red River	177	10,730	1649.58	681.13	1012.16**	(917.5, 1107)
Reeves	18	8,676	207.47	522.82	165.85*	(45.53, 286.2)
Refugio	37	5,871	630.22	586.39	449.17	(311.1, 587.2)
Roberts	Less Than 5					
Robertson	87	11,902	730.97	611.27	499.77	(404.8, 594.7)
Rockwall	106	43,146	245.68	342.34	299.93*	(233.1, 366.7)
Runnels	31	8,273	374.71	706.07	221.80*	(115.9, 327.7)
Rusk	255	37,363	682.49	546.19	522.23**	(465.5, 578.9)
Sabine	53	8,437	628.19	764.95	343.21	(242.4, 444.0)
San Augustine	46	7,035	653.87	757.40	360.81	(250.0, 471.7)
San Jacinto	130	19,192	677.37	524.50	539.74**	(458.9, 620.6)
San Patricio	262	48,607	539.02	428.35	525.91**	(469.7, 582.1)
San Saba	15	4,590	326.80	681.17	200.51*	(55.78, 345.2)
Schleicher	6	2,116	283.55	594.24	199.43	(0.00, 427.8)
Scurry	24	12,423	193.19	518.22	155.80*	(54.83, 256.8)
Shackelford	19	2,521	753.67	637.24	494.30	(292.2, 696.4)
Shelby	124	19,651	631.01	562.27	469.03	(392.0, 546.1)
Sherman	7	2,225	314.61	499.67	263.14	(20.12, 506.2)
Smith	700	140,371	498.68	512.17	406.92	(376.7, 437.1)
Somervell	Less Than 5					
Starr	223	38,568	578.20	400.43	603.48**	(538.2, 668.7)
Stephens	9	7,501	119.98	605.85	82.77*	(0.00, 202.9)
Sterling	Less Than 5					
Stonewall	9	1,156	778.55	885.84	367.31	(114.8, 619.9)
Sutton	14	3,043	460.07	461.07	417.03	(200.5, 633.5)
Swisher	22	5,825	377.68	595.21	265.20*	(127.7, 402.7)
Tarrant	3,618	1,160,170	311.85	345.29	377.46*	(364.6, 390.3)
Taylor	413	93,623	441.13	477.53	386.08	(347.8, 424.4)
Terrell	Less Than 5					
Terry	42	9,336	449.87	557.35	337.34	(225.1, 449.6)
Throckmorton	Less Than 5					
Titus	86	20,654	416.38	479.78	362.71	(281.3, 444.1)
Tom Green	312	78,631	396.79	512.73	323.43*	(283.1, 363.8)
Travis	1,515	665,736	227.57	287.65	330.64*	(312.1, 349.2)
Trinity	129	11,378	1133.77	711.56	665.91**	(575.9, 755.9)
Tyler	125	16,610	752.56	586.91	535.89**	(453.8, 618.0)
Upshur	182	28,614	636.05	523.20	508.09**	(441.8, 574.3)

\* 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.

**Table 7. Congestive Heart Failure Admission Rate (cont'd)**

County	Admissions	Population	Observed Admissions per 100,000 Population	Expected Admissions per 100,000 Population	Risk-Adjusted Admissions per 100,000 Population	99% Confidence Interval for Risk-Adjusted Admissions
State Total	64,949	16,501,931	393.58	392.52	419.07	
Upton	Less Than 5					
Uvalde	21	18,912	111.04	517.31	89.71*	(7.80, 171.6)
Val Verde	159	33,245	478.27	501.92	398.24	(335.5, 461.0)
Van Zandt	182	40,144	453.37	573.09	330.63*	(277.2, 384.0)
Victoria	424	62,976	673.27	480.59	585.49**	(538.9, 632.1)
Walker	289	52,064	555.09	329.39	704.31**	(642.4, 766.2)
Waller	85	26,459	321.25	366.19	366.64	(284.2, 449.0)
Ward	26	7,542	344.74	566.46	254.35*	(130.4, 378.3)
Washington	30	24,315	123.38	584.52	88.22*	(20.33, 156.1)
Webb	840	140,556	597.63	346.61	720.61**	(683.9, 757.4)
Wharton	185	30,753	601.57	519.54	483.92**	(419.8, 548.0)
Wheeler	7	3,724	187.97	691.18	113.66*	(0.00, 273.2)
Wichita	464	96,651	480.08	470.85	426.13	(388.1, 464.1)
Wilbarger	23	10,467	219.74	582.21	157.74*	(54.06, 261.4)
Willacy	115	14,289	804.81	462.30	727.58**	(627.9, 827.3)
Williamson	484	230,561	209.92	320.34	273.88*	(244.0, 303.7)
Wilson	83	27,537	301.41	430.49	292.62*	(218.1, 367.1)
Winkler	23	4,993	460.64	558.42	344.76	(191.4, 498.1)
Wise	27	41,790	64.61	395.35	68.30*	(5.16, 131.4)
Wood	242	32,512	744.34	647.78	480.23**	(424.4, 536.1)
Yoakum	7	5,239	133.61	454.89	122.76*	(0.00, 288.8)
Young	35	13,926	251.33	668.52	157.12*	(73.21, 241.0)
Zapata	51	9,081	561.61	531.88	441.29	(324.8, 557.8)
Zavala	6	8,036	74.66	456.66	68.33*	(0.00, 202.1)

Source: *Texas Hospital Inpatient Discharge Public Use Data File, 2005*. Texas Department of State Health Services, Center for Health Statistics, Austin, Texas. 2006.

\* 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.