

Preventable Hospitalizations

Tarrant County 2004 - 2005



Tarrant County Public Health
Safeguarding our community's health

Preventable Hospitalizations Tarrant County, 2004-2005



Tarrant County Public Health

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ABSTRACT

OBJECTIVES

This report presents data on preventable hospitalizations among Tarrant County residents by gender, race/ethnicity, age group, and geographic distribution at the sub-county level for the years 2004-2005.

DATA SOURCES AND METHODS

The data used in this report are based on information from hospital discharge records that were received by Texas Department of State Health Services for the years 2004-2005. Population values used to construct preventable hospitalization rates are based on the 2000 U.S. Census and the estimation program utilized by the Texas State Demographer's Office. Prevention quality indicators classified by the *International Classification of Diseases, Ninth Revision, Clinical Modification* (ICD-9-CM) are calculated according to the Agency for Healthcare Research and Quality's technical specifications.¹ These prevention quality indicators were then further analyzed by gender, race/ethnicity, age group, and ZIP code distribution.

NOTABLE FINDINGS

- Approximately 17,090 preventable hospitalizations were documented among Tarrant County residents in 2004; this figure increased to over 18,420 preventable hospitalizations among Tarrant County residents in 2005.
- The ranking of preventable hospitalizations among Tarrant County residents in 2004 and 2005 were similar except for the ranking of chronic obstructive pulmonary disease and urinary tract infection.
- In 2004, the causes of preventable hospitalizations among Tarrant County residents were, in rank order:
 - Congestive heart failure
 - Bacterial pneumonia
 - Chronic obstructive pulmonary disease (COPD)
 - Urinary tract infection (UTI)
 - Low-weight births
 - Long-term diabetes complications
 - Adult Asthma
 - Dehydration
 - Short-term diabetes complications
 - Hypertension
 - Angina without procedure
 - Diabetes-related lower-extremity amputation
 - Perforated appendix
 - Uncontrolled diabetes

¹Agency for Healthcare Research and Quality. Prevention Quality Indicators: Technical Specifications, Version 3.2. United States Department of Health and Human Services. Pg 1-A2. February 29, 2008. <http://www.qualityindicators.ahrq.gov>. Accessed September 09, 2008.

- In 2005, the causes of preventable hospitalizations among Tarrant County residents were, in rank order:
 - Congestive heart failure
 - Bacterial pneumonia
 - Urinary tract infection (UTI)
 - Chronic obstructive pulmonary disease (COPD)
 - Low-weight births
 - Long-term diabetes complications
 - Adult Asthma
 - Dehydration
 - Short-term diabetes complications
 - Hypertension
 - Angina without procedure
 - Diabetes-related lower-extremity amputation
 - Perforated appendix
 - Uncontrolled diabetes

- The greatest difference in ranking across gender was adult asthma, which ranked fifth among females and tenth among males in 2004.

- Congestive heart failure ranked first among all race/ethnicities in 2004 except for Hispanics where it ranked second. Low-weight births ranked first among Hispanics in both 2004 and 2005.

- Congestive heart failure, bacterial pneumonia, and chronic obstructive pulmonary disease ranked first, second, and third respectively among both the 45 to 64 year and 65+ year age groups in 2004 and 2005.

I. INTRODUCTION¹

One method of evaluating the quality of healthcare experienced by individuals within a region is to examine the number of hospitalizations within that region which could have presumably been prevented if adequate primary care and preventative services were more accessible to residents, otherwise known as “preventable hospitalizations.” Conditions qualifying as preventable hospitalizations are determined based upon the Agency for Healthcare Research and Quality’s (AHRQ) Prevention Quality Indicators (PQIs). PQIs represent health conditions for which hospitalization might have been prevented if ample outpatient care were available or for which intervention during the early stages of a disease/condition might reduce the probability of experiencing complications or increased severity during later stages of the disease/condition based upon hospitalization admissions for ambulatory care sensitive conditions.

PQIs examined in this report represent certain acute and chronic conditions as well as one birth outcome. Chronic conditions include diabetes (diabetes-related lower-extremity amputations, long-term diabetes complications, short-term diabetes complications, and uncontrolled diabetes), circulatory diseases (angina without procedure, congestive heart failure, and hypertension), and respiratory diseases (adult asthma and chronic obstructive pulmonary disease). Acute conditions consist of bacterial pneumonia, dehydration, perforated appendix, and urinary tract infection. Data on low-weight births are also provided.

This report presents the final 2004-2005 data on preventable hospitalizations among Tarrant County residents by gender, race/ethnicity, age group, and geographic distribution at the sub-county level.

PROCEDURES FOR CALCULATING PREVENTION QUALITY INDICATORS²

Detailed definitions for PQIs were developed based on the AHRQ Quality Indicators technical specifications. The definitions within these specifications were based on the *International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM)* codes which are valid from October 1, 1994 to September 30, 2008. Both numerator and denominator PQI hospital admission rates were defined from this document. With the exception of perforated appendix admission rates and low-weight birth rates, the denominator for all preventable hospitalizations is the population in Tarrant County, aged 18 years and older. United States Census Bureau 2000 population data were utilized due to the age group classifications which the coding of individuals admitted as HIV positive or drug or alcohol users necessitated.

Fourteen PQIs were analyzed to assess the burden of preventable hospitalizations among Tarrant County residents based on gender, race/ethnicity, age group, and geographic distribution at the ZIP code level. Geographic Information Systems (GIS) mapping was used to show preventable hospitalization rates at the ZIP code level.

¹Text modified from Healthcare Cost and Utilization Project. HCUP Factbook No. 5 – Preventable Hospitalizations: A Window into Primary and Preventive Care, 2000. Agency for Healthcare Research and Quality, United States Department of Health and Human Services. Pg 4-5. September, 2004.

²Agency for Healthcare Research and Quality. Prevention Quality Indicators: Technical Specifications, Version 3.2. United States Department of Health and Human Services. Pg1-A2. February 29, 2008. <http://www.qualityindicators.ahrq.gov>. Accessed September 09, 2008.

II. PQI FREQUENCY BY GENDER, RACE/ETHNICITY, AND AGE GROUP

During the years 2004 and 2005, approximately 17,090 and 18,420 preventable hospitalizations among Tarrant County residents were reported, respectively. This section presents aggregate frequency counts due to differences in denominator specifications among different PQI's. For a more detailed break-down of PQI admission rates by indicator type, refer to Section III of this report (page 11).

Preventable hospitalizations occurred more frequently among females than among males in both 2004 and 2005 (Table 1).

Table 1. Frequency of Preventable Hospitalizations by Gender, Tarrant County, 2004-2005

	2004		2005	
	Total	Percent	Total	Percent
Male	6,831	41.9	7,190	41.1
Female	9,476	58.1	10,289	58.9
Total*	16,307	100.0	17,479	100.0

Data Source: Texas Department of State Health Services

*Gender data missing for 779 cases in 2004 and 942 cases in 2005

Whites experienced preventable hospitalizations with the greatest frequency during the years 2004-2005, followed by Blacks, Hispanics, and Others (Table 2). The difference in total numbers of preventable hospitalizations may be attributable to the fact that White populations in Tarrant County tend to be larger in number with a potentially larger portion of the population falling into older age categories than ethnic minority populations in the county.

Table 2. Frequency of Preventable Hospitalizations by Race/Ethnicity, Tarrant County, 2004-2005

	2004		2005	
	Total	Percent	Total	Percent
White	11,515	67.4	12,127	65.8
Black	3,252	19.0	3,733	20.3
Hispanic	1,860	10.9	2,015	10.9
Other	459	2.7	543	2.9
Total	17,086	100.0	18,421	100.0

Data Source: Texas Department of State Health Services

Preventable hospitalization frequencies almost doubled for each ascending age group in 2004 and 2005 (Table 3). Only frequencies for age groups 18-44 years, 45-64 years, and 65 years and older are reported per PQI definitions.

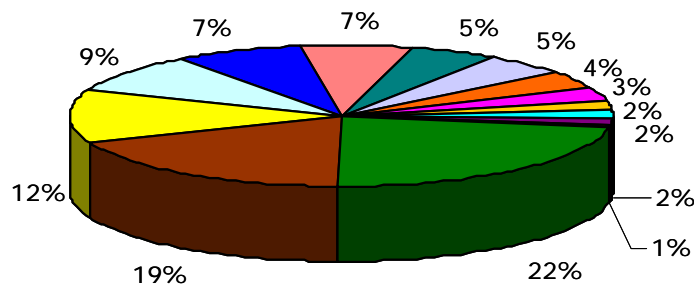
Table 3. Frequency of Preventable Hospitalizations by Age Group, Tarrant County, 2004-2005

	2004		2005	
	Total	Percent	Total	Percent
18-44	2,555	16.2	2,691	15.8
45-64	4,846	30.6	5,334	31.3
65+	8,415	53.2	9,027	52.9
Total	15,816	100.0	17,052	100.0

Data Source: Texas Department of State Health Services

Among the 14 possible PQIs for preventable hospitalizations among Tarrant County residents during 2004, congestive heart failure, bacterial pneumonia, and chronic obstructive pulmonary disease accounted for almost half of these hospitalizations (Figure 1).

Figure 1. Preventable Hospitalizations, Tarrant County, 2004

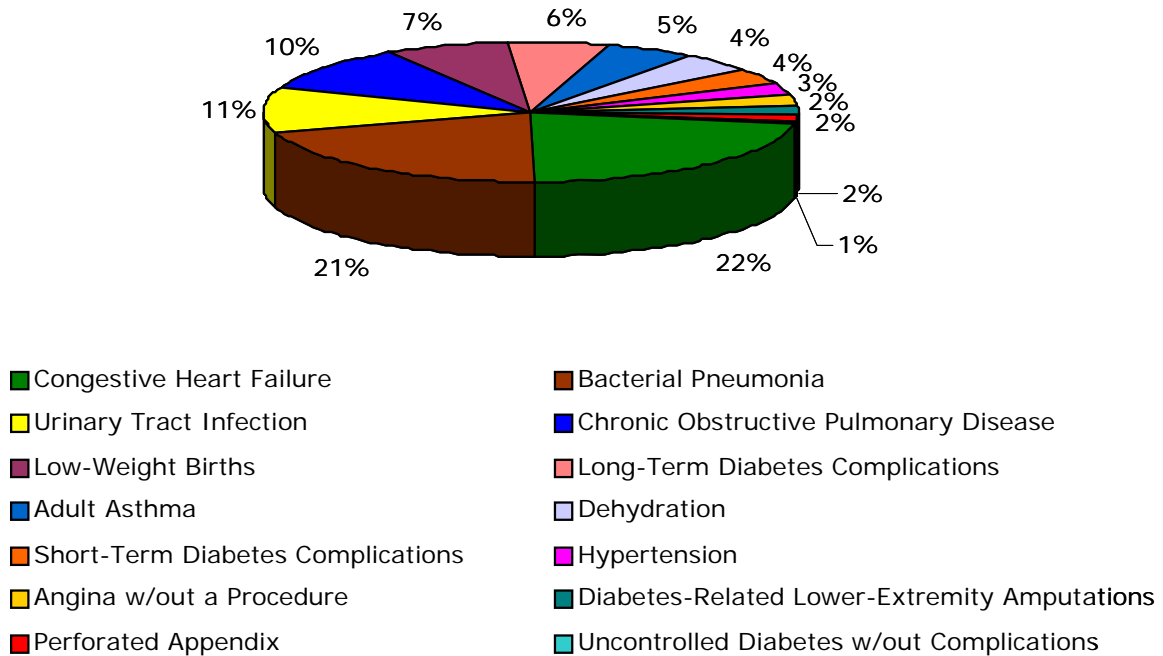


- Congestive Heart Failure
 - Chronic Obstructive Pulmonary Disease
 - Low-Weight Births
 - Adult Asthma
 - Short-Term Diabetes Complications
 - Angina w/out a Procedure
 - Perforated Appendix
- Bacterial Pneumonia
 - Urinary Tract Infection
 - Long-Term Diabetes Complications
 - Dehydration
 - Hypertension
 - Diabetes-Related Lower-Extremity Amputations
 - Uncontrolled Diabetes w/out Complications

Data Source: Texas Department of State Health Services, Center for Health Statistics

In contrast, a little over 50 percent of preventable hospitalizations among Tarrant County residents in the year 2005 were attributable to congestive heart failure, bacterial pneumonia, and urinary tract infections (Figure 2).

Figure 2. Preventable Hospitalizations, Tarrant County, 2005



Data Source: Texas Department of State Health Services, Center for Health Statistics

GENDER DIFFERENCES

Rankings for preventable hospitalizations by gender are shown in Table 4 for 2004 and Table 5 for 2005.

Table 4. Preventable Hospitalizations by Gender, Tarrant County, 2004

	Overall n (Rate)	Male n (Rate)	Female n (Rate)
1	Congestive Heart Failure 3,840 (369.3)	Congestive Heart Failure 1,689 (332.3)	Congestive Heart Failure 1,976 (371.8)
2	Bacterial Pneumonia 3,171 (305.0)	Bacterial Pneumonia 1,290 (253.8)	Bacterial Pneumonia 1,693 (318.6)
3	Chronic Obstructive Pulmonary Disease 2,032 (195.4)	Chronic Obstructive Pulmonary Disease 795 (156.4)	Urinary Tract Infection 1,153 (217.0)
4	Urinary Tract Infection 1,609 (154.7)	Low-Weight Births* 629 (46.8)	Chronic Obstructive Pulmonary Disease 1,151 (216.6)
5	Low-Weight Births* 1,270 (48.4)	Long-Term Diabetes Complications 551 (108.4)	Adult Asthma 654 (123.1)
6	Long-Term Diabetes Complications 1,149 (110.5)	Urinary Tract Infection 405 (79.7)	Low-Weight Births* 641 (50.0)
7	Adult Asthma 888 (85.4)	Dehydration 288 (56.7)	Long-Term Diabetes Complications 561 (105.6)
8	Dehydration 829 (79.7)	Short-Term Diabetes Complications 267 (52.5)	Dehydration 502 (94.5)
9	Short-Term Diabetes Complications 668 (64.2)	Diabetes-Related Lower- Extremity Amputation 214 (42.1)	Hypertension 325 (61.2)
10	Hypertension 529 (50.9)	Adult Asthma 194 (38.2)	Short-Term Diabetes Complications 319 (60.0)
11	Angina without Procedure 368 (35.4)	Hypertension 169 (33.2)	Angina without Procedure 207 (39.0)
12	Diabetes-Related Lower- Extremity Amputation 349 (33.6)	Perforated Appendix** 157 (26.6)	Diabetes-Related Lower- Extremity Amputation 125 (23.5)
13	Perforated Appendix** 273 (25.4)	Angina without Procedure 133 (26.2)	Perforated Appendix** 112 (23.9)
14	Uncontrolled Diabetes 111 (10.7)	Uncontrolled Diabetes 50 (9.8)	Uncontrolled Diabetes 57 (10.7)

Rate per 100,000 population aged 18 years and older, unless otherwise specified

*Rate per 1,000 live births

**Rate per 100 appendicitis admissions aged 18 years and older

Date Source: Texas Department of State Health Services

**Table 5. Preventable Hospitalizations by Gender,
Tarrant County, 2005**

	Overall n (Rate)	Male n (Rate)	Female n (Rate)
1	Congestive Heart Failure 4,028 (387.4)	Congestive Heart Failure 1,751 (344.5)	Bacterial Pneumonia 2,074 (390.3)
2	Bacterial Pneumonia 3,813 (366.7)	Bacterial Pneumonia 1,510 (297.0)	Congestive Heart Failure 2,056 (386.9)
3	Urinary Tract Infection 1,950 (187.5)	Chronic Obstructive Pulmonary Disease 735 (144.6)	Urinary Tract Infection 1,417 (266.7)
4	Chronic Obstructive Pulmonary Disease 1,888 (181.6)	Low-Weight Births* 620 (44.6)	Chronic Obstructive Pulmonary Disease 1,054 (198.3)
5	Low-Weight Births* 1,369 (50.9)	Long-Term Diabetes Complications 502 (98.8)	Low-Weight Births* 747 (57.5)
6	Long-Term Diabetes Complications 1,120 (107.7)	Urinary Tract Infection 461 (90.7)	Adult Asthma 711 (133.8)
7	Adult Asthma 990 (95.2)	Short-Term Diabetes Complications 293 (57.6)	Long-Term Diabetes Complications 576 (108.4)
8	Dehydration 802 (77.1)	Dehydration 273 (53.7)	Dehydration 500 (94.1)
9	Short-Term Diabetes Complications 704 (67.7)	Diabetes-Related Lower- Extremity Amputation 254 (50.0)	Short-Term Diabetes Complications 323 (60.8)
10	Hypertension 550 (52.9)	Adult Asthma 234 (46.0)	Hypertension 309 (58.1)
11	Angina without Procedure 409 (39.3)	Hypertension 190 (37.4)	Angina without Procedure 229 (43.1)
12	Diabetes-Related Lower- Extremity Amputation 396 (38.1)	Perforated Appendix** 172 (28.6)	Diabetes-Related Lower- Extremity Amputation 128 (24.1)
13	Perforated Appendix** 283 (24.4)	Angina without Procedure 141 (27.7)	Perforated Appendix** 106 (19.7)
14	Uncontrolled Diabetes 119 (11.4)	Uncontrolled Diabetes 54 (10.6)	Uncontrolled Diabetes 59 (11.1)

Rate per 100,000 population aged 18 years and older, unless otherwise specified

*Rate per 1,000 live births

**Rate per 100 appendicitis admissions aged 18 years and older

Date Source: Texas Department of State Health Services

RACE/ETHNICITY DIFFERENCES

Rankings for preventable hospitalizations by race/ethnicity are shown in Table 6 for 2004 and Table 7 for 2005.

Table 6. Preventable Hospitalizations by Race/Ethnicity, Tarrant County, 2004

	White n (Rate)	Black n (Rate)	Hispanic n (Rate)	Other n (Rate)
1	Congestive Heart Failure 2,539 (367.8)	Congestive Heart Failure 854 (684.4)	Low-Weight Births* 380 (42.1)	Congestive Heart Failure 123 (265.5)
2	Bacterial Pneumonia 2,434 (352.6)	Bacterial Pneumonia 440 (352.6)	Congestive Heart Failure 324 (181.7)	Bacterial Pneumonia 78 (168.4)
3	Chronic Obstructive Pulmonary Disease 1,719 (249.0)	Low-Weight Births* 304 (85.3)	Bacterial Pneumonia 219 (122.8)	Low-Weight Births* 73 (41.0)
4	Urinary Tract Infection 1,182 (171.2)	Long-Term Diabetes Complications 280 (224.4)	Long-Term Diabetes Complications 194 (108.8)	Urinary Tract Infection 35 (75.6)
5	Long-Term Diabetes Complications 652 (94.4)	Adult Asthma 235 (188.3)	Urinary Tract Infection 168 (94.2)	Adult Asthma 30 (64.8)
6	Dehydration 640 (92.7)	Urinary Tract Infection 224 (179.5)	Short-Term Diabetes Complications 110 (61.7)	Chronic Obstructive Pulmonary Disease 28 (60.4)
7	Adult Asthma 532 (77.1)	Chronic Obstructive Pulmonary Disease 217 (173.9)	Adult Asthma 91 (51.0)	Long-Term Diabetes Complications 23 (49.6)
8	Low-Weight Births* 513 (43.2)	Hypertension 210 (168.3)	Diabetes-Related Lower- Extremity Amputation 71 (39.8)	Dehydration 17 (36.7)
9	Short-Term Diabetes Complications 362 (52.4)	Short-Term Diabetes Complications 184 (147.5)	Chronic Obstructive Pulmonary Disease 68 (38.1)	Angina without Procedure 14 (30.2)
10	Hypertension 274 (39.7)	Dehydration 110 (88.2)	Perforated Appendix** 68 (28.7)	Short-Term Diabetes Complications 12 (25.9)
11	Angina without Procedure 241 (34.9)	Diabetes-Related Lower- Extremity Amputation 72 (57.7)	Dehydration 62 (34.8)	Hypertension 10 (21.6)
12	Diabetes-Related Lower- Extremity Amputation 198 (28.7)	Angina without Procedure 68 (54.5)	Angina without Procedure 45 (25.2)	Diabetes-Related Lower- Extremity Amputation 8 (17.3)
13	Perforated Appendix** 182 (25.8)	Uncontrolled Diabetes 37 (29.7)	Hypertension 35 (19.6)	Perforated Appendix** 6 (12.8)
14	Uncontrolled Diabetes 47 (6.8)	Perforated Appendix** 17 (19.8)	Uncontrolled Diabetes 25 (14.0)	Uncontrolled Diabetes <5***

Rate per 100,000 population aged 18 years and older, unless otherwise specified

*Rate per 1,000 live births

**Rate per 100 appendicitis admissions aged 18 years and older

***Numerator too small for rate calculation

Date Source: Texas Department of State Health Services

**Table 7. Preventable Hospitalizations by Race/Ethnicity,
Tarrant County, 2005**

	White n (Rate)	Black n (Rate)	Hispanic n (Rate)	Other n (Rate)
1	Bacterial Pneumonia 2,853 (413.3)	Congestive Heart Failure 1,010 (809.5)	Low-Weight Births* 370 (39.5)	Bacterial Pneumonia 104 (224.5)
2	Congestive Heart Failure 2,569 (372.1)	Bacterial Pneumonia 546 (437.6)	Congestive Heart Failure 349 (195.7)	Congestive Heart Failure 100 (215.9)
3	Chronic Obstructive Pulmonary Disease 1,580 (228.9)	Low-Weight Births* 339 (92.0)	Bacterial Pneumonia 310 (173.9)	Low-Weight Births* 89 (46.6)
4	Urinary Tract Infection 1,454 (210.6)	Long-Term Diabetes Complications 307 (246.0)	Long-Term Diabetes Complications 217 (121.7)	Urinary Tract Infection 51 (110.1)
5	Adult Asthma 612 (88.7)	Adult Asthma 258 (206.8)	Urinary Tract Infection 196 (109.9)	Chronic Obstructive Pulmonary Disease 47 (101.5)
6	Dehydration 610 (88.4)	Urinary Tract Infection 248 (198.8)	Adult Asthma 97 (54.4)	Long-Term Diabetes Complications 38 (82.0)
7	Low-Weight Births* 571 (47.8)	Short-Term Diabetes Complications 217 (173.9)	Diabetes-Related Lower- Extremity Amputation 85 (47.7)	Adult Asthma 23 (49.6)
8	Long-Term Diabetes Complications 558 (80.8)	Hypertension 211 (169.1)	Short-Term Diabetes Complications 83 (46.6)	Dehydration 21 (45.3)
9	Short-Term Diabetes Complications 390 (56.5)	Chronic Obstructive Pulmonary Disease 200 (160.3)	Perforated Appendix** 78 (28.1)	Hypertension 18 (38.9)
10	Hypertension 268 (38.8)	Dehydration 127 (101.8)	Chronic Obstructive Pulmonary Disease 61 (34.2)	Angina without Procedure 17 (36.7)
11	Angina without Procedure 237 (34.3)	Diabetes-Related Lower- Extremity Amputation 108 (86.6)	Hypertension 53 (29.7)	Short-Term Diabetes Complications 14 (30.2)
12	Diabetes-Related Lower- Extremity Amputation 195 (28.2)	Angina without Procedure 107 (85.8)	Angina without Procedure 48 (26.9)	Diabetes-Related Lower Extremity Amputation 8 (17.3)
13	Perforated Appendix** 173 (23.5)	Uncontrolled Diabetes 32 (25.6)	Dehydration 43 (24.1)	Perforated Appendix** 8 (15.4)
14	Uncontrolled Diabetes 57 (8.3)	Perforated Appendix** 23 (25.0)	Uncontrolled Diabetes 25 (14.0)	Uncontrolled Diabetes 5 (10.8)

Rate per 100,000 population aged 18 years and older, unless otherwise specified

*Rate per 1,000 live births

**Rate per 100 appendicitis admissions aged 18 years and older

Date Source: Texas Department of State Health Services

AGE GROUP DIFFERENCES

Preventable hospitalizations by age group are ranked in Table 8 for 2004 and Table 9 for 2005.

Table 8. Preventable Hospitalizations by Age Group, Tarrant County, 2004

	18-44 Yrs n (Rate)	45-64 Yrs n (Rate)	65+ Yrs n (Rate)
1	Short-Term Diabetes Complications 430 (68.4)	Congestive Heart Failure 1,071 (368.1)	Congestive Heart Failure 2,496 (2,069.9)
2	Bacterial Pneumonia 392 (62.4)	Bacterial Pneumonia 870 (299.0)	Bacterial Pneumonia 1,909 (1,583.1)
3	Adult Asthma 333 (53.0)	Chronic Obstructive Pulmonary Disease 629 (216.2)	Chronic Obstructive Pulmonary Disease 1,330 (1,103.0)
4	Urinary Tract Infection 317 (50.5)	Long-Term Diabetes Complications 501 (172.2)	Urinary Tract Infection 972 (806.1)
5	Congestive Heart Failure 273 (43.5)	Adult Asthma 348 (119.6)	Dehydration 489 (405.5)
6	Long-Term Diabetes Complications 229 (36.5)	Urinary Tract Infection 320 (110.0)	Long-Term Diabetes Complications 419 (347.5)
7	Perforated Appendix** 133 (18.8)	Hypertension 212 (72.9)	Hypertension 215 (178.3)
8	Dehydration 131 (20.9)	Dehydration 209 (71.8)	Adult Asthma 207 (171.7)
9	Hypertension 102 (16.2)	Angina without Procedure 196 (67.4)	Diabetes-Related Lower Extremity Amputation 145 (120.2)
10	Chronic Obstructive Pulmonary Disease 73 (11.6)	Short-Term Diabetes Complications 188 (64.6)	Angina without Procedure 121 (100.3)
11	Angina without Procedure 51 (8.1)	Diabetes-Related Lower-Extremity Amputation 161 (55.3)	Short-Term Diabetes Complications 50 (41.5)
12	Uncontrolled Diabetes 48 (7.6)	Perforated Appendix** 100 (34.6)	Perforated Appendix** 40 (51.9)
13	Diabetes-Related Lower-Extremity Amputation 43 (6.8)	Uncontrolled Diabetes 41 (14.1)	Uncontrolled Diabetes 22 (18.2)

Rate per 100,000 population, unless otherwise specified

**Rate per 100 appendicitis admissions aged 18 years and older

Date Source: Texas Department of State Health Services

**Table 9. Preventable Hospitalizations by Age Group,
Tarrant County, 2005**

	18-44 Yrs n (Rate)	45-64 Yrs n (Rate)	65+ Yrs n (Rate)
1	Short-Term Diabetes Complications 446 (71.0)	Congestive Heart Failure 1,175 (403.8)	Congestive Heart Failure 2,527 (2,095.6)
2	Bacterial Pneumonia 442 (70.4)	Bacterial Pneumonia 1,040 (357.4)	Bacterial Pneumonia 2,331 (1,933.1)
3	Urinary Tract Infection 369 (58.7)	Chronic Obstructive Pulmonary Disease 646 (222.0)	Urinary Tract Infection 1,225 (1,015.9)
4	Congestive Heart Failure 326 (51.9)	Long-Term Diabetes Complications 528 (181.5)	Chronic Obstructive Pulmonary Disease 1,174 (973.6)
5	Adult Asthma 323 (51.4)	Adult Asthma 363 (124.8)	Dehydration 487 (403.9)
6	Long-Term Diabetes Complications 196 (31.2)	Urinary Tract Infection 356 (122.4)	Long-Term Diabetes Complications 396 (328.4)
7	Perforated Appendix** 154 (19.9)	Hypertension 253 (87.0)	Adult Asthma 304 (252.1)
8	Dehydration 114 (18.1)	Angina without Procedure 223 (76.6)	Hypertension 191 (158.4)
9	Hypertension 106 (16.9)	Short-Term Diabetes Complications 207 (71.1)	Diabetes-Related Lower Extremity Amputation 154 (127.7)
10	Angina without Procedure 69 (11.0)	Dehydration 201 (69.1)	Angina without Procedure 117 (97.0)
11	Chronic Obstructive Pulmonary Disease 68 (10.8)	Diabetes-Related Lower- Extremity Amputation 200 (68.7)	Short-Term Diabetes Complications 51 (42.3)
12	Diabetes-Related Lower- Extremity Amputation 42 (6.7)	Perforated Appendix** 91 (29.4)	Perforated Appendix** 38 (51.4)
13	Uncontrolled Diabetes 36 (5.7)	Uncontrolled Diabetes 51 (17.5)	Uncontrolled Diabetes 32 (26.5)

Rate per 100,000 population, unless otherwise specified

**Rate per 100 appendicitis admissions aged 18 years and older

Date Source: Texas Department of State Health Services

III. PQI ADMISSON RATES BY INDICATOR TYPE

CHRONIC CONDITIONS ASSOCIATED WITH DIABETES

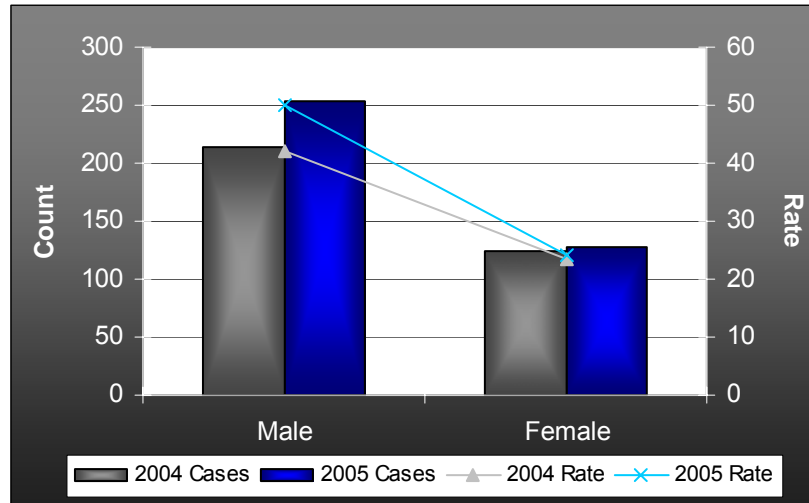
DIABETES-RELATED LOWER-EXTREMITY AMPUTATION

Table 10. Preventable Hospitalizations due to Diabetes-Related Lower-Extremity Amputations, Tarrant County, 2004-2005

Year	Overall n (Rate)	Gender		Race/Ethnicity				Age Group (in Years)		
		Male n (Rate)	Female n (Rate)	White n (Rate)	Black n (Rate)	Hispanic n (Rate)	Other n (Rate)	18-44 n (Rate)	45-64 n (Rate)	65+ n (Rate)
2004	349 (33.6)	214 (42.1)	125 (23.5)	198 (28.7)	72 (57.7)	71 (39.8)	8 (17.3)	43 (6.8)	161 (55.3)	145 (120.2)
2005	396 (38.1)	254 (50.0)	128 (24.1)	195 (28.2)	108 (86.6)	85 (47.7)	8 (17.3)	42 (6.7)	200 (68.7)	154 (127.7)

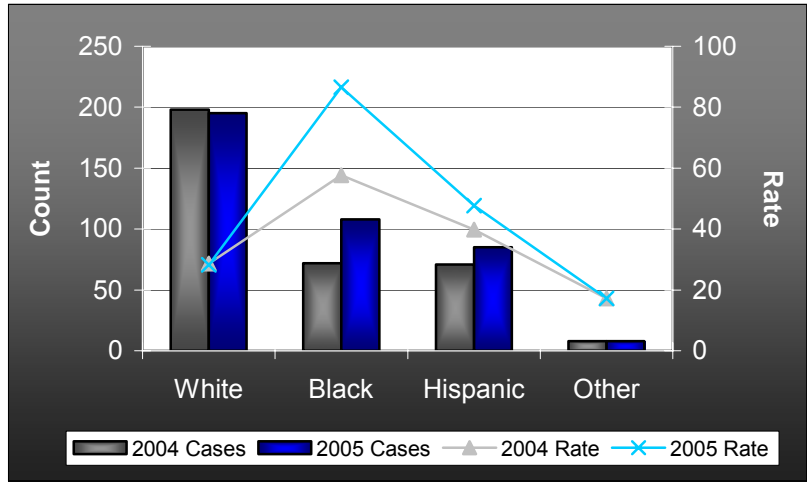
Rate per 100,000 population aged 18 years and older
Data Source: Texas Department of State Health Services, Center for Health Statistics

Figure 3. Preventable Hospitalizations due to Diabetes-Related Lower-Extremity Amputations by Gender, Tarrant County, 2004-2005



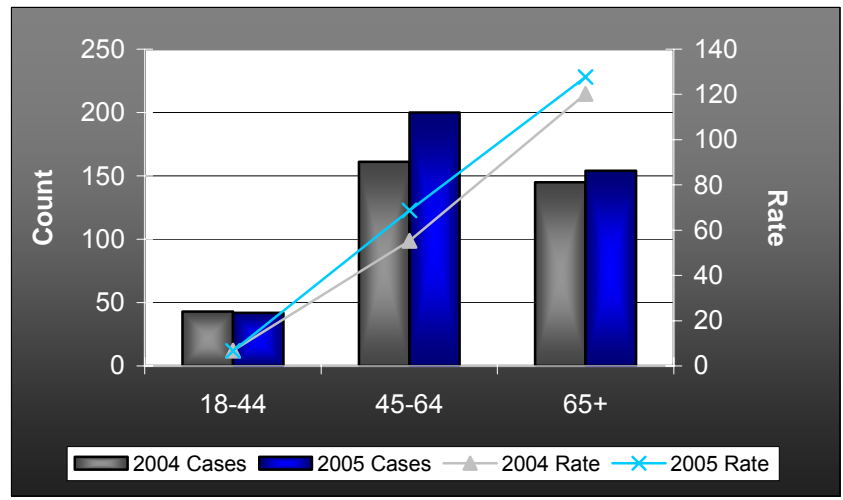
Rate per 100,000 population aged 18 years and older
Data Source: Texas Department of State Health Services – Center for Health Statistics

Figure 4. Preventable Hospitalizations due to Diabetes-Related Lower-Extremity Amputations by Race/Ethnicity, Tarrant County, 2004-2005



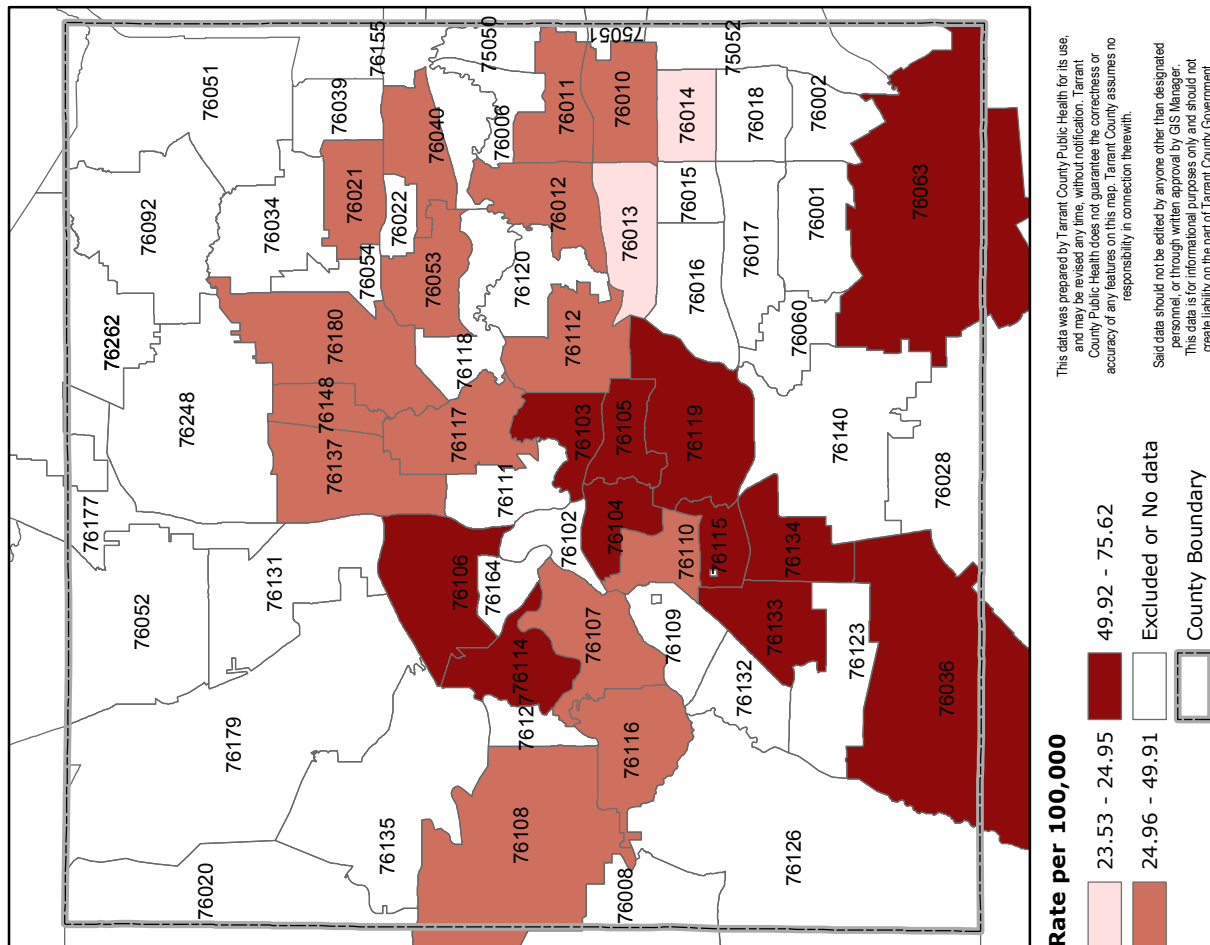
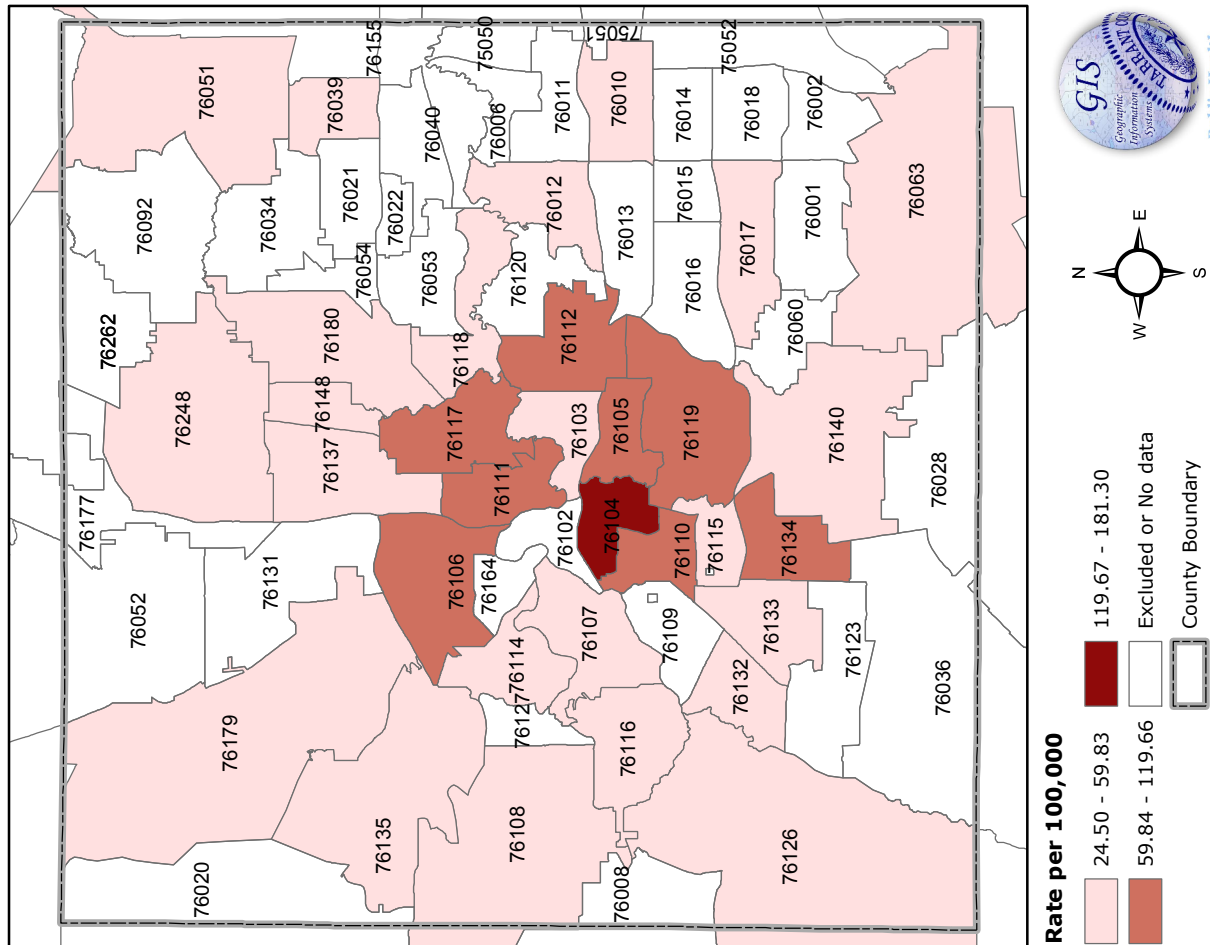
Rate per 100,000 population aged 18 years and older
 Data Source: Texas Department of State Health Services – Center for Health Statistics

Figure 5. Preventable Hospitalizations due to Diabetes-Related Lower-Extremity Amputations by Age Group (in Years), Tarrant County, 2004-2005



Rate per 100,000 population aged 18 years and older
 Data Source: Texas Department of State Health Services – Center for Health Statistics

Figure 6. Geographic Distribution of Preventable Hospitalizations due to Diabetes Realited Lower-Extremity Amputations by ZIP Code, Tarrant County, 2004-2005



LONG-TERM DIABETES COMPLICATIONS

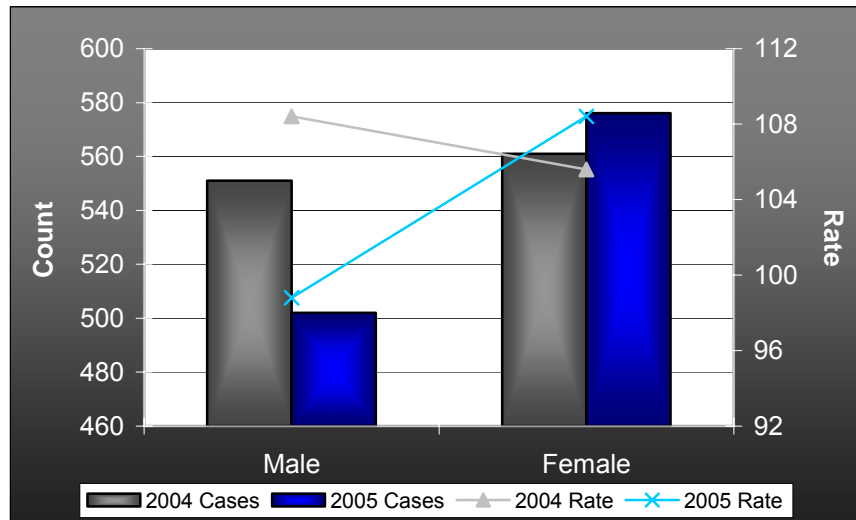
Table 11. Preventable Hospitalizations due to Long-Term Diabetes Complications Tarrant County, 2004-2005

Year	Overall n (Rate)	Gender		Race/Ethnicity				Age Group (in Years)		
		Male n (Rate)	Female n (Rate)	White n (Rate)	Black n (Rate)	Hispanic n (Rate)	Other n (Rate)	18-44 n (Rate)	45-64 n (Rate)	65+ n (Rate)
2004	1,149 (110.5)	551 (108.4)	561 (105.6)	652 (94.4)	280 (224.4)	194 (108.8)	23 (49.6)	229 (36.5)	501 (172.2)	419 (347.5)
2005	1,120 (107.7)	502 (98.8)	576 (108.4)	558 (80.8)	307 (246.0)	217 (121.7)	38 (82.0)	196 (31.2)	528 (181.5)	396 (328.4)

Rate per 100,000 population aged 18 years and older

Data Source: Texas Department of State Health Services – Center for Health Statistics

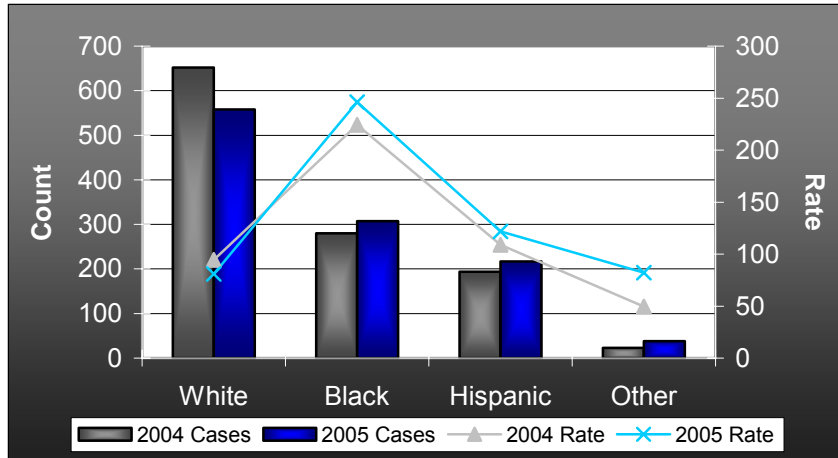
Figure 7. Preventable Hospitalizations due to Long-Term Diabetes Complications by Gender, Tarrant County, 2004-2005



Rate per 100,000 population aged 18 years and older

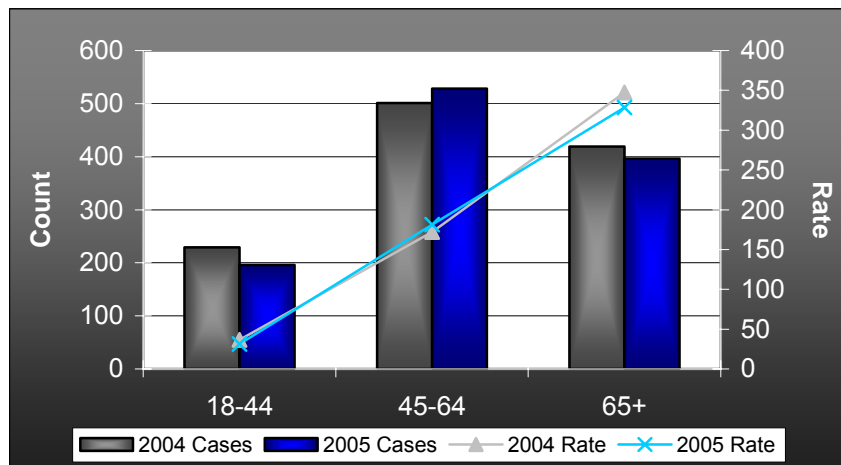
Data Source: Texas Department of State Health Services – Center for Health Statistics

Figure 8. Preventable Hospitalizations due to Long-Term Diabetes Complications by Race/Ethnicity, Tarrant County, 2004-2005



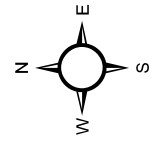
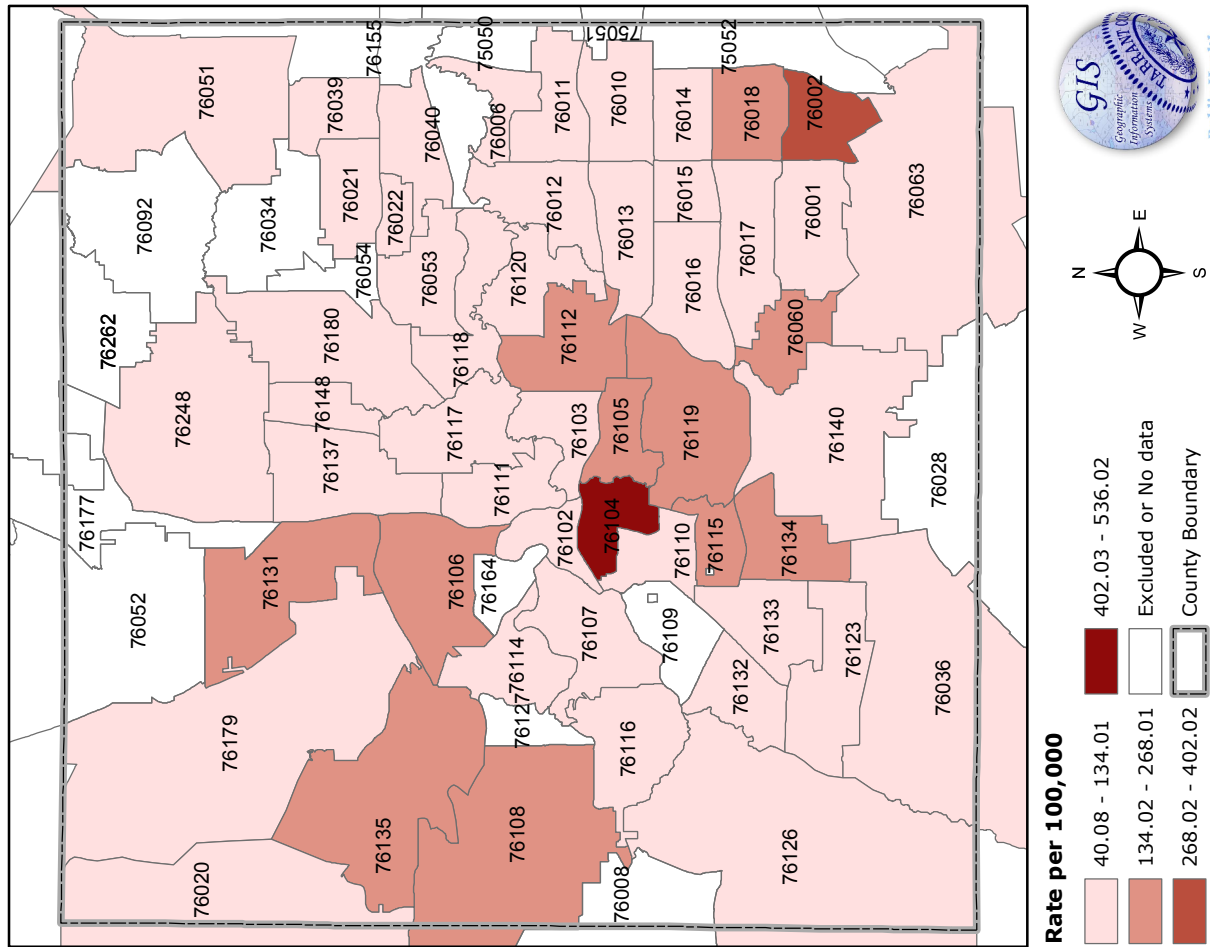
Rate per 100,000 population aged 18 years and older
 Data Source: Texas Department of State Health Services – Center for Health Statistics

Figure 9. Preventable Hospitalizations due to Long-Term Diabetes Complications by Age Group (in Years), Tarrant County, 2004-2005



Rate per 100,000 population
 Data Source: Texas Department of State Health Services – Center for Health Statistics

Figure 10. Geographic Distribution of Preventable Hospitalizations due to Long-Term Diabetes Complications by ZIP Code, Tarrant County, 2004-2005



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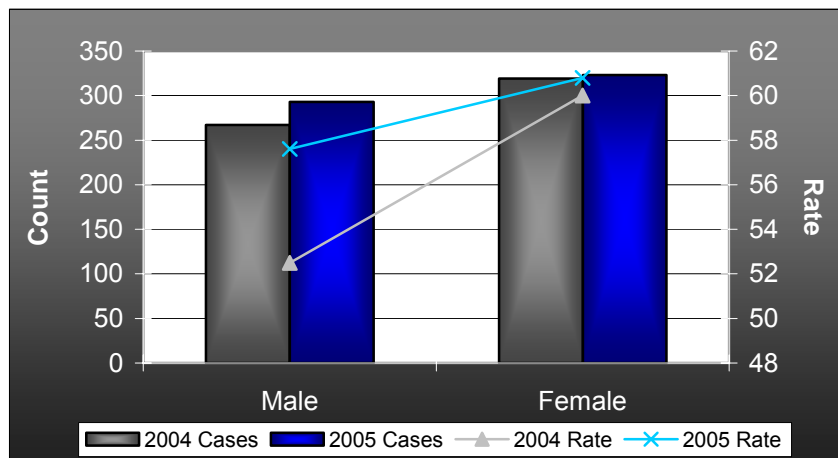
SHORT-TERM DIABETES COMPLICATIONS

Table 12. Preventable Hospitalizations due to Short-Term Diabetes Complications, Tarrant County, 2004-2005

Year	Overall n (Rate)	Gender		Race/Ethnicity				Age Group (in Years)		
		Male n (Rate)	Female n (Rate)	White n (Rate)	Black n (Rate)	Hispanic n (Rate)	Other n (Rate)	18-44 n (Rate)	45-64 n (Rate)	65+ n (Rate)
2004	668 (64.2)	267 (52.5)	319 (60.0)	362 (52.4)	184 (147.5)	110 (61.7)	12 (25.9)	430 (68.4)	188 (64.6)	50 (41.5)
2005	704 (67.7)	293 (57.6)	323 (60.8)	390 (56.5)	217 (173.9)	83 (46.6)	14 (30.2)	446 (71.0)	207 (71.1)	51 (42.3)

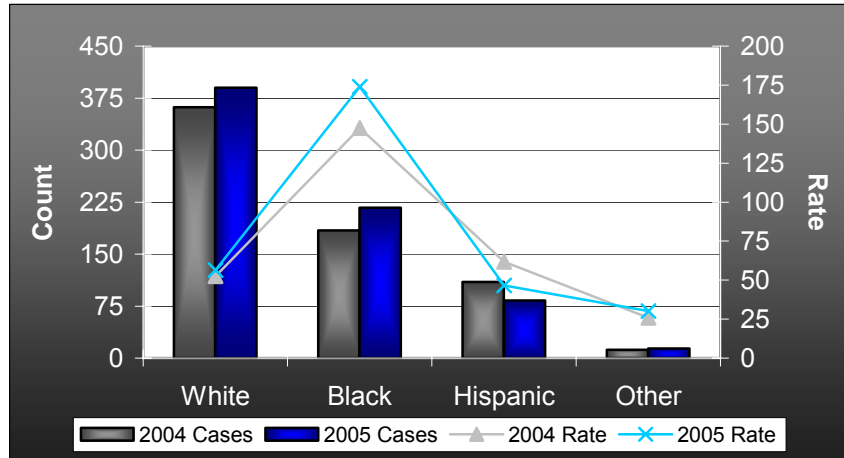
Rate per 100,000 population aged 18 years and older
 Data Source: Texas Department of State Health Services – Center for Health Statistics

Figure 11. Preventable Hospitalizations due to Short-Term Diabetes Complications by Gender, Tarrant County, 2004-2005



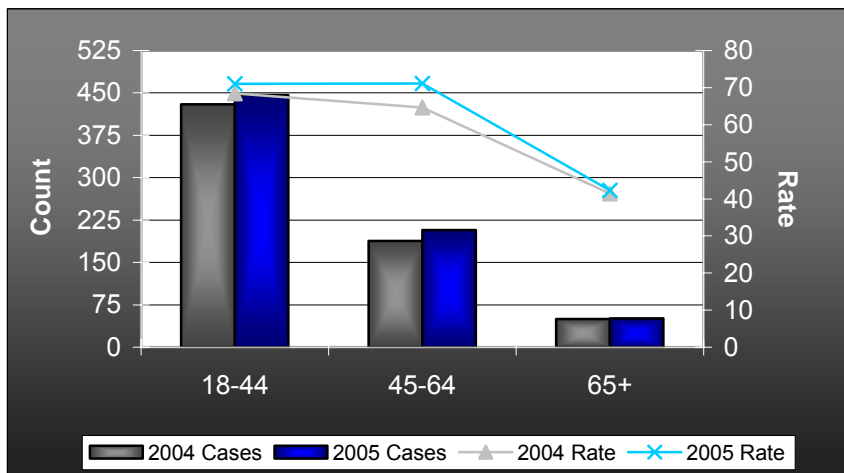
Rate per 100,000 population aged 18 years and older
 Data Source: Texas Department of State Health Services – Center for Health Statistics

Figure 12. Preventable Hospitalizations due to Short-Term Diabetes Complications by Race/Ethnicity, Tarrant County, 2004-2005



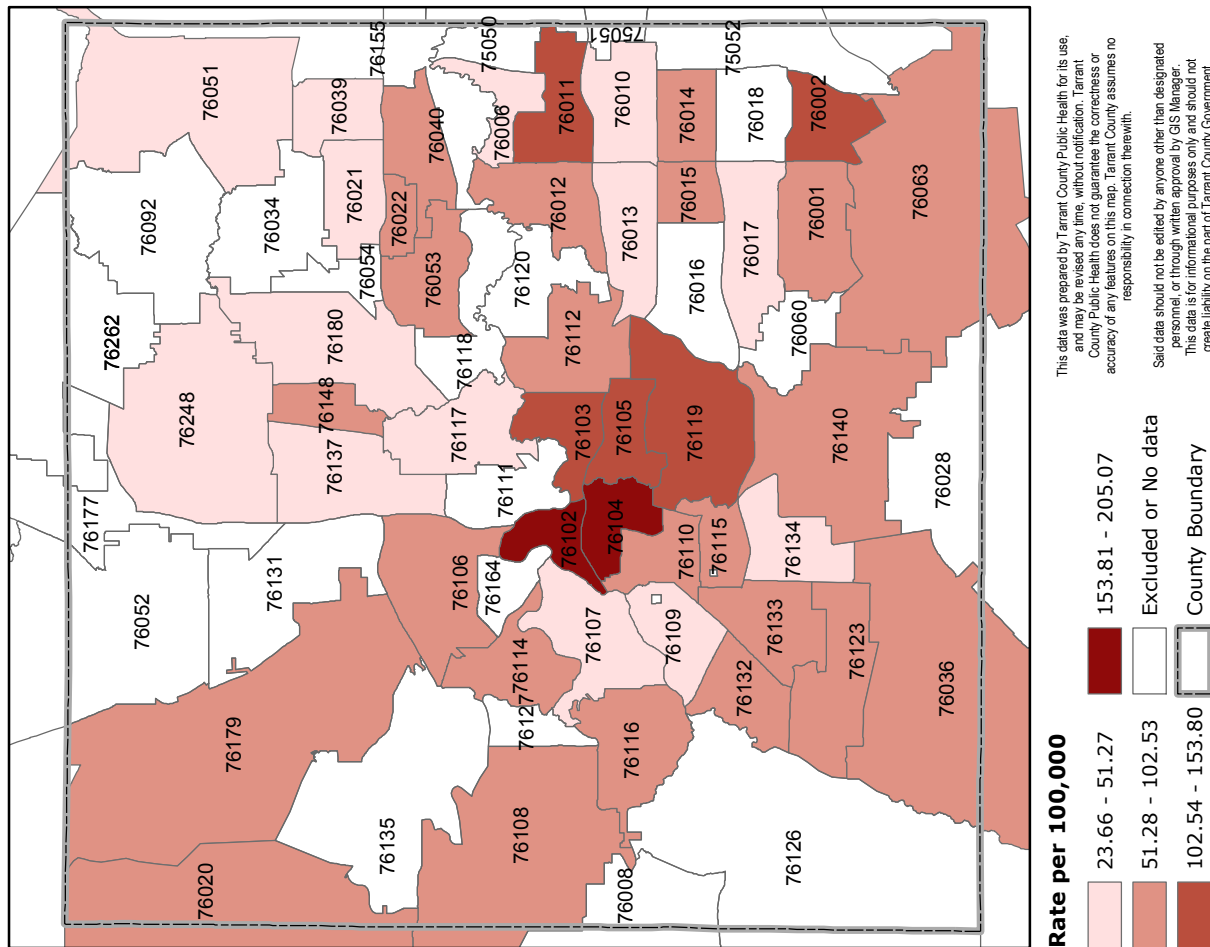
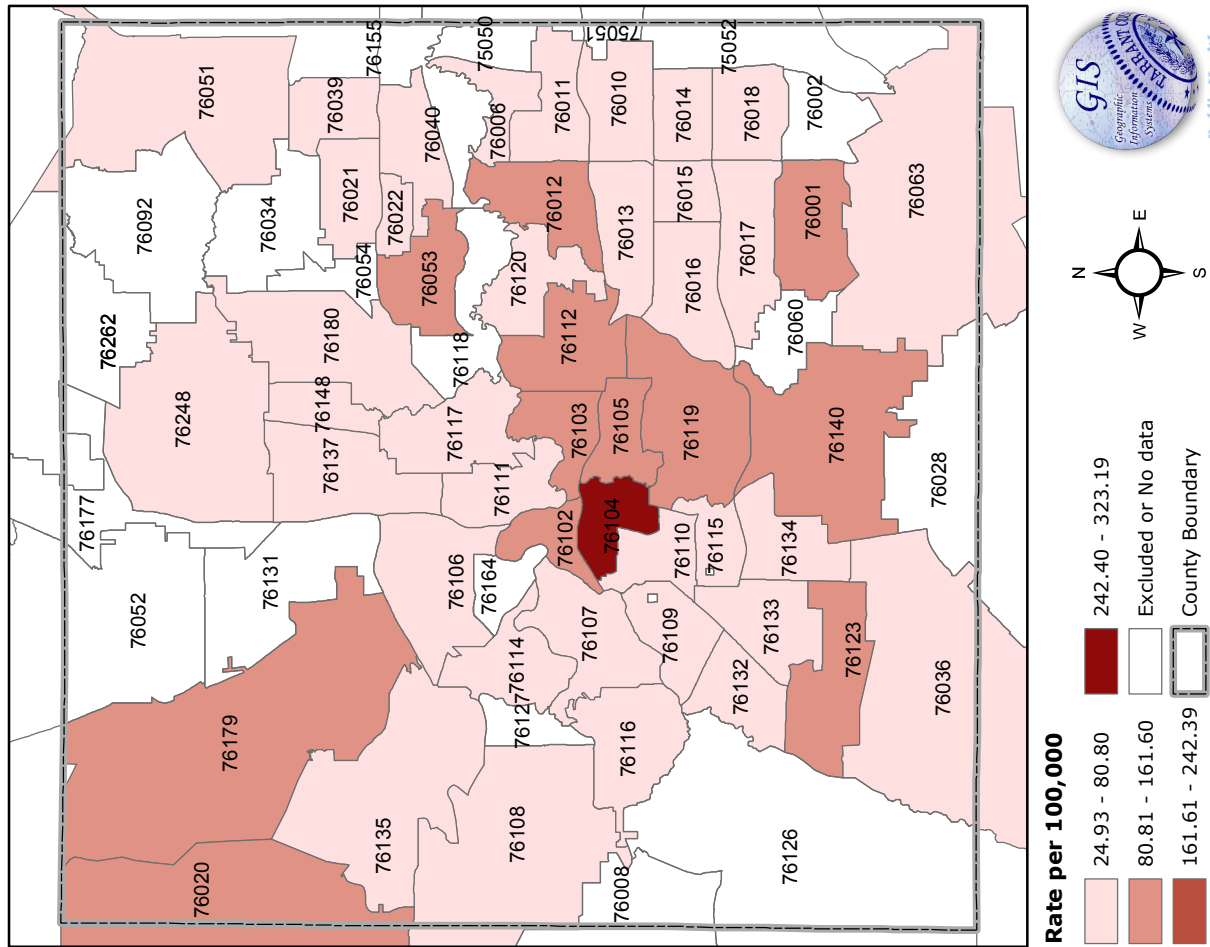
Rate per 100,000 population aged 18 years and older
 Data Source: Texas Department of State Health Services – Center for Health Statistics

Figure 13. Preventable Hospitalizations due to Short-Term Diabetes Complications by Age Group (in Years), Tarrant County, 2004-2005



Rate per 100,000 population
 Data Source: Texas Department of State Health Services – Center for Health Statistics

Figure 14. Geographic Distribution of Preventable Hospitalizations due to Short-Term Diabetes Complications by ZIP Code, Tarrant County, 2004-2005



UNCONTROLLED DIABETES

Table 13. Preventable Hospitalizations due to Uncontrolled Diabetes, Tarrant County, 2004-2005

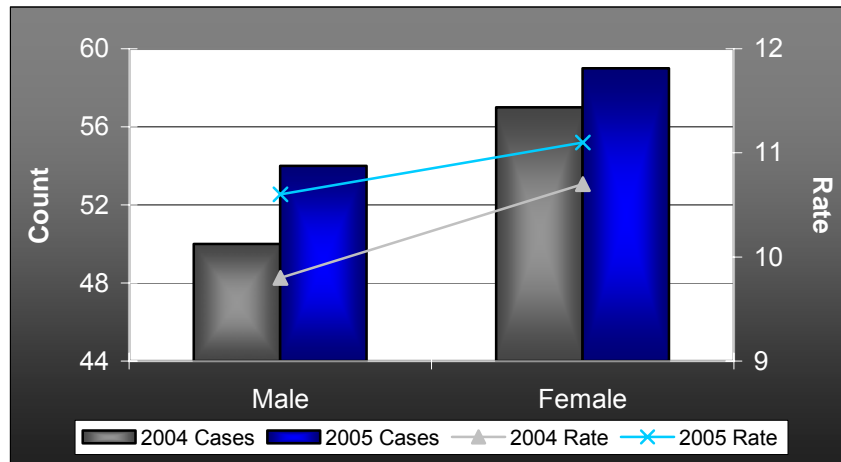
Year	Overall n (Rate)	Gender		Race/Ethnicity				Age Group (in Years)		
		Male n (Rate)	Female n (Rate)	White n (Rate)	Black n (Rate)	Hispanic n (Rate)	Other n (Rate)	18-44 n (Rate)	45-64 n (Rate)	65+ n (Rate)
2004	111 (10.7)	50 (9.8)	57 (10.7)	47 (6.8)	37 (29.7)	25 (14.0)	<5 @	48 (7.6)	41 (14.1)	22 (18.2)
2005	119 (11.4)	54 (10.6)	59 (11.1)	57 (8.3)	32 (25.6)	25 (14.0)	5 (10.8)	36 (5.7)	51 (17.5)	32 (26.5)

Rate per 100,000 population aged 18 years and older

@ - Numerator too small for rate calculation

Date Source: Texas Department of State Health Services – Center for Health Statistics

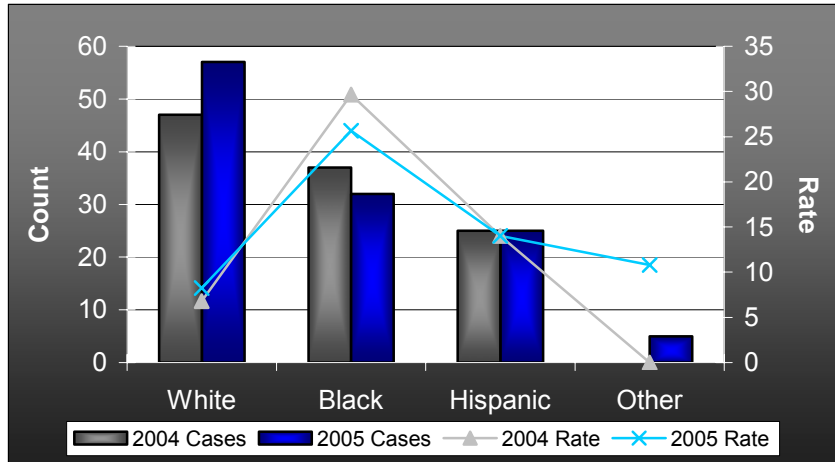
Figure 15. Preventable Hospitalizations due to Uncontrolled Diabetes by Gender, Tarrant County, 2004-2005



Rate per 100,000 population aged 18 years and older

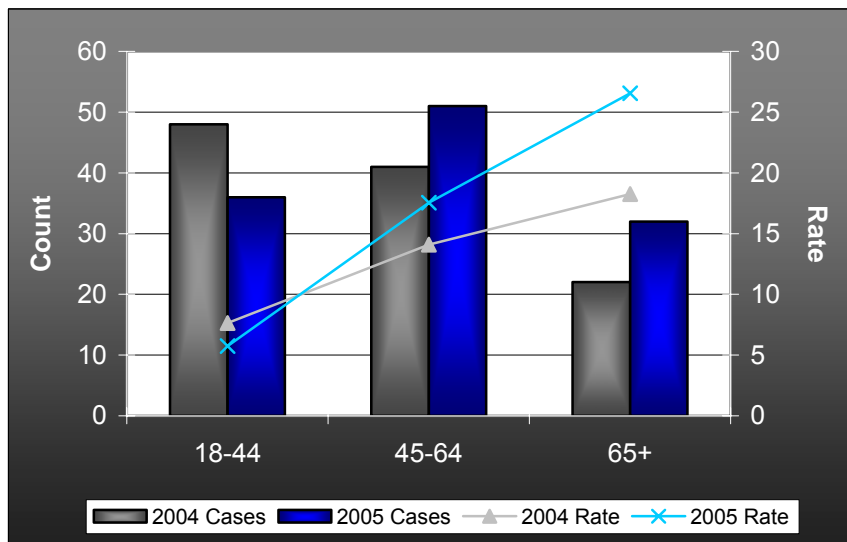
Data Source: Texas Department of State Health Services – Center for Health Statistics

Figure 16. Preventable Hospitalizations due to Uncontrolled Diabetes by Race/Ethnicity, Tarrant County, 2004-2005



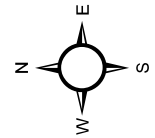
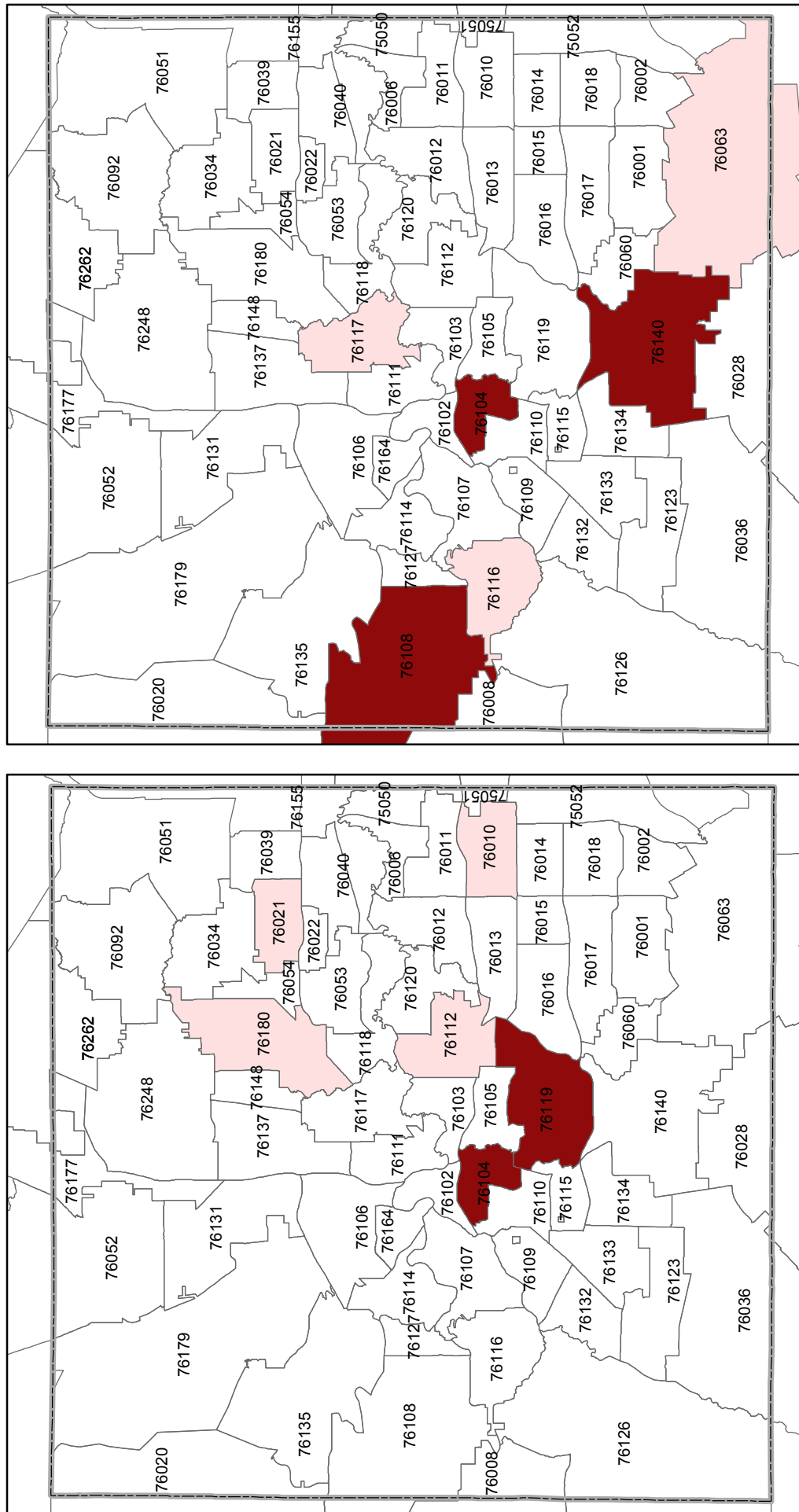
Rate per 100,000 population aged 18 years and older
 Data Source: Texas Department of State Health Services – Center for Health Statistics

Figure 17. Preventable Hospitalizations due to Uncontrolled Diabetes by Age Group (in Years), Tarrant County, 2004-2005



Rate per 100,000 population
 Data Source: Texas Department of State Health Services – Center for Health Statistics

Figure 18. Geographic Distribution of Preventable Hospitalizations due to Uncontrolled Diabetes by ZIP Code, Tarrant County, 2004-2005



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CHRONIC CIRCULATORY CONDITIONS

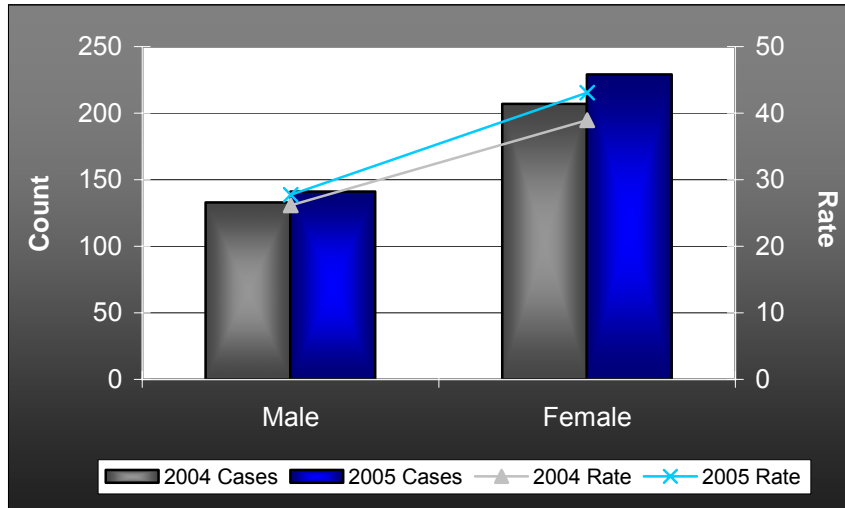
ANGINA WITHOUT PROCEDURE

Table 14. Preventable Hospitalizations due to Angina without Procedure, Tarrant County, 2004-2005

Year	Overall n (Rate)	Gender		Race/Ethnicity				Age Group (in Years)		
		Male n (Rate)	Female n (Rate)	White n (Rate)	Black n (Rate)	Hispanic n (Rate)	Other n (Rate)	18-44 n (Rate)	45-64 n (Rate)	65+ n (Rate)
2004	368 (35.4)	133 (26.2)	207 (39.0)	241 (34.9)	68 (54.5)	45 (25.2)	14 (30.2)	51 (8.1)	196 (67.4)	121 (100.3)
2005	409 (39.3)	141 (27.7)	229 (43.1)	237 (34.3)	107 (85.8)	48 (26.9)	17 (36.7)	69 (11.0)	223 (76.6)	117 (97.0)

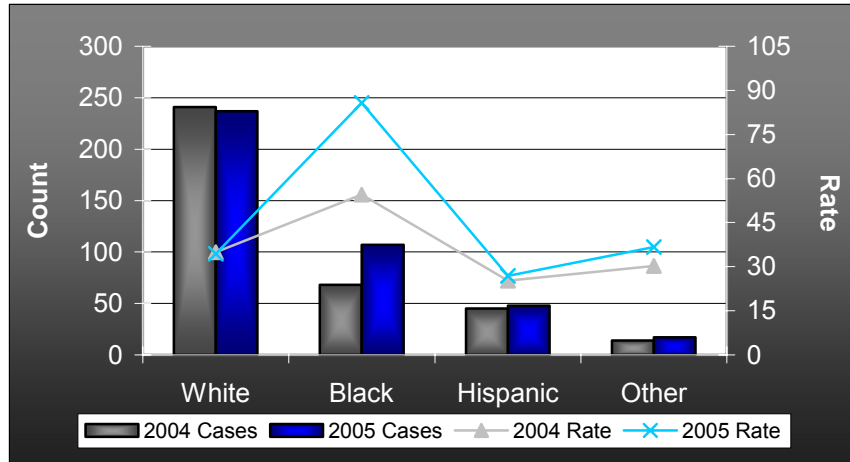
Rate per 100,000 population aged 18 years and older
 Data Source: Texas Department of State Health Services – Center for Health Statistics

Figure 19. Preventable Hospitalizations due to Angina without Procedure by Gender, Tarrant County, 2004-2005



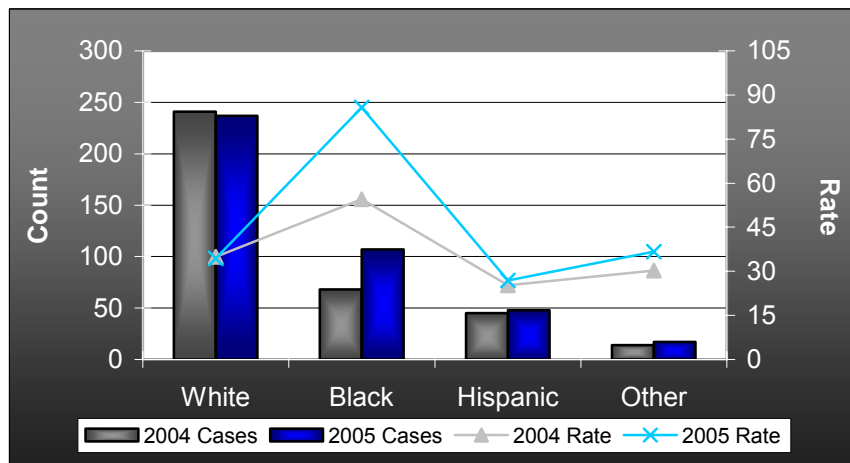
Rate per 100,000 population aged 18 years and older
 Data Source: Texas Department of State Health Services – Center for Health Statistics

Figure 20. Preventable Hospitalizations due to Angina without Procedure by Race/Ethnicity, Tarrant County, 2004-2005



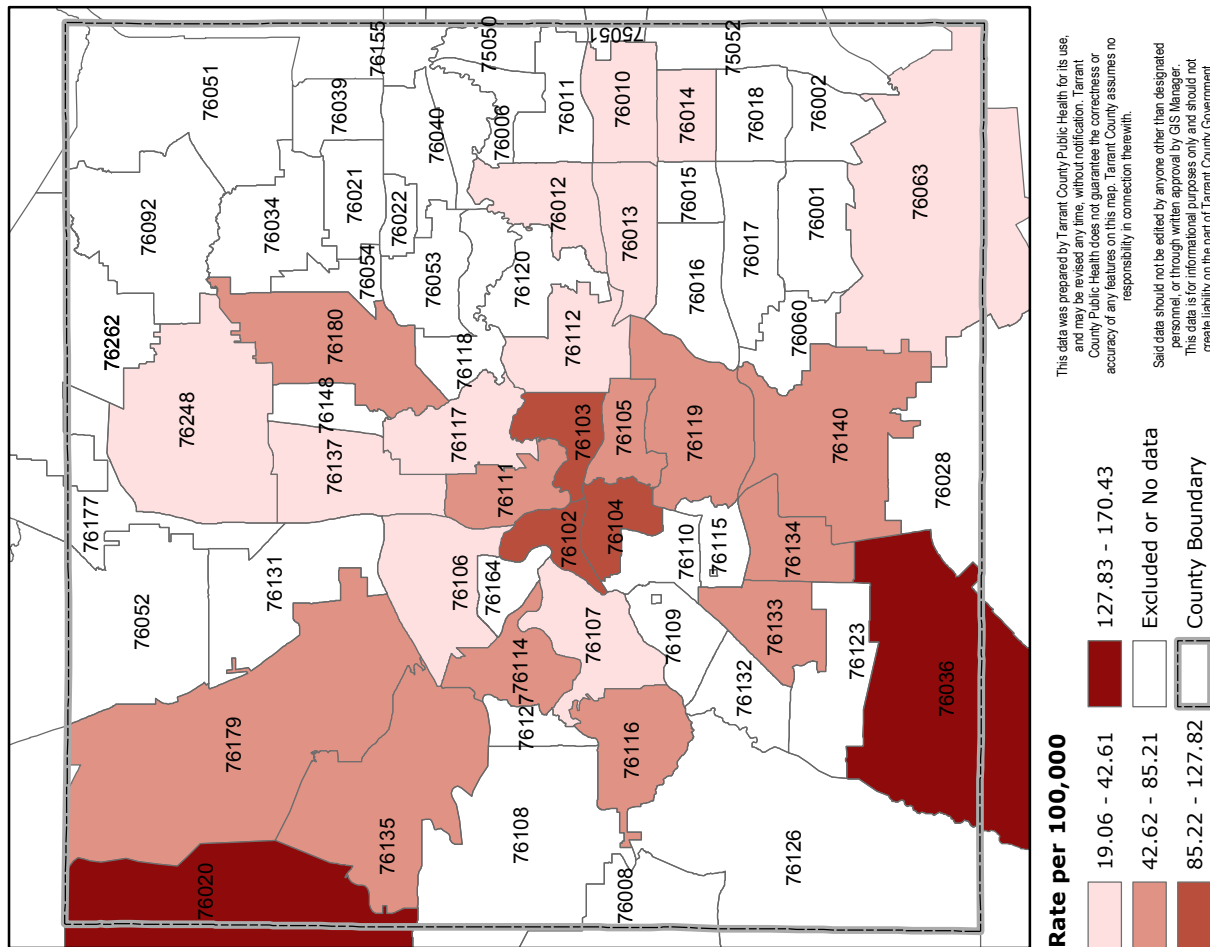
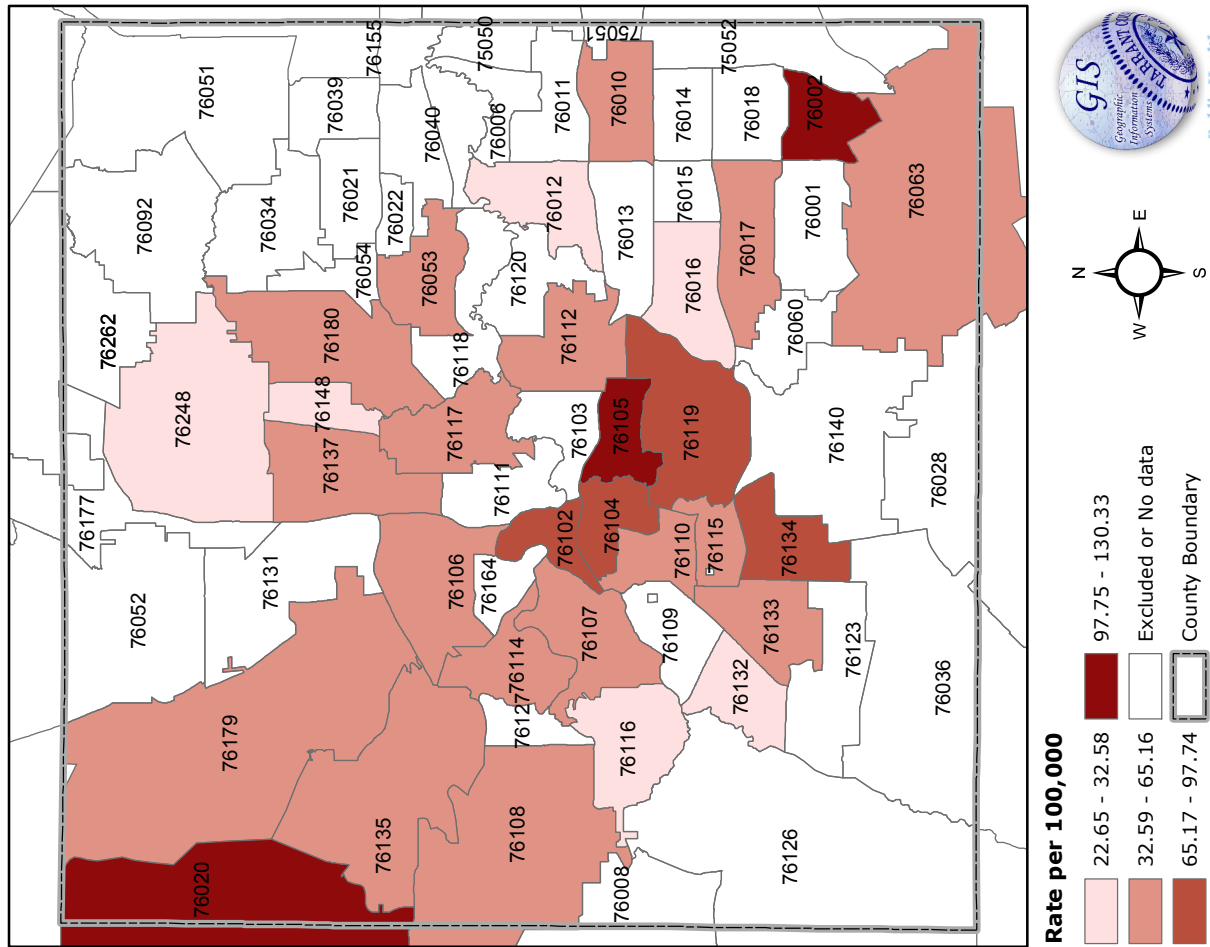
Rate per 100,000 population aged 18 years and older
 Data Source: Texas Department of State Health Services – Center for Health Statistics

Figure 21. Preventable Hospitalizations due to Angina without Procedure by Age Group (in Years), Tarrant County, 2004-2005



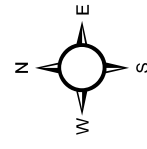
Rate per 100,000 population
 Data Source: Texas Department of State Health Services – Center for Health Statistics

Figure 22. Geographic Distribution of Preventable Hospitalizations due to Angina without Procedure by ZIP Code, Tarrant County, 2004-2005



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CONGESTIVE HEART FAILURE

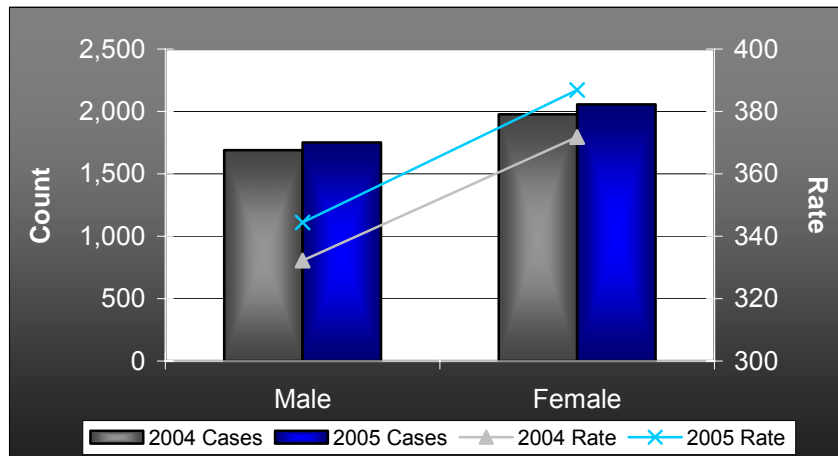
Table 15. Preventable Hospitalizations due to Congestive Heart Failure, Tarrant County, 2004-2005

Year	Overall n (Rate)	Gender		Race/Ethnicity				Age Group (in Years)		
		Male n (Rate)	Female n (Rate)	White n (Rate)	Black n (Rate)	Hispanic n (Rate)	Other n (Rate)	18-44 n (Rate)	45-64 n (Rate)	65+ n (Rate)
2004	3,840 (369.3)	1,689 (332.3)	1,976 (371.8)	2,539 (367.8)	854 (684.4)	324 (181.7)	123 (265.5)	273 (43.5)	1,071 (368.1)	2,496 (2,069.9)
2005	4,028 (387.4)	1,751 (344.5)	2,056 (386.9)	2,569 (372.1)	1,010 (809.5)	349 (195.7)	100 (215.9)	326 (51.9)	1,175 (403.8)	2,527 (2,095.6)

Rate per 100,000 population aged 18 years and older

Data Source: Texas Department of State Health Services – Center for Health Statistics

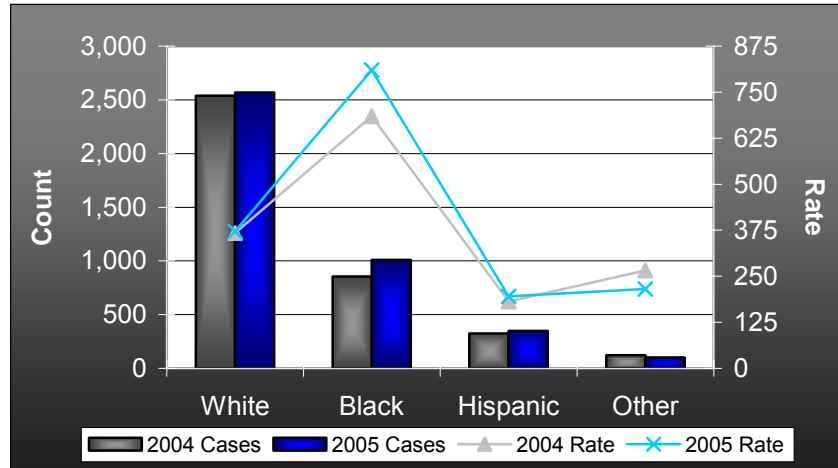
Figure 23. Preventable Hospitalizations due to Congestive Heart Failure by Gender, Tarrant County, 2004-2005



Rate per 100,000 population aged 18 years and older

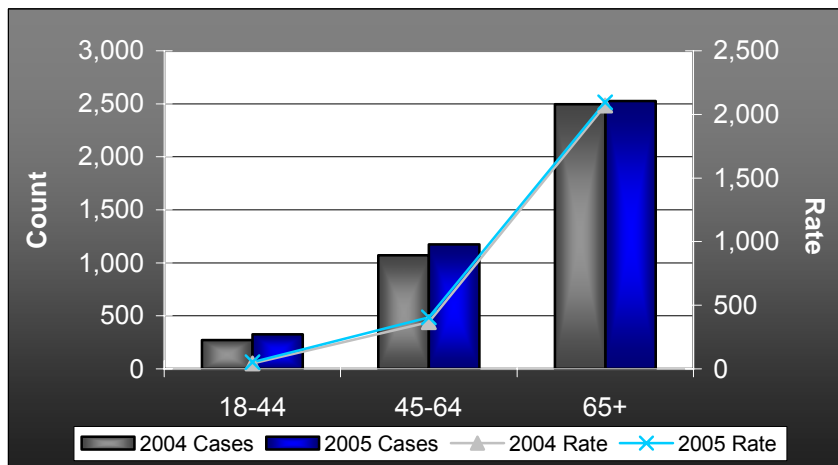
Data Source: Texas Department of State Health Services – Center for Health Statistics

Figure 24. Preventable Hospitalizations due to Congestive Heart Failure by Race/Ethnicity, Tarrant County, 2004-2005



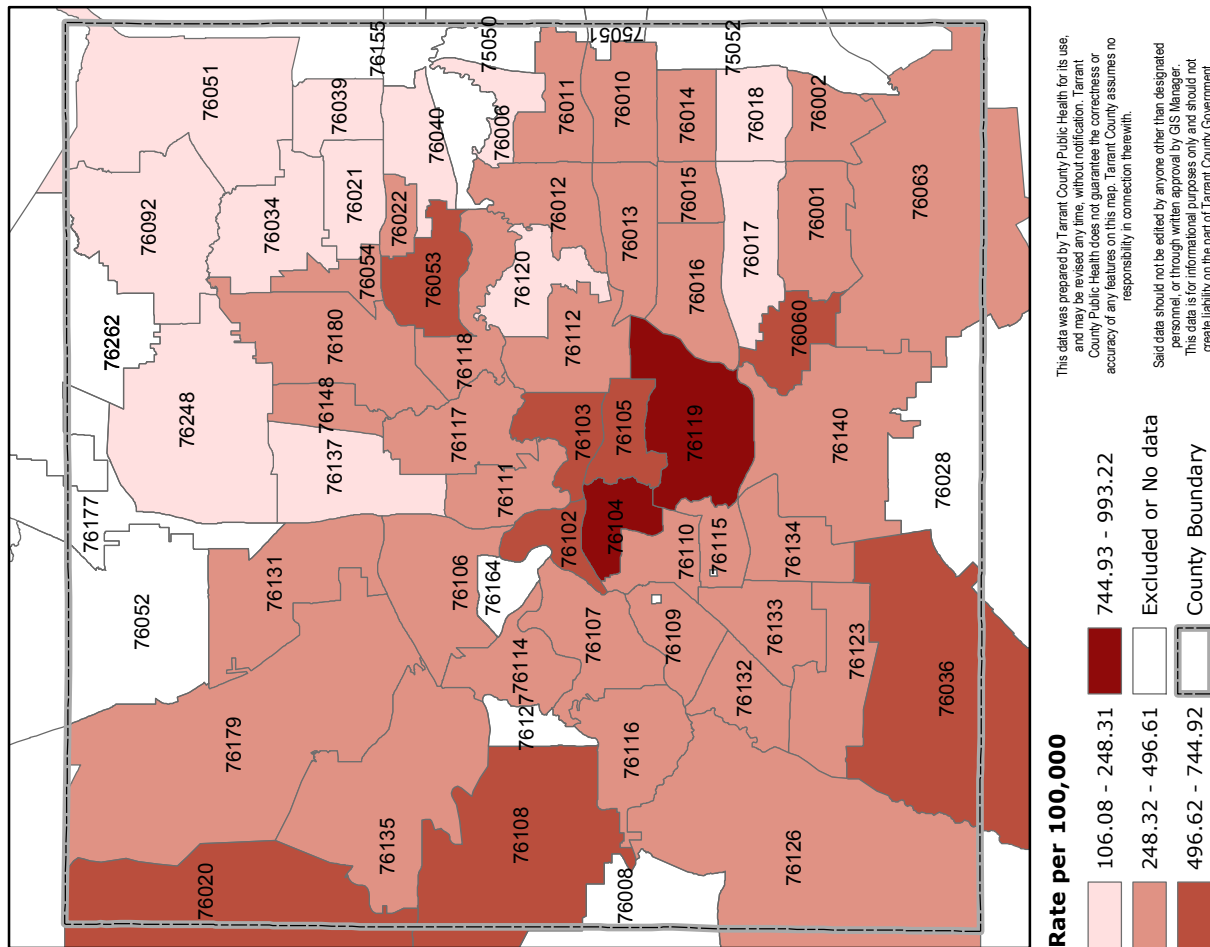
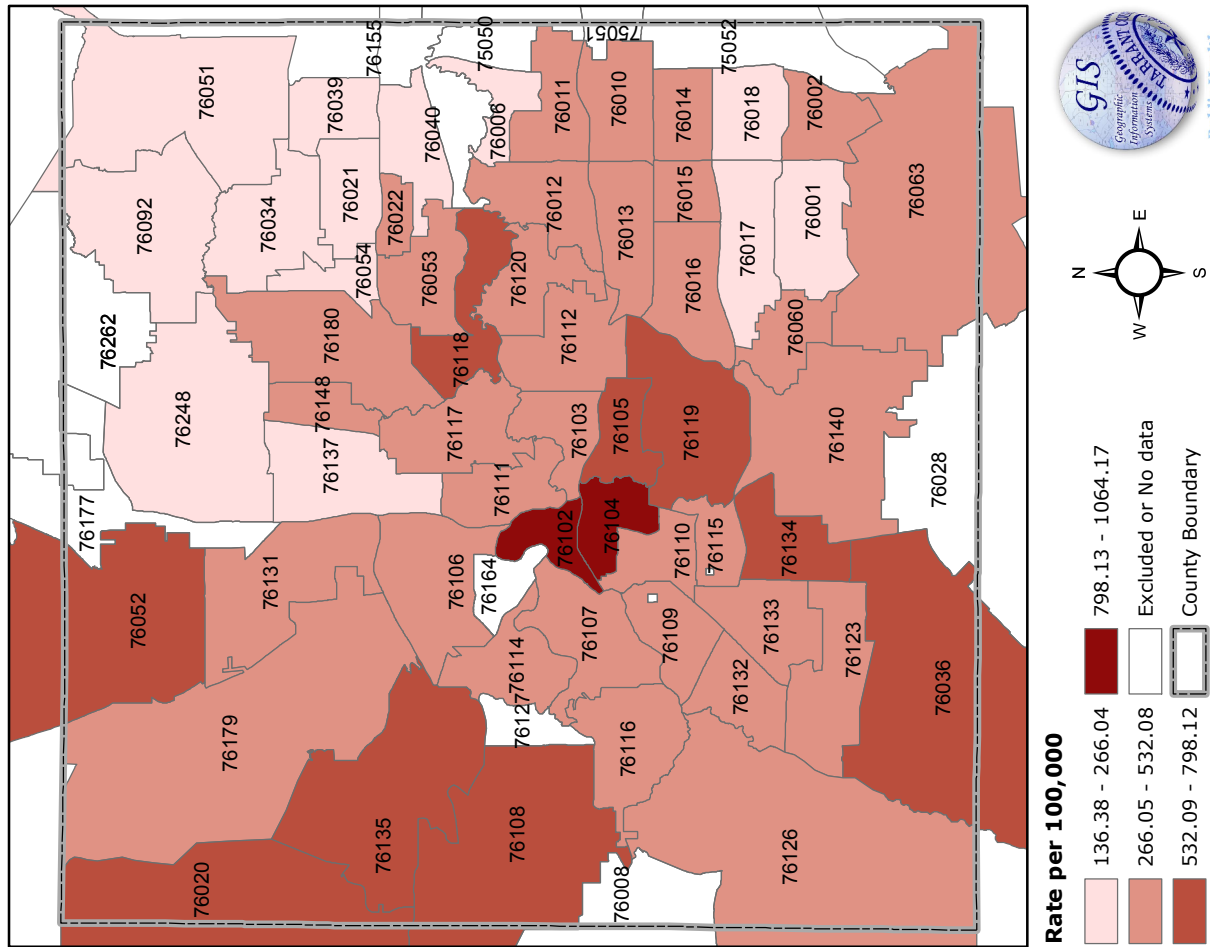
Rate per 100,000 population aged 18 years and older
 Data Source: Texas Department of State Health Services – Center for Health Statistics

Figure 25. Preventable Hospitalizations due to Congestive Heart Failure by Age Group (in Years), Tarrant County, 2004-2005



Rate per 100,000 population
 Data Source: Texas Department of State Health Services – Center for Health Statistics

Figure 26. Geographic Distribution of Preventable Hospitalizations due to Congestive Heart Failure by ZIP Code, Tarrant County, 2004-2005



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HYPERTENSION

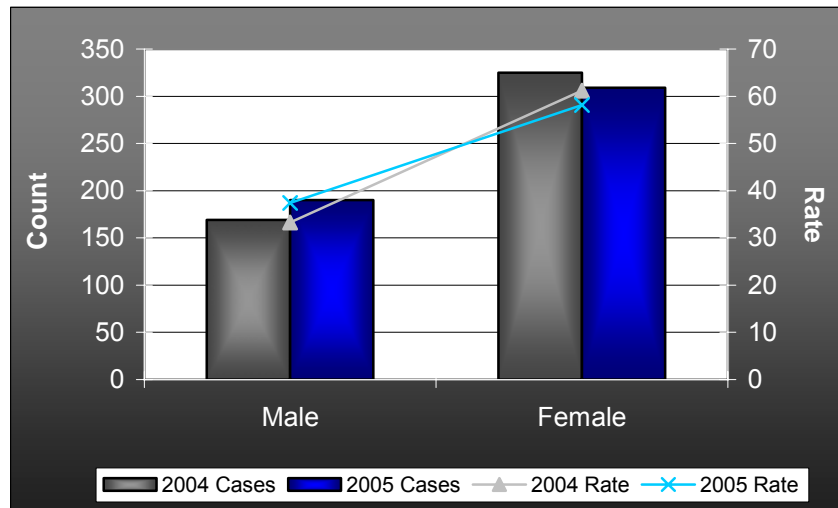
Table 16. Preventable Hospitalizations due to Hypertension, Tarrant County, 2004-2005

Year	Overall n (Rate)	Gender		Race/Ethnicity				Age Group (in Years)		
		Male n (Rate)	Female n (Rate)	White n (Rate)	Black n (Rate)	Hispanic n (Rate)	Other n (Rate)	18-44 n (Rate)	45-64 n (Rate)	65+ n (Rate)
2004	529 (50.9)	169 (33.2)	325 (61.2)	274 (39.7)	210 (168.3)	35 (19.6)	10 (21.6)	102 (16.2)	212 (72.9)	215 (178.3)
2005	550 (52.9)	190 (37.4)	309 (58.1)	268 (38.8)	211 (169.1)	53 (29.7)	18 (38.9)	106 (16.9)	253 (87.0)	191 (158.4)

Rate per 100,000 population aged 18 years and older

Data Source: Texas Department of State Health Services – Center for Health Statistics

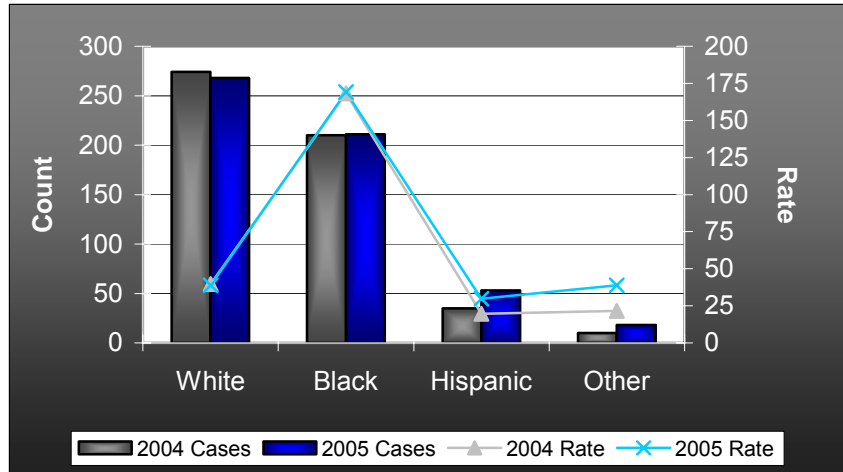
Figure 27. Preventable Hospitalizations due to Hypertension by Gender, Tarrant County, 2004-2005



Rate per 100,000 population aged 18 years and older

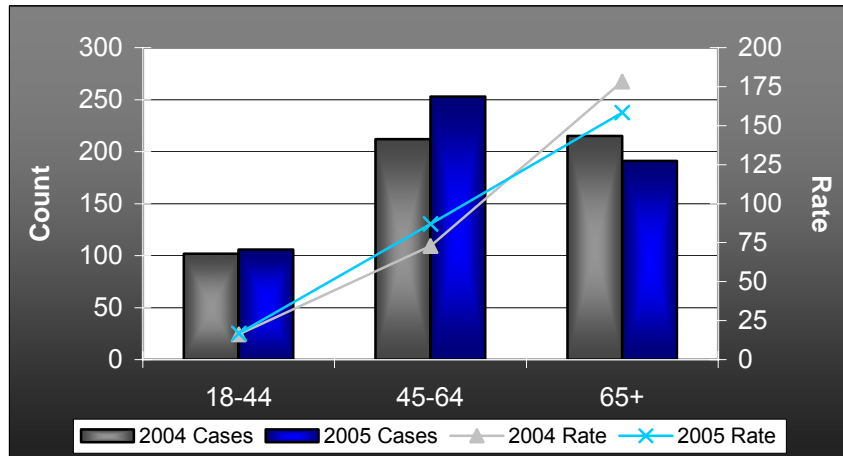
Data Source: Texas Department of State Health Services – Center for Health Statistics

Figure 28. Preventable Hospitalizations due to Hypertension by Race/Ethnicity, Tarrant County, 2004-2005



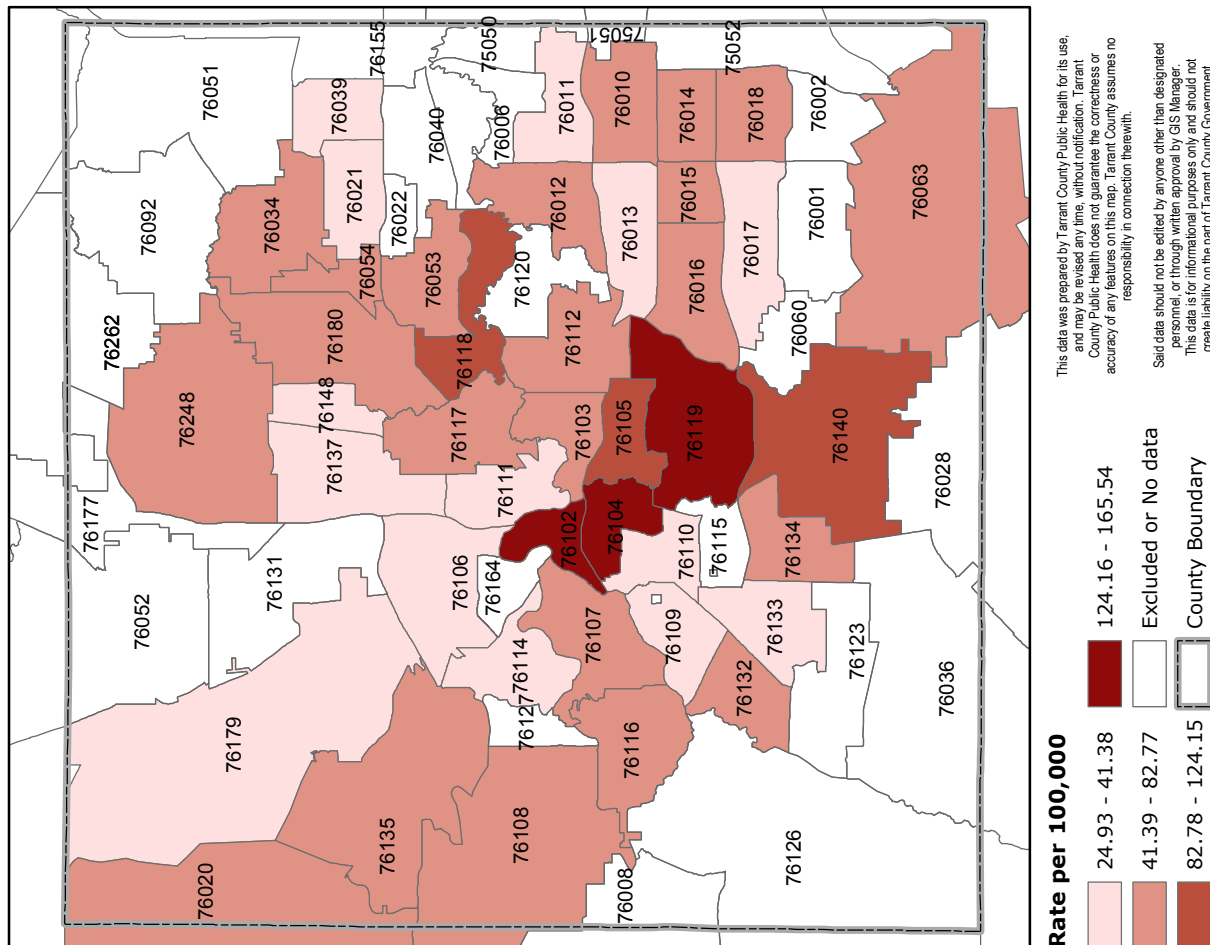
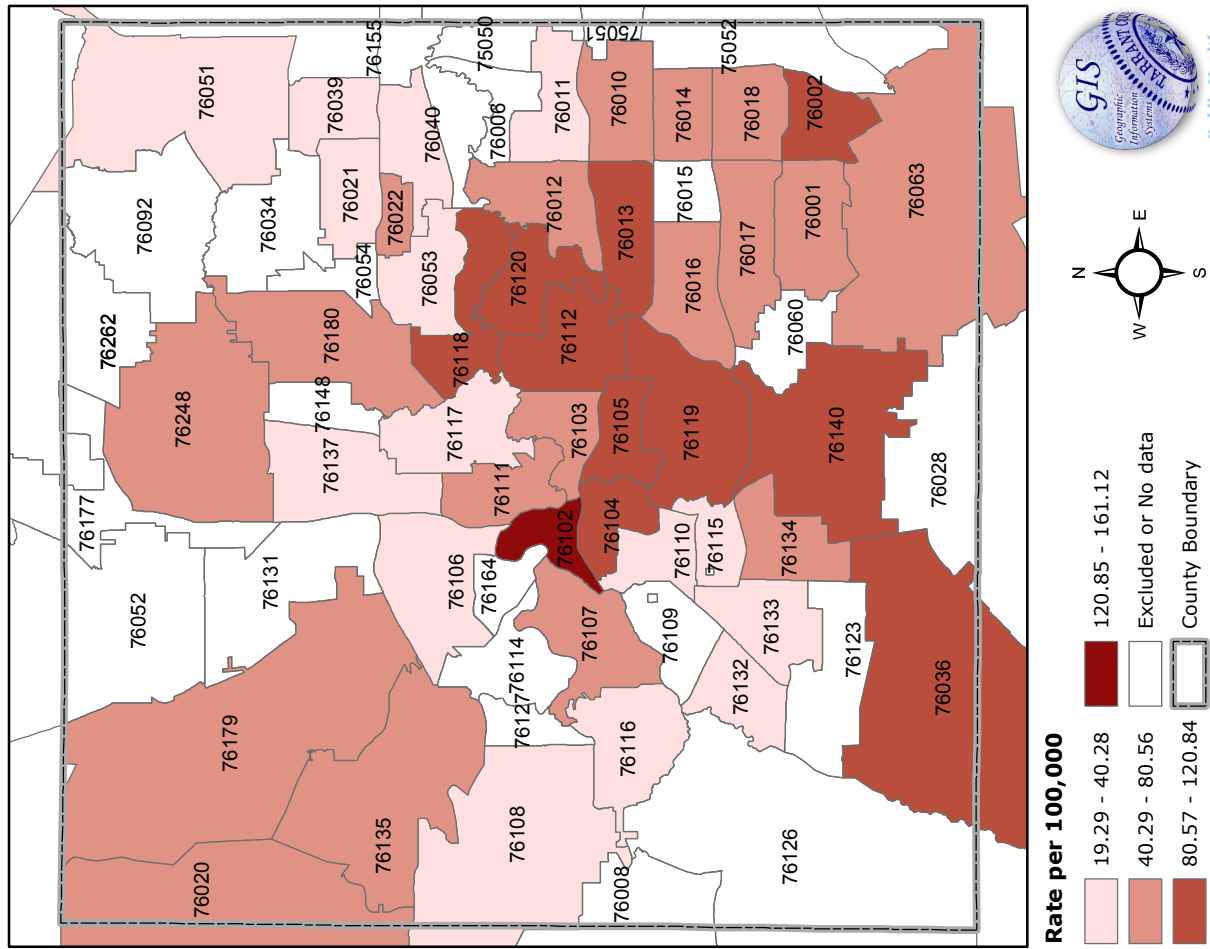
Rate per 100,000 population aged 18 years and older
 Data Source: Texas Department of State Health Services – Center for Health Statistics

Figure 29. Preventable Hospitalizations due to Hypertension by Age Group (in Years), Tarrant County, 2004-2005



Rate per 100,000 population
 Data Source: Texas Department of State Health Services – Center for Health Statistics

Figure 30. Geographic Distribution of Preventable Hospitalizations due to Hypertension by ZIP Code, Tarrant County, 2004-2005



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CHRONIC RESPIRATORY CONDITIONS

ADULT ASTHMA

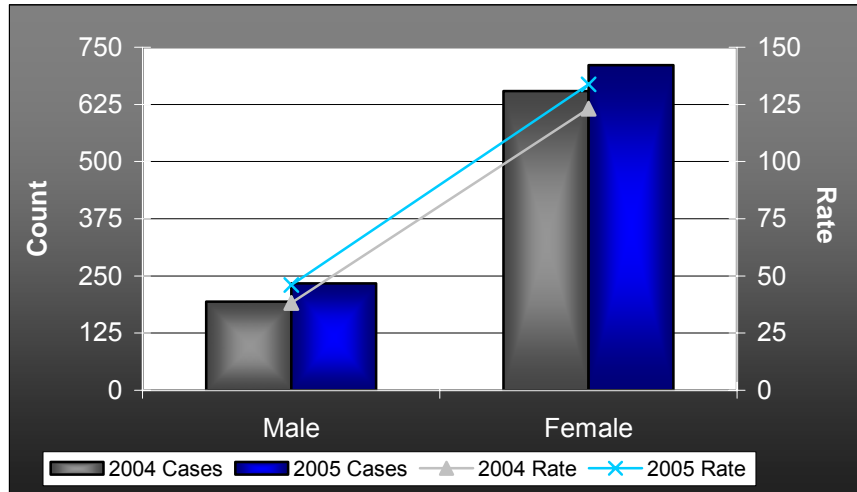
Table 17. Preventable Hospitalizations due to Adult Asthma, Tarrant County Residents, 2004-2005

Year	Overall n (Rate)	Gender		Race/Ethnicity				Age Group (in Years)		
		Male n (Rate)	Female n (Rate)	White n (Rate)	Black n (Rate)	Hispanic n (Rate)	Other n (Rate)	18-44 n (Rate)	45-64 n (Rate)	65+ n (Rate)
2004	888 (85.4)	194 (38.2)	654 (123.1)	532 (77.1)	235 (188.3)	91 (51.0)	30 (64.8)	333 (53.0)	348 (119.6)	207 (171.7)
2005	990 (95.2)	234 (46.0)	711 (133.8)	612 (88.7)	258 (206.8)	97 (54.4)	23 (49.6)	323 (51.4)	363 (124.8)	304 (252.1)

Rate per 100,000 population aged 18 years and older

Data Source: Texas Department of State Health Services – Center for Health Statistics

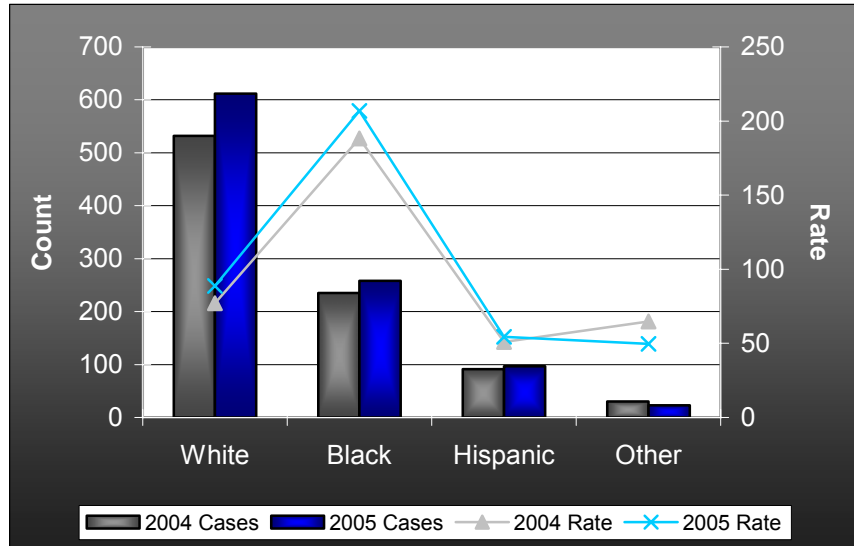
Figure 31. Preventable Hospitalizations due to Adult Asthma by Gender, Tarrant County, 2004-2005



Rate per 100,000 population aged 18 years and older

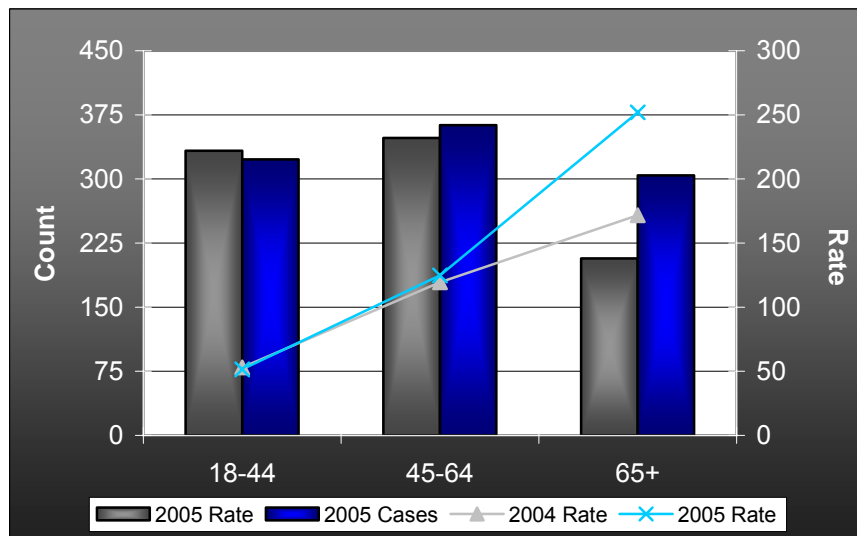
Data Source: Texas Department of State Health Services – Center for Health Statistics

Figure 32. Preventable Hospitalizations due to Adult Asthma by Race/Ethnicity, Tarrant County, 2004-2005



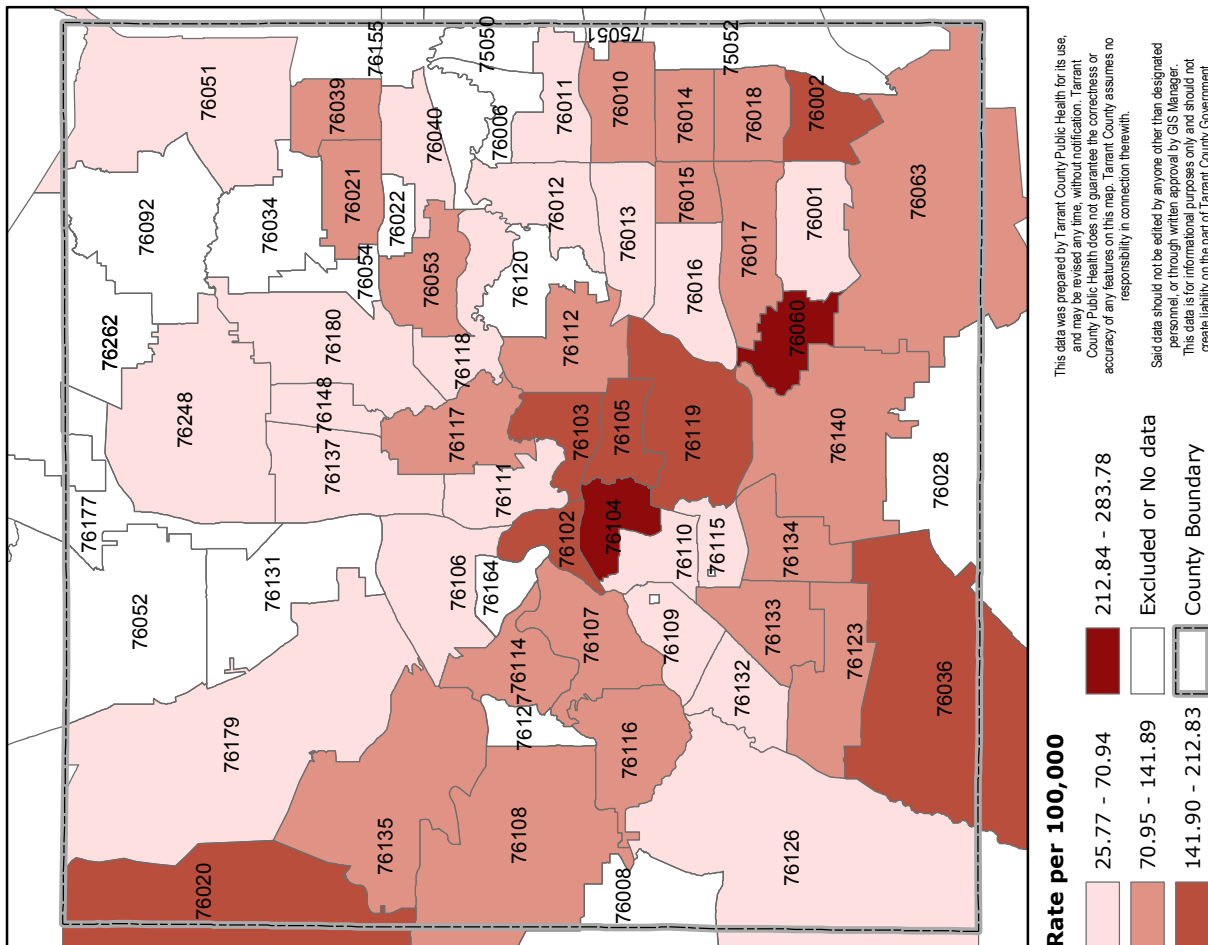
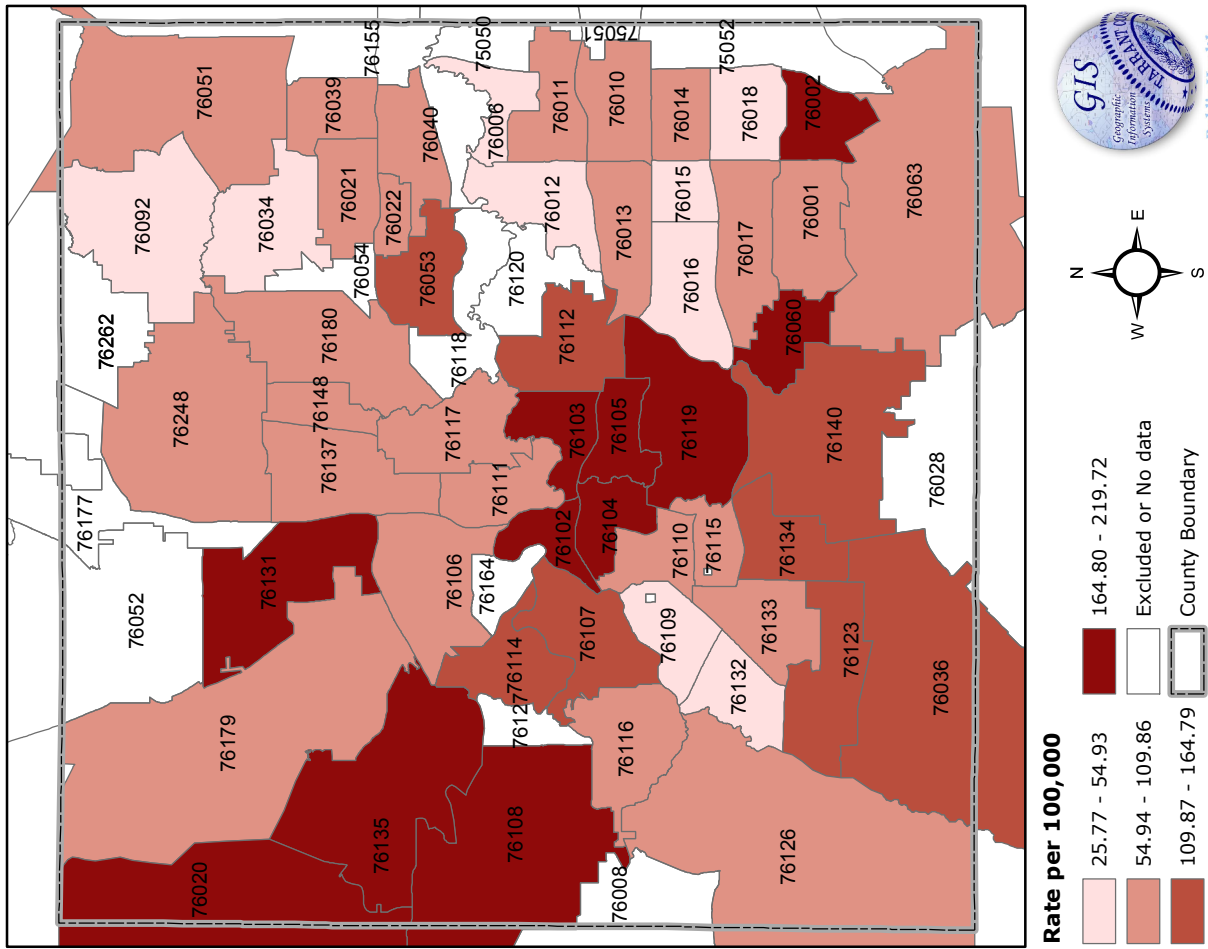
Rate per 100,000 population aged 18 years and older
 Data Source: Texas Department of State Health Services – Center for Health Statistics

Figure 33. Preventable Hospitalizations due to Adult Asthma by Age Group (in Years), Tarrant County, 2004-2005



Rate per 100,000 population
 Data Source: Texas Department of State Health Services – Center for Health Statistics

Figure 34. Geographic Distribution of Preventable Hospitalizations due to Adult Asthma by ZIP Code, Tarrant County, 2004-2005



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CHRONIC OBSTRUCTIVE PULMONARY DISEASE

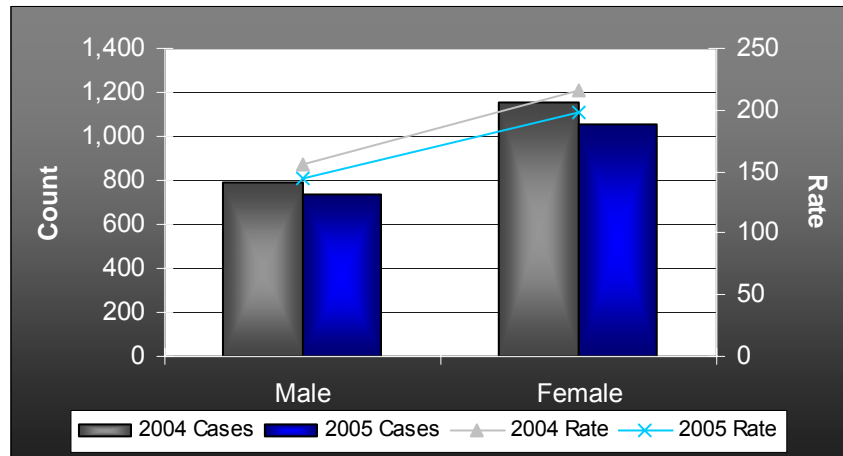
Table 18. Preventable Hospitalizations due to Chronic Obstructive Pulmonary Disease, Tarrant County, 2004-2005

Year	Overall n (Rate)	Gender		Race/Ethnicity				Age Group (in Years)		
		Male n (Rate)	Female n (Rate)	White n (Rate)	Black n (Rate)	Hispanic n (Rate)	Other n (Rate)	18-44 n (Rate)	45-64 n (Rate)	65+ n (Rate)
2004	2,032 (195.4)	795 (156.4)	1,151 (216.6)	1,719 (249.0)	217 (173.9)	68 (38.1)	28 (60.4)	73 (11.6)	629 (216.2)	1,330 (1,103.3)
2005	1,888 (181.6)	735 (144.6)	1,054 (198.3)	1,580 (228.9)	200 (160.3)	61 (34.2)	47 (101.5)	68 (10.8)	646 (222.0)	1,174 (973.6)

Rate per 100,000 population aged 18 years and older

Data Source: Texas Department of State Health Services – Center for Health Statistics

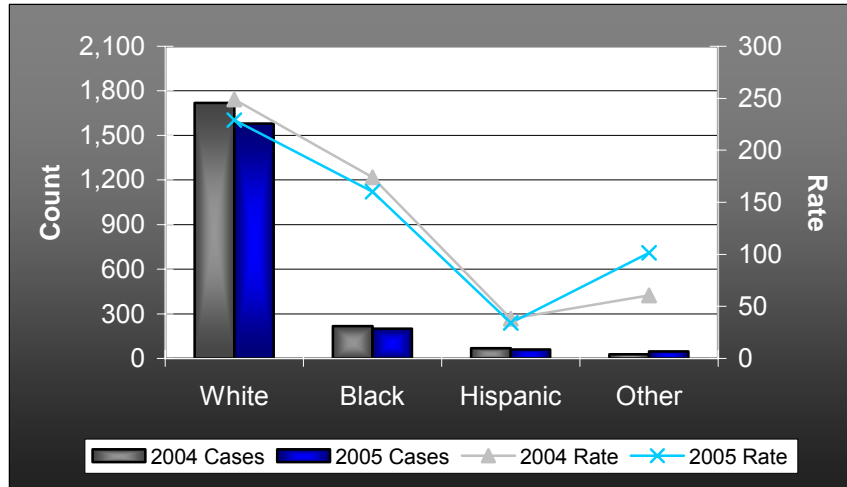
Figure 35. Preventable Hospitalizations due to Chronic Obstructive Pulmonary Disease by Gender, Tarrant County, 2004-2005



Rate per 100,000 population aged 18 years and older

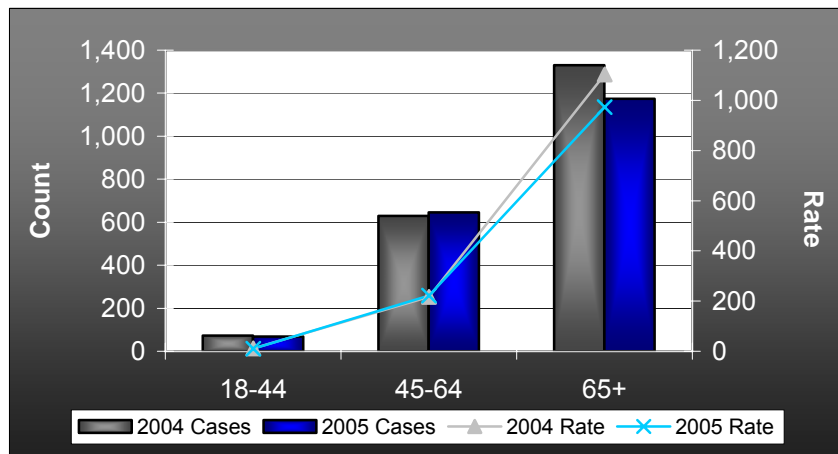
Data Source: Texas Department of State Health Services – Center for Health Statistics

Figure 36. Preventable Hospitalizations due to Chronic Obstructive Pulmonary Disease by Race/Ethnicity, Tarrant County, 2004-2005



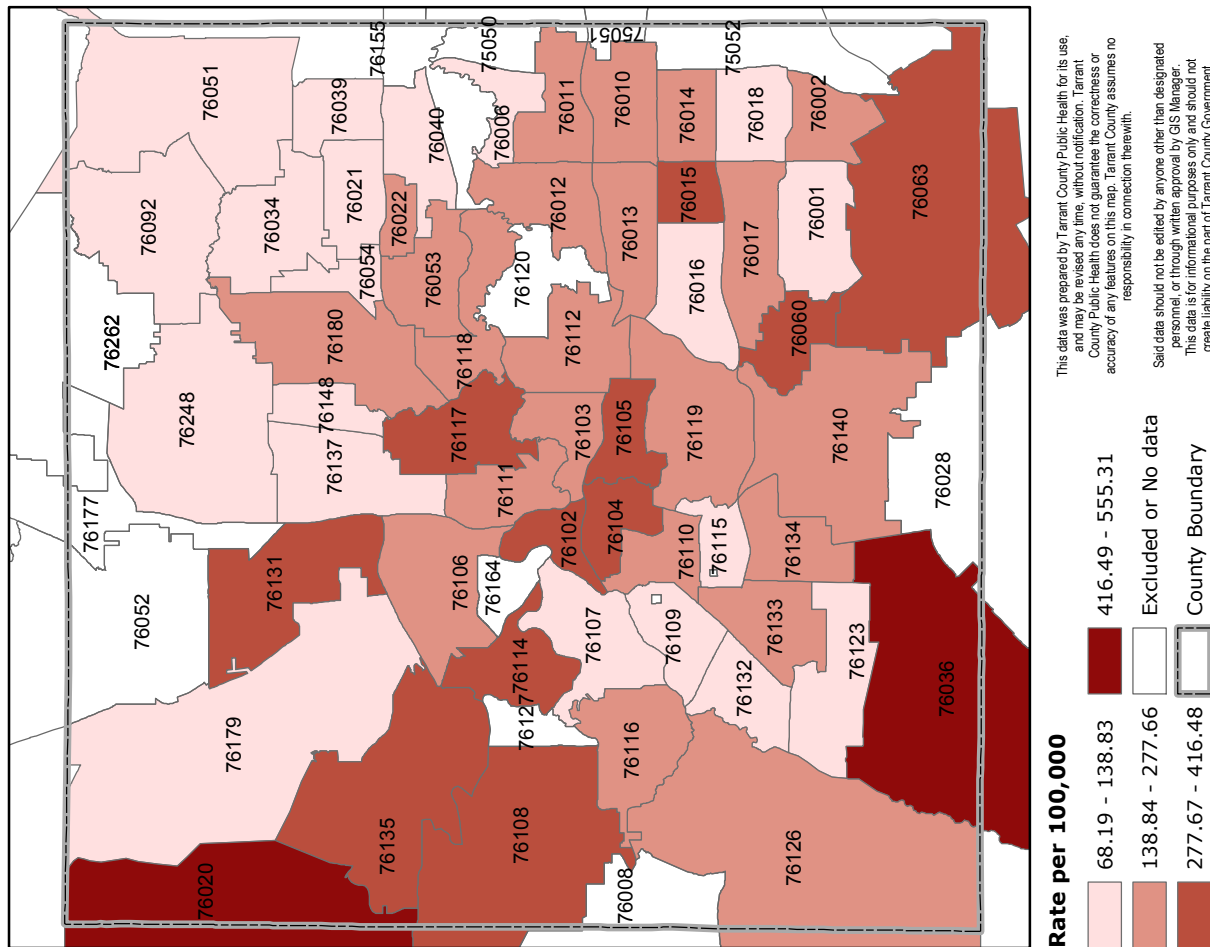
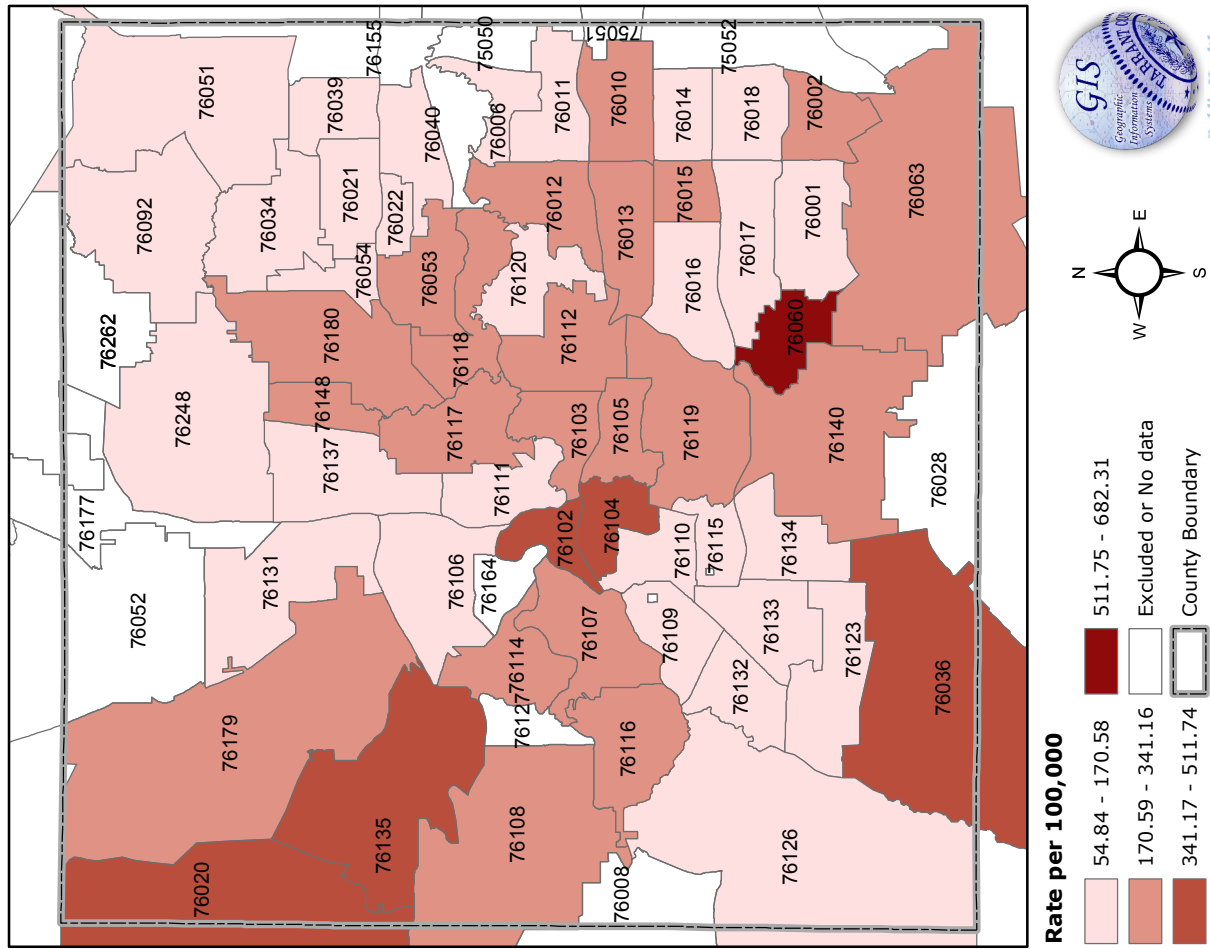
Rate per 100,000 population aged 18 years and older
 Data Source: Texas Department of State Health Services – Center for Health Statistics

Figure 37. Preventable Hospitalizations due to Chronic Obstructive Pulmonary Disease by Age Group (in Years), Tarrant County, 2004-2005



Rate per 100,000 population
 Data Source: Texas Department of State Health Services – Center for Health Statistics

Figure 38. Geographic Distribution of Preventable Hospitalizations due to Chronic Obstructive Pulmonary Disease by ZIP Code, Tarrant County, 2004-2005



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ACUTE CONDITIONS

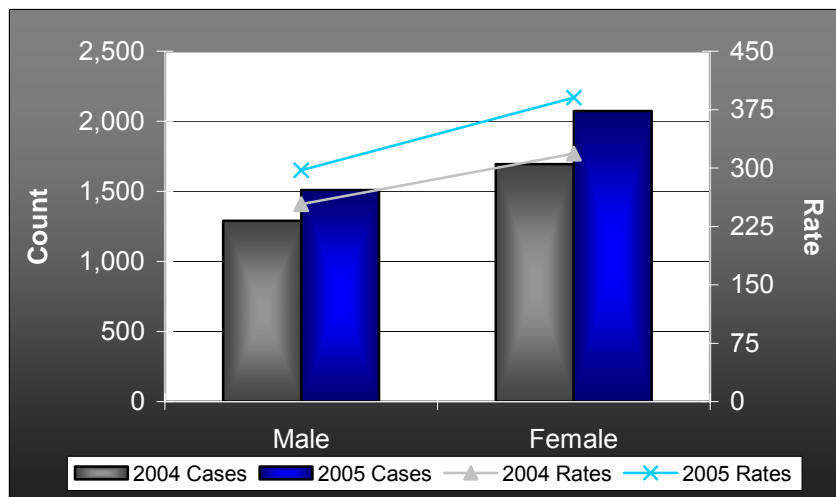
BACTERIAL PNEUMONIA

Table 19. Preventable Hospitalizations due to Bacterial Pneumonia, Tarrant County, 2004-2005

Year	Overall n (Rate)	Gender		Race/Ethnicity				Age Group (in Years)		
		Male n (Rate)	Female n (Rate)	White n (Rate)	Black n (Rate)	Hispanic n (Rate)	Other n (Rate)	18-44 n (Rate)	45-64 n (Rate)	65+ n (Rate)
2004	3,171 (305.0)	1,290 (253.8)	1,693 (318.6)	2,434 (352.6)	440 (352.6)	219 (122.8)	78 (168.4)	392 (62.4)	870 (299.0)	1,909 (1,583.1)
2005	3,813 (366.7)	1,510 (297.0)	2,074 (390.3)	2,853 (413.3)	546 (437.6)	310 (173.9)	104 (224.5)	442 (70.4)	1,040 (357.4)	2,331 (1,933.1)

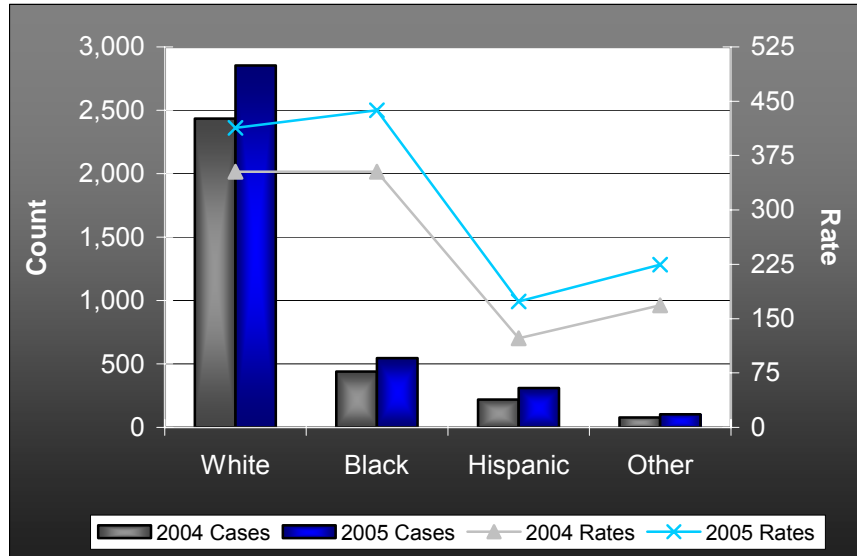
Rate per 100,000 population aged 18 years and older
 Data Source: Texas Department of State Health Services – Center for Health Statistics

Figure 39. Preventable Hospitalizations due to Bacterial Pneumonia by Gender, Tarrant County, 2004-2005



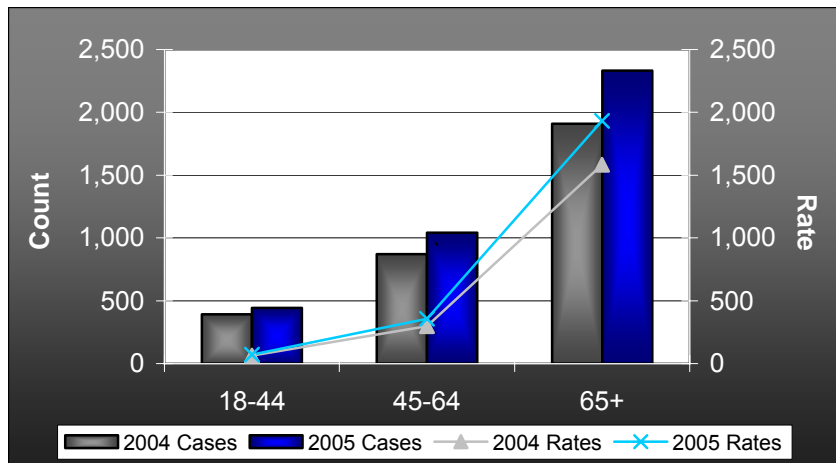
Rate per 100,000 population aged 18 years and older
 Data Source: Texas Department of State Health Services – Center for Health Statistics

Figure 40. Preventable Hospitalizations due to Bacterial Pneumonia by Race/Ethnicity, Tarrant County, 2004-2005



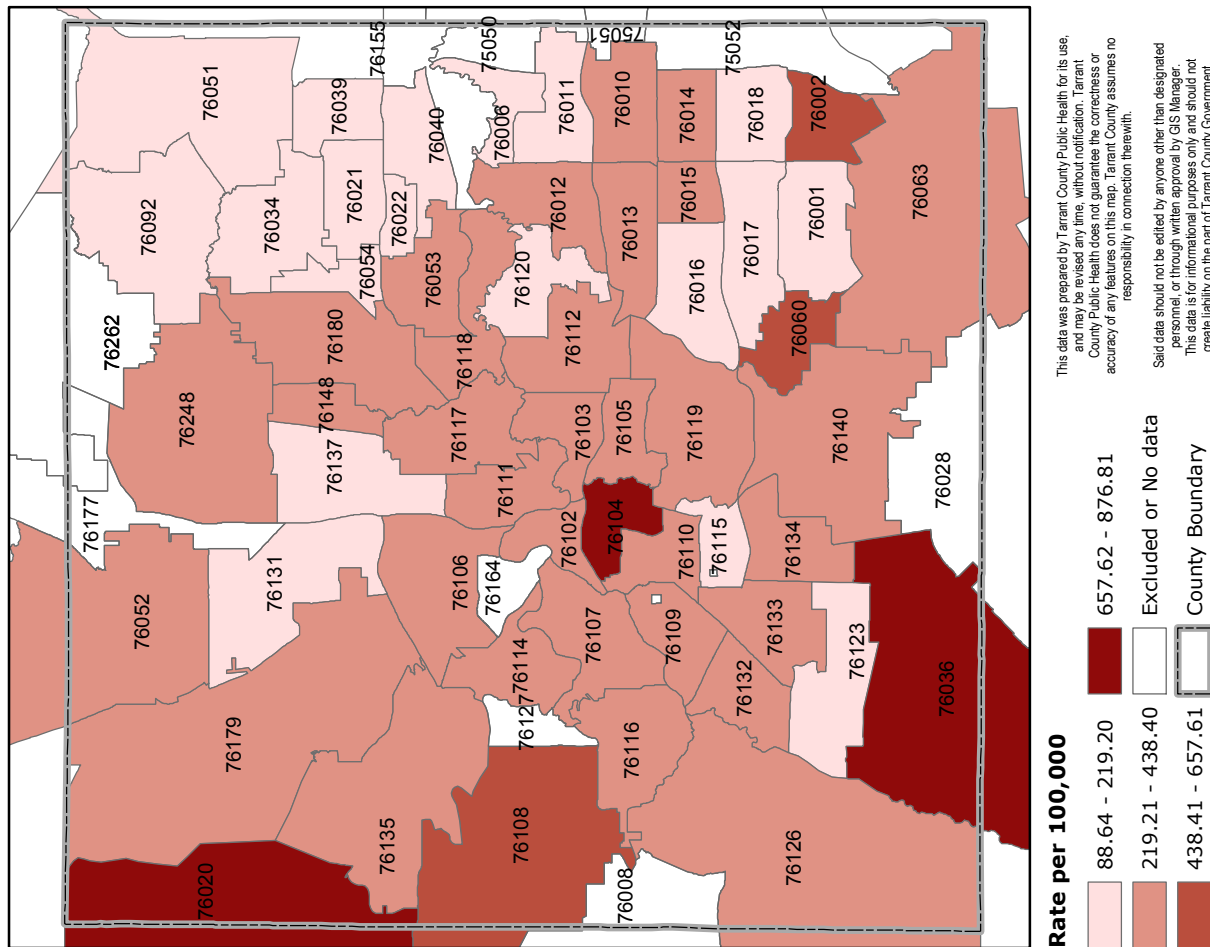
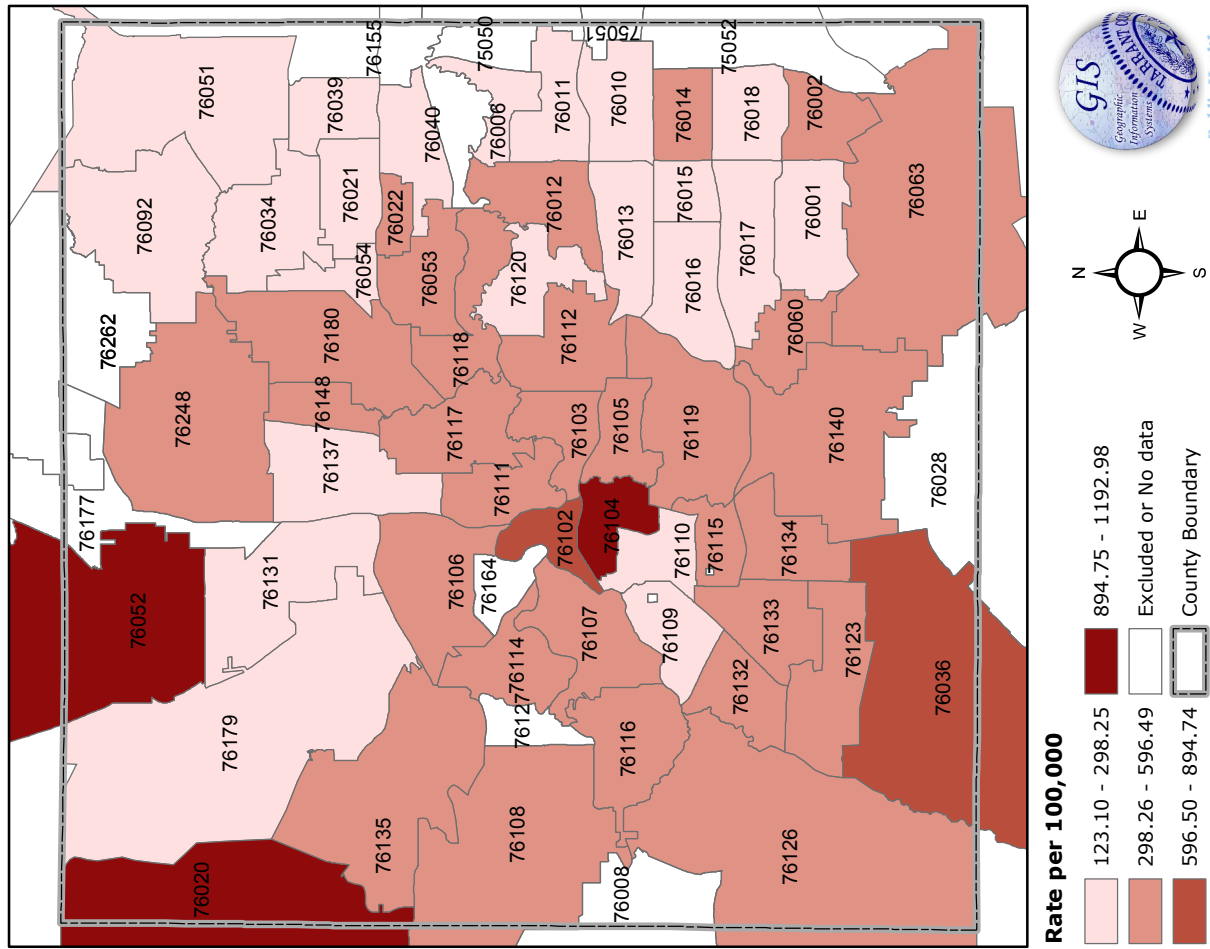
Rate per 100,000 population aged 18 years and older
 Data Source: Texas Department of State Health Services – Center for Health Statistics

Figure 41. Preventable Hospitalizations due to Bacterial Pneumonia by Age Group (in Years), Tarrant County, 2004-2005



Rate per 100,000 population
 Data Source: Texas Department of State Health Services – Center for Health Statistics

Figure 42. Geographic Distribution of Preventable Hospitalizations due to Bacterial Pneumonia by ZIP Code, Tarrant County, 2004-2005



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DEHYDRATION

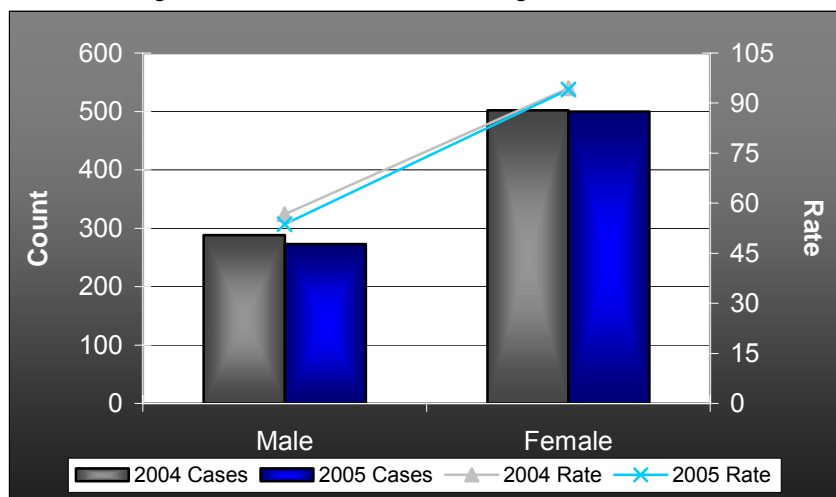
Table 20. Preventable Hospitalizations due to Dehydration, Tarrant County, 2004-2005

Year	Overall n (Rate)	Gender		Race/Ethnicity				Age Group (in Years)		
		Male n (Rate)	Female n (Rate)	White n (Rate)	Black n (Rate)	Hispanic n (Rate)	Other n (Rate)	18-44 n (Rate)	45-64 n (Rate)	65+ n (Rate)
2004	829 (79.7)	288 (56.7)	502 (94.5)	640 (92.7)	110 (88.2)	62 (34.8)	17 (36.7)	131 (20.9)	209 (71.8)	489 (405.5)
2005	802 (77.1)	273 (53.7)	500 (94.1)	610 (88.4)	127 (101.8)	43 (24.1)	21 (45.3)	114 (18.1)	201 (69.1)	487 (403.9)

Rate per 100,000 population aged 18 years and older

Data Source: Texas Department of State Health Services – Center for Health Statistics

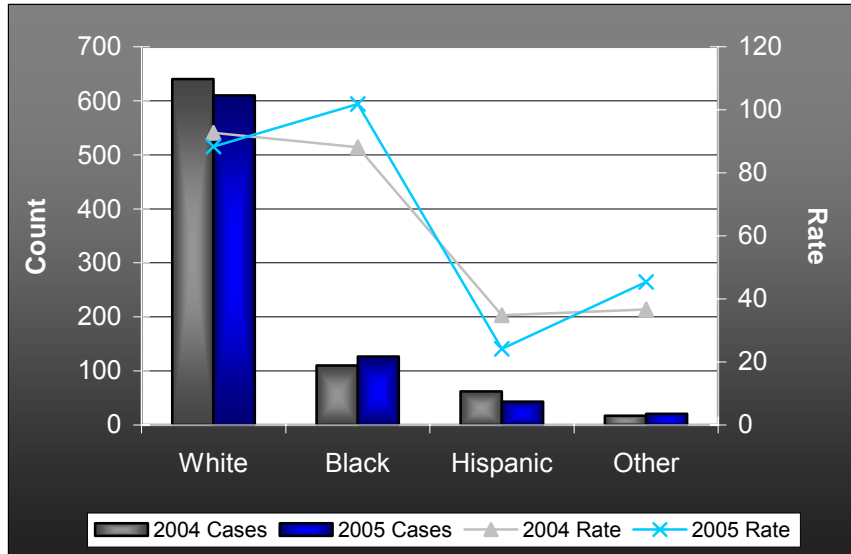
Figure 43. Preventable Hospitalizations due to Dehydration by Gender, Tarrant County, 2004-2005



Rate per 100,000 population aged 18 years and older

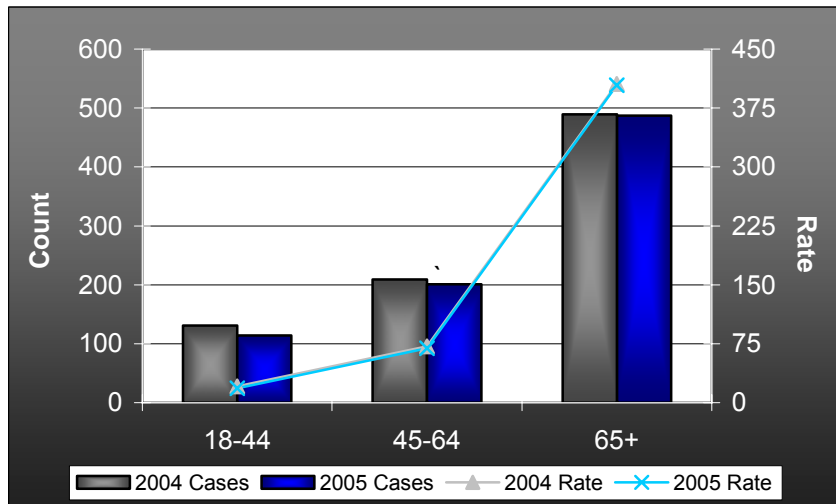
Data Source: Texas Department of State Health Services – Center for Health Statistics

Figure 44. Preventable Hospitalizations due to Dehydration by Race/Ethnicity, Tarrant County, 2004-2005



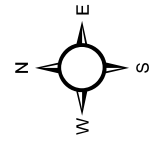
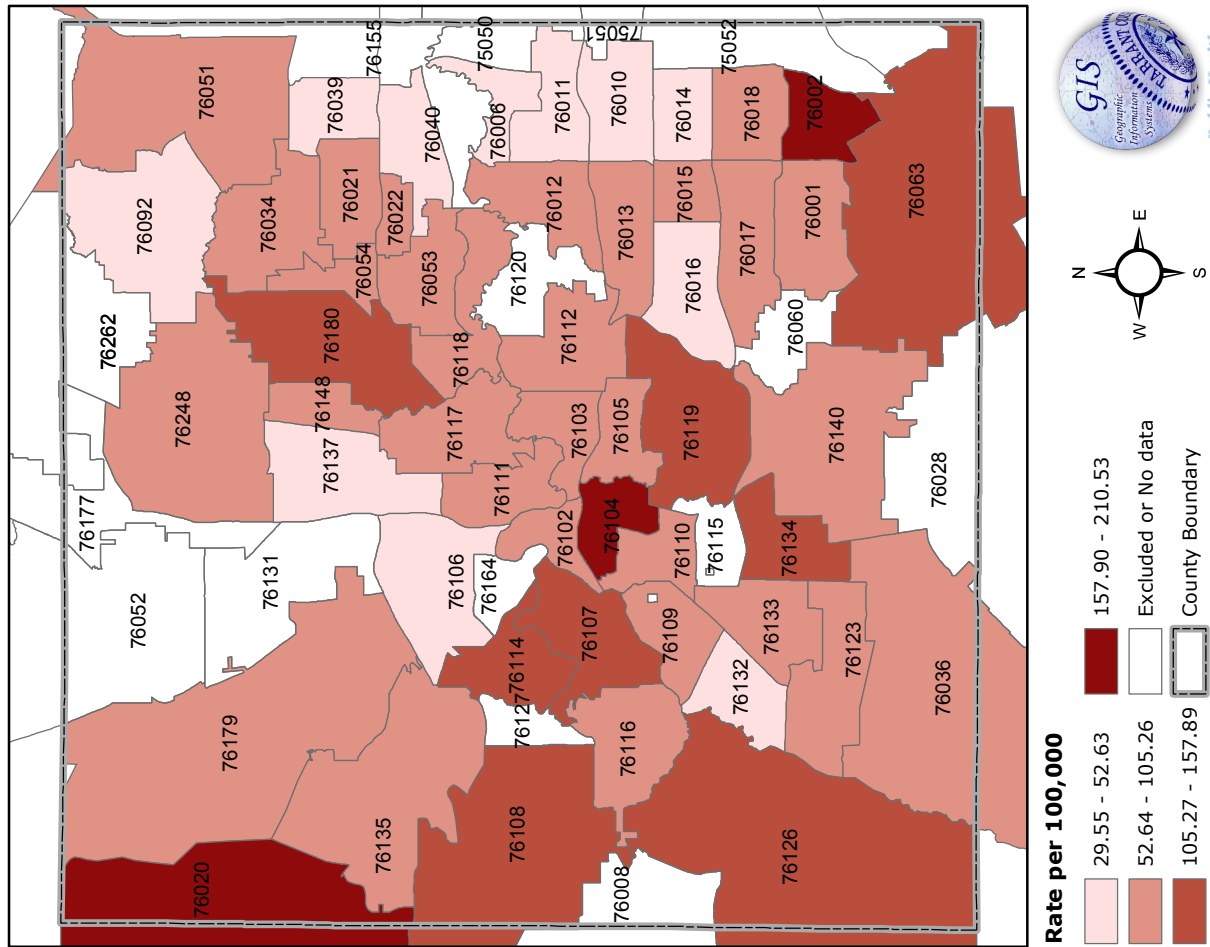
Rate per 100,000 population aged 18 years and older
 Data Source: Texas Department of State Health Services – Center for Health Statistics

Figure 45. Preventable Hospitalizations due to Dehydration by Age Group (in Years), Tarrant County, 2004-2005



Rate per 100,000 population
 Data Source: Texas Department of State Health Services – Center for Health Statistics

Figure 46. Geographic Distribution of Preventable Hospitalizations due to Dehydration by ZIP Code, Tarrant County, 2004-2005



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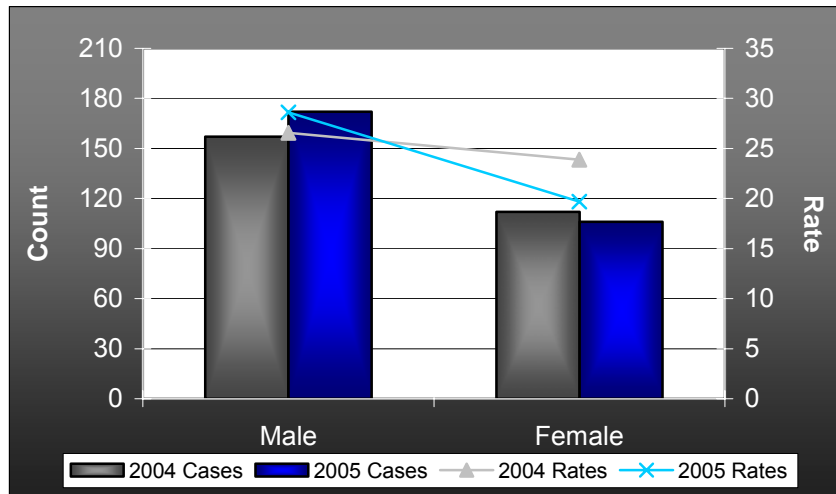
PERFORATED APPENDIX

Table 21. Preventable Hospitalizations due to Perforated Appendix, Tarrant County, 2004-2005

Year	Overall n (Rate)	Gender		Race/Ethnicity				Age Group (in Years)		
		Male n (Rate)	Female n (Rate)	White n (Rate)	Black n (Rate)	Hispanic n (Rate)	Other n (Rate)	18-44 n (Rate)	45-64 n (Rate)	65+ n (Rate)
2004	273 (25.4)	157 (26.6)	112 (23.9)	182 (25.8)	17 (19.8)	68 (28.7)	6 (12.8)	133 (18.8)	100 (34.6)	40 (51.9)
2005	283 (24.4)	172 (28.6)	106 (19.7)	173 (23.5)	23 (25.0)	78 (28.1)	8 (15.4)	154 (19.9)	91 (29.4)	38 (51.4)

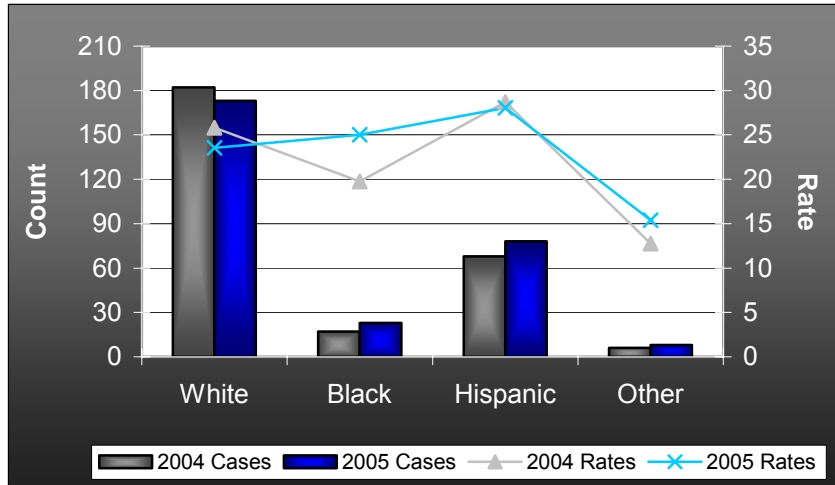
Rate per 100 appendicitis admissions aged 18 years and older
 Data Source: Texas Department of State Health Services – Center for Health Statistics

Figure 47. Preventable Hospitalizations due to Perforated Appendix by Gender, Tarrant County, 2004-2005



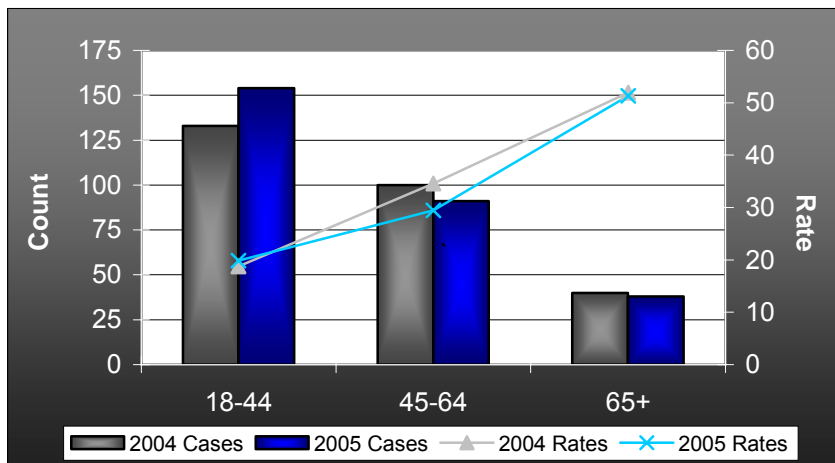
Rate per 100 appendicitis admissions aged 18 years and older
 Data Source: Texas Department of State Health Services – Center for Health Statistics

Figure 48. Preventable Hospitalizations due to Perforated Appendix by Race/Ethnicity, Tarrant County, 2004-2005



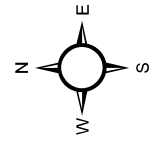
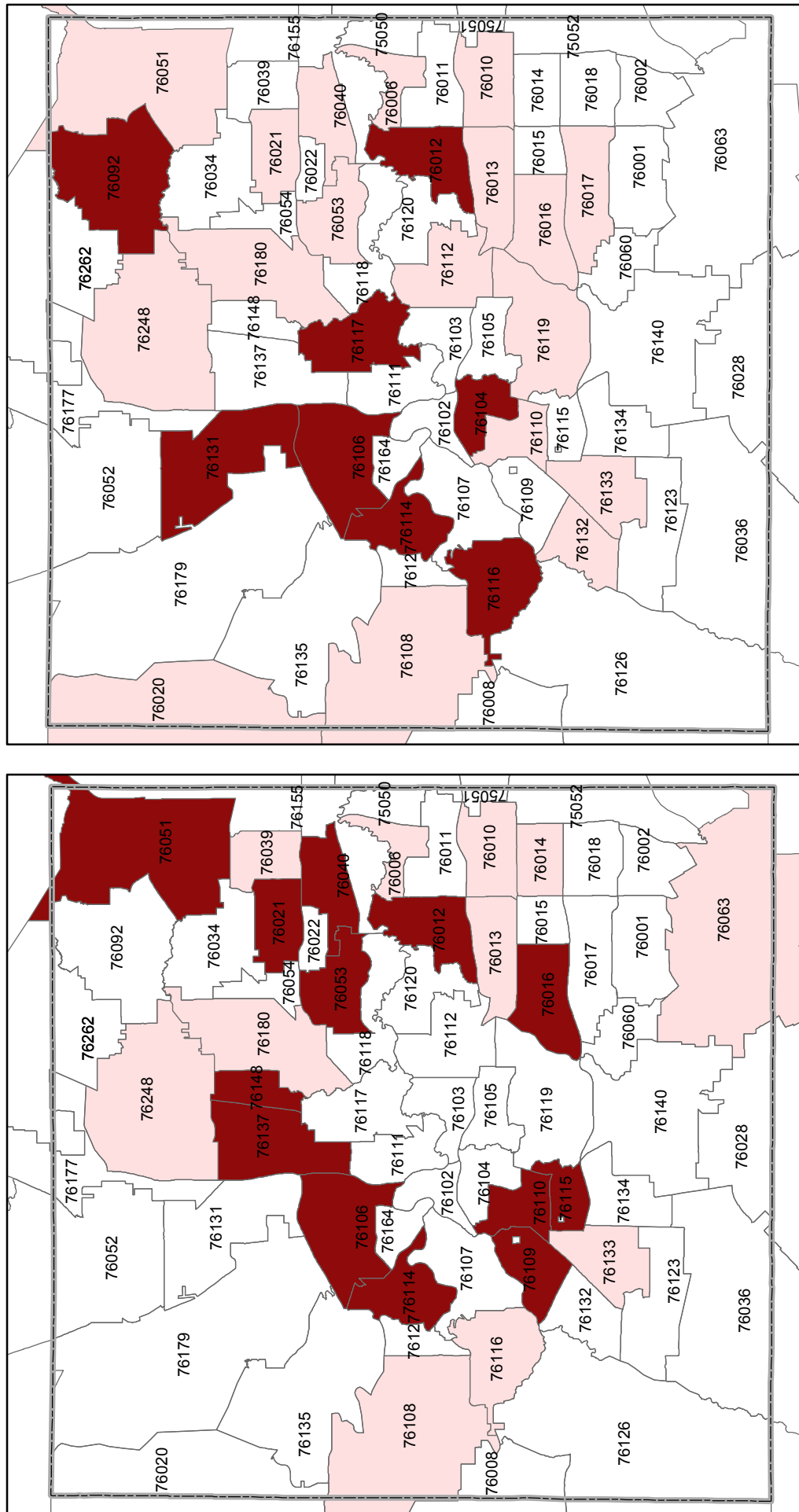
Rate per 100 appendicitis admissions aged 18 years and older
 Data Source: Texas Department of State Health Services – Center for Health Statistics

Figure 49. Preventable Hospitalizations due to Perforated Appendix by Age Group (in Years), Tarrant County, 2004-2005



Rate per 100 appendicitis admissions aged 18 years and older
 Data Source: Texas Department of State Health Services – Center for Health Statistics

Figure 50. Geographic Distribution of Preventable Hospitalizations due to Perforated Appendix by ZIP Code, Tarrant County, 2004-2005



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URINARY TRACT INFECTION

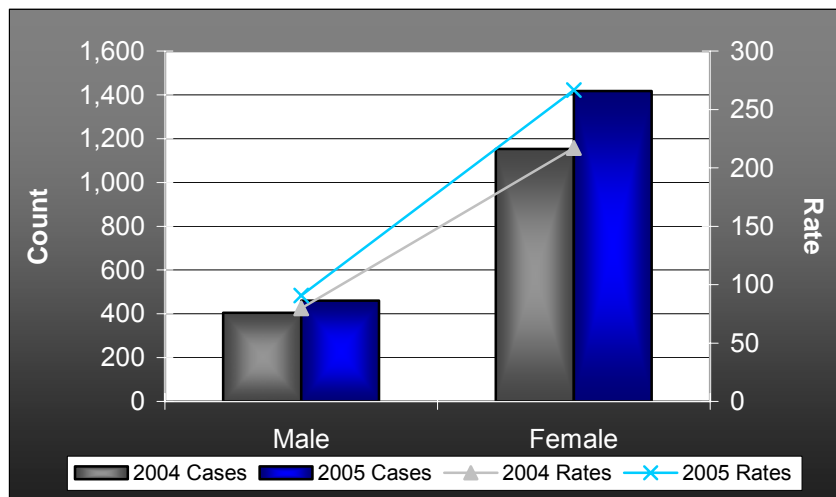
Table 22. Preventable Hospitalizations due to Urinary Tract Infection, Tarrant County, 2004-2005

Year	Overall n (Rate)	Gender		Race/Ethnicity				Age Group (in Years)		
		Male n (Rate)	Female n (Rate)	White n (Rate)	Black n (Rate)	Hispanic n (Rate)	Other n (Rate)	18-44 n (Rate)	45-64 n (Rate)	65+ n (Rate)
2004	1,609 (154.7)	405 (79.7)	1,153 (217.0)	1,182 (171.2)	224 (179.5)	168 (94.2)	35 (75.6)	317 (50.5)	320 (110.0)	972 (806.1)
2005	1,950 (187.5)	461 (90.7)	1,417 (266.7)	1,454 (210.6)	248 (198.8)	196 (109.9)	51 (110.1)	369 (58.7)	356 (122.4)	1,225 (1,015.9)

Rate per 100,000 population aged 18 years and older

Data Source: Texas Department of State Health Services – Center for Health Statistics

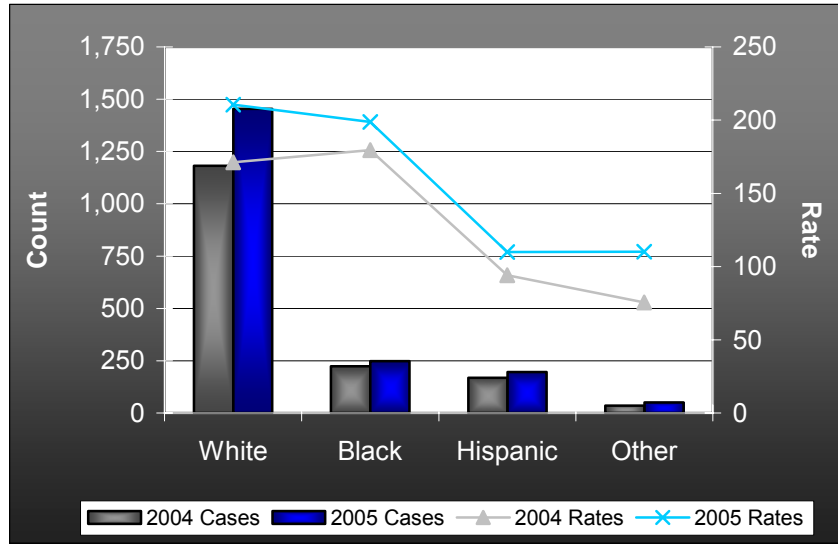
Figure 51. Preventable Hospitalizations due to Urinary Tract Infection by Gender, Tarrant County, 2004-2005



Rate per 100,000 population aged 18 years and older

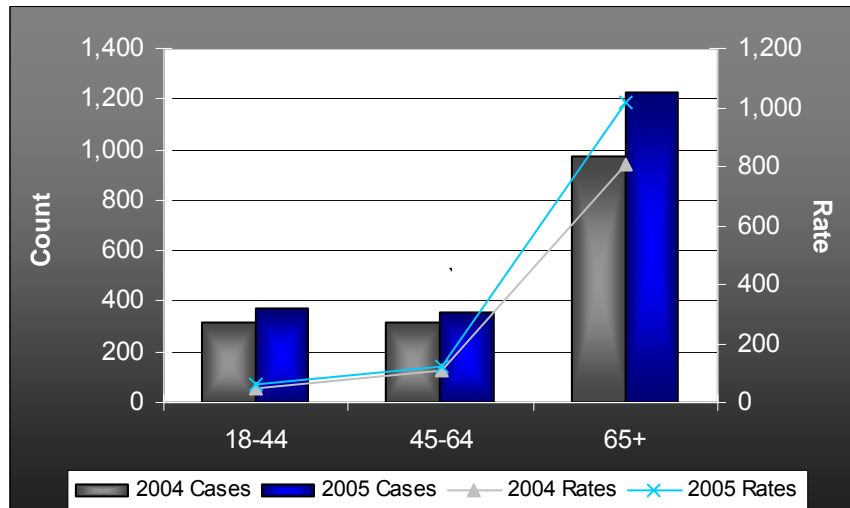
Data Source: Texas Department of State Health Services – Center for Health Statistics

Figure 52. Preventable Hospitalizations due to Urinary Tract Infection by Race/Ethnicity, Tarrant County, 2004-2005



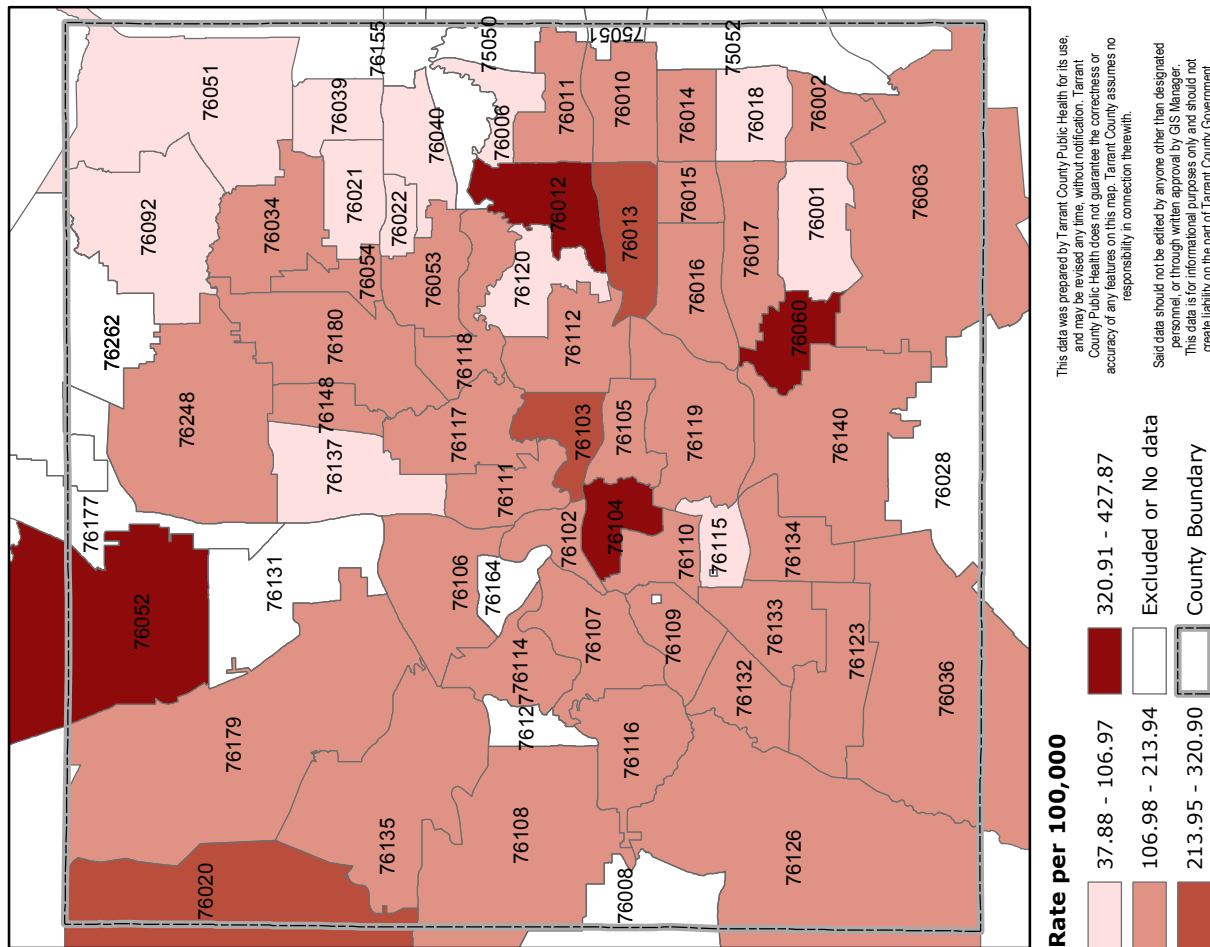
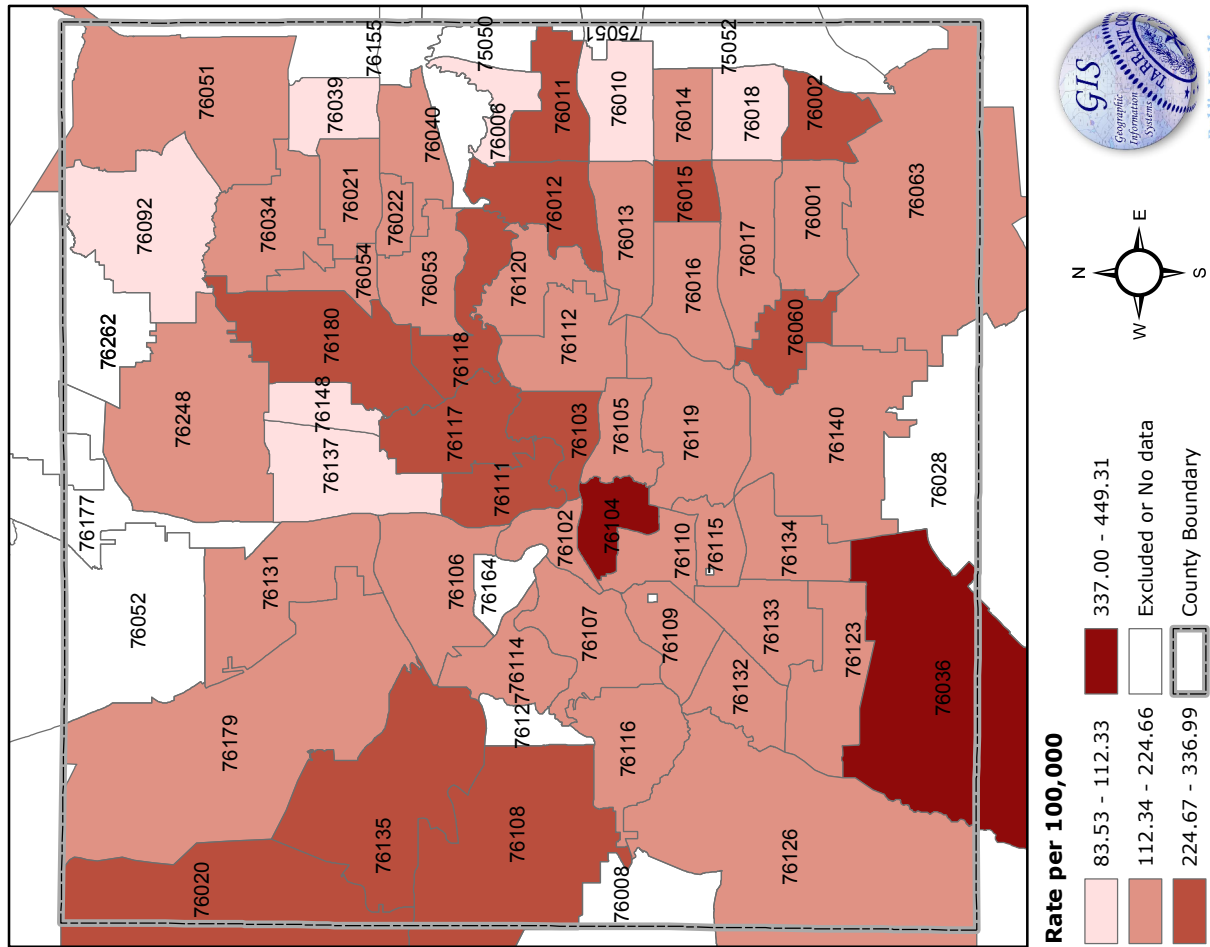
Rate per 100,000 population aged 18 years and older
 Data Source: Texas Department of State Health Services – Center for Health Statistics

Figure 53. Preventable Hospitalizations due to Urinary Tract Infection by Age Group (in Years), Tarrant County, 2004-2005



Rate per 100,000 population aged 18 years and older
 Data Source: Texas Department of State Health Services – Center for Health Statistics

Figure 54. Geographic Distribution of Preventable Hospitalizations due to Urinary Tract Infection by ZIP Code, Tarrant County, 2004-2005



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BIRTH OUTCOMES

LOW-WEIGHT BIRTHS

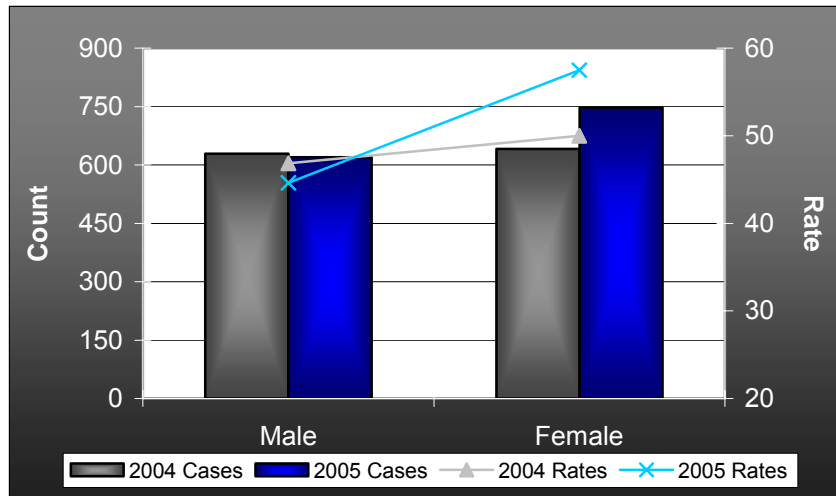
Table 23. Preventable Hospitalizations due to Low-Weight Births, Tarrant County, 2004-2005

Year	Overall n (Rate)	Gender		Race/Ethnicity			
		Male n (Rate)	Female n (Rate)	White n (Rate)	Black n (Rate)	Hispanic n (Rate)	Other n (Rate)
2004	1,270 (48.4)	629 (46.8)	641 (50.0)	513 (43.2)	304 (85.3)	380 (42.1)	73 (41.0)
2005	1,369 (50.9)	620 (44.6)	747 (57.5)	571 (47.8)	339 (92.0)	370 (39.5)	89 (46.6)

Rate per 1,000 live births

Data Source: Texas Department of State Health Services – Center for Health Statistics

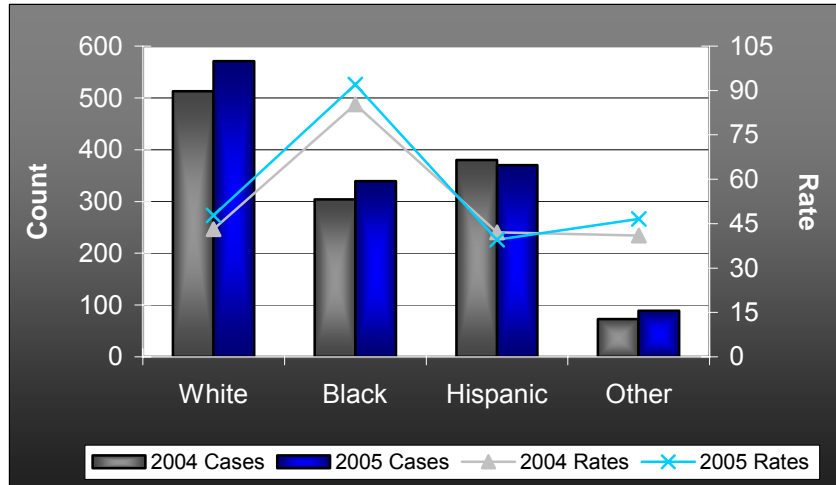
Figure 55. Preventable Hospitalizations due to Low-Weight Births by Gender, Tarrant County, 2004-2005



Rate per 1,000 live births

Data Source: Texas Department of State Health Services – Center for Health Statistics

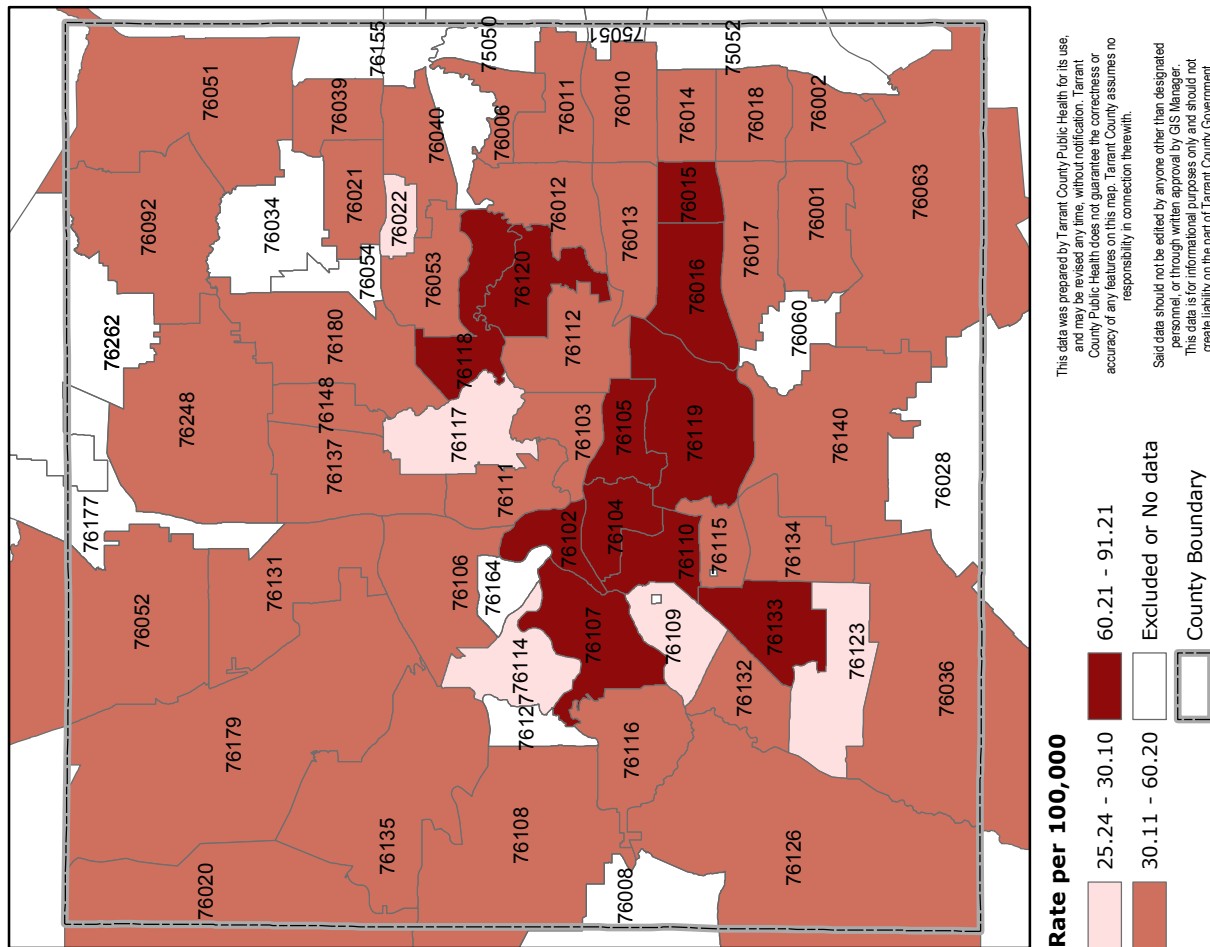
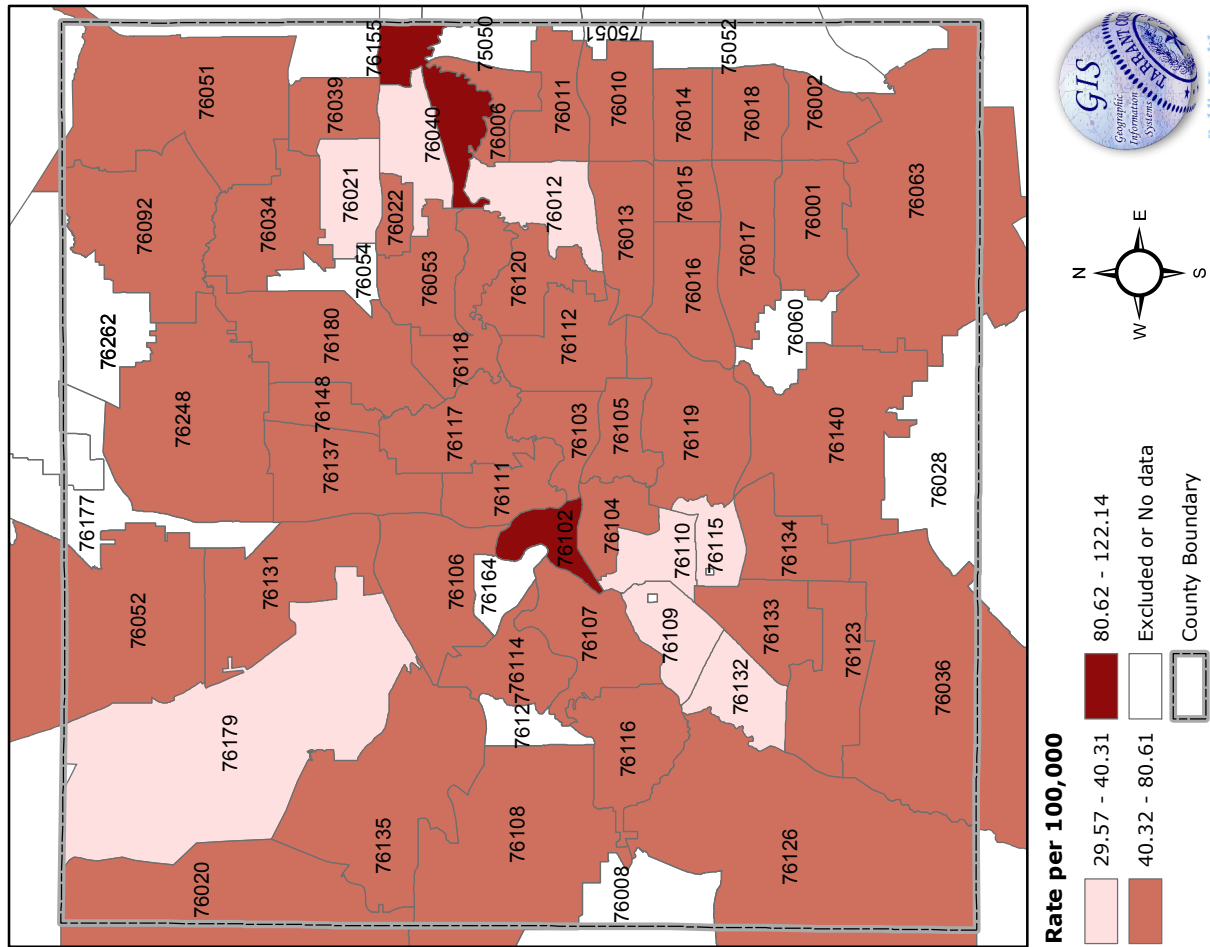
Figure 56. Preventable Hospitalizations due to Low-Weight Births by Race/Ethnicity, Tarrant County, 2004-2005



Rate per 1,000 live births
 Data Source: Texas Department of State Health Services – Center for Health Statistics

Data for low-weight births fall solely into the youngest age group category (0-17 years), therefore no age-specific data for this condition are presented.

Figure 57. Geographic Distribution of Preventable Hospitalizations due to Low-Weight Birth by ZIP Code, Tarrant County, 2004-2005



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IV. LIMITATIONS

Determination of the Prevention Quality Indicators (PQIs) examined in this report was based on the Institute of Medicine's identification of key conditions of concern for the improvement of the health of the general population in the United States.⁷ Over the past several years, this list has been revised and updated to represent only adult populations (individuals aged 18 years and older) with the exception of low-weight births. Consequently, this report does not discuss preventable hospitalizations among pediatric age groups.

Additionally, all rates presented in this report are crude rates and are not adjusted for variations by age or gender. When comparing PQIs across groups or over time, one should be mindful of the age and gender distribution of the populations being compared. Finally, PQIs for which the total number of events is small (less than 100 hospitalizations) may be subject to random fluctuations; differences in sub-populations within a given PQI may therefore be attributable to random variability.

DATA SOURCES

- Texas Department of State Health Services, Center for Health Statistics
- Population estimates: U.S. Census 2000

⁷Institute of Medicine. 2003. *Priority Areas for National Action: Transforming Health Care Quality*. Washington, DC: National Academies Press.



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