
GALVESTON COUNTY HEALTH DISTRICT

EPIDEMIOLOGY SUMMARY, 2005

COMMUNICABLE DISEASE SURVEILLANCE



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Summary

During the year 2005 Galveston County Health District (GCHD) Epidemiology, Tuberculosis, and HIV/STD Services received 2,181 cases to investigate, in turn, 2,124 cases were reported to Department of State Health Services (DSHS) directly or utilizing the National Notifiable Disease Surveillance System (NNDSS), HIV AIDS Reporting System (HARS) and the Sexually Transmitted Disease Management Information System (STD MIS). Communicable disease cases occurred in all parts of Galveston County. The top 3 notifiable diseases/conditions in Galveston County were Chlamydia, Gonorrhea and Hepatitis C.

Introduction

The Epidemiology Services of the Galveston County Health District (GCHD) mission is to collect, analyze and distribute health related information in efforts to control and prevent health problems in Galveston County.

Several Texas laws (Health & Safety Code, Chapters 81, 84, and 87) require specific information regarding notifiable conditions be provided to the Texas Department of State Health Services (DSHS). Health care providers, hospitals, laboratories, schools, and others are required to report individuals (cases) who are suspected of having a notifiable condition (Chapter 97, Title 25, Texas Administrative Code). This report contains the tabulations of notifiable diseases/conditions reported to Department of State Health Services (DSHS) by Galveston County Health District (GCHD) Epidemiology Services for the time period of January 1, 2005 to December 31, 2005.

There are over 70 notifiable diseases/conditions reportable in the state of Texas and GCHD received 28 of these notifiable diseases/conditions. Based on these notifiable cases a morbidity report is generated each month for the Galveston County United Board of Health. See Table 1. Galveston County Morbidity Report 2001-2005.

During the year 2005 GCHD reported 2,124 cases of notifiable diseases/conditions to DSHS directly or utilizing the National Notifiable Disease Surveillance System (NNDSS), HIV AIDS Reporting System (HARS), and Sexually Transmitted Disease Management Information System (STD MIS). The diseases/conditions were received by hospitals (UTMB, Mainland Medical Center, Clear Lake Regional, Christus St. John and other Houston area hospitals), private providers, Galveston County Coordinated Community Clinics – 4 C's, other local health departments, state health department, schools, day care, county jail, and from the electronic laboratory reports (ELR) through the Health Alert Network (HAN).

Communicable Disease Surveillance in Galveston County

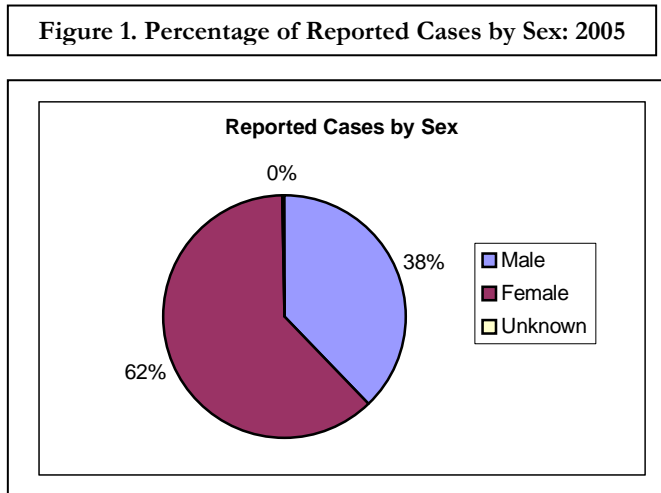
The population of Galveston County is approximately 273,582 people. Galveston County residents are racially and ethnically distributed as follows: 63.1% white; 18.0% Hispanic; 15.4% black; 2.1% Asian, and 1.4% other. See Figure 2. Percentage of Race/Ethnicity of Galveston County Residents. The data presented in this report will display the condition/disease, sex, race/ethnicity, age, and geographical location of cases reported to the State.

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Distribution of Disease/Condition by Sex

Among the 2,124 cases reported to DSHS during the year 2005, 62% of the cases were male, 38% of the cases were female. See Figure 1. Percentage of Reported Cases by Sex: 2005.



Distribution of Disease/Condition by Race/Ethnicity

Approximately 8% of the cases did not specify a race or ethnicity. Among those that did depict a race and ethnicity, 35% were white - not Hispanic, 16% were Hispanic, 40% were black, and 1% was Asian. Please note that Race and Ethnicity are two different classifications: Race relates to origin and Ethnicity relates to cultural identification. Ethnicity does not substitute for race. See Figure 3. Percentage of Race/Ethnicity Distribution of Reported Cases: 2005.

Figure 2. Percentage of Race/Ethnicity of Galveston County Residents

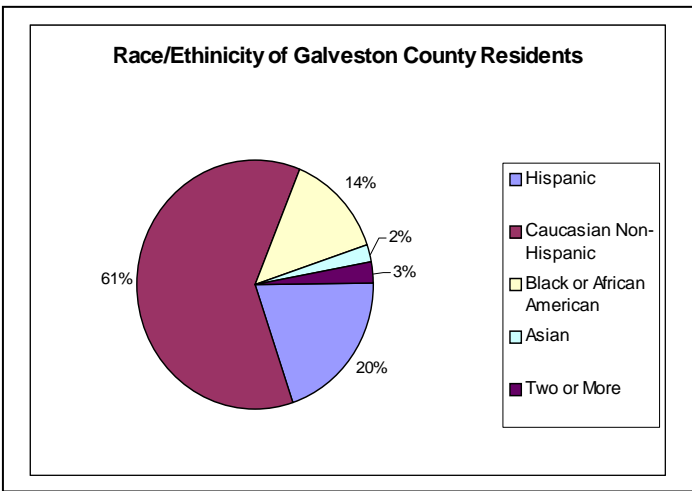
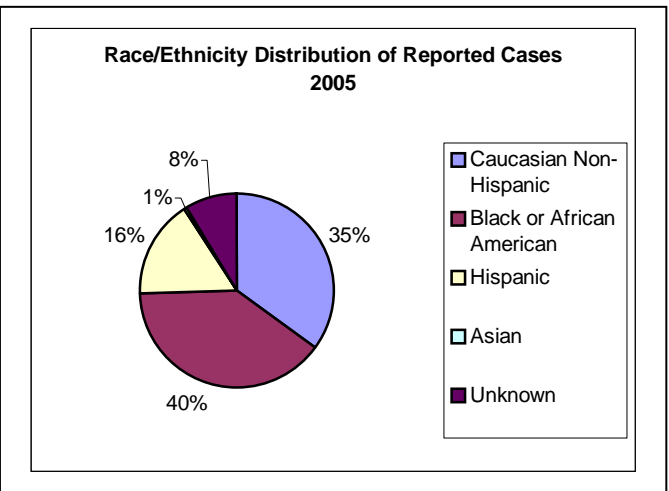


Figure 3. Percentage of Race/Ethnicity Distribution of Reported Cases: 2005



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Distribution of Disease/Condition by Age

The category of age was grouped as: those under the age less than 1 year, 1-4 years, 5-14 years, 15-24 years, 25-34 years, 35-44 years, 45-54 years, 55-64 years, 65-74 years, and over the age of 75 years. The minimum age of reported cases was <1 year and the maximum age was 84 years. The majority of reports received were between the ages of 45 to 54 years (28%). The second largest percentage was between the ages of 35 to 44 years (18%). This data does not include HIV/AIDS and STD cases. See Figure 4. Number of Reported Cases by Age: 2005

As for STDs, the category of age was grouped as 0-4 years, 5-9 years, 10-14 years, 15-19 years, 20-24 years, 25-29 years, 30-34 years, 35-39 years, 40-44 years, 45-54 years, 55-64 years, over 65 years and unknown. For HIV/AIDS, the category of age was grouped as less than 5 years, 5-12 years, 13-19 years, 20-29 years, 30-39 years, 40-49 years, and over the age of 49 years. The majority of reports received for STDs were between the ages of 20-24 years (35%), and for HIV/AIDS were between the ages of 30-39 years (31%). See Figures 5 and 6, Galveston County STDs by Age, Galveston County HIV and AIDS Cases by Age, respectively.

Figure 4. Number of Reported Cases by Age: 2005

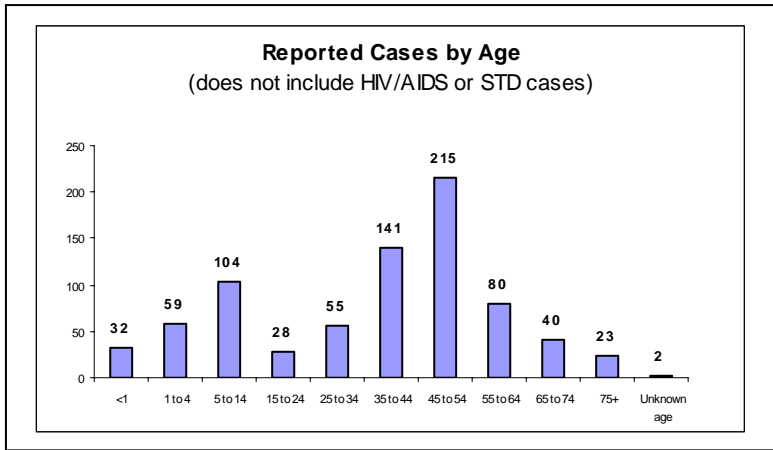


Figure 5. Galveston County STDs by Age

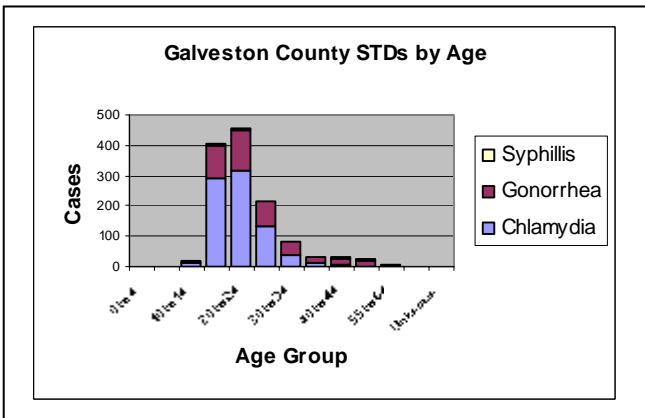
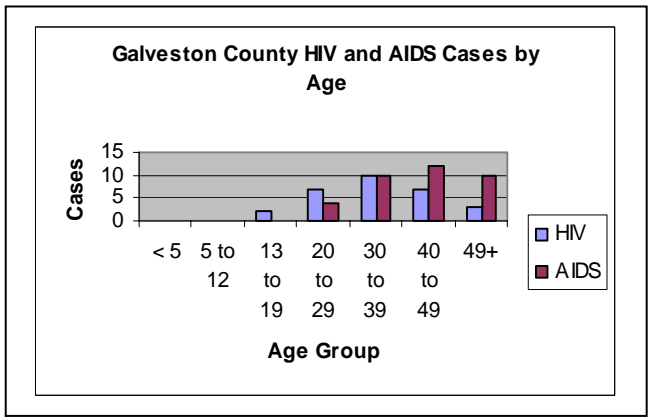


Figure 6. Galveston County HIV and AIDS Cases by Age



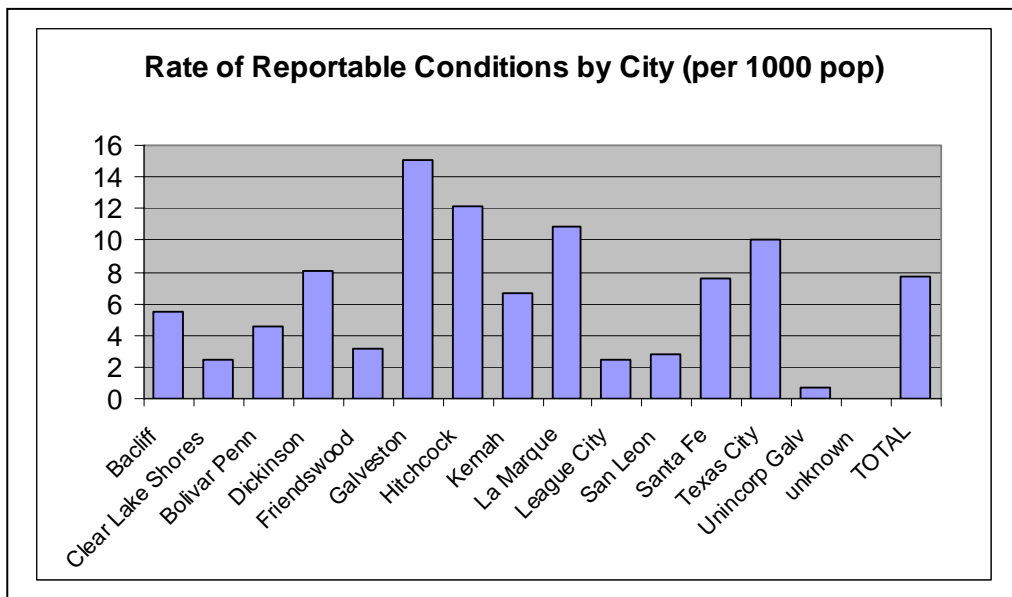
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Distribution of Disease/Condition by City

Distribution of reports by city is demonstrated in Figure 7. Rate of Reportable Conditions by City (per 1000 population): 2005. Communicable disease/conditions occurred in all parts of the county. Galveston, Hitchcock and La Marque had the highest rates of reportable disease/conditions, at 15, 12 and 11, respectively.

Figure 7. Rate of Reportable Conditions by City (per 1000 population): 2005



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Morbidity of Galveston County

Sexually Transmitted Diseases (STD)

STD cases were the most numerous among county notifiable conditions once more in 2005. The notifiable STDs include AIDS, Chancroids, *Chlamydia trachomatis* infection, gonorrhea, HIV infection, and syphilis. Approximately 1,345 Galveston County STD cases were reported to the Health District STD/HIV Services in 2005. Females were more often reported as having STDs than males (73% for females, 27% for males). Among the cases that did depict a race and ethnicity, 27% were white - not Hispanic, 18% were Hispanic, and 54% were black. Most county STD cases were *Chlamydia trachomatis* infection (60%) and gonorrhea (33%). By age, the largest numbers of Chlamydia and gonorrhea cases were in the 20-24 age group. The cities with the largest percentage of cases were the City of Galveston (43% *Chlamydia* and 49% gonorrhea) and Texas City (24% *Chlamydia* and 26% gonorrhea). Incidence rates for these infections are higher in Galveston County than in the whole state of Texas and the U.S.

Hepatitis

Hepatitis B and C are blood-borne infections that can lead to chronic disease and possibly liver cancer or failure. Some cases are reported repeatedly. In 2005, there were 441 new records entered into the GCHD hepatitis registry; and of these 435 were hepatitis C cases. Males were more often diagnosed with hepatitis C than females (60% for males, 40% for females). The racial/ethnic breakdown of cases diagnosed with hepatitis C were: 49% white - not Hispanic, 6% Hispanic, 15% black, 1% Asian, and 29 % unknown. Ages of the newly reported hepatitis C cases ranged from 3 months to 88 years; the median age was 48 years. The cities with the largest percentage of hepatitis C cases were the City of Galveston (176 cases, 40%), Texas City (50 cases, 11%), and Dickinson (40 cases, 9%).

Vaccine-Preventable Diseases

There were no confirmed cases of measles, mumps, rubella, or *Haemophilus influenzae* type B reported in 2005. A total of 6 hepatitis B (non-pregnant) cases were found to be acute/symptomatic. In 2000, DSHS began requiring case management of pregnant women with hepatitis B infections (positive HBsAg). The Health District received 11 pertussis cases in 2005. Males were more often confirmed with pertussis than females (55% for males, 45% for females). The racial/ethnic breakdown of pertussis cases were: 55% white - not Hispanic and 45% Hispanic. Ages of reported pertussis cases ranged from 2 months to 66 years; the median age was 16 years. The city with the largest percentage of pertussis cases was the City of Galveston (55%). In 2005, GCHD received 88 reports of varicella (chicken pox) cases as compared to 26 reports in 2004. This increase was due to increased reporting by school nurses and child-care providers.

Asbestosis

Asbestosis is a chronic fibrotic lung disease, which results from the long-term inhalation of respirable asbestos fibers. The Health District does not have historical data to compare rates from previous years due to underreporting of this condition. There were 27 cases reported in 2005. Ninety-three percent were male and seven percent were female. Ages of reported asbestosis cases ranged from 54 years to 92 years; the median age was 71 years. The white – not Hispanic population accounted for 70% of the cases. The city with the largest percentage of asbestosis cases was Texas City with 55%.

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Influenza

Influenza is not a required reportable condition. Due to the heightened awareness of pandemic influenza there has been an increase of influenza reporting to GCHD. During the months October through May the Health District reports confirmed influenza isolates and Influenza Like Illness (ILI-fever over 100°F and cough and/or sore throat) to DSHS. GCHD Epidemiology Services works in partnership with University of Texas Medical Branch (UTMB), Mainland Medical Center, 4C's clinic and the Galveston Independent School Districts on syndromic surveillance of influenza. In addition, Epidemiology Services monitors Real Time Outbreak and Disease Surveillance (RODS) for purchase of over-the-counter medications used for fever, cough, and cold. In the year 2005, there were 45 laboratory confirmed cases of influenza in Galveston County reported to the state.

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Table 1. Galveston County Morbidity Report 2001-2005										
NEW CASES OF NOTIFIABLE CONDITIONS										
	2001	2002	2003	2004	2005	Pop 1/1/2005	2005 Rate	2003-2005 Rate	2004 Texas Rate	US 2003 Rate
AIDS	19	33	35	44	36	273582	13.16	14.01	14.6	15.36
Asbestosis	-	-	-	-	27	273582	9.87	*	*	*
Campylobacteriosis	11	5	19	18	10	273582	3.66	5.73	5.57	*
<i>Chlamydia trachomatis</i>	1,107	1,043	941	942	813	273582	297.17	328.48	316.8	304.71
Cryptosporidiosis	5	0	2	2	1	273582	0.37	0.61	0.46	1.22
Elevated Child Blood Lead	120	167	104	38	22	61807	35.59	88.45	97.84	*
Encephalitis	0	3	1	0	3	273582	1.10	0.49	3.00	1.05
Gonorrhea	555	488	344	355	439	273582	160.46	138.65	109.80	116.37
<i>H. Influenzae</i> type b infection	0	1	0	0	0	273582	0.00	0.00	0.01	0.01
Hepatitis, type A	7	14	2	3	9	273582	3.29	1.71	2.75	2.66
Hepatitis, type B (acute)	6	10	7	2	6	273582	2.19	1.83	3.03	2.61
Hepatitis, type C	527	578	730	713	435	273582	159.00	228.82	123.5	*
HIV infection	19	40	48	38	29	273582	10.60	14.01	18.2	*
Influenza isolate	6	6	20	4	45	273582	16.45	8.41	*	*
Legionellosis	1	0	1	1	1	273582	0.37	0.37	0.6	0.78
Listeriosis	0	0	0	1	0	273582	0.00	0.12	0.19	0.24
Lyme Disease	-	-	-	2	1	273582	0.37		0.44	7.39
Malaria	2	1	1	0	4	273582	1.46	0.61	0.49	0.49
Meningitis, aseptic/viral	26	27	41	59	47	273582	17.18	17.91	11.12	*
Meningococcal infection	7	3	4	0	3	273582	1.10	0.85	0.32	0.61
Pertussis	3	9	2	20	11	273582	4.02	4.02	5.22	4.04
Salmonellosis	39	44	63	61	42	273582	15.35	20.23	11.75	15.16
Shigellosis	26	18	51	28	29	273582	10.60	13.16	14.71	8.19
Strep.infection, invasive group A	5	1	3	6	3	273582	1.10	1.46	1.23	2.04
Strep.infection, invasive group B	5	6	8	9	0	273582	0.00	2.07	1.42	*
Strep.infection, invasive pneumo.	2	2	12	14	9	273582	3.29	4.26	2.13	*
Syphilis	30	21	41	29	28	273582	10.23	11.94	8.7	11.90
Tuberculosis	20	8	24	16	20	273582	7.31	7.31	7.6	5.17
Typhoid Fever	1	0	0	2	0	273582	0.00	0.24	0.12	0.12
Varicella (Chickenpox)	61	36	48	26	88	273582	32.17	19.74	37.67	*
Vibrio infection	3	5	1	2	2	273582	0.73	0.61	0.35	*
Food-borne illness complaints	24	364	12	241	56	273582	20.47			
Rabies in animals	3	0	0	0	1					

* Indicates data not available