

Community Health Improvement Partners  
County of San Diego, Emergency Medical Services  
Hospital Association of San Diego and Imperial Counties

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EMERGENCY DEPARTMENT DISCHARGE  
PATIENT SUMMARY

AGGREGATE REPORT

**July 1, 2005  
Through  
September 30, 2005**

**San Diego County  
March 2006**

## Introduction

The Community Health Improvement Partner's Violence and Injury Prevention Work Team, in collaboration with the County of San Diego's Emergency Medical Services (EMS) and the Hospital Association of San Diego and Imperial Counties (HASD&IC) conceptualized and coordinated the implementation of the Emergency Department Data Surveillance project.

**The Emergency Department Discharge Patient Summary is a report describing all patients who are treated and discharged from the participating emergency departments in San Diego County. Emergency department (ED) discharge data, however, does not represent all patients who go to the emergency department. Those patients who were admitted to the hospital from the ED are not included in this database.** The information contained in this database is collected from billing data, so if a patient presents to the ED and is admitted to that same hospital, all information is transferred to the inpatient record and the patient becomes part of the hospital discharge database. Typically, between 12 percent and 20 percent of all patients who present to the ED are admitted to the hospital.

Emergency department data that is reported to Emergency Medical Services (EMS) does not contain unique identifiers, such as social security number. Each record represents a visit to the ED; multiple visits for the same person cannot be identified and accounted for. Therefore, this report represents the number of *encounters* (visits), not the number of *people* who use the ED. For the purposes of this report, the term *patient* will be used to refer to all discharges from the ED.

The following data elements are reported to the hospital association: Facility ID Number, Patient ZIP code, Date of Birth, Sex, Race, Ethnicity, Service Date, Principal Diagnosis, Other Diagnoses, Principal Procedure (CPT-4), Other Procedures (CPT-4), Principal E-Code, Other E-Codes, Disposition of Patient and Expected Source of Payment.

Fifteen hospitals reported emergency department data for this report. Among ED discharge patients aged 15 years and older, less than three percent of ED discharge data was missing for this quarter, and roughly 40 percent of discharge data for 0 to 14 year old patients was missing. Therefore, annual rates per 100,000 in the population were calculated only for patients aged 15 years and older.

Rates are calculated by dividing the number of ED discharges by the total population, and multiplying by a constant. For example, to calculate the annual rate of ED discharges among 25 to 44 year olds in San Diego County, the following equation would be used:

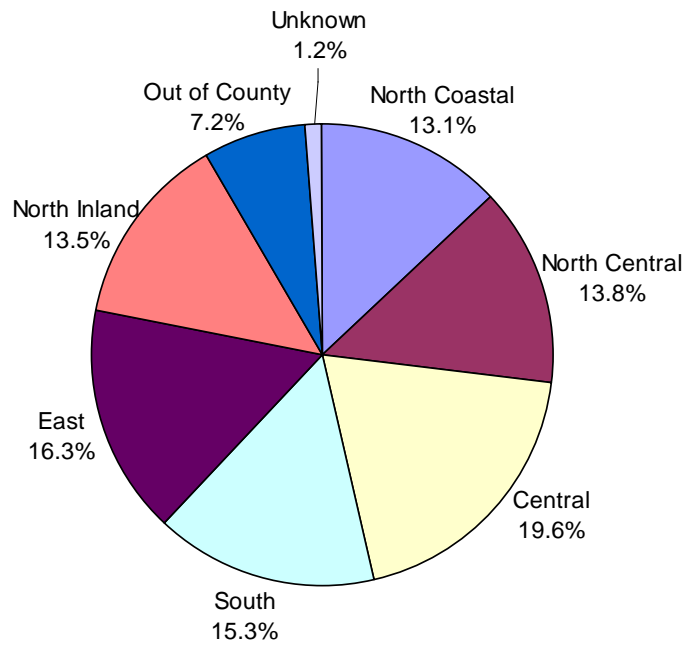
$$\frac{\text{Total ED Discharge Patients Aged 25 to 44 years, July – September 2005}}{(2005 \text{ San Diego County Population Ages 25 to 44 years}) / 4} \times 100,000 = \text{Rate per 100,000}$$

Since rates are being calculated on quarterly data, the 2005 San Diego County population must be divided by four in order to create annual rates that can be compared over time. When appropriate, annual rates are presented in this report for patients aged 15 years and older.

**Patient Residence**

The 135,954 patients discharged from the fifteen emergency departments (EDs) represented in this report were fairly evenly distributed in number between the six County of San Diego defined Health and Human Services Regions, as displayed below. The highest number of ED discharges came from the Central region (20%), and 7% of discharges were from out of county. See Appendix A for a map of the regional and subregional area boundaries.

**Patient Region of Residence**



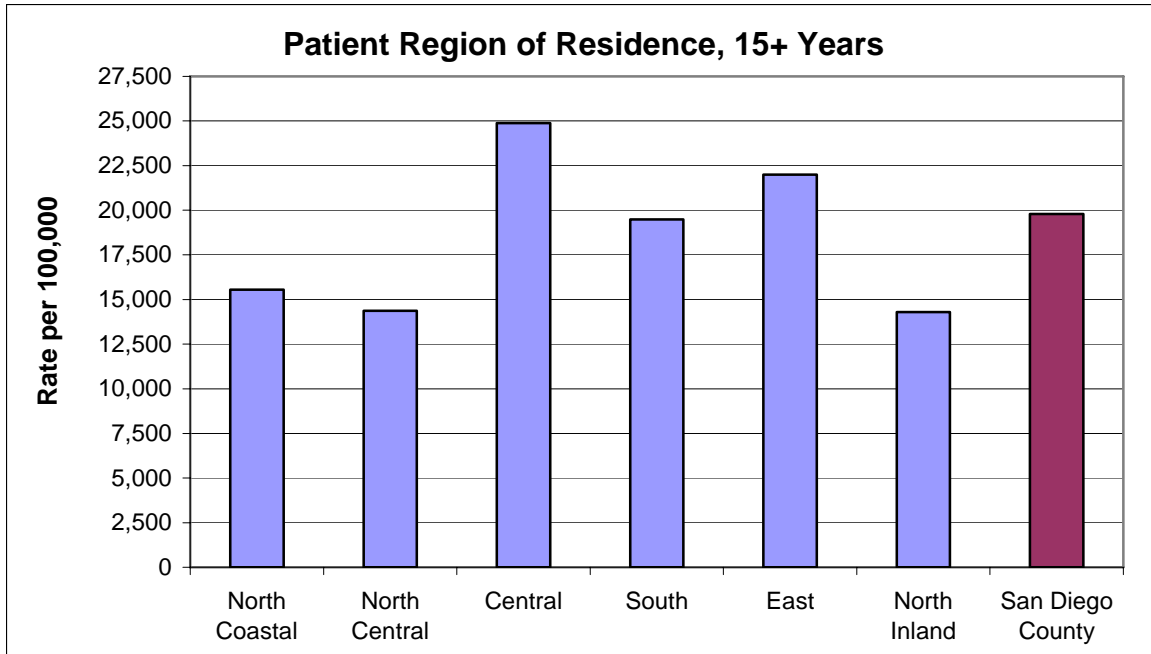
Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005.

**Patient Region of Residence**

	Frequency	Percent
North Coastal	17,810	13.1
North Central	18,744	13.8
Central	26,678	19.6
South	20,814	15.3
East	22,180	16.3
North Inland	18,297	13.5
Out of County	9,735	7.2
Unknown	1,696	1.2
San Diego County	135,954	100.0

Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005.

Overall, residents of San Diego County aged 15 years and older were discharged from the emergency department at an annual rate of 19,790 per 100,000 in the population, or nearly 20 discharges for every 100 residents. The rate of ED discharge varied significantly by region. Residents of the Central (24,176 per 100,000) and East (21,984 per 100,000) regions had the highest discharge rates in the County. The North Central Region had the lowest rate of ED discharges, at 14,372 per 100,000 residents.



Source: Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005. Population data: SANDAG, 2005 Estimates, (3/06). \*Rates calculated per 100,000 population for patients 15+ years of age. Totals do not include <3% of all civilian ED discharges. \*San Diego County total includes 10,039 patients with out of county or unknown zip codes.

**Patient Region of Residence,  
15+ Years, Rates per 100,000**

	Frequency	Rate
North Coastal	15,117	15,554.3
North Central	17,714	14,372.2
Central	24,176	24,877.9
South	17,198	19,487.8
East	19,793	21,984.4
North Inland	15,383	14,303.4
Out of County	8403	*
Unknown	1,636	*
San Diego County	119,420	19,789.6

Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005. Population data: SANDAG, 2005 Estimates, (3/06). \*Rates calculated per 100,000 population for patients 15+ years of age. Totals do not include <3% of all civilian ED discharges.

The communities, or subregional areas, that ED discharge patients reside in were identified by their home zip codes. The distribution of ED discharge patients aged 15+ years by subregional area (SRA) is displayed below. See Appendix A for a map of the regional and SRA boundaries.

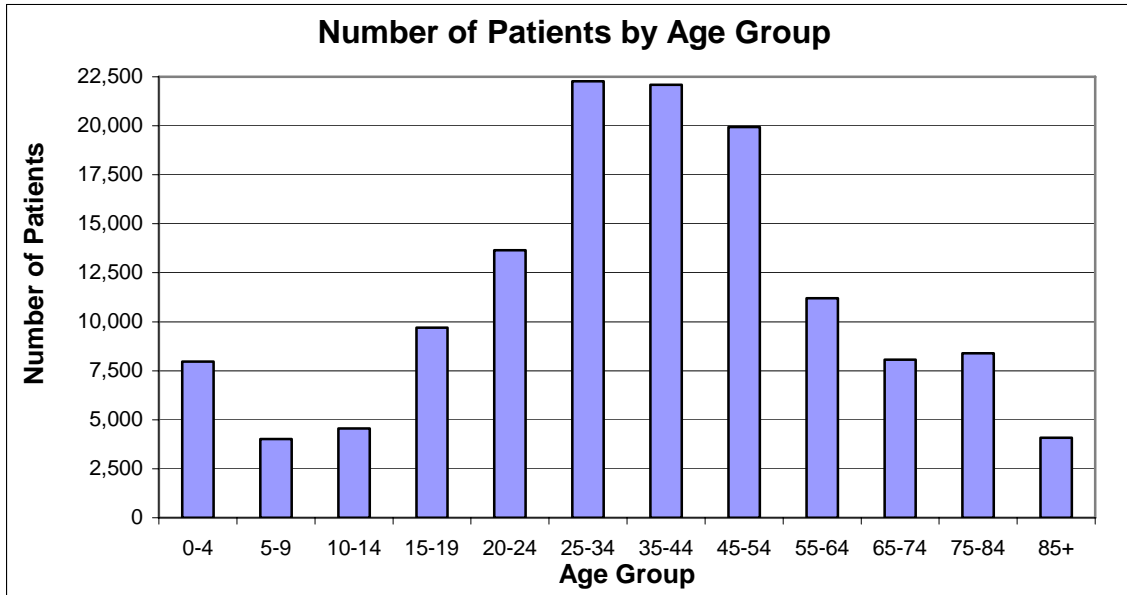
**Patient Residence by SRA, 15+ Years,  
Rates per 100,000**

	Frequency	Rate
Central San Diego	9,890	28,509.5
Peninsula	1,517	11,207.8
Coronado	158	2,701.4
National City	2,665	21,646.0
Southeast San Diego	7,192	23,792.1
Mid-City	7,094	21,990.3
Kearny Mesa	6,116	19,743.8
Coastal	2,748	15,775.7
University	1,369	11,300.3
Del Mar-Mira Mesa	2,929	9,752.4
North San Diego	3,180	16,023.2
Poway	2,230	12,665.1
Miramar	13	936.3
Elliott-Navajo	2,735	15,379.0
Sweetwater	1,939	9,075.4
Chula Vista	7,047	31,997.6
South Bay	5,146	19,272.9
Jamul	876	29,136.9
Spring Valley	2,546	16,140.2
Lemon Grove	1,265	21,656.3
La Mesa	3,032	25,327.9
El Cajon	4,303	18,261.5
Santee	2,033	19,311.3
Lakeside	1,834	16,789.9
Harbison Crest	3,101	25,284.9
Alpine	604	20,009.9
Ramona	1,122	16,219.1
San Dieguito	2,630	13,796.2
Carlsbad	2,527	11,519.5
Oceanside	5,906	19,007.2
Pendleton	20	337.5
Escondido	5,851	19,606.6
San Marcos	2,349	14,461.4
Vista	3,685	19,202.0
Valley Center	489	11,054.6
Pauma	122	9,275.8
Fallbrook	450	4,764.7
Palomar-Julian	79	6,576.5
Laguna-Pine Valley	84	7,526.9
Mountain Empire	358	29,338.3
Anza-Borrego Springs	147	20,799.4
Out of County	8,403*	
Unknown	1,636*	
<b>Total</b>	<b>119,420</b>	<b>19,492.6</b>

Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005. Population data: SANDAG, 2005 Estimates, (3/06). \*Rates calculated per 100,000 population for patients 15+ years of age. Totals do not include <3% of all civilian ED discharges.

**Patient Demographics**

There were 135,954 patients who were treated and discharged from the 15 emergency departments represented by this report. This accounts for approximately 89% of all ED patients treated and discharged in San Diego County during this quarter. Roughly 40% of children aged 0 to 14, but less than 3% of patients aged 15 years and older are missing from this report.



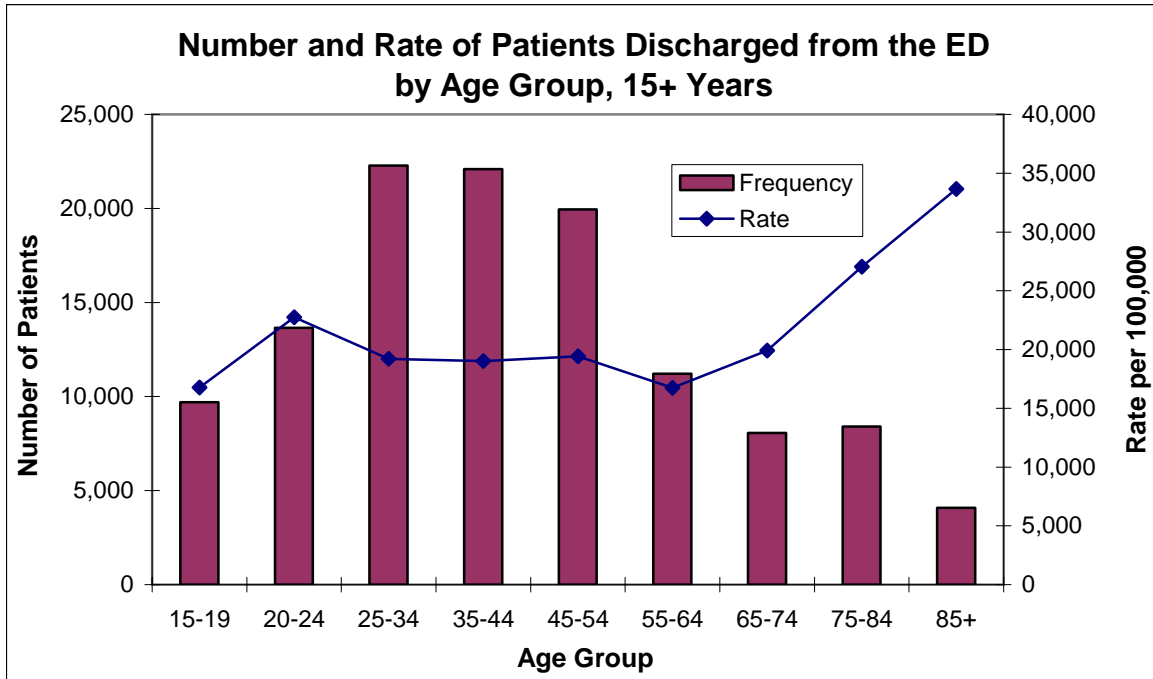
Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005. \*Excludes 1 patient with missing age group. Data for 40% of patients aged 0 to 14 years and <3% of patients aged 15+ years are missing.

**Number and Percent of ED Patients by Age Group**

Age Group	Frequency	Percent
0-4	7,966	5.9
5-9	4,010	2.9
10-14	4,557	3.4
15-19	9,697	7.1
20-24	13,658	10.0
25-34	22,279	16.4
35-44	22,089	16.2
45-54	19,942	14.7
55-64	11,207	8.2
65-74	8,066	5.9
75-84	8,397	6.2
85+	4,085	3.0
<b>Total</b>	<b>135,954</b>	<b>100.0</b>

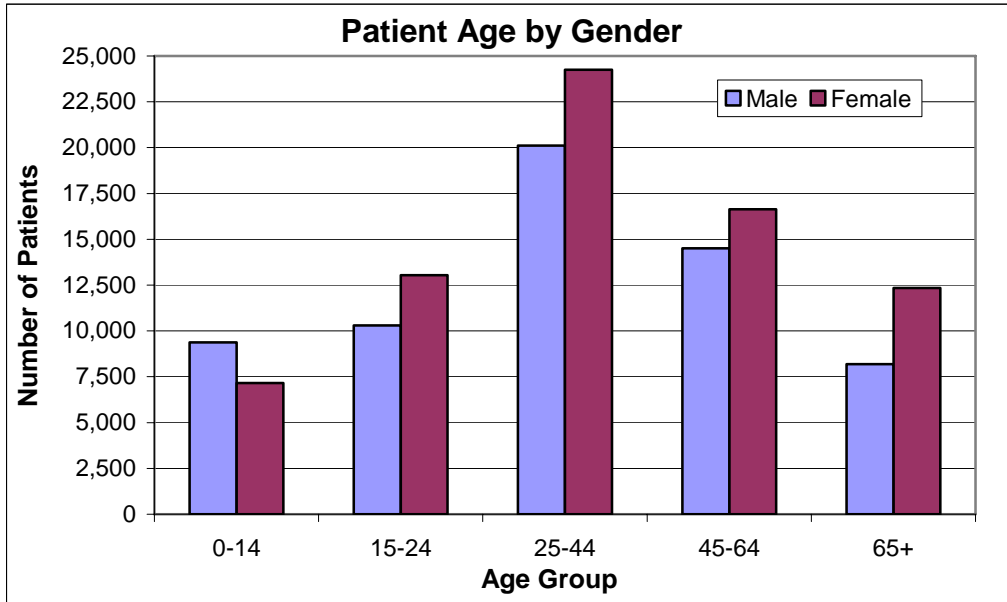
Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005. \*Total includes 1 patient with missing age group. Data for 40% of patients aged 0 to 14 years and <3% of patients aged 15+ years are missing.

Due to the missing data for children aged 0 to 14 years, rates per 100,000 in the population were calculated only for patients 15 years and older. The rate of ED discharge was fairly consistent from ages 15 to 19 through ages 55 to 64 years, with a slightly higher rate among 20 to 24 year olds (22,742 per 100,000). After ages 55 to 64 years (16,740 per 100,000), the rate increases steadily, and more than doubles to 33,659 per 100,000 for patients aged 85 years and older. In other words, on an annual basis, for every 100 residents in the County aged 85 years and older, 34 were discharged from the ED. Note: Rates do not include patients who were admitted to the hospital from the ED.



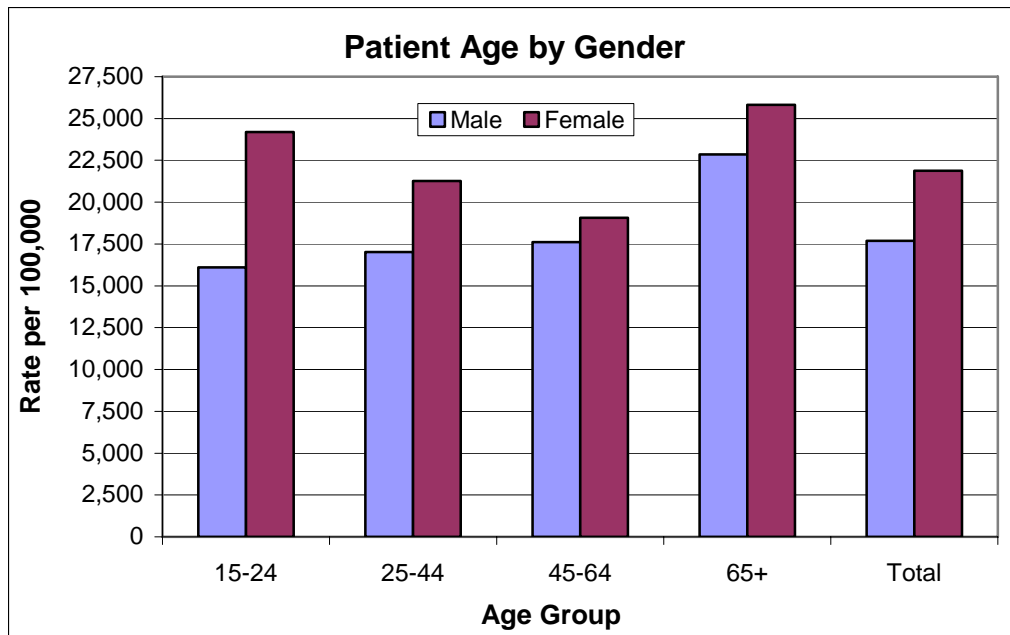
Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005. Population data: SANDAG, 2005 Estimates, (3/06). \*Rates calculated per 100,000 population for patients 15+ years of age. Totals do not include <3% of all civilian ED discharges.

Overall, 54% of ED patients were female. However, among the 60% of reported patients in the 0 to 14 year age group, 57% were male.



Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005.

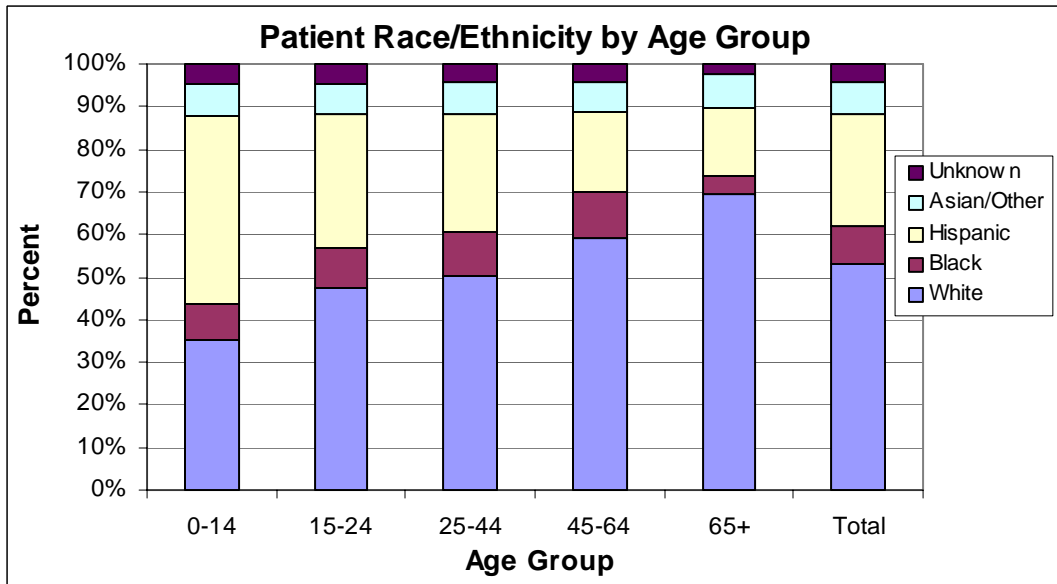
Overall and across all age groups for patients 15 years and older, females had a higher rate of ED discharges than males. Females aged 15 to 24 (24,195 per 100,000) and aged 65+ (25,823 per 100,000) had the highest rates of discharge from the ED.



Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005. Population data: SANDAG, 2005 Estimates, (3/06). \*Rates calculated per 100,000 population for patients 15+ years of age. Totals do not include <3% of all civilian ED discharges.

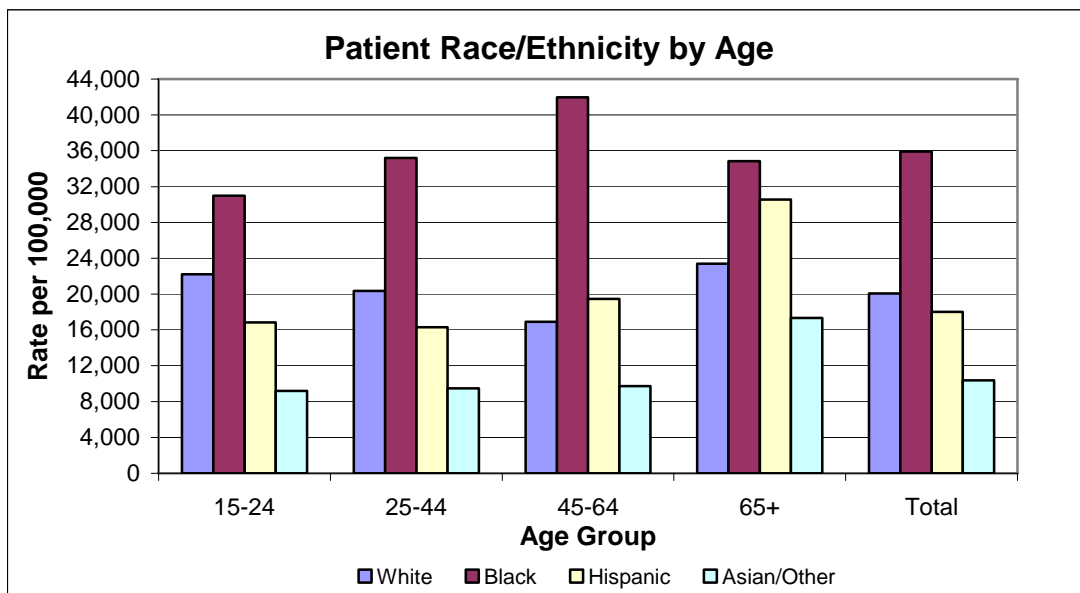


With 60% of ED discharge patients aged 0 to 14 years reported, 44% were Hispanic, compared to just 38% of the population. Overall, the proportion of Black patients discharged from the ED was higher than the proportion of Blacks in the population.



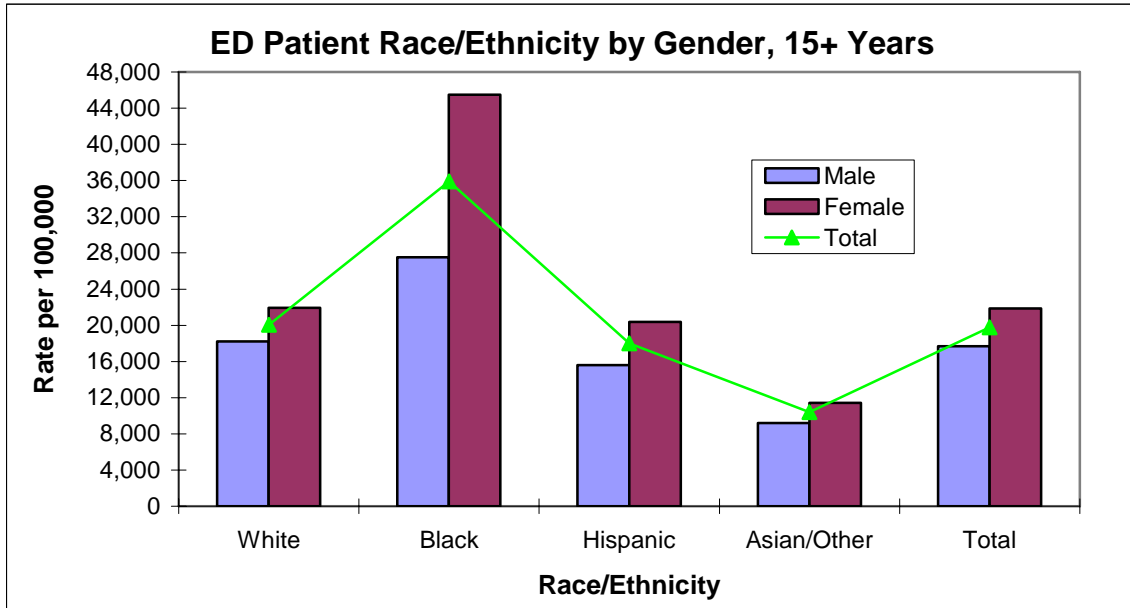
Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005.

Across all age groups, the rate of ED discharge was significantly higher for Black patients than for any other racial/ethnic group. In the 45 to 64 year age group, Black patients were discharged from the ED at an annual rate of 41,977 per 100,000 in the population; or for every 100 Black residents, 42 patients were treated and discharged from a participating San Diego County ED.



Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005. Population data: SANDAG, 2005 Estimates, (3/06). \*Rates calculated per 100,000 population for patients 15+ years of age. Totals do not include <3% of all civilian ED discharges.

Across all racial/ethnic groups, females had a higher rate of ED discharge than males. This was most apparent among the Black population.



Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005. Population data: SANDAG, 2005 Estimates, (3/06). \*Rates calculated per 100,000 population for patients 15+ years of age. Totals do not include <3% of all civilian ED discharges. \*Totals exclude 38 patients with missing gender and 4,915 with missing race/ethnicity.

The following table describes the distribution of reported ED patients aged 0 to 14 years by gender and race/ethnicity. Overall and across all racial/ethnic categories, 57% of children treated and discharged from the participating EDs were male.

#### Age Group and Gender by Race/Ethnicity, 0 to 14 years

Age Group		White		Black		Hispanic		Asian/Other		Unknown		Total	
		Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
0-14	Male	3,306	56.6	771	56.9	4,151	56.9	713	56.9	432	54.4	9,373	56.7
	Female	2,535	43.4	581	42.9	3,135	43.0	540	43.1	360	45.3	7,151	43.3
	<b>Total</b>	<b>5,842</b>	<b>100.0</b>	<b>1,354</b>	<b>100.0</b>	<b>7,289</b>	<b>100.0</b>	<b>1,254</b>	<b>100.0</b>	<b>794</b>	<b>100.0</b>	<b>16,533</b>	<b>100.0</b>

Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005.

\*Total represents 60% of all San Diego ED patients aged 0 to 14 years.

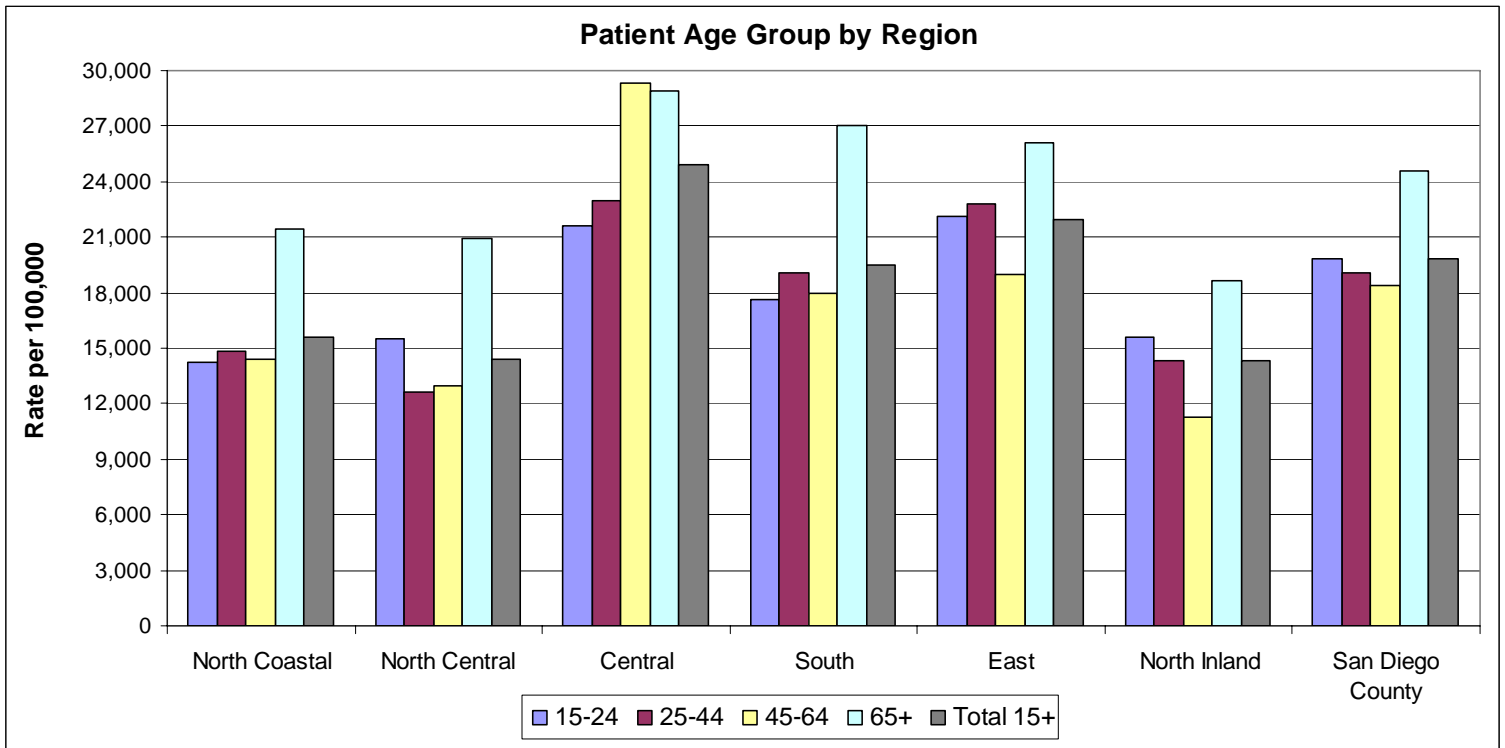
The table below describes the frequency and rate of ED discharge among patients aged 15 years and older in San Diego County during this quarter. The highest annual rate of treatment and discharge from the ED was among Black females, aged 45 to 64 years. For every ten women in this category, about five were treated and discharged from an emergency department in San Diego County.

#### Age Group and Gender by Race/Ethnicity, 15+ Years, Rates per 100,000

Age Group		White		Black		Hispanic		Asian/Other		Total	
		Frequency	Rate	Frequency	Rate	Frequency	Rate	Frequency	Rate	Frequency	Rate
15-24	Male	4,986	18,146.3	875	21,117.4	3,150	13,584.9	743	8,103.4	10,296	16,093.3
	Female	6,056	27,233.0	1,395	43,850.7	4,114	20,621.6	888	10,373.5	13,048	24,194.7
	<b>Total</b>	<b>11,047</b>	<b>22,220.9</b>	<b>2,270</b>	<b>30,990.8</b>	<b>7,266</b>	<b>16,843.8</b>	<b>1,632</b>	<b>9,205.1</b>	<b>23,355</b>	<b>19,808.2</b>
25-44	Male	10,487	18,307.0	1,807	25,376.5	5,301	14,243.7	1,432	8,663.8	20,109	17,019.9
	Female	11,856	22,622.1	2,759	47,154.3	6,877	18,347.5	1,878	10,244.9	24,250	21,258.3
	<b>Total</b>	<b>22,345</b>	<b>20,370.4</b>	<b>4,566</b>	<b>35,199.6</b>	<b>12,181</b>	<b>16,306.9</b>	<b>3,312</b>	<b>9,501.0</b>	<b>44,368</b>	<b>19,105.8</b>
45-64	Male	8,879	16,334.8	1,468	36,891.4	2,607	18,779.0	842	8,282.9	14,511	17,614.0
	Female	9,555	17,493.0	1,819	47,231.4	3,306	20,058.2	1,345	10,943.6	16,632	19,063.5
	<b>Total</b>	<b>18,436</b>	<b>16,917.2</b>	<b>3,287</b>	<b>41,976.9</b>	<b>5,914</b>	<b>19,476.7</b>	<b>2,188</b>	<b>9,743.6</b>	<b>31,149</b>	<b>18,363.0</b>
65+	Male	5,789	21,861.6	363	31,293.1	1,204	27,665.4	640	16,498.0	8,196	22,848.2
	Female	8,473	24,562.6	551	37,649.5	2,034	32,587.0	1,006	17,901.9	12,349	25,823.8
	<b>Total</b>	<b>14,263</b>	<b>23,391.3</b>	<b>914</b>	<b>34,839.0</b>	<b>3,238</b>	<b>30,565.2</b>	<b>1,646</b>	<b>17,328.6</b>	<b>20,548</b>	<b>24,552.0</b>
Total 15+ Years	Male	30,141	18,201.4	4,513	27,512.4	12,262	15,592.9	3,657	9,201.8	53,112	17,681.5
	Female	35,940	21,946.2	6,524	45,472.9	16,331	20,374.1	5,117	11,421.6	66,279	21,869.4
	<b>Total</b>	<b>66,091</b>	<b>20,066.4</b>	<b>11,037</b>	<b>35,892.1</b>	<b>28,599</b>	<b>18,010.1</b>	<b>8,778</b>	<b>10,382.9</b>	<b>119,420</b>	<b>19,789.6</b>

Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005. Population data: SANDAG, 2005 Estimates, (3/06). \*Rates calculated per 100,000 population for patients 15+ years of age. Totals do not include <3% of all civilian ED discharges. \*Totals include 38 patients with missing gender, 1 patient with missing age group, and 4,915 with missing race/ethnicity.

The annual rate of discharge by age group varies within each region. Overall in San Diego County, patients aged 65 years and older were discharged at a higher rate than any other age group (24,552 per 100,000). This was true across all regions, except for patients living in the Central region. Patients aged 45 to 64 years living in the Central region had the highest rate of ED discharge (29,326 per 100,000). This was likely due to the high percentage of working poor living in the Central region who were not yet eligible for Medicare, and thus used the ED as a primary source of care.



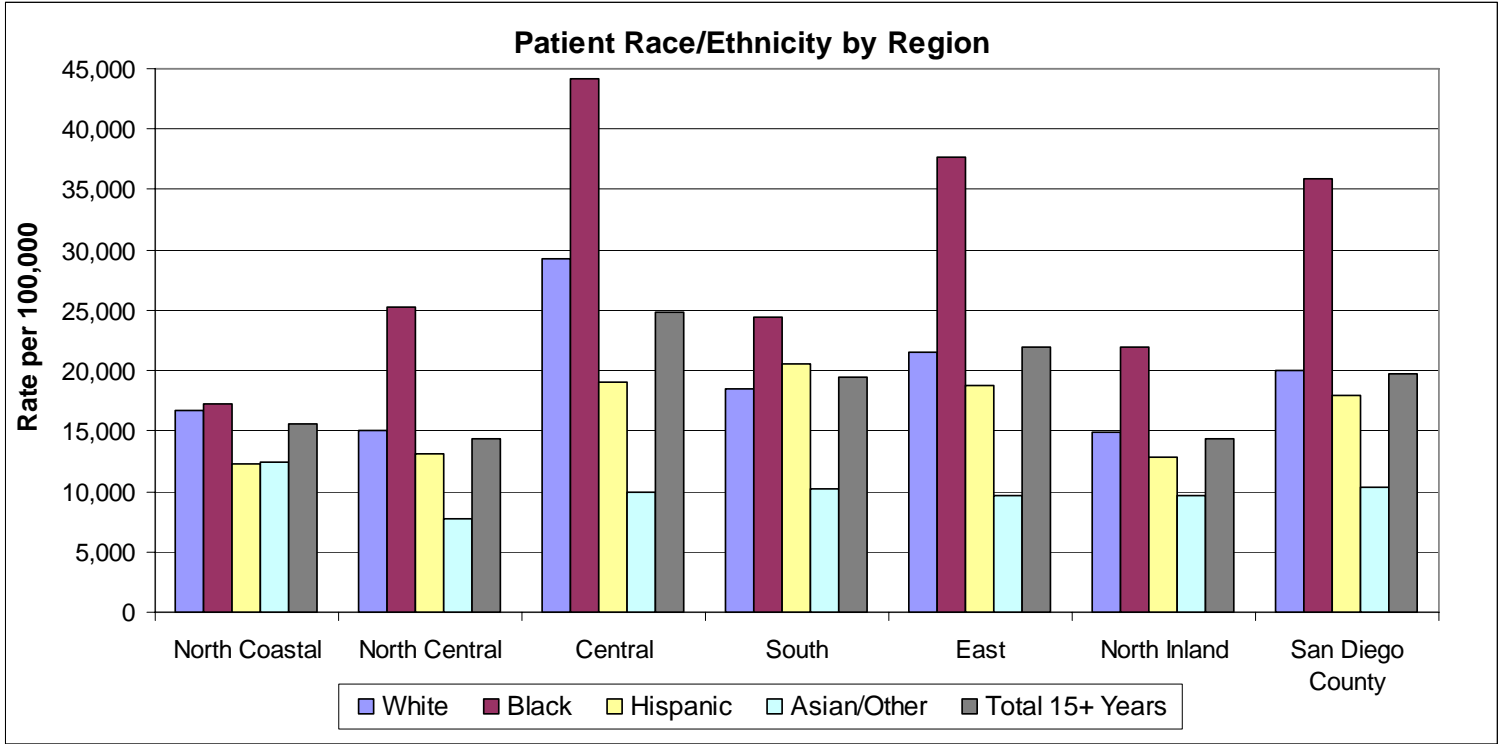
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**Patient Region of Residence by Age Group, 15+ Years, Rates per 100,000**

	North Coastal		North Central		Central		South		East		North Inland		San Diego County	
	Freq.	Rate	Freq.	Rate	Freq.	Rate	Freq.	Rate	Freq.	Rate	Freq.	Rate	Freq.	Rate
15-24	2,853	14,202.7	3,088	15,549.0	4,390	21,590.3	3,624	17,595.9	3,701	22,148.4	3,163	15,566.3	23,355	19,808.2
25-44	5,241	14,853.8	6,517	12,644.4	9,834	22,994.0	6,406	19,099.7	7,317	22,833.5	5,318	14,355.2	44,368	19,105.8
45-64	3,998	14,434.8	4,434	12,928.7	6,942	29,326.1	4,061	17,939.5	5,347	19,009.2	3,742	11,271.6	31,149	18,363.0
65+	3,025	21,423.5	3,675	20,933.3	3,010	28,926.3	3,107	27,070.4	3,428	26,071.4	3,160	18,605.5	20,548	24,552.0
<b>Total 15+</b>	<b>15,117</b>	<b>15,554.3</b>	<b>17,714</b>	<b>14,372.2</b>	<b>24,176</b>	<b>24,877.9</b>	<b>17,198</b>	<b>19,487.8</b>	<b>19,793</b>	<b>21,984.4</b>	<b>15,383</b>	<b>14,303.4</b>	<b>119,420</b>	<b>19,789.6</b>

Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005. Population data: SANDAG, 2005 Estimates, (3/06). \*Rates calculated per 100,000 population for patients 15+ years of age. Totals do not include <3% of all civilian ED discharges. \*San Diego County total includes 10,039 patients with out of county or unknown zip codes.

The annual rate of ED discharge by race/ethnicity also varies within each region. For every region, Blacks had a higher rate of discharge from the ED than any other racial/ethnic category. White patients were discharged from the ED at a higher rate than Hispanic patients in every region but South. In the South region, the rate of discharge for White patients was 18,566 per 100,000 and the rate for Hispanic patients was just slightly higher at 20,556 per 100,000.



Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005. Population data: SANDAG, 2005 Estimates, (3/06). \*Rates calculated per 100,000 population for patients 15+ years of age. Totals do not include <3% of all civilian ED discharges. \*San Diego County total includes 10,039 patients with out of county or unknown zip codes. Does not include 4,390 with missing race/ethnicity.

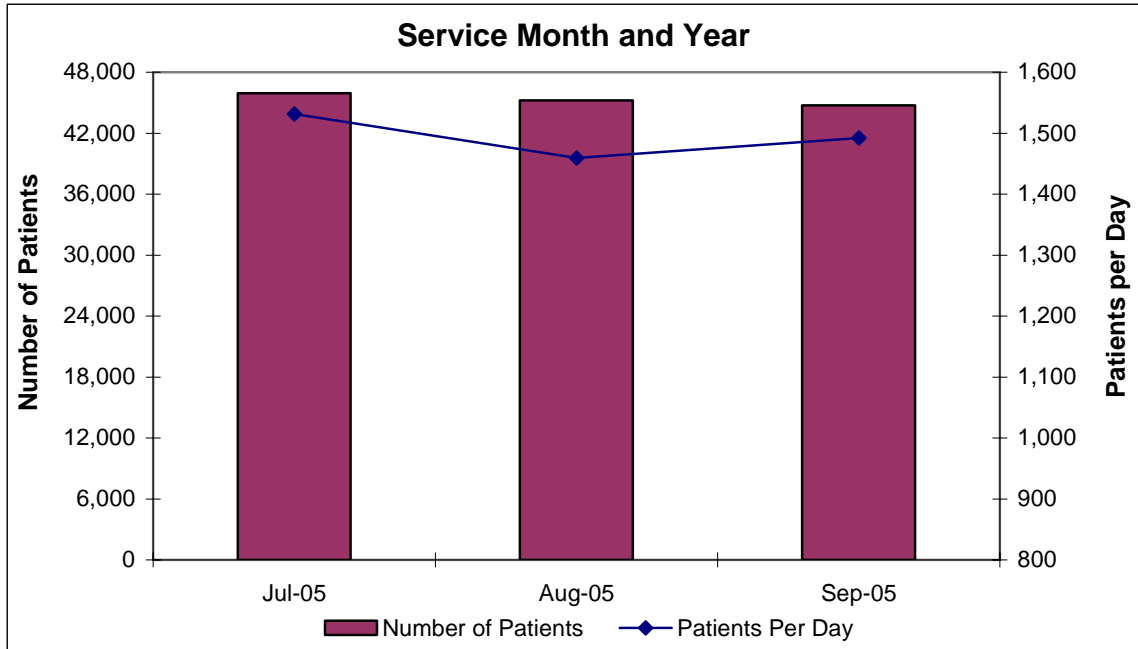
**Patient Race/Ethnicity by Region, 15+ Years, Rates per 100,000**

	North Coastal		North Central		Central		South		East		North Inland		San Diego County	
	Freq.	Rate	Freq.	Rate	Freq.	Rate	Freq.	Rate	Freq.	Rate	Freq.	Rate	Freq.	Rate
White	10,262	16,718.8	12,214	15,011.2	9,086	29,229.8	4,806	18,565.7	13,324	21,561.0	10,096	14,880.4	66,091	20,066.4
Black	619	17,187.3	925	25,271.5	5,614	44,116.1	1,045	24,447.3	1,653	37,705.3	463	21,997.9	11,037	35,892.1
Hispanic	2,969	12,349.7	1,806	13,051.7	6,791	19,064.9	8,959	20,556.4	3,073	18,772.7	3,245	12,804.1	28,599	18,010.1
Asian/Other	1,014	12,417.0	1,891	7,753.6	1,758	9,905.5	1,486	10,243.5	728	9,730.3	1,184	9,663.7	8,778	10,382.9
Total 15+ Years	15,117	15,554.3	17,714	14,372.2	24,176	24,877.9	17,198	19,487.8	19,793	21,984.4	15,383	14,303.4	119,420	19,789.6

Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005. Population data: SANDAG, 2005 Estimates, (3/06). \*Rates calculated per 100,000 population for patients 15+ years of age. Totals do not include <3% of all civilian ED discharges. \*San Diego County total includes 10,039 patients with out of county or unknown zip codes. Does not include 4,390 with missing race/ethnicity.

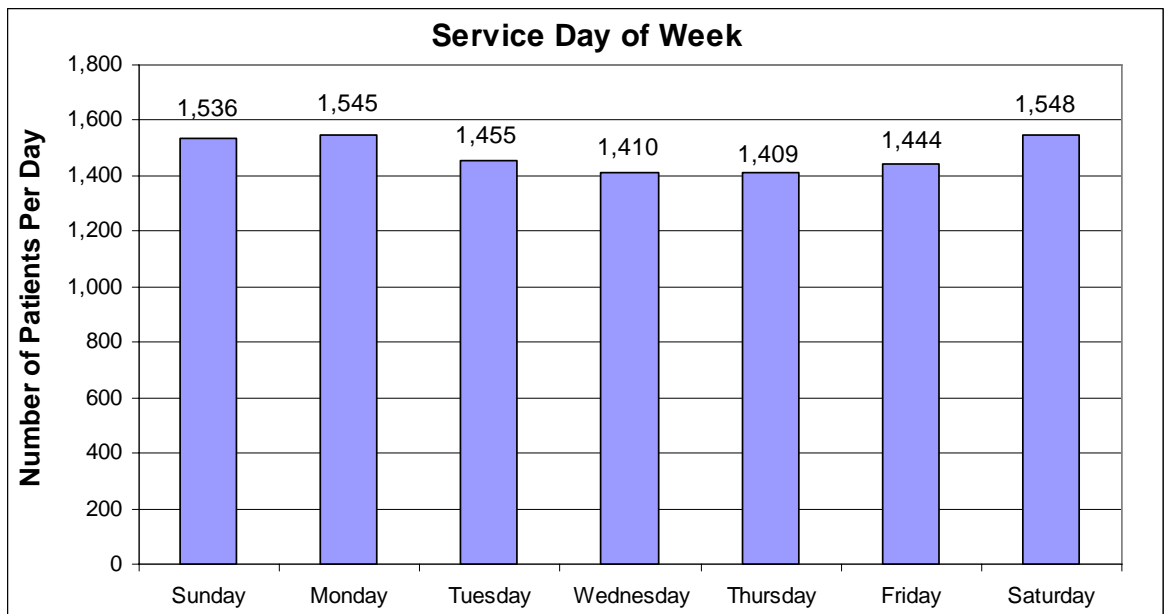
### Month and Day of Week

There were more patients discharged from participating San Diego County emergency departments in July than in August or September. The average number of patients discharged per day was 1,532 in July, 1,459 in August, and 1,492 in September.



Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005.

There were slightly more patients discharged per day on Saturdays (1,548) and Mondays (1,545) than any other day of the week.



Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005.

## Patient Disposition

Nearly all (94%) patients who were treated and discharged from the emergency department were sent home for self care. *Note: ED data does not include patients who were admitted to the hospital from the emergency department.* Typically, between 12 percent and 20 percent of all patients who present to the ED are admitted to the hospital.

### Patient Disposition

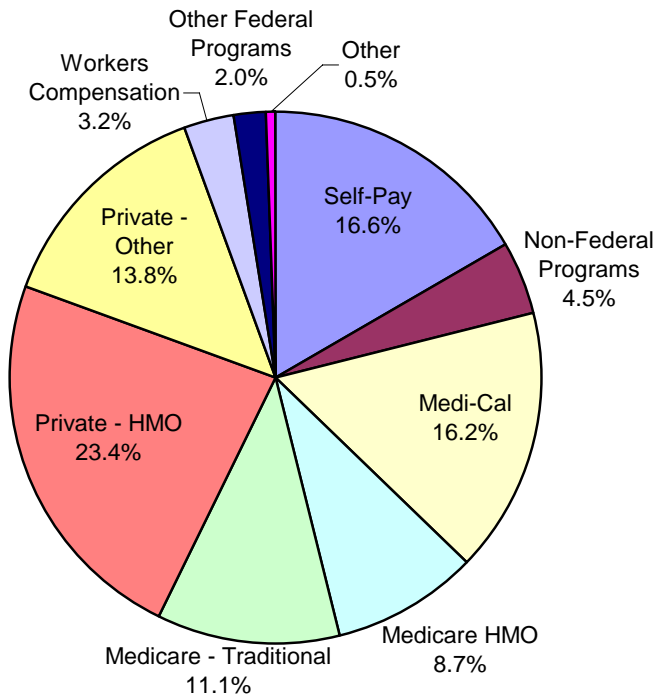
	Frequency	Percent
Home for Self Care	127,965	94.2
Transfer to Another Hospital	2,480	1.8
Left Facility Against Medical Advice	2,021	1.5
Other	1,156	0.9
Discharged to Psychiatric Hospital or Unit	788	0.6
Discharged to Skilled Nursing Facility	763	0.6
Expired	208	0.2
Transfer to Other Inpatient Facility	199	0.1
Discharged to Intermediate Care Facility	126	0.1
Home under care of organized home health service organization	56	0.0
Discharged to Other Rehab Facility	25	0.0
Unknown	15	0.0
Discharged to Long Term Care	15	0.0
Home With Hospice Care	14	0.0
Discharged to a Medical Facility With Hospice Care	11	0.0
Discharged to a Federal Hospital	7	0.0
Home Under Care of Home Intravenous Provider	3	0.0
Discharged to Nursing Facility under MediCal, not Medicare	2	0.0
Total	135,854	100.0

Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005. \*Excludes 100 patients with missing patient disposition.

### Expected Source of Payment

Among patients discharged from the participating emergency departments, nearly all (>99%) reported an expected source of payment. Of those with a known payment source, 20% were covered by Medicare and 16% by Medi-Cal. Seventeen percent of all patients were self-pay, and more than one-third were privately insured. The self-pay category includes those individuals without health insurance either by choice or circumstance. See Appendix B for a detailed description of the payment categories displayed below.

### Expected Source of Payment



Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005.

\*Excludes 9 patients with missing payor source.

\*\*As defined by OSHPD, Patients included in the self-pay category are those for whom payment is expected to be made directly by the patient, guarantor, relatives, or friends. The greatest share of the patient's bill is not expected to be paid by any form of insurance or other third party.



**Expected Source of Payment by Age Group**

	0-14		15-24		25-44		45-64		65+		Total	
	Freq.	Percent	Freq.	Percent	Freq.	Percent	Freq.	Percent	Freq.	Percent	Freq.	Percent
Self-Pay	2,160	13.1	6,082	26.0	9,758	22.0	4,111	13.2	413	2.0	22,524	16.6
Non-Federal Programs	65	0.4	923	4.0	3,016	6.8	2,156	6.9	13	0.1	6,173	4.5
Medi-Cal	5,378	32.5	4,374	18.7	7,129	16.1	4,772	15.3	391	1.9	22,044	16.2
Medicare HMO	522	3.2	517	2.2	1,100	2.5	1,376	4.4	8,314	40.5	11,829	8.7
Medicare - Traditional	1	0.0	102	0.4	1,827	4.1	3,113	10.0	10,075	49.0	15,118	11.1
Private - HMO	5,400	32.7	5,534	23.7	11,245	25.3	8,877	28.5	786	3.8	31,842	23.4
Private - Other	2,486	15.0	3,905	16.7	7,076	15.9	4,835	15.5	401	2.0	18,703	13.8
Workers Compensation	4	0.0	972	4.2	2,158	4.9	1,203	3.9	64	0.3	4,401	3.2
Other Federal Programs	418	2.5	810	3.5	835	1.9	582	1.9	44	0.2	2,689	2.0
Other	97	0.6	135	0.6	221	0.5	122	0.4	47	0.2	622	0.5
Total	16,531	100.0	23,354	100.0	44,365	100.0	31,147	100.0	20,548	100.0	135,945	100.0
Missing Payor Source	2		1		3		2		0		9	
Age Group Totals	16,533		23,355		44,368		31,149		20,548		135,954	

Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005. \*Total includes 1 patient with missing age group.

- One-third of reported patients aged 0 to 14 years were covered by Medi-Cal, and 13% were self-pay. Note: this data represents only 60% of all ED discharge patients ages 0-14 years.
- More than one out of every four patients aged 15 to 24 years were self-pay, compared to just 17% overall.
- 90% of patients aged 65 years and older were covered by Medicare.

**Expected Source of Payment by Race/Ethnicity**

	White		Black		Hispanic		Asian/Other		Unknown		Total	
	Freq.	Percent	Freq.	Percent	Freq.	Percent	Freq.	Percent	Freq.	Percent	Freq.	Percent
Self-Pay	9,788	13.6	2,361	19.1	7,980	22.2	1,415	14.1	981	17.2	22,525	16.6
Non-Federal Programs	3,443	4.8	981	7.9	1,373	3.8	302	3.0	74	1.3	6,173	4.5
Medi-Cal	7,445	10.3	3,689	29.8	9,242	25.8	1,357	13.5	311	5.4	22,044	16.2
Medicare HMO	8,756	12.2	463	3.7	1,653	4.6	592	5.9	365	6.4	11,829	8.7
Medicare-Traditional	9,959	13.8	1,195	9.6	2,548	7.1	1,300	13.0	116	2.0	15,118	11.1
Private-HMO	16,230	22.6	2,193	17.7	7,730	21.5	2,334	23.3	3,355	58.8	31,842	23.4
Private-Other	12,505	17.4	816	6.6	3,049	8.5	2,043	20.4	290	5.1	18,703	13.8
Workers Compensation	1,849	2.6	253	2.0	1,762	4.9	406	4.0	131	2.3	4,401	3.2
Other federal programs	1,695	2.4	337	2.7	371	1.0	238	2.4	48	0.8	2,689	2.0
Other	264	0.4	103	0.8	175	0.5	44	0.4	36	0.6	622	0.5
Total	71,934	100.0	12,391	100.0	35,883	100.0	10,031	100.0	5,707	100.0	135,946	100.0
Missing Payor Source	-1		0		5		1		3		8	
Race Totals	71,933		12,391		35,888		10,032		5,710		135,954	

Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005.

- 57% of Black patients were underinsured, while only 29% of White patients were underinsured (Underinsured is defined as those who are self-pay, non-federal programs, Medi-Cal).
- Only 24% of Black patients and 30% of Hispanic patients were privately insured, compared to 40% of White patients.

**Expected Source of Payment by Gender**

	Male		Female		Total	
	Freq.	Percent	Freq.	Percent	Freq.	Percent
Self-Pay	11,944	19.1	10,567	14.4	22,525	16.6
Non-Federal Programs	3,655	5.8	2,516	3.4	6,173	4.5
Medi-Cal	7,934	12.7	14,107	19.2	22,044	16.2
Medicare HMO	4,962	7.9	6,863	9.3	11,829	8.7
Medicare-Traditional	6,411	10.3	8,706	11.9	15,118	11.1
Private-HMO	14,477	23.2	17,362	23.6	31,842	23.4
Private-Other	9,033	14.5	9,662	13.2	18,703	13.8
Workers Compensation	2,636	4.2	1,763	2.4	4,401	3.2
Other federal programs	1,135	1.8	1,553	2.1	2,689	2.0
Other	294	0.5	328	0.4	622	0.5
Total	62,481	100.0	73,427	100.0	135,946	100.0
Missing Payor Source	4		3		8	
Gender Totals	62,485		73,430		135,954	

Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005.

- Nearly two-thirds of all Medi-Cal patients were female.
- 19% of male patients were self-pay, compared to 14% of female patients. Female patients were more often covered by Medi-Cal (19%) than male patients (13%).

**Expected Source of Payment by Region**

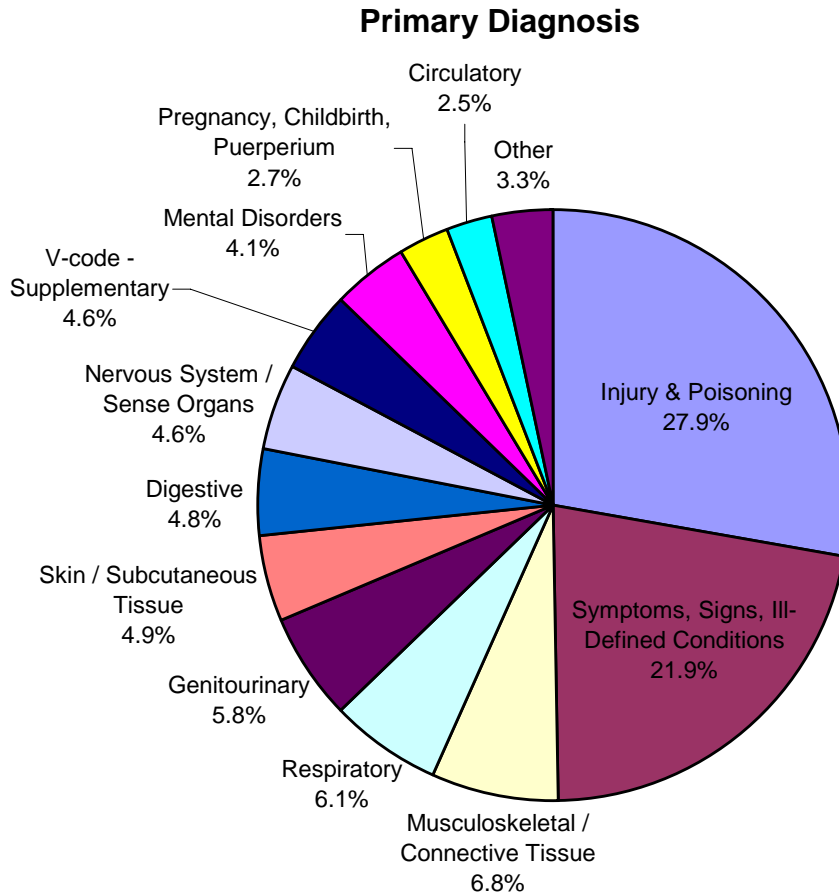
	North Coastal		North Central		Central		South		East		North Inland		Out of County		Unknown	
	Freq.	Percent	Freq.	Percent	Freq.	Percent	Freq.	Percent	Freq.	Percent	Freq.	Percent	Freq.	Percent	Freq.	Percent
Self-Pay	3,144	17.7	2,315	12.4	5,277	19.8	2,994	14.4	2,560	11.5	3,094	16.9	2,141	22.0	1,000	59.0
Non-Federal Programs	172	1.0	839	4.5	2,137	8.0	980	4.7	1,366	6.2	228	1.2	202	2.1	249	14.7
Medi-Cal	2,524	14.2	1,459	7.8	6,648	24.9	5,002	24.0	4,008	18.1	1,588	8.7	732	7.5	83	4.9
Medicare HMO	1,488	8.4	1,935	10.3	1,244	4.7	1,200	5.8	2,020	9.1	3,477	19.0	436	4.5	29	1.7
Medicare-Traditional	1,966	11.0	2,210	11.8	3,093	11.6	2,378	11.4	2,418	10.9	2,059	11.3	908	9.3	86	5.1
Private-HMO	3,372	18.9	5,333	28.5	5,217	19.6	5,207	25.0	7,283	32.8	3,803	20.8	1,542	15.8	85	5.0
Private-Other	3,392	19.0	3,676	19.6	1,904	7.1	2,043	9.8	1,655	7.5	2,679	14.6	3,239	33.3	115	6.8
Workers Compensation	1,167	6.6	536	2.9	730	2.7	597	2.9	497	2.2	634	3.5	227	2.3	13	0.8
Other federal programs	413	2.3	368	2.0	249	0.9	373	1.8	315	1.4	701	3.8	253	2.6	17	1.0
Other	171	1.0	73	0.4	177	0.7	39	0.2	58	0.3	30	0.2	55	0.6	19	1.1
Total	17,809	100.0	18,744	100.0	26,676	100.0	20,813	100.0	22,180	100.0	18,293	100.0	9,735	100.0	1,696	100.0
Missing Payor Source	1		0		2		1		0		4		0		0	
Region Totals	17,810		18,744		26,678		20,814		22,180		18,297		9,735		1,696	

Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005.

- 53% of ED discharge patients who lived in the Central region were underinsured, compared to just 25% in the North Central region.
- 33% of patients from the East region were covered by a private HMO, compared to 19% of patients from the North Coastal region and 20% of patients in the North Central Region.
- 25% of patients from the Central region and 24% of patients from the South region were covered by Medi-Cal, while only 8% of patients from the North Central region were covered by Medi-Cal.

**Primary Diagnosis**

Primary diagnosis was reported for 99.5% of all patients. Among the diagnoses that were reported, ED patients were treated and discharged for a diagnosis represented by the following categories. See Appendix C for a description of each category.



Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005. \*Excludes 629 with missing primary diagnosis.

The fifteen most common diagnoses among patients treated and discharged from the ED are listed below. Sprains and strains of joints and muscles was the most common diagnosis group (5.1%). Abdominal symptoms (5.1%) refer to abdominal tenderness or pain, which is otherwise unclassifiable. General symptoms (5.0%) include altered consciousness, hallucinations, syncope, convulsions, dizziness, sleep disturbances, fever, and general malaise and fatigue. Respiratory symptoms (5.0%) represent undiagnosed wheezing, cough, painful respiration, and other discomfort in the chest.

ED diagnoses of other diseases of the urinary system (3.8%) were mainly kidney stones, kidney infections, urinary tract infections, and cystitis. Dorsopathies (3.2%) refer to disorders of the back and cervical region. Neurotic, personality and other nonpsychotic mental disorders (3.0%) included neurotic disorders, non-dependent abuse of drugs, and other depressive disorders. Acute respiratory infections (2.8%) include the common cold, sore throat, tonsillitis, laryngitis, and acute bronchitis, while chronic obstructive pulmonary disease (COPD) and allied conditions (2.1%) refer to asthma, chronic bronchitis, emphysema, and other chronic obstructive lung diseases.

**Primary Diagnosis  
15 Most Common Diagnoses**

Primary Diagnosis	Frequency	Percent
840-848 SPRAINS AND STRAINS OF JOINTS AND MUSCLES	6,923	5.1
789 ABDOMINAL SYMPTOMS*	6,869	5.1
780 GENERAL SYMPTOMS*	6,800	5.0
786 RESPIRATORY SYMPTOMS*	6,739	5.0
920-924 CONTUSION WITH INTACT SKIN SURFACE	5,260	3.9
590-599 OTHER DISEASES OF URINARY SYSTEM	5,205	3.8
870-879 OPEN WOUND OF HEAD, NECK, TRUNK	4,467	3.3
720-724 DORSOPATHIES	4,403	3.2
680-686 INFECTIONS OF SKIN AND SUBCUTANEOUS TISSUE	4,313	3.2
880-887 OPEN WOUND OF UPPER LIMB	4,162	3.1
300-316 NEUR, PERSONALITY, OTR NONPSYCH MENTAL DIS	4,074	3.0
460-466 ACUTE RESPIRATORY INFECTIONS	3,820	2.8
784 HEAD AND NECK SYMPTOMS*	3,164	2.3
490-496 COPD AND ALLIED CONDITIONS	2,796	2.1
810-819 FRACTURE OF UPPER LIMB	2,776	2.0

Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005.

## Primary Diagnosis by Age Group

	0-14		15-24		25-44		45-64		65+		Total	
	Freq.	Percent	Freq.	Percent	Freq.	Percent	Freq.	Percent	Freq.	Percent	Freq.	Percent
Infectious and Parasitic Diseases	453	2.8	300	1.3	449	1.0	238	0.8	117	0.6	1,557	1.2
Neoplasms	6	0.0	13	0.1	61	0.1	82	0.3	84	0.4	246	0.2
Endocrine, Nutrition, Metabolic	97	0.6	181	0.8	545	1.2	674	2.2	719	3.5	2,216	1.6
Disease of Blood & Blood Forming Organs	26	0.2	32	0.1	71	0.2	62	0.2	77	0.4	268	0.2
Mental Disorders	88	0.5	1,107	4.8	2,300	5.2	1,572	5.1	537	2.6	5,604	4.1
Diseases of Nervous System/Sense Organs	1,201	7.3	862	3.7	2,160	4.9	1,441	4.6	574	2.8	6,238	4.6
Circulatory	25	0.2	93	0.4	577	1.3	1,053	3.4	1,679	8.2	3,427	2.5
Respiratory	2,274	13.8	1,422	6.1	2,128	4.8	1,455	4.7	1,041	5.1	8,320	6.1
Digestive	610	3.7	963	4.1	2,156	4.9	1,561	5.0	1,168	5.7	6,458	4.8
Genitourinary	338	2.1	1,683	7.2	2,984	6.8	1,628	5.2	1,205	5.9	7,838	5.8
Pregnancy, Childbirth, Puerperium	10	0.1	1,547	6.7	2,051	4.6	10	0.0	0	0.0	3,618	2.7
Skin/Subcutaneous Tissue	644	3.9	1,260	5.4	2,524	5.7	1,574	5.1	576	2.8	6,578	4.9
Musculoskeletal/Connective Tissue	280	1.7	971	4.2	3,305	7.5	3,054	9.8	1,611	7.9	9,221	6.8
Congenital Anomalies	15	0.1	12	0.1	5	0.0	11	0.0	5	0.0	48	0.0
Perinatal Conditions	131	0.8	0	0.0	4	0.0	0	0.0	0	0.0	135	0.1
Symptoms, Signs, Ill-Defined Conditions	3,076	18.7	3,760	16.2	9,330	21.1	7,640	24.6	5,811	28.4	29,617	21.9
Injury and Poisoning	6,586	40.0	7,822	33.6	11,209	25.4	7,412	23.9	4,683	22.9	37,712	27.9
V-Code - Supplementary	585	3.6	1,218	5.2	2,303	5.2	1,546	5.0	571	2.8	6,223	4.6
Group Total	16,445	100.0	23,246	100.0	44,162	100.0	31,013	100.0	20,458	100.0	135,324	100.0

## Primary Diagnosis by Age Group, 15+ Years, Rates per 100,000

	15-24		25-44		45-64		65+		Total 15+ Years	
	Freq.	Rate	Freq.	Rate	Freq.	Rate	Freq.	Rate	Freq.	Rate
Infectious and Parasitic Diseases	300	254.4	449	193.3	238	140.3	117	139.8	1,104	144.7
Neoplasms	13	11.0	61	26.3	82	48.3	84	100.4	240	31.5
Endocrine, Nutrition, Metabolic	181	153.5	545	234.7	674	397.3	719	859.1	2,119	277.8
Disease of Blood & Blood Forming Organs	32	27.1	71	30.6	62	36.6	77	92.0	242	31.7
Mental Disorders	1,107	938.9	2,300	990.4	1,572	926.7	537	641.6	5,516	723.1
Diseases of Nervous System/Sense Organs	862	731.1	2,160	930.1	1,441	849.5	574	685.9	5,037	660.3
Circulatory	93	78.9	577	248.5	1,053	620.8	1,679	2,006.2	3,402	446.0
Respiratory	1,422	1,206.0	2,128	916.4	1,455	857.8	1,041	1,243.9	6,046	792.6
Digestive	963	816.8	2,156	928.4	1,561	920.2	1,168	1,395.6	5,848	766.6
Genitourinary	1,683	1,427.4	2,984	1,285.0	1,628	959.7	1,205	1,439.8	7,500	983.2
Pregnancy, Childbirth, Puerperium	1,547	1,312.1	2,051	883.2	10	5.9	0	-	3,608	473.0
Skin/Subcutaneous Tissue	1,260	1,068.6	2,524	1,086.9	1,574	927.9	576	688.2	5,934	777.9
Musculoskeletal/Connective Tissue	971	823.5	3,305	1,423.2	3,054	1,800.4	1,611	1,924.9	8,941	1,172.1
Congenital Anomalies	12	10.2	5	2.2	11	6.5	5	6.0	33	4.3
Perinatal Conditions	0	-	4	*	0	-	0	-	4	*
Symptoms, Signs, Ill-Defined Conditions	3,760	3,189.0	9,330	4,017.7	7,640	4,504.0	5,811	6,943.3	26,541	3,479.3
Injury and Poisoning	7,822	6,634.1	11,209	4,826.8	7,412	4,369.5	4,683	5,595.5	31,126	4,080.4
V-Code - Supplementary	1,218	1,033.0	2,303	991.7	1,546	911.4	571	682.3	5,638	739.1
Group Total	23,246	19,715.7	44,162	19,017.1	31,013	18,282.9	20,458	24,444.5	118,879	15,584.1

Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005. Population data: SANDAG, 2005 Estimates, (3/06). \*Rates calculated per 100,000 population for patients 15+ years of age. Rates not calculated on fewer than 5 cases. Totals do not include <3% of all civilian ED discharges. \*Excludes 629 patients with missing primary diagnosis, and 10 patients with missing age group.

- 40% of ED discharges among reported patients aged 0 to 14 years were for injuries or poisonings, and 14% were for respiratory diseases.
- Patients aged 65 years and older were discharged from the ED for circulatory diseases at an annual rate of 2,006 per 100,000 in the population, representing 8% of all ED discharges for patients in this age group.
- Nearly 10% of all patients aged 45 to 64 years were discharged with a musculoskeletal/connective tissue disease (1,800 per 100,000 population).

## Primary Diagnosis by Race/Ethnicity, All Ages

	White		Black		Hispanic		Asian/Other		Unknown		Total	
	Freq.	Percent	Freq.	Percent	Freq.	Percent	Freq.	Percent	Freq.	Percent	Freq.	Percent
Infectious and Parasitic Diseases	685	1.0	197	1.6	529	1.5	117	1.2	29	0.5	1,557	1.2
Neoplasms	132	0.2	18	0.1	76	0.2	17	0.2	3	0.1	246	0.2
Endocrine, Nutrition, Metabolic	1,202	1.7	222	1.8	560	1.6	170	1.7	62	1.1	2,216	1.6
Disease of Blood & Blood Forming Organs	128	0.2	62	0.5	62	0.2	10	0.1	6	0.1	268	0.2
Mental Disorders	3,545	4.9	436	3.5	1,174	3.3	280	2.8	169	3.0	5,604	4.1
Diseases of Nervous System/Sense Organs	3,260	4.5	612	5.0	1,593	4.5	508	5.1	265	4.8	6,238	4.6
Circulatory	2,177	3.0	302	2.4	585	1.6	242	2.4	121	2.2	3,427	2.5
Respiratory	4,027	5.6	968	7.8	2,344	6.6	645	6.4	336	6.1	8,320	6.1
Digestive	3,206	4.5	557	4.5	1,913	5.4	515	5.1	268	4.8	6,459	4.8
Genitourinary	4,147	5.8	691	5.6	2,110	5.9	609	6.1	281	5.1	7,838	5.8
Pregnancy, Childbirth, Puerperium	1,126	1.6	350	2.8	1,786	5.0	248	2.5	108	1.9	3,618	2.7
Skin/Subcutaneous Tissue	3,644	5.1	661	5.4	1,600	4.5	451	4.5	222	4.0	6,578	4.9
Musculoskeletal/Connective Tissue	5,177	7.2	1,113	9.0	2,022	5.7	572	5.7	337	6.1	9,221	6.8
Congenital Anomalies	26	0.0	3	0.0	19	0.1	0	0.0	0	0.0	48	0.0
Perinatal Conditions	32	0.0	5	0.0	85	0.2	11	0.1	2	0.0	135	0.1
Symptoms, Signs, Ill-Defined Conditions	15,409	21.5	2,724	22.1	7,754	21.7	2,472	24.7	1,258	22.7	29,617	21.9
Injury and Poisoning	20,782	29.0	2,712	22.0	9,687	27.1	2,648	26.5	1,883	34.0	37,712	27.9
V-Code - Supplementary	2,965	4.1	715	5.8	1,853	5.2	494	4.9	196	3.5	6,223	4.6
Group Total	71,670	100.0	12,348	100.0	35,752	100.0	10,009	100.0	5,546	100.0	135,325	100.0

## Primary Diagnosis by Race/Ethnicity, 15+ Years, Rates per 100,000

	White		Black		Hispanic		Asian/Other		Total 15+ Years	
	Freq.	Rate	Freq.	Rate	Freq.	Rate	Freq.	Rate	Freq.	Rate
Infectious and Parasitic Diseases	567	172.2	149	484.5	287	180.7	78	92.3	1,104	182.9
Neoplasms	131	39.8	17	55.3	73	46.0	16	18.9	240	39.8
Endocrine, Nutrition, Metabolic	1,173	356.1	216	702.4	508	319.9	163	192.8	2,119	351.1
Disease of Blood & Blood Forming Organs	119	36.1	61	198.4	50	31.5	8	9.5	242	40.1
Mental Disorders	3,510	1,065.7	430	1,398.4	1,134	714.1	275	325.3	5,516	914.1
Diseases of Nervous System/Sense Organs	2,829	858.9	505	1,642.2	1,063	669.4	420	496.8	5,037	834.7
Circulatory	2,169	658.5	301	978.8	573	360.8	241	285.1	3,402	563.8
Respiratory	3,375	1,024.7	748	2,432.5	1,222	769.5	452	534.6	6,046	1,001.9
Digestive	3,046	924.8	513	1,668.3	1,583	996.9	471	557.1	5,848	969.1
Genitourinary	4,050	1,229.7	666	2,165.8	1,923	1,211.0	592	700.2	7,500	1,242.9
Pregnancy, Childbirth, Puerperium	1,126	341.9	348	1,131.7	1,778	1,119.7	248	293.3	3,608	597.9
Skin/Subcutaneous Tissue	3,424	1,039.6	600	1,951.2	1,318	830.0	394	466.0	5,934	983.3
Musculoskeletal/Connective Tissue	5,071	1,539.6	1,081	3,515.4	1,909	1,202.2	554	655.3	8,941	1,481.6
Congenital Anomalies	23	7.0	2	*	8	5.0	0	-	33	5.5
Perinatal Conditions	3	*	0	-	1	*	0	-	4	*
Symptoms, Signs, Ill-Defined Conditions	14,539	4,414.3	2,482	8,071.4	6,192	3,899.4	2,222	2,628.2	26,541	4,398.2
Injury and Poisoning	17,909	5,437.5	2,235	7,268.2	7,271	4,578.9	2,170	2,566.7	31,126	5,158.0
V-Code - Supplementary	2,774	842.2	644	2,094.3	1,597	1,005.7	454	537.0	5,638	934.3
Group Total	65,838	19,989.6	10,998	35,765.3	28,490	17,941.5	8,758	10,359.2	118,879	19,699.9

Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005. Population data: SANDAG, 2005 Estimates, (3/06). \*Rates calculated per 100,000 population for patients 15+ years of age. Rates not calculated on fewer than 5 cases. Totals do not include <3% of all civilian ED discharges. \*Excludes 629 patients with missing primary diagnosis, and includes 4,795 patients with missing race/ethnicity.

- 7.8% of all black patients were discharged with a respiratory diagnosis, compared to just 5.6% of all white patients.
- Black patients aged 15+ years were discharged from the ED for symptoms, signs, and ill-defined conditions at a rate of 8,071 per 100,000 in the population, compared to Asian/Other patients, who were discharged at a rate of 2,628 per 100,000.

**Primary Diagnosis by Gender, All Ages**

	Male		Female		Total	
	Freq.	Percent	Freq.	Percent	Freq.	Percent
Infectious and Parasitic Diseases	738	1.2	819	1.1	1,557	1.2
Neoplasms	91	0.1	155	0.2	246	0.2
Endocrine, Nutrition, Metabolic	1,077	1.7	1,138	1.6	2,216	1.6
Disease of Blood & Blood Forming Organs	109	0.2	159	0.2	268	0.2
Mental Disorders	2,958	4.8	2,646	3.6	5,604	4.1
Diseases of Nervous System/Sense Organs	2,552	4.1	3,683	5.0	6,238	4.6
Circulatory	1,674	2.7	1,753	2.4	3,427	2.5
Respiratory	3,870	6.2	4,450	6.1	8,320	6.1
Digestive	2,907	4.7	3,550	4.9	6,459	4.8
Genitourinary	2,262	3.6	5,575	7.6	7,838	5.8
Pregnancy, Childbirth, Puerperium	0	0.0	3,618	4.9	3,618	2.7
Skin/Subcutaneous Tissue	3,476	5.6	3,101	4.2	6,578	4.9
Musculoskeletal/Connective Tissue	3,997	6.4	5,224	7.1	9,221	6.8
Congenital Anomalies	30	0.0	18	0.0	48	0.0
Perinatal Conditions	78	0.1	57	0.1	135	0.1
Symptoms, Signs, Ill-Defined Conditions	12,108	19.5	17,505	23.9	29,617	21.9
Injury and Poisoning	20,791	33.4	16,905	23.1	37,712	27.9
V-Code - Supplementary	3,476	5.6	2,745	3.8	6,223	4.6
Group Total	62,194	100.0	73,101	100.0	135,325	100.0

**Primary Diagnosis by Gender, 15+ Years, Rates per 100,000**

	Male		Female		Total	
	Freq.	Rate	Freq.	Rate	Freq.	Rate
Infectious and Parasitic Diseases	499	166.1	605	199.6	1,104	182.9
Neoplasms	89	29.6	151	49.8	240	39.8
Endocrine, Nutrition, Metabolic	1,032	343.6	1,086	358.3	2,119	351.1
Disease of Blood & Blood Forming Organs	99	33.0	143	47.2	242	40.1
Mental Disorders	2,913	969.8	2,603	858.9	5,516	914.1
Diseases of Nervous System/Sense Organs	1,899	632.2	3,136	1,034.8	5,037	834.7
Circulatory	1,659	552.3	1,743	575.1	3,402	563.8
Respiratory	2,534	843.6	3,512	1,158.8	6,046	1,001.9
Digestive	2,560	852.2	3,286	1,084.2	5,846	969.1
Genitourinary	2,161	719.4	5,338	1,761.3	7,500	1,242.9
Pregnancy, Childbirth, Puerperium	0	-	3,608	1,190.5	3,608	597.9
Skin/Subcutaneous Tissue	3,140	1,045.3	2,794	921.9	5,934	983.3
Musculoskeletal/Connective Tissue	3,856	1,283.7	5,085	1,677.8	8,941	1,481.6
Congenital Anomalies	21	7.0	12	4.0	33	5.5
Perinatal Conditions	1	*	3	*	4	*
Symptoms, Signs, Ill-Defined Conditions	10,537	3,507.9	16,001	5,279.7	26,541	4,398.2
Injury and Poisoning	16,723	5,567.2	14,391	4,748.4	31,126	5,158.0
V-Code - Supplementary	3,145	1,047.0	2,491	821.9	5,638	934.3
Group Total	52,868	17,600.3	65,988	21,773.3	118,879	19,699.9

Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005. Population data: SANDAG, 2005 Estimates, (3/06). \*Rates calculated per 100,000 population for patients 15+ years of age. Rates not calculated on fewer than 5 cases. Totals do not include <3% of all civilian ED discharges. \*Excludes 629 patients with missing primary diagnosis, and includes 23 patients with missing gender.

- More than 33% of all ED discharges among males (5,567 per 100,000) were due to injury or poisoning compared to only 23% of female patients (4,748 per 100,000).
- Females aged 15+ years were discharged from the ED for complications of pregnancy and childbirth at a rate of 1,191 per 100,000 population.

**Primary Diagnosis by Region, All Ages**

	North Coastal		North Central		Central		South		East		North Inland		Out of County/Unknown	
	Freq.	Percent	Freq.	Percent	Freq.	Percent	Freq.	Percent	Freq.	Percent	Freq.	Percent	Freq.	Percent
Infectious and Parasitic Diseases	251	1.4	161	0.9	389	1.5	332	1.6	211	1.0	66	0.4	147	1.3
Neoplasms	40	0.2	29	0.2	43	0.2	41	0.2	32	0.1	41	0.2	20	0.2
Endocrine, Nutrition, Metabolic	247	1.4	308	1.6	478	1.8	368	1.8	307	1.4	348	1.9	160	1.4
Disease of Blood & Blood Forming Organs	40	0.2	25	0.1	39	0.1	37	0.2	56	0.3	40	0.2	31	0.3
Mental Disorders	823	4.6	656	3.5	1,039	3.9	667	3.2	931	4.2	833	4.6	655	5.8
Diseases of Nervous System/Sense Organs	714	4.0	937	5.0	1,200	4.5	1,001	4.8	1,003	4.5	808	4.5	575	5.1
Circulatory	564	3.2	586	3.1	577	2.2	503	2.4	555	2.5	443	2.5	199	1.7
Respiratory	1,019	5.7	994	5.3	1,678	6.3	1,350	6.5	1,349	6.1	1,206	6.7	724	6.4
Digestive	813	4.6	878	4.7	1,257	4.7	1,256	6.0	1,007	4.5	822	4.6	426	3.7
Genitourinary	935	5.3	1,120	6.0	1,515	5.7	1,261	6.1	1,351	6.1	1,034	5.8	622	5.5
Pregnancy, Childbirth, Puerperium	442	2.5	402	2.2	822	3.1	763	3.7	513	2.3	481	2.7	195	1.7
Skin/Subcutaneous Tissue	780	4.4	884	4.7	1,532	5.8	939	4.5	1,036	4.7	746	4.1	661	5.8
Musculoskeletal/Connective Tissue	1,000	5.6	1,276	6.8	2,045	7.7	1,380	6.6	1,696	7.7	1,128	6.3	696	6.1
Congenital Anomalies	7	0.0	4	0.0	4	0.0	11	0.1	5	0.0	14	0.1	3	0.0
Perinatal Conditions	34	0.2	11	0.1	15	0.1	37	0.2	16	0.1	20	0.1	2	0.0
Symptoms, Signs, Ill-Defined Conditions	3,467	19.5	4,199	22.5	5,874	22.1	4,683	22.5	5,292	23.9	3,996	22.2	2,106	18.5
Injury and Poisoning	5,582	31.5	5,416	29.0	6,222	23.4	5,364	25.8	6,101	27.6	5,361	29.8	3,666	32.2
V-Code - Supplementary	982	5.5	808	4.3	1,895	7.1	775	3.7	673	3.0	592	3.3	498	4.4
<b>Group Total</b>	<b>17,740</b>	<b>100.0</b>	<b>18,694</b>	<b>100.0</b>	<b>26,624</b>	<b>100.0</b>	<b>20,768</b>	<b>100.0</b>	<b>22,134</b>	<b>100.0</b>	<b>17,979</b>	<b>100.0</b>	<b>11,386</b>	<b>100.0</b>

**Primary Diagnosis by Region, 15+ Years, Rates per 100,000**

	North Coastal		North Central		Central		South		East		North Inland	
	Freq.	Rate	Freq.	Rate	Freq.	Rate	Freq.	Rate	Freq.	Rate	Freq.	Rate
Infectious and Parasitic Diseases	160	164.6	151	122.5	290	298.4	183	207.4	150	166.6	49	45.6
Neoplasms	39	40.1	29	23.5	42	43.2	40	45.3	32	35.5	38	35.3
Endocrine, Nutrition, Metabolic	241	248.0	300	243.4	457	470.3	356	403.4	298	331.0	313	291.0
Disease of Blood & Blood Forming Organs	36	37.0	25	20.3	36	37.0	29	32.9	53	58.9	36	33.5
Mental Disorders	810	833.4	647	524.9	1,029	1,058.9	646	732.0	914	1,015.2	819	761.5
Diseases of Nervous System/Sense Organs	561	577.2	868	704.2	1,008	1,037.3	718	813.6	850	944.1	609	566.3
Circulatory	559	575.2	585	474.6	575	591.7	498	564.3	548	608.7	438	407.3
Respiratory	654	672.9	882	715.6	1,322	1,360.4	853	966.6	1,032	1,146.3	768	714.1
Digestive	708	728.5	840	681.5	1,169	1,202.9	1,109	1,256.7	920	1,021.9	718	667.6
Genitourinary	878	903.4	1,102	894.1	1,454	1,496.2	1,184	1,341.6	1,319	1,465.0	974	905.6
Pregnancy, Childbirth, Puerperium	442	454.8	402	326.2	813	836.6	762	863.5	513	569.8	481	447.2
Skin/Subcutaneous Tissue	672	691.4	858	696.1	1,428	1,469.5	774	877.1	968	1,075.2	648	602.5
Musculoskeletal/Connective Tissue	972	1,000.1	1,261	1,023.1	1,997	2,055.0	1,317	1,492.3	1,642	1,823.8	1,088	1,011.6
Congenital Anomalies	3	*	3	*	3	*	8	9.1	3	*	10	9.3
Perinatal Conditions	1	*	0	-	0	-	0	-	1	*	1	*
Symptoms, Signs, Ill-Defined Conditions	2,989	3,075.5	4,046	3,282.7	5,380	5,536.2	3,963	4,490.6	4,863	5,401.4	3,395	3,156.7
Injury and Poisoning	4,427	4,555.1	4,912	3,985.3	5,356	5,511.5	4,067	4,608.5	5,053	5,612.4	4,218	3,922.0
V-Code - Supplementary	906	932.2	754	611.8	1,766	1,817.3	653	739.9	589	654.2	520	483.5
<b>Group Total</b>	<b>15,058</b>	<b>15,493.6</b>	<b>17,665</b>	<b>14,332.4</b>	<b>24,125</b>	<b>24,825.5</b>	<b>17,160</b>	<b>19,444.7</b>	<b>19,748</b>	<b>21,934.4</b>	<b>15,123</b>	<b>14,061.6</b>

Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005. Population data: SANDAG, 2005 Estimates, (3/06). \*Rates calculated per 100,000 population for patients 15+ years of age. Rates not calculated on fewer than 5 cases. Totals do not include <3% of all civilian ED discharges. \*Excludes 629 patients with missing primary diagnosis, and rates exclude 10,000 patients with an out of county or unknown region of residence.

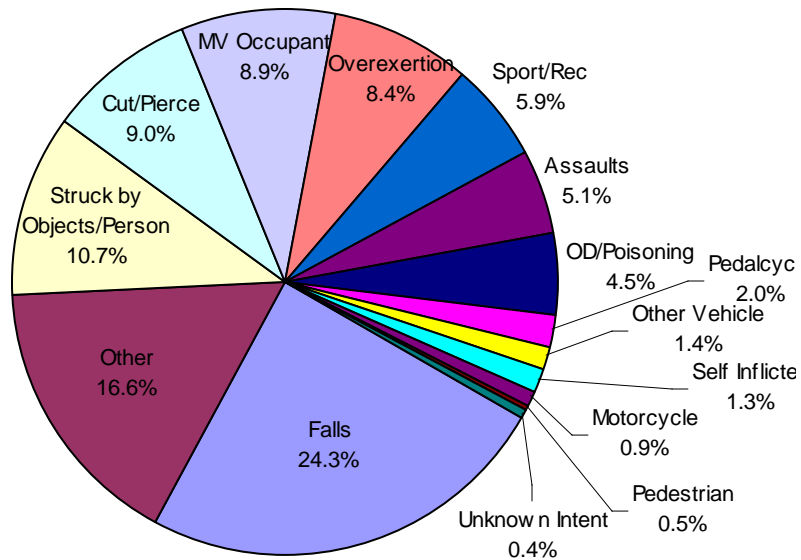
- Patients aged 15+ years were discharged from the ED for injury or poisoning at a rate of 5,612 per 100,000 in the East region and 5,512 per 100,000 in the Central region, compared to 3,985 per 100,000 in the North Central region.
- In the Central region, patients aged 15+ years were discharged from the ED for respiratory disorders at a rate of 1,360 per 100,000 in the population, compared to 673 per 100,000 in the North Coastal region.



**Primary Injury**

A primary external cause of injury code (E-code) was reported for 40,578 patients (30%). Overall, falls accounted for nearly a quarter of all injuries (24%). Eleven percent of injured ED discharge patients were struck by an object or person, and 9% suffered cut/pierce injuries. The “other” category includes burn/scald injuries, environmental injuries (heat, cold, bites, etc.), and injuries not otherwise listed. It is important to note that injured ED discharge patients represent the least severe injuries that are presented to the ED. More seriously injured persons are admitted to the hospital.

**Primary Mechanism of Injury**



Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005.

The fifteen most common mechanisms of injury are listed below.

**Primary Mechanism of Injury  
15 Most Common E-Codes**

Principal E-Code	Frequency	Percent
FALL OTH TRIP STUMBLE	3,703	9.1
ACCID FROM OVEREXERTION*	3,400	8.4
STRUCK BY OBJ/PERSON OT	2,471	6.1
ACCID CUTTING INSTRUM OT	2,008	4.9
UNSPEC FALL	1,977	4.9
MVA COLLISION UNSP DRIVER	1,849	4.6
ACCIDENT UNSPEC	1,462	3.6
STRUCK IN SPORTS W/O FALL	1,275	3.1
UNARMED FIGHT OR BRAWL	914	2.3
MVA COLLISION UNSP PASNGR	852	2.1
KNIFE/SWORD/DAGGER ACC	794	2.0
FALL AGAINST OTH OBJECT	747	1.8
PED CYCLE ACCID PED CYCLIST	702	1.7
FALL ON STAIR/STEP OT	691	1.7
FALL ONE LEVEL TO ANOTH	622	1.5

Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005.

**Primary Injury by Age Group, 15+ Years, Rates per 100,000**

	15-24		25-44		45-64		65+		Total	
	Freq.	Rate	Freq.	Rate	Freq.	Rate	Freq.	Rate	Freq.	Rate
MV Occupant	1,128	956.7	1,311	564.5	716	422.1	229	273.6	3,384	560.8
Motorcycle	122	103.5	146	62.9	60	35.4	5	6.0	333	55.2
Pedalcycle	156	132.3	248	106.8	134	79.0	23	27.5	561	93.0
Pedestrian	53	45.0	74	31.9	48	28.3	12	14.3	187	31.0
Other Vehicle	107	90.8	181	77.9	146	86.1	67	80.1	501	83.0
Falls	983	833.7	1,836	790.6	2,135	1,258.6	2,831	3,382.7	7,785	1,290.1
Self Inflicted	194	164.5	224	96.5	94	55.4	12	14.3	524	86.8
Assaults	796	675.1	823	354.4	331	195.1	32	38.2	1,982	328.4
Sport/Rec	847	718.4	596	256.6	142	83.7	18	21.5	1,603	265.6
Other	1,292	1,095.8	2,143	922.8	1,514	892.5	678	810.1	5,627	932.5
Unknown Intent	37	31.4	78	33.6	37	21.8	9	10.8	161	26.7
OD/Poisoning	249	211.2	494	212.7	502	295.9	417	498.3	1,662	275.4
Struck by Objects/Person	883	748.9	1,240	534.0	739	435.7	318	380.0	3,180	527.0
Cut/Pierce	866	734.5	1,395	600.7	737	434.5	232	277.2	3,230	535.3
Overexertion	721	611.5	1,368	589.1	753	443.9	221	264.1	3,063	507.6
Group Total	8,434	7,153.2	12,157	5,235.1	8,088	4,768.1	5,104	6,098.6	33,783	5,598.3

Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005. Population data: SANDAG, 2005 Estimates, (3/06). \*Rates calculated per 100,000 population for patients 15+ years of age. Totals do not include <3% of all civilian ED discharges.

- Overall, the highest rate of ED discharge for injury was among 15 to 24 year olds (7,153 per 100,000), compared to 4,768 per 100,000 for 45 to 64 year olds.
- The highest rate of falls was among ED discharge patients aged 65 years and older (3,382 per 100,000), compared to 791 per 100,000 among 25 to 44 year olds.
- Sports and recreation related injury patients were discharged at a rate of 718 per 100,00 among 15 to 24 year olds, compared to just 22 per 100,000 among 65+ year olds.

**Primary Injury by Race/Ethnicity, 15+ Years, Rates per 100,000**

	White		Black		Hispanic		Asian/Other		Total	
	Freq.	Rate	Freq.	Rate	Freq.	Rate	Freq.	Rate	Freq.	Rate
MV Occupant	1,550	470.6	314	1,021.1	928	584.4	392	463.7	3,384	560.8
Motorcycle	224	68.0	12	39.0	59	37.2	15	17.7	333	55.2
Pedalcycle	385	116.9	28	91.1	88	55.4	37	43.8	561	93.0
Pedestrian	83	25.2	19	61.8	56	35.3	18	21.3	187	31.0
Other Vehicle	273	82.9	42	136.6	134	84.4	27	31.9	501	83.0
Falls	5,093	1,546.3	437	1,421.1	1,541	970.4	443	524.0	7,785	1,290.1
Self Inflicted	320	97.2	36	117.1	122	76.8	26	30.8	524	86.8
Assaults	938	284.8	253	822.8	603	379.7	111	131.3	1,982	328.4
Sport/Rec	1,043	316.7	80	260.2	273	171.9	122	144.3	1,603	265.6
Other	3,162	960.0	454	1,476.4	1,342	845.1	372	440.0	5,627	932.5
Unknown Intent	103	31.3	14	45.5	30	18.9	7	8.3	161	26.7
OD/Poisoning	998	303.0	126	409.7	352	221.7	126	149.0	1,662	275.4
Struck by Objects/Person	1,816	551.4	222	721.9	758	477.3	201	237.7	3,180	527.0
Cut/Pierce	1,720	522.2	180	585.4	866	545.4	255	301.6	3,230	535.3
Overexertion	1,739	528.0	252	819.5	697	438.9	210	248.4	3,063	507.6
Group Total	19,447	5,904.5	2,469	8,029.1	7,849	4,942.9	2,362	2,793.8	33,783	5,598.3

Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005. Population data: SANDAG, 2005 Estimates, (3/06). \*Rates calculated per 100,000 population for patients 15+ years of age. Totals do not include <3% of all civilian ED discharges. \*Total includes 1,656 patients with missing race/ethnicity.

- White ED discharge patients were discharged with an annual fall injury at a rate of 1,546 per 100,000 in the population, compared to Asian/other patients with a rate of 524 per 100,000.
- Overall, Blacks were discharged from the ED for an injury at a higher rate than any other racial/ethnic group (8,029 per 100,000), followed by Whites (5,905 per 100,000).
- Blacks were discharged from the ED for a motor vehicle occupant accident at an annual rate of 1,021 per 100,000 in the population, more than double the rate of Whites who were discharged at a rate of 471 per 100,000.

**Primary Injury by Gender, 15+ Years, Rates per 100,000**

	Male		Female		Total	
	Freq.	Rate	Freq.	Rate	Freq.	Rate
MV Occupant	1,399	465.7	1,985	655.0	3,384	560.8
Motorcycle	294	97.9	39	12.9	333	55.2
Pedalcycle	440	146.5	121	39.9	561	93.0
Pedestrian	115	38.3	72	23.8	187	31.0
Other Vehicle	257	85.6	243	80.2	501	83.0
Falls	3,174	1,056.7	4,609	1,520.8	7,785	1,290.1
Self Inflicted	220	73.2	303	100.0	524	86.8
Assaults	1,361	453.1	620	204.6	1,982	328.4
Sport/Rec	1,198	398.8	405	133.6	1,603	265.6
Other	3,003	999.7	2,623	865.5	5,627	932.5
Unknown Intent	95	31.6	66	21.8	161	26.7
OD/Poisoning	649	216.1	1,013	334.2	1,662	275.4
Struck by Objects/Person	1,854	617.2	1,324	436.9	3,180	527.0
Cut/Pierce	2,096	697.8	1,132	373.5	3,230	535.3
Overexertion	1,540	512.7	1,521	501.9	3,063	507.6
Group Total	17,695	5,890.8	16,076	5,304.4	33,783	5,598.3

Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005. Population data: SANDAG, 2005 Estimates, (3/06). \*Rates calculated per 100,000 population for patients 15+ years of age. Totals do not include <3% of all civilian ED discharges.

- Females were discharged from the ED at a higher rate than males for fall injuries.
- Males were discharged for assault injuries at a rate of 399 per 100,000, compared to 134 per 100,000 for females.

**Primary Injury by Region, 15+ Years, Rates per 100,000**

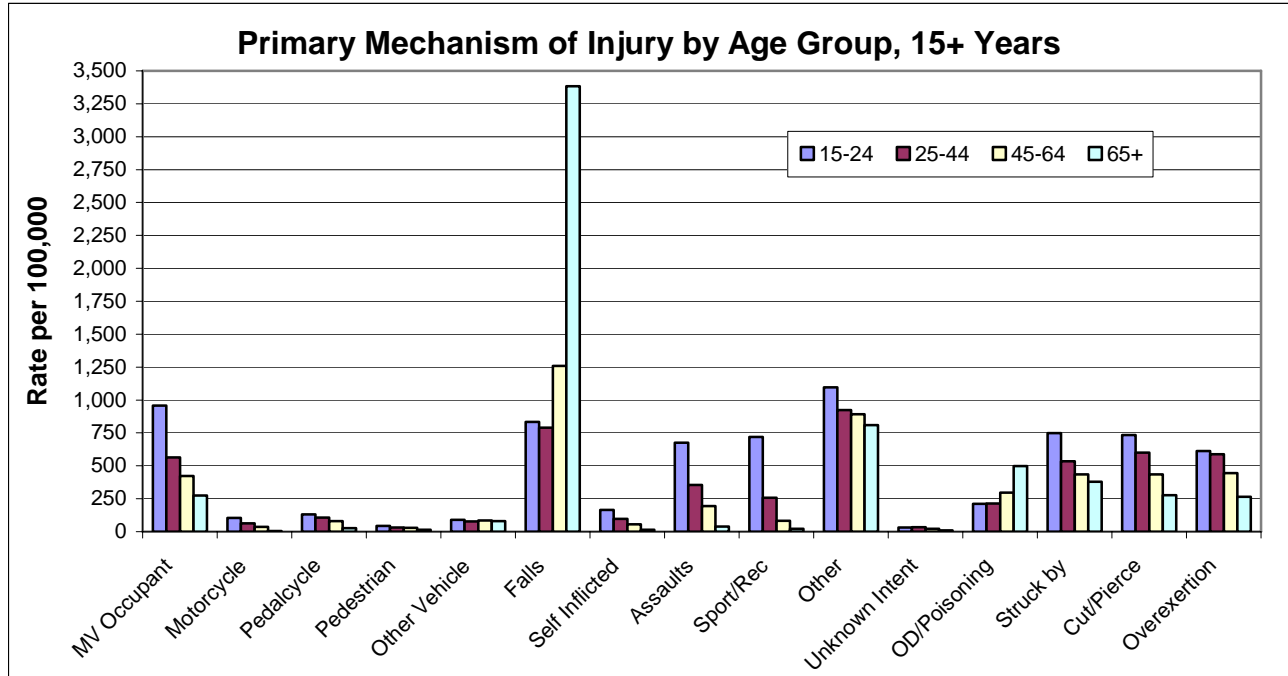
	North Coastal		North Central		Central		South		East		North Inland	
	Freq.	Rate	Freq.	Rate	Freq.	Rate	Freq.	Rate	Freq.	Rate	Freq.	Rate
MV Occupant	425	437.3	490	397.6	566	582.4	447	506.5	560	622.0	505	469.6
Motorcycle	66	67.9	53	43.0	31	31.9	36	40.8	60	66.6	51	47.4
Pedalcycle	85	87.5	158	128.2	99	101.9	42	47.6	61	67.8	69	64.2
Pedestrian	30	30.9	30	24.3	43	44.2	23	26.1	31	34.4	13	12.1
Other Vehicle	79	81.3	84	68.2	93	95.7	89	100.8	66	73.3	40	37.2
Falls	1,077	1,108.2	1,253	1016.6	1,349	1,388.2	978	1,108.2	1,278	1,419.5	1,102	1,024.7
Self Inflicted	89	91.6	61	49.5	83	85.4	77	87.3	92	102.2	84	78.1
Assaults	239	245.9	219	177.7	493	507.3	268	303.7	334	371.0	219	203.6
Sport/Rec	249	256.2	336	272.6	148	152.3	161	182.4	237	263.2	212	197.1
Other	745	766.5	823	667.7	1,127	1,159.7	803	909.9	882	979.7	700	650.9
Unknown Intent	32	32.9	22	17.8	40	41.2	14	15.9	19	21.1	23	21.4
OD/Poisoning	251	258.3	266	215.8	267	274.8	263	298.0	291	323.2	216	200.8
Struck by Objects/Person	446	458.9	443	359.4	508	522.7	453	513.3	606	673.1	421	391.5
Cut/Pierce	470	483.6	574	465.7	545	560.8	404	457.8	510	566.5	446	414.7
Overexertion	500	514.5	478	387.8	538	553.6	388	439.7	481	534.3	347	322.6
Group Total	4,783	4,921.4	5,290	4,292.0	5,930	6,102.2	4,446	5,037.9	5,508	6,117.8	4,448	4,135.8

Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005. Population data: SANDAG, 2005 Estimates, (3/06). \*Rates calculated per 100,000 population for patients 15+ years of age. Totals do not include <3% of all civilian ED discharges.

- The highest rate of ED discharge for injury occurred in the Central (6,102 per 100,000) and East (6,118 per 100,000) regions, compared to 4,921 per 100,000 in the North Coastal region.
- Patients were discharged for assault injuries at a rate of 507 per 100,000 in the Central region, compared to 178 per 100,000 in the North Central region.

**Elderly Falls**

As displayed below, the rate of discharge from the ED for falls among the elderly is significantly higher than for any other injury or age group (3,383 per 100,000).



Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005. Population data: SANDAG, 2005 Estimates, (3/06). \*Rates calculated per 100,000 population for patients 15+ years of age. Totals do not include <3% of all civilian ED discharges.

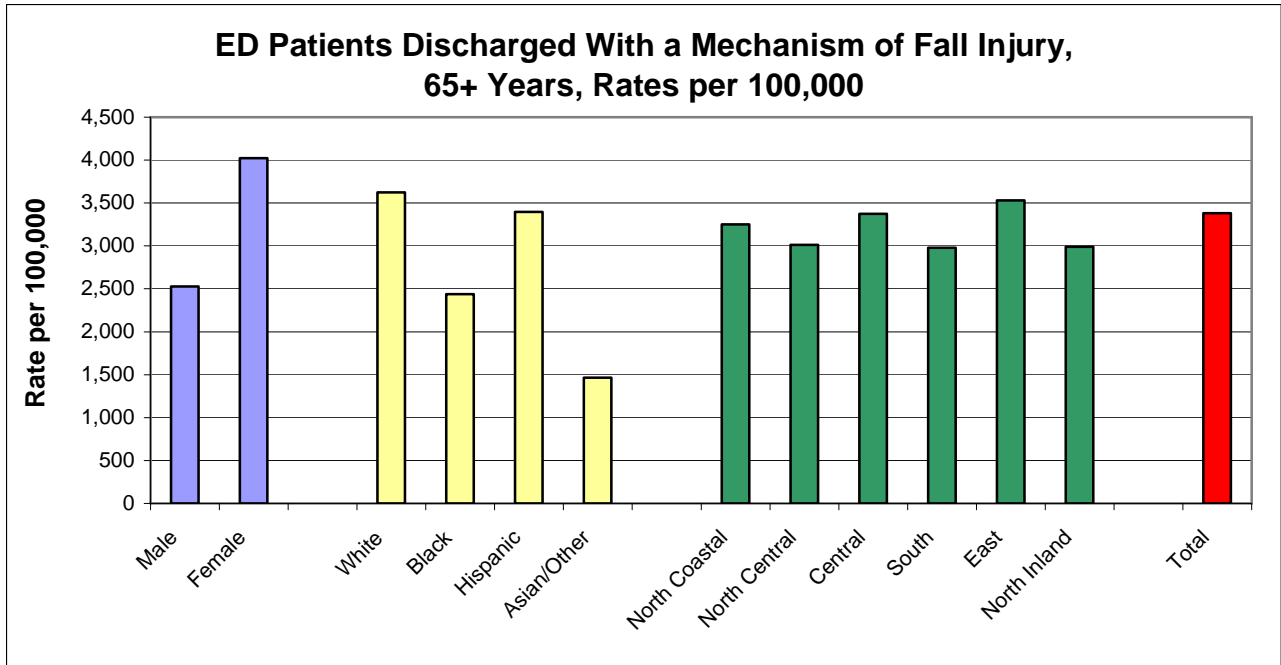
For the 2,831 elderly patients who were discharged from the ED during this quarter with a fall injury, the most common primary diagnoses are listed below. Note: the most serious fall injuries would have been admitted to the hospital, and are not reflected here.

**15 Most Common Primary Diagnoses of ED Patients Discharged With a Fall Injury, 65+ Years**

Primary Diagnosis	Frequency	Percent
OTH OPEN WOUND HEAD	455	16.1
CONTUSION LOWER LIMB	202	7.1
OTH/UNSP INJURY	202	7.1
CONTUSION FACE/SCALP/NCK	186	6.6
FRACTURE RADIUS AND ULNA	168	5.9
CONTUSION TRUNK	135	4.8
FRACTURE HUMERUS	120	4.2
OPEN WOUND ELBOW/FOREARM	87	3.1
CONTUSION UPPER LIMB	77	2.7
GENERAL SYMPTOMS	73	2.6
SPRAINS OTH/UNSPEC BACK	60	2.1
FRACTURE NECK FEMUR	56	2.0
FX RIB(S)/STERNUM/LARYNX/TR	52	1.8
FX VERTEBRA W/O SP CORD INJUR	47	1.7

Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005.

Female patients over the age of 65 years had a higher rate of discharge from the ED (4,023 per 100,000) for fall injuries than male patients (2,528 per 100,000). White patients (3,623 per 100,000) and Hispanic patients (3,398 per 100,000) had the highest rates of discharge for fall injury, compared to Black patients (2,439 per 100,000) and Asian/other patients (1,463 per 100,000). The rate of ED discharge for elderly fall injury in the East region was slightly higher than in the other regions.



Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005. Population data: SANDAG, 2005 Estimates, (3/06). \*Rates calculated per 100,000 population for patients 15+ years of age. Totals do not include <3% of all civilian ED discharges.

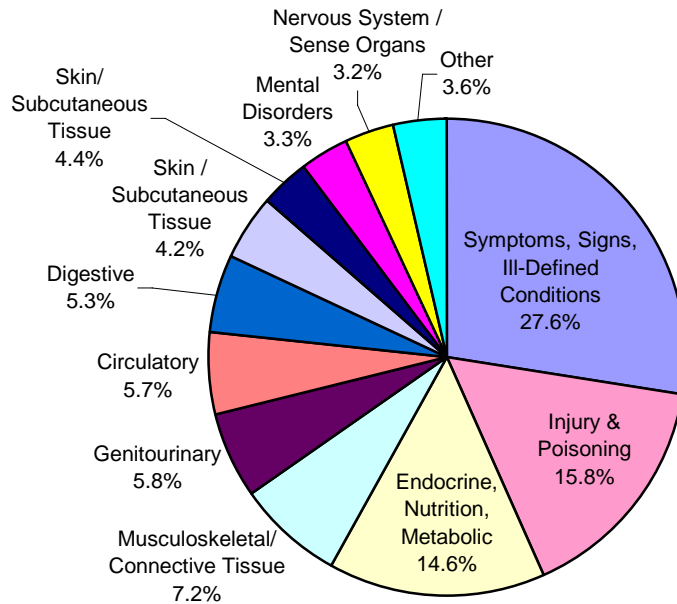
## Diabetes Mellitus

A patient who is discharged with a primary diagnosis of diabetes is one who has a condition directly related to the disease, such as diabetic hypoglycemia or hypoglycemic shock. A patient discharged with a secondary diagnosis of diabetes may or may not be presenting with symptoms directly related to their disease, but they have been identified as diabetic due to the complications that may arise as the result of the disease. Although there is a high rate of hospital admission among diabetic patients who present to the ED, most diabetic patients who are discharged from the emergency department do not have a primary diagnosis of diabetes. For this report, a diabetic patient is one who has either a primary or secondary diagnosis of diabetes.

Of the 135,954 ED discharge patients, 7,909 were identified as diabetic (6%). Overall, 55% were female, and 35 patients were under the age of 15 years. Ninety percent were identified as having type II diabetes, not specified as uncontrolled and 8% were identified as having type I diabetes, not specified as uncontrolled. Of all patients who were identified as diabetic, 1,014 had a primary diagnosis of diabetes (13%). Nearly half (46%) of patients with a primary diagnosis of diabetes were diagnosed with diabetic hypoglycemia or hypoglycemic shock. Another 39% were diagnosed with uncomplicated diabetes, with no mention of the presenting symptoms.

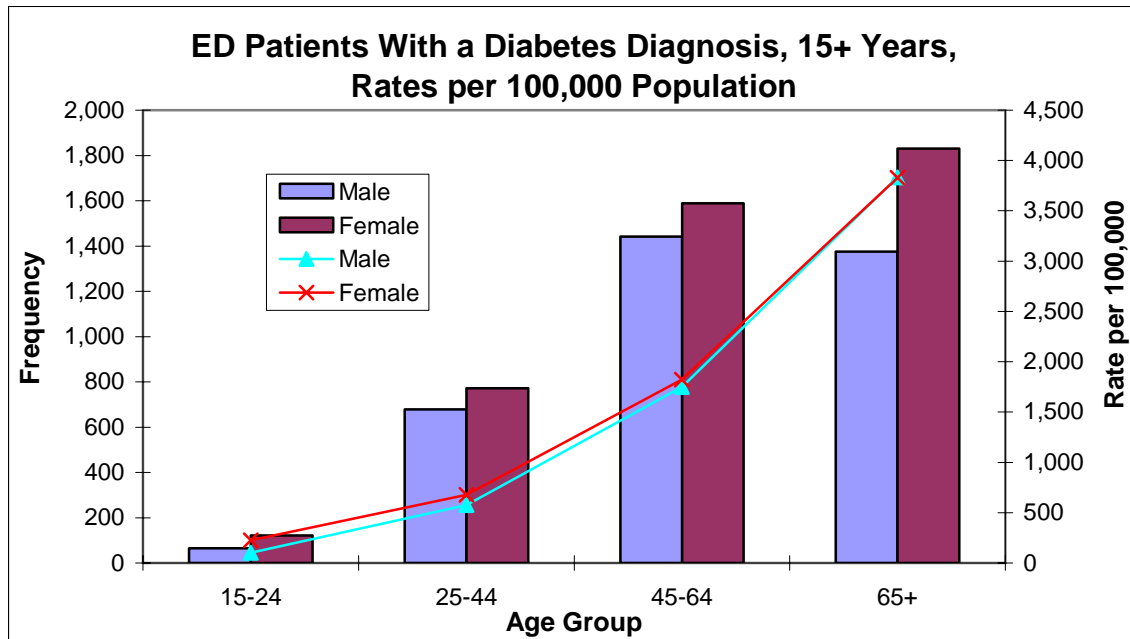
The primary diagnoses for all identified diabetic ED discharge patients (7,909) are presented below. Twenty-eight percent of patients were diagnosed with symptoms, signs, and ill-defined conditions, most of which were for respiratory, abdominal, or general symptoms. While 16% of diabetic ED discharge patients had a primary diagnosis of injury or poisoning, 18% were assigned an E-code for an injury or poisoning. Of patients with an E-code, 39% suffered a fall, and 15% were reported to have had an adverse reaction to drugs, medicinal, or biological substances.

### Primary Diagnosis of Diabetic ED Discharge Patients



Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005.

The annual rate of diabetic ED discharge patients increased with increasing age. The rate for female patients was more than double the rate for male patients in the 15 to 24 year age groups, but was nearly the same in the older age groups. Overall, among patients 15 years and older, 1,305 patients were discharged from the ED with a diagnosis of diabetes for every 100,000 people in the population.



Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005. Population data: SANDAG, 2005 Estimates, (3/06). \*Rates calculated per 100,000 population for patients 15+ years of age. Totals do not include <3% of all civilian ED discharges.



**ED Patients With a Diabetes Diagnosis, 15+ Years,  
Rates per 100,000 Population**

	Male		Female		Total	
	Freq.	Rate	Freq.	Rate	Freq.	Rate
15-24	65	101.6	121	224.4	186	157.8
25-44	679	574.7	772	676.8	1452	625.3
45-64	1441	1,749.1	1589	1,821.3	3030	1,786.3
65+	1375	3,833.1	1831	3,828.9	3206	3,830.7
Total 15+	3560	1,185.2	4313	1,423.1	7874	1,304.8

Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005. Population data: SANDAG, 2005 Estimates, (3/06). \*Rates calculated per 100,000 population for patients 15+ years of age. Totals do not include <3% of all civilian ED discharges.

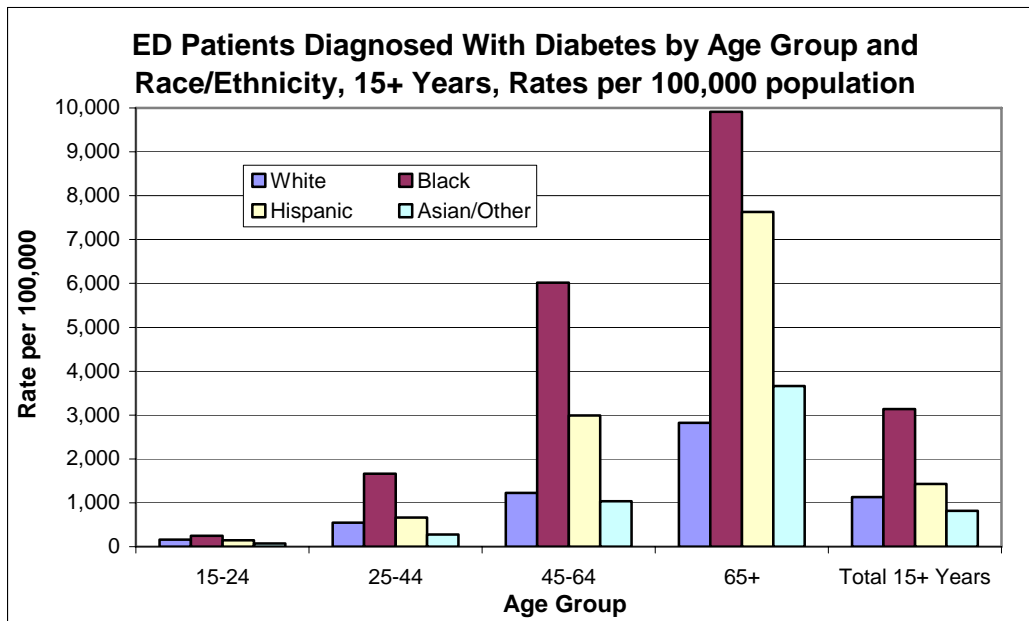
Out of all ED discharge patients, the proportion who were diabetic increased with increasing age group. Seventeen percent of male ED discharge patients were diagnosed with diabetes, compared to 15% of female patients.

**Percent of All ED Patients With  
Diabetes Diagnoses**

	Male	Female	Total
0-14	0.1	0.3	0.2
15-24	0.6	0.9	0.8
25-44	3.4	3.2	3.3
45-64	9.9	9.6	9.7
65+	16.8	14.8	15.6
Total	5.7	5.9	5.8

Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005.

Overall, Black ED patients were discharged with a diabetes diagnosis at a higher rate than any other racial/ethnic group (3,138 per 100,000). This was true across all age groups; nearly one out of every ten Black persons aged 65 years and older in San Diego County were discharged from the ED with a diabetes diagnosis.



Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005. Population data: SANDAG, 2005 Estimates, (3/06). \*Rates calculated per 100,000 population for patients 15+ years of age. Totals do not include <3% of all civilian ED discharges.

**ED Patients With a Diabetes Diagnosis, 15+ Years, Rates per 100,000**

	White		Black		Hispanic		Asian/Other	
	Freq.	Rate	Freq.	Rate	Freq.	Rate	Freq.	Rate
15-24	81	162.9	18	245.7	64	148.4	13	73.3
25-44	601	547.9	216	1,665.2	495	662.7	97	278.3
45-64	1,332	1,222.3	471	6,014.9	907	2,987.0	233	1,037.6
65+	1,721	2,822.4	260	9,910.4	808	7,627.1	348	3,663.6
<b>Total 15+</b>	<b>3,735</b>	<b>1,134.0</b>	<b>965</b>	<b>3,138.2</b>	<b>2,274</b>	<b>1,432.0</b>	<b>691</b>	<b>817.3</b>

Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005. Population data: SANDAG, 2005 Estimates, (3/06). \*Rates calculated per 100,000 population for patients 15+ years of age. Totals do not include <3% of all civilian ED discharges.

The percentage of patients within each racial/ethnic category who were discharged with a diabetes diagnosis increased with increasing age group. Twenty-eight percent of Black patients, 25% of Hispanic patients, and 21% of Asian/Other patients aged 65 years and older were diagnosed with diabetes, compared to just 12% of white patients.

**Percent of All ED Patients With Diabetes Diagnoses**

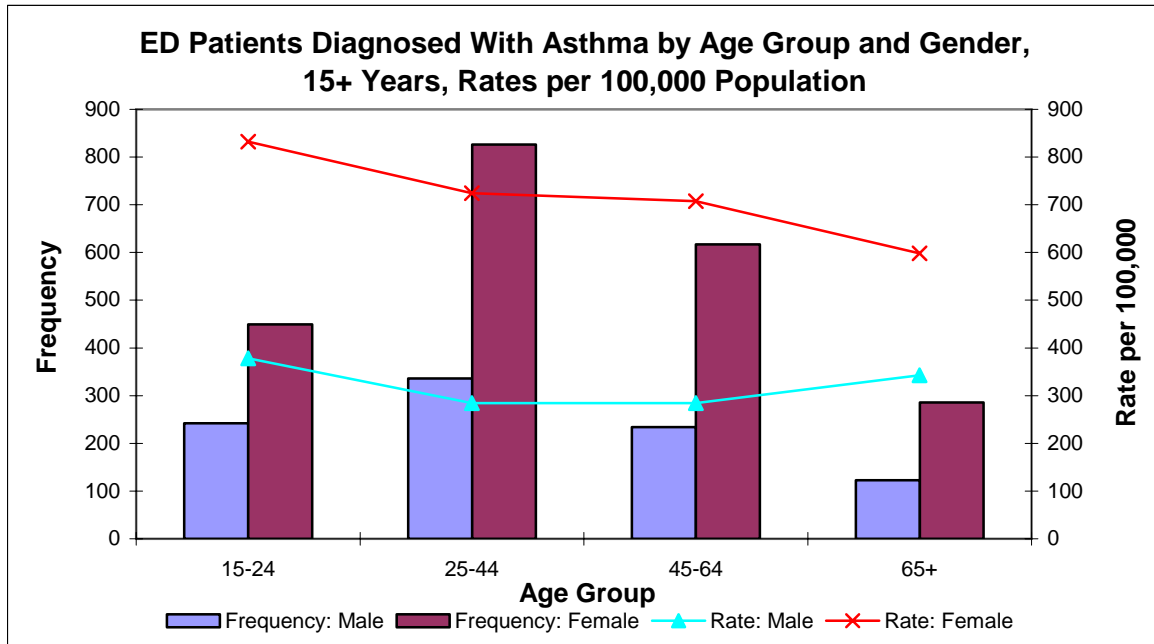
	White	Black	Hispanic	Asian/Other	Unknown	Total
0-14	0.36	0.30	0.08	0.08	0.38	0.21
15-24	0.73	0.79	0.88	0.80	0.88	0.80
25-44	2.69	4.73	4.06	2.93	2.19	3.27
45-64	7.22	14.33	15.34	10.65	6.57	9.73
65+	12.07	28.45	24.95	21.14	14.17	15.60
<b>Total</b>	<b>5.22</b>	<b>7.82</b>	<b>6.35</b>	<b>6.90</b>	<b>3.71</b>	<b>5.82</b>

Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005.

**Asthma**

As with diabetes, asthmatic ED patients are those with either a primary or secondary diagnosis of asthma. A total of 3,840 ED patients (2.8%) were identified as asthmatic during this quarter. Out of all reported children, there were 726 aged 0 to 14 years with an asthma diagnosis, two-thirds of which were male. Among patients 15 years and older (N = 3,114), ED discharge patients with asthma were more often female (70%).

The rate of ED discharge for patients with asthma was higher overall for females (802 per 100,000) than for males (311 per 100,000), and varied by age group.



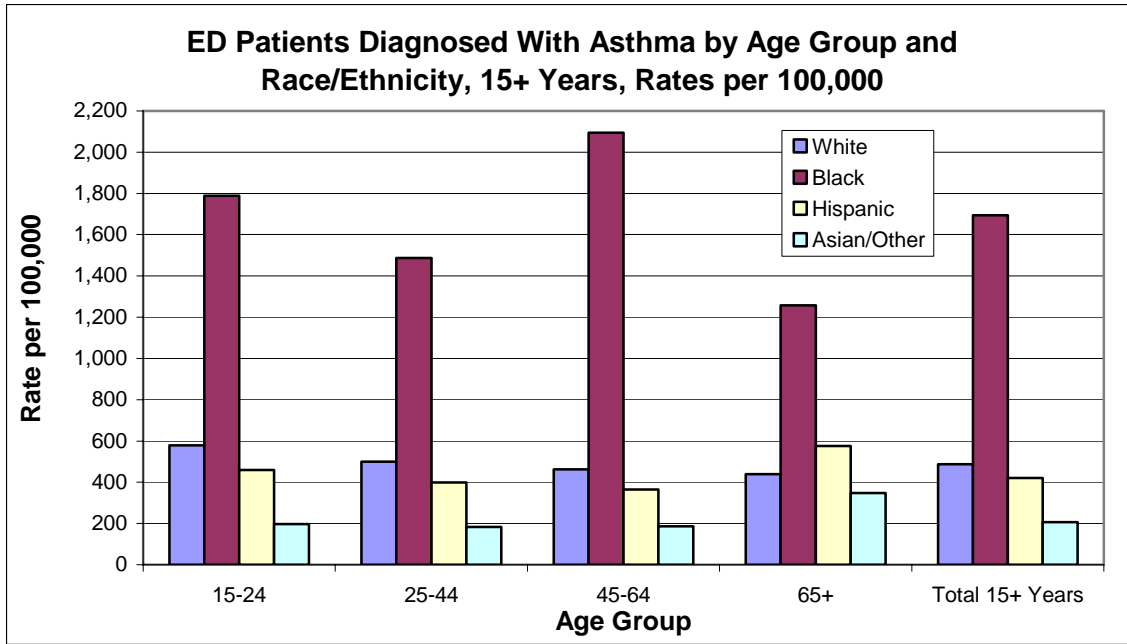
Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005. Population data: SANDAG, 2005 Estimates, (3/06). \*Rates calculated per 100,000 population for patients 15+ years of age. Totals do not include <3% of all civilian ED discharges.

**ED Patients Diagnosed With Asthma, 15+ Years, Rates per 100,000 Population**

	Male		Female		Total	
	Freq.	Rate	Freq.	Rate	Freq.	Rate
15-24	242	378.3	449	832.6	692	586.9
25-44	336	284.4	826	724.1	1,162	500.4
45-64	234	284.0	617	707.2	851	501.7
65+	123	342.9	286	598.1	409	488.7
<b>Total 15+ Years</b>	<b>935</b>	<b>311.3</b>	<b>2,429</b>	<b>801.5</b>	<b>3,114</b>	<b>516.0</b>

Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005. Population data: SANDAG, 2005 Estimates, (3/06). \*Rates calculated per 100,000 population for patients 15+ years of age. Totals do not include <3% of all civilian ED discharges.

Across all age groups, the rate of ED discharge with asthma among Blacks 15 years and older in San Diego County was significantly higher than any other race/ethnic group. This was especially apparent in the 45 to 64 year age group (2,094 per 100,000). The highest rate of ED discharge with asthma for Whites was among 15 to 24 year olds (579 per 100,000), while the highest rate of ED discharge with asthma for Hispanics was among those 65 years and older (576 per 100,000).



Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005. Population data: SANDAG, 2005 Estimates, (3/06). \*Rates calculated per 100,000 population for patients 15+ years of age. Totals do not include <3% of all civilian ED discharges.

	White		Black		Hispanic		Asian/Other	
	Freq.	Rate	Freq.	Rate	Freq.	Rate	Freq.	Rate
15-24	288	579.3	131	1,788.5	198	459.0	35	197.4
25-44	548	499.6	193	1,487.8	298	398.9	64	183.6
45-64	504	462.5	164	2,094.4	111	365.6	42	187.0
65+	268	439.5	33	1,257.9	61	575.8	33	347.4
Total 15+ Years	1,608	488.2	521	1,694.3	668	420.7	174	205.8

Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005. Population data: SANDAG, 2005 Estimates, (3/06). \*Rates calculated per 100,000 population for patients 15+ years of age. Totals do not include <3% of all civilian ED discharges.

Across all age groups, a higher percentage of Black ED discharge patients were diagnosed with asthma than any other racial/ethnic group. More than 7% of reported Black patients aged 0 to 14 years who were discharged from the ED had an asthma diagnosis, compared to 4% of 0 to 14 year old children overall.

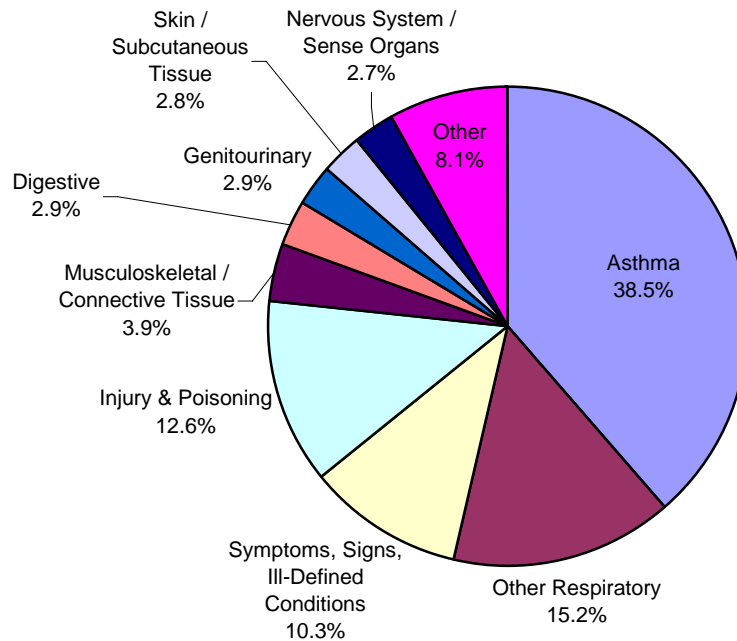
**Percent of All ED Patients with Asthma**

	White	Black	Hispanic	Asian/Other	Unknown	Total
0-14	3.51	7.31	4.32	5.10	5.42	4.39
15-24	2.61	5.77	2.73	2.14	3.51	2.96
25-44	2.45	4.23	2.45	1.93	3.00	2.62
45-64	2.73	4.99	1.88	1.92	2.27	2.73
65+	1.88	3.61	1.88	2.00	2.87	1.99
Total	2.52	5.00	2.74	2.37	3.26	2.82

Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005.

Of all patients identified as having asthma, 39% were discharged from the ED with a primary diagnosis of asthma (N = 1,479). Fifteen percent were diagnosed with other respiratory conditions, and 10% with symptoms, signs, and ill-defined conditions (not including respiratory).

**Primary Diagnosis of Asthmatic ED Discharge Patients**



Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005.

## Emergent and Non-Emergent Care at San Diego County Emergency Departments

Until now, the ability to effectively monitor ED utilization in San Diego County has been limited by a lack of data. Overall trends in ED volume have been tracked, but analysts have been unable to gain insight into the characteristics of ED use. Due to the cooperation between area hospitals, the Hospital Association of San Diego and Imperial Counties, the Community Health Improvement Partners, and County of San Diego, Emergency Medical Services, San Diego County has a near complete data set representing the utilization of emergency departments in the county, allowing for population-based analyses of ED discharge data.

One important component that is missing from the ED data set is a measure of the urgency of the visit. In 1999, under the direction of John Billings and his colleagues at New York University, the Emergency Department Use Profiling Algorithm was developed to analyze ED visits according to emergent versus non-emergent status. The algorithm uses a patient's primary diagnosis at the time of discharge from the ED to assign visits to one of five distinct categories.

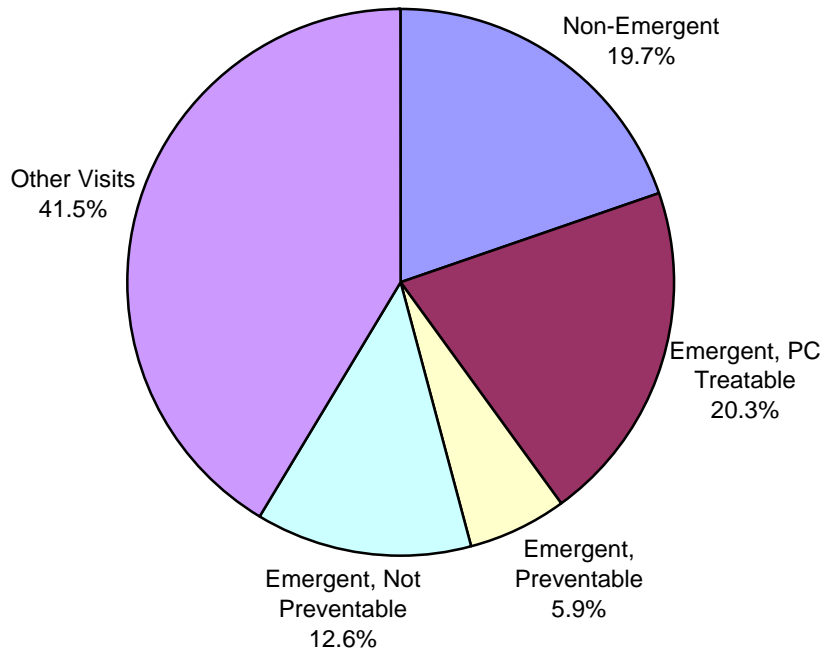
1. Non-emergent, primary care treatable (Non-Emergent)
2. Emergent, primary care treatable (Emergent, PC Treatable)
3. Emergent, preventable/avoidable (Emergent, Preventable)
4. Emergent, non-preventable/non-avoidable (Emergent, Not Preventable)
5. Other visits not classified according to emergent or non-emergent status (Other Visits)

ED visits are first classified as either emergent or non-emergent. Emergent visits are those that require contact with the medical system within 12 hours, and are further classified as needing ED care or treatable in a primary care setting. Visits are classified as primary care treatable if care could have been safely provided in a setting other than an ED. If ED care is needed, visits are classified as either non-preventable/non-avoidable or preventable/avoidable. Preventable/avoidable conditions are those that could have been treated in settings other than the ED if earlier care had been sought. **A significant percentage of visits remain unclassified by the algorithm in terms of their emergent status. Visits with a primary diagnosis of injury, mental health, substance abuse, and other smaller incidence categories are not assigned to classifications of interest.**

The ED Use Profiling was applied to the San Diego County ED discharge data, and analyzed to further evaluate the characteristics of ED use. The data resulting from the use of this algorithm should be interpreted with caution. It is not intended as a triage tool or as a mechanism to determine whether ED use in a specific case is appropriate, but rather as a means of examining ED utilization to gain insight into ways to improve access to primary care for specific subgroups of the population. Since very few diagnostic categories are clear-cut for all cases, the algorithm assigns cases probabilistically on a percentage basis, reflecting potential uncertainty and variation.

A significant percentage of ED discharges in San Diego County could have been treated in settings other than the ED. As the figure below shows, 40% of ED visits (Non-emergent and Emergent, PC treatable) could have been treated in a primary care setting. In other words, four out of ten visits that did not result in an inpatient admission could have been safely treated outside of the ED.

### Visits by Emergent and Non-Emergent Categories



Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005. \*ED Use profiling algorithm developed by John Billings, NYU, and applied to San Diego County ED data.

The table below describes ED discharges by emergent and non-emergent categories. Row percentages refer to the percentage within each subgroup, for example, the percentage of 15-24 year olds that had non-emergent visits. Rates per 100,000 are calculated among patients 15 years and older. The highest rate of non-emergent ED visits for a medical primary diagnosis occurred among patients aged 65 years and older (4,362 per 100,000), Black patients aged 15 years and older (8,615 per 100,000), female patients aged 15+ years (4,903 per 100,000), and among patient residing in the Central region (5,421 per 100,000).

**ED Discharges by Emergent and Non-Emergent Categories, Rates per 100,000 for Ages 15+ Years**

	Non-Emergent			Emergent, PC Treatable			Emergent, Preventable			Emergent, Not Preventable			Other Visits		
	Freq.	row %	Rate	Freq.	row %	Rate	Freq.	row %	Rate	Freq.	row %	Rate	Freq.	row %	Rate
<i>Totals</i>															
All Ages	26,794	19.7	n/a	27,622	20.3	n/a	8,018	5.9	n/a	17,074	12.6	n/a	56,445	41.5	n/a
0-14 Years	3,004	18.2	n/a	3,414	20.6	n/a	1,131	6.8	n/a	1,186	7.2	n/a	7,799	47.2	n/a
15+ Years	23,790	19.9	3,942.4	24,209	20.3	4,011.7	6,887	5.8	1,141.3	15,888	13.3	2,632.9	48,646	40.7	8,061.3
<i>Age Groups</i>															
15-24	4,610	19.7	3,910.1	4,405	18.9	3,735.9	1,202	5.1	1,019.2	2,274	9.7	1,928.8	10,864	46.5	9,214.1
25-44	9,305	21.0	4,007.1	9,365	21.1	4,032.6	2,400	5.4	1,033.4	5,568	12.5	2,397.8	17,730	40.0	7,634.9
45-64	6,224	20.0	3,669.1	6,377	20.5	3,759.4	1,816	5.8	1,070.5	4,525	14.5	2,667.7	12,207	39.2	7,196.3
65+	3,651	17.8	4,362.0	4,062	19.8	4,853.7	1,470	7.2	1,756.2	3,520	17.1	4,206.4	7,845	38.2	9,373.7
<i>Race/Ethnicity</i>															
White	12,490	18.9	3,792.1	12,811	19.4	3,889.6	3,951	6.0	1,199.7	8,915	13.5	2,706.8	27,924	42.3	8,478.2
Black	2,649	24.0	8,614.8	2,402	21.8	7,811.0	770	7.0	2,502.8	1,328	12.0	4,319.8	3,888	35.2	12,643.7
Hispanic	5,875	20.5	3,699.8	6,141	21.5	3,867.4	1,530	5.3	963.5	3,784	13.2	2,382.8	11,269	39.4	7,096.6
Asian/Other	1,859	21.2	2,198.9	1,910	21.8	2,259.3	428	4.9	506.7	1,229	14.0	1,453.2	3,352	38.2	3,964.8
<i>Gender</i>															
Male	8,928	16.8	2,972.1	9,679	18.2	3,222.3	3,016	5.7	1,004.0	6,536	12.3	2,176.0	24,953	47.0	8,307.1
Female	14,859	22.4	4,903.0	14,526	21.9	4,793.2	3,871	5.8	1,277.3	9,349	14.1	3,084.8	23,673	35.7	7,811.1
<i>Region</i>															
North Coastal	2,727	18.0	2,806.0	2,958	19.6	3,043.2	827	5.5	850.5	2,008	13.3	2,065.7	6,598	43.6	6,788.9
North Central	3,457	19.5	2,804.9	3,487	19.7	2,829.0	964	5.4	782.2	2,423	13.7	1,965.9	7,383	41.7	5,990.2
Central	5,268	21.8	5,421.3	5,152	21.3	5,301.3	1,512	6.3	1,555.5	3,025	12.5	3,113.1	9,219	38.1	9,486.7
South	3,770	21.9	4,271.5	3,619	21.0	4,100.8	993	5.8	1,125.2	2,361	13.7	2,675.8	6,455	37.5	7,314.4
East	3,912	19.8	4,345.5	4,216	21.3	4,683.3	1,151	5.8	1,278.3	2,803	14.2	3,113.7	7,710	39.0	8,563.6
North Inland	2,716	17.7	2,525.0	2,949	19.2	2,741.7	917	6.0	852.9	2,167	14.1	2,014.5	6,635	43.1	6,169.3

Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005. Population data: SANDAG, 2005 Estimates, (3/06). \*Rates calculated per 100,000 population for patients 15+ years of age. Totals do not include <3% of all civilian ED discharges. \*ED Use profiling algorithm developed by John Billings, NYU, and applied to San Diego County ED data.



The following table presents relative rates by comparing the proportion of discharges within each category to the emergent, not preventable category. Overall, for every two visits that were in the emergent, not preventable category, there were three non-emergent visits and another three emergent but primary care treatable visits. Black patients used the ED for non-emergent conditions compared to emergent, not preventable conditions at higher rates (2.07) than White patients (1.44), and females (1.64) used the ED for non-emergent conditions at higher rates than males (1.47) when compared to emergent, not preventable conditions.

**Relative Rates for ED Discharges by Non-Emergent and Emergent Categories, San Diego County Participating Hospitals**

	Non-Emergent	Emergent, PC Treatable	Emergent, Preventable	Emergent, Not Preventable
<b>Total</b>	<b>1.57</b>	<b>1.62</b>	<b>0.47</b>	<b>1.00</b>
<b>Age</b>				
0-14	2.53	2.88	0.95	1.00
15-24	2.03	1.94	0.53	1.00
25-44	1.67	1.68	0.43	1.00
45-64	1.38	1.41	0.40	1.00
65+	1.04	1.15	0.42	1.00
<b>Race</b>				
White	1.44	1.49	0.46	1.00
Black	2.07	1.91	0.63	1.00
Hispanic	1.68	1.79	0.47	1.00
Asian/Other	1.58	1.67	0.40	1.00
Unknown	1.51	1.57	0.37	1.00
<b>Gender</b>				
Male	1.47	1.60	0.51	1.00
Female	1.64	1.63	0.44	1.00
Unknown	1.44	1.42	0.13	1.00
<b>Insurance Status</b>				
Self-Pay	1.95	1.95	0.58	1.00
Non-Federal Programs	1.87	2.00	0.75	1.00
Medi-Cal	2.09	2.04	0.61	1.00
Medicare HMO	0.93	1.08	0.39	1.00
Medicare Traditional	1.32	1.37	0.49	1.00
Private HMO	1.36	1.50	0.37	1.00
Private Other	1.52	1.51	0.40	1.00
Workers Compensation	7.52	5.54	0.27	1.00
Other Federal Programs	1.70	1.58	0.45	1.00
Other	1.78	2.03	0.46	1.00
<b>Region</b>				
North Coastal	1.44	1.60	0.46	1.00
North Central	1.46	1.47	0.41	1.00
Central	1.79	1.78	0.52	1.00
South	1.71	1.67	0.47	1.00
East	1.46	1.58	0.44	1.00
North Inland	1.33	1.48	0.48	1.00
Out of County	1.88	1.76	0.52	1.00
Unknown	1.85	1.85	0.57	1.00

Source: HASD&IC, CHIP, CoSD EMS, Emergency Department Database, July – September 2005. Population data: SANDAG, 2005 Estimates, (3/06). \*Rates calculated per 100,000 population for patients 15+ years of age. Totals do not include <3% of all civilian ED discharges. \*ED Use profiling algorithm developed by John Billings, NYU, and applied to San Diego County ED data. Relative rates use the emergent, not preventable category as the reference.

## **Appendix A**

### Health Service Region and Subregional Area Map

# HEALTH SERVICE REGIONS and SUBREGIONAL AREAS

- Health Service Region
- Subregional Areas
- 1 CENTRAL SAN DIEGO
- 2 PENINSULA
- 3 CORONADO
- 4 NATIONAL CITY
- 5 SOUTHEAST SAN DIEGO
- 6 MID-CITY
- 10 KEARNY MESA
- 11 COASTAL
- 12 UNIVERSITY
- 13 DEL MAR-MIRA MESA
- 14 NORTH SAN DIEGO
- 15 POWAY
- 16 MIRAMAR
- 17 ELLIOTT-NAVAJO
- 20 SWEETWATER
- 21 CHULA VISTA
- 22 SOUTH BAY
- 30 JAMUL
- 31 SPRING VALLEY
- 32 LEMON GROVE
- 33 LA MESA
- 34 EL CAJON
- 35 SANTEE
- 36 LAKESIDE
- 37 HARBISON CREST
- 38 ALPINE
- 39 RAMONA
- 40 SAN DIEGUITO
- 41 CARLSBAD
- 42 OCEANSIDE
- 43 PENDLETON
- 50 ESCONDIDO
- 51 SAN MARCOS
- 52 VISTA
- 53 VALLEY CENTER
- 54 PAUMA
- 55 FALLBROOK
- 60 PALOMAR-JULIAN
- 61 LAGUNA-PINE VALLEY
- 62 MOUNTAIN EMPIRE
- 63 ANZA-BORREGO SPRINGS

North Inland

North Coastal

North Central

Central

East

South

Source: County of San Diego Health and Human Services  
Agency, Division of Emergency Medical Services.



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## **Appendix B**

### Expected Source of Payment

## EXPECTED SOURCE OF PAYMENT

As defined by the Office of Statewide Health Planning and Development (OSHPD), the patient's expected source of payment, defined as the type of entity or organization which is expected to pay or did pay the greatest share of the patient's bill, is reported using the following categories:

**Medicare part A:** Defined by Title XVIII of the Social Security Act. Covers inpatient hospital stays, care in a skilled nursing facility, hospice care, and some health care.

**Medicare part B:** Defined by Title XVIII of the Social Security Act. Covers some outpatient hospital care and some home health services.

**Health Maintenance Organization (HMO) Medicare Risk:** This category includes Medicare patients covered under an HMO arrangement only.

**Medicaid (Medi-Cal):** Medicaid is called Medi-Cal in California. Defined by Title XIX of the Social Security Act and Title I of the Federal Medicare Act. Report all Medi-Cal including Fee for Service, PPO, POS, EPO, and HMO.

**Health Maintenance Organization (HMO):** This category includes Blue Cross/Blue Shield or commercial insurance companies HMOs. Both California HMOs (Knox-Keene) and out-of-state HMOs are included.

This category *does not* include Medicare or Medi-Cal under a HMO arrangement. Medicare payments covered under an HMO arrangement are reported as HMO Medicare Risk, and Medi-Cal payments covered under an HMO arrangement are reported as Medicaid (Medi-Cal).

**Preferred Provider Organization (PPO):** This category includes Blue Cross/Blue Shield or commercial insurance companies under a PPO arrangement.

This category *does not* include Blue Cross/Blue Shield or commercial insurance companies on a Fee for Service Basis. This category *does not* include Medi-Cal patients covered under a PPO arrangement.

**Exclusive Provider Organization (EPO):** This category includes Blue Cross/Blue Shield or commercial insurance companies under an EPO arrangement.

This category *does not* include Blue Cross/Blue Shield or commercial insurance companies on a Fee for Service basis. This category *does not* include Medi-Cal patients covered under an EPO arrangement.

**Point of Service (POS):** This category includes Blue Cross/Blue Shield or commercial insurance companies under a POS arrangement.

This category *does not* include Blue Cross/Blue Shield or commercial insurance companies on a Fee for Service basis. This category *does not* include Medi-Cal patients covered under a POS arrangement.

**Blue Cross/Blue Shield:** Includes only Fee for Service payments. PPO, POS, EPO, and HMO are reported under the appropriate stated categories.

**CHAMPUS (TRICARE):** Includes any PPO, POS, EPO, HMO, Fee for Service, or other payment from the Civilian Health and Medical Program of the Uniformed Services or from TRICARE.

**Title V:** Defined by the Federal Medicare Act for Maternal and Child Health. Title V of the Social Security Act is administered by the Health Resources and Services Administration, Public Health Service, Department of Health and Human Services. Includes Maternal and Child Health program payments that are not covered under Medicaid (Medi-Cal). California Children Services (CCS) payments are reported here.

**Veterans Affairs Plan:** Includes any PPO, POS, EPO, HMO, Fee for Service, or other payment resulting from Veterans Administration coverage.

**Other federal program:** Includes payment by federal programs not covered by any other category.

**Other non-federal program:** Includes any form of payment from local, county, or state government agencies. Includes payment from county funds, whether from county general funds or from other funds used to support county health programs including County Indigent Programs including County Medical Services Program (CMSP), California Health Care for Indigent Program (CHIP), County Children's Health Initiative Program (C-CHIP), and Short-Doyle funds. Also include the State Children's Health Insurance Program (SCHIP), Managed Risk Medical Insurance Board (MRMIB), Health Families Program (HFP), and Access for Infants and Mothers (AIM).

This category *does not* include Title V for California Children Services (CCS) payments.

**Workers compensation health claim:** Payment from Workers' Compensation Health claim insurance is reported under this category.

**Self-Pay:** Payment directly by the patient, guarantor, relatives, or friends. The greatest share of the patient's bill is not expected to be paid by any form of insurance or other third party.

**Automobile medical:** Include PPO, POS, EPO, HMO, and Fee for Service or any other payment resulting from automobile coverage.

**Other:** Includes payments by governments of other countries. Includes payment by local or organized charities, such as the Cerebral Palsy Foundation, Easter Seals, March of Dimes, Shriners, etc. Includes payments not listed in other categories.

### Aggregation of Payment Categories

For the purpose of this report, expected source of payment has been aggregated into categories as displayed below.

Payment Category	Expected Source of Payment
Medicare - Traditional	Medicare part A, part B
Medicare - HMO	HMO Medicare Risk
Medicaid (Medi-Cal)	Medicaid (Medi-Cal)
Private - HMO	HMO
Private - Other	PPO, EPO, POS, Blue Cross/Blue Shield
Other Federal Programs	CHAMPUS (TRICARE), Title V, Veterans Affairs Plan, Other federal program
Other Non-Federal Programs	Other non-federal program
Workers Compensation	Workers compensation health claim
Self-Pay	Self-pay
Other	Automobile medical, other

## **Appendix C**

### Primary Diagnosis Categories



## PRIMARY DIAGNOSIS CATEGORIES

**Circulatory** – Includes rheumatic fever, rheumatic heart disease, hypertensive disease, ischemic heart disease, diseases of pulmonary circulation, other forms of heart disease, cerebrovascular disease, and diseases of veins and lymphatics.

**Endocrine, Nutrition & Metabolic Diseases** – Includes disorders of the thyroid and other endocrine glands, nutritional deficiencies, diabetes mellitus, and metabolic and immunity disorders.

**Mental Disorders** – Includes psychoses, neurotic disorders, personality disorders, and other nonpsychotic mental disorders.

**Skin/Subcutaneous Tissue** – Includes infections of skin and subcutaneous tissue, and inflammatory conditions of skin and subcutaneous tissue.

**V-Code Supplementary** – Circumstances other than a disease or injury, such as a person who is not currently sick donating an organ or blood, a person with a known disease encountering the system for specific treatment (dialysis, chemotherapy, cast change), or when a problem is present which influences the person's health status but is not in itself a current illness or injury.

**Digestive** – Includes diseases of the oral cavity, salivary glands and jaws, diseases of the esophagus, stomach and duodenum, appendicitis, hernia of the abdominal cavity, noninfectious enteritis and colitis, and other diseases of the intestines, peritoneum and digestive system.

**Nervous System, Sense Organs** – Includes inflammatory diseases of the central nervous system (CNS), hereditary and degenerative diseases of the CNS, disorders of the peripheral nervous system, and disorders of the eye and ear.

**Genitourinary** – Includes nephritis, nephritic syndrome, and nephrosis, other diseases of the urinary system, diseases of male genital organs and female pelvic organs, disorders of the breast, and disorders of the female genital tract.

**Musculoskeletal/Connective Tissue** – Includes arthropathies (arthritis) and related disorders, dorsopathies (back), rheumatism (excluding the back), osteopathies, chondropathies, and acquired musculoskeletal deformities.

**Respiratory** – Includes acute respiratory infections, diseases of the upper respiratory tract, pneumonia and influenza, COPD, lung disease due to external agents, and other diseases of the respiratory system.

**Symptoms, signs, ill-defined conditions** – Includes symptoms, signs, abnormal results of laboratory or other investigative procedures, and ill-defined conditions with no diagnosis classifiable elsewhere.

**Injury and Poisoning** – Includes fractures, dislocation, sprains and strains, intracranial injury, internal injury, open wounds, hematoma, lacerations, late effects of injury and poisoning, superficial injury, contusions, crushing injury, foreign bodies, traumatic complications of injury, poisoning, and complications of surgical or medical care.

**Complications of Pregnancy, Childbirth and the Puerperium** – Includes complications related to pregnancy, labor and delivery, and complications of the period after childbirth.

**Infectious and Parasitic Diseases** – Includes diseases generally recognized as communicable or transmissible as well as a few diseases of unknown but possibly infectious origin. Includes intestinal infectious diseases, zoonotic and other bacterial diseases, HIV, polio and other viral diseases of the central nervous system, other viral diseases, including arthropod-borne diseases, chlamydiae and hepatitis, rickettsioses, syphilis and other venereal diseases, other spirochetal diseases, mycoses, helminthiasis, and other infectious and parasitic diseases.

**Neoplasms** – Includes primary and secondary malignant neoplasms, benign neoplasms, carcinoma in situ, and neoplasm of uncertain behavior or unspecified nature.

**Blood and Blood Forming Organs** – Includes anemias (not as a complication of pregnancy), coagulation defects, diseases of white blood cells, and other diseases of the blood and blood-forming organs.

**Congenital Anomalies** – Includes congenital anomalies affecting all body regions.

**Conditions in the Perinatal Period** – Includes conditions that have their origin in the perinatal period even though death or morbidity occurs later.

## **Appendix D**

### Common Diagnoses

## COMMON DIAGNOSES

**Abdominal Symptoms** - Includes abdominal tenderness or pain, which is otherwise unclassifiable.

**Acute Respiratory Infections** - Includes the common cold, sore throat, tonsillitis, laryngitis, and acute bronchitis.

**Arthropathies and Related Disorders** - Refers to arthritis related problems.

**COPD and Allied Health Conditions** – Includes asthma, chronic bronchitis, emphysema and other chronic obstructive lung diseases.

**Diseases of the Ear and Mastoid Process** - Includes otitis media, otitis externa, mastoiditis, and hearing loss.

**Dorsopathies** - Refers to disorders of the back and cervical region.

**General Symptoms** - Includes altered consciousness, hallucinations, syncope, convulsions, dizziness, sleep disturbances, fever, and general malaise and fatigue.

**Head and Neck Symptoms** - Diagnosed for general headache, neck pain, swelling, or voice and speech disturbances.

**Ill-defined and unknown causes of morbidity and mortality** - Includes senility, sudden death, asphyxia, respiratory arrest, nervousness, debility, cachexia, and other ill-defined conditions.

**Infections of Skin and Subcutaneous Tissue** - Includes boils, cellulitis and abscesses, cysts, and other local infections of the skin.

**Other Diseases of the Urinary System** - Includes kidney stones, kidney infections, urinary tract infections and cystitis.

**Respiratory Symptoms** – Includes undiagnosed respiratory abnormalities, including hyperventilation, apnea, shortness of breath, wheezing, cough, painful respiration and other discomfort in the chest.

**V-code diagnosis for a health services encounter** - Includes those with a lack of, or inadequate housing, family disturbances and other psychosocial circumstances, stress, unavailability of other medical facilities for care, and other persons seeking consultation, follow-up examinations or administrative assistance.

For More Information, Contact:

Leslie Upledger Ray or Holly Shipp  
6255 Mission Gorge Road  
San Diego, CA 92120  
(619) 285-6429

[leslie.ray@sdcounty.ca.gov](mailto:leslie.ray@sdcounty.ca.gov)  
[holly.shipp@sdcounty.ca.gov](mailto:holly.shipp@sdcounty.ca.gov)