Agency for Health Care Administration

Florida Center for Health Information And Policy Analysis

Document Abstract
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Title: **Emergency Department Utilization Report for Calendar Year 2005**

Summary:

The Florida Agency for Health Care Administration (Agency) has prepared a report on emergency department (ED) costs and utilization in Florida. The Agency initiated collection of all hospital ED records for visits that do not result in an admission beginning with visits in January 2005. This report provides patient demographic information and other characteristics of the visits to the ED.

Between 1995 and 2005, the number of ED visits (both ambulatory visits and those resulting in an admission) in Florida increased by 37.7 percent, despite a decrease of 7.1 percent in the number of facilities with an ED. Several factors may affect ED utilization including, federal and state laws, population growth, proportion of the uninsured, access to providers, and patient and provider preference.

Analysis of the 2005 ED ambulatory data reveals that 72.7 percent of ED visits were made by persons under age 55. The majority of these visits, 73.4 percent, had an acuity level of low to moderate. Medicare had the largest proportion of high-acuity visits. Injuries, contusions, upper respiratory infection, abdominal pain, and headaches including migraine were among the most frequent principal diagnoses for ambulatory visits.

Future Policy Implications:

The increasing utilization and potential inappropriate utilization of emergency department services pose challenges to Florida's health care delivery system. Analysis of the data in the Agency's ED database may allow policymakers to find opportunities for the containment of costs.

Relevant Florida Statutes:

Section 408.062(1)(i), F.S., directs the Agency to conduct a study of the use of emergency department services by patient acuity level.

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Executive Summary

A hospital emergency department (ED) plays a critical role as a safety net provider in the community. It is the one place where a person cannot be denied services regardless of ability to pay. The ED serves as the primary health care provider for the uninsured, underinsured and those who have limited access to primary care providers and specialty care. Because the ED serves as the provider of last resort, analysis of ED utilization can provide information about the accessibility to primary care and preventative care in the community.

The Florida Agency for Health Care Administration (Agency) initiated collection of ambulatory visit records to hospital EDs, beginning with visits in January 2005. This data provides information about the acuity level of the visit for all patients where the visit did not result in an inpatient admission. This report uses the ED data as well as the Agency Hospital Inpatient data to provide information on demographic and other characteristics of all visits to the ED.

The ED data set contains 5,748,375 visit records for calendar year 2005. An additional 1,353,336 emergency department visits resulted in an inpatient acute care hospitalization.

Trends in Emergency Department Utilization

This report summarizes information from the first complete year of ED data collection (2005) as well as other data sources.

- Between 1995 and 2005, the number of emergency department visits in Florida increased by 37.7 percent.
- After adjusting for increases in population, the emergency department visit rate per 1,000 persons increased by 10.8 percent over the same period.
- Between 1995 and 2005, there was a decrease of 7.1 percent in the number of facilities with an emergency department.
- A total of 1,353,336 (19.1 percent) emergency department visits in 2005 resulted in an inpatient acute care hospitalization.
- The total sum of charges for 2005 ambulatory emergency department visits (those not resulting in an inpatient admission) was $9.5 billion.

Patient Characteristics

- A combined 26 percent of ambulatory ED visits were self-pay/underinsured (23 percent) or charity care (3 percent).

- Black, Hispanic, and 'Other' race ED visits tended to be young patients, ages 34 years and under.
- Regardless of racial group, a visit was more likely to result in an inpatient admission as patient age increased.

Patient Acuity Level

Current Procedural Terminology (CPT) Evaluation & Management codes can be used to categorize ED ambulatory visits. The codes delineate the relative severity, low to high, of the person's condition upon arrival at the ED. This information is not available for patients who were subsequently admitted as an inpatient.

- Nearly 60 percent of all low acuity ED patient visits was for persons ages 34 and younger.
- The majority of children's visits for ages 17 and younger were low acuity (53 percent).
- For ED patient visits for persons ages 65 and older, 37 percent were low acuity.
- For all charity and self-pay/underinsured ED visits, 48.3 percent were classified at the low acuity level.

Conditions Seen in Emergency Departments

Principal Diagnosis for the ambulatory visits – those not resulting in an inpatient admission:

- Injury and poisoning (27.0 percent of all ambulatory ED visits) was the leading Major Diagnosis Category for all emergency department visits.
- About 10 percent of principal diagnoses for ambulatory visits were classifiable as chronic conditions.
- For ambulatory ED visits classifiable as chronic conditions, the top Major Diagnosis Category was mental disorders (23.9 percent).
- Asthma was the leading principal diagnosis for chronic conditions (14.1 percent).

Inpatient Hospitalization

Principal Diagnosis for those ED visits that resulted in an inpatient hospitalization:

- Diseases of the circulatory system (26.8 percent) were the leading causes of all inpatient hospitalizations.
- Nearly 42 percent of principal diagnoses for ED patients who were subsequently admitted as inpatients were classifiable as chronic conditions.

- Congestive heart failure was the leading principal diagnosis for those admitted with a chronic condition (11.7 percent).

Conclusion

This report highlights a few key areas that may warrant further research and review. It can serve as a baseline for future reports and be a resource for hospitals, policy makers, government, researchers, and other health care stakeholders to inform their internal policies, future research studies, and policy development.

Injuries are one of the top reasons patients visit the ED. Given that many injuries are preventable; this is an important area for further study.

Visits classified as low to moderate acuity accounted for 74.3% of ambulatory ED utilization.

Further research is recommended to look at geographic trends in ED utilization as well as disproportionate patterns of utilization for patient demographic groups and patients with chronic conditions.

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Introduction

The role of the Emergency Department (ED) in the delivery of health care is critical, but there are pressures on EDs that can affect utilization and ultimately compromise care. Both the number of ED visits and the rate per 1,000 persons for ED visits have increased over the past ten years at the national and state level. In Florida, the number of hospital EDs has decreased over that time. In the interest of developing recommendations for alleviating the strains on Florida EDs, the Florida Legislature requested a study of ED utilization and costs, grouped by the acuity level of patients using the ED.

Legislative Directions and Mandates

Section 408.062(1), of the Florida Statutes, directs the Agency to conduct research, analyses, and studies relating to health care costs access and quality of health care services. Such research, analyses, and studies shall include the use of emergency department services by patient acuity level and the implication of increasing hospital costs by providing non-urgent care in emergency departments. The agency shall submit an annual report based on this monitoring and assessment to the Governor, the Speaker of the House of Representatives, the President of the Senate, and the substantive legislative committees.

To achieve this goal, the Florida Center initiated collection of patient records, through the Administrative Rule process, for all ambulatory visits to a hospital ED, beginning with visits in January 2005. The ED database provides a more detailed look at the reasons why people seek care at the ED, the charges and the payers for these visits, as well as the diagnoses and procedures performed in that setting.

The initial report on ED utilization was provided to the legislature in January 2006.

Factors Affecting Utilization of Emergency Departments

Studies at both the national [2] and state [3] levels have sought to isolate factors that may affect utilization and costs of ED services. Some of the findings are summarized below.

Federal Laws Governing Emergency Services

Federal mandates require hospitals and physicians to provide emergency care regardless of the patient's ability to pay. In 1986, the U.S. Congress passed the Emergency Medical Treatment and Labor Act (EMTALA) that requires all hospital emergency departments to perform, within the capabilities of the hospital, an appropriate medical screening examination and, if the individual requires emergency treatment, to treat or stabilize the patient for transfer to another facility. Under EMTALA, emergency care cannot be delayed due to methods of payment or insurance coverage. However, urgent care clinics and other late night clinics have no obligation to provide care to patients who cannot pay.

Population Growth

Florida is one of the fastest growing states in the nation. According to U.S. Census data Florida's population grew by 25.4 percent from 1995 to 2005. Among the fastest growing segments are persons of ages 75 and older and ages 0-24. These groups are more likely to need emergency care than middle age populations. National data for 2004 indicate that the emergency department use rate for those of ages 75 years and older was 579 visits per 1,000 persons as compared to 522 visits per 1,000 for adults age 15-24.[1]

Insurance Status

In many states, overcrowding of emergency departments has been attributed to the increased numbers of uninsured. National surveys have found that the uninsured are more likely to use emergency care than those that are privately insured. [3] According to data from the Current Population Survey, [5] the percentage of uninsured in Florida increased by 1.3 percent between 2003 and 2005. The uninsured now comprise 20.3 percent of Florida's population.

Access to Primary Care and Specialty Care Providers

Florida continues to experience a major shortage of family physicians and, with the changing population, will require significantly more family physicians in coming years. [4] At least 15 Florida counties have been designated by the Secretary of Health and Human Services as Health Professions Shortage Areas. All but two Florida counties,

Flagler and Monroe, have shortage designations for one or more geographic areas of the county where there are not providers available to serve the low income populations. A more detailed discussion and other documentation of the Health Professions Shortage Areas can be found at http://www.doh.state.fl.us/workforce/recruit1/shortdesig.html.

Lack of access to primary health care providers may affect emergency department use. If providers are not accessible, patients are more likely to use emergency departments to access needed care. Rural areas tend to have more barriers to health care accessibility.

Today, most health care specialties are available in Florida, although access to specialty care continues to pose problems both through the providers' offices and the ED. There is a growing difficulty in finding specialty physicians willing to take ED coverage for high-risk patients.

Medical liability insurance premiums in Florida increased 83.6 percent from 2001 to 2004[6]. Due to the high cost of professional liability insurance, many Florida licensed physicians have decreased or eliminated the provision of certain health services. One of the services providers most commonly eliminate is ED coverage. Additionally, more physicians are going without malpractice insurance coverage (choosing to self-insure) and may be referring certain high-risk patients to the ED for care in order to reduce their risk.[3]

Competing Interests

Emergency departments provide hospitals with a source of insured inpatient admissions as well as serving as provider of last resort to the uninsured. Overcrowding results from increasing numbers of patients seeking primary care in the ED as well as patients remaining in the ED waiting to be admitted to the hospital. Although the requirements of EMTALA do not mandate the provision of emergency services beyond screening and stabilization and further care or transfer, hospitals are interested in providing a full spectrum of care to attract insured patients as well as provide needed care to the community. Specialists provide increasingly more services in their offices as well as ambulatory facilities and may relinquish admitting privileges if pressured to be on call in the ED[2]. These competing interests may be difficult to resolve.

Methodology

Emergency Department Data Collection

The Centers for Disease Control define an "emergency department" as a hospital facility staffed 24 hours a day for the provision of unscheduled outpatient services to patients whose conditions require immediate care and are staffed 24 hours a day [1].

In 2004, the Agency for Health Care Administration (Agency) was given legislative authority to collect emergency department data from licensed short-term, acute-care hospitals starting January 1, 2005. Chapter 59B-9, F.A.C., has been revised to include the reporting of emergency department data for all emergency department visits occurring on or after January 1, 2005, not resulting in an inpatient admission.

For the purposes of this report, an emergency department visit is defined as one where a person visits a hospital emergency department (ED) and a patient record is created. The ambulatory section of this report includes only visits to a hospital emergency department where a patient record is created but the person is not admitted to the hospital.

The rule for ED reporting specifies that all ambulatory emergency department records must have a valid Current Procedural Terminology (CPT) evaluation and management code (see **Appendix A**). This code provides an indication of the level of severity of the patient's condition upon arrival at the ED and allows the classification of ED visits by their acuity level.

Data Elements

The emergency department data contain information on patient demographics, facility, payer, charges, procedures, and diagnoses. The data also include three additional external causes of injury codes; patient reason for visit; and an hour of arrival code. A complete list of available data elements can be obtained by visiting http://www.floridahealthfinder.gov/Researchers/OrderData/order-data.shtml.

In addition to the Agency emergency department data, information on ED visits was taken from the Agency Hospital Inpatient data. ED visits resulting in an inpatient hospitalization are submitted in the hospital inpatient data and not included in the ED data. The Hospital Inpatient data contains much of the same demographic information

and clinical information that is available in the ED data however information on the acuity level of the patient at the time of admission to the ED is not reported.

Historical information on ED visits was obtained from the annual facility cost reports available from the Agency hospital financial database. Unlike the patient visit database, information from the financial database is aggregated annually at the facility level. This limits the ability of Agency staff to use this data for patient or visit level information. The data from the financial database is internally consistent for trending across time but does not exactly match the discharge level data collected by the Florida Center.

Quality Assurance

Beginning January 1, 2006, all facilities were required to submit their emergency department (ED) data reports to the Agency electronically. Many facilities began submitting data electronically on a voluntary basis in mid-2005 when the Agency made this innovation available. The system initially checks all submitted files for appropriate file format, presence of required element fields, and expected data characters. Files are processed further for accuracy and completeness, including validation of code and practitioner identification.

Facility Reporting Schedule

The schedule for data reporting for the ED and Hospital Inpatient data is presented in **Table 1**. For more information concerning the collection of Ambulatory/ED and Inpatient data, please visit http://Ahca.myflorida.com/SCHS/apdunit.shtml. Data are not available until the quality assurance process is complete.

Table 1
Facility Data Reporting Schedule

Quarter	Time Period	Ambulatory/ED Data Due Date
1st	January 1 - March 31	June 10
2nd	April 1 - June 30	September 10
3rd	July 1 - September 30	December 10
4th	October 1 - December 31	March 10 (Following Year)

Definition of Patient Acuity Levels

The grouping of ED visits by patient acuity level utilizes the five "CPT Evaluation and Management Codes" as assigned to describe the initial condition of the patient. The amount and level of patient management are based on the nature of the presenting problem and clinical judgment of the physician. These codes currently run from 99281 (indicating the lowest level of patient management), to 99285 (the highest level of patient management). **Table 2** displays a simplified description of these evaluation and management codes.

Table 2
Definition of Patient Acuity Groups
by CPT Evaluation and Management Codes

Low-Acuity Group:

99281	The presenting problem(s) are **self limited** or of **minor** severity.
99282	The presenting problem(s) are of **low to moderate** severity.

High-Acuity Group:

99283	The presenting problem(s) are of **moderate** severity.
99284	The presenting problem(s) are of **high severity**, but do **not** pose an immediate significant threat to life.
99285	The presenting problems(s) are of **high severity** and pose an **immediate threat to life**.

*See **Appendix A** for a complete description of the CPT Evaluation and Management Codes.*

These five levels can be divided into two groups. The "Low Acuity" group corresponds with visits described as "non-urgent," while the "High Acuity" group corresponds with visits described as "urgent" or "emergent." The remainder of the report will utilize this grouping scheme.

Charges and Costs of Emergency Department Services

The fiscal information contained in both the Hospital Inpatient and ED data set is charge data that limits the ability to draw conclusions about ED costs. The term *cost* is often used to describe expenses incurred in the delivery of the service to the patient. The financial information collected from hospitals for services provided are *charges*, not costs or revenue. There is no Florida Center data available to report actual cost

incurred in the delivery of emergency department (ED) services. All figures for dollars spent on services provided in the ED are in terms of charges and not costs.

Health insurance companies, Health Maintenance Organizations (HMO) and Preferred Provider Organizations (PPO) do not reimburse EDs for the charges rendered, but instead pay a negotiated rate to the facility. The Agency does not have access to this payment data.

Clinical Classifications

The ED data and the inpatient data include a diagnosis code system, the ICD-9-CM diagnosis. There are over 13,600 diagnosis codes that can be used. These codes are presented in 17 Chapters or Major Diagnosis Categories (MDCs) that group diagnoses by body system, infectious and parasitic disease, and neoplasms. To further facilitate an understanding of the data, a classification system, Clinical Classifications Software (CCS) for ICD-9-CM, is used to aggregate the diagnosis codes into clinically meaningful classifications that are useful for presenting descriptive statistics.

The Clinical Classifications Software (CCS) is a family of databases and software tools developed as part of the Healthcare Cost and Utilization Project (HCUP), a Federal-State-Industry partnership sponsored by the Agency for Healthcare Research and Quality (AHRQ). The CCS consists of two related classification systems. The first system, called the single-level CCS and the second system called the multi-level CCS. In this report, the single-level CCS system was used exclusively to group the diagnoses into 260 mutually exclusive classifications.

Chronic Condition Indicator

The Chronic Condition Indicator is a tool developed as part of the Healthcare Cost and Utilization Project (HCUP). The Chronic Condition Indicator tool categorizes all ICD-9-CM diagnosis codes as indicative of a chronic or not chronic condition. A *chronic condition* is defined as a condition that lasts 12 months or longer and meets one or both of the following tests: (a) it places limitations on self-care, independent living, and social interactions; (b) it results in the need for ongoing intervention with medical products, services, and special equipment. The identification of chronic conditions is based on all five-digit ICD-9-CM diagnosis codes excluding external cause of injury codes (E codes).

More information regarding the HCUP tools used in this report may be obtained from the http://www.hcup-us.ahrq.gov/tools_software.jsp website.

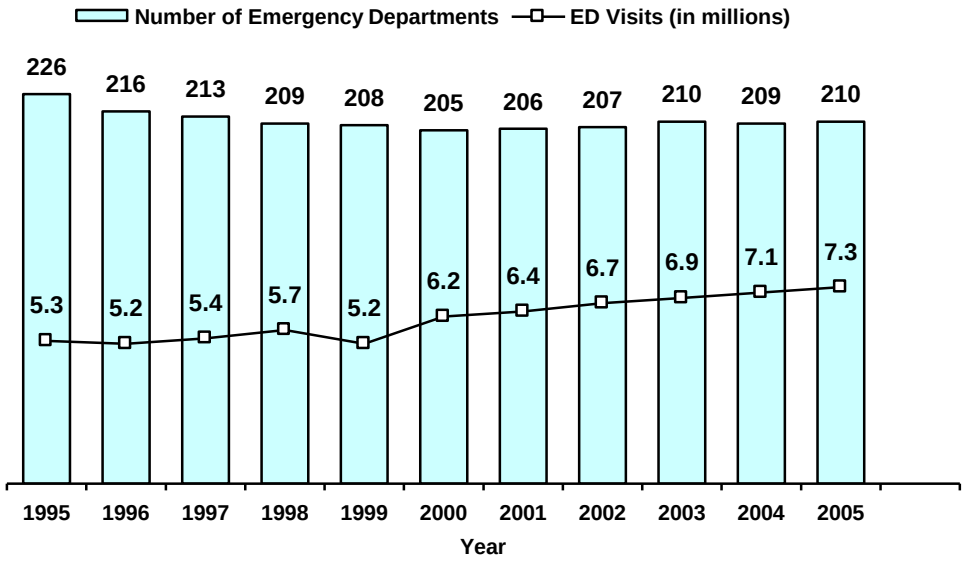
Results

This section of the report is presented in three subsections. The first, Overall Results, presents demographic information based on the entire dataset, both the ED data for the ambulatory visits and the Hospital Inpatient data. The second section, Emergency Department Ambulatory Visit Results, uses the acuity level to provide additional detail about ED utilization and the acuity level of the patient visit. The third subsection, Reasons for Visit and Principal Diagnosis, presents data on the clinical characteristics of patients whose visit to the ED results in hospital inpatient admission.

Overall Results: Trends in Utilization

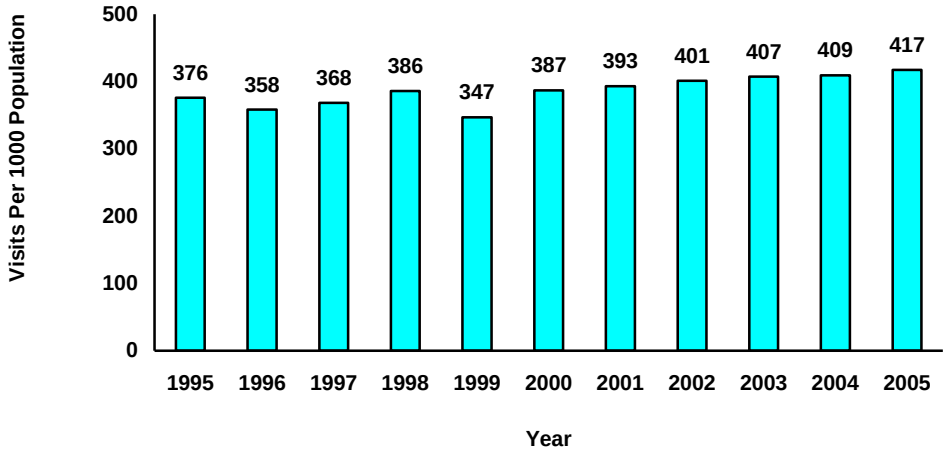
Florida had record high visits to the ED in both 2004 and 2005. **Figure 1** illustrates the growth of ED visits in Florida from 1995 to 2005, where the total number of ED visits increased by 37.7 percent. The rate of ED visits per 1,000 persons, **Figure 2**, increased in Florida by 10.8 percent over the same period which was more than twice the national rate of increase of 4.0 percent[1].

Figure 1
Emergency Department Visits (all types)
Florida, 1995-2005



Source: Agency Hospital Financial database 1995-2005

Figure 2
Emergency Department Utilization Rate
Per 1000 Florida Population, 1995-2005



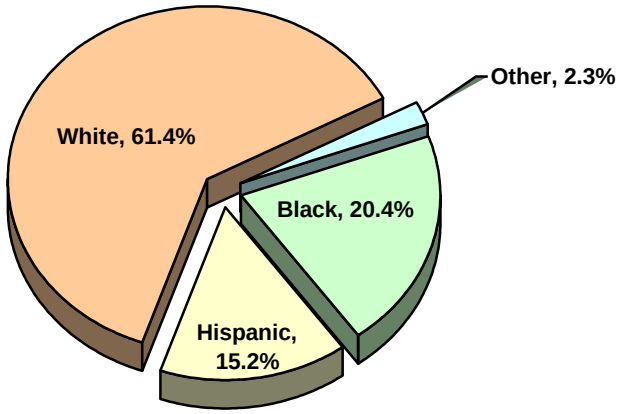
Source: Agency Hospital Financial database 1995-2005, Florida Statistical Abstract 2005

The Florida ED utilization rate of 417 visits per 1,000 persons in 2005 was higher than the national rate of 382 visits per 1,000[1]. In 2005, 5,748,375 visits were made to Florida hospital EDs without admission to the hospital. There were 1,353,336 ED patient visits that resulted in an inpatient admission for a total of 7,101,711 visits to Florida emergency departments in 2005.

Overall Results: Patient Characteristics

Figure 3 displays the percentage of all emergency department (ED) visits by racial group. (See **Appendix B** for a description of the racial groups included in **Figure 3**).

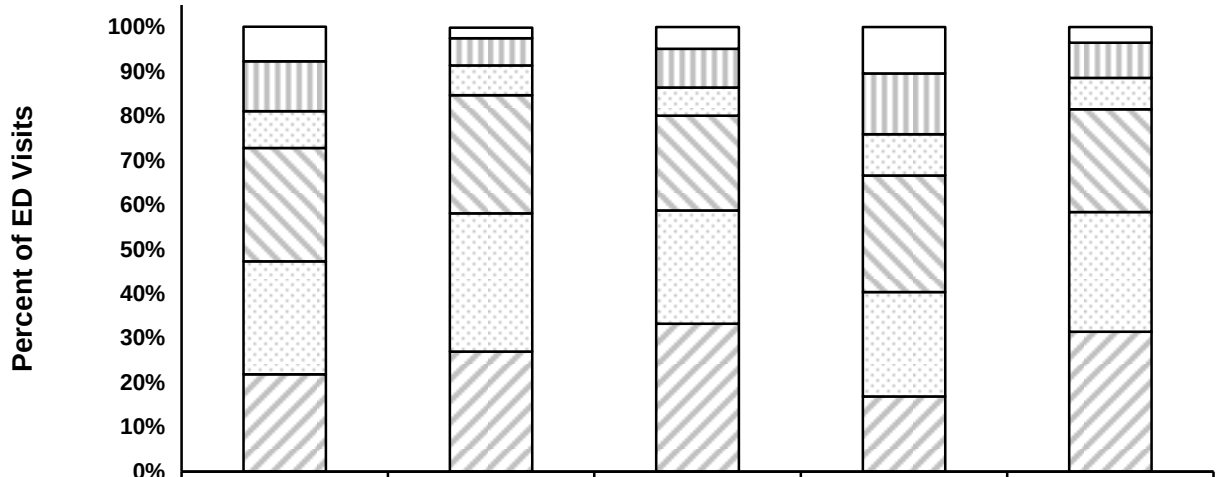
Figure 3
Percentage of Visits to the
Emergency Department by Racial Group 2005



Source: AHCA; Population Statistics: Florida Statistical Abstract 2005
Data includes both ED only visits and inpatient ED admissions

Figure 4 displays the distributions of all ED visits, including inpatient hospitalizations, by age groups within each racial group for all ED patients visits. There is a higher percentage of visits for White patients over 65 years of age compared to non-White visits. There is a lower percentage of White patient visits under 34 years of age relative to the all non-White visits. Over 58 percent of Black, Hispanic, and Other race visits were for patients ages 34 and younger, while only 40.4 percent of White patient visits were in this age group. In contrast, 24.1 percent of white ED visits were for patients ages 65 and older, compared to 8.5 percent of visits for Blacks, 13.6 percent of Hispanic patient visits, and 11.4 percent of Other race visits.

Figure 4
Emergency Department Visits by Age
Within Racial Groups



	Florida	Black	Hispanic	White	Other
80+	7.8%	2.4%	4.9%	10.4%	3.5%
65-79	11.2%	6.1%	8.7%	13.7%	7.9%
55-64	8.3%	6.7%	6.3%	9.3%	7.1%
35-54	25.5%	26.6%	21.3%	26.2%	23.1%
18-34	25.4%	31.1%	25.5%	23.5%	26.9%
<18	21.9%	27.0%	33.3%	16.9%	31.5%

Racial Group

In 2005, there were 7,101,711 emergency department visits with 1,353,336 (19 percent) subsequently resulting in an inpatient hospitalization. **Figure 5** displays the percentage of emergency department (ED) visits resulting in inpatient hospitalizations by age group. Regardless of racial group, a patient was more likely to be admitted as an inpatient as age increased.

Figure 5
Percent of Visits Resulting in Inpatient Hospitalization by Age Groups

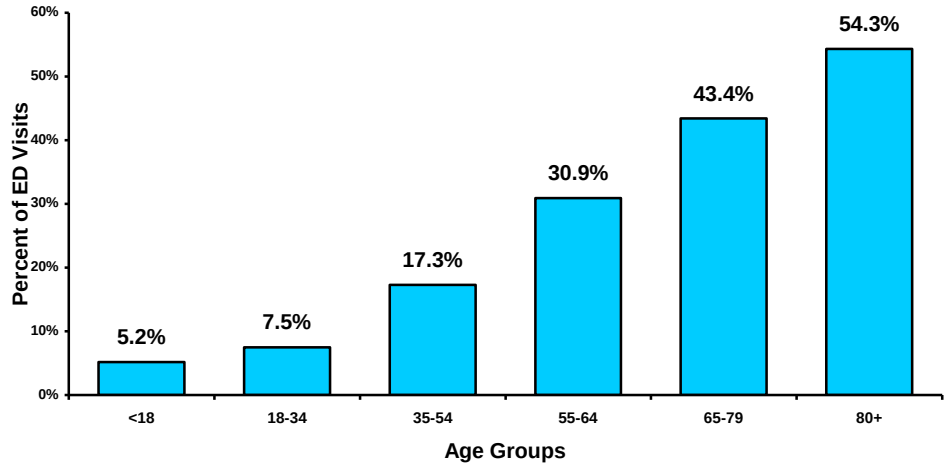


Table 3 details the percent of ED visits resulting in an inpatient hospitalization by race and age. Hispanics of all ages were more likely to be admitted as an inpatient than any other racial group. Overall, emergency department visits resulting in inpatient hospitalizations were as follows: 15.2 percent for Black patient visits, 19 percent for Hispanic patient visits, 20.5 percent for White patient visits, and 15.5 percent for Other race patient visits. (The total excludes unknown race.)

Table 3
Percent of ED Visits Resulting in Admission
by Age and Race

Age Group	Florida	Black	Hispanic	White	Other
Ages 0-17	5.2%	5.5%	5.9%	4.7%	5.7%
Ages 18-34	7.4%	8.0%	9.8%	6.5%	8.9%
Ages 35-54	17.2%	18.8%	20.3%	16.2%	16.8%
Ages 55-64	30.8%	32.2%	35.7%	29.8%	28.7%
Ages 65-79	43.4%	44.6%	52.4%	41.8%	43.6%
Ages 80+	54.3%	55.8%	68.4%	52.5%	57.3%

Table 4 and **Table 5** show the number and percentage of emergency department (ED) visits and inpatient hospitalizations aggregated by payer group. (See **Appendix C** for a description of the payer categories.) The principal payer for highest number of ED visits was commercial insurance (including commercial HMOs), followed by self payers and Medicaid. Medicare was the principal payer for 52.3 percent of the inpatient hospitalizations. Combined, self-pay/underinsured and charity comprised 26.1 percent of ambulatory ED visits but only 10.0 percent of visits resulting in an inpatient admission. See **Appendix D** for a frequency breakdown on each of the 15 payer categories collected by Agency that comprise the 7 groupings shown in the tables below.

Table 4
Emergency Department Visits
by Payer Group, 2005

Payer Group	Number	Percent
Commercial Insurance	1,858,708	32.3%
Self Pay/Underinsured	1,329,078	23.1%
Medicaid	1,260,342	21.9%
Medicare	834,037	14.5%
Other Government	292,954	5.1%
Charity	173,253	3.0%
Unknown Payer	3	0.0%
Total	**5,748,375**	**100.0%**

Source: AHCA 2005 ED Data

Table 5
Inpatient Hospitalization
by Payer Group, 2005

Payer Group	Number	Percent
Medicare	707,536	52.3%
Commercial Insurance	299,747	22.1%
Medicaid	170,034	12.6%
Self Pay/Underinsured	93,858	6.9%
Charity	41,933	3.1%
Other Government	40,228	3.0%
Total	**1,353,336**	**100.0%**

Source: AHCA 2005 Hospital Inpatient Data

Table 6 shows the discharge status for all ED visits. The vast majority of those who visited the ED were discharged to home.

Table 6
Emergency Department Visits
Patient Discharge Status, 2005

Patient Discharge Status	Number	Percent
Home	5,438,672	76.6%
Inpatient Hospitalization	1,353,336	19.1%
Left Against Medical Advice	173,833	2.4%
Other Facility	41,673	0.6%
Other Hospital	38,523	0.5%
Intermediate Facility	22,867	0.3%
Skilled Nursing Facility	16,273	0.2%
Expired	11,855	0.2%
Home Healthcare	3,103	0.0%
Inpatient Rehabilitation Facility	642	0.0%
Home on IV Medications	363	0.0%
Hospice-Medical Facility	338	0.0%
Hospice-Home	233	0.0%
Total	**7,101,711**	**100.0%**

Source: Agency 2005 ED Data and Hospital Inpatient Data

Emergency Department Ambulatory Visit Results: Patient Acuity Level

On August 10, 2007, all available records from the Agency Emergency Department (ED) database collected during the 2005 calendar year were selected for analysis. All ambulatory emergency department visits can be defined by one of five Evaluation & Management codes. The codes delineate the relative severity of the person's condition upon arrival at the ED. See **Appendix A** for a complete description of each of the five Evaluation & Management codes.

Table 7 shows the number, percentage, and average charge for ED visits as aggregated by acuity level. Note that although the ED data collection rule allows for the submission of nine secondary CPT codes for each ED record, the CPT evaluation and management (E/M) codes used to determine patient acuity level are to be entered in the primary CPT code field. However, because these CPT E/M codes were also incorrectly recorded in the nine secondary CPT code fields, or multiple CPT E/M codes submitted for individual records, this analysis used the highest acuity level coded for each ED visit. About 6.5 percent of all visit records were missing an acuity code altogether.

Table 7
Emergency Department Visits
Frequency, Average and Sum of Charges
by Patient Acuity Level, 2005

Acuity Level	ED Visits	Percent	Mean Charges	Total Charges
Minor	795,007	13.8%	$444	$352,632,494
Low-Moderate	1,676,135	29.2%	$984	$1,649,268,122
Moderate	1,745,707	30.4%	$1,564	$2,730,636,907
High-No Sig Threat	885,067	15.4%	$2,765	$2,446,840,960
High-Sig Threat	269,966	4.7%	$3,984	$1,075,547,004
Missing Codes	376,493	6.5%	$3,451	$1,299,389,291
Total	**5,748,375**	**100.0%**	**$1,662**	**$9,554,314,778**

Source: AHCA 2005 ED Data

Of the five acuity levels listed, the vast majority of ambulatory ED visits (73.4 percent) were in the low to moderate severity category. Excluding "Missing Codes" from the total, yields 78.5 percent of all ambulatory visits in the low to moderate category. The average total charge increases with severity level.

The five Evaluation and Management codes were aggregated into two groups, labeled "Low Acuity" and "High Acuity." (See **Table 2** for the definition of these groups.) A

breakdown of emergency department (ED) visits by age group and acuity group is presented in **Table 8**. The data shows that for the youngest age group about 53 percent of ambulatory ED visits are low acuity. However, as the ages increase the proportion of high-acuity visits increases. For ages 65 years and older, the majority of visits, 63.1 percent, are coded as high-acuity. Additionally, figures for the average charge and sum of charges by age group and acuity group are presented in **Appendix F**.

Table 8
Emergency Department Visits
By Age Group and Patient Acuity Level, 2005

	Low Acuity Visits		High Acuity Visits		Total	
Age Group	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
Ages 0-17 years	739,880	52.6%	666,595	47.4%	1,406,475	100.0%
Ages 18-34 years	732,712	46.6%	839,423	53.4%	1,572,135	100.0%
Ages 35-54 years	611,008	44.1%	775,978	55.9%	1,386,986	100.0%
Ages 55-64 years	152,644	41.2%	217,658	58.8%	370,302	100.0%
Ages 65-79 years	157,486	38.6%	250,761	61.4%	408,247	100.0%
Ages 80 years and older	77,412	34.0%	150,325	66.0%	227,737	100.0%
Total	**2,471,142**	**46.0%**	**2,900,740**	**54.0%**	**5,371,882**	**100.0%**

Note: Total excludes visits that cannot be classified by acuity level and unknown age

Source: AHCA 2005 ED data

Table 9 shows a breakdown of emergency department (ED) visits by payer group and acuity group. The payer with the highest proportion of high-acuity visits is Medicare, while the lowest is Other Government. For more details on acuity level by payer group, see **Appendix E** which lists frequencies for each of the five acuity levels for each payer group. Additionally, figures for the average charge and sum of charges aggregated by payer group and acuity group are presented in **Appendix G**.

Table 9
Emergency Department Visits
By Payer Group and Patient Acuity Level, 2005

	Low Acuity Visits		High Acuity Visits		Total	
Payer Group	**ED Visits**	**Percent**	**ED Visits**	**Percent**	**ED Visits**	**Percent**
Commercial Insurance	771,424	44.7%	955,336	55.3%	1,726,760	100.0%
Self Pay/Underinsured	602,007	48.4%	642,078	51.6%	1,244,085	100.0%
Medicaid	596,125	49.6%	605,953	50.4%	1,202,078	100.0%
Medicare	284,611	37.5%	474,065	62.5%	758,676	100.0%
Other Government	139,014	50.3%	137,114	49.7%	276,128	100.0%
Charity	77,960	47.5%	86,194	52.5%	164,154	100.0%
Total	**2,471,141**	**46.0%**	**2,900,740**	**54.0%**	**5,371,881**	**100.0%**

Note: Total excludes visits that cannot be classified by acuity level and visits with unknown prinicpal payer.
Source: AHCA 2005 ED Data

Emergency Department Ambulatory Visit Results: Reasons for Visit

All visits to the emergency department (ED) can be classified according to the principal diagnosis for the patient's reason for visit. The patient's reason for the visit is an ICD-9-CM diagnosis code that best describes the reason why a person came to the ED. (See **Appendix H** for a description of the ICD-9-CM Major Diagnosis Categories [MDCs].) In the 2005 ED data, 1,129 ED records did not have a reason for visit code. These visits are included in **Table 10** and **Table 11** with "All Other Reasons for Visit".

The top five Major Diagnostic Categories, representing 75 percent of all patient reasons for ambulatory ED visits, those not resulting in an inpatient admission, were injury and poisoning (20.6 percent), symptoms, signs and ill defined conditions affecting health (19.6 percent), diseases of the musculoskeletal system and connective tissue (12.8 percent), diseases of the respiratory system (12.1 percent), and diseases of the nervous system and sense organs (9.8 percent) [**Table 10**]. The most common reasons patients provided for emergency department visits included open wounds, abdominal pain, fever, back pain, headache and lower respiratory disease.

Over 300,000 (5.4 percent) emergency department visits were classifiable as chronic conditions based on the patient reasons for the visit. These are conditions that are usually best treated and managed in a primary care setting. For the ED visits classifiable as chronic conditions, the most common Major Diagnostic Categories were mental disorders (34.3 percent), circulatory symptoms (16.8 percent), respiratory symptoms (14.8 percent), and nervous system symptoms (9.1 percent) [**Table 11**]. For chronic conditions, the most common reasons for visit included anxiety, alcohol and substance abuse related mental illnesses, asthma, hypertension, headache and diabetes.

Table 10
Emergency Department Visits: Patient Reason for Visit by Major Diagnostic Category and Clinical Classification

CCS	Medical Condition	Percent of ED Visits	Average Charge	Total ED Visits
	MDC 16: Injury And Poisoning			
244	Other injuries and conditions due to external causes	8.0%	$1,534	461,748
236	Open wounds of extremities	3.1%	$983	176,977
239	Superficial injury; contusion	2.9%	$1,325	166,352
235	Open wounds of head; neck; and trunk	2.0%	$1,474	113,765
232	Sprains and strains	1.8%	$1,243	105,161
	All Other MDC 16 codes	2.8%	$1,745	158,173
	MDC 16: Injury And Poisoning Total	20.6%	$1,419	1,182,176
	MDC 17: Symptoms; Signs; And Ill-Defined Conditions And Factors Influencing Health Status			
251	Abdominal pain	7.4%	$3,552	423,323
246	Fever of unknown origin	4.4%	$1,068	252,904
250	Nausea and vomiting	2.8%	$1,807	161,351
257	Other aftercare	2.3%	$339	134,909
245	Syncope	0.7%	$3,852	40,320
	All Other MDC 17 codes	1.9%	$1,322	111,854
	MDC 17: Symptoms; Signs; And Ill-Defined Conditions And Factors Influencing Health Status Total	19.6%	$2,147	1,124,661
	MDC 13: Diseases Of The Musculoskeletal System And Connective Tissue			
205	Spondylosis; intervertebral disc disorders; other back problems	5.3%	$1,455	306,007
211	Other connective tissue disease	4.0%	$1,222	230,721
204	Other non-traumatic joint disorders	3.4%	$1,213	195,102
212	Other bone disease and musculoskeletal deformities	0.0%	$1,667	2,818
203	Osteoarthritis	0.0%	$1,219	1,666
	All Other MDC 13 codes	0.0%	$1,471	1,712
	MDC 13: Diseases Of The Musculoskeletal System And Connective Tissue Total	12.8%	$1,319	738,026
	MDC 8: Diseases Of The Respiratory System			
133	Other lower respiratory disease	6.2%	$1,319	356,713
126	Other upper respiratory infections	2.9%	$686	166,928
134	Other upper respiratory disease	1.3%	$700	75,914
128	Asthma	0.5%	$1,280	28,243
127	Chronic obstructive pulmonary disease and bronchiectasis	0.4%	$1,532	22,228
	All Other MDC 8 codes	0.8%	$1,450	43,532
	MDC 8: Diseases Of The Respiratory System Total	12.1%	$1,113	693,558
	MDC 6: Diseases Of The Nervous System And Sense Organs			
84	Headache; including migraine	3.2%	$2,123	181,268
94	Other ear and sense organ disorders	1.8%	$426	101,893
93	Conditions associated with dizziness or vertigo	1.2%	$2,813	66,397
91	Other eye disorders	1.1%	$589	65,305
83	Epilepsy; convulsions	0.7%	$2,770	43,053
	All Other MDC 6 codes	1.9%	$1,433	107,826
	MDC 6: Diseases Of The Nervous System And Sense Organs Total	9.8%	$1,639	565,742
	All Other Reason for Visit	25.1%	$1,933	1,444,212
	***All Emergency Department Visits**	**100.0%**	**$1,662**	**5,748,375**

Source: AHCA 2005 ED Data

Table 11
Emergency Department Visits: Patient Reason for Visit by Major Diagnostic Category and Clinical Classification for Chronic Conditions

CCS	Medical Condition	Percent of ED Visits	Average Charge	Total ED Visits
	MDC 5: Mental Disorders			
74	Other mental conditions	8.9%	$1,778	27,783
72	Anxiety; somatoform; dissociative; and personality disorders	8.5%	$1,274	26,616
66	Alcohol-related mental disorders	7.0%	$2,324	21,919
67	Substance-related mental disorders	3.2%	$1,648	10,122
71	Other psychoses	2.6%	$2,743	8,104
	All Other MDC 5 codes	4.1%	$1,475	12,731
	MDC 5: Mental Disorders Total	34.3%	$1,789	107,275
	MDC 7: Diseases Of The Circulatory System			
98	Essential hypertension	8.1%	$1,751	25,320
107	Cardiac arrest and ventricular fibrillation	2.6%	$3,105	8,193
106	Cardiac dysrhythmias	2.3%	$3,164	7,262
108	Congestive heart failure; nonhypertensive	0.7%	$4,078	2,310
101	Coronary atherosclerosis and other heart disease	0.7%	$7,689	2,163
	All Other MDC 7 codes	2.3%	$5,585	7,325
	MDC 7: Diseases Of The Circulatory System Total	16.8%	$3,038	52,573
	MDC 8: Diseases Of The Respiratory System			
128	Asthma	9.0%	$1,280	28,243
126	Other upper respiratory infections	2.4%	$1,055	7,664
127	Chronic obstructive pulmonary disease and bronchiectasis	1.7%	$2,653	5,432
133	Other lower respiratory disease	1.0%	$862	3,033
134	Other upper respiratory disease	0.6%	$509	1,886
	All Other MDC 8 codes	0.1%	$1,421	236
	MDC 8: Diseases Of The Respiratory System Total	14.8%	$1,346	46,494
	MDC 6: Diseases Of The Nervous System And Sense Organs			
84	Headache; including migraine	5.8%	$1,260	18,265
95	Other nervous system disorders	0.8%	$1,755	2,508
91	Other eye disorders	0.4%	$855	1,254
90	Inflammation; infection of eye (except that caused by tuberculosis or sexually transmitteddisease)	0.4%	$603	1,101
83	Epilepsy; convulsions	0.3%	$2,998	1,076
	All Other MDC 6 codes	1.4%	$1,581	4,259
	MDC 6: Diseases Of The Nervous System And Sense Organs Total	9.1%	$1,374	28,463
	MDC 3: Endocrine; Nutritional; And Metabolic Diseases And Immunity Disorders			
50	Diabetes mellitus with complications	2.6%	$2,065	8,043
49	Diabetes mellitus without complication	2.2%	$1,672	6,912
51	Other endocrine disorders	1.2%	$1,843	3,684
54	Gout and other crystal arthropathies	0.9%	$861	2,939
53	Disorders of lipid metabolism	0.3%	$378	866
	All Other MDC 3 codes	0.4%	$1,811	1,310
	MDC 3: Endocrine; Nutritional; And Metabolic Diseases And Immunity Disorders Total	7.6%	$1,692	23,754
	All Other Reason for Visit	17.4%	$1,738	54,583
	***All Emergency Department Visits**	**100.0%**	**$1,879**	**313,142**

Source: AHCA 2005 ED Data

Emergency Department Ambulatory Visit Results: Principal Diagnosis

The principal diagnosis is an ICD-9-CM diagnosis code that is arrived at by a physician after all tests and other clinical information have been assessed. The most frequently reported Major Diagnostic Categories (MDCs) rendered by physicians for ambulatory ED visits, those not resulting in an inpatient admission, were injury and poisoning (27 percent), diseases of the respiratory system (13.8 percent), symptoms and ill-defined conditions affecting health (12.2 percent), diseases of the nervous system and sense organs (9.1 percent), and diseases of the musculoskeletal system and connective tissue (6.6 percent) [**Table 12**]. The top five MDCs represented 68.7 percent of all ambulatory emergency department (ED) visits. The most frequently reported principal diagnoses for emergency department visits were sprains and strains, contusion, upper respiratory infections, abdominal pain, headache and back problems. In the 2005 ED data, 835 visit records did not have a principal diagnosis code. These visits are included in **Table 12** and **Table 13** with "All Other Principal Diagnoses".

Nearly 10 percent (572,348) of the principal diagnoses were classifiable as chronic conditions [**Table 13**]. For emergency department visits classifiable as chronic conditions, the top Major Diagnostic Categories were mental disorders (23.9 percent); respiratory symptoms (22.6 percent); circulatory symptoms (15.9 percent); nervous system and sense organs symptoms (10.3 percent); endocrine, nutritional, and metabolic diseases and immunity disorders (7.3 percent). For chronic conditions, the leading principal diagnoses included anxiety, alcohol and substance abuse related mental illnesses, asthma, hypertension, headache and diabetes.

Table 12 Emergency Department Visits
Principal Diagnosis by Major Diagnostic Category and Clinical Classification

Principal Diagnosis				
CCS	Medical Condition	Percent of ED Visits	Average Charge	Total ED Visits
	MDC 16: Injury And Poisoning			
232	Sprains and strains	6.2%	$1,297	358,705
239	Superficial injury; contusion	6.2%	$1,412	358,384
236	Open wounds of extremities	3.8%	$1,006	221,134
235	Open wounds of head; neck; and trunk	2.6%	$1,560	151,584
244	Other injuries and conditions due to external causes	2.2%	$1,669	126,915
	All Other MDC 16 codes	5.9%	$1,828	336,784
	MDC 16: Injury And Poisoning Total	27.0%	$1,453	1,553,506
	MDC 8: Diseases Of The Respiratory System			
126	Other upper respiratory infections	5.6%	$708	321,575
133	Other lower respiratory disease	1.7%	$1,939	95,711
125	Acute bronchitis	1.6%	$1,062	89,200
128	Asthma	1.4%	$1,270	80,518
127	Chronic obstructive pulmonary disease and bronchiectasis	1.4%	$1,481	79,297
	All Other MDC 8 codes	2.2%	$1,405	124,855
	MDC 8: Diseases Of The Respiratory System Total	13.8%	$1,141	791,156
	MDC 17: Symptoms; Signs; And Ill-Defined Conditions And Factors Influencing Health Status			
251	Abdominal pain	4.0%	$3,485	230,017
257	Other aftercare	2.3%	$321	130,222
246	Fever of unknown origin	1.5%	$1,224	87,450
253	Allergic reactions	1.4%	$609	83,220
250	Nausea and vomiting	1.3%	$1,723	75,281
	All Other MDC 17 codes	1.7%	$2,302	96,562
	MDC 17: Symptoms; Signs; And Ill-Defined Conditions And Factors Influencing Health Status Total	12.2%	$1,925	702,752
	MDC 6: Diseases Of The Nervous System And Sense Organs			
84	Headache; including migraine	2.4%	$2,063	136,873
92	Otitis media and related conditions	2.3%	$503	130,599
93	Conditions associated with dizziness or vertigo	0.9%	$2,873	52,006
90	Inflammation; infection of eye (except that caused by tuberculosis or sexually transmitteddisease)	0.9%	$459	51,574
94	Other ear and sense organ disorders	0.8%	$446	48,233
	All Other MDC 6 codes	1.8%	$2,156	105,240
	MDC 6: Diseases Of The Nervous System And Sense Organs Total	9.1%	$1,467	524,525
	MDC 13: Diseases Of The Musculoskeletal System And Connective Tissue			
205	Spondylosis; intervertebral disc disorders; other back problems	3.2%	$1,304	183,849
211	Other connective tissue disease	1.7%	$1,179	100,364
204	Other non-traumatic joint disorders	1.3%	$1,081	76,641
212	Other bone disease and musculoskeletal deformities	0.2%	$1,785	10,221
203	Osteoarthritis	0.1%	$1,310	5,389
	All Other MDC 13 codes	0.1%	$1,531	3,766
	MDC 13: Diseases Of The Musculoskeletal System And Connective Tissue Total	6.6%	$1,241	380,230
	All Other Principal Diagnosis	31.2%	$2,115	1,796,206
	***All Emergency Department Visits**	**100.0%**	**$1,662**	**5,748,375**

Source: AHCA 2005 ED Data

Table 13 Emergency Department Visits
Principal Diagnosis by Major Diagnostic Category
and Clinical Classification for Chronic Conditions

CCS	Medical Condition	Percent of ED Visits	Average Charge	Total ED Visits
	MDC 5: Mental Disorders			
72	Anxiety; somatoform; dissociative; and personality disorders	6.2%	$1,436	35,351
66	Alcohol-related mental disorders	5.1%	$2,518	29,458
74	Other mental conditions	4.4%	$1,716	25,049
67	Substance-related mental disorders	2.7%	$1,891	15,666
69	Affective disorders	1.9%	$1,631	10,811
	All Other MDC 5 codes	3.6%	$2,203	20,482
	MDC 5: Mental Disorders Total	23.9%	$1,903	136,817
	MDC 8: Diseases Of The Respiratory System			
128	Asthma	14.1%	$1,270	80,518
126	Other upper respiratory infections	4.1%	$1,194	23,237
127	Chronic obstructive pulmonary disease and bronchiectasis	3.4%	$2,485	19,273
134	Other upper respiratory disease	0.9%	$518	5,175
133	Other lower respiratory disease	0.2%	$1,711	983
	All Other MDC 8 codes	0.1%	$1,474	391
	MDC 8: Diseases Of The Respiratory System Total	22.6%	$1,411	129,577
	MDC 7: Diseases Of The Circulatory System			
98	Essential hypertension	6.2%	$1,909	35,211
106	Cardiac dysrhythmias	2.5%	$3,182	14,332
107	Cardiac arrest and ventricular fibrillation	1.7%	$3,249	9,616
108	Congestive heart failure; nonhypertensive	1.2%	$3,549	6,800
101	Coronary atherosclerosis and other heart disease	1.0%	$8,058	5,807
	All Other MDC 7 codes	3.3%	$5,328	19,092
	MDC 7: Diseases Of The Circulatory System Total	15.9%	$3,486	90,858
	MDC 6: Diseases Of The Nervous System And Sense Organs			
84	Headache; including migraine	6.5%	$1,479	37,465
95	Other nervous system disorders	1.2%	$1,684	6,937
83	Epilepsy; convulsions	0.7%	$2,845	3,873
90	Inflammation; infection of eye (except that caused by tuberculosis or sexually transmitteddisease)	0.5%	$569	2,650
91	Other eye disorders	0.4%	$899	2,105
	All Other MDC 6 codes	1.1%	$1,763	6,208
	MDC 6: Diseases Of The Nervous System And Sense Organs Total	10.3%	$1,561	59,238
	MDC 3: Endocrine; Nutritional; And Metabolic Diseases And Immunity Disorders			
50	Diabetes mellitus with complications	2.8%	$2,169	16,308
49	Diabetes mellitus without complication	1.9%	$1,818	10,848
54	Gout and other crystal arthropathies	1.4%	$937	8,298
51	Other endocrine disorders	0.5%	$1,990	2,796
48	Thyroid disorders	0.3%	$1,886	1,460
	All Other MDC 3 codes	0.3%	$1,394	1,993
	MDC 3: Endocrine; Nutritional; And Metabolic Diseases And Immunity Disorders Total	7.3%	$1,773	41,703
	All Other Principal Diagnosis	19.9%	$2,114	114,155
	***All Emergency Department Visits**	**100.0%**	**$2,040**	**572,348**

Source: AHCA 2005 ED Data

Emergency Department Inpatient Admission Results

A total of 1,353,336 or 19.1 percent of ED visits resulted in inpatient hospitalization. In 2005, 54.3 percent of the 2,490,713 acute care inpatients served in Florida hospitals were admitted from an emergency department.

The Major Diagnostic Categories (MDCs) most frequently reported in the data for those ED visits that resulted in an inpatient hospitalization were diseases of the circulatory system (26.8 percent), diseases of the digestive system (13.9 percent), diseases of the respiratory system (13.4 percent), injury and poisoning (10.6 percent), and mental disorders (5.4 percent) [**Table 14**]. These top five MDCs represent 70 percent of all emergency department (ED) visits resulting in inpatient admission. The most frequently reported principal diagnoses for inpatient hospitalizations were chest pain, congestive heart failure, pneumonia, COPD and bronchiectasis, and hip fractures [**Table 14**].

Over 40 percent (568,123) of the inpatient principal diagnoses were classifiable as chronic conditions [**Table 15**]. For those inpatient hospitalizations classifiable as chronic conditions, the top Major Diagnostic Categories were diseases of the circulatory system (46.5 percent), mental disorders (12.7 percent), diseases of the respiratory system (11.1 percent), diseases of the digestive system (8.0 percent), and endocrine; nutritional; and, metabolic diseases and immunity disorders (5.5 percent). For chronic condition visits, the leading inpatient principal diagnoses included congestive heart failure, acute myocardial infarction, COPD and bronchiectasis, asthma, and diabetes mellitus with complications.

Table 14 Inpatient Hospitalization: Principal Diagnosis by Major Diagnostic Category and Clinical Classification

CCS	Medical Condition	Percent of ED Visits	Average Charge	Total ED Visits
	MDC 7: Diseases Of The Circulatory System			
102	Nonspecific chest pain	5.0%	$15,418	68,080
108	Congestive heart failure; nonhypertensive	4.9%	$30,804	66,678
100	Acute myocardial infarction	2.8%	$54,860	38,230
106	Cardiac dysrhythmias	2.8%	$25,734	37,738
101	Coronary atherosclerosis and other heart disease	2.7%	$37,615	36,888
	All Other MDC 7 codes	8.5%	$33,049	114,446
	MDC 7: Diseases Of The Circulatory System Total	26.8%	$31,326	362,060
	MDC 9: Diseases Of The Digestive System			
149	Biliary tract disease	1.6%	$38,108	22,168
153	Gastrointestinal hemorrhage	1.4%	$26,789	18,726
146	Diverticulosis and diverticulitis	1.4%	$29,549	18,679
145	Intestinal obstruction without hernia	1.3%	$33,582	17,790
152	Pancreatic disorders (not diabetes)	1.3%	$32,818	17,070
	All Other MDC 9 codes	6.9%	$27,193	93,888
	MDC 9: Diseases Of The Digestive System Total	13.9%	$29,785	188,321
	MDC 8: Diseases Of The Respiratory System			
122	Pneumonia (except that caused by tuberculosis or sexually transmitted disease)	4.7%	$27,614	63,202
127	Chronic obstructive pulmonary disease and bronchiectasis	2.7%	$22,517	36,908
128	Asthma	1.7%	$17,026	22,794
131	Respiratory failure; insufficiency; arrest (adult)	1.6%	$62,287	21,009
129	Aspiration pneumonitis; food/vomitus	0.7%	$41,960	9,261
	All Other MDC 8 codes	2.1%	$20,833	28,227
	MDC 8: Diseases Of The Respiratory System Total	13.4%	$28,939	181,401
	MDC 16: Injury And Poisoning			
226	Fracture of neck of femur (hip)	1.5%	$44,876	20,644
237	Complication of device; implant or graft	1.3%	$48,258	17,796
238	Complications of surgical procedures or medical care	1.2%	$33,568	16,475
230	Fracture of lower limb	1.0%	$42,379	13,729
231	Other fractures	0.8%	$33,888	11,437
	All Other MDC 16 codes	4.7%	$36,044	63,526
	MDC 16: Injury And Poisoning Total	10.6%	$38,977	143,607
	MDC 5: Mental Disorders			
69	Affective disorders	1.9%	$11,447	26,206
70	Schizophrenia and related disorders	1.2%	$16,027	16,895
66	Alcohol-related mental disorders	0.6%	$14,364	7,714
68	Senility and organic mental disorders	0.4%	$17,734	5,846
74	Other mental conditions	0.4%	$6,840	5,468
	All Other MDC 5 codes	0.8%	$12,151	11,334
	MDC 5: Mental Disorders Total	5.4%	$13,073	73,463
	All Other Diagnosis	29.9%	$15,371	404,484
	Total Inpatient Hospitalization	**100.0%**	**$29,334**	**1,353,336**

Source: AHCA 2005 Hospital Inpatient Data

Table 15 Inpatient Hospitalization
Principal Diagnosis by Major Diagnostic Category
and Clinical Classification for Chronic Conditions

CCS	Medical Condition	Percent of ED Visits	Average Charge	Total ED Visits
	MDC 7: Diseases Of The Circulatory System			
108	Congestive heart failure; nonhypertensive	11.7%	$30,804	66,678
100	Acute myocardial infarction	6.7%	$54,860	38,230
101	Coronary atherosclerosis and other heart disease	6.5%	$37,615	36,888
106	Cardiac dysrhythmias	6.4%	$26,143	36,622
109	Acute cerebrovascular disease	6.0%	$37,492	33,847
	All Other MDC 7 codes	9.1%	$31,330	51,695
	MDC 7: Diseases Of The Circulatory System Total	46.5%	$35,554	263,960
	MDC 5: Mental Disorders			
69	Affective disorders	4.6%	$11,447	26,206
70	Schizophrenia and related disorders	3.0%	$16,027	16,895
66	Alcohol-related mental disorders	1.4%	$14,365	7,713
74	Other mental conditions	1.0%	$6,839	5,462
68	Senility and organic mental disorders	0.9%	$18,161	5,201
	All Other MDC 5 codes	1.9%	$11,820	10,572
	MDC 5: Mental Disorders Total	12.7%	$13,023	72,049
	MDC 8: Diseases Of The Respiratory System			
127	Chronic obstructive pulmonary disease and bronchiectasis	6.2%	$22,804	35,484
128	Asthma	4.0%	$17,026	22,794
131	Respiratory failure; insufficiency; arrest (adult)	0.4%	$57,109	2,537
133	Other lower respiratory disease	0.3%	$35,756	1,734
126	Other upper respiratory infections	0.1%	$15,570	547
	All Other MDC 8 codes	0.0%	$31,389	231
	MDC 8: Diseases Of The Respiratory System Total	11.1%	$22,422	63,327
	MDC 9: Diseases Of The Digestive System			
146	Diverticulosis and diverticulitis	3.3%	$29,549	18,679
138	Esophageal disorders	1.1%	$18,599	6,498
150	Liver disease; alcohol-related	0.9%	$34,755	4,947
144	Regional enteritis and ulcerative colitis	0.7%	$31,105	4,197
151	Other liver diseases	0.5%	$37,578	2,897
	All Other MDC 9 codes	1.4%	$31,408	8,108
	MDC 9: Diseases Of The Digestive System Total	8.0%	$29,537	45,326
	MDC 3: Endocrine; Nutritional; And Metabolic Diseases And Immunity Disorders			
50	Diabetes mellitus with complications	4.3%	$25,315	24,602
51	Other endocrine disorders	0.4%	$23,976	2,288
49	Diabetes mellitus without complication	0.2%	$10,551	1,162
58	Other nutritional; endocrine; and metabolic disorders	0.2%	$26,175	1,028
48	Thyroid disorders	0.2%	$21,979	922
	All Other MDC 3 codes	0.2%	$28,450	1,114
	MDC 3: Endocrine; Nutritional; And Metabolic Diseases And Immunity Disorders Total	5.5%	$24,707	31,116
	All Other Diagnosis	16.3%	$32,595	92,345
		100.0%	**$30,634**	**568,123**

Source: AHCA 2005 Hosptial Inpatient Data

Summary and Conclusions

The use of emergency departments (EDs) in Florida has been increasing over the past ten years. The number of visits increased by 37.7 percent from 1995 to 2005, while the visit rate per population increased by 10.8 percent over the same period. The total charges for ED visits increased by 1,108 percent, from $791 million in 1994 to $9.6 billion in 2005.

An analysis of the data reveals that the majority of ED visits were from people who are non-Hispanic white, and under 35 years of age. The top two payer groups were commercial insurance and self pay/underinsured. The likelihood of an inpatient admission increased with age.

The majority of ambulatory visits were for an acuity level of low to moderate. Medicare was the payer for the largest proportion of high-acuity visits. The most frequently reported principal diagnoses were injury and poisoning and diseases of the respiratory system.

The comparisons in **Table 16** show that the reasons patients provide for the ED visit are fairly consistent with the principal diagnoses as determined by the physician's examination.

Table 16. Comparison of Patient Reason for Visit to Principal Diagnosis By Major Diagnostic Category

Major Diagnostic Category	Patient Reasons for Visit	Principal Diagnosis
MDC 16: Injury and Poisoning	20.6%	27.0%
MDC 17: Symptoms, Signs and Ill Defined Conditions	19.6%	12.2%
MDC 13: Diseases of the Musculoskeletal System and Connective Tissue	12.8%	6.6%
MDC 8: Diseases Of The Respiratory System	12.1%	13.8%
MDC 6: Diseases of the Nervous System and Sense Organs	9.8%	9.1%
All Other Reasons	25.1%	31.2%

Patients with chronic conditions that should be better managed in a physician's office make up a significant proportion of ED visits, 10 percent of ambulatory visits and 40 percent of visits that result in an inpatient hospitalization. This finding raises concern about access to appropriate care for patients with chronic conditions.

Although EDs are sometimes thought to be magnets for indigent patients, the typical ED visit in Florida is for a patient with insurance. In order to determine patterns of utilization for patient groups, further research should be done to determine the proportion of the patient groups in the Florida population at large. Within patient groups, there may be individuals that have repeated visits to the ED. This utilization pattern also warrants further study. Further analysis of the ED data can also identify patterns of utilization that differ geographically between rural and urban areas.

Recommendations

Injuries are one of the top reasons patients visit the ED. Given that many injuries are preventable; this is an important area for further study. A comprehensive report that compiles data from a number of sources could inform injury prevention programs in the state of Florida. The Florida Department of Health is using the ED data combined with Vital Statistics data as well as data from the Department of Transportation to produce an in-depth study on injuries in the state of Florida.

Although the 2005 ED data provides a baseline for further study, there are limitations in the data collected that preclude analysis of some facets of ED utilization. Problems occur due to inaccuracy in reporting Current Procedural Terminology (CPT) Evaluation and Management codes in the Principal CPT Procedure field. Approximately 10 percent of the codes have been inaccurately reported as other CPT codes or were left blank. Agency data collection staff should work with facilities to improve their data coding practices.

The acuity level of ED patients who are subsequently admitted as an inpatient is not included in the data. The time of discharge from the ED which would allow analysis of boarding times is not provided in the data set. The Florida Center will work with the facilities to increase the quality and comprehensiveness of the data reported.

This report summarizes Emergency Department information at the visit level. Further research should be done at the individual and population level to look at patterns of

utilization for patient demographic groups, patients with chronic conditions, and payer groups.

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Appendices

A. CPT Evaluation and Management Codes Used to Classify Acuity Level
B. Definition of Racial Categories
C. Definition of Principal Payer Categories
D. Emergency Department Visits by Payer
E. Emergency Department Visits by Payer and Patient Acuity Level
F. ED Visits, Average and Sum of Charges by Age Group and Patient Acuity Level
G. ED Visits, Average and Sum of Charges by Payer Group and Patient Acuity Level
H. ICD-9-CM Major Diagnosis Category

Appendix A

CPT Evaluation and Management Codes Used to Classify Acuity Level

The following codes are used to report evaluation and management services provided in the emergency department. No distinction is made between new and established patients in the emergency department.

An emergency department is defined as an organized hospital-based facility for the provision of unscheduled episodic services to patients who present for immediate medical attention. The facility must be available 24 hours a day.

Low Acuity:

99281 - Emergency department visit for the evaluation and management of a patient, which requires these three key components:
a problem focused history;
a problem focused examination;
a straightforward medical decision making.
Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs.
Usually the presenting problems(s) are self limited or minor.

99282 - Emergency department visit for the evaluation and management of a patient, which requires these three key components:
an expanded problem focused history;
an expanded problem focused examination;
medical decision making of low complexity.
Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs.
Usually, the presenting problem(s) are of low to moderate severity.

Appendix A (continued)

CPT Evaluation and Management Codes Used to Classify Acuity Level

High Acuity:

99283 - Emergency department visit for the evaluation and management of a patient, which requires these three key components:
an expanded problem focused history;
an expanded problem focused examination;
medical decision making of moderate complexity.
Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs.
Usually the presenting problem(s) are of moderate severity.

99284 - Emergency department visit for the evaluation and management of a patient, which requires these three key components:
a detailed history;
a detailed examination;
medical decision making of moderate complexity.
Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs.
Usually, the presenting problems are of high severity, and require urgent evaluation by the physician but do not pose an immediate significant threat to life or physiologic function.

99285 - Emergency department visit for the evaluation and management of a patient, which requires these three key components within the constraints imposed by the urgency of the patient's clinical condition and/or mental status:
a comprehensive history;
a comprehensive examination;
medical decision-making of high complexity.
Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs.
Usually, the presenting problems(s) are of high severity and pose an immediate threat to life or physiologic function.

Appendix B

Definition of Racial Categories

Racial Group	Race/Ethnic Description
Hispanic	Black Hispanic White Hispanic
Black	Black / African-American only
White	White only- non Hispanic
Other	Asian/Pacific American Indian Other
Non-white	Hispanic Black Other
No Response	No Response

Appendix C

Definition of Principal Payer Categories

Payer Category	Payer Description
Medicare	Medicare
	Medicare HMO
Medicaid	Medicaid
	Medicaid HMO
Commercial Insurance	Commercial Insurance
	Commercial HMO
	Commercial PPO
Other Government	CHAMPUS/TRICARE
	Veteran Administration
	Workers' Compensation
	Other Government
	Other
	KidCare
Self-Pay / Underinsured	Self Pay / Under-insured
Charity	Charity

Source: AHCA

Appendix D

Emergency Department Visits by Payer, 2005

Payer	ED Visits	Percent	Mean Charge	Total Charges
Medicare	717,524	12.5%	$2,183	$1,566,140,094
Medicare HMO	116,513	2.0%	$2,918	$340,016,752
Medicaid	717,928	12.5%	$1,278	$917,408,002
Medicaid HMO	542,414	9.4%	$1,189	$645,160,633
Commercial HMO	704,487	12.3%	$1,893	$1,333,542,596
Commercial Insurance	447,660	7.8%	$1,705	$763,248,368
Commercial PPO	706,561	12.3%	$1,799	$1,271,231,662
Workers Compensation	139,145	2.4%	$1,168	$162,568,505
CHAMPUS/TRICARE	70,341	1.2%	$1,569	$110,366,759
Veteran Administration	7,322	0.1%	$2,456	$17,983,819
Other Government	42,558	0.7%	$2,013	$85,675,819
Self Pay/Underinsured	1,329,078	23.1%	$1,488	$1,977,289,642
Other	9,741	0.2%	$2,149	$20,936,644
Charity	173,253	3.0%	$1,830	$317,021,352
KidCare	23,847	0.4%	$1,079	$25,724,126
Unknown Payer	3	0.0%	$2	$5
Total ED Visits	**5,748,375**	**100.0%**	**$1,662**	**$9,554,314,778**

Payer	Inpatient Hospitalization	Percent	Mean Charge	Total Charges
Medicare	588,120	43.5%	$31,346	$18,435,190,856
Medicare HMO	119,416	8.8%	$32,571	$3,889,442,074
Medicaid	120,674	8.9%	$28,295	$3,414,457,124
Medicaid HMO	49,360	3.6%	$22,557	$1,113,406,687
Commercial HMO	123,724	9.1%	$26,094	$3,228,457,834
Commercial Insurance	58,010	4.3%	$31,635	$1,835,122,212
Commercial PPO	118,013	8.7%	$26,598	$3,138,927,404
Workers Compensation	6,290	0.5%	$36,631	$230,407,482
CHAMPUS/TRICARE	8,576	0.6%	$25,605	$219,591,876
Veteran Administration	4,969	0.4%	$30,593	$152,018,966
Other Government	15,707	1.2%	$30,006	$471,304,482
Self Pay/Underinsured	93,858	6.9%	$24,654	$2,313,948,417
Other	3,367	0.2%	$29,711	$100,037,039
Charity	41,933	3.1%	$26,833	$1,125,187,621
KidCare	1,319	0.1%	$23,670	$31,220,411
Total	**1,353,336**	**100.0%**	**$29,334**	**$39,698,720,485**

Source: AHCA 2005 ED data and Hospital inpatient Data

Appendix E

Emergency Department Visits
by Payer and Patient Acuity Level, 2005

Patient Acuity Level

	Low Acuity				High Acuity							
	99281		99282		99283		99284		99285		Total	
Payer	**ED Visits**	**Pct**	**ED Visits**	**Pct**	**ED Visits**	**Pct**	**ED Visits**	**Pct**	**ED Visits**	**Pct**	**ED Visits**	**Pct**
Medicare	83,856	10.5%	200,755	12.0%	250,347	14.3%	164,512	18.6%	59,206	21.9%	758,676	14.1%
Medicaid	196,616	24.7%	399,509	23.8%	395,301	22.6%	162,679	18.4%	47,973	17.8%	1,202,078	22.4%
Commerciall Ins.	235,558	29.6%	535,866	32.0%	569,033	32.6%	298,558	33.7%	87,745	32.5%	1,726,760	32.1%
Other Government	43,463	5.5%	95,551	5.7%	93,134	5.3%	34,892	3.9%	9,088	3.4%	276,128	5.1%
Self-Pay /Underinsured	211,451	26.6%	390,556	23.3%	391,041	22.4%	195,563	22.1%	55,474	20.5%	1,244,085	23.2%
Charity	24,062	3.0%	53,898	3.2%	46,851	2.7%	28,863	3.3%	10,480	3.9%	164,154	3.1%
Unknown	1	0.0%									1	0.0%
Total	**795,007**	**100.0%**	**1,676,135**	**100.0%**	**1,745,707**	**100.0%**	**885,067**	**100.0%**	**269,966**	**100.0%**	**5,371,882**	**100.0%**

Note: Total excludes visits that cannot be grouped by acuity level.

Source: AHCA 2005 ED Data

Appendix F

Emergency Department Visits
Average and Sum of Charges
by Age Group and Patient Acuity Level, 2005

	Low Acuity Visits			High Acuity Visits			Total		
Age Group	**Number**	**Mean**	**Sum**	**Number**	**Mean**	**Sum**	**Number**	**Mean**	**Sum**
Ages 0-17 years	739,880	$531	$392,565,771.0	666,595	$1,340	$893,445,849.0	1,406,475	$914	$1,286,011,620.0
Ages 18-34 years	732,712	$813	$595,983,654.0	839,423	$2,076	$1,742,244,679.0	1,572,135	$1,487	$2,338,228,333.0
Ages 35-54 years	611,008	$941	$575,202,173.0	775,978	$2,435	$1,889,395,743.0	1,386,986	$1,777	$2,464,597,916.0
Ages 55-64 years	152,644	$1,046	$159,709,692.0	217,658	$2,685	$584,486,720.0	370,302	$2,010	$744,196,412.0
Ages 65-79 years	157,486	$1,128	$177,627,177.0	250,761	$2,805	$703,509,146.0	408,247	$2,158	$881,136,323.0
Ages 80 years and older	77,412	$1,302	$100,812,149.0	150,325	$2,927	$439,942,734.0	227,737	$2,374	$540,754,883.0
Total	**2,471,142**	**$810**	**$2,001,900,616.0**	**2,900,740**	**$2,156**	**$6,253,024,871.0**	**5,371,882**	**$1,537**	**$8,254,925,487.0**

Notes: Total excludes visits that cannot be classified by acuity level and patient records with invalid or unknown ages.
Value of Sum is in millions.

Source: AHCA 2005 ED Data

Appendix G

Emergency Department Visits
Average and Sum of Charges
by Payer Group and Patient Acuity Level, 2005

	Low Acuity Visits			High Acuity Visits			Total		
Payer Group	**Visits**	**Mean**	**Sum**	**Visits**	**Mean**	**Sum**	**Visits**	**Mean**	**Sum**
Medicare	284,611	$1,103	$314.0	474,065	$2,744	$1,300.6	758,676	$2,128	$1,614.6
Medicaid	596,125	$621	$369.9	605,953	$1,698	$1,028.9	1,202,078	$1,164	$1,398.8
Commercial Insurance	771,424	$896	$690.8	955,336	$2,287	$2,184.4	1,726,760	$1,665	$2,875.2
Other Government	139,014	$831	$115.5	137,114	$1,907	$261.5	276,128	$1,365	$377.0
Self Pay/Underinsured	602,007	$731	$439.9	642,078	$1,981	$1,272.3	1,244,085	$1,376	$1,712.1
Charity	77,960	$921	$71.8	86,194	$2,383	$205.4	164,154	$1,689	$277.2
Unknown Payer	1	$5	$0.0				1	$5	$0.0
Total	**2,471,141**	**$810**	**$2,001.9**	**2,900,740**	**$2,156**	**$6,253.0**	**5,371,881**	**$1,537**	**$8,254.9**

Notes: Total includes visits that cannot be classified by acuity level.
Value of Sum is in millions.
Source: AHCA 2005 ED Data

Appendix H

Table 1 - ICD-9-CM Major Diagnosis Category	
Category	ICD-9-CM Major Diagnosis Category Description
1	Infectious and parasitic diseases
2	Neoplasms
3	Endocrine; nutritional; and metabolic diseases and immunity disorders
4	Diseases of the blood and blood-forming organs
5	Mental disorders
6	Diseases of the nervous system and sense organs
7	Diseases of the circulatory system
8	Diseases of the respiratory system
9	Diseases of the digestive system
10	Diseases of the genitourinary system
11	Complications of pregnancy; childbirth; and the puerperium
12	Diseases of the skin and subcutaneous tissue
13	Diseases of the musculoskeletal system and connective tissue
14	Congenital anomalies
15	Certain conditions originating in the perinatal period
16	Injury and poisoning
17	Symptoms; signs; and ill-defined conditions and factors influencing health status

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