Agency for Health Care Administration

Florida Center for Health Information And Policy Analysis

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Title:	**Emergency Department Utilization Report 2007**
Summary:	The Florida Agency for Health Care Administration (Agency) prepares an annual report on emergency department costs and utilization in Florida. The Agency initiated collection of all hospital emergency department (ED) records for ambulatory visits that do not result in a hospital inpatient admission beginning with visits in January 2005. This report provides patient demographic information and other characteristics of the visits to the ED for the most recent calendar year as well as information on visits to the ED that resulted in an inpatient admission.
	This analysis of the most recent year of ED data, calendar year 2007, reveals that 71.1 percent of ED visits were made by persons under age 55. The majority of ambulatory ED visits, 73.8 percent, had an acuity level of low to moderate. 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 identifies opportunities for cost containment in the ED setting.
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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	To view or print this report, please visit the following website:

www.FloridaHealthFinder.gov

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Executive Summary

A hospital emergency department (ED) has increasingly played a critical role as a safety net provider in the community. It is the one place where a person can seek and receive care and 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) started collecting information about ambulatory visit records to hospital EDs, beginning with visits in January 2005. This data provides information about the acuity level, the severity 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's Hospital Inpatient data to provide information on patient demographics and other clinical characteristics of all visits to the ED.

There was a total of 7,192,223 ED visits in calendar year 2007, with 1,523,683 being pediatric and 5,668,550 being adult. Of the total ED visits, 5,782,671 (1,523,683 pediatric, 4,338,570 adult) did not result in an inpatient hospitalization. A total of 1,409,562 ED visits did result in an inpatient acute care hospitalization (79,582 pediatric, 1,329,980 adult).

Trends in Emergency Department Utilization
This report summarizes information from the third complete year of ED data collection (calendar year 2007) as well as other data sources. This year analysis was additionally done separately for pediatric and adult utilization.
- Over 23 percent of adult ED visits resulted in an inpatient hospitalization while only 5 percent of pediatric ED visits resulted in an inpatient hospitalization.
- The total sum of charges for 2007 ambulatory emergency department visits (those not resulting in an inpatient admission) was $12.45 billion (pediatric - $1.7 billion, adult $10.75 billion).
- Nearly half the 2007 ED charges for Florida residents could be avoided through greater utilization of primary care services.

Patient Characteristics
- Over 65 percent of pediatric ambulatory ED visits were for Medicaid enrollees (47.3 percent), self-pay/underinsured (15.8 percent), or charity (1.9 percent).

- A combined 31.3 percent of all adult ambulatory ED visits were self-pay/underinsured (27 percent) or charity care (4.3 percent).
- 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 only available for ambulatory ED visits and not for patients who were subsequently admitted as an inpatient.

- Over 60 percent of all low acuity ED patient visits was for persons ages 34 and younger (30.9 percent ages 17 and under, 30.1 percent ages 18 to 34).
- Nearly 49 percent of pediatric visits were low acuity.
- For ED patient visits for persons ages 65 and older, 29.2 percent were low acuity.
- Nearly 50 percent of all pediatric Medicaid visits were low acuity.
- Over 53 percent of pediatric charity and self-pay/underinsured ED visits were low acuity.

Conditions Seen in Emergency Departments
This analysis is based on the principal diagnosis for emergency department visits not resulting in an inpatient admission:

- Injury and poisoning (25.8 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 those ambulatory ED visits that were classified as involving chronic conditions, the top Major Diagnosis Category was mental disorders (23.6 percent).
- Asthma was the leading principal diagnosis for chronic conditions (12.9 percent).

Inpatient Hospitalization
This analysis is based on the principal diagnosis for those ED visits that resulted in an inpatient hospitalization:

- Disease of the circulatory system was the leading cause of all inpatient hospitalizations (25.2 percent) from the ED.

- Over 41 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 (10.4 percent).

Emergency Department Visits by Emergency Status

The emergency status of a patient visit is determined by using the NYU Classification algorithm. This algorithm is intended for ambulatory visits, those not resulting in an inpatient admission:

- A higher percentage of ED visits by blacks (61.3 percent pediatric, 55.2 percent adult) and Hispanics (62.5 percent pediatric, 50 percent adult) were potentially avoidable or treatable in a primary care setting (ED Avoidable) compared to whites (50.6 percent pediatric, 45.9 percent adult).
- A higher percentage of ED visits by females (59.8 percent pediatric, 52.8 percent adult) were ED Avoidable compared to males (53.8 percent pediatric, 42.5 percent adult).
- The ED Avoidable pediatric rate (56.6 percent) was much higher than the adult rate (48.5 percent).
- Nearly 57.9 percent of the charges associated with ED visits for pediatric Medicaid patients and over 50 percent of pediatric charity and pediatric self/uninsured ED visits were potentially avoidable.

Conclusion

Further research was recommended in the 2006 report to look at ED utilization for ambulatory care sensitive conditions. Ambulatory care sensitive conditions (ACSC) are conditions for which good primary or specialty care can potentially prevent the need for hospitalization, or for which early intervention can prevent complications or more severe disease. The Florida State University College of Medicine completed a report in June 2008 titled "Emergency Department Use and Misuse in Florida (2005)." They used Emergency Department data to identify ACSC and Dental ACSC. In addition, they studied ED use for mental, alcohol and drug abuse related conditions. ED data was analyzed by patient characteristics, payer-type, region of the state, time of ED use, and other characteristics in Florida. Total and average charges were for the studied conditions. Additional sub-analyses of ED use by out-of-state patients and patients without valid Social Security Numbers will be conducted. This report will be available on www.FloridaHealthFinder.gov once finalized.

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 strain on Florida EDs, the Florida Legislature requests an annual 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 and access to and quality of health care services as access and quality are affected by changes in health care cost." Subsection (i) states that the 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 for Health Information and Policy Analysis (Florida Center) initiated collection of patient records, for all ambulatory visits to a hospital ED, beginning with visits in January 2005. The ED database provides a detailed look at the reasons 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.

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 2006. Among the fastest growing segments of the population 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 2006 indicate that the emergency department use rate for those of ages 75 years and older was 602 visits per 1,000 persons as compared to 471 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 .9 percent between 2005 and 2007. The uninsured now comprise 20.7 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]

The US Department of Health and Human Services designated 33 Florida counties as whole-county Health Professions Shortage Areas in 2006. 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://bhpr.hrsa.gov/shortage/.

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.

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 the 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].

Methodology

Emergency Department Data Collection

The emergency department (ED) data used in this report are patient encounter-level discharge records from the Florida Agency for Health Care Administration (Agency) emergency department database and the inpatient hospital database collected from all licensed hospitals and hospital emergency departments in Florida. The unit of analysis is the discharge record; meaning an individual admitted to a hospital emergency department multiple times during the year will be counted each time as a unique patient discharge. The patient discharge record consists of patient demographic information, medical diagnosis, services received, and charges for the visit. Unless stated otherwise, this report uses all ED discharge records for calendar year 2007 that did not result in a hospital inpatient admission. This report uses data effective as of June 23, 2009.

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 (E-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's 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 the figures do not always match the discharge level data collected by the Florida Center.

Quality Assurance

Facilities submit their emergency department (ED) data reports to the Agency electronically. 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 and the data is certified by all the facilities.

Table 1: Facility Data Reporting Schedule

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

Definition of Patient Acuity Levels

The rule governing ED reporting, Chapter 59B-9, Florida Administrative Code, 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. **Table 2** displays a simplified description of these evaluation and management codes.

Table 2: Definition of Patient Acuity Groups by 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. This 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 the actual cost incurred in the delivery of emergency department 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, ICD-9-CM. There are over 13,600 diagnosis codes that can be used. These codes are aggregated 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 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 was used in this report to categorize 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.

The NYU ED Classification Algorithm

The New York University Center for Health and Public Service Research and the United Hospital Fund of New York developed an algorithm, illustrated in Figure 1, to aid in the analysis of administrative data from ED records (Billings, Parikh, & T, 2000). The algorithm classifies ED utilization, based on the principal diagnosis, from the perspective of primary care and preventive care for emergent and non-emergent cases.

The algorithm was developed with the advice of a panel of ED and primary care physicians, and based on an examination of a sample of almost 6,000 full ED records. Data abstracted from these records included the initial complaint, presenting symptoms, vital signs, medical history, age, gender, diagnoses, procedures performed, and resources used in the ED. Based on this information, each case was classified into one or more of the following categories:

- Non-emergent - The patient's initial complaint, presenting symptoms, vital signs, medical history, and age indicated that immediate medical care was not required within 12 hours;
- Emergent/Primary Care Treatable - Based on information in the record, treatment was required within 12 hours, but care could have been provided effectively and safely in a primary care setting. The complaint did not require continuous observation, and no procedures were performed or resources used that are not available in a primary care setting (e.g., CAT scan or certain lab tests);
- Emergent - ED Care Needed - Preventable/Avoidable - Emergency department care was required based on the complaint or procedures performed and resources used, but the emergent nature of the condition was potentially preventable/avoidable if timely and effective ambulatory care had been received during the episode of illness (e.g., the flare-ups of asthma, diabetes, congestive heart failure, etc.); and
- Emergent - ED Care Needed - Not Preventable/Avoidable - Emergency department care was required and ambulatory care treatment could not have prevented the condition (e.g., trauma, appendicitis, myocardial infarction, etc.).

Since few diagnostic categories are clear-cut in all cases, the algorithm assigns cases probabilistically on a percentage basis, reflecting this potential uncertainty and variation. Conditions not included in the classification are grouped as cases involving a primary diagnosis of injury, mental health problems, alcohol, or substance abuse. There are also a residual of conditions that are tabulated separately as unclassified conditions. Non-classified conditions are not used in the analysis of emergency status.

NYU EMERGENCY DEPARTMENT
CLASSIFICATION ALGORITHM [V2.0]

Emergent

ED care needed

Not preventable/avoidable

Preventable/avoidable

Primary care treatable

Non-Emergent

Mental health related
Alcohol related
Substance abuse related
Injury
Unclassified
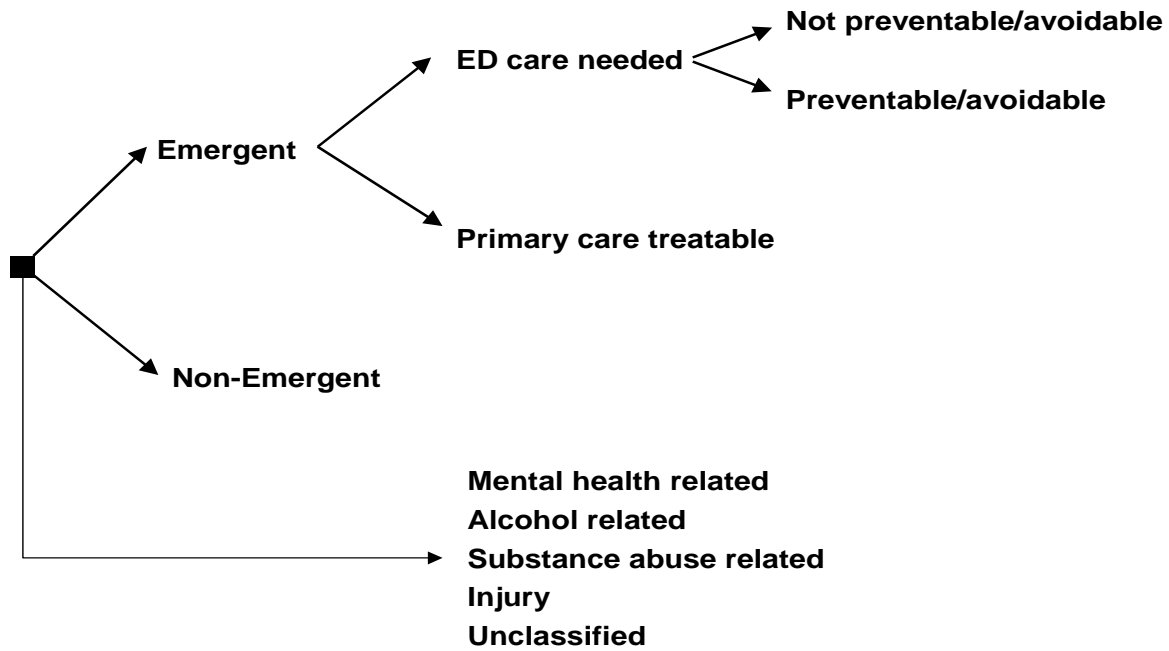
Results

This section of the report is presented in three subsections. The first section, Overall Results, presents demographic information based on all emergency department visits, both ED ambulatory visits and ED visits resulting in an inpatient hospitalization. In this report, inpatient hospitalization is defined as an inpatient admission with source of admission being the emergency department. Overall results are grouped by ages 17 and under (Pediatrics) and ages 18 and over (Adults) when there is a significant difference in utilization for the two groups. The second section, Emergency Department Ambulatory Visit Results, presents data on the top medical conditions seen in the ED and the top medical conditions resulting in an inpatient hospitalization. The third section uses the New York University algorithm of classifying ED patient emergency status, to present data for Florida residents' ED visits in the following categories of emergency status: (1) non-emergent, (2) emergent but primary care treatable, (3) emergent-ED care needed, but preventable/avoidable, (4) emergent-ED care needed, but not preventable/avoidable, (5) injury and (6) other which consist of conditions related to mental health, alcohol and substance abuse, and all other unclassified conditions.

Overall Results: Patient Characteristics

Figure 2 displays the percentage of all emergency department (ED) visits by racial/ethnic group. (See **Appendix B** for a description of the racial groups included in Figure 2). There is significant difference in pediatric ED and adult ED utilization by race/ethnic group. Non-whites constitute more than 50 percent of pediatric ED utilization, whereas, white adults account for more than 65 percent of adult ED utilization.

Figure 2: Visits to the Emergency Department by Racial/Ethnic Group
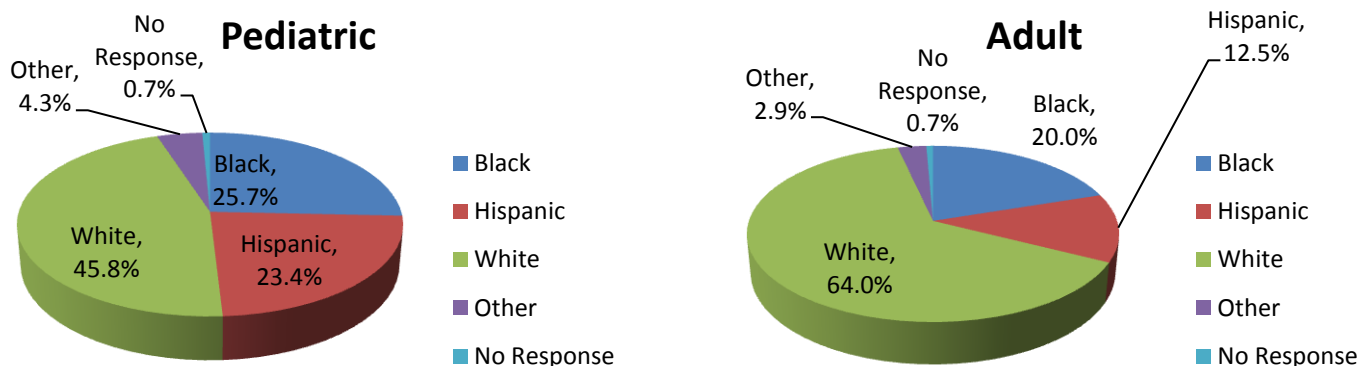
Data Source: AHCA; Data includes both outpatient ED and inpatient ED admissions for 2007

Figure 3 displays the distribution of all adult and pediatric ED visits, including inpatient hospitalizations, by age group within each racial group. Over 38 percent of Black, Hispanic, and Other race adult ED visits were for patients ages 18 - 34, while only 28.5 percent of White adult ED visits were in this age group. In contrast, 28.8 percent of white adult ED visits were for patients ages 65 and older, compared to 11.7 percent of visits for Blacks, 18.7 percent of Hispanic patient visits, and 18 percent of Other race adult ED visits in this age group.

Over 49 percent of Black, Hispanic, and Other race pediatric ED visits were for patients ages 4 and under, while 42.6 percent of White pediatric ED visits were in this age group. In contrast, 37.6 percent of white pediatric ED visits were for patients ages 10 - 17, compared to 31.4 percent of visits for Blacks, 24.2 percent of Hispanic patient visits, and 26.1 percent of Other race pediatric ED visits in this age group.

Figure 3: Emergency Department Visits by Age within Racial/Ethnic Groups
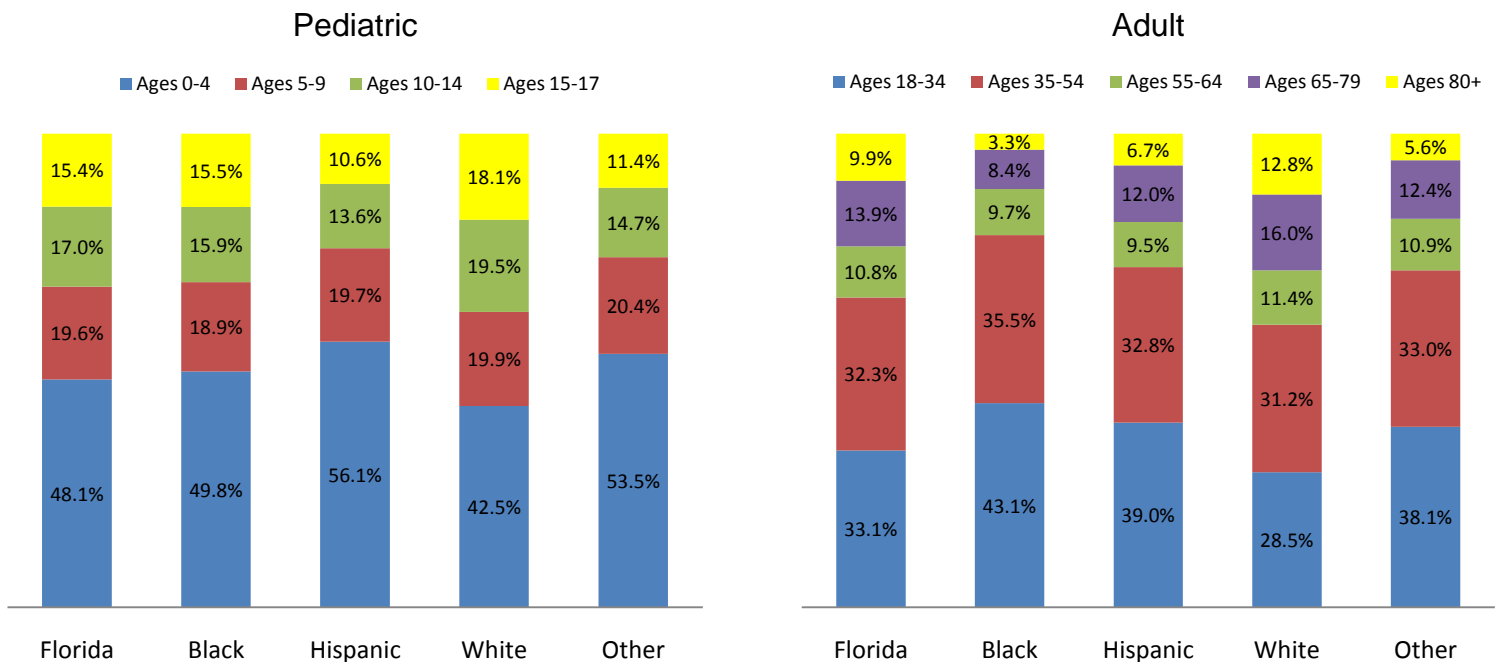
Data Source: AHCA; Data includes both outpatient ED and inpatient ED admissions for 2007

Figure 4 displays the distribution of all pediatric and adult ED visits, including inpatient hospitalizations, by gender. The rate of outpatient ED visits for boys was more than 6 percent greater than the rate for girls, while the rate for adult women was 15.3 percent more than the rate for adult men.

Figure 4: Emergency Department Visits by Gender

Data Source: AHCA; Data includes both outpatient ED and inpatient ED admissions for 2007
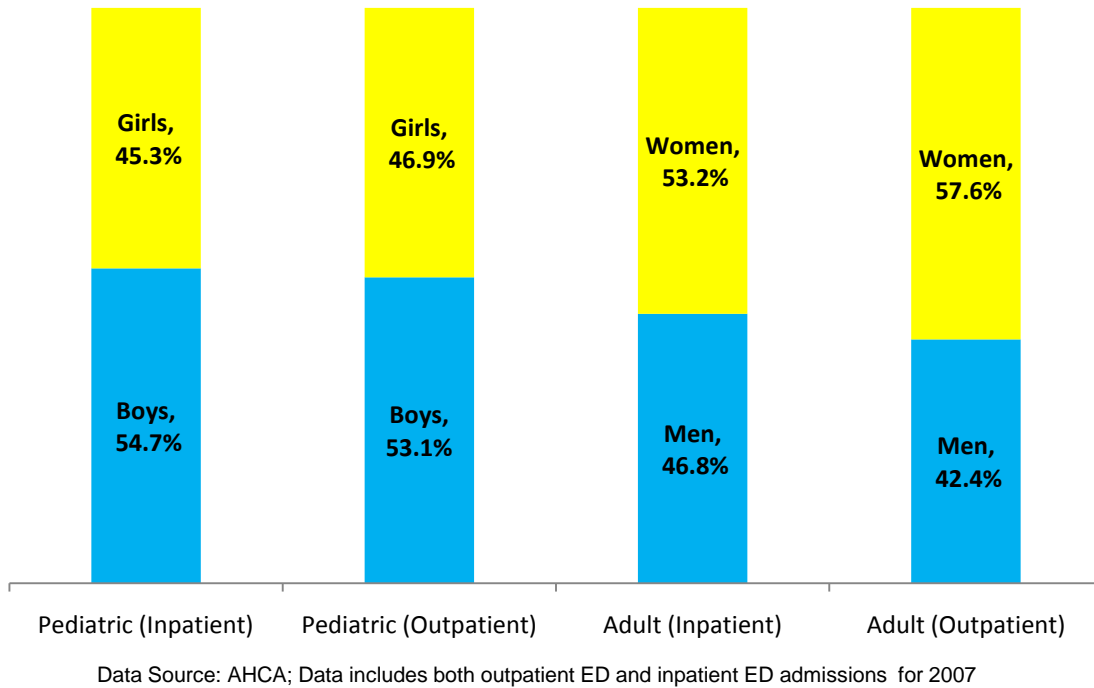
In 2007, there were 7,192,233 emergency department visits with 1,409,562 (19.6 percent) subsequently resulting in an inpatient hospitalization. **Figure 5** displays the percentage of emergency department (ED) visits resulting in inpatient hospitalization by age group. Regardless of racial group, a patient was more likely to be admitted as an inpatient as age increased. Overall pediatric ED visits were significantly less likely than adult ED visits to result in an inpatient hospitalization.

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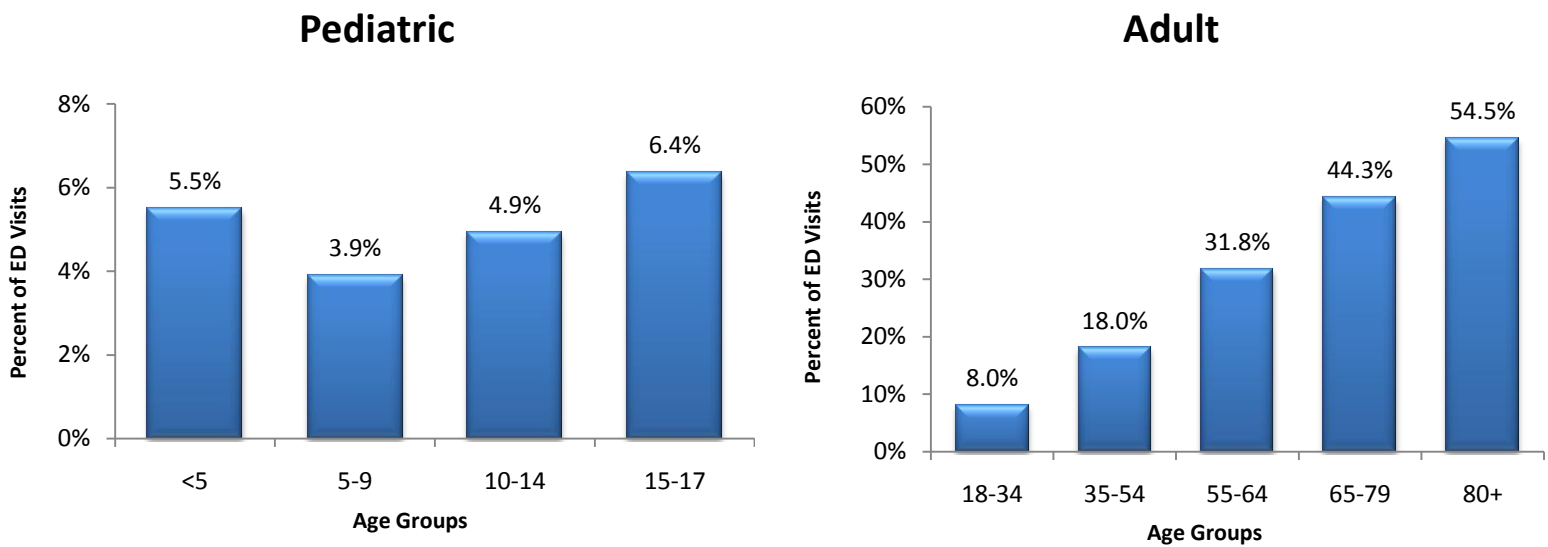
Pediatric

Percent of ED Visits vs Age Groups

- <5: 5.5%
- 5-9: 3.9%
- 10-14: 4.9%
- 15-17: 6.4%

Adult

Percent of ED Visits vs Age Groups

- 18-34: 8.0%
- 35-54: 18.0%
- 55-64: 31.8%
- 65-79: 44.3%
- 80+: 54.5%

Data Source: AHCA; Data includes both outpatient ED and inpatient ED admissions for 2007

Table 3 details the percent of emergency department (ED) visits resulting in an inpatient hospitalization by race and age. Overall, adult emergency department visits resulting in inpatient hospitalizations were as follows: 19.1 percent for Black patient visits, 23 percent for Hispanic patient visits, 25 percent for White patient visits, and 22.5 percent for Other race patient visits. (The total excludes unknown race.)

Table 3: Percent of ED Visits Resulting in Hospital Admission by Age and Race/Ethnicity

Age Group	Florida	Black	Hispanic	White	Other
Ages 0-4	5.5%	5.6%	5.7%	5.3%	5.8%
Ages 5-9	3.9%	4.4%	4.2%	3.5%	4.0%
Ages 10-14	4.9%	5.3%	6.0%	4.4%	5.1%
Ages 15-17	6.4%	6.3%	7.7%	5.9%	7.5%
All Pediatrics	5.2%	5.4%	5.7%	4.9%	5.5%
Ages 18-34	8.0%	8.4%	9.8%	7.3%	10.3%
Ages 35-54	18.1%	19.4%	18.8%	17.4%	18.7%
Ages 55-64	31.8%	32.0%	32.5%	31.7%	31.3%
Ages 65-79	44.3%	44.0%	47.9%	43.8%	45.6%
Ages 80+	54.5%	55.1%	63.4%	53.5%	58.8%
All Adults	23.5%	19.1%	23.0%	25.0%	22.5%
All Ages	19.6%	15.6%	17.2%	21.8%	17.6%

Data Source: AHCA; Data includes both outpatient ED and inpatient ED admissions for 2007

Table 4 and **Table 5** show the ED utilization by payer group. (See **Appendix C** for a description of the payer categories). The top principal payer for adult outpatient ED visits was commercial insurance (including commercial HMOs), Combined, self-pay/underinsured and charity comprised the top payer for adult outpatient ED visits, 31.3 percent. Medicare was the principal payer for 54.3 percent of the adult inpatient hospitalizations. Self-pay/underinsured and charity accounted for only 10.8 percent of adult inpatient hospitalizations.

Medicaid was the top principal payer for all pediatric ED patients. Medicaid accounted for nearly 50 percent of all pediatric outpatient ED visits and 53.1 percent of pediatric inpatient hospitalization.   See **Appendix D** for a frequency breakdown on each of the 15 payer categories collected by the Agency that comprise the 7 groups shown in **Tables 4** and **5** below.

Table 4: Emergency Department Visits by Payer Group

Payer Group (Pediatric)	Number	Percent
Medicaid	682,997	47.3%
Commercial	438,367	30.4%
Self Pay/Underins	228,251	15.8%
Other Government	62,910	4.4%
Charity	26,954	1.9%
Medicare	4,621	0.3%
Unknown	1	0.0%
Total	**1,444,101**	**100.0%**

Payer Group (Adult)	Number	Percent
Commercial	1,354,175	31.2%
Self Pay/Underins	1,170,255	27.0%
Medicare	835,844	19.3%
Medicaid	553,667	12.8%
Other Government	237,144	5.5%
Charity	187,485	4.3%
		0.0%
Total	**4,338,570**	**100.0%**

Source: AHCA 2007 ED Data

Table 5: ED Visits Resulting in Hospitalization by Payer Group

Payer Group (Pediatric)	Number	Percent
Medicaid	42,224	53.1%
Commercial	27,630	34.7%
Self Pay/Underins	5,303	6.7%
Other Government	3,240	4.1%
Charity	895	1.1%
Medicare	290	0.4%
Total	**79,582**	**100.0%**

Payer Group (Adult)	Number	Percent
Medicare	722,797	54.3%
Commercial	284,648	21.4%
Medicaid	132,187	9.9%
Self Pay/Underins	104,720	7.9%
Other Government	46,501	3.5%
Charity	39,127	2.9%
Total	**1,329,980**	**100.0%**

Source: AHCA 2007 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 by Patient Discharge Status

Patient Discharge Status	Number	Percent
Home	5,459,827	75.9%
Acute Care Hospital	1,452,435	20.2%
Left Against Medical Advice	194,014	2.7%
Other Facility	41,612	0.6%
Skilled Nursing Facility	16,607	0.2%
Expired	12,033	0.2%
Intermediate Care Facility	9,717	0.1%
Home Healthcare	3,823	0.1%
Other Hospital	1,044	0.0%
Hospice-Medical Facility	632	0.0%
Hospice-Home	441	0.0%
Home on IV Medications	48	0.0%
Total	**7,192,233**	**100.0%**

Source: AHCA 2007 ED Data and Hospital Inpatient Data

Emergency Department Ambulatory Visit Results

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 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 [MDC]).

The top five Major Diagnostic Categories, representing 73.8 percent of all patient reasons for ambulatory ED visits, those not resulting in an inpatient admission, were symptoms, signs and ill defined conditions affecting health (20.9 percent), injury and poisoning (19.1 percent), diseases of the musculoskeletal system and connective tissue (13.1 percent), diseases of the respiratory system (10.9 percent), and diseases of the nervous system and sense organs (9.9 percent) [**Table 7**]. The most common reasons patients provided for emergency department visits included injuries due to external causes, abdominal pain, fever, back pain, headache and lower respiratory disease.

Over 300,000 (5.2 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 (34.8 percent), circulatory symptoms (17.8 percent), respiratory symptoms (12.2 percent), and nervous system symptoms (11 percent) [**Table 8**]. For chronic conditions, the most common reasons for visit included anxiety, alcohol and substance abuse related mental illnesses, asthma, hypertension, headache and diabetes.

Table 7: 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 17: Symptoms; Signs; And Ill-Defined Conditions And Factors Influencing Health Status			
251	Abdominal pain	8.4%	$4,480	485,067
246	Fever of unknown origin	4.4%	$1,304	252,028
250	Nausea and vomiting	3.3%	$2,349	190,604
257	Other aftercare	2.0%	$411	115,804
245	Syncope	0.8%	$4,817	47,021
	All Other MDC 17 codes	2.0%	$1,823	115,397
	MDC 17: Symptoms; Signs; And Ill-Defined Conditions And Factors Influencing Health Status Total	**20.9%**	**$2,848**	**1,205,921**
	MDC 16: Injury And Poisoning			
244	Other injuries and conditions due to external causes	9.4%	$1,981	544,997
236	Open wounds of extremities	2.5%	$1,186	142,212
239	Superficial injury; contusion	2.1%	$1,660	123,721
235	Open wounds of head; neck; and trunk	1.6%	$1,865	95,327
232	Sprains and strains	1.2%	$1,501	67,855
	All Other MDC 16 codes	2.2%	$2,176	129,132
	MDC 16: Injury And Poisoning Total	**19.1%**	**$1,826**	**1,103,244**
	MDC 13: Diseases Of The Musculoskeletal System And Connective Tissue			
205	Spondylosis; intervertebral disc disorders; other back problems	5.4%	$1,825	310,723
211	Other connective tissue disease	4.2%	$1,502	244,899
204	Other non-traumatic joint disorders	3.4%	$1,498	197,117
212	Other bone disease and musculoskeletal deformities	0.0%	$1,919	2,095
203	Osteoarthritis	0.0%	$1,505	1,170
	All Other MDC 13 codes	0.0%	$2,088	1,453
	MDC 13: Diseases Of The Musculoskeletal System And Connective Tissue Total	**13.1%**	**$1,636**	**757,457**
	MDC 8: Diseases Of The Respiratory System			
133	Other lower respiratory disease	6.0%	$1,732	344,816
126	Other upper respiratory infections	2.4%	$880	139,052
134	Other upper respiratory disease	1.4%	$905	81,842
128	Asthma	0.4%	$1,538	23,917
127	Chronic obstructive pulmonary disease and bronchiectasis	0.2%	$2,038	12,676
	All Other MDC 8 codes	0.5%	$1,912	28,174
	MDC 8: Diseases Of The Respiratory System Total	**10.9%**	**$1,444**	**630,477**
	MDC 6: Diseases Of The Nervous System And Sense Organs			
84	Headache; including migraine	3.3%	$2,678	189,316
94	Other ear and sense organ disorders	1.7%	$537	97,891
93	Conditions associated with dizziness or vertigo	1.2%	$3,528	71,504
91	Other eye disorders	1.2%	$725	70,173
83	Epilepsy; convulsions	0.8%	$3,407	46,635
	All Other MDC 6 codes	1.6%	$1,978	94,824
	MDC 6: Diseases Of The Nervous System And Sense Organs Total	**9.9%**	**$2,120**	**570,343**
	All Other Reason for Visit	26.2%	$2,406	1,515,229
	***All Emergency Department Visits**	**100.0%**	**$2,153**	**5,782,671**

Source: AHCA 2007 ED Data

* Total excludes ED patients discharged to inpatient acute care hospitals

Table 8: 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 Illness			
651	Anxiety disorders	9.0%	$1,534	26,924
660	Alcohol-related disorders	8.1%	$2,876	24,431
657	Mood disorders	7.9%	$2,135	23,563
659	Schizophrenia and other psychotic disorders	3.6%	$2,861	10,792
661	Substance-related disorders	3.2%	$2,041	9,672
	All Other MDC 5 codes	3.0%	$2,265	9,050
	MDC 5: Mental Illness Total	34.8%	$2,231	104,432
	MDC 7: Diseases Of The Circulatory System			
98	Essential hypertension	9.7%	$2,306	29,185
107	Cardiac arrest and ventricular fibrillation	2.7%	$3,543	8,013
106	Cardiac dysrhythmias	2.1%	$4,056	6,450
112	Transient cerebral ischemia	0.7%	$11,069	2,132
101	Coronary atherosclerosis and other heart disease	0.6%	$11,477	1,674
	All Other MDC 7 codes	2.0%	$5,846	6,034
	MDC 7: Diseases Of The Circulatory System Total	17.8%	$3,738	53,488
	MDC 8: Diseases Of The Respiratory System			
128	Asthma	8.0%	$1,538	23,917
126	Other upper respiratory infections	1.6%	$1,403	4,904
127	Chronic obstructive pulmonary disease and bronchiectasis	1.2%	$3,480	3,499
133	Other lower respiratory disease	0.8%	$1,127	2,527
134	Other upper respiratory disease	0.5%	$720	1,566
	All Other MDC 8 codes	0.1%	$1,875	350
	MDC 8: Diseases Of The Respiratory System Total	12.2%	$1,645	36,763
	MDC 6: Diseases Of The Nervous System And Sense Organs			
84	Headache; including migraine	5.2%	$1,710	15,596
83	Epilepsy; convulsions	2.0%	$3,311	5,917
95	Other nervous system disorders	1.4%	$1,614	4,167
89	Blindness and vision defects	0.7%	$1,432	2,123
91	Other eye disorders	0.6%	$902	1,651
	All Other MDC 6 codes	1.2%	$1,689	3,458
	MDC 6: Diseases Of The Nervous System And Sense Organs Total	11.0%	$1,925	32,912
	MDC 3: Endocrine; Nutritional; And Metabolic Diseases And Immunity Disorders			
50	Diabetes mellitus with complications	2.6%	$2,519	7,697
49	Diabetes mellitus without complication	2.3%	$2,227	7,044
51	Other endocrine disorders	1.4%	$2,402	4,269
54	Gout and other crystal arthropathies	0.7%	$1,009	2,102
48	Thyroid disorders	0.1%	$2,450	418
	All Other MDC 3 codes	0.2%	$2,645	458
	MDC 3: Endocrine; Nutritional; And Metabolic Diseases And Immunity Disorders Total	7.3%	$2,260	21,988
	All Other Reason for Visit	16.8%	$2,187	50,542
	*All Emergency Department Visits	**100.0%**	**$2,389**	**300,125**

Source: AHCA 2007 ED Data

* Total excludes ED patients discharged to inpatient acute care hospitals

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 (MDC) rendered by physicians for ambulatory ED visits not resulting in an inpatient admission, were injury and poisoning (25.8 percent), symptoms and ill-defined conditions affecting health (12.7 percent), diseases of the respiratory system (12.6 percent), diseases of the nervous system and sense organs (9.2 percent), and diseases of the Digestive System (6.7 percent) [**Table 9**]. The top five MDCs represented 67.1 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, and headache.

Over 10 percent (606,213) of the principal diagnoses were classifiable as chronic conditions [**Table 10**]. For emergency department visits classifiable as chronic conditions, the top Major Diagnostic Categories were mental disorders (23.6 percent); respiratory symptoms (20.5 percent); circulatory symptoms (16 percent); nervous system and sense organs symptoms (12.8 percent); endocrine, nutritional, and metabolic diseases and immunity disorders (7.1 percent). For chronic conditions, the leading principal diagnoses included anxiety, alcohol and substance abuse related mental illnesses, asthma, hypertension, headache and diabetes.

Table 9: Emergency Department Visits Principal Diagnosis by Major Diagnostic Category and Clinical Classification

CCS	Medical Condition	Percent of ED Visits	Average Charge	Total ED Visits
	MDC 16: Injury And Poisoning			
232	Sprains and strains	6.0%	$1,605	347,711
239	Superficial injury; contusion	5.9%	$1,829	343,972
236	Open wounds of extremities	3.4%	$1,230	196,208
235	Open wounds of head; neck; and trunk	2.5%	$2,027	143,591
244	Other injuries and conditions due to external causes	2.3%	$2,109	132,415
	All Other MDC 16 codes	5.7%	$2,311	330,714
	MDC 16: Injury And Poisoning Total	25.8%	$1,849	1,494,611
	MDC 17: Symptoms; Signs; And Ill-Defined Conditions And Factors Influencing Health Status			
251	Abdominal pain	4.4%	$4,395	253,476
257	Other aftercare	1.9%	$374	107,896
246	Fever of unknown origin	1.6%	$1,434	90,853
250	Nausea and vomiting	1.6%	$2,142	90,015
253	Allergic reactions	1.4%	$755	81,452
	All Other MDC 17 codes	2.0%	$2,802	113,265
	MDC 17: Symptoms; Signs; And Ill-Defined Conditions And Factors Influencing Health Status Total	12.7%	$2,519	736,957
	MDC 8: Diseases Of The Respiratory System			
126	Other upper respiratory infections	4.8%	$847	274,754
133	Other lower respiratory disease	1.6%	$2,468	92,143
125	Acute bronchitis	1.3%	$1,483	75,729
127	Chronic obstructive pulmonary disease and bronchiectasis	0.9%	$1,464	52,961
122	Pneumonia (except that caused by tuberculosis or sexually transmitted disease)	0.7%	$2,523	39,396
	All Other MDC 8 codes	3.4%	$1,675	194,364
	MDC 8: Diseases Of The Respiratory System Total	12.6%	$1,474	729,347
	MDC 6: Diseases Of The Nervous System And Sense Organs			
92	Otitis media and related conditions	2.0%	$610	115,014
84	Headache; including migraine	1.8%	$2,843	103,116
93	Conditions associated with dizziness or vertigo	0.9%	$3,612	54,350
90	Inflammation; infection of eye (except that caused by tuberculosis or sexually transmitteddisease)	0.8%	$553	44,735
94	Other ear and sense organ disorders	0.8%	$547	44,412
	All Other MDC 6 codes	2.9%	$2,411	168,801
	MDC 6: Diseases Of The Nervous System And Sense Organs Total	9.2%	$1,915	530,428
	MDC 9: Diseases Of The Digestive System			
136	Disorders of teeth and jaw	1.7%	$514	96,468
154	Noninfectious gastroenteritis	1.5%	$2,470	84,370
155	Other gastrointestinal disorders	1.0%	$2,203	57,636
140	Gastritis and duodenitis	0.6%	$3,382	32,692
153	Gastrointestinal hemorrhage	0.3%	$2,894	15,152
	All Other MDC 9 codes	1.8%	$3,692	101,451
	MDC 9: Diseases Of The Digestive System Total	6.7%	$2,357	387,769
	All Other Reason for Visit	32.9%	$2,536	1,903,559
	*All Emergency Department Visits	**100.0%**	**$2,153**	**5,782,671**

Source: AHCA 2007 ED Data

* Total excludes ED patients discharged to inpatient acute care hospitals

Table 10: 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 Illness			
651	Anxiety disorders	5.8%	$1,780	35,189
660	Alcohol-related disorders	5.7%	$3,151	34,837
657	Mood disorders	4.6%	$2,212	27,973
661	Substance-related disorders	2.7%	$2,452	16,324
659	Schizophrenia and other psychotic disorders	2.2%	$2,691	13,325
	All Other MDC 5 codes	2.6%	$2,615	15,618
	MDC 5: Mental Illness Total	**23.6%**	**$2,450**	**143,266**
	MDC 8: Diseases Of The Respiratory System			
128	Asthma	12.9%	$1,576	78,422
126	Other upper respiratory infections	3.6%	$1,578	21,580
127	Chronic obstructive pulmonary disease and bronchiectasis	3.0%	$3,150	18,323
134	Other upper respiratory disease	0.8%	$645	4,992
133	Other lower respiratory disease	0.1%	$2,281	720
	All Other MDC 8 codes	0.1%	$1,399	368
	MDC 8: Diseases Of The Respiratory System Total	**20.5%**	**$1,775**	**124,405**
	MDC 7: Diseases Of The Circulatory System			
98	Essential hypertension	6.8%	$2,537	41,352
106	Cardiac dysrhythmias	2.4%	$4,070	14,622
107	Cardiac arrest and ventricular fibrillation	1.6%	$3,747	9,704
108	Congestive heart failure; nonhypertensive	1.0%	$4,287	5,972
101	Coronary atherosclerosis and other heart disease	0.9%	$11,773	5,513
	All Other MDC 7 codes	3.3%	$6,586	19,811
	MDC 7: Diseases Of The Circulatory System Total	**16.0%**	**$4,349**	**96,974**
	MDC 6: Diseases Of The Nervous System And Sense Organs			
84	Headache; including migraine	6.6%	$1,992	39,776
95	Other nervous system disorders	2.5%	$1,681	15,312
83	Epilepsy; convulsions	1.9%	$3,477	11,535
90	Inflammation; infection of eye (except that caused by tuberculosis or sexually transmitteddisease)	0.5%	$682	2,915
91	Other eye disorders	0.3%	$1,099	2,120
	All Other MDC 6 codes	1.0%	$2,133	5,948
	MDC 6: Diseases Of The Nervous System And Sense Organs Total	**12.8%**	**$2,089**	**77,606**
	MDC 3: Endocrine; Nutritional; And Metabolic Diseases And Immunity Disorders			
50	Diabetes mellitus with complications	2.9%	$2,644	17,320
49	Diabetes mellitus without complication	2.0%	$2,389	11,966
54	Gout and other crystal arthropathies	1.3%	$1,159	8,121
51	Other endocrine disorders	0.5%	$2,637	3,105
48	Thyroid disorders	0.2%	$2,954	1,216
	All Other MDC 3 codes	0.2%	$2,990	1,126
	MDC 3: Endocrine; Nutritional; And Metabolic Diseases And Immunity Disorders Total	**7.1%**	**$2,309**	**42,854**
	All Other Reason for Visit	20.0%	$2,687	121,108
	*All Emergency Department Visits	**100.0%**	**$2,606**	**606,213**

Source: AHCA 2007 ED Data

* Total excludes ED patients discharged to inpatient acute care hospitals

Emergency Department Inpatient Admission Results

A total of 1,376,121 or 19 percent of ED visits resulted in inpatient hospitalization. In 2007, 53.9 percent of the 2,551,244 acute care inpatients served in Florida hospitals were admitted from an emergency department.

The Major Diagnostic Categories (MDC) most frequently reported for those ED visits that resulted in an inpatient hospitalization were diseases of the circulatory system (25.2 percent), diseases of the digestive system (14.2 percent), diseases of the respiratory system (12.3 percent), injury and poisoning (10.8 percent), and mental disorders (6 percent) [**Table 11**]. These top five MDCs represent nearly 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 hip fractures [**Table 11**].

Over 41 percent (565,436) of the inpatient principal diagnoses were classifiable as chronic conditions [**Table 12**]. For those inpatient hospitalizations classifiable as chronic conditions, the top Major Diagnostic Categories were diseases of the circulatory system (44.5 percent), mental disorders (13.9 percent), diseases of the respiratory system (10.8 percent), diseases of the digestive system (7.2 percent), and endocrine; nutritional; and, metabolic diseases and immunity disorders (5.9 percent). For chronic condition visits, the leading inpatient principal diagnoses included congestive heart failure, mood disorders, COPD and bronchiectasis, asthma, and diabetes mellitus with complications.

Table 11: 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	4.5%	$18,501	63,679
108	Congestive heart failure; nonhypertensive	4.3%	$34,936	60,377
106	Cardiac dysrhythmias	2.9%	$29,785	41,193
100	Acute myocardial infarction	2.6%	$64,163	36,047
109	Acute cerebrovascular disease	2.3%	$44,898	32,645
	All Other MDC 7 codes	8.6%	$37,583	120,749
	MDC 7: Diseases Of The Circulatory System Total	**25.2%**	**$36,176**	**354,690**
	MDC 9: Diseases Of The Digestive System			
149	Biliary tract disease	1.8%	$43,133	24,949
153	Gastrointestinal hemorrhage	1.5%	$30,330	21,030
145	Intestinal obstruction without hernia	1.4%	$38,598	19,718
146	Diverticulosis and diverticulitis	1.4%	$33,328	19,303
142	Appendicitis and other appendiceal conditions	1.3%	$33,566	18,087
	All Other MDC 9 codes	6.9%	$31,310	96,658
	MDC 9: Diseases Of The Digestive System Total	**14.2%**	**$33,802**	**199,745**
	MDC 8: Diseases Of The Respiratory System			
122	Pneumonia (except that caused by tuberculosis or sexually transmitted disease)	3.8%	$32,759	54,043
127	Chronic obstructive pulmonary disease and bronchiectasis	2.5%	$25,365	35,274
131	Respiratory failure; insufficiency; arrest (adult)	1.7%	$67,984	24,067
128	Asthma	1.6%	$19,487	22,654
129	Aspiration pneumonitis; food/vomitus	0.7%	$48,849	9,555
	All Other MDC 8 codes	2.0%	$24,790	28,437
	MDC 8: Diseases Of The Respiratory System Total	**12.3%**	**$33,985**	**174,030**
	MDC 16: Injury And Poisoning			
237	Complication of device; implant or graft	1.5%	$55,894	20,733
226	Fracture of neck of femur (hip)	1.5%	$51,962	20,651
238	Complications of surgical procedures or medical care	1.3%	$37,910	18,879
230	Fracture of lower limb	0.9%	$49,615	13,324
231	Other fractures	0.9%	$39,408	12,375
	All Other MDC 16 codes	4.7%	$42,647	65,660
	MDC 16: Injury And Poisoning Total	**10.8%**	**$45,485**	**151,622**
	MDC 5: Mental Illness			
657	Mood disorders	2.1%	$12,470	30,139
659	Schizophrenia and other psychotic disorders	1.5%	$17,353	20,974
660	Alcohol-related disorders	0.7%	$17,146	9,295
661	Substance-related disorders	0.5%	$19,543	6,973
653	Delirium	0.4%	$21,438	5,051
	All Other MDC 5 codes	0.9%	$22,531	12,064
	MDC 5: Mental Illness Total	**6.0%**	**$16,753**	**84,496**
	All Other Reason for Visit	**31.6%**	**$31,670**	**444,979**
	*All ED Visits Resulting in an Inpatient Hospitalization	**100.0%**	**$33,984**	**1,409,562**

Source: AHCA 2007 Hospital Inpatient Data

Table 12: 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	10.4%	$34,936	60,377
106	Cardiac dysrhythmias	6.9%	$30,298	39,895
100	Acute myocardial infarction	6.2%	$64,163	36,047
109	Acute cerebrovascular disease	5.6%	$44,898	32,645
101	Coronary atherosclerosis and other heart disease	5.6%	$44,925	32,358
	All Other MDC 7 codes	9.6%	$35,330	55,808
	MDC 7: Diseases Of The Circulatory System Total	**44.5%**	**$40,921**	**257,130**
	MDC 5: Mental Illness			
657	Mood disorders	5.2%	$12,462	30,089
659	Schizophrenia and other psychotic disorders	3.6%	$17,354	20,944
660	Alcohol-related disorders	1.6%	$17,112	9,009
663	Screening and history of mental health and substance abuse codes	0.9%	$38,769	5,011
653	Delirium	0.9%	$21,437	4,934
	All Other MDC 5 codes	1.8%	$11,550	10,438
	MDC 5: Mental Illness Total	**13.9%**	**$16,328**	**80,425**
	MDC 8: Diseases Of The Respiratory System			
127	Chronic obstructive pulmonary disease and bronchiectasis	5.9%	$25,705	33,844
128	Asthma	3.9%	$19,487	22,654
131	Respiratory failure; insufficiency; arrest (adult)	0.6%	$63,736	3,480
133	Other lower respiratory disease	0.3%	$39,889	1,846
126	Other upper respiratory infections	0.1%	$19,070	521
	All Other MDC 8 codes	0.0%	$29,905	228
	MDC 8: Diseases Of The Respiratory System Total	**10.8%**	**$25,948**	**62,573**
	MDC 9: Diseases Of The Digestive System			
146	Diverticulosis and diverticulitis	3.3%	$33,328	19,303
138	Esophageal disorders	1.1%	$21,511	6,526
144	Regional enteritis and ulcerative colitis	0.8%	$34,332	4,837
151	Other liver diseases	0.5%	$40,558	2,913
139	Gastroduodenal ulcer (except hemorrhage)	0.4%	$45,789	2,509
	All Other MDC 9 codes	1.0%	$32,315	5,645
	MDC 9: Diseases Of The Digestive System Total	**7.2%**	**$32,713**	**41,733**
	MDC 3: Endocrine; Nutritional; And Metabolic Diseases And			
50	Diabetes mellitus with complications	4.6%	$28,390	26,799
51	Other endocrine disorders	0.4%	$28,626	2,570
49	Diabetes mellitus without complication	0.2%	$12,073	1,292
58	Other nutritional; endocrine; and metabolic disorders	0.2%	$34,057	1,084
48	Thyroid disorders	0.2%	$25,310	971
	All Other MDC 3 codes	0.2%	$30,717	1,197
	MDC 3: Endocrine; Nutritional; And Metabolic Diseases And	**5.9%**	**$27,962**	**33,913**
	All Other Reason for Visit	**17.7%**	**$42,989**	**102,597**
	***All ED Visits Resulting in an Inpatient Hospitalization**	**100.0%**	**$34,896**	**578,371**

Source: AHCA 2007 Hospital Inpatient Data

Emergency Department Ambulatory Visit Results: Patient Acuity Level
On June 23, 2009, all available records from the Agency Emergency Department (ED) database collected during the 2007 calendar year were selected for analysis. All ambulatory emergency department visits can be defined by one of five Current Procedural Terminology (CPT) Evaluation & Management (EM) 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 13 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 are to be entered in the primary procedure code field. However, because these CPT E/M codes were sometimes incorrectly recorded in the nine secondary procedure code fields, or multiple CPT E/M codes were included on an individual record, this analysis used the highest acuity level coded for each ED visit. About 3.6 percent of all visit records were missing an acuity code altogether.

Table 13: Emergency Department Visits Average and Sum of Charges by Patient Acuity Level

Acuity Level	Pediatric				Adult			
	ED Visits	Percent	Mean Charges	Total Charges	ED Visits	Percent	Mean Charges	Total Charges
Minor	239,593	16.6%	$507	$121,384,430	532,146	12.3%	$904	$480,825,933
Low-Moderate	441,876	30.6%	$725	$320,511,952	993,256	22.9%	$1,400	$1,391,011,622
Moderate	499,230	34.6%	$1,229	$613,622,268	1,404,492	32.4%	$2,228	$3,129,336,498
High-No Sig Threat	164,426	11.4%	$2,515	$413,461,626	905,442	20.9%	$3,823	$3,461,052,225
High-Sig Threat	49,938	3.5%	$3,536	$176,598,934	342,927	7.9%	$5,739	$1,968,052,543
Missing Codes	49,038	3.4%	$1,186	$58,166,830	160,307	3.7%	$1,986	$318,444,546
Total	1,444,101	100.0%	$1,180	$1,703,746,040	4,338,570	100.0%	$2,477	$10,748,723,367

Source: AHCA 2007 ED Data

Of the five acuity levels listed, the vast majority of adult ambulatory ED visits, 71.1 percent, were in the low to moderate severity category (pediatric 81.8 percent, adult 67.5 percent). Excluding "Missing Codes" from the total, yields 73.8 percent of all ambulatory visits were in the low to moderate category, (pediatric 84.6 percent, adult 70.1 percent). Further, 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 ambulatory emergency department (ED) visits by age group and acuity group is presented in **Table 14**. The data shows that the youngest age group for the pediatric and adult categories had the highest low acuity rate, 52.7 percent for pediatrics and 40.2 percent for adults. However, regardless of age category, as age increases the proportion of high-acuity visits also increases. See **Appendix F** for additional figures for the average charge and sum of charges by age group and acuity.

Table 14: Emergency Department Visits By Age Group and Patient Acuity Level

Age Group	Low Acuity Visits		High Acuity Visits		Total	
	Number	Percent	Number	Percent	Number	Percent
Ages 0-4	354,684	52.7%	318,663	47.3%	673,347	100.0%
Ages 5-9	139,486	50.5%	136,511	49.5%	275,997	100.0%
Ages 10-14	104,402	44.4%	130,663	55.6%	235,065	100.0%
Ages 15-17	82,897	39.4%	127,757	60.6%	210,654	100.0%
Pediatric	681,469	48.8%	713,594	51.2%	1,395,063	100.0%
Ages 18-34 years	663,986	40.2%	989,030	59.8%	1,653,016	100.0%
Ages 35-54 years	529,660	36.6%	917,040	63.4%	1,446,700	100.0%
Ages 55-64 years	135,060	33.4%	269,527	66.6%	404,587	100.0%
Ages 65-79 years	131,257	30.9%	293,579	69.1%	424,836	100.0%
Ages 80 years and older	65,439	26.3%	183,685	73.7%	249,124	100.0%
Adult	1,525,402	36.5%	2,652,861	63.5%	4,178,263	100.0%
Total	**2,206,871**	**39.6%**	**3,366,455**	**60.4%**	**5,573,326**	**100.0%**

Note: Total excludes visits that cannot be classified by acuity level and unknown age
Source: AHCA 2007 ED data

Table 15 shows a breakdown of emergency department (ED) visits by payer group and acuity group. The payer with the highest proportion of low-acuity visits for pediatric ED visits was Medicare and Self Pay/Underinsured for adult ED visits. The percent of low-acuity Medicaid ED visits for children (49.9 percent) is significantly higher than the low-acuity Medicaid rate for adults (36.6 percent). 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 15: Emergency Department Visits by Payer Group and Patient Acuity Level

	Low Acuity Visits		High Acuity Visits		Total	
Payer Group (Pediatric)	**ED Visits**	**Percent**	**ED Visits**	**Percent**	**ED Visits**	**Percent**
Medicare	3,140	68.2%	1,462	31.8%	4,602	100.0%
Self Pay/Underinsured	117,163	53.6%	101,605	46.4%	218,768	100.0%
Medicaid	329,925	49.9%	330,717	50.1%	660,642	100.0%
Other Government	29,354	48.8%	30,791	51.2%	60,145	100.0%
Charity	12,606	48.6%	13,342	51.4%	25,948	100.0%
Commercial Insurance	189,280	44.5%	235,677	55.5%	424,957	100.0%
Unknown	1	100.0%	0	0.0%	1	100.0%
Pediatric Total	**681,469**	**48.8%**	**713,594**	**51.2%**	**1,395,063**	**100.0%**
Payer Group (Adult)	**ED Visits**	**Percent**	**ED Visits**	**Percent**	**ED Visits**	**Percent**
Self Pay/Underinsured	464,333	41.5%	654,856	58.5%	1,119,189	100.0%
Other Government	93,230	40.9%	134,451	59.1%	227,681	100.0%
Medicaid	194,805	36.6%	337,395	63.4%	532,200	100.0%
Commercial Insurance	466,227	35.7%	841,132	64.3%	1,307,359	100.0%
Charity	62,643	34.6%	118,220	65.4%	180,863	100.0%
Medicare	244,164	30.1%	566,807	69.9%	810,971	100.0%
Adult Total	**1,525,402**	**36.5%**	**2,652,861**	**63.5%**	**4,178,263**	**100.0%**

Note: Total excludes visits that cannot be classified by acuity level and visits with unknown prinicpal payer.

Source: AHCA 2007 ED Data

Emergency Department Ambulatory Visits by Emergency Status:

This section of the report analyzes emergency department (ED) utilization from the perspective of primary and preventative care. The New York University (NYU) algorithm of classifying ED visits was used to assign calendar year 2007 ED visits to the following categories: (1) non-emergent, (2) emergent but primary care treatable, (3) emergent - ED needed but preventable/avoidable, (4) emergent - ED needed - not preventable/ avoidable and (5) all Other Conditions which consist of conditions related to injury, mental health, alcohol, and substance abuse, and all other unclassified conditions. The methodology used in this section is as follows:

(1) The unit of analysis is the Florida resident ED visit that did not result in a hospital inpatient admission. ED visits for an individual whose place of residence was not a Florida county or was unknown were excluded from analysis.

(2) The term "**ED Avoidable,**" defined by NYU algorithm classifications 1-3 above, is used to represent ED visits that were potentially avoidable or treatable in a primary care setting.

(3) The term "**Emergency Status**," defined by NYU algorithm classifications 1-4 above, is used to represent the cases identified as non-emergent or emergent by the NYU algorithm. The NYU algorithm assigned an emergency status to 3,381,085 ED visits (62 percent) of all 2007 Florida resident ED visits.

Figure 6 shows the category distribution of ED visits for Florida residents in 2007. More than 56 percent of pediatric ED visits and 48.5 percent of adult ED visits were ED Avoidable in 2007. When only emergency status is considered, then 89.1 of pediatric and 79.3 percent of adult ED visits were ED Avoidable.

Figure 6: Percentage of ED Visits by Emergency Status
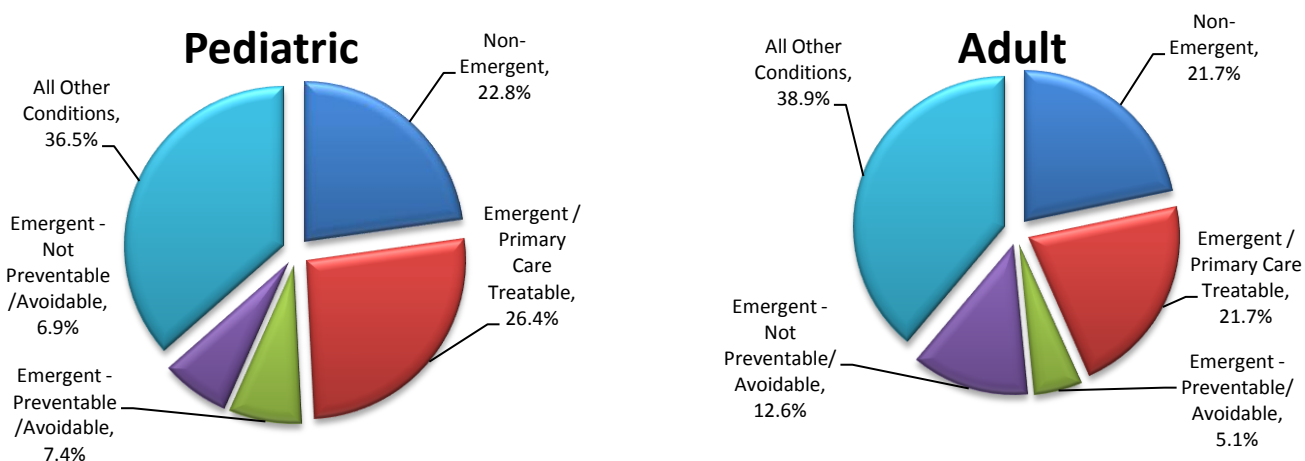
Source: AHCA 2007 ED Data

Table 16 shows the overall ED utilization rate by category for Florida residents in 2007. There was over $1.6 billion and $10.2 billion in outpatient pediatric and adult ED charges respectively incurred in 2007. ED avoidable conditions were associated with 50.9 percent and 46.4 percent of pediatric and adult ED charges respectively. Hence, nearly half the ED charges for 2007 could potentially be avoided through greater utilization of primary care services.

Table 16: Emergency Department Visits by ED Visit Category

ED Visit Category	Pediatric				
	Average Charge	Number ED Visits	Percent of ED Visits	Total Charges	Percent of Total Charges
Non-Emergent	$985	316,015	22.8%	$311,189,027	18.9%
Emergent / Primary Care Treatable	$1,074	366,823	26.4%	$393,995,311	24.0%
Emergent - Preventable/Avoidable	$1,280	102,155	7.4%	$130,728,039	8.0%
Emergent - Not Preventable/Avoidable	$1,810	96,331	6.9%	$174,349,377	10.6%
All Other Conditions	$1,250	506,393	36.5%	$633,227,113	38.5%
Pediatric Total	**$1,184**	**1,387,717**	**100.0%**	**$1,643,488,867**	**100.0%**

ED Visit Category	Adult				
	Average Charge	Number ED Visits	Percent of ED Visits	Total Charges	Percent of Total Charges
Non-Emergent	$1,926	888,151	21.7%	$1,710,731,196	16.8%
Emergent / Primary Care Treatable	$2,847	887,838	21.7%	$2,528,029,025	24.8%
Emergent - Preventable/Avoidable	$2,349	207,104	5.1%	$486,548,127	4.8%
Emergent - Not Preventable/Avoidable	$4,151	516,668	12.6%	$2,144,897,073	21.0%
All Other Conditions	$2,095	1,591,036	38.9%	$3,333,193,067	32.7%
Pediatric Total	**$2,494**	**4,090,797**	**100.0%**	**$10,203,398,488**	**100.0%**

Source: AHCA 2007 ED Data

Figure 7 shows the percentage of ED visits by emergency status for racial/ethnic groups in 2007. Regardless of age category, non-white ED patients had higher ED Avoidable rates. Pediatric ED Avoidable rates were also much higher than adult rates across all race and ethnicity groups.

Figure 7: Percentage of ED Visits by Race/Ethnic and Emergency Status

Pediatric

Legend: ■ ED Avoidable ■ Emergent - Not Preventable / Avoidable ■ All Other Conditions

	Black	Hispanic	White	Other	Florida
All Other Conditions	31.9%	29.9%	42.8%	35.2%	37.3%
Emergent - Not Preventable / Avoidable	6.9%	7.6%	6.6%	7.1%	8.0%
ED Avoidable	61.3%	62.5%	50.6%	57.7%	56.6%

Adult

Legend: ■ ED Avoidable ■ Emergent - Not Preventable / Avoidable ■ All Other Conditions

	Black	Hispanic	White	Other	Florida
All Other Conditions	32.8%	36.2%	41.5%	39.4%	38.9%
Emergent - Not Preventable / Avoidable	11.9%	13.7%	12.6%	13.6%	12.6%
ED Avoidable	55.2%	50.0%	45.9%	47.0%	48.5%

Source: AHCA 2007 ED Data

Table 17 shows ED visits by category and racial/ethnic groups in 2007. ED Avoidable visits per 1000 population for pediatric blacks (252) and adult blacks (240) were more than 34 percent and 76 percent higher than the rate for the state of Florida (188) and (136) respectively. However, the average ED Avoidable charge for blacks was the lowest for all racial groups. Pediatric and adult rates for other races were 27 percent and 22 percent higher than the rate for the state of Florida respectively while having the highest average ED Avoidable charge.

Table 17: Emergency Department Visits by Race and ED Visit Category

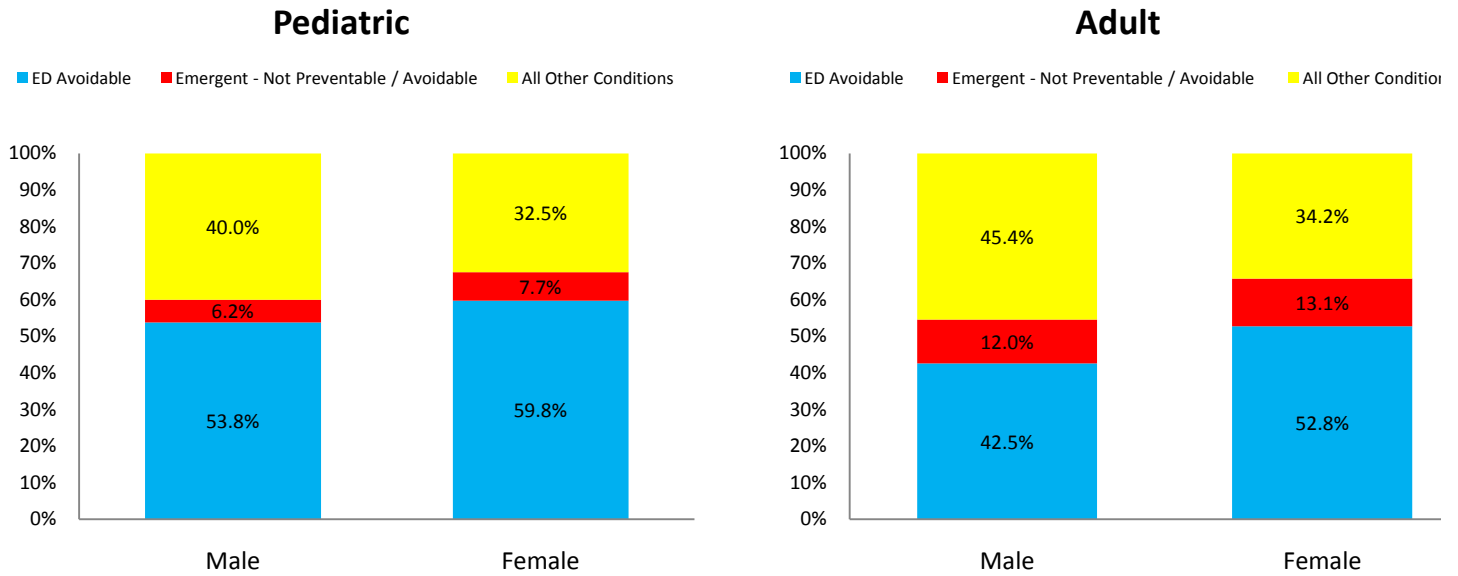| Race / Ethnicity	Pediatric				Adult			
	ED Avoidable Visits	Emergent - Not Preventable / Avoidable	All Other Conditions	Total ED Visits	ED Avoidable Visits	Emergent - Not Preventable / Avoidable	All Other Conditions	Total ED Visits
ED Visits by Emergency Status and Race/Ethnicity								
Black	223,710	25,009	116,329	365,048	492,282	106,300	292,806	891,388
Hispanic	206,195	24,984	98,613	329,792	263,281	72,252	190,622	526,155
White	315,653	41,347	267,066	624,066	1,159,756	318,591	1,050,640	2,528,987
Other	34,294	4,240	20,887	59,421	55,336	16,017	46,307	117,660
Unknow n	5,141	751	3,498	9,390	12,438	3,508	10,661	26,607
All ED Visits	784,993	96,331	506,393	1,387,717	1,983,093	516,668	1,591,036	4,090,797
Percentage of ED Visits by Emergency Status and Race/Ethnicity								
Black	61.3%	6.9%	31.9%	100.0%	55.2%	11.9%	32.8%	100.0%
Hispanic	62.5%	7.6%	29.9%	100.0%	50.0%	13.7%	36.2%	100.0%
White	50.6%	6.6%	42.8%	100.0%	45.9%	12.6%	41.5%	100.0%
Other	57.7%	7.1%	35.2%	100.0%	47.0%	13.6%	39.4%	100.0%
Unknow n	54.7%	8.0%	37.3%	100.0%	46.7%	13.2%	40.1%	100.0%
All ED Visits	56.6%	6.9%	36.5%	100.0%	48.5%	12.6%	38.9%	100.0%
ED Visits by Emergency Status and Race/Ethnicity per 1000 populations								
Black	252	28	131	411	240	52	143	434
Hispanic	198	24	95	317	92	25	66	183
White	150	20	127	296	125	34	113	272
Other	238	29	145	412	166	48	139	353
All ED Visits	188	23	121	332	136	36	109	281
Average Charge for ED Visits by Emergency Status and Race/Ethnicity								
Black	$990	$1,583	$1,164	$1,086	$2,131	$3,522	$1,931	$2,231
Hispanic	$1,057	$1,692	$1,216	$1,153	$2,798	$4,639	$2,306	$2,873
White	$1,104	$2,000	$1,286	$1,241	$2,366	$4,209	$2,085	$2,481
Other	$1,274	$2,064	$1,437	$1,388	$3,095	$5,162	$2,494	$3,140
Unknow n	$824	$1,393	$1,260	$1,032	$1,981	$3,380	$2,019	$2,181
All ED Visits	$1,065	$1,810	$1,250	$1,184	$2,383	$4,151	$2,095	$2,494

Source: AHCA 2007 ED Data. Population statistics : The Florida Legislature, Office of Economic and Demographic Research

Figure 8 shows the percentage of ED visits by emergency status and gender in 2007. ED Avoidable utilization rates were significantly higher for pediatrics than for adults. Rates for girls and women were higher than the rates for boys and men.

Figure 8: Percentage of ED Visits by Gender and Emergency Status

Pediatric

ED Avoidable   Emergent - Not Preventable / Avoidable   All Other Conditions

- Male: ED Avoidable 53.8%, Emergent 6.2%, All Other Conditions 40.0%
- Female: ED Avoidable 59.8%, Emergent 7.7%, All Other Conditions 32.5%

Adult

ED Avoidable   Emergent - Not Preventable / Avoidable   All Other Conditions

- Male: ED Avoidable 42.5%, Emergent 12.0%, All Other Conditions 45.4%
- Female: ED Avoidable 52.8%, Emergent 13.1%, All Other Conditions 34.2%

Source: AHCA 2007 ED Data

Table 18 shows ED visits by category and gender in 2007. The rate for ED Avoidable visits per 1000 population was nearly equal for boys (185) and girls (190), whereas, the rate for women (167) was nearly 61 percent higher than the rate for men. The ED Avoidable population rate for boys was 78 percent higher than the rate for men while the rate for girls was only 14 percent higher than the rate for women. Although pediatric ED Avoidable rates were higher than adult rates, the average ED Avoidable charge for adults ED visits was more than twice the charge for pediatric ED visits.

Table 18: Emergency Department Visits by Gender and ED Visit Category

Gender	Pediatric				Adult			
	ED Avoidable Visits	Emergent - Not Preventable / Avoidable	All Other Conditions	Total ED Visits	ED Avoidable Visits	Emergent - Not Preventable / Avoidable	All Other Conditions	Total ED Visits
ED Visits by Emergency Status and Gender								
Male	396,303	46,034	294,927	737,264	728,292	206,236	777,537	1,712,065
Female	388,690	50,297	211,466	650,453	1,254,801	310,432	813,498	2,378,731
Unknown					0	0	1	1
All ED Visits	784,993	96,331	506,393	1,387,717	1,983,093	516,668	1,591,036	4,090,797
Percentage of ED Visits by Emergency Status and Gender								
Male	53.8%	6.2%	40.0%	100.0%	42.5%	12.0%	45.4%	100.0%
Female	59.8%	7.7%	32.5%	100.0%	52.8%	13.1%	34.2%	100.0%
Unknown					0.0%	0.0%	100.0%	100.0%
All ED Visits	56.6%	6.9%	36.5%	100.0%	48.5%	12.6%	38.9%	100.0%
ED Visits by Emergency Status and Gender per 1000 populations								
Male	185	22	138	345	104	29	111	243
Female	190	25	103	318	167	41	108	317
All ED Visits	188	23	121	332	136	36	109	281
Average Charge for ED Visits by Emergency Status and Gender								
Male	$1,022	$1,730	$1,259	$1,161	$2,275	$4,383	$2,096	$2,448
Female	$1,109	$1,883	$1,239	$1,211	$2,445	$3,998	$2,094	$2,528
All ED Visits	$1,065	$1,810	$1,250	$1,184	$2,383	$4,151	$2,095	$2,494

Source: AHCA 2007 ED Data. Population statistics : The Florida Legislature, Office of Economic and Demographic Research

Figure 9 shows the percentage of ED visits by emergency status for age groups in 2007. The graph shows that ED Avoidable visits decrease with age for both pediatric visits and adult visits.

Figure 9: Percentage of ED Visits by Age and Emergency Status

Source: AHCA 2007 ED Data

Table 19 shows ED visits by category and age in 2007. ED Avoidable utilization rates decreased with aged for both pediatric ED visits and adult ED visits, while ED utilization rates for emergent – not preventable/avoidable conditions increased with age. Contrary to the trend in ED Avoidable utilization rates, charges for ED Avoidable visits increase significantly with age

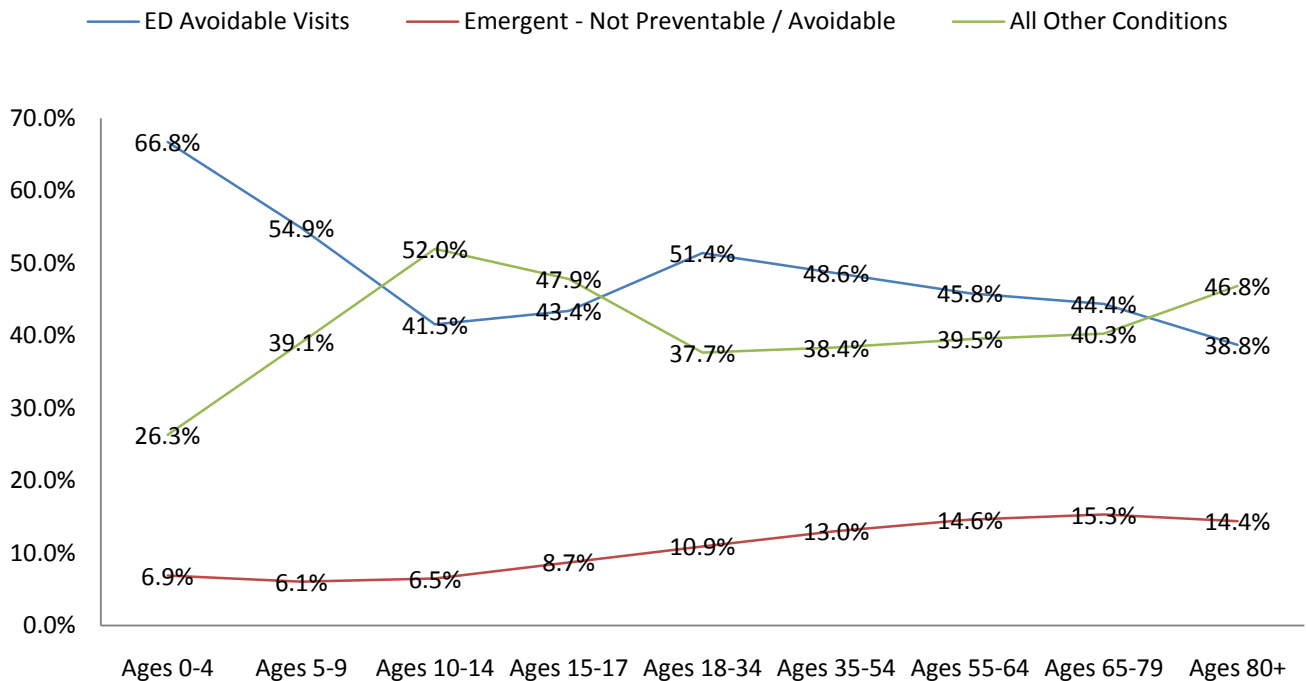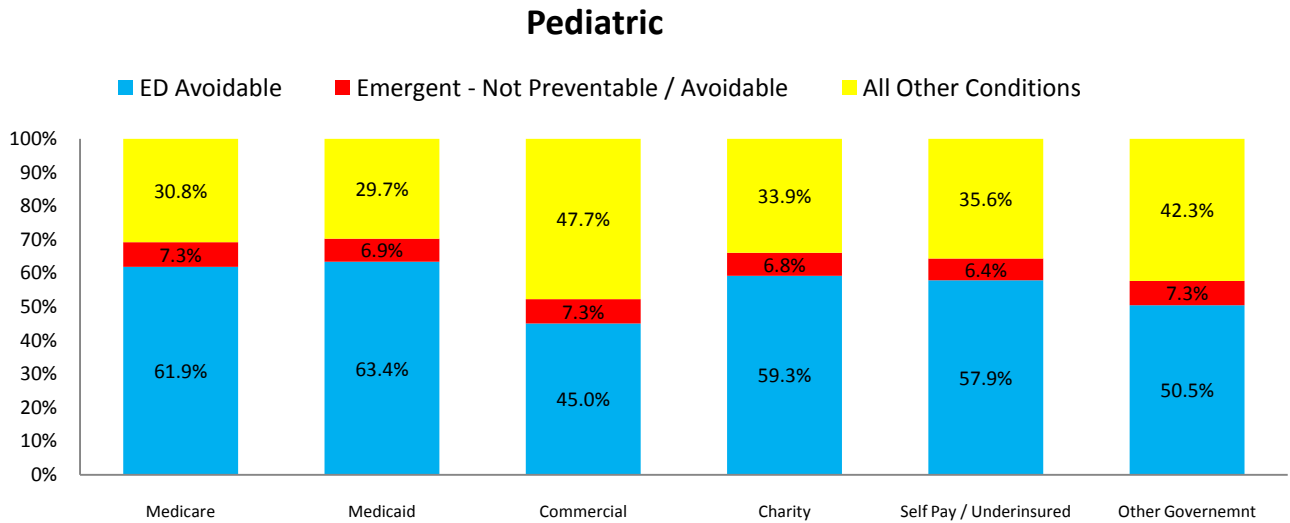## Table 19: Emergency Department Visits by Age and ED Visit Category

Age	ED Avoidable Visits	Emergent - Not Preventable / Avoidable	All Other Conditions	Total ED Visits
ED Visits by Emergency Status and Age				
Ages 0-4	444,801	46,007	175,507	666,315
Ages 5-9	150,256	16,577	106,981	273,814
Ages 10-14	97,985	15,292	122,587	235,864
Ages 15-17	91,951	18,455	101,318	211,724
Ages 18-34	846,141	179,740	620,222	1,646,103
Ages 35-54	689,111	184,546	543,910	1,417,567
Ages 55-64	176,461	56,281	152,267	385,009
Ages 65-79	177,069	61,047	160,644	398,760
Ages 80+	94,312	35,053	113,993	243,358
All ED Visits	2,768,086	612,999	2,097,429	5,478,514
Percentage of ED Visits by Emergency Status and Age				
Ages 0-4	66.8%	6.9%	26.3%	100.0%
Ages 5-9	54.9%	6.1%	39.1%	100.0%
Ages 10-14	41.5%	6.5%	52.0%	100.0%
Ages 15-17	43.4%	8.7%	47.9%	100.0%
Ages 18-34	51.4%	10.9%	37.7%	100.0%
Ages 35-54	48.6%	13.0%	38.4%	100.0%
Ages 55-64	45.8%	14.6%	39.5%	100.0%
Ages 65-79	44.4%	15.3%	40.3%	100.0%
Ages 80+	38.8%	14.4%	46.8%	100.0%
All ED Visits	50.5%	11.2%	38.3%	100.0%
ED Visits by Emergency Status and Age per 1000 populations				
Ages 0-4	398	41	157	596
Ages 5-9	131	14	93	238
Ages 10-14	83	13	104	199
Ages 15-17	125	25	138	288
Ages 18-34	213	45	156	415
Ages 35-54	133	36	105	273
Ages 55-64	81	26	70	177
Ages 65-79	79	27	72	179
Ages 80+	96	36	117	249
All ED Visits	148	33	112	292
Average Charge for ED Visits by Emergency Status and Age				
Ages 0-4	$886	$1,170	$973	$929
Ages 5-9	$1,010	$1,694	$1,147	$1,105
Ages 10-14	$1,340	$2,535	$1,359	$1,427
Ages 15-17	$1,725	$2,908	$1,709	$1,821
Ages 18-34	$1,928	$3,335	$1,847	$2,051
Ages 35-54	$2,467	$4,442	$2,040	$2,560
Ages 55-64	$2,898	$4,861	$2,243	$2,926
Ages 65-79	$3,190	$4,789	$2,489	$3,152
Ages 80+	$3,363	$4,559	$2,954	$3,344
All ED Visits	$2,009	$3,783	$1,891	$2,162

Source: AHCA 2007 ED Data.

Figure 10 shows the percentage of ED visits by emergency status for payer groups in 2007. The graph shows that ED Avoidable utilization rates were highest for Medicaid.

Figure 10: Percentage of ED Visits by Payer and Emergency Status

Pediatric

■ ED Avoidable   ■ Emergent - Not Preventable / Avoidable   ■ All Other Conditions

Source: AHCA 2007 ED Data

Adult

■ ED Avoidable   ■ Emergent - Not Preventable / Avoidable   ■ All Other Conditions
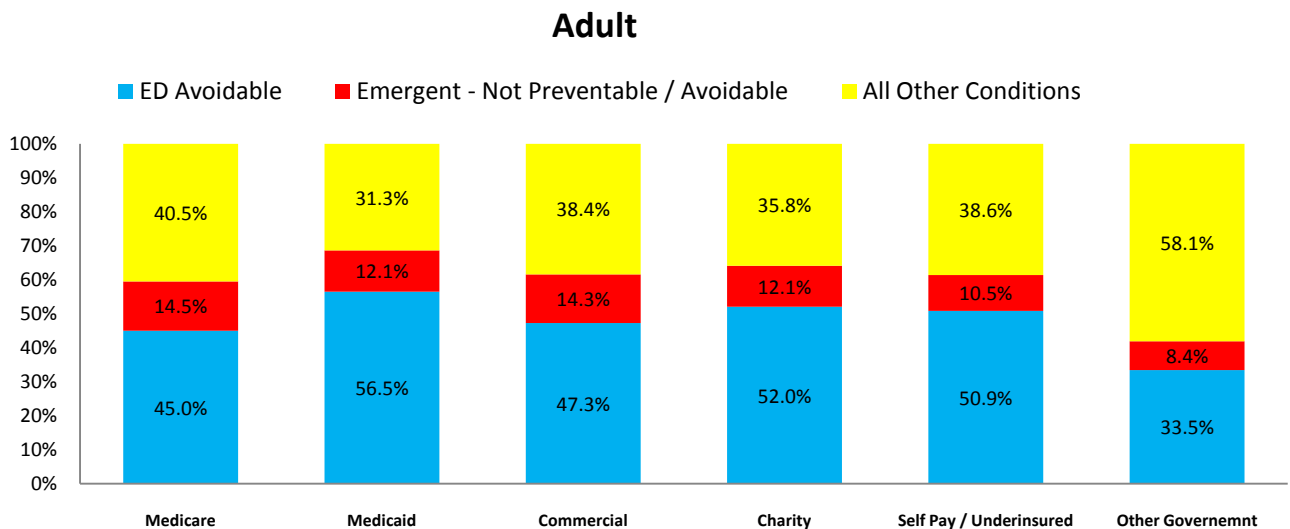
Source: AHCA 2007 ED Data

Table 20 shows ED visits by category and payer in 2007. ED Avoidable utilization is highest for Medicaid, charity, and self-pay/underinsured patients. Nearly 58 percent of pediatric Medicaid charges and nearly 54 percent of adult Medicaid charges were potentially avoidable.

Table 20: Emergency Department Visits by Payer and ED Visit Category

Payer	Pediatric				Adult			
	ED Avoidable Visits	Emergent - Not Preventable / Avoidable	All Other Conditions	Total ED Visits	ED Avoidable Visits	Emergent - Not Preventable / Avoidable	All Other Conditions	Total ED Visits
ED Visits by Emergency Status and Payer								
Medicare	2,807	330	1,395	4,532	353,176	113,929	318,112	785,217
Medicaid	428,695	46,510	200,763	675,968	307,902	66,101	170,595	544,598
Commercial	181,556	29,312	192,446	403,314	594,471	180,389	482,477	1,257,337
Charity	15,363	1,752	8,794	25,909	92,338	21,513	63,559	177,410
Self Pay / Underinsured	126,129	14,039	77,485	217,652	558,801	115,529	423,597	1,097,927
Other Governemnt	30,443	4,388	25,510	60,341	76,403	19,209	132,696	228,308
All ED Visits	784,993	96,331	506,393	1,387,717	1,983,093	516,668	1,591,036	4,090,797
Percentage of ED Visits by Emergency Status and Payer								
Medicare	61.9%	7.3%	30.8%	100.0%	45.0%	14.5%	40.5%	100.0%
Medicaid	63.4%	6.9%	29.7%	100.0%	56.5%	12.1%	31.3%	100.0%
Commercial	45.0%	7.3%	47.7%	100.0%	47.3%	14.3%	38.4%	100.0%
Charity	59.3%	6.8%	33.9%	100.0%	52.0%	12.1%	35.8%	100.0%
Self Pay / Underinsured	57.9%	6.4%	35.6%	100.0%	50.9%	10.5%	38.6%	100.0%
Other Governemnt	50.5%	7.3%	42.3%	100.0%	33.5%	8.4%	58.1%	100.0%
All ED Visits	56.6%	6.9%	36.5%	100.0%	48.5%	12.6%	38.9%	100.0%
Total ED Charges by Emergency Status and Payer (in millions)								
Medicare	$3	$1	$2	$5	$1,070	$520	$810	$2,399
Medicaid	$418	$73	$230	$722	$644	$230	$322	$1,195
Commercial	$243	$64	$267	$575	$1,609	$830	$1,043	$3,482
Charity	$16	$3	$11	$30	$202	$86	$125	$413
Self Pay / Underinsured	$118	$23	$90	$231	$1,029	$402	$803	$2,235
Other Governemnt	$38	$10	$34	$81	$172	$77	$231	$479
All ED Visits	$836	$174	$633	$1,643	$4,725	$2,145	$3,333	$10,203
Percentage of ED Charges by Emergency Status and Payer								
Medicare	57.7%	11.7%	30.6%	100.0%	44.6%	21.7%	33.8%	100.0%
Medicaid	57.9%	10.1%	31.9%	100.0%	53.8%	19.3%	26.9%	100.0%
Commercial	42.4%	11.2%	46.4%	100.0%	46.2%	23.8%	30.0%	100.0%
Charity	53.1%	10.3%	36.5%	100.0%	49.0%	20.8%	30.2%	100.0%
Self Pay / Underinsured	51.0%	10.1%	38.9%	100.0%	46.1%	18.0%	35.9%	100.0%
Other Governemnt	46.4%	12.0%	41.6%	100.0%	35.8%	16.0%	48.1%	100.0%
All ED Visits	50.9%	10.6%	38.5%	100.0%	46.3%	21.0%	32.7%	100.0%

Source: AHCA 2007 ED Data. Population statistics : The Florida Legislature, Office of Economic and Demographic Research

Summary and Conclusions

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. Medicaid and commercial insurance were the top payer groups for pediatric ED visits. The top payer groups for adult ED visits were commercial insurance and Medicare. The likelihood of an inpatient admission increased with age.

The majority of ambulatory visits were for an acuity level of low to moderate. Medicaid was the payer for the largest proportion of pediatric low-acuity visits. The most frequently reported principal diagnoses were injury and poisoning and diseases of the respiratory system with an average charge of $1,849 and $1,474 per visit, respectively..

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 41 percent of visits that result in an inpatient hospitalization. This finding raises concern about access to appropriate primary care for patients with chronic conditions.

Nearly 58 percent of pediatric ambulatory ED visits and nearly 49 percent of adult ambulatory ED visits in 2007 were potentially avoidable through greater utilization of primary care services.

Recommendations

Hospital EDs are providing increasing levels of primary care services to millions of Americans who are uninsured, underinsured or otherwise have limited or no access to other community primary care services. The following recommendations may help to alleviate the problem of inappropriate utilization of the emergency department:

- Health care access initiatives that emphasize early intervention and early access to appropriate care on behalf of uninsured persons can significantly improve the health status of Floridians and greatly reduce the financial burden on the health care system. This concept is embodied in the Department of Health's Low Income Pool (LIP) Primary Care/Emergency Room Diversion projects. These projects emphasize aggressive outreach to identify high risk uninsured residents, linking these persons to primary care medical homes and disease management services, assisting in obtaining third party coverage, and working to provide people with the medications they need to avoid hospitalization. A portion of the Low Income Pool should be devoted to community based primary care outpatient clinics and facilitating functions such as hospital based navigators who assist patients in accessing needed acute, chronic and preventive healthcare.

- The expansion of health information technology will allow treating providers to access a continuity of care record for their patient providing health information on pharmacy use, hospitalizations, diagnoses, procedures and lab tests ordered across the full range of health care providers. This information will be especially valuable for patients accessing primary care services in clinic settings where they may not see the same provider for each service rendered. Additionally sharing patient information will help hospitals stop duplicating medical care to frequent emergency room visitors.

- Urgent care centers provide an alternative to the emergency department for urgent but non- life threatening emergencies such as lacerations, fractures, sore throats, ear aches, sciatic pain, sports injuries. Urgent care centers are not currently reimbursed under the Florida Medicaid program. Adding urgent care centers as a reimbursable facility type may results in cost savings and appropriate utilization.

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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
Charity/Self-Pay / Underinsured	Charity Self Pay / Under-insured

Source: AHCA

Appendix D: Emergency Department Visits by Payer

Payer	Pediatric				Adult			
	ED Visits	Percent	Mean Charge	Total Charges	ED Visits	Percent	Mean Charge	Total Charges
Medicare	4,033	0.3%	$1,114	$4,492,937	674,116	15.5%	$2,917	$1,966,105,901
Medicare HMO	588	0.0%	$1,267	$745,287	161,728	3.7%	$3,445	$557,131,055
Medicaid	345,477	23.9%	$1,063	$367,278,388	352,594	8.1%	$2,184	$770,158,665
Medicaid HMO	337,520	23.4%	$1,072	$361,866,428	201,073	4.6%	$2,212	$444,779,203
Commercial HMO	80,626	5.6%	$1,459	$117,643,477	327,179	7.5%	$2,567	$839,724,694
Commercial Insurance	178,506	12.4%	$1,401	$250,022,130	493,741	11.4%	$2,873	$1,418,674,528
Commercial PPO	179,235	12.4%	$1,371	$245,781,035	533,255	12.3%	$2,693	$1,435,806,400
Workers Compensation	1,356	0.1%	$1,097	$1,487,798	108,343	2.5%	$1,511	$163,724,488
CHAMPUS/TRICARE	26,046	1.8%	$1,239	$32,267,393	57,371	1.3%	$2,463	$141,287,896
Veteran Administration	110	0.0%	$1,761	$193,696	9,751	0.2%	$3,178	$30,988,186
Other Government	10,164	0.7%	$1,614	$16,402,468	50,908	1.2%	$2,639	$134,359,878
Self Pay/Underinsured	228,251	15.8%	$1,056	$241,040,823	1,170,255	27.0%	$2,035	$2,381,225,177
Other	1,404	0.1%	$1,499	$2,104,406	7,767	0.2%	$2,909	$22,591,873
Charity	26,954	1.9%	$1,162	$31,324,821	187,485	4.3%	$2,332	$437,122,953
KidCare	23,830	1.7%	$1,305	$31,094,852	3,004	0.1%	$1,679	$5,042,470
Unknown Payer	1	0.0%	$101	$101	5	0.0%	$1,900	$9,498
Total ED Visits	**1,444,101**	**100.0%**	**$1,180**	**$1,703,746,040**	**4,338,575**	**100.0%**	**$2,477**	**$10,748,732,865**
Payer (Inpatient Hospitalization)	**Inpatient**	**Percent**	**Mean Charge**	**Total Charges**	**Inpatient**	**Percent**	**Mean Charge**	**Total Charges**
Medicare	273	0.3%	$25,884	$7,066,342	567,780	42.7%	$36,319	$20,621,292,011
Medicare HMO	17	0.0%	$11,002	$187,041	155,017	11.7%	$37,363	$5,791,897,937
Medicaid	26,952	33.9%	$20,833	$561,499,413	92,658	7.0%	$37,338	$3,459,695,483
Medicaid HMO	15,272	19.2%	$15,619	$238,538,555	39,529	3.0%	$31,679	$1,252,250,020
Commercial HMO	4,037	5.1%	$26,630	$107,506,577	55,093	4.1%	$37,376	$2,059,182,116
Commercial Insurance	12,189	15.3%	$19,566	$238,485,765	114,101	8.6%	$32,156	$3,669,010,886
Commercial PPO	11,404	14.3%	$17,428	$198,743,302	115,454	8.7%	$32,276	$3,726,406,827
Workers Compensation	23	0.0%	$51,176	$1,177,058	5,400	0.4%	$42,225	$228,013,004
CHAMPUS/TRICARE	1,253	1.6%	$14,001	$17,543,482	10,878	0.8%	$30,334	$329,978,276
Veteran Administration	30	0.0%	$13,146	$394,367	6,761	0.5%	$34,326	$232,076,945
Other Government	651	0.8%	$19,282	$12,552,766	20,342	1.5%	$34,758	$707,048,102
Self Pay/Underinsured	5,303	6.7%	$15,929	$84,473,197	104,720	7.9%	$28,859	$3,022,132,433
Other	76	0.1%	$21,449	$1,630,136	2,859	0.2%	$37,217	$106,402,022
Charity	895	1.1%	$17,911	$16,030,190	39,127	2.9%	$30,128	$1,178,826,697
KidCare	1,207	1.5%	$20,755	$25,051,442	261	0.0%	$26,216	$6,842,287
Total Inpatient Hospitalizations	**79,582**	**100.0%**	**$18,985**	**$1,510,879,633**	**1,329,980**	**100.0%**	**$34,881**	**$46,391,055,046**

Source: AHCA 2007 ED data and Hospital inpatient Data

Appendix E: Emergency Department Visits by Payer and Patient Acuity Level

Patient Acuity Level

Pediatric

Payer	Low Acuity 99281		99282		High Acuity 99283		99284		99285		Total	
	ED Visits	Pct	ED Visits	Pct	ED Visits	Pct	ED Visits	Pct	ED Visits	Pct	ED Visits	Pct
Medicare	730	0.3%	2,410	0.5%	1,111	0.2%	291	0.2%	60	0.1%	4,602	0.3%
Medicaid	116,216	48.5%	213,709	48.4%	234,788	47.0%	73,491	44.7%	22,438	44.9%	660,642	47.4%
Commercial Insurance	61,836	25.8%	127,444	28.8%	160,255	32.1%	57,668	35.1%	17,754	35.6%	424,957	30.5%
Charity	5,251	2.2%	7,355	1.7%	9,304	1.9%	3,012	1.8%	1,026	2.1%	25,948	1.9%
Self-Pay /Underinsured	46,045	19.2%	71,118	16.1%	72,321	14.5%	22,846	13.9%	6,438	12.9%	218,768	15.7%
Other Government	9,514	4.0%	19,840	4.5%	21,451	4.3%	7,118	4.3%	2,222	4.4%	60,145	4.3%
Unknown	1	0.0%									1	0.0%
Total	**239,593**	**100.0%**	**441,876**	**100.0%**	**499,230**	**100.0%**	**164,426**	**100.0%**	**49,938**	**100.0%**	**1,395,063**	**100.0%**

Adult

Payer	Low Acuity 99281		99282		High Acuity 99283		99284		99285		Total	
	ED Visits	Pct	ED Visits	Pct	ED Visits	Pct	ED Visits	Pct	ED Visits	Pct	ED Visits	Pct
Medicare	79,350	14.9%	164,814	16.6%	271,042	19.3%	200,735	22.2%	95,030	27.7%	810,971	19.4%
Medicaid	66,300	12.5%	128,505	12.9%	179,408	12.8%	116,565	12.9%	41,422	12.1%	532,200	12.7%
Commercial Insurance	153,322	28.8%	312,905	31.5%	447,464	31.9%	292,351	32.3%	101,317	29.5%	1,307,359	31.3%
Charity	22,366	4.2%	40,277	4.1%	60,633	4.3%	39,937	4.4%	17,650	5.1%	180,863	4.3%
Self-Pay /Underinsured	179,645	33.8%	284,688	28.7%	366,007	26.1%	214,712	23.7%	74,137	21.6%	1,119,189	26.8%
Other Government	31,163	5.9%	62,067	6.2%	79,938	5.7%	41,142	4.5%	13,371	3.9%	227,681	5.4%
Total	**532,146**	**100.0%**	**993,256**	**100.0%**	**1,404,492**	**100.0%**	**905,442**	**100.0%**	**342,927**	**100.0%**	**4,178,263**	**100.0%**

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

Source: AHCA 2007 ED Data

Appendix F: Emergency Department Visits Average and Sum of Charges by Age Group and Patient Acuity Level

Pediatric	Low Acuity Visits			High Acuity Visits			Total		
	Visits	Mean	Sum	Visits	Mean	Sum	Visits	Mean	Sum
Ages 0 years	105,184	$503	$52.9	96,276	$1,423	$137.0	201,460	$942	$189.9
Ages 1-4 years	249,500	$523	$130.6	222,387	$1,354	$301.1	471,887	$915	$431.7
Ages 5-9 years	139,486	$631	$88.0	136,511	$1,583	$216.1	275,997	$1,102	$304.1
Ages 10-14 years	104,402	$832	$86.8	130,663	$1,902	$248.6	235,065	$1,427	$335.4
Ages 15-17 years	82,897	$1,008	$83.6	127,757	$2,355	$300.9	210,654	$1,825	$384.5
Total	681,469	$648	$441.9	713,594	$1,687	$1,203.7	1,395,063	$1,180	$1,645.6

Adult	Low Acuity Visits			High Acuity Visits			Total		
	Visits	Mean	Sum	Visits	Mean	Sum	Visits	Mean	Sum
Ages 18-34 years	663,986	$1,093	$725.6	989,030	$2,734	$2,704.4	1,653,016	$2,075	$3,430.0
Ages 35-54 years	529,660	$1,237	$655.3	917,040	$3,326	$3,049.7	1,446,700	$2,561	$3,705.0
Ages 55-64 years	135,060	$1,360	$183.7	269,527	$3,644	$982.1	404,587	$2,881	$1,165.8
Ages 65-79 years	131,257	$1,497	$196.5	293,579	$3,787	$1,111.8	424,836	$3,080	$1,308.3
Ages 80+ years	65,439	$1,692	$110.7	183,685	$3,867	$710.3	249,124	$3,296	$821.1
Total	1,525,402	$1,227	$1,871.8	2,652,861	$3,226	$8,558.4	4,178,263	$2,496	$10,430.3

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 2007 ED Data

Appendix G: Emergency Department Visits Average and Sum of Charges by Payer Group and Patient Acuity Level

Pediatric Payer Group	Low Acuity Visits			High Acuity Visits			Total		
	Visits	Mean	Sum	Visits	Mean	Sum	Visits	Mean	Sum
Medicare	3,140	$610	$1.9	1,462	$2,217	$3.2	4,602	$1,121	$5.2
Medicaid	329,925	$584	$192.7	330,717	$1,550	$512.7	660,642	$1,068	$705.3
Commercial Insurance	189,280	$787	$149.0	235,677	$1,880	$443.0	424,957	$1,393	$592.0
Charity	12,606	$581	$7.3	13,342	$1,749	$23.3	25,948	$1,182	$30.7
Self Pay/Underinsured	117,163	$574	$67.3	101,605	$1,623	$164.9	218,768	$1,061	$232.2
Other Governemnt	29,354	$807	$23.7	30,791	$1,835	$56.5	60,145	$1,334	$80.2
Unknown Payer	1	$101	$0.0				1	$101	$0.0
Total	**681,468**	**$648**	**$441.9**	**713,594**	**$1,687**	**$1,203.7**	**1,395,062**	**$1,180**	**$1,645.6**

Adult Payer Group	Low Acuity Visits			High Acuity Visits			Total		
	Visits	Mean	Sum	Visits	Mean	Sum	Visits	Mean	Sum
Medicare	244,164	$1,465	$357.8	566,807	$3,686	$2,089.4	810,971	$3,018	$2,447.2
Medicaid	194,805	$1,107	$215.6	337,395	$2,870	$968.4	532,200	$2,225	$1,184.1
Commercial Insurance	466,227	$1,436	$669.6	841,132	$3,466	$2,915.7	1,307,359	$2,742	$3,585.4
Charity	62,643	$989	$61.9	118,220	$3,103	$366.9	180,863	$2,371	$428.8
Self Pay/Underinsured	464,333	$1,005	$466.8	654,856	$2,804	$1,836.5	1,119,189	$2,058	$2,303.3
Other Governemnt	93,230	$1,073	$100.1	134,451	$2,837	$381.5	227,681	$2,115	$0.0
Total	**1,432,172**	**$1,307**	**$1,871.8**	**2,518,410**	**$3,398**	**$8,558.4**	**3,950,582**	**$2,640**	**$10,430.3**

Notes: Total excludes visits that cannot be classified by acuity level.
   Value of Sum is in millions.

Source: AHCA 2007 ED Data

Appendix H: Major Diagnosis Categories

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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