Emergency Department Utilization Report

2008

Florida Center for Health Information and Policy Analysis
Agency for Health Care Administration

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Title: **Emergency Department Utilization Report 2008**

Summary: The Florida Agency for Health Care Administration (Agency) prepares an annual report on emergency department (ED) costs and utilization in Florida. This report provides patient demographic information and other characteristics of emergency department visits for calendar year 2008 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 2008, reveals that 67.7 percent of pediatric ED visits were made by children under age 9 and 64.9 percent of adult ED visits were for persons under age 55. The majority of ambulatory ED visits had an acuity level of low to moderate (pediatric 80.2 percent, adult 62.2 percent). Over 62 percent of pediatric and nearly 56 percent of adult Florida resident Medicaid ambulatory ED visits could potentially be avoided through greater utilization of primary care services.

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 report to the Legislature each year on the use of emergency department services by patient acuity level and the implication of increasing hospital cost by providing non urgent care in emergency departments.

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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 often 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 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 7,391,995 ED visits in calendar year 2008, with 1,538,595 being pediatric and 5,853,400 being adult. Of the total ED visits, 5,943,820 (1,459,905 pediatric, 4,483,915 adult) did not result in an inpatient hospitalization. A total of 1,448,175 ED visits did result in an inpatient acute care hospitalization (78,690 pediatric, 1,369,485 adult).

Emergency Department Utilization Summary 2008

This report summarizes information from the fourth complete year of ED data collection (calendar year 2008) as well as other data sources. The financial information in this report reflects reported hospital charges for services provided and not the actual cost or revenue received by the hospital for the services provided.

This year the analysis was 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 2008 ambulatory emergency department visits (those not resulting in an inpatient admission) was $15.16 billion (pediatric $1.93 billion, adult $13.23 billion).
- More than 62 percent of pediatric Medicaid ambulatory ED visits and 55.9 percent of adult Medicaid ambulatory ED visits for Florida residents in 2008 could potentially be avoided through greater utilization of primary care services.

Patient Characteristics

- Over 66 percent of pediatric ambulatory ED visits were for Medicaid enrollees (50 percent), self-pay/underinsured (15.2 percent), or charity (1.5 percent).
- A combined 31 percent of all adult ambulatory ED visits were self-pay/underinsured (26.9 percent) or charity care (4.1 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 62 percent of all low acuity ED patient visits was for persons ages 34 and younger (32.3 percent ages 17 and under, 29.7 percent ages 18 to 34).
- Nearly 45 percent of pediatric visits were low acuity.
- For ED patient visits for persons ages 65 and older, 23 percent were low acuity.
- Over 45 percent of all pediatric Medicaid visits were low acuity.
- Over 48 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 (24.7 percent of all ambulatory ED visits) was the leading Major Diagnosis Category for all emergency department visits.
- About 11 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 (23.3 percent).
- Asthma was the leading principal diagnosis for chronic conditions (12.5 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 (24.2 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 (9.8 percent).

Emergency Department Visits by Emergency Status

The emergency status of a patient visit is determined by using the New York University (NYU) Classification algorithm, which is a widely accepted algorithm for categorizing the severity of emergency department visits. This algorithm is intended for ambulatory visits, those not resulting in an inpatient admission:

- A higher percentage of ED visits by Blacks (61 percent pediatric, 55.3 percent adult) and Hispanics (61.4 percent pediatric, 50.7 percent adult) were potentially avoidable or treatable in a primary care setting (ED Avoidable) compared to Whites (50.7 percent pediatric, 46 percent adult).
- A higher percentage of ED visits by females (59.3 percent pediatric, 52.8 percent adult) were ED Avoidable compared to males (53.5 percent pediatric, 42.9 percent adult).
- The ED Avoidable pediatric rate (56.2 percent) was much higher than the adult rate (48.7 percent).
- Over 62 percent of ED visits for pediatric Medicaid patients and over 57 percent of pediatric charity and pediatric self/uninsured ED visits were potentially avoidable.
- Nearly 56 percent of ED visits for adult Medicaid patients and over 51 percent adult charity and self/uninsured ED visits were potentially avoidable.

Trends in Emergency Department Ambulatory Visits

- Low acuity ED visits decreased from 46.0 percent to 33.9 percent of ED visits from 2005 to 2008.
- Low acuity ambulatory ED visits per 1000 population decreased by 25 percent from 2005 to 2008.
- High acuity ambulatory ED visits per 1000 population increased by 24.2 percent from 2005 to 2008.
- Low acuity charges increased by 35.4 percent of ED charges from 2005-2008.
- High acuity charges increased by 55.3 percent of ED charges from 2005-2008.

Conclusion

The results shown in the Emergency Department Utilization Report 2008 are similar to results shown in preceding ED reports. Low to moderate acuity visits continue to comprise more than 50 percent of ED discharges while chronic conditions continue to make up a significant percent of ambulatory ED visits. Potentially avoidable medical conditions make up more than 58 percent of pediatric Medicaid, charity, and self pay or underinsured ED visits but only 44.9 percent of commercial insurance pediatric ED visits. Adult ED visits exhibit a similar utilization pattern with potentially avoidable medical conditions making up more than 51 percent of adult Medicaid, charity, and self pay or underinsured ED visits but only 47.5 percent of commercial insurance adult ED visits. Further research will be done to look at geographic trends in emergency department visits for potentially avoidable medical conditions.

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. At the same time, 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 costs." 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."

The 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.

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 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; this means an individual visiting 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 2008 that did not result in a hospital inpatient admission. This report uses data effective as of November 9, 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 the 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/2005-2009-Resources.shtml. Data are not available until the quality assurance process is complete and the data is certified by each facility.

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.

Medicaid, 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 most 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 Web site.

The New York University 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.

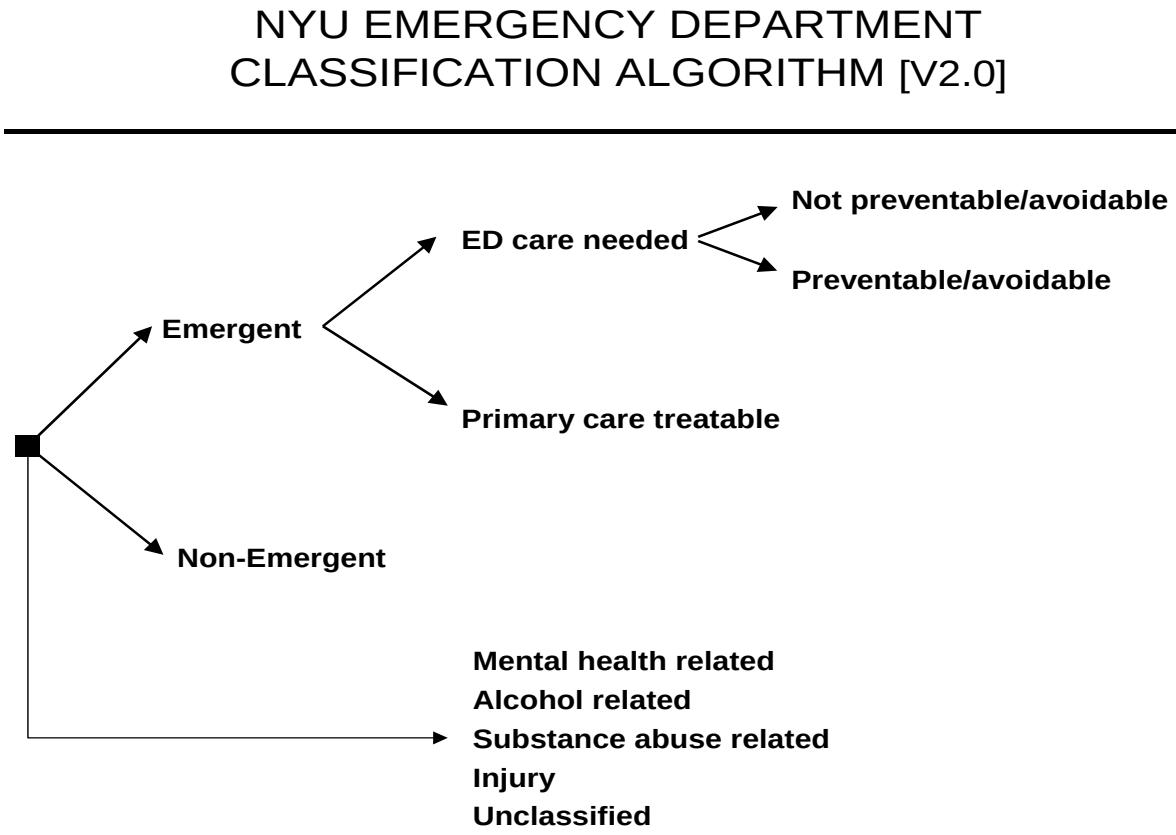
The algorithm was developed with the advice of a panel of ED and primary care physicians, and based on an examination of a sample of almost 6,000 full ED records. Data abstracted from these records included the initial complaint, presenting symptoms, vital signs, medical history, age, gender, diagnoses, 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.

Figure 1: New York University (NYU) Classification Algorithm



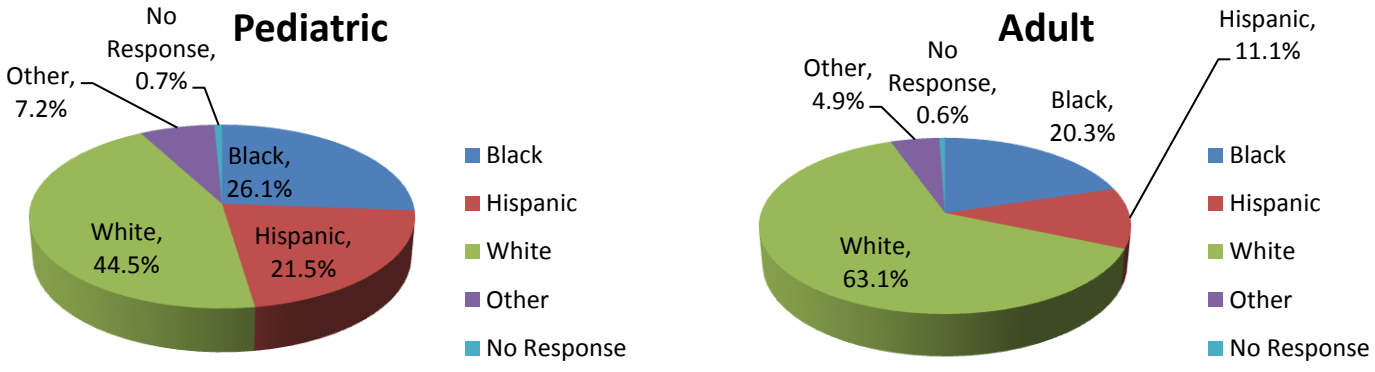
Results

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 55 percent of pediatric ED utilization, whereas, White adults account for 63.1 percent of adult ED utilization.

Figure 2: Visits to the Emergency Department by Racial/Ethnic Group

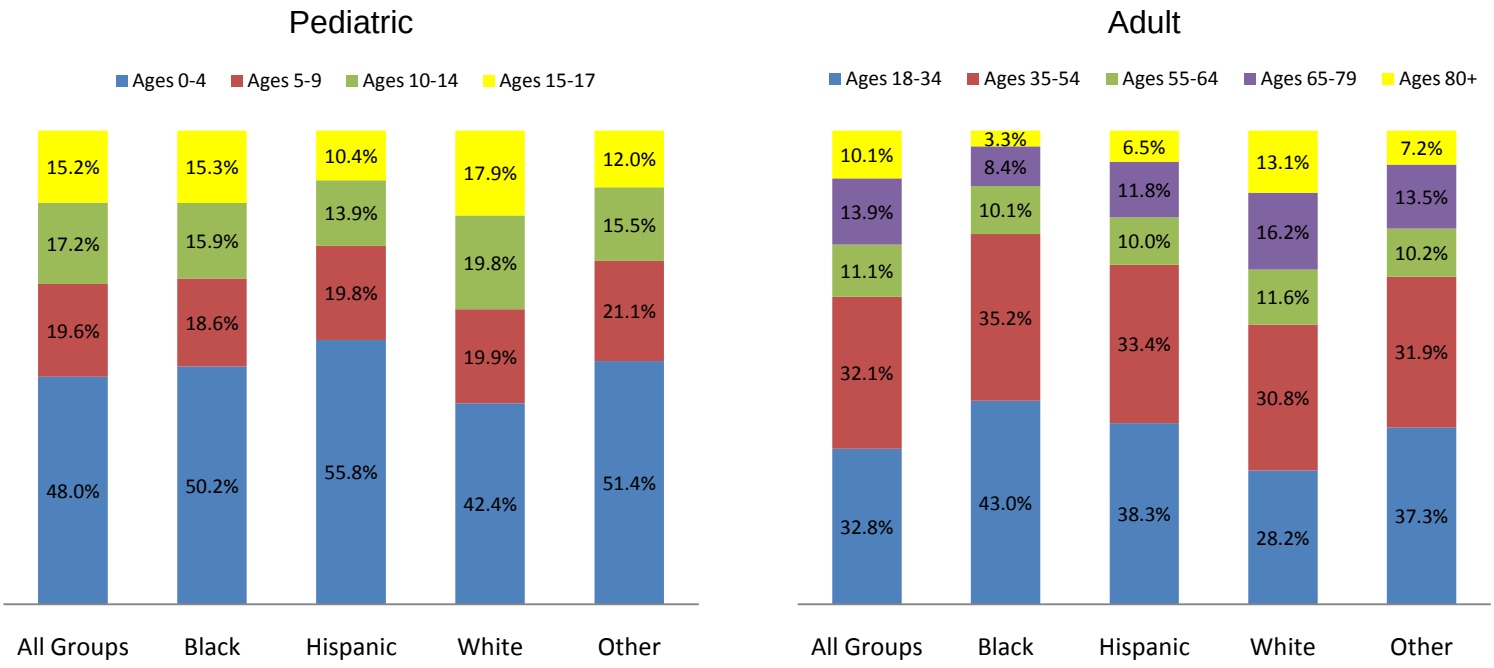


Data Source: AHCA; Data includes both outpatient ED and inpatient ED admissions for 2008.

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 Hispanic, 43 percent of Black, and 37.3 percent Other race adult ED visits were for patients ages 18 - 34, while only 28.2 percent of White adult ED visits were in this age group. In contrast, 29.3 percent of White adult ED visits were for patients ages 65 and older, compared to 11.7 percent of patient visits for Blacks, 18.3 percent of Hispanic patient visits, and 20.6 percent of Other race adult ED visits in this age group.

More than half of all Black, Hispanic, and Other race pediatric ED visits were for patients ages 4 and under, while 42.4 percent of White pediatric ED visits were in this age group. In contrast, 37.7 percent of White pediatric ED visits were for patients ages 10 -17, compared to 31.2 percent of visits for Blacks, 24.3 percent of Hispanic patient visits, and 27.5 percent of Other race pediatric ED visits in this age group.

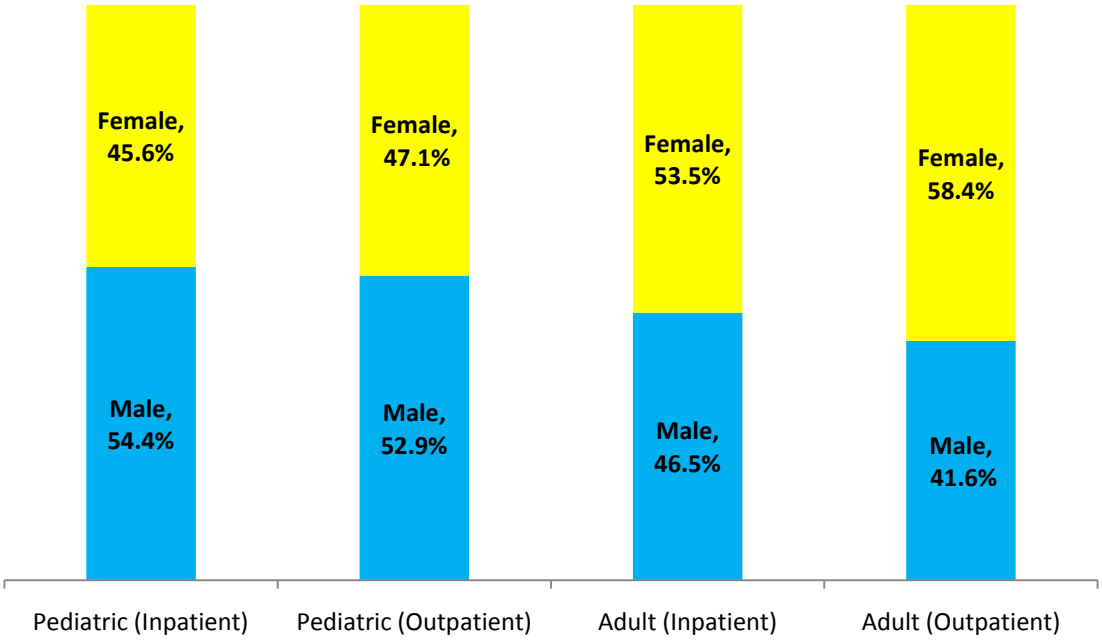
Figure 3: Emergency Department Visits by Age within Racial/Ethnic Groups



Data Source: AHCA; Data includes both outpatient ED and inpatient ED admissions for 2008.

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 almost 6 percent greater than the rate for girls, while the rate for adult women was almost 17 percent more than the rate for adult men.

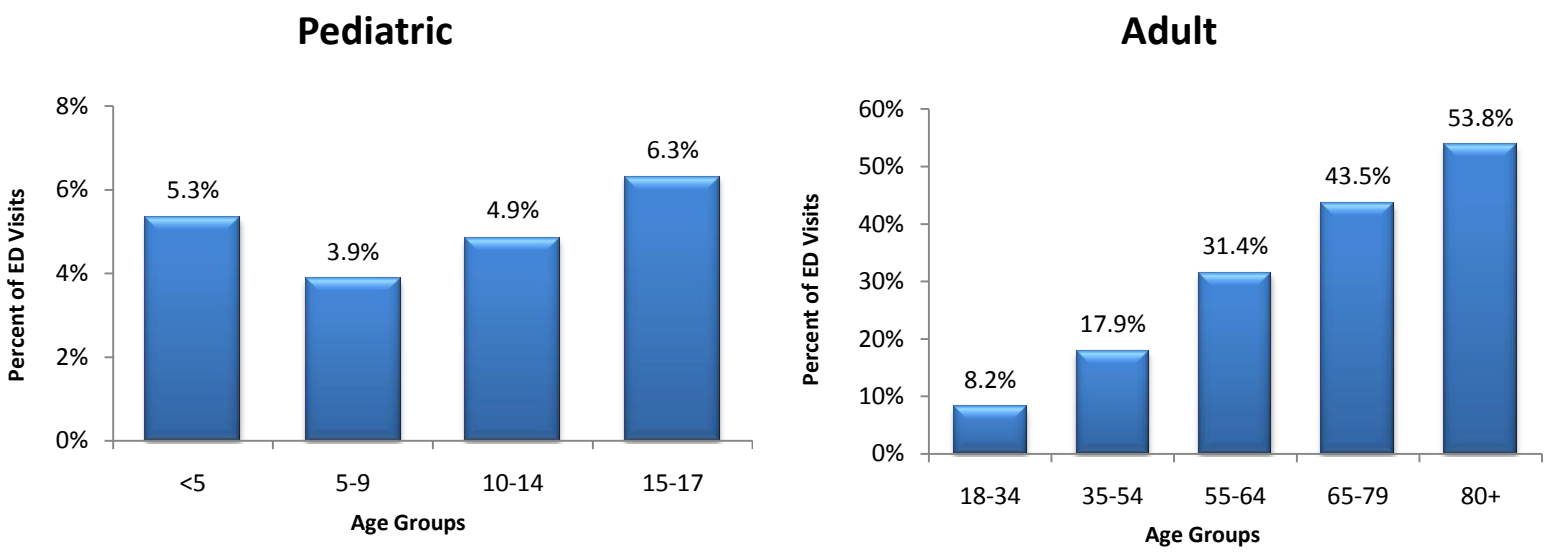
Figure 4: Emergency Department Visits by Gender



Data Source: AHCA; Data includes both outpatient ED and inpatient ED admissions for 2008.

In 2008, there were 7,391,995 emergency department visits with 1,448,175 (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



Data Source: AHCA; Data includes both outpatient ED and inpatient ED admissions for 2008.

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, 22.1 percent for Hispanic patient visits, 25 percent for White patient visits, and 24.2 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	5.3%	5.6%	5.7%	5.1%	4.6%
Ages 5-9	3.9%	4.2%	4.3%	3.6%	3.4%
Ages 10-14	4.9%	5.1%	6.1%	4.4%	4.6%
Ages 15-17	6.3%	6.3%	7.8%	5.8%	6.7%
All Pediatrics	5.1%	5.4%	5.7%	4.8%	4.6%
Ages 18-34	8.2%	8.5%	9.5%	7.4%	11.1%
Ages 35-54	17.9%	19.1%	18.4%	17.4%	19.1%
Ages 55-64	31.4%	31.5%	30.2%	31.5%	33.0%
Ages 65-79	43.5%	43.8%	45.4%	43.1%	46.5%
Ages 80+	53.8%	55.1%	60.9%	52.8%	60.3%
All Adults	23.4%	19.1%	22.1%	25.0%	24.2%
All Ages	19.6%	15.6%	16.6%	21.8%	18.7%

Data Source: AHCA; Data includes both outpatient ED and inpatient ED admissions for 2008.

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). However, when self-pay/underinsured and charity are combined they comprised the top payer for adult outpatient ED visits, 31 percent. Medicare was the principal payer for 54.2 percent of the adult inpatient hospitalizations. Self-pay/underinsured and charity combined accounted for only 10.9 percent of adult inpatient hospitalizations.

Medicaid was the top principal payer for all pediatric ED patients. Medicaid accounted for 50 percent of all pediatric outpatient ED visits and 54.6 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)	Visits	Percent
Medicaid	730,396	50.0%
Commercial	415,355	28.5%
Self Pay/Underins	222,613	15.2%
Other Government	64,012	4.4%
Charity	22,383	1.5%
Medicare	5,146	0.4%
Total	**1,459,905**	**100.0%**

Payer Group (Adult)	Visits	Percent
Commercial	1,339,848	29.9%
Self Pay/Underins	1,208,028	26.9%
Medicare	883,594	19.7%
Medicaid	637,773	14.2%
Other Government	229,433	5.1%
Charity	185,238	4.1%
Unknown	1	0.0%
Total	**4,483,915**	**100.0%**

Source: AHCA 2008 ED Data.

Table 5: ED Visits Resulting in Inpatient Hospitalization by Payer Group

Payer Group (Pediatric)	Hositalizations	Percent
Medicaid	42,998	54.6%
Commercial	26,674	33.9%
Self Pay/Underins	4,800	6.1%
Other Government	3,293	4.2%
Charity	639	0.8%
Medicare	286	0.4%
Total	**78,690**	**100.0%**

Payer Group (Adult)	Hositalizations	Percent
Medicare	741,648	54.2%
Commercial	286,126	20.9%
Medicaid	145,424	10.6%
Self Pay/Underins	109,021	8.0%
Other Government	47,020	3.4%
Charity	40,246	2.9%
Total	**1,369,485**	**100.0%**

Source: AHCA 2008 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	5,625,249	76.1%
Inpatient Hospitalization	1,448,175	19.6%
Left Against Medical Advice	186,351	2.5%
Other Facility	37,340	0.5%
Skilled Nursing Facility	18,507	0.3%
Expired	12,188	0.2%
Intermediate Care Facility	7,489	0.1%
Home Healthcare	5,756	0.1%
Other Hospital	49,329	0.7%
Hospice-Medical Facility	920	0.0%
Hospice-Home	667	0.0%
Home on IV Medications	24	0.0%
Total	**7,391,995**	**100.0%**

Source: AHCA 2008 ED Data and Hospital Inpatient Data.

Emergency Department Ambulatory Visit Results

Emergency Department Ambulatory Visit Results: Reasons for the Visit

All visits to the emergency department (ED) can be classified according to the principal diagnosis for the patient's reason for the visit. The patient's reason for the visit is an ICD-9-CM diagnosis code that best describes the reason why a person came to the ED. (See **Appendix H** for a description of the ICD-9-CM Major Diagnosis Categories [MDC]).

The top five Major Diagnostic Categories, representing 72.2 percent of all patient reasons for ambulatory ED visits, of those not resulting in an inpatient admission, were symptoms, signs and ill defined conditions affecting health (20.2 percent), injury and poisoning (18.2 percent), diseases of the musculoskeletal system and connective tissue (12.7 percent), diseases of the respiratory system (11.3 percent), and diseases of the nervous system and sense organs (9.8 percent) [**Table 7**]. The most common reasons patients presented for an emergency department visits included injuries due to external causes, abdominal pain, fever, and lower respiratory disease.

Over 300,000 (5.1 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 (35.8 percent), circulatory symptoms (18.4 percent), nervous system symptoms (12.11 percent), and respiratory symptoms (10.6 percent) [**Table 8**]. For chronic conditions, the most common reasons for the visit included anxiety, alcohol and substance abuse related disorders, asthma, hypertension, headache and diabetes.

Table 7: Emergency Department Visits Patient Reason for the 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	8.7%	$5,135	519,105
246	Fever of unknown origin	3.6%	$1,402	212,611
250	Nausea and vomiting	3.2%	$2,676	187,372
257	Other aftercare	1.9%	$463	114,049
245	Syncope	0.9%	$6,028	52,329
	All Other MDC 17 codes	1.9%	$2,244	114,779
	MDC 17: Symptoms; Signs; And Ill-Defined Conditions And Factors Influencing Health Status Total	20.2%	$3,408	1,200,245
	MDC 16: Injury And Poisoning			
244	Other injuries and conditions due to external causes	9.8%	$2,315	581,167
236	Open wounds of extremities	2.1%	$1,363	125,358
239	Superficial injury; contusion	1.9%	$1,873	110,878
235	Open wounds of head; neck; and trunk	1.5%	$2,139	88,692
232	Sprains and strains	0.9%	$1,716	55,106
	All Other MDC 16 codes	2.0%	$2,539	119,925
	MDC 16: Injury And Poisoning Total	18.2%	$2,139	1,081,126
	MDC 13: Diseases Of The Musculoskeletal System And Connective Tissue			
205	Spondylosis; intervertebral disc disorders; other back problems	5.2%	$2,152	309,297
211	Other connective tissue disease	4.1%	$1,754	246,067
204	Other non-traumatic joint disorders	3.3%	$1,687	196,094
212	Other bone disease and musculoskeletal deformities	0.0%	$2,339	1,672
203	Osteoarthritis	0.0%	$1,684	1,080
	All Other MDC 13 codes	0.0%	$2,604	1,352
	MDC 13: Diseases Of The Musculoskeletal System And Connective Tissue Total	12.7%	$1,902	755,562
	MDC 8: Diseases Of The Respiratory System			
133	Other lower respiratory disease	6.5%	$1,984	384,517
126	Other upper respiratory infections	2.3%	$1,009	134,909
134	Other upper respiratory disease	1.5%	$1,084	86,607
128	Asthma	0.4%	$1,878	21,942
127	Chronic obstructive pulmonary disease and bronchiectasis	0.2%	$2,365	12,183
	All Other MDC 8 codes	0.5%	$2,178	28,846
	MDC 8: Diseases Of The Respiratory System Total	11.3%	$1,683	669,004
	MDC 6: Diseases Of The Nervous System And Sense Organs			
84	Headache; including migraine	3.3%	$3,096	198,331
94	Other ear and sense organ disorders	1.7%	$645	99,382
93	Conditions associated with dizziness or vertigo	1.3%	$4,229	75,848
91	Other eye disorders	1.2%	$818	70,739
83	Epilepsy; convulsions	0.8%	$3,896	49,428
	All Other MDC 6 codes	1.5%	$2,522	91,491
	MDC 6: Diseases Of The Nervous System And Sense Organs Total	9.8%	$2,529	585,219
	All Other Reason for Visit	27.8%	$2,854	1,652,664
	***All Emergency Department Visits**	**100.0%**	**$2,551**	**5,943,820**

Source: AHCA 2008 ED Data.

* Total excludes ED patients discharged to inpatient acute care hospitals.

Table 8: Emergency Department Visits Patient Reason for the 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	9.4%	$1,764	28,422
657	Mood disorders	8.6%	$2,574	25,758
660	Alcohol-related disorders	8.4%	$3,240	25,406
659	Schizophrenia and other psychotic disorders	3.4%	$3,478	10,137
661	Substance-related disorders	3.1%	$2,221	9,249
	All Other MDC 5 codes	3.0%	$2,790	8,898
	MDC 5: Mental Illness Total	35.8%	$2,590	107,870
	MDC 7: Diseases Of The Circulatory System			
98	Essential hypertension	10.4%	$2,655	31,388
107	Cardiac arrest and ventricular fibrillation	2.6%	$3,681	7,748
106	Cardiac dysrhythmias	2.1%	$5,022	6,415
112	Transient cerebral ischemia	0.9%	$13,201	2,560
101	Coronary atherosclerosis and other heart disease	0.6%	$15,839	1,845
	All Other MDC 7 codes	1.8%	$7,026	5,505
	MDC 7: Diseases Of The Circulatory System Total	18.4%	$4,431	55,461
	MDC 6: Diseases Of The Nervous System And Sense Organs			
84	Headache; including migraine	5.1%	$1,962	15,308
83	Epilepsy; convulsions	3.0%	$3,993	9,170
95	Other nervous system disorders	1.7%	$1,946	5,116
89	Blindness and vision defects	0.7%	$1,882	1,975
91	Other eye disorders	0.6%	$991	1,730
	All Other MDC 6 codes	1.1%	$2,064	3,218
	MDC 6: Diseases Of The Nervous System And Sense Organs Total	12.1%	$2,429	36,517
	MDC 8: Diseases Of The Respiratory System			
128	Asthma	7.3%	$1,878	21,942
126	Other upper respiratory infections	1.3%	$1,690	3,953
127	Chronic obstructive pulmonary disease and bronchiectasis	1.2%	$4,012	3,582
134	Other upper respiratory disease	0.4%	$916	1,301
133	Other lower respiratory disease	0.3%	$1,269	847
	All Other MDC 8 codes	0.1%	$1,724	202
	MDC 8: Diseases Of The Respiratory System Total	10.6%	$2,038	31,827
	MDC 3: Endocrine; Nutritional; And Metabolic Diseases And Immunity Disorders			
49	Diabetes mellitus without complication	2.5%	$2,560	7,619
50	Diabetes mellitus with complications	2.3%	$3,194	7,009
51	Other endocrine disorders	1.4%	$3,080	4,257
54	Gout and other crystal arthropathies	0.6%	$1,218	1,934
48	Thyroid disorders	0.1%	$2,926	416
	All Other MDC 3 codes	0.2%	$3,457	497
	MDC 3: Endocrine; Nutritional; And Metabolic Diseases And Immunity Disorders Total	7.2%	$2,775	21,732
	All Other Reason for Visit	15.8%	$2,522	47,523
	***All Emergency Department Visits**	**100.0%**	**$2,854**	**300,930**

Source: AHCA 2008 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 (24.7 percent), diseases of the respiratory system (13 percent), symptoms and ill-defined conditions affecting health (12.5 percent), diseases of the nervous system and sense organs (9.3 percent), and diseases of the genitourinary system (6.7 percent) [**Table 9**]. The top five MDCs represented 66.2 percent of all ambulatory emergency department (ED) visits. The most frequently reported principal diagnoses for emergency department visits were sprains and strains, contusions, upper respiratory infections, abdominal pain, headaches and urinary tract infections.

Almost 11 percent (647,192) 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 (23.3 percent); respiratory symptoms (19.8 percent); circulatory symptoms (16.3 percent); nervous system and sense organs symptoms (13.9 percent); endocrine, nutritional, and metabolic diseases and immunity disorders (6.9 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	5.7%	$1,843	340,606
239	Superficial injury; contusion	5.7%	$2,099	338,913
236	Open wounds of extremities	3.1%	$1,408	183,276
235	Open wounds of head; neck; and trunk	2.4%	$2,349	140,670
244	Other injuries and conditions due to external causes	2.2%	$2,492	131,128
	All Other MDC 16 codes	5.6%	$2,676	333,449
	MDC 16: Injury And Poisoning Total	24.7%	$2,143	1,468,042
	MDC 8: Diseases Of The Respiratory System			
126	Other upper respiratory infections	5.2%	$1,033	307,137
133	Other lower respiratory disease	1.6%	$2,882	95,573
125	Acute bronchitis	1.4%	$1,695	86,017
128	Asthma	1.4%	$1,858	80,921
127	Chronic obstructive pulmonary disease and bronchiectasis	1.3%	$2,206	79,395
	All Other MDC 8 codes	2.1%	$2,035	126,440
	MDC 8: Diseases Of The Respiratory System Total	13.0%	$1,704	775,483
	MDC 17: Symptoms; Signs; And Ill-Defined Conditions And Factors Influencing Health Status			
251	Abdominal pain	4.4%	$5,098	263,655
257	Other aftercare	1.8%	$427	104,182
250	Nausea and vomiting	1.5%	$2,454	91,334
253	Allergic reactions	1.4%	$843	85,224
246	Fever of unknown origin	1.3%	$1,553	75,691
	All Other MDC 17 codes	2.0%	$3,587	120,067
	MDC 17: Symptoms; Signs; And Ill-Defined Conditions And Factors Influencing Health Status Total	12.5%	$3,016	740,153
	MDC 6: Diseases Of The Nervous System And Sense Organs			
84	Headache; including migraine	2.5%	$3,019	147,721
92	Otitis media and related conditions	2.0%	$688	120,352
93	Conditions associated with dizziness or vertigo	1.0%	$4,361	57,701
95	Other nervous system disorders	0.9%	$2,930	54,688
83	Epilepsy; convulsions	0.8%	$3,868	50,008
	All Other MDC 6 codes	2.0%	$1,010	121,758
	MDC 6: Diseases Of The Nervous System And Sense Organs Total	9.3%	$2,276	552,228
	MDC 10: Diseases Of The Genitourinary System			
159	Urinary tract infections	2.5%	$3,072	145,694
160	Calculus of urinary tract	1.1%	$6,876	64,864
175	Other female genital disorders	0.7%	$2,725	40,638
163	Genitourinary symptoms and ill-defined conditions	0.6%	$1,998	36,931
168	Inflammatory diseases of female pelvic organs	0.5%	$2,687	29,473
	All Other MDC 10 codes	1.3%	$3,188	79,361
	MDC 10: Diseases Of The Genitourinary System Total	6.7%	$3,553	396,961
	All Other Reason for Visit	33.8%	$2,882	2,010,953
	***All Emergency Department Visits**	**100.0%**	**$2,551**	**5,943,820**

Source: AHCA 2008 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	5.7%	$2,015	36,719
660	Alcohol-related disorders	5.7%	$3,540	36,588
657	Mood disorders	4.8%	$2,600	30,995
661	Substance-related disorders	2.6%	$2,716	16,826
659	Schizophrenia and other psychotic disorders	2.1%	$3,115	13,589
	All Other MDC 5 codes	2.5%	$3,056	15,988
	MDC 5: Mental Illness Total	23.3%	$2,793	150,705
	MDC 8: Diseases Of The Respiratory System			
128	Asthma	12.5%	$1,858	80,921
126	Other upper respiratory infections	3.3%	$1,878	21,087
127	Chronic obstructive pulmonary disease and bronchiectasis	3.2%	$3,632	20,571
134	Other upper respiratory disease	0.7%	$766	4,794
133	Other lower respiratory disease	0.1%	$4,226	494
	All Other MDC 8 codes	0.1%	$1,774	419
	MDC 8: Diseases Of The Respiratory System Total	19.8%	$2,114	128,286
	MDC 7: Diseases Of The Circulatory System			
98	Essential hypertension	6.9%	$2,929	44,945
106	Cardiac dysrhythmias	2.4%	$5,070	15,347
107	Cardiac arrest and ventricular fibrillation	1.4%	$3,909	9,352
101	Coronary atherosclerosis and other heart disease	1.1%	$16,243	7,341
108	Congestive heart failure; nonhypertensive	1.0%	$5,242	6,284
	All Other MDC 7 codes	3.4%	$7,946	21,925
	MDC 7: Diseases Of The Circulatory System Total	16.3%	$5,442	105,194
	MDC 6: Diseases Of The Nervous System And Sense Organs			
84	Headache; including migraine	6.4%	$2,386	41,234
95	Other nervous system disorders	3.1%	$2,005	19,857
83	Epilepsy; convulsions	2.8%	$4,000	17,805
90	Inflammation; infection of eye (except that caused by tuberculosis or sexually transmitteddisease)	0.4%	$775	2,903
91	Other eye disorders	0.3%	$1,219	2,160
	All Other MDC 6 codes	1.0%	$2,848	6,268
	MDC 6: Diseases Of The Nervous System And Sense Organs Total	13.9%	$2,573	90,227
	MDC 3: Endocrine; Nutritional; And Metabolic Diseases And Immunity Disorders			
50	Diabetes mellitus with complications	2.7%	$3,328	17,582
49	Diabetes mellitus without complication	2.0%	$2,666	13,126
54	Gout and other crystal arthropathies	1.3%	$1,370	8,250
51	Other endocrine disorders	0.5%	$3,202	2,916
48	Thyroid disorders	0.2%	$3,323	1,359
	All Other MDC 3 codes	0.2%	$3,420	1,289
	MDC 3: Endocrine; Nutritional; And Metabolic Diseases And Immunity Disorders Total	6.9%	$2,764	44,522
	All Other Reason for Visit	19.8%	$3,218	128,258
	***All Emergency Department Visits**	**100.0%**	**$3,141**	**647,192**

Source: AHCA 2008 ED Data.

* Total excludes ED patients discharged to inpatient acute care hospitals.

Emergency Department Inpatient Admission Results

A total of 1,443,175 or 19.6 percent of ED visits resulted in inpatient hospitalization. In 2008, 56.3 percent of the 2,571,677 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 (24.2 percent), diseases of the digestive system (14 percent), diseases of the respiratory system (12.7 percent), injury and poisoning (10.7 percent), and mental disorders (6 percent) [**Table 11**]. These top five MDCs represent 67.5 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, and COPD [**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 (43 percent), mental disorders (13.6 percent), diseases of the respiratory system (12.1 percent), diseases of the digestive system (6.9 percent), and endocrine; nutritional; and, metabolic diseases and immunity disorders (6 percent). For chronic condition visits, the leading inpatient principal diagnoses included congestive heart failure, mood disorders, COPD and bronchiectasis, 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			
108	Congestive heart failure; nonhypertensive	4.1%	$37,541	58,959
102	Nonspecific chest pain	3.9%	$20,574	55,931
106	Cardiac dysrhythmias	3.1%	$32,007	44,362
100	Acute myocardial infarction	2.5%	$69,083	36,516
109	Acute cerebrovascular disease	2.3%	$49,154	32,829
	All Other MDC 7 codes	8.4%	$41,736	121,809
	MDC 7: Diseases Of The Circulatory System Total	24.2%	$39,965	350,406
	MDC 9: Diseases Of The Digestive System			
122	Pneumonia (except that caused by tuberculosis or sexually transmitted disease)	3.6%	$34,899	52,478
127	Chronic obstructive pulmonary disease and bronchiectasis	3.0%	$27,641	43,921
131	Respiratory failure; insufficiency; arrest (adult)	1.6%	$69,909	23,831
128	Asthma	1.6%	$21,957	23,626
129	Aspiration pneumonitis; food/vomitus	0.7%	$52,646	10,203
	All Other MDC 9 codes	3.3%	$35,132	48,078
	MDC 9: Diseases Of The Digestive System Total	14.0%	$36,888	202,137
	MDC 8: Diseases Of The Respiratory System			
149	Biliary tract disease	1.8%	$45,999	26,532
153	Gastrointestinal hemorrhage	1.5%	$32,962	21,831
145	Intestinal obstruction without hernia	1.4%	$42,403	20,671
146	Diverticulosis and diverticulitis	1.3%	$36,354	19,159
142	Appendicitis and other appendiceal conditions	1.2%	$35,939	18,029
	All Other MDC 8 codes	5.4%	$30,882	77,660
	MDC 8: Diseases Of The Respiratory System Total	12.7%	$35,671	183,882
	MDC 16: Injury And Poisoning			
237	Complication of device; implant or graft	1.5%	$60,279	22,297
226	Fracture of neck of femur (hip)	1.4%	$55,984	20,464
238	Complications of surgical procedures or medical care	1.4%	$42,071	20,013
230	Fracture of lower limb	0.9%	$54,156	13,325
231	Other fractures	0.9%	$41,584	12,701
	All Other MDC 16 codes	4.6%	$43,961	65,928
	MDC 16: Injury And Poisoning Total	10.7%	$48,341	154,728
	MDC 5: Mental Illness			
657	Mood disorders	2.1%	$13,240	31,017
659	Schizophrenia and other psychotic disorders	1.5%	$17,109	21,410
660	Alcohol-related disorders	0.7%	$18,013	9,914
661	Substance-related disorders	0.5%	$21,606	7,550
663	Screening and history of mental health and substance abuse codes	0.3%	$41,270	4,932
	All Other MDC 5 codes	0.8%	$16,471	11,524
	MDC 5: Mental Illness Total	6.0%	$17,511	86,347
	All Other Reason for Visit	32.5%	$34,176	470,675
	All Emergency Department Visits Resulting in Inpatient Hospitalization	**100.0%**	**$36,665**	**1,448,175**

Source: AHCA 2008 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	9.8%	$37,541	58,959
106	Cardiac dysrhythmias	7.1%	$32,557	42,903
100	Acute myocardial infarction	6.1%	$69,083	36,516
109	Acute cerebrovascular disease	5.5%	$49,154	32,829
101	Coronary atherosclerosis and other heart disease	5.1%	$51,310	30,907
	All Other MDC 7 codes	9.4%	$39,685	56,333
	MDC 7: Diseases Of The Circulatory System Total	43.0%	$44,759	258,447
	MDC 5: Mental Illness			
657	Mood disorders	5.2%	$13,237	30,989
659	Schizophrenia and other psychotic disorders	3.6%	$17,107	21,390
660	Alcohol-related disorders	1.6%	$17,863	9,651
663	Screening and history of mental health and substance abuse codes	0.8%	$41,350	4,921
653	Delirium	0.8%	$22,534	4,773
	All Other MDC 5 codes	1.7%	$12,615	10,005
	MDC 5: Mental Illness Total	13.6%	$16,956	81,729
	MDC 8: Diseases Of The Respiratory System			
127	Chronic obstructive pulmonary disease and bronchiectasis	7.0%	$27,979	42,268
128	Asthma	3.9%	$21,957	23,626
131	Respiratory failure; insufficiency; arrest (adult)	0.7%	$66,165	4,007
133	Other lower respiratory disease	0.3%	$43,014	1,916
126	Other upper respiratory infections	0.1%	$22,096	500
	All Other MDC 8 codes	0.0%	$33,281	246
	MDC 8: Diseases Of The Respiratory System Total	12.1%	$28,502	72,563
	MDC 9: Diseases Of The Digestive System			
146	Diverticulosis and diverticulitis	3.2%	$36,354	19,159
138	Esophageal disorders	1.0%	$23,816	6,135
144	Regional enteritis and ulcerative colitis	0.9%	$36,986	5,282
151	Other liver diseases	0.5%	$41,661	2,878
139	Gastroduodenal ulcer (except hemorrhage)	0.4%	$46,800	2,651
	All Other MDC 9 codes	0.9%	$34,592	5,416
	MDC 9: Diseases Of The Digestive System Total	6.9%	$35,387	41,521
	MDC 3: Endocrine; Nutritional; And Metabolic Diseases And Immunity Disorders			
50	Diabetes mellitus with complications	4.8%	$30,826	28,697
51	Other endocrine disorders	0.5%	$32,526	2,778
58	Other nutritional; endocrine; and metabolic disorders	0.2%	$34,019	1,172
49	Diabetes mellitus without complication	0.2%	$12,909	1,155
48	Thyroid disorders	0.2%	$28,623	1,125
	All Other MDC 3 codes	0.2%	$31,103	1,229
	MDC 3: Endocrine; Nutritional; And Metabolic Diseases And Immunity Disorders Total	6.0%	$30,428	36,156
	All Other Reason for Visit	18.4%	$44,920	110,355
	All Emergency Department Visits Resulting in Inpatient Hospitalization	**100.0%**	**$37,533**	**600,771**

Source: AHCA 2008 Hospital Inpatient Data.

Emergency Department Ambulatory Visit Results: Patient Acuity Level

On November 2, 2009, all available records from the Agency's emergency department (ED) database collected during the 2008 calendar year were selected for analysis. All ambulatory emergency department visits can be defined by one of five CPT Evaluation & Management codes. The codes delineate the relative severity of the person's condition upon arrival at the ED. See **Appendix A** for a complete description of each of the five Evaluation & Management codes.

Table 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 3.7 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

	Pediatric				Adult			
Acuity Level	**ED Visits**	**Percent**	**Mean Charges**	**Total Charges**	**ED Visits**	**Percent**	**Mean Charges**	**Total Charges**
Minor	207,751	14.2%	$560	$116,394,886	455,389	10.2%	$983	$447,551,043
Low-Moderate	417,380	28.6%	$749	$312,582,017	854,005	19.0%	$1,459	$1,245,929,592
Moderate	545,202	37.3%	$1,309	$713,434,205	1,481,567	33.0%	$2,360	$3,496,212,637
High-No Sig Threat	182,348	12.5%	$2,788	$508,357,643	1,079,891	24.1%	$4,383	$4,733,031,534
High-Sig Threat	53,170	3.6%	$3,963	$210,728,938	425,796	9.5%	$6,932	$2,951,715,799
Missing Codes	54,054	3.7%	$1,319	$71,304,852	187,267	4.2%	$1,900	$355,777,067
Total	**1,459,905**	**100.0%**	**$1,324**	**$1,932,802,541**	**4,483,915**	**100.0%**	**$2,951**	**$13,230,217,672**

Source: AHCA 2008 ED Data.

Of the five acuity levels listed, the vast majority of adult ambulatory ED visits, 66.6 percent, were in the minor to moderate severity category (pediatric 80.2 percent, adult 62.2 percent). Excluding "Missing Codes" from the total, yields 69.5 percent of all ambulatory visits were in the low to moderate category, (pediatric 83.2 percent, adult 65 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 rate of low acuity ED visits, 48.7 percent for pediatrics and 34.4 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

	Low Acuity Visits		High Acuity Visits		Total	
Age Group	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
Ages 0-4	330,669	48.7%	348,216	51.3%	678,885	100.0%
Ages 5-9	128,244	46.1%	150,038	53.9%	278,282	100.0%
Ages 10-14	94,759	39.5%	145,320	60.5%	240,079	100.0%
Ages 15-17	71,459	34.3%	137,146	65.7%	208,605	100.0%
Pediatric	625,131	44.5%	780,720	55.5%	1,405,851	100.0%
Ages 18-34 years	575,015	34.4%	1,097,085	65.6%	1,672,100	100.0%
Ages 35-54 years	452,386	30.6%	1,028,200	69.4%	1,480,586	100.0%
Ages 55-64 years	117,644	27.3%	312,500	72.7%	430,144	100.0%
Ages 65-79 years	110,295	24.6%	337,399	75.4%	447,694	100.0%
Ages 80 years and older	54,054	20.3%	212,070	79.7%	266,124	100.0%
Adult	1,309,394	30.5%	2,987,254	69.5%	4,296,648	100.0%
Total	**1,934,525**	**33.9%**	**3,767,974**	**66.1%**	**5,702,499**	**100.0%**

Note: Total excludes visits that cannot be classified by acuity level and unknown age.
Source: AHCA 2008 ED data.

Table 15 shows a breakdown of emergency department (ED) visits by payer group and acuity group. Self Pay/Underinsured was the payer with the highest proportion of low-acuity visits for both pediatric ED visits and adult ED visits. The percent of low-acuity ED visits for children (44.5 percent) is significantly higher than the low-acuity rate for adults (30.5 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**
Self Pay/Underinsured	103,370	48.8%	108,642	51.2%	212,012	100.0%
Other Government*	30,341	46.0%	35,592	54.0%	65,933	100.0%
Medicaid	321,281	45.6%	382,533	54.4%	703,814	100.0%
Charity	9,511	44.6%	11,816	55.4%	21,327	100.0%
Commercial Insurance	160,628	39.9%	242,137	60.1%	402,765	100.0%
Pediatric Total	**491,420**	**43.6%**	**636,486**	**56.4%**	**1,127,906**	**100.0%**
Payer Group (Adult)	**ED Visits**	**Percent**	**ED Visits**	**Percent**	**ED Visits**	**Percent**
Self Pay/Underinsured	412,609	36.0%	734,339	64.0%	1,146,948	100.0%
Other Government	74,847	34.1%	144,576	65.9%	219,423	100.0%
Medicaid	186,838	31.0%	416,124	69.0%	602,962	100.0%
Charity	54,293	30.8%	121,704	69.2%	175,997	100.0%
Commercial Insurance	374,398	28.9%	918,873	71.1%	1,293,271	100.0%
Medicare	206,408	24.1%	651,638	75.9%	858,046	100.0%
Unknown	1	100.0%	0	0.0%	1	100.0%
Adult Total	**1,309,393**	**30.5%**	**2,987,254**	**69.5%**	**4,296,647**	**100.0%**

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

* Other Government includes Medicare for pediatric ED visits

Source: AHCA 2008 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 2008 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:

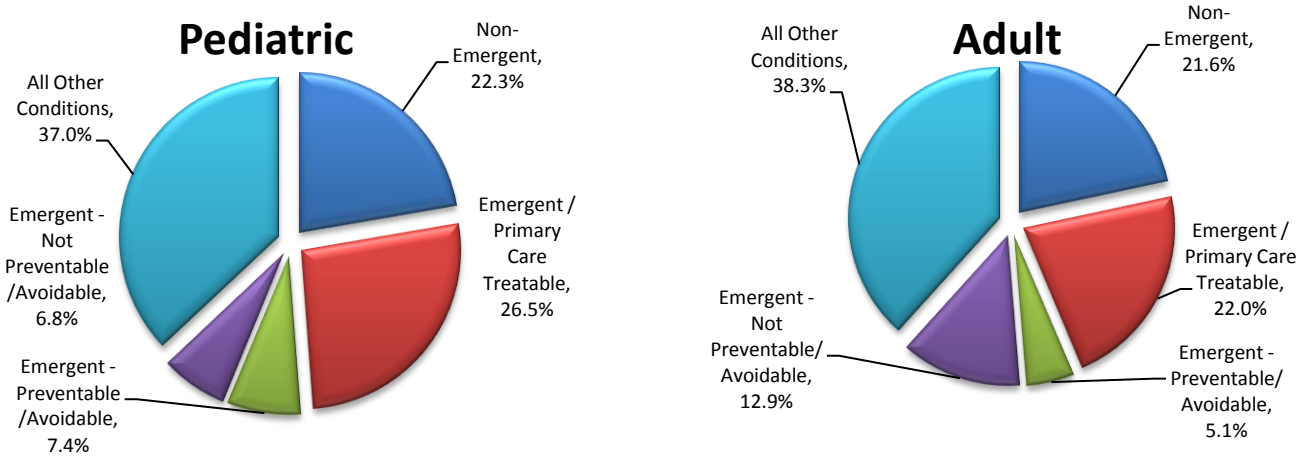
(1) The unit of analysis is the Florida resident ED visit that did not result in a hospital inpatient admission. ED visits for an individual whose place of residence was not a Florida county or was unknown were excluded from analysis.

(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 3,502,095 ED visits (62 percent) of all 2008 Florida resident ED visits.

Figure 6 shows the category distribution of ED visits for Florida residents in 2008. More than 56 percent of pediatric ED visits and 48.7 percent of adult ED visits were ED Avoidable in 2008. When only emergency status is considered, (3) above, then 89.2 percent of pediatric and 79 percent of adult ED visits were ED Avoidable.

Figure 6: Percentage of ED Visits by Emergency Status



Source: AHCA 2008 ED Data.

Table 16 shows the overall ED utilization rate by category for Florida residents in 2008. There were over $1.8 billion and $12.6 billion in outpatient pediatric and adult ED charges respectively incurred in 2008. ED avoidable conditions were associated with 56.2 percent and 48.7 percent of pediatric and adult ED charges respectively. Hence, nearly half of the ED charges for 2008 could potentially be avoided through greater utilization of primary care services.

Table 16: Emergency Department Visits by ED Visit Category

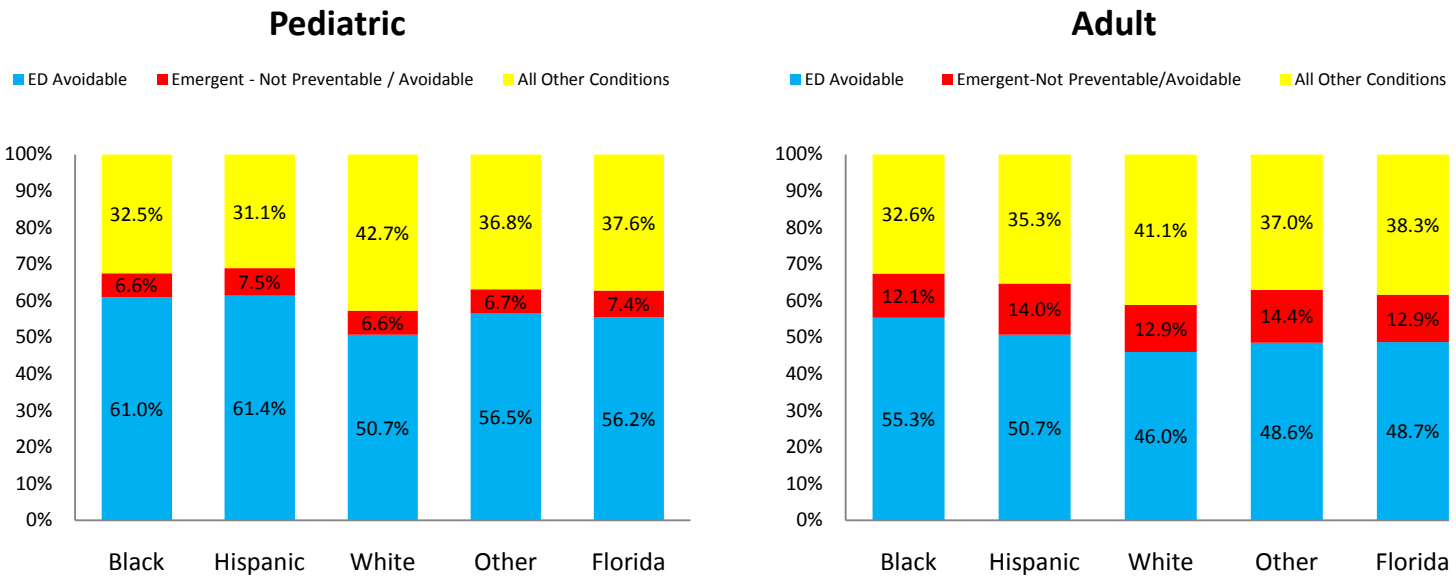
	Pediatric				
ED Visit Category	**Average Charge**	**Number ED Visits**	**Percent of ED Visits**	**Total Charges**	**Percent of Total Charges**
Non-Emergent	$1,278	313,432	22.3%	$400,526,622	21.4%
Emergent / Primary Care Treatable	$1,246	373,002	26.5%	$464,719,471	24.9%
Emergent - Preventable/Avoidable	$1,236	104,192	7.4%	$128,743,034	6.9%
Emergent - Not Preventable/Avoidable	$1,387	95,459	6.8%	$132,418,910	7.1%
All Other Conditions	$1,425	520,281	37.0%	$741,564,456	39.7%
Pediatric otal	**$1,328**	**1,406,365**	**100.0%**	**$1,867,972,492**	**100.0%**

	Adult				
ED Visit Category	**Average Charge**	**Number ED Visits**	**Percent of ED Visits**	**Total Charges**	**Percent of Total Charges**
Non-Emergent	$2,907	918,000	21.6%	$2,668,330,841	21.2%
Emergent / Primary Care Treatable	$2,955	934,087	22.0%	$2,759,999,607	21.9%
Emergent - Preventable/Avoidable	$2,948	214,934	5.1%	$633,586,036	5.0%
Emergent - Not Preventable/Avoidable	$3,101	548,989	12.9%	$1,702,380,920	13.5%
All Other Conditions	$2,977	1,626,992	38.3%	$4,843,601,881	38.4%
Pediatric otal	**$2,971**	**4,243,003**	**100.0%**	**$12,607,899,285**	**100.0%**

Source: AHCA 2008 ED Data.

Figure 7 shows the percentage of ED visits by emergency status for racial/ethnic groups in 2008. 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



Source: AHCA 2008 ED Data.

Table 17 shows ED visits by category and racial/ethnic groups in 2008. ED Avoidable visits per 1000 population for pediatric Blacks (261) and adult Blacks (240) were more than 38.1 percent and 80.1 percent higher than the rate for the state of Florida (189) and (141) respectively. However, the average ED Avoidable charge for Blacks was the lowest for all racial groups. Pediatric and adult rates for other races were 110.8 percent and 110.5 percent higher than the rate for the state of Florida respectively while having the highest average ED Avoidable charge.

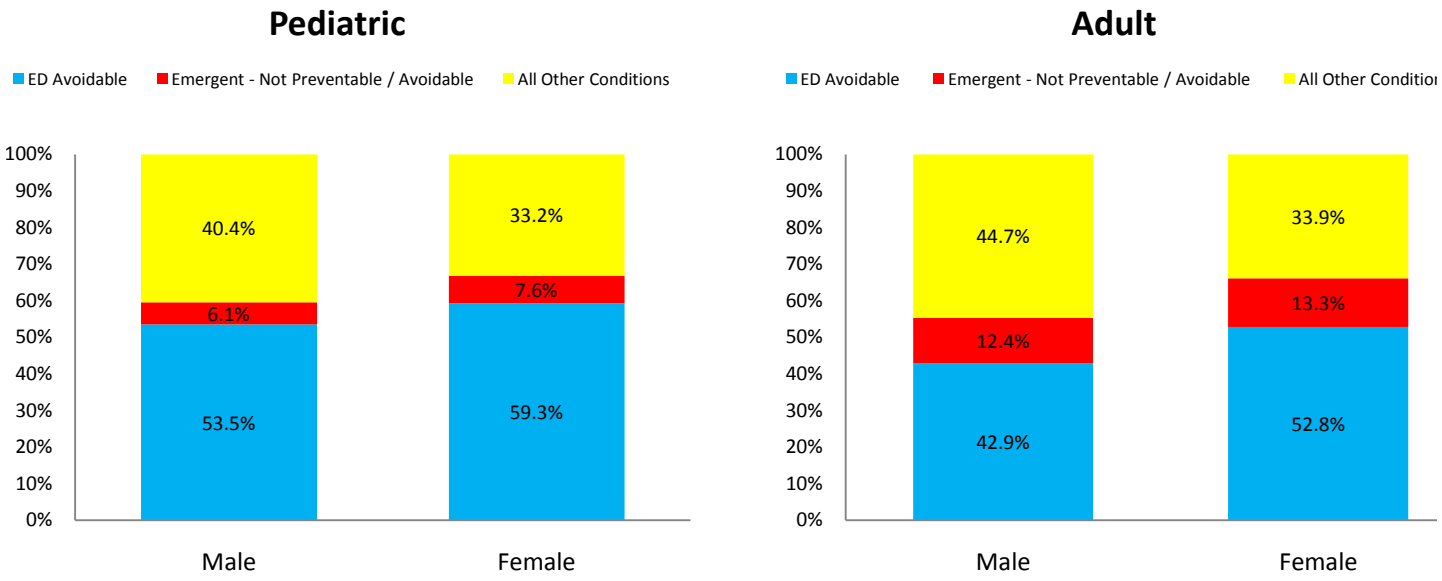
Table 17: Emergency Department Visits by Race and ED Visit Category

	Pediatric				Adult			
Race / Ethnicity	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	229,160	24,716	122,066	375,942	520,536	114,201	306,345	941,082
Hispanic	188,072	22,899	95,238	306,209	249,074	68,733	173,326	491,133
White	310,801	40,324	261,974	613,099	1,186,536	333,051	1,061,445	2,581,032
Other	57,493	6,835	37,511	101,839	100,231	29,793	76,372	206,396
Unknown	5,100	684	3,492	9,276	10,644	3,212	9,504	23,360
All ED Visi	790,625	95,459	520,281	1,406,365	2,067,022	548,989	1,626,992	4,243,003
Percentage of ED Visits by Emergency Status and Race/Ethnicity								
Black	61.0%	6.6%	32.5%	100.0%	55.3%	12.1%	32.6%	100.0%
Hispanic	61.4%	7.5%	31.1%	100.0%	50.7%	14.0%	35.3%	100.0%
White	50.7%	6.6%	42.7%	100.0%	46.0%	12.9%	41.1%	100.0%
Other	56.5%	6.7%	36.8%	100.0%	48.6%	14.4%	37.0%	100.0%
Unknown	55.0%	7.4%	37.6%	100.0%	45.6%	13.7%	40.7%	100.0%
All ED Visi	56.2%	6.8%	37.0%	100.0%	48.7%	12.9%	38.3%	100.0%
ED Visits by Emergency Status and Race/Ethnicity per 1000 populations								
Black	261	28	139	429	254	56	149	459
Hispanic	174	21	88	284	84	23	59	166
White	149	19	126	294	128	36	114	278
Other	399	47	260	706	297	88	227	613
All ED Visi	189	23	124	336	141	38	111	290
Average Charge for ED Visits by Emergency Status and Race/Ethnicity								
Black	$1,158	$1,255	$1,281	$1,204	$2,606	$2,692	$2,610	$2,618
Hispanic	$1,168	$1,263	$1,290	$1,213	$3,287	$3,391	$3,247	$3,287
White	$1,306	$1,463	$1,480	$1,391	$2,895	$3,072	$2,957	$2,943
Other	$1,686	$1,849	$1,866	$1,763	$4,225	$4,351	$4,147	$4,214
Unknown	$1,183	$1,253	$1,323	$1,241	$2,699	$2,837	$2,757	$2,742
All ED Visi	$1,257	$1,387	$1,425	$1,328	$2,933	$3,101	$2,977	$2,971

Source: AHCA 2008 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 2008. 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



Source: AHCA 2008 ED Data.

Table 18 shows ED visits by category and gender in 2008. The rate for ED Avoidable visits per 1000 population was nearly equal for boys (187) and girls (192), whereas, the rate for women (175) was nearly 66.7 percent higher than the rate for men (105). The ED Avoidable population rate for boys was 78.1 percent higher than the rate for men while the rate for girls was only 9.7 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.

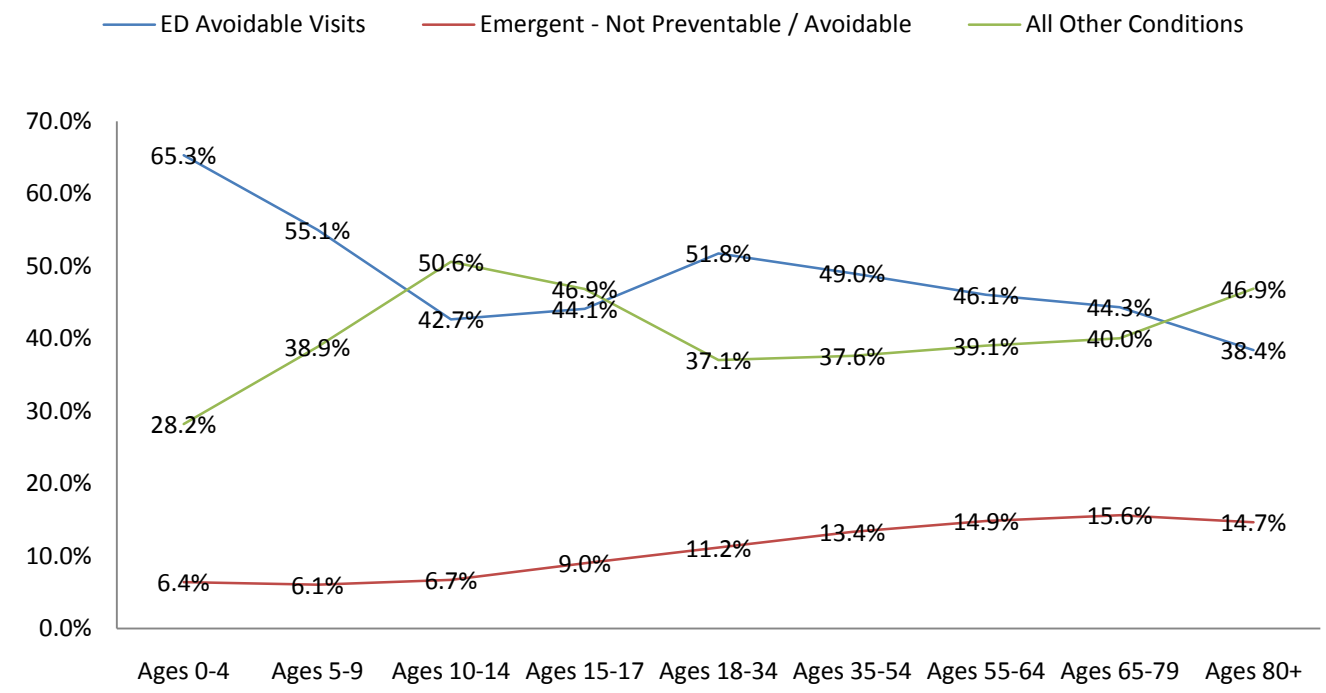
Table 18: Emergency Department Visits by Gender and ED Visit Category

	Pediatric				Adult			
Gender	**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	398,375	45,228	300,829	744,432	747,029	215,508	779,168	1,741,705
Female	392,251	50,230	219,452	661,933	1,319,992	333,482	847,824	2,501,298
All ED Visits	790,625	95,459	520,281	1,406,365	2,067,022	548,989	1,626,992	4,243,003
Percentage of ED Visits by Emergency Status and Gender								
Male	53.5%	6.1%	40.4%	100.0%	42.9%	12.4%	44.7%	100.0%
Female	59.3%	7.6%	33.2%	100.0%	52.8%	13.3%	33.9%	100.0%
All ED Visits	56.2%	6.8%	37.0%	100.0%	48.7%	12.9%	38.3%	100.0%
ED Visits by Emergency Status and Gender per 1000 populations								
Male	187	21	141	349	105	30	110	246
Female	192	25	107	323	175	44	112	331
All ED Visits	189	23	124	336	141	38	111	290
Average Charge for ED Visits by Emergency Status and Gender								
Male	$1,216	$1,295	$1,414	$1,301	$2,917	$3,122	$2,896	$2,933
Female	$1,299	$1,471	$1,440	$1,359	$2,942	$3,087	$3,052	$2,998
All ED Visits	$1,257	$1,387	$1,425	$1,328	$2,933	$3,101	$2,977	$2,971

Source: AHCA 2008 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 2008. 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 2008 ED Data.

Table 19 shows ED visits by category and age in 2008. ED Avoidable utilization rates decreased with age 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.

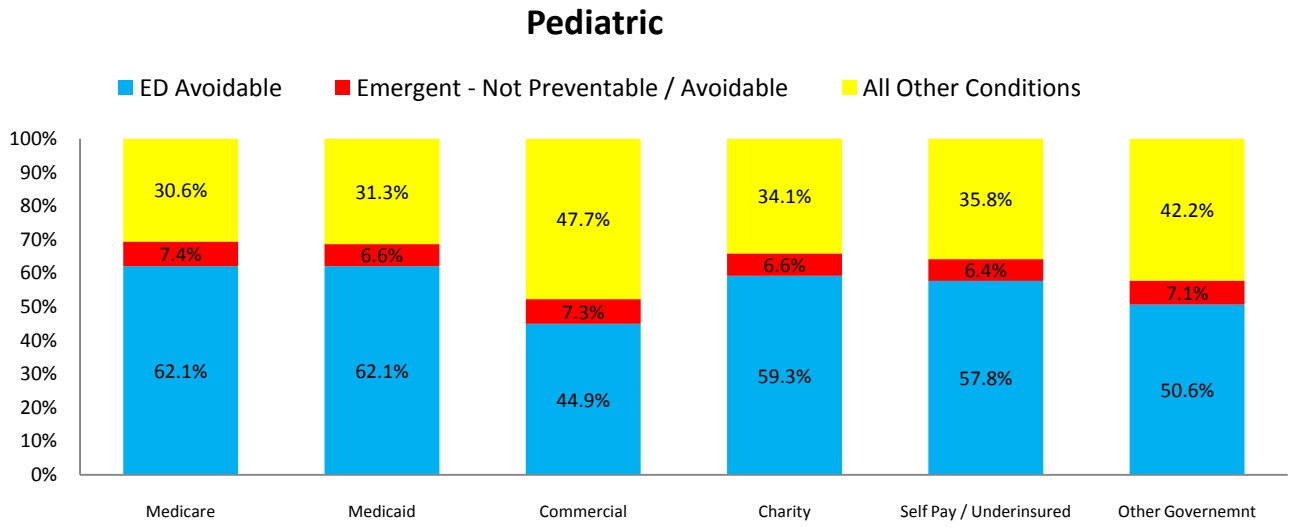
Table 19: Emergency Department Visits by Age and ED Visit Category

Age	ED Avoidable Visits	Emergent - Not Preventable / Avoidable	All Other Conditions	Total ED Visits
ED Visits by Emergency Status and Age				
Ages 0-4	441,002	43,318	190,586	674,906
Ages 5-9	152,904	16,849	107,987	277,740
Ages 10-14	103,441	16,248	122,654	242,343
Ages 15-17	93,278	19,044	99,054	211,376
Ages 18-34	875,330	188,936	626,861	1,691,127
Ages 35-54	716,138	195,153	549,535	1,460,827
Ages 55-64	189,392	61,061	160,532	410,985
Ages 65-79	186,597	65,832	168,548	420,977
Ages 80+	99,563	38,008	121,516	259,087
All ED Visits	2,857,647	644,448	2,147,273	5,649,368
Percentage of ED Visits by Emergency Status and Age				
Ages 0-4	65.3%	6.4%	28.2%	100.0%
Ages 5-9	55.1%	6.1%	38.9%	100.0%
Ages 10-14	42.7%	6.7%	50.6%	100.0%
Ages 15-17	44.1%	9.0%	46.9%	100.0%
Ages 18-34	51.8%	11.2%	37.1%	100.0%
Ages 35-54	49.0%	13.4%	37.6%	100.0%
Ages 55-64	46.1%	14.9%	39.1%	100.0%
Ages 65-79	44.3%	15.6%	40.0%	100.0%
Ages 80+	38.4%	14.7%	46.9%	100.0%
All ED Visits	50.6%	11.4%	38.0%	100.0%
ED Visits by Emergency Status and Age per 1000 populations				
Ages 0-4	388	38	168	593
Ages 5-9	134	15	94	243
Ages 10-14	89	14	105	208
Ages 15-17	127	26	135	289
Ages 18-34	220	48	158	426
Ages 35-54	139	38	107	283
Ages 55-64	85	27	72	184
Ages 65-79	83	29	75	188
Ages 80+	97	37	119	253
All ED Visits	152	34	114	300
Average Charge for ED Visits by Emergency Status and Age				
Ages 0-4	$1,026	$1,037	$1,050	$1,034
Ages 5-9	$1,213	$1,237	$1,261	$1,233
Ages 10-14	$1,585	$1,626	$1,632	$1,611
Ages 15-17	$2,059	$2,113	$2,071	$2,070
Ages 18-34	$2,362	$2,419	$2,355	$2,366
Ages 35-54	$3,052	$3,143	$3,020	$3,052
Ages 55-64	$3,544	$3,608	$3,530	$3,548
Ages 65-79	$3,906	$3,891	$3,849	$3,881
Ages 80+	$4,105	$4,094	$4,050	$4,078
All ED Visits	$2,469	$2,847	$2,601	$2,562

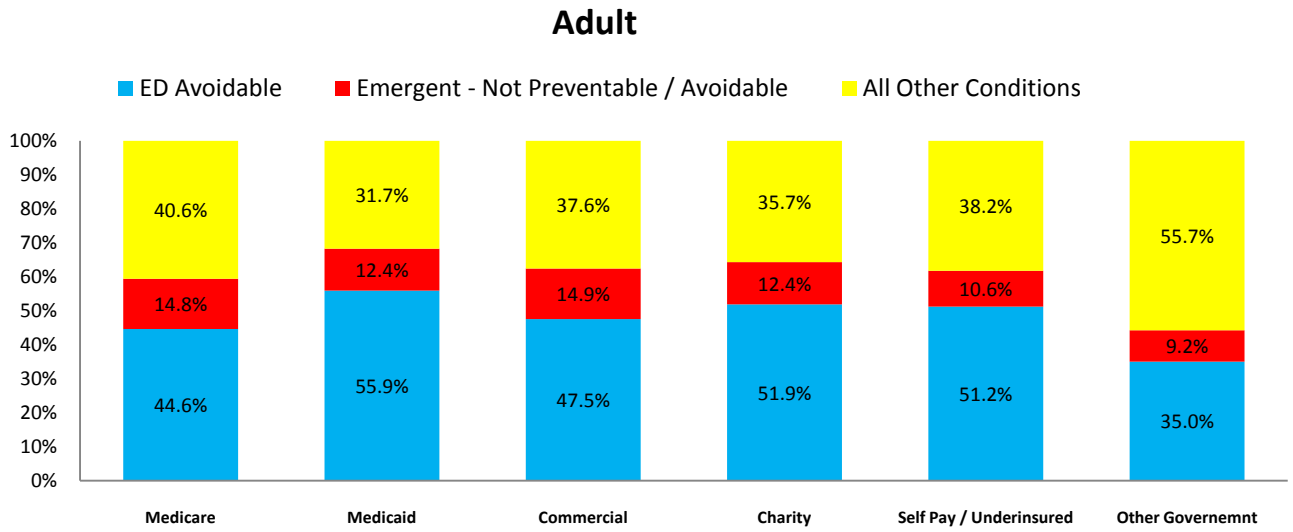
Source: AHCA 2008 ED Data.

Figure 10 shows the percentage of ED visits by emergency status for payer groups in 2008. The graph shows that ED Avoidable utilization rates were highest for Medicaid.

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



Source: AHCA 2008 ED Data.



Source: AHCA 2008 ED Data.

Table 20 shows ED visits by category and payer in 2008. ED Avoidable utilization is highest for Medicaid, charity, and self-pay/underinsured patients

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

	Pediatric				Adult			
Payer	**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	3,150	373	1,552	5,075	371,085	123,166	337,684	831,935
Medicaid	448,989	47,549	226,573	723,111	351,436	77,754	199,168	628,358
Commercial	172,253	28,098	183,011	383,362	592,756	185,418	468,896	1,247,070
Charity	12,830	1,439	7,375	21,644	91,363	21,831	62,896	176,090
Self Pay / Underinsured	122,333	13,622	75,871	211,826	583,066	120,474	435,332	1,138,872
Other Governemnt	31,070	4,378	25,899	61,347	77,316	20,346	123,015	220,677
All ED Visits	790,625	95,459	520,281	1,406,365	2,067,022	548,989	1,626,992	4,243,003
Percentage of ED Visits by Emergency Status and Payer								
Medicare	62.1%	7.4%	30.6%	100.0%	44.6%	14.8%	40.6%	100.0%
Medicaid	62.1%	6.6%	31.3%	100.0%	55.9%	12.4%	31.7%	100.0%
Commercial	44.9%	7.3%	47.7%	100.0%	47.5%	14.9%	37.6%	100.0%
Charity	59.3%	6.6%	34.1%	100.0%	51.9%	12.4%	35.7%	100.0%
Self Pay / Underinsured	57.8%	6.4%	35.8%	100.0%	51.2%	10.6%	38.2%	100.0%
Other Governemnt	50.6%	7.1%	42.2%	100.0%	35.0%	9.2%	55.7%	100.0%
All ED Visits	56.2%	6.8%	37.0%	100.0%	48.7%	12.9%	38.3%	100.0%
Total ED Charges by Emergency Status and Payer (in millions)								
Medicare	$4	$0	$2	$6	$1,374	$463	$1,262	$3,099
Medicaid	$520	$59	$284	$863	$897	$204	$511	$1,611
Commercial	$264	$47	$306	$617	$1,958	$627	$1,551	$4,137
Charity	$16	$2	$10	$28	$250	$61	$171	$482
Self Pay / Underinsured	$145	$18	$98	$261	$1,386	$294	$1,036	$2,716
Other Governemnt	$45	$7	$41	$93	$198	$53	$312	$563
All ED Visits	$994	$132	$742	$1,868	$6,062	$1,702	$4,844	$12,608
Percentage of ED Charges by Emergency Status and Payer								
Medicare	59.5%	7.5%	33.1%	100.0%	44.3%	14.9%	40.7%	100.0%
Medicaid	60.3%	6.8%	33.0%	100.0%	55.6%	12.7%	31.7%	100.0%
Commercial	42.8%	7.6%	49.6%	100.0%	47.3%	15.2%	37.5%	100.0%
Charity	57.0%	7.1%	35.9%	100.0%	51.9%	12.6%	35.5%	100.0%
Self Pay / Underinsured	55.5%	6.8%	37.7%	100.0%	51.0%	10.8%	38.2%	100.0%
Other Governemnt	48.5%	7.4%	44.0%	100.0%	35.1%	9.4%	55.5%	100.0%
All ED Visits	53.2%	7.1%	39.7%	100.0%	48.1%	13.5%	38.4%	100.0%

Source: AHCA 2008 ED Data. Population statistics : The Florida Legislature, Office of Economic and Demographic Research.

Trends in Emergency Department Ambulatory Visits

Table 21 shows the trend in ED ambulatory visits by acuity level from 2005 to 2008. The number of low acuity visits declined each year with an overall reduction in low acuity visits of 21.7 percent from 2005 to 2008, while total ambulatory ED visits increased by 6.2 percent. Low acuity ED visits constituted nearly 50 percent of all ambulatory ED visits in 2005 but was reduced to just 33.9 percent of ED ambulatory visits in 2008. There was a 25 percent reduction in low acuity ambulatory ED visits per 1000 population between 2005 and 2008.

Table 21: ED Visits by Acuity Level, 2005-2008

ED Visits by Acuity Level	CY2005	CY2006	CY2007	CY2008
Low Acuity	2,471,142	2,444,083	2,206,871	1,934,525
High Acuity	2,900,740	3,062,819	3,366,455	3,767,974
All ED Visits	5,371,882	5,506,902	5,573,326	5,702,499
Percent of ED Visits by Acuity Level				
Low Acuity	46.0%	44.4%	39.6%	33.9%
High Acuity	54.0%	55.6%	60.4%	66.1%
All ED Visits	100.0%	100.0%	100.0%	100.0%
ED Visits Per 1000 Population by Acuity Level				
Low Acuity	137	133	118	103
High Acuity	161	166	180	200
Total	298	299	298	303

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

Source: AHCA 2008 ED data.

Table 22 shows the trend in charges for ED ambulatory visits by acuity level from 2005 to 2008. Low acuity ED visit charges increased by just 6 percent from 2005 to 2008. However, charges for all ambulatory ED visits increased by 78.5 percent and charges for high acuity visits doubled between 2005 and 2008. Low acuity ED charges constituted 24.3 percent of all ambulatory ED charges in 2005 but were reduced to 14.4 percent of ambulatory ED charges in 2008. Average charges for low acuity ambulatory ED visits increased by 35.4 percent between 2005 and 2008. Average charges for high acuity ambulatory ED visits increased by 55.3 percent during the same time period.

Table 22: ED Charges by Acuity Level, 2005-2008

ED Charges by Acuity Level	CY2005	CY2006	CY2007	CY2008
Low Acuity	$2,001,900,616	$2,330,836,091	$2,313,733,937	$2,122,457,538
High Acuity	$6,253,024,871	$7,579,069,652	$9,762,124,094	$12,613,480,756
All ED Visits	$8,254,925,487	$9,909,905,743	$12,075,858,031	$14,735,938,294
Percent of ED Charges by Acuity Level				
Low Acuity	24.3%	23.5%	19.2%	14.4%
High Acuity	75.7%	76.5%	80.8%	85.6%
All ED Visits	100.0%	100.0%	100.0%	100.0%
Mean ED Charge by Acuity Level				
Low Acuity	$810	$954	$1,048	$1,097
High Acuity	$2,156	$2,475	$2,900	$3,348
Total	$1,537	$1,800	$2,167	$2,584

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

Source: AHCA ED data.

Summary and Conclusions

An analysis of the data reveals that the majority of ED visits were from people who are non-Hispanic White, and between the ages of 18 and 54 years of age. Medicaid was 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.

Patients with chronic conditions that should be better managed in a physician's office made up a significant proportion of ED visits, 11 percent of ambulatory visits and 41 percent of visits that result in an inpatient hospitalization. This finding raises questions about access to appropriate primary care for patients with chronic conditions.

Over 56 percent of pediatric ambulatory ED visits and nearly 49 percent of adult ambulatory ED visits in 2008 were potentially avoidable through greater utilization of primary care services.

Recommendations

This report illustrates a continuing pattern of high utilization of emergency departments for the delivery of primary care services to Florida residents who are enrolled in Medicaid, uninsured or are underinsured. The following recommendations are related to further research that will aid policy makers in decision making.

- An analysis of emergency department data should be completed to identify areas of the state with disproportionate patterns of utilization for potentially avoidable medical conditions.

- A study of migration patterns in emergency department utilization should be completed to identify areas of the state lacking medical specialists that would benefit from an expansion of health information technology.

- An analysis of Medicaid frequent ED users should be completed looking at patterns in low acuity and potential avoidable visits.

References

1. Pitts SR, Niska RW, Xu J, Burt CW. National Hospital Ambulatory Medical Care Survey: 2006 Emergency Department Summary. National Health Statistics Reports; No 7. Hyattsville, MD: National Center for Health Statistics. 2008.

2. O'Malley, Gerland, Pham and Berenson (November 2006). Rising Pressure: Hospital Emergency Departments as Barometers of the Health Care System. Center for Studying Health System Change. Issue Brief, No. 101.

3. FHA Task Force on "Addressing the Crisis in Emergency Care" December 2006.

4. 2006 Annual Report to the Florida Legislature, Family Practice Physician Retention and Advisory Committee, October 2006.

5. DeNavas-Walt, Carmen, Bernadette D. Proctor, and Jessica Smith, U.S. Census Bureau, Current Population Reports, P60-235,*Income, Poverty, and Health Insurance Coverage in the United States: 2007*, U.S. Government Printing Office, Washington, DC, 2008.

6. American College of Emergency Physicians “National Report Card on the State of Emergency Medicine” 2006.

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;
- 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

***** Principal payer is the primary source of expected reimbursement to the hospital for service

Appendix D: Emergency Department Visits by Payer

	Pediatric				Adult			
Payer	**ED Visits**	**Percent**	**Mean Charge**	**Total Charges**	**ED Visits**	**Percent**	**Mean Charge**	**Total Charges**
Medicare	4,302	0.3%	$1,181	$5,079,105	684,303	15.3%	$3,554	$2,432,009,518
Medicare HMO	844	0.1%	$1,468	$1,239,035	199,291	4.4%	$4,104	$817,934,770
Medicaid	359,475	24.6%	$1,185	$425,801,228	403,606	9.0%	$2,527	$1,019,796,616
Medicaid HMO	370,921	25.4%	$1,202	$445,731,686	234,167	5.2%	$2,624	$614,407,165
Commercial HMO	72,548	5.0%	$1,618	$117,365,558	311,468	6.9%	$3,052	$950,699,426
Commercial Insurance	171,610	11.8%	$1,604	$275,340,338	496,951	11.1%	$3,448	$1,713,712,246
Commercial PPO	171,197	11.7%	$1,547	$264,844,441	531,429	11.9%	$3,221	$1,711,909,095
Workers Compensation	797	0.1%	$1,228	$978,370	91,787	2.0%	$1,743	$160,016,611
CHAMPUS/TRICARE	27,109	1.9%	$1,387	$37,604,137	61,139	1.4%	$2,823	$172,570,271
Veteran Administration	130	0.0%	$1,498	$194,792	11,985	0.3%	$3,688	$44,204,706
Other Government	10,210	0.7%	$1,783	$18,201,481	51,307	1.1%	$3,280	$168,307,003
Self Pay/Underinsured	222,613	15.2%	$1,226	$272,814,622	1,208,028	26.9%	$2,380	$2,875,661,975
Other	1,726	0.1%	$1,892	$3,265,972	10,124	0.2%	$3,314	$33,548,170
Charity	22,383	1.5%	$1,293	$28,936,136	185,238	4.1%	$2,748	$509,072,124
KidCare	24,040	1.6%	$1,473	$35,405,640	3,091	0.1%	$2,060	$6,367,806
Unknown Payer	.			.	1	0.0%	$170	$170
Total ED Visits	**1,459,905**	**100.0%**	**$1,324**	**$1,932,802,541**	**4,483,915**	**100.0%**	**$2,951**	**$13,230,217,672**
Payer (Inpatient Hospitalization)	**Inpatient**	**Percent**	**Mean Charge**	**Total Charges**	**Inpatient**	**Percent**	**Mean Charge**	**Total Charges**
Medicare	270	0.3%	$25,531	$6,893,489	565,320	41.3%	$39,335	$22,236,853,408
Medicare HMO	16	0.0%	$14,268	$228,294	176,328	12.9%	$40,241	$7,095,702,430
Medicaid	26,790	34.0%	$22,751	$609,501,135	100,322	7.3%	$38,354	$3,847,712,919
Medicaid HMO	16,208	20.6%	$17,201	$278,787,832	45,102	3.3%	$34,487	$1,555,450,324
Commercial HMO	3,579	4.5%	$28,084	$100,512,046	52,947	3.9%	$40,648	$2,152,170,878
Commercial Insurance	11,870	15.1%	$21,635	$256,809,728	115,979	8.5%	$34,577	$4,010,153,990
Commercial PPO	11,225	14.3%	$20,034	$224,878,933	117,200	8.6%	$35,053	$4,108,176,813
Workers Compensation	8	0.0%	$33,915	$271,319	4,903	0.4%	$44,824	$219,773,034
CHAMPUS/TRICARE	1,256	1.6%	$17,934	$22,524,552	10,676	0.8%	$32,818	$350,361,191
Veteran Administration	20	0.0%	$11,645	$232,892	7,924	0.6%	$37,278	$295,392,778
Other Government	628	0.8%	$19,683	$12,360,838	19,812	1.4%	$37,272	$738,434,071
Self Pay/Underinsured	4,800	6.1%	$16,679	$80,059,554	109,021	8.0%	$31,157	$3,396,722,537
Other	98	0.1%	$37,337	$3,658,997	3,431	0.3%	$34,460	$118,233,468
Charity	639	0.8%	$24,133	$15,421,300	40,246	2.9%	$32,815	$1,320,653,472
KidCare	1,283	1.6%	$24,111	$30,933,849	274	0.0%	$30,248	$8,287,877
Total Inpatient Hospitalizations	**78,690**	**100.0%**	**$20,880**	**$1,643,074,758**	**1,369,485**	**100.0%**	**$37,572**	**$51,454,079,190**

Source: AHCA 2008 ED data and Hospital inpatient Data

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

Patient Acuity Level

	Low Acuity				High Acuity							
Pediatric	**99281**		**99282**		**99283**		**99284**		**99285**		**Total**	
Payer	**ED Visits**	**Pct**	**ED Visits**	**Pct**	**ED Visits**	**Pct**	**ED Visits**	**Pct**	**ED Visits**	**Pct**	**ED Visits**	**Pct**
Medicare	826	0.4%	2,824	0.7%	1,109	0.2%	303	0.2%	59	0.1%	5,121	0.4%
Medicaid	104,115	50.1%	217,166	52.0%	272,918	50.1%	84,950	46.6%	24,665	46.4%	703,814	50.1%
Commercial Insurance	50,788	24.4%	109,840	26.3%	162,600	29.8%	61,324	33.6%	18,213	34.3%	402,765	28.6%
Charity	4,491	2.2%	5,020	1.2%	8,007	1.5%	2,830	1.6%	979	1.8%	21,327	1.5%
Self-Pay /Underinsured	39,771	19.1%	63,599	15.2%	77,018	14.1%	24,752	13.6%	6,872	12.9%	212,012	15.1%
Other Government	7,760	3.7%	18,931	4.5%	23,550	4.3%	8,189	4.5%	2,382	4.5%	60,812	4.3%
Total	**207,751**	**100.0%**	**417,380**	**100.0%**	**545,202**	**100.0%**	**182,348**	**100.0%**	**53,170**	**100.0%**	**1,405,851**	**100.0%**

	Low Acuity				High Acuity							
Adult	**99281**		**99282**		**99283**		**99284**		**99285**		**Total**	
Payer	**ED Visits**	**Pct**	**ED Visits**	**Pct**	**ED Visits**	**Pct**	**ED Visits**	**Pct**	**ED Visits**	**Pct**	**ED Visits**	**Pct**
Medicare	67,354	14.8%	139,054	16.3%	282,833	19.1%	242,767	22.5%	126,038	29.6%	858,046	20.0%
Medicaid	60,861	13.4%	125,977	14.8%	211,953	14.3%	152,772	14.1%	51,399	12.1%	602,962	14.0%
Commercial Insurance	123,404	27.1%	250,994	29.4%	455,249	30.7%	339,139	31.4%	124,485	29.2%	1,293,271	30.1%
Charity	19,907	4.4%	34,386	4.0%	58,659	4.0%	42,401	3.9%	20,644	4.8%	175,997	4.1%
Self-Pay /Underinsured	159,518	35.0%	253,091	29.6%	393,435	26.6%	254,095	23.5%	86,809	20.4%	1,146,948	26.7%
Other Government	24,344	5.3%	50,503	5.9%	79,438	5.4%	48,717	4.5%	16,421	3.9%	219,423	5.1%
Unknown	1	0.0%									1	0.0%
Total	**455,389**	**100.0%**	**854,005**	**100.0%**	**1,481,567**	**100.0%**	**1,079,891**	**100.0%**	**425,796**	**100.0%**	**4,296,648**	**100.0%**

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

Source: AHCA 2008 ED Data

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

	Low Acuity Visits			High Acuity Visits			Total		
Pediatric	**Visits**	**Mean**	**Sum**	**Visits**	**Mean**	**Sum**	**Visits**	**Mean**	**Sum**
Ages 0-4 years	330,669	$546	$180.7	348,216	$1,481	$515.8	678,885	$1,026	$696.5
Ages 5-9 years	128,244	$675	$86.6	150,038	$1,711	$256.6	278,282	$1,233	$343.2
Ages 10-14 years	94,759	$886	$83.9	145,320	$2,089	$303.5	240,079	$1,614	$387.4
Ages 15-17 years	71,459	$1,088	$77.8	137,146	$2,600	$356.5	208,605	$2,082	$434.3
Total	**625,131**	**$686**	**$429.0**	**780,720**	**$1,835**	**$1,432.5**	**1,405,851**	**$1,324**	**$1,861.5**

	Low Acuity Visits			High Acuity Visits			Total		
Adult	**Visits**	**Mean**	**Sum**	**Visits**	**Mean**	**Sum**	**Visits**	**Mean**	**Sum**
Ages 18-34 years	575,015	$1,158	$666.1	1,097,085	$3,064	$3,360.9	1,672,100	$2,408	$4,027.0
Ages 35-54 years	452,386	$1,301	$588.6	1,028,200	$3,857	$3,966.2	1,480,586	$3,076	$4,554.8
Ages 55-64 years	117,644	$1,417	$166.7	312,500	$4,314	$1,348.0	430,144	$3,521	$1,514.7
Ages 65-79 years	110,295	$1,593	$175.7	337,399	$4,533	$1,529.4	447,694	$3,809	$1,705.1
Ages 80+ years	54,054	$1,784	$96.4	212,070	$4,604	$976.4	266,124	$4,031	$1,072.8
Total	**1,309,394**	**$1,293**	**$1,693.5**	**2,987,254**	**$3,743**	**$11,181.0**	**4,296,648**	**$2,996**	**$12,874.4**

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 2008 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	3,650	$729	$2.7	1,471	$2,445	$3.6	5,121	$1,222	$6.3
Medicaid	321,281	$611	$196.4	382,533	$1,682	$643.6	703,814	$1,193	$840.0
Commercial Insurance	160,628	$834	$133.9	242,137	$2,068	$500.8	402,765	$1,576	$634.8
Charity	9,511	$677	$6.4	11,816	$1,833	$21.7	21,327	$1,317	$28.1
Self Pay/Underinsured	103,370	$648	$67.0	108,642	$1,786	$194.0	212,012	$1,231	$261.0
Other Governemnt	26,691	$845	$22.6	34,121	$2,017	$68.8	60,812	$1,503	$91.4
Total	**625,131**	**$686**	**$429.0**	**780,720**	**$1,835**	**$1,432.5**	**1,405,851**	**$1,324**	**$1,861.5**

Adult Payer Group	Low Acuity Visits			High Acuity Visits			Total		
	Visits	Mean	Sum	Visits	Mean	Sum	Visits	Mean	Sum
Medicare	206,408	$1,540	$317.9	651,638	$4,381	$2,855.0	858,046	$3,698	$3,172.9
Medicaid	186,838	$1,149	$214.6	416,124	$3,277	$1,363.8	602,962	$2,618	$1,578.5
Commercial Insurance	374,398	$1,518	$568.2	918,873	$4,028	$3,700.9	1,293,271	$3,301	$4,269.1
Charity	54,293	$1,141	$61.9	121,704	$3,594	$437.4	175,997	$2,837	$499.3
Self Pay/Underinsured	412,609	$1,080	$445.6	734,339	$3,190	$2,342.6	1,146,948	$2,431	$2,788.2
Other Governemnt	74,847	$1,139	$85.2	144,576	$3,329	$481.3	219,423	$0	$0.0
Unknown Payer	1	$170	$0.0				1	$170	$0.0
Total	**1,309,394**	**$1,293**	**$1,693.5**	**2,987,254**	**$3,743**	**$11,181.0**	**4,296,648**	**$2,865**	**$12,307.9**

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

Source: AHCA 2008 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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