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CHARACTERISTICS AND TRENDS OF EMERGENCY DEPARTMENT VISITS IN THE UNITED STATES (2010–2014)

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☐ **Abstract—Background: It is important that policy makers, health administrators, and emergency physicians have up-to-date statistics on the most common diagnoses of patients seen in the emergency department (ED). Objectives: We sought to describe the changes that occurred in ED visits from 2010 through 2014 and to describe the frequency of different ED diagnoses. Methods: This is a retrospective analysis of ED visit data from the National Emergency Department Sample from 2010 through 2014. Visits were stratified by age, sex, insurance status, disposition, diagnosis, and diagnostic category. We calculated the total annual ED visits and the ED visit rates by diagnoses and diagnostic categories. Results: Between 2010 and 2014, the number of U.S. ED visits increased from 128.9 million to 137.8 million. The rate of ED Visits per 1000 persons increased from 416.92 (95% confidence interval [CI] 399.47–434.37) in 2010 to 432.51 (95% CI 411.51–453.61) in 2014 (p = 0.0136). ED visits grew twice as quickly (1.7%) as the overall population (0.7%). The most common reason for an ED visit was abdominal pain (11.75% [95% CI 11.61–11.89]). This was followed by mental health problems (4.45% [95% CI 4.19–4.72]). Conclusion: The number of ED visits in the United States continues to increase faster than the rate of population growth. Abdominal problems and mental health issues, including substance abuse, were the most common reasons for an ED visit in 2014.** © **2018 Elsevier Inc. All rights reserved.**

☐ **Keywords—abdominal pain; emergency department; Medicaid; mental health**

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INTRODUCTION

Emergency departments (EDs) serve as an important source of care for many patients in the United States (US). Patients can seek care at any ED, regardless of their ability to pay, and this care is available 24 hours a day (1). In addition, because of the growth of emergency medicine as a physician specialty, patients see the ED as a source of high-quality care (2).

There are a number of national databases that have been used to estimate the total number of ED visits in the US (3). There are two datasets that are based on a representative sample of ED visits and include discharge diagnosis: the Nationwide Emergency Department Sample (NEDS) and the National Hospital Ambulatory Medical Care Survey. Previous authors have published estimates of most common types of ED visits (3,4). However, these estimates fail to group many clinically similar diagnoses into one category. For example, mental health and substance abuse have >100 separate diagnoses, which results in underestimation of the relative importance of mental health.

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The Agency for Healthcare Research and Quality (AHRQ) has attempted to combine clinically similar diagnoses into a smaller number of clinically meaningful categories using the Clinical Classification Software (CCS), which has 263 unique categories of diagnosis (5). However, many clinically similar categories are still separate in this system. For example, mental health still has 12 separate categories in the CCS.

The objectives of this study were to: 1) describe the changes that occurred in ED visits between 2010 and 2014; 2) describe the most common diagnoses and diagnostic categories; and 3) to combine clinically similar categories using a new classification system with fewer categories.

MATERIALS AND METHODS

We performed a population-based descriptive study using retrospective data from the NEDS datasets for 2010 to 2014. The AHRQ developed the Healthcare Cost and Utilization Project (HCUP) publicly available datasets for research into the US health care system (6). In 2014, the NEDS dataset contained approximately 31 million patient visits per year from 950 non-federal community hospitals across 35 states (7).

The NEDS dataset design includes visit-level data sampled from the HCUP State Emergency Department Databases and State Inpatient Databases. The State Emergency Department Databases capture visit information on those visits that do not result in an inpatient admission. The State Inpatient Databases contain visit information of those patients initially seen in the ED and then admitted to the hospital. Weights were provided for each year to generate nationally representative estimates of ED visits.

The NEDS datasets contained primary and secondary (≤14) *International Classification of Diseases, 9th Revision* (ICD-9) codes for each visit. Because of the vast number of ICD-9 diagnosis codes (>14,000), the AHRQ developed the CCS to summarize the diagnoses into 263 mutually exclusive categories based on clinical similarity. The CCS system allows researchers to conduct disease-specific studies and to develop an understanding of the distribution of patient visits across similar clinical categories (5).

Many of the CCS categories were similar as far as resource planning and utilization. Therefore, we condensed the CCS categories that were similar as far as ED evaluation and resource utilization into 144 mutually exclusive categories (CCS roll up [CCS-RU]). Appendix Table 1 contains the crosswalk between the CCS and the CCS-RU.

According to AHRQ recommendations, we used survey analysis techniques to account for clustering and stratification of visits for all continuous and categorical variables. The sampling weights provided by NEDS were used to create national estimates of the number of visits and trends between the years (8). We reported the actual number of visits, weighted percentage of visits, and the estimated ED visits per 1000 persons. To calculate the rate of ED visits per 1000 persons, we used US Census Bureau figures for the overall number of visits, diagnosis, disposition from ED, and visit mortality rate (9). We used US Census estimates for sex and age cohort populations to calculate ED visits per 1000 persons, and used American Community Survey and Centers for Medicare and Medicaid Services enrollment estimates for insurance enrollment to calculate ED visits per 1000 persons for primary insurance (9,10).

To estimate the trend over time, we calculated the compound annual growth rate (CAGR) of the number of ED visits per 1000 persons using the following formula:

$$\text{CAGR} = \left(\frac{\text{Ending Value}}{\text{Beginning Value}}\right)^{\frac{1}{\#\text{ of years}}} - 1$$

We tested the trend over time of the rate of ED visits using weighted linear regression models for all years (11,12). Results were reported using 95% confidence intervals (CIs) and p values because, for some trend data, the CIs overlap but the trend is still significant. For clarity, only results between 2010 and 2014 are shown. The data for 2015 were available at the time of the analysis, but there were both ICD-9 and ICD-10 diagnoses reported, and the CCS for 2015 was not available. Therefore, 2015 data were not included. Estimates with $p < 0.05$ were considered statistically significant. All analyses were conducted using SPSS software (version 24.0; IBM Corp., Armonk, NY).

RESULTS

Between 2010 and 2014, the total number of US ED visits increased from an estimated 128.9 million (95% CI 123.6–134.4 million) to an estimated 137.8 million (95% CI 131.1–144.5 million), a CAGR of 1.67% (p = 0.0024). This was more than double the growth than would have been expected from the increase in the US population during the same time (309.3 million persons in 2010 to 318.6 million persons in 2014, a CAGR of 0.74%). The cumulative growth in ED visits was 6.70% compared with 2.97% between 2010 and 2014 (Figure 1). The US rate of ED visits per 1000 persons increased from 416.92 (95% CI 399.47–434.37) in 2010 to 432.51 (95% CI 411.51–453.61; p = 0.0136).

A complete census of ED visits by CCS and CCS-RU categories is described in Appendix Tables 2 and 3,

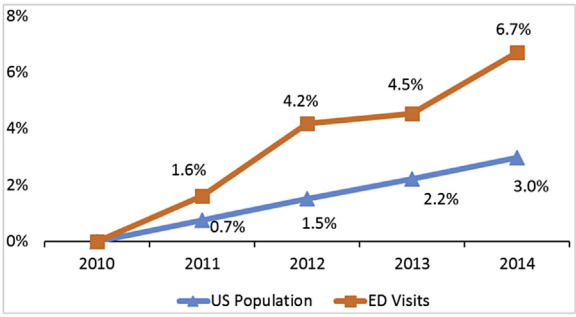

Figure 1. Cumulative growth rate of United States (US) population and emergency department (ED) visits, 2010–2014.

respectively. When examining the rate (per 1000 persons) of ED visits by CCS, the top five reasons for visits in 2014 were abdominal pain (18.7), other upper respiratory infections (18.2), sprains and strains (18.1), superficial injury (17.3), and nonspecific chest pain (14.8). When we rolled up the CCS to the CCS-RU based on ED evaluation and resource utilization, the top five reasons for visits in 2014 were abdominal problems (50.8), mental health and substance abuse (19.2), upper respiratory infections and pharyngitis (18.2), sprains and strains (18.1), and chest pain, myocardial infarction, and heart disease (17.8).

Table 1 details the patient characteristics of visits in 2010 and 2014. Female patients were responsible for most visits in 2010 and 2014. The proportion remained stable at 55% and the rate increased from 455.1 to 472.3 (p = 0.0098). ED visits grew the greatest in the 45 to 64 years of age group (p = 0.0060; Table 1). The percentage of Medicaid patients increased considerably from 25.3% (95% CI 24.4–26.2%) in 2010 to 32.1% (95% CI 31.6–32.5%) in 2014 ($p < 0.0001$); however, there was no statistically significant increase in the rate of ED visits per 1000 enrollees. ED visits with private insurance declined 2.7% from 240.37 (95% CI 227.4–253.40) in 2010 to 215.23 (95% CI 202.8–227.7) in 2014 (p = 0.0125). There was slight increase in the percentage of discharges from 2010 (80.4 [95% CI 79.8–80.9]) to 2014 (81.2 [95% CI 80.7–81.7]; p = 0.0137).

For brevity, we focused on the top 20 most common CCS-RU reasons for an ED visit (Table 2). The most common reason per CCS-RU for an ED visit was abdominal problems. This reason held for each of the five years examined. The rate of visits increased from 47.5 (95% CI 45.5–49.6) to 50.8 (95% CI 48.2–53.5), resulting in a CAGR of 1.7% (p = 0.0011) between 2010 and 2014. The CAGR for mental health and substance abuse visits increased the fastest at 4.2% (p = 0.0074). Superficial injury, open wounds of extremities, and open wounds of the head, neck, and trunk saw significant declines the CAGR of ED visits of −2.5% (p = 0.0034), −2.8% (p = 0.0081), and −3.5% (p = 0.0020), respectively. In 2010, visits for mental health and substance abuse comprised 3.9% (95% CI 3.7–4.1%), growing to 4.4% (95% CI 4.2–4.7%) in 2014 (p = 0.0074). Mental health and substance abuse visits therefore represented the second most common reason for an ED visit.

Mental health and substance abuse visits were broken down into their corresponding CCS categories (Table 3). The most common reason for a mental health and substance abuse ED visit in 2014 was alcohol-related disorders, with a rate of 4.58 per 1000 persons (95% CI 4.6–5.0). Suicide and intentional self-inflicted injury represent the quickest growing reasons for a mental health visit between 2010 and 2014. The CAGR for this category was 15.9% (p = 0.0074), and the rate of visits increased from 0.39 (95% CI 0.35–0.44) to 0.71 (95% CI 0.63–0.79). Substance-related disorders, including opioid use disorder, increased from 1.8 (95% CI 1.7–1.97) to 2.2 (95% CI 2.0–2.4) visits per 1000 persons between 2010 and 2014. The CAGR was 4.7% (p = 0.0126).

DISCUSSION

During the study period, ED visits increased at a CAGR of 1.7%, which was faster than population growth (0.7%). The rate of ED visits grew from 416.92 to 432.51 per 1000 persons. During the same period, the total number of EDs in the United States decreased by 3.4%, from 4,564 to 4,408 EDs (13). Medicaid patients accounted for the largest portion of the increased ED visits. Because of the expansion of Medicaid from the Affordable Care Act, the percent of patients visiting EDs with Medicaid coverage increased significantly from 25.3% to 32.1%. The rate of ED visits per 1000 Medicaid enrollees did not increase significantly.

Previous authors have identified several factors that may cause patients to seek care in the ED. These factors include perceived severity, access to and confidence in primary care, anxiety, convenience, and value of reassurance from emergency-based services (2,14). While there has long been a concern about inappropriate use of the ED for "nonemergency" conditions, research has shown that a significant number of visits that would be classified as nonemergency based on the presenting complaint are actually urgent and as many as 12% require admission (15).

The current study used a more clinically relevant system of grouping diagnoses by similar resource utilization and diagnostic approach. Patients with definitive diagnoses were combined with patients with nonspecific diagnoses from the same body system. For example, under the CCS system, nonspecific abdominal pain was a separate category from appendicitis, which was separate from gastritis. By combining all these causes of abdominal pain that require similar diagnostic effort and staffing,

Table 1. Patient Characteristics of Emergency Department Visits, 2010–2014

Patient Characteristic	Unweighted No. of Visits, Millions		Weighted Estimate of Total Annual Visits, % (95% CI)		Estimated ED Visits per 1000 Population (95% CI)		CAGR, %	*p* Value for Trend (Visits per 1000)
	2010	2014	2010	2014	2010	2014		
Total	28.58	31.03			416.92 (399.47–434.37)	432.51 (411.41–453.60)	1.67	0.0136
Sex*								
Male	12.71	13.76	44.61 (44.37–44.85)	44.50 (44.20–44.80)	379.01 (363.75–394.27)	390.69 (372.09–409.28)	0.8	0.0402
Female	15.87	17.26	55.39 (55.15–55.63)	55.50 (55.20–55.80)	455.09 (435.25–474.92)	472.25 (448.45–496.04)	0.9	0.0098
Age (years)*								
<5	2.56	2.53	8.87 (8.14–9.61)	8.20 (7.47–8.94)	566.72 (519.73–613.72)	568.64 (517.80–619.48)	0.1	0.8763
5–17	3.14	3.36	10.91 (10.25–11.57)	10.86 (10.11–11.62)	260.86 (245.01–276.71)	278.72 (259.34–298.10)	1.7	0.2654
18–44	11.59	12.20	40.56 (39.83–41.30)	39.36 (38.59–40.14)	462.97 (440.97–484.97)	469.58 (443.39–495.76)	0.4	0.3992
45–64	6.42	7.30	22.55 (22.14–22.97)	23.51 (23.02–24.02)	355.67 (340.73–370.61)	387.90 (367.61–408.19)	2.2	0.0060
≥65	4.87	5.63	17.11 (16.55–17.69)	18.06 (17.49–18.66)	545.07 (519.38–570.76)	538.33 (510.54–566.11)	−0.3	0.4340
Primary insurance†								
Medicare	5.96	7.01	20.96 (20.40–21.52)	22.65 (22.65–22.65)	564.91 (540.15–589.68)	576.87 (548.71–605.03)	0.5	0.3978
Medicaid	7.27	9.91	25.27 (24.40–26.16)	32.06 (31.62–32.47)	594.50 (560.17–628.83)	615.12 (576.94–653.30)	0.9	0.7317
Private	8.77	8.40	31.27 (30.30–32.26)	27.17 (26.92–27.40)	240.37 (227.35–253.39)	215.23 (202.80–227.66)	−2.7	0.0125
Other‡	6.45	5.66	22.50 (21.19–24.01)	18.12 (17.23–18.93)	594.80 (548.27–641.33)	679.63 (614.31–744.96)	3.4	0.0239
Disposition from ED§								
Routine	22.98	25.18	80.36 (79.81–80.90)	81.20 (80.68–81.68)	335.05 (320.48–349.62)	351.15 (334.25–368.05)	1.2	0.0137
Transfer to short–term hospitals	0.41	0.45	1.51 (1.40–1.63)	1.49 (1.38–1.60)	6.28 (5.82–6.74)	6.44 (6.02–6.85)	0.6	0.6893
Admitted to same hospital	4.39	4.39	15.30 (14.87–15.74)	14.10 (13.66–14.55)	63.79 (60.67–66.91)	61.00 (57.10–64.89)	−1.1	0.0601
Left against medical advice	0.38	0.48	1.28 (1.17–1.39)	1.50 (1.37–1.65)	5.33 (4.86–5.81)	6.50 (5.72–7.28)	5.1	0.3254
Other	0.42	0.53	1.55 (1.25–2.71)	1.72 (1.55–1.93)	6.47 (4.72–8.22)	7.43 (6.54–8.32)	3.5	0.0972
Visit mortality§								
Died during visit	0.16	0.16	0.56 (0.55–0.59)	0.51 (0.48–0.53)	2.35 (2.23–2.48)	2.18 (2.04–2.32)	−1.8	0.4428

CAGR = compound annual growth rate; CI = confidence interval; ED = emergency department.
* Visit rates reflect estimated ED visits per 1000 persons per group (data from the U.S. Census Bureau).
† Visit rates reflect estimated ED visits per 1000 enrollees (data from the Center for Medicare and Medicaid Services and the U.S. Census Bureau American Community Survey for the "private" and "other" categories).
‡ Other includes uninsured, other, and missing.
§ Visit rates reflect estimated ED visits per 1000 persons (data from the U.S. Census Bureau).

Table 2. Top 20 Visit Diagnoses by Clinical Classification Software Roll-Up Diagnosis, 2010–2014

Visit Diagnosis*	Unweighted No. of Visits, Millions		Weighted Estimate of Total Annual Visits, % (95% CI)		Estimated ED Visits per 1000 Persons (95% CI)		CAGR, %	*p* Value for Trend†
	2010	2014	2010	2014	2010	2014		
Abdominal problems (abdominal pain, nausea, or vomiting, and surgical diagnoses, and other)	3.27	3.66	11.40 (11.27–11.53)	11.75 (11.61–11.89)	47.52 (45.48–49.55)	50.80 (48.14–53.46)	1.7	0.0011
Mental health and substance abuse	1.11	1.36	3.92 (3.72–4.13)	4.45 (4.19–4.72)	16.33 (15.32–17.34)	19.23 (17.86–20.60)	4.2	0.0074
Upper respiratory infections and pharyngitis	1.24	1.31	4.29 (4.13–4.45)	4.21 (4.07–4.36)	17.88 (16.8–18.95)	18.21 (17.07–19.34)	0.5	0.6291
Sprains and strains	1.38	1.30	4.82 (4.66–4.98)	4.18 (4.05–4.31)	20.08 (18.98–21.17)	18.06 (17.09–19.03)	−2.6	0.0118
Chest pain, myocardial infarction, and heart disease	1.20	1.28	4.17 (4.07–4.28)	4.11 (4.00–4.22)	17.39 (16.52–18.26)	17.78 (16.7–18.87)	0.6	0.4071
Superficial injury, contusion	1.31	1.23	4.58 (4.49–4.68)	3.99 (3.90–4.07)	19.11 (18.29–19.92)	17.24 (16.48–18.01)	−2.5	0.0034
Spondylosis, intervertebral disc disorders, other back problems	0.82	0.94	2.86 (2.79–2.93)	3.02 (2.95–3.08)	11.92 (11.39–12.44)	13.05 (12.33–13.76)	2.3	0.0126
Pregnancy and related problems	0.74	0.87	2.55 (2.33–2.80)	2.77 (2.55–3.01)	10.63 (9.43–11.82)	11.97 (10.69–13.26)	3.0	0.1244
Urinary tract infections	0.70	0.79	2.42 (2.38–2.47)	2.51 (2.46–2.56)	10.09 (9.6–10.58)	10.84 (10.27–11.40)	1.8	0.0065
Skin and subcutaneous tissue infections	0.76	0.75	2.63 (2.58–2.69)	2.41 (2.37–2.44)	10.97 (10.42–11.52)	10.41 (9.87–10.95)	−1.3	0.0990
Other injuries and conditions due to external causes	0.68	0.73	2.38 (2.30–2.47)	2.35 (2.27–2.44)	9.92 (9.41–10.43)	10.17 (9.62–10.73)	0.6	0.8017
Headache, including migraine	0.69	0.71	2.41 (2.36–2.46)	2.30 (2.26–2.34)	10.03 (9.58–10.48)	9.96 (9.44–10.47)	−0.2	0.5653
Extremity fractures	0.70	0.70	2.46 (2.41–2.52)	2.26 (2.21–2.32)	10.26 (9.83–10.69)	9.79 (9.35–10.22)	−1.2	0.0065
Open wounds of extremities	0.69	0.65	2.46 (2.40–2.5)	2.11 (2.06–2.16)	10.24 (9.84–10.64)	9.12 (8.75–9.49)	−2.8	0.0081
Other connective tissue disease	0.46	0.54	1.62 (1.59–1.66)	1.75 (1.71–1.78)	6.77 (6.46–7.08)	7.55 (7.14–7.97)	2.8	0.0170
Other lower respiratory disease	0.44	0.53	1.56 (1.51–1.62)	1.73 (1.68–1.79)	6.50 (6.15–6.86)	7.48 (7.01–7.94)	3.5	0.0069
Arthritis and joint problems	0.41	0.51	1.45 (1.40–1.50)	1.67 (1.60–1.75)	6.03 (5.71–6.35)	7.23 (6.72–7.73)	4.6	0.0132
Open wounds of head, neck, and trunk	0.55	0.50	1.93 (1.89–1.97)	1.61 (1.58–1.65)	8.04 (7.69–8.39)	6.97 (6.67–7.28)	−3.5	0.0020
Disorders of teeth and jaw	0.43	0.46	1.52 (1.46–1.58)	1.51 (1.45–1.56)	6.33 (5.97–6.69)	6.52 (6.15–6.89)	0.7	0.5384
Chronic obstructive pulmonary disease and bronchiectasis	0.43	0.45	1.47 (1.42–1.52)	1.46 (1.41–1.51)	6.13 (5.82–6.44)	6.31 (5.97–6.65)	0.7	0.2968
Total number of visits	28.58	31.03			416.92 (399.47–434.37)	432.51 (411.41–453.60)	0.9	0.0136

CAGR = compound annual growth rate; CI = confidence interval; ED = emergency department.
* Top 20 diagnoses are for 2014.
† Test for trend from 2010–2014.

Table 3. Mental Health and Substance Abuse Breakdown by Clinical Classification Software Category, 2010–2014

	Unweighted No. of Visits, Thousands		Weighted Estimate of Total Annual Visits, % (95% CI)		Estimated ED Visits per 1000 Persons (95% CI)			
	2010	2014	2010	2014	2010	2014	CAGR, %	*p* Value for Trend*
Alcohol-related disorders	240.88	324.62	0.85 (0.79–0.92)	1.05 (0.97–1.14)	3.57 (3.29–3.85)	4.57 (4.17–4.97)	6.4	0.0198
Mood disorders	283.78	319.38	1.00 (0.92–1.09)	1.05 (0.96–1.14)	4.19 (3.83–4.56)	4.54 (4.11–4.97)	2.0	0.2622
Anxiety disorders	186.76	238.36	0.65 (0.63–0.67)	0.76 (0.73–0.79)	2.73 (2.60–2.86)	3.31 (3.13–3.48)	4.9	0.0037
Schizophrenia and other psychotic disorders	133.4	171.28	0.47 (0.42–0.52)	0.55 (0.48–0.63)	1.96 (1.75–2.17)	2.40 (2.07–2.73)	5.3	0.1132
Substance-related disorders	125.68	157.48	0.44 (0.41–0.47)	0.50 (0.47–0.55)	1.83 (1.69–1.97)	2.20 (2.01–2.39)	4.7	0.0126
Suicide and intentional self-inflicted injury	26.9	49.77	0.09 (0.08–0.10)	0.16 (0.14–0.18)	0.39 (0.34–0.43)	0.70 (0.62–0.78)	15.9	0.0074
Miscellaneous mental health disorders	32.75	36.39	0.11 (0.11–0.12)	0.11 (0.11–0.12)	0.48 (0.44–0.51)	0.50 (0.48–0.53)	1.4	0.1156
Adjustment disorders	25.15	29.15	0.09 (0.07–0.10)	0.09 (0.08–0.11)	0.38 (0.32–0.44)	0.42 (0.34–0.50)	2.5	0.1810
Screening and history of mental health and substance abuse codes	35.13	14.96	0.12 (0.10–0.14)	0.04 (0.04–0.05)	0.51 (0.43–0.58)	0.21 (0.18–0.24)	−19.9	0.2540
Developmental disorders	6.99	8.83	0.02 (0.02–0.02)	0.02 (0.02–0.03)	0.10 (0.09–0.11)	0.12 (0.11–0.14)	5.1	0.0183
Personality disorders	3.68	6.29	0.01 (0.01–0.01)	0.02 (0.01–0.02)	0.05 (0.04–0.06)	0.09 (0.07–0.10)	13.6	0.0349
Disorders usually diagnosed in infancy, childhood, or adolescence	2.75	4.64	0.00 (0.00–0.01)	0.01 (0.01–0.01)	0.04 (0.03–0.04)	0.06 (0.05–0.08)	13.8	0.0523
Impulse control disorders, NEC	3.63	3.17	0.01 (0.01–0.01)	0.01 (0.00–0.01)	0.05 (0.04–0.06)	0.04 (0.03–0.05)	−3.8	0.2635

CAGR = compound annual growth rate; CI = confidence interval; ED = emergency department; NEC = not elsewhere classified.
* Test for trend from 2010–2014.

the new system took 20 categories of abdominal diagnoses and combined them into a single category. Similarly, the new system combines 12 mental health and substance abuse diagnoses together into one category. By doing this, we were able to uncover more meaningful trends. Overall, the number of diagnostic categories was decreased from 263 to 144 categories using the CCS-RU.

The most common reasons for visiting the ED in 2014 were abdominal problems, mental health and substance abuse, upper respiratory infections and pharyngitis, sprains and strains, and chest pain. Mental health and substance abuse saw the greatest rate of growth of all of reasons for visiting the ED and became the second most common reason for visiting an ED in the United States during 2014.

Previous research has shown a steadily increasing rate of ED visits by patients with mental health issues since the 1990s, the majority of whom have Medicaid (16–18). Reasons for increasing use of ED by patients likely include 24-hour accessibility to care and treatment regardless of ability to pay and decreasing availability of mental health resources in the community (19). Since the 1990s, the number of inpatient psychiatric beds has continually decreased, resulting in long delays for placement of psychiatric patients and ED boarding of many of these patients for days to weeks (20–22). Our study found that suicide and intentional self-inflicted injury was the quickest growing reason for a mental health visit to the ED. EDs must be staffed with providers trained to evaluate these patients. Policy makers should consider increasing funding for both inpatient and outpatient treatment of mental illness.

Limitations

The current study must be interpreted considering its limitations. First, although the NEDS dataset is the largest nationally representative data source of ED visits, it does not include visits that occurred in federal hospitals. Therefore, generalizing these results beyond community hospitals is not possible. Second, the use of the administrative claims data may be prone to coding errors; however, there is no reason to suspect the coding errors were nonrandom in nature.

CONCLUSION

Our study demonstrated that ED visits between 2010 and 2014 in the United States increased at a faster rate than the rate of population growth. Using the condensed, more clinically relevant classification system, we demonstrated that abdominal problems and mental health issues, including substance abuse, were the most common reasons for visiting an ED.

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SUPPLEMENTARY DATA

Supplementary data related to this article can be found at https://doi.org/10.1016/j.jemermed.2018.12.025.

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ARTICLE SUMMARY

1. Why is this topic important?

Policy makers, health administrators, and clinicians need to understand the relative frequency of different diseases being seen in the emergency department (ED). This allows for better resource planning and clinician education.

2. What does this study attempt to show?

The current study attempts to define the relative frequency of individual diagnoses being seen in the ED, trends in these frequencies, as well as the frequency and the trends of diagnostic groups.

3. What are the key findings?

Rates of ED visits continue to grow faster than the rate of population growth. The 2 most common diagnostic categories in 2014 were abdominal diagnoses and mental health diagnoses.

4. How is patient care impacted?

EDs need increased staffing to care for the increasing numbers of patients. There needs to be increased resources for the care of mental health patients in the ED.