The Role and Value of Emergency Medicine

An Informational Paper



Emergency Medicine Practice Committee

January 2017



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The Role and Value of Emergency Medicine: An Informational Paper

Reviewed by the ACEP Board of Directors,
October 2016

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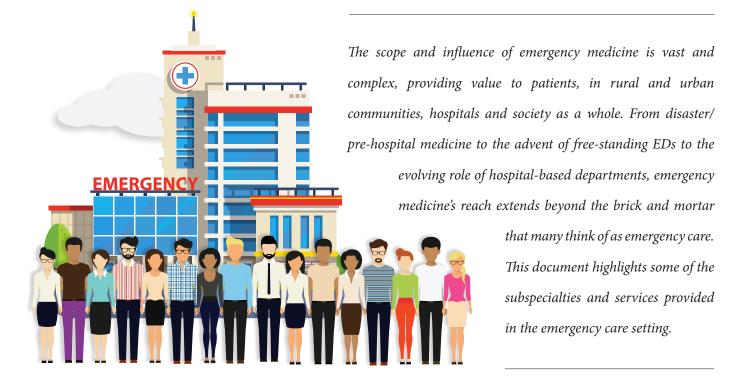
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Introduction

Anyone who has sought evaluation and treatment in an emergency department (ED) for illness or injury can appreciate the value emergency medicine provides to them. With more than 136 million visits to EDs in 2011 and increasing numbers of visits each year, emergency medicine has impacted communities and patients in profound ways. Despite the perceived familiarity patients have with emergency medicine, thanks to either personal experience or glamorized Hollywood entertainment, few have a clear understanding of the true breadth of the services emergency physicians provide to local communities and to the country. Perhaps the reason for the lack of familiarity with emergency medicine's scope is its rapid evolution from a singular room to treat emergencies to America's healthcare safety net, where everything from ear aches to Ebola can be treated. While much of emergency medicine's focus is the rapid delivery of acute care, emergency medicine has taken on broader roles in overall population health management, healthcare advocacy and literacy, and hospital operations. Emergency medicine is providing solutions for an ever-changing healthcare landscape.



136,000,000 ED Visits in **2011**

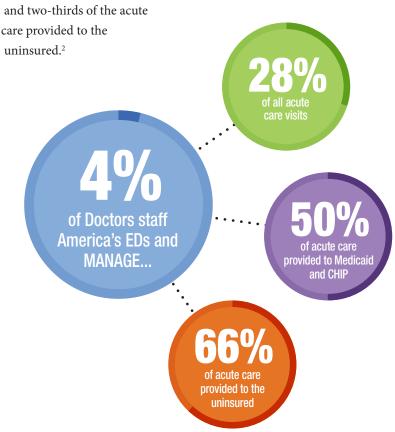




Since EMTALA, EDs are one of the few healthcare sites that provide non-discriminatory care regardless of insurance type or ability to pay.

Care for All

In 1986, Congress passed the Emergency Medicine Treatment and Active Labor Act (EMTALA) requiring a medical screening examination for all patients who request¹ emergency medical treatment irrespective of their insurance status or ability to pay. This unfunded government mandate has ensured that EDs are the social healthcare safety net for patients in the United States. Since EMTALA, EDs are one of the few healthcare sites that provide non-discriminatory care regardless of insurance type or ability to pay. The 4% of doctors who staff America's EDs manage 28% of all acute care visits in the US, half of all the acute care provided to Medicaid and Children's Health Insurance Program (CHIP) beneficiaries,



- 1. American College of Emergency Physicians (ACEP). EMTALA Fact Sheet. Copyright 2014. https://www.acep.org/news-media-top-banner/emtala/
- 2. Pitts SR, Carrier ER, Rich EC, et al. Where Americans get acute care: increasingly, it's not at their doctor's office. Health Aff (Millwood). 2010;29(9):1620-1629.

Acute Care

As a 24 hour a day, 7 day a week healthcare entity, EDs have become the nation's safety net for acute and even chronic disease treatment and management. In the most recent release of data from the CDC on ED use, in 2011, EDs across the country had more than 136 million visits, which translates to 44.5 visits per 100 people. According to the 2016 ED Benchmarking Alliance report, patient volumes are likely to rise with most of the 1200 member sites surveyed seeing volumes continuing to increase since 2012. Below are further statistics related to how emergency medicine brings value to acute care:

- 40.2 million visits were related to injuries1
- 16.2 million patients (11.2%) required hospitalization with 2.1 million patients requiring critical care admission.¹
- 27% of patients were evaluated by a provider in less than 15 minutes of arrival. 1
- In 2011, 7.0% of adults aged 18-64 cited lack of access to other providers as the reason for their most recent ED visit; 11.8% indicated that their doctor's office or clinic was closed.³
- In 2014, 14.3% of adults with private insurance coverage visited the ED one or more times versus 35.2% of adults with Medicaid and 16.6% of uninsured adults.³
- In 2013 and 2014, approximately 18% of adults in the US visited the ED.³

7.0% cited lack of access to other providers

11.8% doctor's office or clinic was closed

Adults aged 18-64

42,000,000ED Visits Related to Injury

112% (16.2 million patients) required hospitalization

27% of patients evaluated in less than 15 minutes

14% of adults with private insurance visited the ED

18% of adults in the US visited the ED

- 1. Centers for Disease Control and Prevention. National Hospital Ambulatory Medical Care Survey: 2011 Emergency Department Summary Tables. Tables 1, 4, 14, 24. Available at: http://www.cdc.gov/nchs/data/ahcd/nhamcs_emergency/2011_ed_web_tables.pdf
- 2. Emergency Department Benchmarking Alliance. EDBA 2016 Initial Report on 2015 Data Available at: https://www.edbenchmarking.org/about-us.
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Unlike other specialties, emergency medicine is uniquely positioned to direct the care of patients who present with acute illness



Efficient Evaluation and Management of Patients with Acute Illnesses

EDs are designed to quickly initiate time-sensitive treatment of life-threatening illnesses and injuries. Emergency physicians are critical to this care, which is delivered outside of the inpatient units and outpatient physician practices. Between the 1990s and 2000s, hospitals saw a 30% growth in the proportion of admissions that come through the ED. Pitts et al, stated that "EDs have become a central staging area for acutely ill patients, for the use of diagnostic technology, and for decisions about hospital admission." Perhaps one of the reasons for this acuity growth is rising outpatient referrals from outpatient healthcare centers and offices. Unlike other specialties, emergency medicine is uniquely positioned to direct the care of patients who present with acute illness with 24/7 operations, rapid diagnostics and laboratory testing. Outpatient physician practices have relied upon the rapid screening, evaluation and management of their patients with acute illnesses and obtain definitive patient diagnoses and management strategies in a matter of minutes and hours versus weeks and months.

In addition to the rapid evaluation of patients, emergency medicine groups and hospital systems are recognizing the value of inter-departmental care pathways, and have begun incorporating these within their systems with positive results. Because the ED is the "front door" to the hospital, emergency physicians set the tone for not only emergent/urgent management of patients but inpatient management of patients. For example, emergency medicine has taken a greater role in developing collaborative care plans with inpatient teams to improve outcomes in sepsis, congestive heart failure (CHF), coronary artery disease (CAD), and stroke management.⁴

^{1.} Agrawal S, Conway PH. Aligning emergency care with the triple aim: opportunities and future directions after healthcare reform. Healthcare. 2014;2:184-189.

^{2.} Schuur JD, Venkatesh AK. The growing role of emergency departments in hospital admissions. N Engl J Med. 2012;367(5):391-393.

^{3.} Pitts SR. Higher-complexity ED billing codes — sicker patients, more intensive practice, or improper payments? N Engl J Med. 2012;367:2465-2467.

^{4.} Collins SP, Levy PD, Pang PS, et al. The role of the emergency department in acute heart failure clinical trials – enriching patient identification and enrollment. Am Heart J. 2013;165(6):902-909.

Critical Care

Two million ED visits result in admission to a critical care unit.¹ Since patients with critical conditions frequent the ED and are associated with high morbidity and mortality, emergency medicine training and practice ensures proficiency in managing critically ill and injured patients, prioritizing stabilization, mobilizing hospital support services for resuscitation, and reassessing after stabilization. Those interventions and illnesses include but are not limited to the diagnosis and treatment of:

- sepsis and septic shock with early intravenous fluid and antibiotic administration^{2,3}
- acute STEMI disease with cardiac catheterization within 90 minutes of arrival^{4,5}
- acute strokes with life-saving tPA
- patients during the "golden hour" of trauma6

Early recognition and treatment of critically ill patients is associated with improved patient outcome, and the ED is uniquely set up for early recognition and treatment of these patients coming from an outpatient setting.



Early recognition and treatment of critically ill patients is associated with improved patient outcome

- 1. Centers for Disease Control and Prevention (CDC). National Center for Health Statistics. Emergency Department Visits. Available at: http://www.cdc.gov/nchs/fastats/emergency-department.htm.
- 2. Dellinger RP, Levy MM, Rhodes A, et al. Surviving Sepsis Campaign: international guidelines for management of severe sepsis and septic shock, 2012. Intensive Care Med. 2013;39(2):165-228.
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Rapid Diagnostic Centers and Clinical Decision Units

These centers have created protocols to effectively and safely diagnose and treat or rule out ischemic chest pain...

As insurance payers have restructured payment mechanisms for inpatient admissions and hospitals have sought improved operational efficiencies in patient care, EDs have an increasing role in rapid diagnostic centers and observation units as evidenced by their rapid growth over the past two decades. Chest Pain Centers are perhaps the most common and have been recognized as an effective method for evaluating low-to-moderate risk patients with possible acute ischemic coronary syndrome in the ED and for achieving decreases in rates of hospitalization.^{1,2} Since 1995, EDs with

Chest Pain Centers have utilized serial cardiac markers to evaluate and discharge appropriate low-risk patients from the ED rather

than prolonged admissions. In addition, emergency

physicians typically arrange guaranteed

next-day follow-up in selected patients as an alternative to hospital admission. These centers have created protocols to effectively and safely diagnose and treat or rule out ischemic chest pain.² As a result, Chest Pain Centers have become an important component of acute care in the US and have been supported by the American College of Emergency Physicians (ACEP) as an important tool to increase the value and effectiveness of emergency medicine.³



- 1. Gibler WB, Runyon JP, Levy RC, et al. A rapid diagnostic and treatment center for patients with chest pain in the ED. Ann Emerg Med. 1995;25(1):1-8.
- 2. Kontos MC, Diercks DB, Kirk JD. Emergency department and office-based evaluation of patients with chest pain. Mayo Clin Proc. 2010;85(3):284-299.
- 3. Schuur JD, Baugh CW, Hess EP, et al. Critical pathways for post-emergency outpatient diagnosis and treatment: tool to improve the value of Emergency Care. Acad Emerg Med. 2011;18(6):e52-e63.

Observation Medicine •

As of 2007, 36% of hospitals had an ED observation unit. ED observation units, like rapid diagnostic centers, provide care for patients who need more observation and evaluation than a typical ED visit but less observation than an inpatient admission (i.e., less than 24 hours). ED observation units provide time- and cost-efficient care achieving similar outcomes to inpatient stays. Observation units also result in higher overall patient satisfaction than inpatient settings. While chest pain is the most common reason for an ED observation unit admission, studies indicate patients with other conditions can be placed in an ED observation unit with similar or even superior outcomes to inpatient settings. Those conditions include the evaluation of syncope, treatment of atrial fibrillation, transient ischemic attack, and asthma to name a few.





of Stay



Admission Rates







As a result, financial studies have shown that expanding observation units could lead to a savings of \$1,572 per patient annually or \$4.6 million per year to hospitals, and \$3.1 billion per year nationally.⁴ Beyond the direct financial savings, hospital operations are also improved. For example, observation units have demonstrated a 23% to 38% shorter length-of-stay and a 17% to 44% lower probability of subsequent inpatient admission which indirectly has saved a \$950 million annual national healthcare cost.⁵ Furthermore, some estimate that 11.7% of short-stay inpatients nationwide could be treated in observation units which could potentially save \$5.5 to \$8.5 billion annually.⁵

ED observation units provide time- and cost-efficient care achieving similar outcomes to inpatient stays

- 1. Wiler JL, Ross MA, Ginde AA, et al. National study of emergency department observation services. Acad Emerg Med. 2011;18:959-965.
- 2. Galipeau J, Pussegoda K, Stevens A, et al. Effectiveness and safety of short-stay units in the emergency department: a systematic review. Acad Emerg Med. 2015;22(8):893-907.
- 3. Ross MA, Aurora T, Graff L, et al. State of the art: emergency department observation units. Crit Pathw Cardiol. 2012;11(3):128-138.
- 4. Baugh CW, Venkatesh AK, Hilton JA, et al. Making greater use of dedicated hospital observation units for many short-stay patients could save \$3.1 billion a year. Health Aff (Millwood). 2012;31(10):2314-2323.
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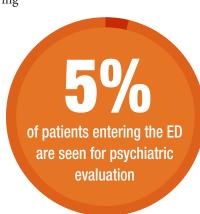


inpatient beds have dwindled to less than 50,000 nationwide, forcing patients to seek treatment in outpatient settings

Psychiatric Emergency Care

Over the past 40 years, services for psychiatric patients have become deinstitutionalized, shifting away from inpatient services. As a result, inpatient beds have dwindled to less than 50,000 nationwide, forcing patients to seek treatment in outpatient settings. Unfortunately, resources are limited due to widespread budget cuts, leaving patients with the healthcare system's last remaining safety net—the ED. Currently, more than 5% of the patients entering the ED are seen for psychiatric evaluation. As the need for psychiatric emergency care grows and the resources for treatment continue to decrease, boarding of psychiatric patients has continued to be an ongoing problem. Some attribute boarding to a "general lack of inpatient beds, insurance pre-authorization necessary for admission, difficulty in placement/transfer to a receiving

facility, and lack of outpatient facilities/community resources. Psychiatric boarding is a symptom of a greater mental health system crisis.".²⁻⁴ Unfortunately, patients who are uninsured or publicly insured and those who are homeless tend to have longer disposition-to-discharge/transfer times.^{5,6}

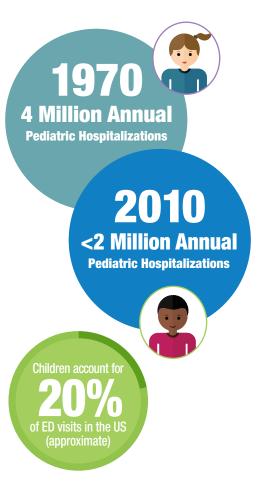


- 1. Centers for Disease Control and Prevention. National Hospital Ambulatory Medical Care Survey: 2011 Emergency Department Summary Tables. Tables 1, 4, 14, 24. Available at: http://www.cdc.gov/nchs/data/ahcd/nhamcs_emergency/2011_ed_web_tables.pdf
- 2. Bender D, Pande N, Ludwig M. A literature review: psychiatric boarding. US Department of Health and Human Services, 2008. Available at: http://aspe.hhs.gov/daltcp/reports/2008/psybdlr.htm
- 3. Bender D, Pande N, Ludwig M. Psychiatric boarding interview summary. US Department of Health and Human Services, 2009. Available at: http://aspe.hhs.gov/daltcp/reports/2009/psybdint.pdf
- 4. Park JM, Park LT, Siefert CJ, et al. Factors associated with extended length of stay for patients presenting to an urban psychiatric emergency service: a case-control study. J Behav Health Serv Res. 2009;36(3):200-208.
- 5. Weiss AP, Chang G, Rauch SL, et al. Patient-and practice-related determinants of emergency department length of stay for patients with psychiatric illness. Ann Emerg Med. 2012;60(2):162-171.
- 6. Chang G, Weiss A, Kosowsky JM, et al. Characteristics of adult psychiatric patients with stays of 24 hours or more in the emergency department. Psychiatr Serv. 2012;63(3):283-286.

Pediatric Care

As early as 1990, pediatric emergency training culminated in the collaboration between the American Board of Emergency Medicine (ABEM) and the American Board of Pediatrics to create a new subspecialty - Pediatric Emergency Medicine. The primary goal was to improve the training of emergency medicine physicians and enhance awareness of pediatric specialty care. As the acuity of pediatric illness has waned in the setting of enhanced immunizations and antibiotic regimens, pediatric hospitalizations have plummeted from 4 million annually in 1970 to under 2 million in 2010, but the rate and volume of ED visits by children remain relatively constant. In 2005, more than 30% of ED visits by pediatric patients were a result of an injury. Of the top 10 diagnoses for pediatric patients admitted to the hospital, six were due to trauma, with the remaining four being related to infectious causes. Emergency medicine-trained physicians have more training and experience in the recognition and management of severely ill or injured children than pediatricians. 4.5

Now, children account for approximately 20% of ED visits in the US with many of those visits occurring in a community hospital rather than a facility operated solely for children. ^{6,7} While pediatric emergency medicine has been a recognized subspecialty in emergency medicine for some time, many children present to facilities without pediatric emergency medicine specialists. As a result, emergency medicine has participated in and led joint efforts with pediatrics to develop guidelines for the stabilization and treatment of the pediatric patient presenting to the ED. ⁷ Additionally, the goals of these guidelines have been to emphasize the day-to-day readiness of emergency departments for pediatric illness and injury. ⁷



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 community hospitals from selected states, 2005. Healthcare Cost and Utilization Project (HCUP) Statistical Brief #52. 2008.
 http://www.hcup-us.ahrg.gov/reports/statbriefs/sb52.pdf
- 3. Accreditation Council for Graduate Medical Education. ACGME Program Requirements for Graduate Medical Education in Emergency Medicine
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In the first decade of 2000, the growth of the over-65 population grew faster than any other population and the pace of growth was faster than at any other time in history

Geriatric Care

With the results of the 2010 US Census, analysts noticed an alarming trend. More than 40 million people in the US were over the age of 65. In the first decade of 2000, the growth of the over-65 population grew faster than any other population and the pace of growth was faster than at any other time in history. Further, those citizens over the age of 85 are growing at a rate of 3 times faster than the general population. As a result, the geriatric population represents a growing concern and overwhelming challenge for the American healthcare system, especially EDs. As the primary point of access for many into the healthcare system, EDs face a growing role in the treatment of this patient population. To address these issues, some EDs have started to specialize in the care of geriatric patients.

Geriatric EDs have developed protocols, quality metrics, equipment and supplies, policies, and procedures specific to the needs of this population. Geriatric EDs work with high-risk patients to address issues of polypharmacy, assess fall risks, delirium and dementia, and palliative care needs. All of these are issues unique to the geriatric population.¹



 Joint Policy Statement: American College of Emergency Physicians, American Geriatrics Society, Emergency Nurses Association, and the Society for Academic Emergency Medicine. Geriatric Emergency Department Guidelines. October 2013.

Palliative Care

Patients with complex chronic illness are a vulnerable population. As those patients progress to advanced and end-of-life diseases, they frequently seek quality, comprehensive compassionate care in EDs around the US. Traditionally, delivery of palliative care in the ED has not been the standard of care; however, more EDs are beginning to embrace the importance of palliative care with the increase in programs designed to treat patients with terminal, complex diseases.¹

In an effort to provide the best and most ethical care possible, emergency physicians have a unique opportunity to identify and engage palliative care while educating patients and families about this service. The goal of palliative care is focused on relieving the pain and suffering of patients with life-threatening illnesses, while improving the quality of life for patients and families.¹

Palliative care is also beneficial for those still undergoing aggressive curative therapy. Palliative and hospice care can increase quality of life and alleviate suffering for the patient and the family while also reducing cost. Barriers to the availability of palliative care for ED patients include lack of awareness of when to utilize these services, lack of 24 hour availability to palliative care teams, lack of time in the ED, and patient knowledge about palliative care.

Recently, a 2016 JAMA Oncology study indicated patients with advanced cancer not only have improved quality of life but surprisingly did not appear to have a shortened lifespan with ED-initiated palliation compared to those who chose to avoid palliative care treatment.²

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^{1.} Mierendorf SM. Palliative care in the emergency department. Perm J. 2014;18(2):77-85.

Grudzen CR, Richardson LD, Johnson PN, et al. Emergency department-initiated palliative care in advanced cancer: A randomized clinical trial. JAMA Oncol. 2016;2(5):591-598.



Currently, there are 43

HBOT centers in use in
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Hyperbaric Medicine

Hyperbaric oxygen therapy (HBOT) and the study of hyperbaric therapy is a subspecialty of emergency medicine. While hyperbaric therapy is often used for the treatment of chronic conditions like osteomyelitis, diabetic foot ulcers, and intracranial abscesses, there are a number of emergency conditions for which HBOT is used:

- Carbon monoxide (CO) poisoning
- Air or gas embolism
- Diving accidents / decompression sickness

Currently, there are 43 HBOT centers in use in the US for emergency treatment of CO poisoning, air/gas embolisms, or diving accidents. These centers include not only the staff trained to care for these life-threatening events, but the equipment to rapidly treat a condition requiring hyperbaric therapy.¹

Emerging Diseases



Since EDs are often the only portal to the healthcare system and are increasingly seen as a frontline center for disease surveillance and early identification of infectious outbreaks, emergency physicians have become vocal advocates and leaders in public health.² Patterns of emerging diseases and the spread of infectious disease have changed given increased global travel, globalization, climate change, destruction of natural habitat, rapid global food distribution, human population growth, and a change in the patterns and volume of human migration.³ Recently, with the outbreak of Ebola in 2015, emergency medicine leaders worked closely with the CDC to develop guidelines for emergency services including personal protect equipment (PPE) to address healthcare worker safety while caring for suspected Ebola patients.⁴

- 1. Chin W, Jacoby L, Simon O, et al. Hyperbaric programs in the US: Locations and capabilities of treating decompression sickness, arterial gas embolisms, and acute carbon monoxide poisoning: survey results. Undersea Hyperb Med. 2016;43(1):29-43.
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HIV/STD Diagnosis and Treatment

In 2009, the CDC recommended routine screening, counseling, and testing in many EDs as an effort to detect, educate, and treat HIV positive patients earlier in their course of disease. ACEP supports that screening be performed in the ED in areas of high HIV prevalence (greater than 0.1% of the population), and when practical and feasible, and support efforts to integrate resources between the ED and the entire healthcare system. ²



Homelessness

Homelessness is an issue well known to emergency physicians and EDs. In 2013, 77% of homeless adults had at least one ED visit, with at least 10% of homeless adults having more than 10 ED visits per year (average 12.1 visits). As a result, the homeless have higher healthcare costs with an average Medicaid cost of \$1,626/month. Those costs are more than 3.5 times higher than the average Medicaid participant.

To address the issues of homelessness and its associated costs, housing-first programs have been adopted. Cities like Seattle have provided housing for the homeless without requirements for change in current substance use patterns. As a result, housing-first programs have helped decrease cost of medical care for the homeless with a > 40% decrease in Medicaid costs, an approximately 50% decrease in ED visit rates, and a > 75% decrease in hospital admissions.⁴ In addition, a study of 91 chronically homeless alcoholic patients enrolled into housing-first sites observed a 54% reduction in EMS calls.⁵

770/0 of homeless adults had at least one ED Visit in 2013

...the homeless have higher healthcare costs with an average Medicaid cost of \$1,626/month

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- 2. American College of Emergency Physicians. ACEP Policy Statement: HIV Testing and Screening in the Emergency Department. Available at: https://www.acep.org/clinical---practice-management/hiv-testing-and-screening-in-the-emergency-department/
- 3. Chambers C, Chiu S, Katic M, et al. High utilizers of emergency health services in a population-based cohort of homeless adults. Am J Public Health. 2013;103(Suppl 2):S302-S310.
- 4. Wright BJ, Vartanian KB, Li HF, et al. Formerly homeless people had lower overall healthcare expenditures after moving into supportive housing. Health Aff (Millwood). 2016;35(1):20-27.
- 5. Mackelprang JL, Collins SE, Clifasefi SL. Housing First is associated with reduced use of emergency medical services. Prehosp Emerg Care. 2014;18(4):476-482.

In 2014, more than 28,000 people were killed from overdoses involving opioids.

reported drop in opiod-prescribing between 2007-2012

Substance Abuse

The US is currently facing an ever-growing opioid crisis. In 2014, more than 28,000 people died from overdoses involving opioids. Because emergency medicine is on the front lines of this growing epidemic, emergency medicine has become increasingly involved with developing solutions to stem this crisis.

Some of the solutions developed include advocating for improved opioid prescription monitoring programs to assist with curbing inappropriate opioid prescribing by identifying high-risk patients and those who are doctor-shopping. ACEP supports the use of Naloxone to reverse the effects of opioids in an overdose scenario.² Additionally, ACEP²⁻⁴ and other EM physician groups have advocated for developing guidelines for prescribing non-opioid and opioid pain management for non-cancer related pain. As a result, the American Journal of Preventive Medicine reports that opioid-prescribing has dropped nearly 9% between 2007-2012.⁵



- 1. Centers for Disease Control and Prevention. Injury Prevention & Control: Opioid Overdose. Data Overview. Available at: https://www.cdc.gov/drugoverdose/data/index.html
- 2. American College of Emergency Physicians. Policy Statement: Naloxone Prescriptions by Emergency Physicians. October 2015. Available at: https://www.acep.org/Clinical---Practice-Management/Naloxone-Prescriptions-by-Emergency-Physicians/
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Firearm Safety and Injury Prevention

Injuries and deaths from firearms are a significant and growing healthcare problem in the US. Each year there are approximately 32,000 deaths associated with firearm-related violence, suicides, and accidents costing nearly \$174 billion. EDs and emergency physicians are on the front lines of providing care for gun-related injuries. ACEP has advocated for a public health approach to firearm-related violence and injuries by identifying solutions to improve safety while being consistent with the Second Amendment.

Each year there are approximately 32,000 deaths associated with firearm-related violence, suicides, and accidents



^{1.} Weinberger SE, Hoyt DB, Lawrence HC, et al. Firearm-related injury and death in the United States: a call to action from 8 health professional organization and the American Bar Association. Ann Intern Med. 2016;162(7):513-516.

^{2.} American College of Emergency Physicians. Firearm Safety and Injury Prevention. Policy Statement. April 2013. Available at: https://www.acep.org/clinical---practice-management/firearm-safety-and-injury-prevention/

"Rather than minimize the issue of cost, we should recognize the economic and strategic importance of the ED within the healthcare system and demonstrate that costs are commensurate with value."3



Improving Value in Healthcare

With more than 354 million unscheduled acute care visits annually in the US¹, EDs and emergency physicians are critical to the care and cost of care provided to patients. Since the passage of the Affordable Care Act (ACA) and the piloting of Accountable Care Organizations (ACOs), EDs and more specifically, emergency physicians, have an even greater role and responsibility in the coordination and cost of care for millions of patients. In 2015, President Obama signed into law the Medicare Access and CHIP Reauthorization Act (MACRA), which effectively repealed the troubled Medicare Sustainable Growth Ratio (SGR). Under the law, by 2019 5-9% of physician payments will be tied to the upcoming value-based purchasing Merit-Based Incentive Payment System (MIPS) – a replacement of the Physician Quality Reporting System (PQRS). With the passage of MACRA and the affirmation by the courts of the ACA, alternative payment models including ACOs are here to stay. Therefore, understanding the themes, goals, and challenges of development and implementation of an alternative payment model will be important due to significant shifts in reimbursement.²

- In 2010, the US spent an estimated \$48.3 billion on emergency care; this equates to just 1.9% of the nation's total healthcare expenditures of \$2.6 trillion.³
- Efforts by private and government payers to divert ED care may not lead to substantial aggregate savings.³
- Diverting nonemergency care may shift costs to primary care offices and clinics that might not have the infrastructure to accommodate a large volume of unscheduled care.³
- "Rather than minimize the issue of cost, we should recognize the economic and strategic importance of the ED within the healthcare system and demonstrate that costs are commensurate with value."

^{1.} Pitts SR, et al. Where Americans get acute care: increasingly, it's not at their doctor's office. Health Aff (Millwood). 2010;29(9):1620-1629.

^{2.} American College of Emergency Physicians. The Role and Value of the Emergency Department in an Accountable Care Organization, An Information Paper. Available at: http://www.acep.org/workarea/DownloadAsset.aspx?id=103616

The Cost of Emergency Medicine. Emergency care cost estimates are too low. April 29, 2013. Available at: https://news.brown.edu/articles/2013/04/emergency

Improving Hospital Operational Efficiencies

As ED efficiency metrics become a key component of value-based purchasing and as ED overcrowding worsens, hospitals are looking to emergency medicine to address not only intradepartmental operations but operations on the inpatient unit. While the causes of overcrowding are multifactorial, the results of overcrowding have serious effects such as delays in medication administration, increased medical errors and adverse events, increased patient morbidity and mortality, and declines in patients and staff satisfaction. Emergency medicine leaders have developed innovative solutions to reduce ED boarding and improve operational efficiencies, including the use of full capacity protocols, managing elective surgical admissions through surgical schedule smoothing, using real time data to centrally manage bed utilization, and ED observation units. ²⁻⁵

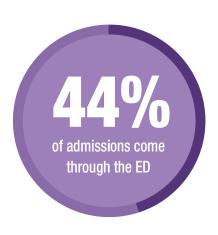
Emergency medicine leaders have developed innovative solutions to reduce ED boarding and improve operational efficiencies







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...the ED is uniquely positioned to decrease costs and increase value by coordinating outpatient alternatives to hospital admission.

Reducing Healthcare Costs

Forty-four percent of admissions come through the ED, and admission rates from the ED for similar conditions vary by more than two-fold between different physicians and hospitals. As such, the ED is uniquely positioned to decrease costs and increase value by coordinating outpatient alternatives to hospital admission. By January 2016 (11 months ahead of schedule), Health and Human Services (HHS) had met their goal to shift 30% of traditional fee-for-service (FFS) Medicare payments to Alternative Payment Models (APMs) based on quality and value. Inpatient care is much more expensive than ED care, thus the decision to admit or discharge from the ED can significantly impact overall healthcare spending. The ED currently prevents more than 50% of potential hospital readmissions for the 20% of patients who revisit the ED within 30 days after hospital discharge.



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The Original Care Coordinators

The "safety net" aspect of the ED is reflected in some of the social issues with which patients present, including abandonment of elderly patients, child abuse, and homelessness. Social factors have been implicated in ED revisits, avoidable hospital admissions, and prolonged ED lengths of stay. Therefore, a focus on social work interventions has been shown to reduce ED revisits by coordinating social services and housing options, particularly for low-income patients with high ED utilization rates. In the ED, social workers and other care coordinators have been utilized to reduce hospital readmissions and avoidable admissions, intervening in an estimated 5% to 10% of ED visits, primarily among elderly and pediatric patients. 1,4,5

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With the intervention of social work and care coordination, non-acute "social" admission rates may be curbed. For example:

 More than half of ED social work interventions result in hospital discharge.⁶

• An economic model of ED-based social services found that they may yield economic benefits, especially in large urban centers, by decreasing acute care utilization and increasing the efficiency of ED medical and nursing staff.⁵



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...emergency medicine has addressed and provided solutions to the societal issues of homelessness, opioid abuse, psychiatric illness, and even illness and injury prevention.

Conclusion

While the primary function of emergency medicine is to evaluate and treat acute, unscheduled emergent and urgent conditions, the complex and widening roles and responsibilities of emergency physicians and emergency medicine have changed dramatically over the years. Evolving from a singular room within a hospital to sprawling departments comprised of clinical decision units, trauma bays, and fast tracks, emergency medicine has been at the forefront of the ever-changing healthcare landscape. Beyond the department, however, emergency medicine has addressed and provided solutions to the societal issues of homelessness, opioid abuse, psychiatric illness, and even illness and injury prevention. As the nation's only 24/7 healthcare entity, emergency medicine's and ED's roles in healthcare have continued to expand. Now as a cornerstone and safety net of the US healthcare system, emergency medicine has led and will continue to lead the house of medicine in the prevention, evaluation, treatment, and management of complex chronic and acute conditions of the nearly 136 million patients who enter the ED's doors.



