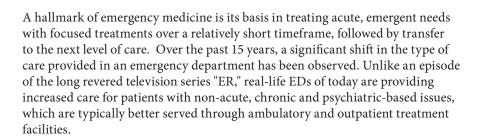


#### DECEMBER 2017 ■ ED Utilization — Right Care. Right Place. Right Time.



National ED visits increased 15 percent from 2006 to 2014. During that time, ED visits for actual injuries decreased by 13 percent, while ED visits for mental health/substance abuse increased by 44 percent.<sup>iii</sup>



# **ED Utilization Highlights**

Studies across EDs note common trends for ED visits that include the following.

- super-utilizers account for a disproportionate share of ED visits, with an average of four to five times as many ED visits per year, compared with other patients<sup>i</sup>
- non-emergent, non-acute issues
  - common infections, such as upper respiratory infections and otitis media infections with URI being the most prevalent diagnosis in Missouri hospitals<sup>ii</sup>
- behavioral health issues, specifically acute psychiatric conditions
- chronic pain and acute addiction management
  - low back pain, conditions with pain as an underlying symptom
  - dental pain
  - substance abuse crisis and drug-seeking behaviors
- long-term boarding of patients
  - lack of access to appropriate patient bed placement
  - lack of specialty providers to assume care
  - poorly designed hospital-based patient throughput
  - variable hospital-based barriers
- chronic condition management issues
  - exacerbations, specifically of chronic obstructive pulmonary disease, congestive heart failure and diabetes
  - lack of support services or plans of care that span the care continuum and ability or internal motivation of the patient to receive follow-up care
  - lack of access or referral to primary care provider



## Emergency Departments: The Ultimate Safety Net

As a result of these factors, EDs have evolved to become the ultimate safety net hospital within a hospital, providing relatively low-tech clinical care, while managing patients' medical needs complicated by "social sickness."

Concurrently, hospital EDs face increasing pressure to reduce wait times to both see a provider and reduce holding times prior to transfer, all while facing some of the highest patient volumes in history. ED visits increased 15 percent from 2006 to 2014. During that time, ED visits for actual injuries decreased by 13 percent, while ED visits for mental health/substance abuse increased by 44 percent.iii A study using the National Ambulatory Medical Care Survey and National Hospital Discharge Survey databases found that EDs contributed an average of 47.7 percent of the medical care delivered in the U.S., and this percentage increased steadily over the 14-year study period. Admission rates have been stable over the last decade at approximately 16 to 18 percent, representing about two-thirds of inpatient admissions to American hospitals.iv The data demonstrate that EDs are a major primary source of medical care in the U.S., essentially serving as the ultimate safety net for vulnerable populations. iv

Improving the flow of patients through the ED is critical to improve

**Table 1: Emergency Department Trends** 

	National Trends, 2014	Missouri Trends, 2016 <sup>ii</sup>
Number of visits	141.4 million	3.2 million
Number of visits per 100 persons	45.1	52.6
Number of emergency department visits resulting in hospital admission	11.2 million	380,498
Percent of visits with patient seen in fewer than 15 minutes	32.2%	No data available
Percent of visits resulting in hospital admission	7.9%	11.9%
Percent of visits resulting in transfer to a different (psychiatric or other) hospital	1.9%	3.4%

Source: National Hospital Ambulatory Medical Care Survey: 2014 Emergency Department Summary Tables: 1, 4, 15, 25, 26; Hospital Industry Data Institute

management of high patient volumes. ED providers have the greatest control over the flow of patients who are evaluated, treated and released for outpatient follow-up, representing more than 80 percent of the patients seen in U.S. EDs. Despite increasing volumes over the last 11 years and increasing age and acuity of patients, the flow of patients has improved (Table 2). For all patients, the door-to-provider time has decreased from more than 40 minutes to about 28 minutes. Overall median length of stay in the ED has also decreased. Flow improvements have resulted in an overall reduction in ED patients who left without being seen, from more than 3 percent to about 2.2 percent.

Data from the Centers for Disease Control and Prevention and from the Emergency Department Benchmarking Alliance indicate that the ED is an important and valuable element of the health system, providing unscheduled care to a growing number of patients over the last 23 years.<sup>v</sup>

The Emergency Medical Treatment and Labor Act, a federal law that requires anyone entering an ED to be stabilized and treated, regardless of their insurance status or ability to pay, is often cited as a significant barrier to more efficient utilization of the ED. Since its enactment in 1986, EMTALA has remained an unfunded mandate. Referred to as the "anti-dumping" law, it was designed to prevent hospitals from transferring uninsured or Medicaid patients to public hospitals without, at a minimum, providing a medical screening examination to ensure they were stable for transfer. As a result, local and state governments began to abdicate responsibility for charity care, shifting this public responsibility to hospitals. EMTALA became the de facto national health care policy for the uninsured. In 2000, Congress made EMTALA enforcement a priority, with penalties of more than \$1.17 million, nearly as much as in the first 10 years (about \$1.8 million) of the statute combined

# How Does EMTALA Define an Emergency?

An emergency medical condition is defined as "a condition manifesting itself by acute symptoms of sufficient severity (including severe pain) such that the absence of immediate medical attention could reasonably be expected to result in placing the individual's health [or the health of an unborn child] in serious jeopardy, serious impairment to bodily functions or serious dysfunction of bodily organs."

Table 2: Trend in ED Median Length of Stay, Time to Provider and Left Without Being Seen

Year	Median minutes, door to provider	Median length of stay, patients treated and released	Patients who left before treatment complete
2014	28	150	2.2%
2013	30	147	2.3%
2012	32	147	2.2%
2011	30	146	2.0%
2010	33	143	1.9%
2009	35	146	3.2%
2008	41	160	3.0%
2007	Not studied	163	3.0%
2006	Not studied	157	2.9%

Source: National Surveys on Emergency Department Trends<sup>iv</sup>

(U.S. Department of Health and Human Services' Office of Inspector General). EDs, at risk of citation for EMTALA violations, assert that the rule, while originally meant to protect the consumer, has played a heavy role in identifying the ED as the catch-all, regardless of acute need for treatment. This unnecessarily burdens ED providers and the health care system, and it creates the potential for delayed or inadequate treatment, increased wait times and uncoordinated care for the patient.

Modifications to EMTALA are necessary, and the time is now. The evolution of the health care market and changes in consumer use patterns signify the need for new care models. Short of large-scale changes to consumer choice for health care services – a daunting and elusive option – EDs need leeway and support from government bodies to use innovative strategies to more effectively care for and route patients to an appropriate place of care.

One model builds upon the traditional triage model, expanding disposition options post-triage, while meeting patient needs and maintaining EMTALA compliance (Figure 1). As current data trends indicate, patients presenting to the ED typically fall into

one of four designations: trauma/critically ill, acutely ill requiring medical work-up, urgent care needs and mental health care to include acute substance abuse/overdose/detoxification needs. The latter two of these four patient group designations do not require care and treatment within the ED setting, and, in fact, could be better served in more appropriate settings in less time, with less resources, and with an improved patient and provider experience.

If a patient presents to the ED with a care need met under the urgent care criteria, after a basic physical evaluation to include vital signs and review of the chief complaint, the patient should then be referred to an urgent care setting. While many hospitals across the country have implemented urgent care centers within geographic proximity of the ED, others may need to provide transportation assistance to a local urgent care center. A best practice would be communication between the ED triage and urgent care center to apprise the patient's pending arrival and health status - either virtually, ideally through the EHR, or via phone call.

Patients needing mental health treatment and resource support should be cared for by staff trained in behavioral health management with the optimized number of staff and in environments prepared according to relevant safety requirements for both patients and staff. Again, use of geographically separate areas within the hospital or ED, as well as expanding use of community behavioral health clinics, sobriety centers, peer counselors, and triage and assessment centers are all viable options. In fact, protocols can be deployed to enable direct routing of patients by medical need for both EMS and law enforcement, both of whom have limited patient disposition choices outside of the ED.



# Figure 1: Example Strategies to Improve ED Utilization

- Advanced triage protocols
- Bedside registration
- Dedicated fast track
- Full/surge capacity protocols
- Immediate bedding
- Internal waiting area
- Kiosk self check-in
- Low flow/high flow process
- Patient streaming/ segmentation
- Physician at triage
- Off-monitor transport
- Point-of-care testing
- Radiology improvement
- Recliner intake area
- Referral to next day care
- Resource-based triage system
- Scribe
- Self-populating triage tool
- Team triage
- Telemedicine
- Wireless communication devices

Source: ACEP Now, Nov. 2015vi

## Innovation in the ED

To address these growing issues, EDs across the country have implemented many innovative ideas and developed unique partnerships. Several examples are outlined in Figure 1.

Stanford Healthcare's ED has tried several interventions to address front-end patient throughput and best patient care in the ED setting. One unique strategy was employing intensive care trained staff, along with dual-boarded physicians in ED and ICU to manage a sub-unit within the ED for patients requiring ICU-level care. Long holds of critically ill patients due to lack of ICU bed availability caused a needed remedy. Patients are kept for three hours, monitored and treated in the ED. One outcome of this specialized care within the ED is that after just three hours of focused treatment, many patients are actually eligible for a stepdown or medical/surgical bed placement; thus, saving precious resources. Similarly, Stanford's ED uses the same model to better care for psychiatric patients within the ED. Specially trained behavioral health technicians staff an area of the ED to appropriately and safely monitor and care for these patients. Other inexpensive changes were made as well. One example is exchanging chairs for stretchers in areas of the ED. Patients are initially examined on a stretcher, then as able, are moved to a room with two to four chairs to await further testing, results and disposition. This approach reduced average length of stay in the ED by more than one hour, despite rising patient volumes. vii

# Innovation by Missouri's EDs

To truly affect ED utilization, changes also need to occur across policy, regulatory and payer options. Drivers of ED overuse include lack of access to timely primary care services, referral to the ED by primary care physicians themselves, and financial and legal obligations by hospitals to treat all patients who arrive in the ED. Strategies to curb ED overuse include redesigning primary care to improve access and scheduling, providing alternative sites for non-urgent primary care, improving the case management of chronic disease patients, and using financial incentives and disincentives for visits to the ED. Hospital EDs across Missouri have implemented many successful models to improve utilization for both patients and providers. Highlights of these best practices follow.

#### **Rural Health Approaches**

An ED presence is critical to rural communities. Quick triage, assessment and early intervention, as well as appropriate transfer to higher levels of care, are an asset to those living long distances from more urban settings where access to care is more easily obtained. The advent of the tele-ED is just one of several options available for rural EDs. Typically, contracting with a larger, tertiary ED, the rural ED can then employ mid-level providers, such as physician assistants and/or advanced practice nurses to provide the in-person, hands-on care with ready access to physicians as a resource and referral option. Use of telemedicine technologies such as live-stream video, linked medical tools, (i.e. stethoscope and otoscope attachments) and use of standardized care algorithms and protocols create a streamlined, cost-effective option, while keeping patients close to home. The digital market, through use of smart phones and devices, has exponential ability to expand, creating additional opportunities to perform an ED visit from the home setting or collaborating with emergency medical transport teams to more efficiently care for patients. Community paramedics are specially trained to perform in-home delegated tasks to improve the transition of care from hospital to home, perform point-of-care lab tests and improve care plan adherence.

This is a growing field, particularly in very rural parts of the country. One example is the pilot work of the St. **Charles County Ambulance District.** Through a team of certified EMTs and paramedics, patients at high risk of return ED visits are being rounded on frequently, having potential issues mitigated in the home and enhancing the ability to get patients linked with their primary care providers more effectively. An innovative program out of Nevada, a state largely rural in nature, is shifting traditional EMS work flows. The Alternative Destination Transport Program provides alternative pathways of care for 911 patients, including the transport of patients with low acuity medical conditions directly to urgent care centers and clinics, inebriated patients directly to local detoxification centers, and psychiatric patients directly to a mental health hospital.viii



In order to more quickly accommodate and treat patients, Southeast Health Center of Ripley County has been working hard to improve patient throughput from the ED to an inpatient unit for patients who need to be admitted for ongoing care. Tammy Sorrell, Chief Nursing Officer, and Danielle Gettings, Quality Manager, state that Southeast Health Center of Ripley County set a lofty strategic goal to improve patient care by creating greater efficiency in transferring from the ED to the inpatient unit within 30 minutes. Efficient movement of patients through the ED is critical to decreasing wait times and avoiding

adverse events. Their ED identified an average of a four-hour hold time prior to transferring a patient to the medical/surgical unit. A key contributing factor was the waiting time for an ED physician to write admitting orders, due to many variables. Another was readiness of the medical/surgical unit. They identified an opportunity for ED nurses to be proactive when they think a patient will be admitted, and a call is made to the medical floor charge nurse to discuss bed options, care needed, staffing and expected timing of the admission. With this adjustment and working with physicians on order sets to expedite admission, they have decreased the wait time to 90 minutes.

## Mental Health and Substance Abuse Approaches

The Behavioral Health Network is a collaborative effort of providers, advocacy organizations, government leaders and community members dedicated to developing an accessible and coordinated system of behavioral health care that encompasses the full spectrum of services and supports across the lifespan, with emphasis on the uninsured, underinsured and underserved population of the Department of Mental Health's eastern region. (Figure 2)

The Engaging Patients in Care Coordination Program, developed out of BHN's core initiatives, aims to increase access to treatment for opioid overdose survivors by connecting individuals to treatment after beginning medication assisted treatment in the ED. The program's goals include improving client recovery ambivalence through engagement with peer counselors before discharge from the ED, increasing substance use treatment and access to medication assisted treatment, providing overdose education and naloxone distribution, increasing MAT induction in

Figure 2: BHN Service Map, July 2017



Source: Behavioral Health Networkix

the ED, and increasing medical staff willingness and capability to provide long-term MAT.

Early observation notes that 82 percent of eligible patients were willing to engage with a peer counselor in the ED to receive resources post-discharge. In a six-month period, recovery coaches connected 34 percent of engaged clients to treatment services and/or medication assisted treatment. While at first glance this rate might seem low, it is important to note that projects doing similar work report a 37 percent engagement rate. The effect of early MAT induction and maintenance bears out in the literature, as well as through the EPICC pilot. Of those receiving MAT, 69 percent still were engaged in treatment 30 days out versus 0.2 percent who did not receive MAT. Ongoing work to connect this population to treatment resources is critical, yet difficult. Through the Opioid State Targeted Response Grant, expansion of the EPICC pilot is underway through a broader catchment area, additional recovery coaches and extensive use of MAT. Post pilot referral volume has increased significantly, serving over

"The EPICC project incorporates exactly the type of innovative, evidence-based and compassionate strategies we need to best assist people living and struggling with opioid use in the midst of this public health crisis. The work of the EPICC team rightfully focuses on improving the pipeline to care – something we've been struggling to address as a state and a county, with deadly consequences. EPICC doesn't let anyone fall through the cracks."

Rachel P. Winograd, Ph.D., Assistant Research Professor,
Missouri Institute of Mental Health, University of Missouri – St. Louis

500 patients since program inception, with a current monthly average of 100 referrals, demonstrating the need for treatment in the Eastern Region.

Barnes Jewish Hospital, an EPICC partner during the pilot, continues to improve care for patients presenting to the ED with acute substance abuse conditions. Evan Schwarz, M.D., BJH ED physician, also certified in medical toxicology and addiction treatment, saw how frustrated physicians, nurses and patients were in managing substance abuse issues in the ED setting. Through a partnership with BHN and other BJH ED physicians, an innovative approach came together to initiate early MAT induction in the ED.

Dr. Schwarz started the pilot by first educating the ED social workers on the new approach. If the patient met the pilot criteria, the social workers would refer the patient to both Dr. Schwarz and an EPICC recovery coach. The pilot has since expanded with an additional four physicians who obtained waiver licensure and 10 to 15 more who have taken the course and are pending waiver licensure. Dr. Schwarz notes rapid MAT induction has been very successful for them with a limited need for new protocols, changes of process, etc. While pilot data still is very preliminary, anecdotally, patients who start MAT in the ED and continue maintenance are doing well. The initial fears, stigma and potential negative consequences

identified haven't come to fruition. Dr. Schwarz notes, for the most part, that they have not seen the same patients returning to the ED for substance abuse, and the volumes of patients with a substance abuse diagnosis has not increased.

Expansion of programs like ED MAT induction have the potential to spread and scale to many settings. Obstacles to overcome include ongoing financial support for peer counselors, increasing options for access to treatment and payment for services, and simplifying the buprenorphine waiver licensure process to enable wider physician coverage.

CoxHealth in Springfield, Mo. formed stronger connections with Burrell Behavioral Health to connect patients to the mental health care system post-ED visit. An acute care stabilization unit for those patients not acutely suicidal was formed where social workers and mental health workers engage with patients and families to transition from inpatient psych/ED visit to home. A specialty subacute rehabilitation center also was developed to support patients with chemical dependence, starting MAT, prescription cost support and transportation between care settings. The program is successfully helping create improved care for psychiatric patients with approximately a 50 percent reduction in return ED visits.

The Emergency Room Enhancement **Project** is a highly effective program designed to improve the coordination of care for individuals with mental illness or substance use disorders who seek treatment in EDs. Stabilization can be difficult and often requires considerable time and manpower. The project has been implemented in over 75 hospitals and health centers in 12 regions of Missouri to develop models of effective intervention in the ED setting, creating alternatives to unnecessary hospitalization and extended ED stays. Areas designated for ERE projects include Cape Girardeau, Columbia, Hannibal, Joplin, Kansas City, Poplar Bluff, Monett, Rolla, Springfield, St. Joseph, St. Louis and Trenton. (Figure 3) Collaboration among stakeholders, such as law enforcement officers, ED staff, community mental health center staff, substance use treatment providers and other community service

Figure 3: Current ERE Service Map



Source: Missouri Coalition for Community Behavioral Healthcare<sup>x</sup> staff is critical to achieve this aim and provide services in an efficient and cost-effective manner.

The data gathered from provider agencies translates into documented success and improved outcomes. Missouri has served over 5,500 individuals in the ERE program since 2014. The documented success of this program is illustrated by 69 percent reduction in ED visits, 72 percent reduction in hospitalizations, 73 percent reduction in homelessness, 31 percent reduction in unemployment and 56 percent reduction in law enforcement contact with the individuals enrolled.

## Chronic Conditions and Super-Utilizer Management Approach

As discussed in the Nov. 2017 edition of HIDI HealthStats, it is estimated that super-utilizers collectively account for 4 to 8 percent of all patients and 21 to 28 percent of all ED utilization. iii, iv Super-utilizers typically have a variety of clinical, social and behavioral complexities that add extreme difficulty in deploying interventions designed to reduce their ED utilization and route them to more appropriate care options. Lessening use of the ED as the "one stop shop" for care is critical to greater continuity of care, patient health outcomes and reducing unnecessary health care expenditures. Freeman Health System in Joplin, Mo., recognized the trend of ED

super-utilizers and higher frequency of visits by patients with chronic conditions. Lisa Nelson, Grant Program Supervisor, reports that about five years ago, the hospital received grant funding for the EMBARK Project - a project with goals to provide better pathways for individuals with substance abuse and serious mental illness issues. They partnered with the Ozark Center — the largest community mental health center in the region — to develop a behavioral health assessment team located in the ED and staffed by the Ozark Center. Over the course of the EMBARK Project, despite a steadily increasing volume of patients with mental health needs, the collaboration was able to reduce the ED repeat visit rate by 80 percent, largely through further stakeholder collaborations, improved efficiency in the ED setting and better communication among providers. Freeman also worked with law enforcement and local drug/mental health court systems, as well as a Department of Mental Health community navigator position, to work through identified barriers. Nelson credits the work of Jeff Brenner, M.D., from the The Camden Coalition in Camden, N.J., who was one of the first to use the idea of "hotspotting" patients as an intervention. Brenner's work espouses working at the tails of the traditional bell curve - demonstrating that human-centered, coordinated care, combined with the smart use of data,

can improve a patients' quality of care and reduce expensive, ineffective inpatient stays and emergency room visits.xi

With Dr. Brenner as technical adviser, Freeman engaged medically and socially complex patients.

One result of the EMBARK project data was the drive to engage patients further upstream. Nelson states the next steps were to study the medically complex patient who presents to the ED six or more times annually and is seen for issues manageable in a primary and/or specialty care setting. A common theme was that care provided to these patients in the ED could and should be done in a more appropriate setting - defined as medical acuity level and necessity, provider access, and cost per case. While medical complexity was easily discerned through the EHR, understanding patient social complexity was not. For example, ED staff would make appropriate discharge referrals, but were uninformed as to if the follow-up actually occurred and/or was effective. The systemic care is missing, not lack of care or poor quality care in the ED. The team at Freeman posed the following questions in pursuit of better serving this population.

- How can we relocate this patient's care and better serve their needs outside of the ED?
- Why do patients continue to come to the ED and wait very long times to be seen for non-urgent/emergent issues?
- What is their motivation?

Freeman was recently awarded funding by Missouri Foundation for Health for a four-year community care program. The program will use data to identify at-risk patients and partners with 10 different local community agencies to support patients' medical and social needs. Program goals are to encourage only appropriate ED visits and transition patients to a supportive outpatient care environment. While just underway, Nelson states the biggest learning curve might be working with partners to understand how to share



#### DECEMBER 2017 DE

responsibility for these community members, particularly in light of a market that still is firmly ensconced in a feefor-service environment.

Shifting care from the ED to the outpatient/ambulatory setting changes the dynamic for the patient, for providers and for hospital finances. Other barriers include working through electronic medical record interoperability issues, scaling the program to engage providers and agencies to serve a large catchment area while lacking specialty services often found in an academic medical center region. Despite these challenges, Nelson states Freeman Health System is committed to this journey because the ultimate goal is meeting the needs of patients in its community.

Similarly, **CoxHealth** in Springfield, Mo., was experiencing their own ED utilization challenges. John Archer, BSN, R.N., CEN, Administrative Director of the ED, states they focused on super-utilizers – defined at CoxHealth as those with five or more visits on a rolling 12-month basis. This population was then further stratified into cohorts based on chief complaints.

Archer states that partnering with system and community resources was critical to addressing the needs of super-utilizer patients. Internally, a change in system bylaws opened access to CoxHealth clinic physicians, reducing appointment wait times from four to six weeks to a follow-up appointment within five days. Some PCPs still were unable to accommodate a follow-up within five days, so a high-risk clinic staffed with an advanced practice nurse to see walkins and patients needing next day follow-up was developed. CoxHealth also identified three chronic conditions allowed to access the APN-ran clinic if their PCP isn't available – providing an outlet to avoid unnecessary ED visits.

Addressing dental pain patients was critical in the Springfield community. Partnering with Jordan Valley Community Health Clinic, a federally qualified health center, Mercy Springfield, and with funding from the Missouri Foundation for Health, CoxHealth developed an ER Diversion dental pain management program after an initial three-week trial. The dental clinic would see any patient reporting to the ED for tooth pain before 3:00 p.m. the same day with a nominal copay. ED physicians would provide initial comfort through a local anesthetic block and then refer the patient to the dental clinic. Patients were not prescribed opioids in the ED for tooth pain. If after 3:00 p.m., ED physicians would prescribe enough pain medication and antibiotics to see the patient through to the next day when the dental clinic re-opened. Program data found the return to ED rate for the dental pain population dropped dramatically, with only three out of 95 patients

returning. Because these patients often have other medical conditions, Jordan Valley case managers also assist patients in accessing the health care system, finding a PCP and a medical home.<sup>xii</sup>

CoxHealth also sees community paramedics as an untapped resource to provide better care to super-utilizers and patients with chronic conditions. Partnering with Mark Alexander, Director of EMS, they currently employ five full-time paramedics each who work with 15 to 20 patients, completing daily/weekly visits for up to 12 weeks to support a plan of care and helping patients be successful in self-management. The paramedics engage with the patient in intense therapy to work through medical and social needs, access resources, and get costly prescriptions. While the program currently is in the city of Springfield only, there are plans to expand to rural areas.

### Conclusion

Improving ED utilization is a lynch pin for health care. Appropriate service use increases efficiency and revenue, avoids delays in care, and serves to mitigate safety risks. Patients experience a more coordinated delivery model when care is received at the right place, at the right time and with the right providers. Ongoing stratification and use of predictive analytics to direct patient care to create efficient pathways is needed. However, while EDs across the country continue to deploy interventions aimed at achieving the Triple Aim of better health, better care, at lower costs, they cannot overcome all obstacles single-handedly. Adjustment to EMTALA is called for to allow consumer protection, but also to ensure patients receive medically-necessary care in the most appropriate location. Implementing zero violence policies for workplace violence in partnership with local law enforcement and finding broad solutions for direct placement of psychiatric patients with acute illness also are required to support health care provider resiliency. Finally, the reimbursement model must be developed to support chronic condition management and accountability in the ambulatory setting with outreach support to identify symptoms that worsen early. Just as innovative, unique and sometimes radical solutions to complex medical and social problems are commonly seen in every episode of "ER," today's challenges around the best way to utilize the ED for optimal patient and worker safety will require the same.

Special thanks and recognition given to Missouri hospitals who shared their innovative work and experiences toward this publication.

#### DECEMBER 2017 ■ ED Utilization — Right Care. Right Place. Right Time.

# **Suggested Citation**

Williams, A. (2017, December). ED Utilization – Right Care. Right Place. Right Time. *Trajectories*. Missouri Hospital Association. Available at <a href="http://www.mhanet.com">http://www.mhanet.com</a>

## References

- Jiang, J., Weiss, A., and Barrett, M. (2017, Feb). Characteristics of Emergency Department Visits for Super-Utilizers by Payer, 2014, Healthcare Cost and Utilization Project Statistical Brief #221. Agency of Healthcare Research and Quality. Retrieved from: https://www.hcup-us.ahrq.gov/reports/statbriefs/sb221-Super-Utilizer-ED-Visits-Payer-2014.jsp?utm\_source=ahrq&utm\_medium=en-1&utm\_term=&utm\_content=1&utm\_campaign=ahrq\_en3\_7\_2017
- ii Hospital Industry Data Institute. (2017). Specific request data run. Missouri Hospital Association.
- Moore, B., Stocks, C. and Owens, P. (2017, Sept). Healthcare Cost and Utilization Project Statistical Brief #227: Trends in Emergency Department Visits, 2006-2014. Agency of Healthcare Research and Quality. Retrieved from: https://www.hcup-us. ahrq.gov/reports/statbriefs/sb227-Emergency-Department-Visit-Trends.jsp
- iv Marcozzi, D., Liferidge, A., Carr, B. (2017, Oct). Trends in the Contribution of Emergency Departments to the Provision of Health Care in the USA. International Journal of Health Services. Retrieved from: http://journals.sagepub.com/doi/ full/10.1177/0020731417734498
- Augustine, J. (2016, Apr). National Surveys on Emergency Department Trends Bring Future Improvements Into Focus. American College of Emergency Physicians Now. Retrieved from: http://www.acepnow.com/article/national-surveys-emergency-department-trends-bring-future-improvements-focus/
- vi AHC Media. (2000, Nov). OIG shifts focus to civil monetary penalties. https://www.ahcmedia.com/articles/58831-oig-shifts-focus-to-civil-monetary-penalties
- vii Callagy, P. and Shen, S. (2017, Sept.) How optimizing front-end emergency department flow can enhance patient care and satisfaction. Presentation slide deck at 2017 Discharge Planning Summit, Orlando, FL.
- viii Remsa Health. (2017). Community Health. Retrieved from: https://www.remsahealth.com/community-health/
- ix Behavioral Health Network. (2017). Website. http://bhninc.org/
- Missouri Coalition for Community Behavioral Healthcare. (2017). Website. http://mocoalition.org/
- xi The Camden Coalition. (2017). Better health care at lower cost in Camden, NJ. Retrieved from: https://www.camdenhealth.org/
- Jordan Valley Community Health Center (2017, Mar). Jordan Valley Community Health Center presentation. Retrieved from: https://www.oralhealthmissouri.org/images/941/document/pfannenstiel-mcoh-presentation-er-diversion-jordan-valley\_444.pdf



© 2017 Missouri Hospital Association P.O. Box 60 Jefferson City, MO 65102-0060