



Issue Brief – No. 811  
July 7, 2006

## Don't Bring Me Your Tired, Your Poor: The Crowded State of America's Emergency Departments

Jessamy Taylor, *Research Associate*

**OVERVIEW** — *If the time comes, people expect that the emergency department (ED) will have the resources necessary to treat them in a timely, high-quality manner. Increasingly, however, EDs may not be able to meet that expectation. Hospitals in urban areas with large populations, high population growth, and higher-than-average numbers of uninsured are particularly crowded: ambulances are often diverted to other hospitals and patients are frequently forced to “board” in the hallways (while they wait to be transferred to another facility or part of the hospital). This issue brief places EDs in the context of the U.S. health care system and its economics, discusses existing ED capacity and utilization, where crowding is happening and ways of measuring it, what is causing crowding in EDs, and the consequences of crowding. It highlights a number of potential ways to alleviate crowding at both the health system and the individual hospital level.*

THE GEORGE  
WASHINGTON  
UNIVERSITY  
WASHINGTON DC

# Don't Bring Me Your Tired, Your Poor: The Crowded State of America's Emergency Departments

Although insurance coverage and income create substantial differences in where and when people access primary and specialty health care, the emergency department is the one place everyone goes to seek treatment for a medical emergency. The popular television show "ER" notwithstanding, the common term in the field is the emergency department, or ED, reflecting the broad array of services and functions provided. Because of the Emergency Medical Treatment and Active Labor Act (EMTALA) (see text box, page 15) passed in 1986, the ED is the only place in the U.S. health care system required to provide health care to an individual regardless of his or her ability to pay, insurance status, or citizenship.

## CHALLENGES FACED BY EDS

Across the country, most urban EDs report experiencing difficulty at some point in providing timely, effective emergency medical care. Pressures external to and within hospitals manifest as overly busy and crowded EDs. External stressors include sicker patients and inadequate access to primary and specialty care for the insured and uninsured, resulting in using the ED for nonurgent conditions; internally, too few staffed inpatient beds are the biggest problem. In addition to these daily pressures, EDs will be expected to provide care should an influenza pandemic occur or any other regional or national emergency.

In many ways, EDs serve as a barometer of the state of the health care system, and their crowded state may signal trouble in access to primary and specialty care, as well as hospital inefficiencies. Many ED patients must wait for extended periods of time to see a physician, and some who have been seen and are admitted to the hospital must first "board" in the emergency department until an inpatient bed becomes available. Patients who board in the ED consume the limited staff and space resources and may restrict the availability of those resources for other patients in the ED. Such saturation often leads EDs to request ambulances to divert to neighboring EDs to limit additional demand on resources. But, while diversion may provide a respite for one overwhelmed facility, the burden is shifted to other EDs, which can cause a diversion domino effect whereby multiple EDs in a community turn away ambulances. Naturally, this vicious cycle creates difficult conditions in which to provide timely, high-quality care in EDs.

**National Health Policy Forum**  
Facilitating dialogue.  
Fostering understanding.

2131 K Street NW, Suite 500  
Washington DC 20037

202/872-1390  
202/862-9837 [fax]  
nhpf@gwu.edu [e-mail]  
www.nhpf.org [web]

**Judith Miller Jones**  
*Director*

**Sally Coberly**  
*Deputy Director*

**Monique Martineau**  
*Publications Director*

A number of key health policy organizations have focused their energy on examining this issue in recent years. The Government Accountability Office (GAO) published a study that explored ED crowding in 2003, and the Center for Studying Health System Change has documented the problem through data derived from the 12 communities it tracks. Most recently, the Institute of Medicine weighed in on the issue, publishing a three-report series on the state of the U.S. emergency care system in June 2006 and concluding that the hospital-based piece of the emergency care system is “at the breaking point.”<sup>1</sup>

### **Economics of Care in the ED**

Crowded EDs, boarded patients, and diverted ambulances are an important issue for federal policymakers because EDs are a key part of the nation’s health care delivery system for everyone as well as a critical component of the health care safety net for the uninsured and underinsured. Further, the government is a significant payer of hospital admissions that originate in the ED: in 2003, 45 percent of Medicare admissions to hospitals and 20 percent of Medicaid admissions began in the ED.<sup>2</sup>

The inclusion of an ED in a hospital is not merely an economic decision but in some states is required for hospital licensure, and EDs are also a critical part of a hospital’s charitable mission. About 60 percent of community hospitals in the United States operate as nonprofit organizations, 23 percent are owned by local or state governments, and 17 percent operate as for-profit organizations.<sup>3</sup> Nonprofit hospitals have tax-exempt status. In exchange for the local, state, and federal tax relief they receive, the Internal Revenue Service (IRS) requires that those hospitals promote the health of the community, a practice known as meeting the “community benefit standard.” The standard is rather ambiguous but includes activities such as maintaining a community board; treating Medicaid and Medicare patients; operating a full-time emergency room that provides treatment to all patients regardless of their ability to pay; and channeling any surplus dollars into improving equipment, facilities, patient care, or medical training, education, or research.<sup>4</sup> The IRS also requires that free and charity care must be provided to indigent patients but it does not quantify a percentage or amount. There has been much public debate in recent years about the adequacy of nonprofit hospitals’ community benefit activities—whether they are enough to balance the tax benefits gained, and whether some sort of accountability standard needs to be created.

The economics of EDs vary by each hospital’s payer mix. Some EDs are money losers for their hospitals because they have large fixed costs, such as being open and staffed by highly trained professionals 24 hours

a day, 7 days a week, and large numbers of patients who do not pay or whose insurance pays too little. However, EDs can be key contributors to hospital financial performance because they are a significant gateway to hospital admissions, accounting for about 40 percent of all hospital admissions, and thus are an avenue to receiving the more lucrative reimbursements that come with inpatient stays for the insured.<sup>5</sup> In theory, hospitals would maximize the number of patients going through the ED because certain costs are sunk so the marginal cost of an additional patient is minimal. But that theory becomes academic when the revenue from an ED patient is particularly low and their treatment opens up the potential for losses on inpatient services. And most public hospitals, with a high number of uninsured inpatient admissions and a fixed county subsidy, cannot benefit financially from increased admissions that come through the ED.

### Staffing Arrangements

A typical ED is staffed by emergency physicians, residents (if it is a teaching hospital), physician assistants, various levels of nurses, and technicians. An array of specialists is also on-call, should a particular need arise. The most recent data show that in 2000 there were about 32,000 emergency physicians in clinical practice in the United States, with close to 65 percent of them board-certified in emergency medicine.<sup>6</sup> There are a number of employment arrangements between emergency department physicians and hospitals. According to the the Centers for Disease Control and Prevention's (CDC's) National Hospital Ambulatory Medical Care Survey, 21 percent of EDs employ their physicians directly and 65 percent use independent contractors, typically physician groups.

### Capacity and Utilization

ED capacity varies by community and is not limited to nonprofit or government hospitals. Whereas virtually all nonprofit and government-owned community hospitals have EDs, about 65 percent of for-profit hospitals, which do not have a community benefit obligation, maintain EDs.<sup>7</sup> Demand for emergency services is increasing while the number of emergency departments is decreasing (Figure 1, next page). Between 1994 and 2004, total visits increased by 18 percent to 110 million. The

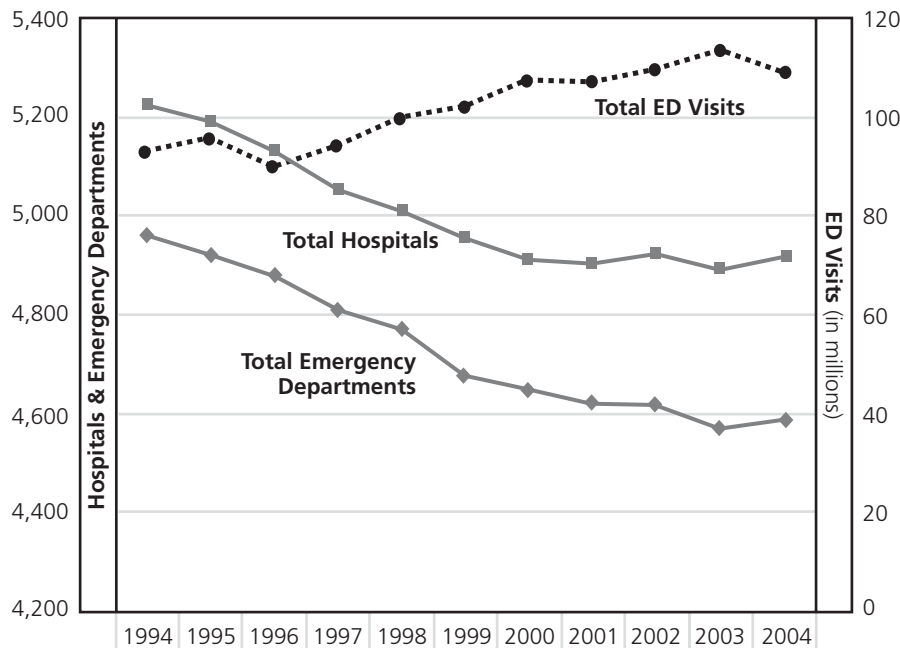
### Trauma Centers

Trauma centers are a highly specialized subset of hospital emergency departments.

They differ from general hospital emergency departments in that they have trauma surgeons and other specialists available "24/7" to deal with the most severe, life-threatening injuries. The American College of Surgeons created a trauma classification system that includes four levels, with level one centers providing the most comprehensive trauma care. A 2002 inventory identified 1154 adult trauma centers in the 50 states and District of Columbia. Trauma centers are designated by either a state or regional authority and/or are verified by the American College of Surgeons Committee on Trauma.\*

\* Ellen J. MacKenzie et al., "National Inventory of Trauma Centers," *Journal of the American Medical Association*, 289, no. 12 (March 26, 2003): 1515–1522.

**FIGURE 1**  
**Trends for Total ED Visits, Number of Hospitals,**  
**and Number of Emergency Departments, 1994–2004**



Sources: Data on the number of hospitals and EDs is from the American Hospital Association, *TrendWatch Chartbook 2006, Appendices, tables 2.1 and 3.3, April 2006*; available at [www.ahapolicyforum.org/ahapolicyforum/trendwatch/chartbook2006.html](http://www.ahapolicyforum.org/ahapolicyforum/trendwatch/chartbook2006.html). Data on the number of ED visits is from Linda F. McCaig and Eric W. Nawar, “National Hospital Ambulatory Medical Care Survey: 2004 Emergency Department Summary,” *Centers for Disease Control and Prevention, National Center for Health Statistics, Advance Data From Vital Health Statistics, no. 372, June 23, 2006*.

visit rate per 100 persons rose 6 percent over that decade, whereas the number of EDs declined by 7 percent.<sup>8</sup> It appears that the decline in EDs is largely the result of entire hospitals closing, not just their EDs. Because there are no data that capture national ED capacity, the impact of these ED closures is unclear. It is possible that while the aggregate number of EDs has declined, the capacity within the remaining EDs has increased. The American Hospital Association (AHA) estimates that about half of EDs have less than 20,000 visits per year, about one-third have between 20,000 and 49,000 visits, and the remainder have over 50,000 visits per year.<sup>9</sup> But without an estimate of total ED visit capacity, it is impossible to know how much visit volume may need to be removed or redistributed to prevent crowded EDs. And, because crowding varies across and within health care markets, these issues of capacity, volume, and distribution will need to be examined at the individual market level.

## Demographic Trends: Who Visits the ED and Why?

The reasons people visit an ED range from life-threatening conditions to primary care–treatable ones. Understanding utilization by age, race and ethnicity, and insurance status may help policymakers target efforts to reduce inappropriate ED use and prevent the need for some appropriate ED use, such as injuries.

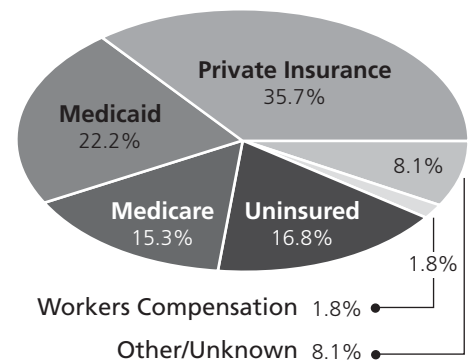
**Insurance status** — Conventional wisdom holds that uninsured patients disproportionately use the ED for care. In reality, patients with insurance, including Medicare and Medicaid, constitute the bulk of ED visits. The largest percentage of visits was made by the privately insured, followed by those with Medicaid, the uninsured, and lastly, those with Medicare (Figure 2, right). However, when looking at the number of visits per 100 persons of a certain insurance type, a different picture emerges. Medicaid beneficiaries have the highest visit rate, close to double that of the uninsured and more than three times that of the privately insured (Figure 3, next page).<sup>10</sup>

Compared with the privately insured and uninsured, Medicaid enrollees tend to be younger (many are children), poorer, and sicker. Among adults, 40 percent of those with Medicaid considered themselves in fair to poor health in comparison to 25 percent for the uninsured and 13 percent for the privately insured. Higher rates of health problems likely account for some of the higher ED use among Medicaid beneficiaries. Even when data are controlled for health status and health system factors, analysis shows that Medicaid beneficiaries visit the ED at a greater frequency than the privately insured and uninsured.<sup>11</sup> Possible explanations include limited participation by physicians in the Medicaid program and thus the greater likelihood that beneficiaries will not have a usual source of care; those with a usual source of care typically face long waits at safety net clinics and difficulty getting after hours appointments. Medicaid beneficiaries may also perceive the ED as a higher quality provider and may be more likely to be told by their primary care physicians to go to the ED. Finally, they have no or nominal co-payments for an ED visit in contrast to the privately insured who often have sizeable deductibles and co-payments for ED visits, and the uninsured, who receive the entire bill for services.<sup>12</sup>

**Diagnoses** — Injury (including fractures, wounds, burns, etc.) and poisoning tops the list of ED visits by disease category at about one-quarter of all visits, followed by “ill-defined conditions,” respiratory

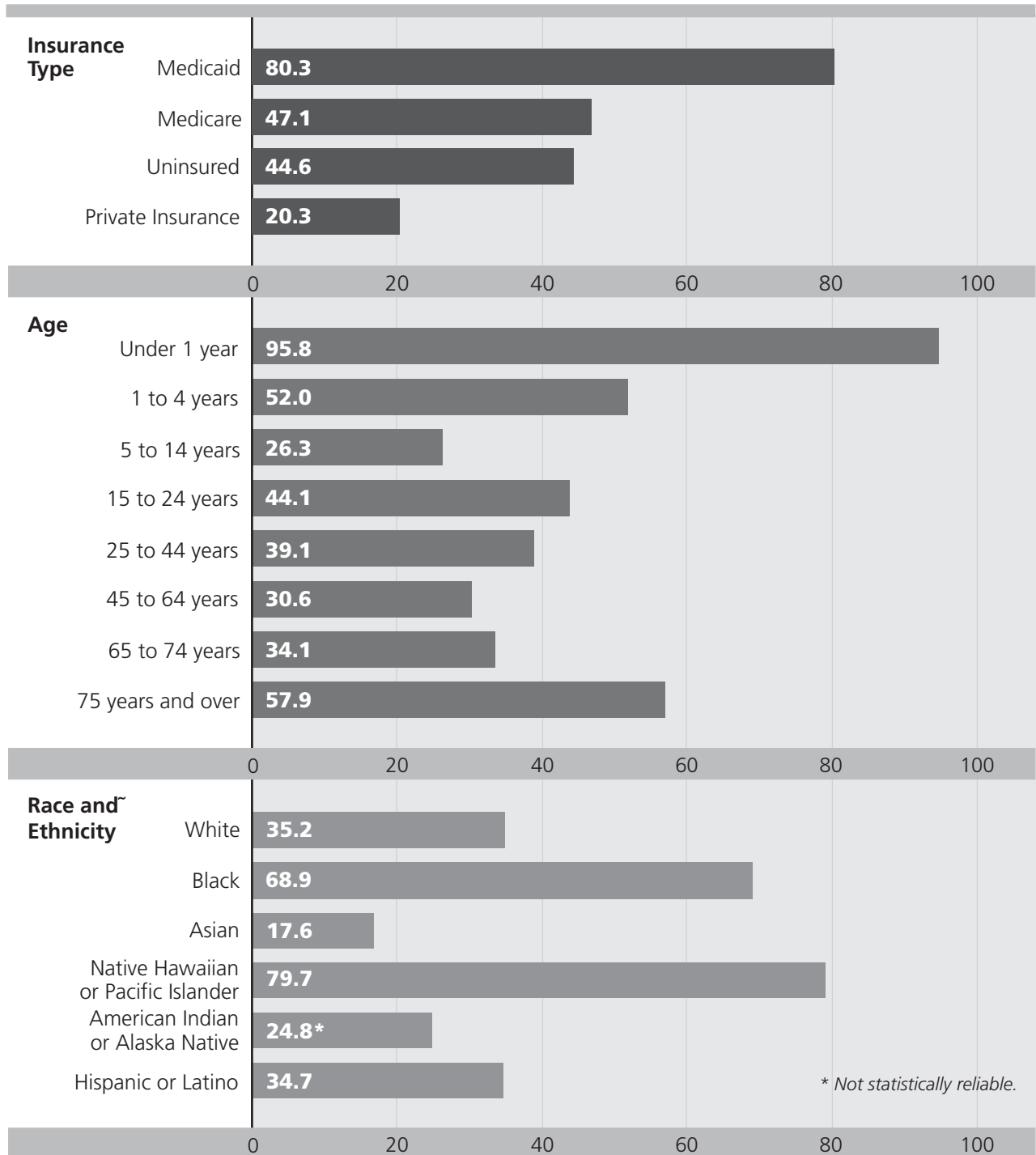
Continued, page 8 ►

**FIGURE 2**  
Percentage of ED Visits,  
by Insurance Type



Source: Linda F. McCaig and Eric W. Nawar, “National Hospital Ambulatory Medical Care Survey: 2004 Emergency Department Summary,” Centers for Disease Control and Prevention, National Center for Health Statistics, Advance Data From Vital Health Statistics, no. 372, June 23, 2006.

**FIGURE 3**  
**Rate of ED Visits Per 100 Persons by Category, 2004**



Source: Linda F. McCaig and Eric W. Nawar, "National Hospital Ambulatory Medical Care Survey: 2004 Emergency Department Summary," Centers for Disease Control and Prevention, National Center for Health Statistics, Advance Data From Vital Health Statistics, no. 372, June 23, 2006.



► **Continued** from page 6

system diseases, and digestive system diseases (Table 1, right). Mental disorders represent 3.4 percent of all ED visits. Around 4 million visits or 3.5 percent of all visits are related to alcohol.<sup>13</sup>

**Utilization disparities** — Although the driving factors behind utilization trends are not clear, some trends among sub-populations of ED users merit attention. Racial and ethnic disparities in ED utilization exist across all age groups (Figure 3, previous page). For example, the visit rate per 100 black persons was 68.9 and 35.2 for white persons, and it was 86.2 for black persons over 75 years and 56.3 for white persons of that age group. Over the past 11 years, visit rates have increased for those 22 to 49 years old (up 15 percent), 50 to 64 years old (up 17 percent), and 65 years old and older (up 8 percent). And, although not surprising because of their frailty, the visit rate per 100 persons who are institutionalized (those in nursing homes or prisons) was 66.8 compared with 35.6 for the noninstitutionalized.<sup>14</sup>

**Visit acuity and length** — A significant percentage of ED visits were for nonurgent conditions that could have been treated in settings other than the ED. Since 1997, the CDC has tracked the acuity level of ED visitors across a four-level triage system: emergent (requiring care in less than 15 minutes), urgent (requiring care from 15 to 60 minutes), semiurgent (requiring care between 1 and 2 hours), and nonurgent (requiring care between 2 and 24 hours). In 2004, the CDC estimated that about 14 million visits, or 12.5 percent of all visits that year, were nonurgent and thus treatable in a primary care setting compared with 10 percent of visits in 1997. A significant proportion of the visits are documented as unknown acuity: 22 percent in 1997 and 15 percent in 2004. Many argue that at least some of these unknown-acuity cases are for nonurgent care and that the percentage of cases that are nonurgent is likely higher than 12.5 percent, but there is not enough information to determine whether this is true. A different attempt to capture the number of nonurgent visits in the ED was created by John Billings and his colleagues at New York University. Their profiling algorithm was used in a ten-community assessment of ED visits and found higher proportions of visits that did not need to be seen in the ED compared with the CDC data: it showed that 21.4 percent of ED visits were nonurgent.<sup>15</sup>

The CDC found that half of ED visits in 2004 were for conditions that were triaged as emergent or urgent and therefore were appropriate ED utilization. Twenty-two percent of visits were considered semiurgent

**TABLE 1**  
**Percentage of ED Visits by Top Ten Disease Groups**

Primary Diagnosis	Percent Distribution*
Injury / Poisoning	26.4
Symptoms, signs, and ill-defined conditions	18.8
Diseases of the... — Respiratory system	10.3
— Digestive system	6.0
— Musculoskeletal system	5.7
— Nervous system / sense organs	4.9
— Genitourinary system	4.6
— Circulatory system	3.8
— Skin / subcutaneous tissue	3.6
Mental Disorders	3.4

\* Does not add to 100 percent because only the ten disease groups with the greatest percentage are listed.

Source: Linda F. McCaig and Eric W. Nawar, "National Hospital Ambulatory Medical Care Survey: 2004 Emergency Department Summary," Centers for Disease Control and Prevention, National Center for Health Statistics, *Advance Data From Vital Health Statistics*, no. 372, June 23, 2006.



and thus potentially appropriate ED use if the ED was visited outside of normal physician office hours. On average, patients waited about 45 minutes to see a physician and spent a total of about 2.5 hours in the ED; 2 percent of visitors left before being seen by a physician.<sup>16</sup>

## **THE RESULT: CROWDED CONDITIONS**

It is generally agreed that ED crowding is variable by community and hospital and that it is mostly an urban phenomenon. But few national surveys have been conducted to measure crowding, and further study would help policymakers target efforts to address it. The causes of crowding are a complex confluence of demand, supply, and hospital inefficiency factors whose configuration also differs by community and hospital.

### **Measuring Crowding**

While there are no national data sources that measure ED crowding, a number of studies have tried to quantify the extent of crowding in EDs across the country. A 2001 Lewin Group analysis of ED and hospital capacity data collected by the AHA found that 62 percent of all EDs surveyed felt they were at or over operating capacity.<sup>17</sup> Urban and teaching hospitals experienced the worst crowding. The analysis further found that crowding was the most acute in New England, the mid-Atlantic, and the West Coast regions.

The March 2003 GAO study surveyed over 2,000 community hospitals in urban areas and used three indicators to measure crowding: the number of hours an ED was on ambulance diversion in a year; the percentage of patients boarding for two hours or more, and the average number of hours boarded; and the proportion of patients who left the ED after triage but before receiving a medical evaluation.<sup>18</sup> In general, they found that crowding varied by community and by hospital but that it was worse in areas with populations over 2.5 million, with high population growth, and with larger uninsured populations than average. Where crowding was happening, it tended to be a significant problem. For example, about one-tenth of hospitals were on diversion at least 20 percent of the time, or about five hours per day. Other findings were as follows:

- About two-thirds of hospitals went on diversion at least once during the year, and about one-fifth were on diversion for more than 10 percent of the time.
- Boarding occurred for two hours or more at nine out of ten hospitals; 20 percent of hospitals reported an average boarding time of eight hours or more.

- At three-quarters of hospitals, up to 3 percent of patients left after triage and before medical evaluation; at about 7 percent of hospitals, 5 percent or more of patients left.<sup>19</sup>

### Causes of ED Crowding

ED crowding is a function of volume of visiting patients, the capacity of EDs to handle them, the acuity of their cases, the efficiency of EDs to treat them, and the ability to move any admitted patients to another unit of the hospital. Within each of these areas a number of factors are at play. Visit volume, for example, is influenced by the accessibility of primary and specialty care (including mental health services) in the community, insurance rates, and EMTALA rules. ED efficiency is affected by nurse, emergency physician, and on-call specialist staffing and by the turn-around time for diagnostic tests and lab work. The efficient disposition of patients from the ED depends on the availability of inpatient beds—especially intensive care beds—as well as hospital inpatient efficiency.

**Constrained inpatient capacity and hospital inefficiencies** — One of the key reasons given by ED staff for boarding patients is a lack of inpatient beds, especially critical care beds, into which ED patients who need to be admitted to the hospital can be moved. (Nationally, about 13 percent of ED patients are admitted.<sup>20</sup>) Several factors have caused the number of staffed inpatient beds to drop from 926,000 to 808,000 from 1990 to 2004.<sup>21</sup> Prospective payment systems (PPS) were implemented in Medicare for inpatient care in 1984. With a PPS, hospitals receive a predetermined payment rate for an entire episode of care. Private payers also began seeking and receiving significant discounts rather than paying hospital charges. These constraints on revenues gave hospitals a strong incentive to operate efficiently to earn profits or margins, for example, by reducing inpatient lengths of stay and costs per day. Meanwhile, clinical practice advancements shifted the point of care in many cases to the outpatient setting, thereby reducing admissions. As the average length of stay decreased, hospitals experienced an excess of staffed bed capacity and therefore cut costs by staffing fewer beds. Entire hospital floors were closed and staffed inpatient capacity decreased.

One would expect to see high occupancy rates for available staffed beds as evidence for the widely held conclusion that ED boarding results from insufficient staffed inpatient bed capacity. However, staffed inpatient bed occupancy rates dropped nationwide from 75 percent in 1980 to 67 percent in 1990 and 66 percent in 2003.<sup>22</sup> This apparent inconsistency may

**A key reason for boarding patients is a lack of inpatient beds, especially critical care beds, into which ED patients admitted to the hospital can be moved.**

not mean that staffed inpatient bed capacity is adequate, however. One possible explanation is that occupancy rates can vary dramatically depending on the calculation used. For example, real occupancy rates may be higher than the data show because rates are often calculated at midnight when beds are likely to be empty as opposed to noon when they are likely to be full. Rates are also calculated based on occupancy over 365 days, but beds are often empty on weekends (few physicians schedule procedures then) but are full or nearly full during the week.<sup>23</sup> While better data would make the link conclusive, most hospital analysts agree that staffed inpatient capacity is constrained and that it does cause boarding and ED crowding in many hospitals.

Another factor that limits inpatient bed availability, particularly intensive care beds, is the surgery schedule at many hospitals. While EDs are one portal through which hospital admissions take place, scheduled surgeries are another and they typically generate more revenue than ED admissions. Surprisingly, the demand for operating room use and inpatient beds resulting from ED admissions is fairly predictable. Instead, it is the scheduled surgeries that tend to create bottlenecks of bed demand. Often scheduled surgeries are bunched in the middle of the week, creating an increased demand for operating room space and inpatient beds. Spreading out the scheduled surgeries across the week would allow operating room space to be available for emergency cases and reduce the number of scheduled patients who get bumped because of emergency cases.<sup>24</sup>

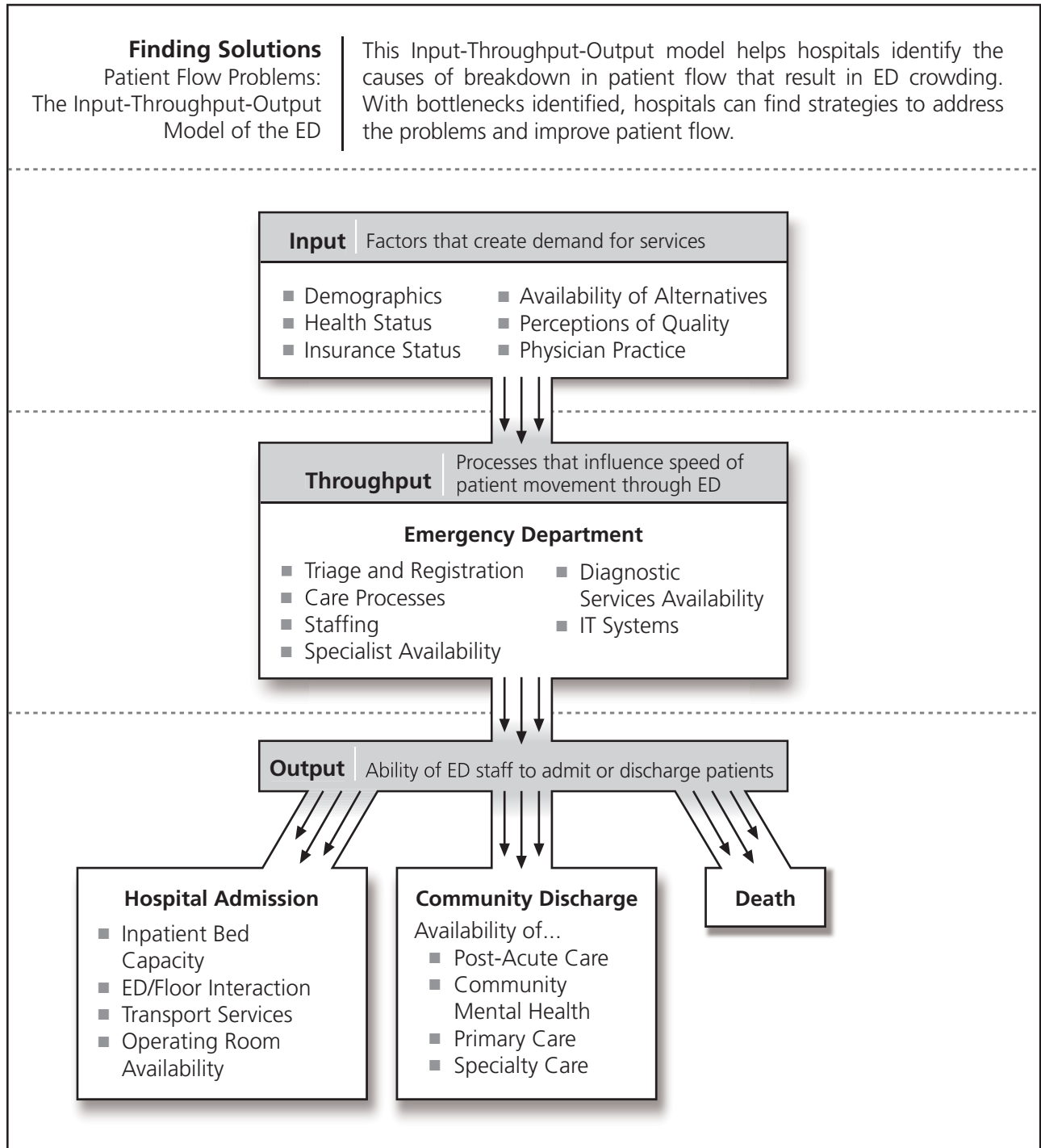
Hospital efforts such as smoothing the surgery schedule to reduce bottlenecks throughout the hospital are generally termed “improving patient flow” (Figure 4, next page). The Robert Wood Johnson Foundation funded the *Urgent Matters* initiative to work with ten communities to develop solutions to ED crowding by improving patient flow in their hospitals and disseminating best practices. Improving patient flow involves focusing on studying input, throughput, and output variables in conjunction with strategic quality improvement initiatives to improve efficiency and reduce boarding and ambulance diversions. Input variables are the reasons people present to the ED; throughput focuses on the ED itself; and output on the hospital’s ability to move patients out of the ED in a timely manner.

**The nursing shortage** — Hospital administrators often blame staff shortages, especially a lack of nurses, for their capacity problems. The Center for Studying Health Systems Change surveyed hospitals in the 12 markets they track on hospital capacity constraints, and the first capacity factor mentioned by hospital administrators was staffing. The AHA estimates

**The *Urgent Matters* initiative works with ten communities to develop solutions to ED crowding by identifying—and resolving—bottlenecks in patient flow.**

Continued, page 13 ►

**FIGURE 4**  
**The Urgent Matters Model of the Emergency Department**



Source: Adapted from Marcia J. Wilson and Khoa Nguyen, "Bursting at the Seams: Improving Patient Flow to Help America's Emergency Departments," Urgent Matters, The George Washington University Medical Center, School of Public Health and Health Services, Department of Health Policy, September 2004, 5; available at [www.urgentmatters.org/pdf/UIM\\_WhitePaper\\_BurstingAtTheSeams.pdf](http://www.urgentmatters.org/pdf/UIM_WhitePaper_BurstingAtTheSeams.pdf).

► **Continued** from page 11

that 8.1 percent of registered nurse (RN) positions are vacant in hospitals across the country.<sup>25</sup> Some assert that hospitals can pursue alternative staffing and workflow models that are less reliant on nurses, but given the current practice configuration in most hospitals, the nurse constraint is real. Although the training pipeline has produced more new nursing graduates in the past few years, the limited availability of nursing programs and faculty can only increase the amount of trained nurses by so much. In addition, retention of nurses continues to be a problem: frustrating work environment issues such as hospital culture, work processes, and the physical configuration present challenges as well, especially in EDs where the pace can be so intense.

**Limited access to primary and specialty care for the insured and uninsured** — Access to care for nonurgent conditions in a primary care setting is a goal for insurers, policymakers, and patients alike (though not a reality for many). Treating nonurgent conditions outside the ED should provide continuous, less episodic care that incorporates patient education and care management. Moreover, treatment in a primary care setting is less expensive than in the ED. This higher ED expense often results from ED physicians having to run a number of diagnostic tests because they have no patient history, as well as from the higher fixed costs of a hospital. While it is important to eliminate nonurgent visits to the ED, such efforts should not discourage patients from seeking appropriate care there. A number of studies have established that about 5 percent of patients who believed their condition was nonurgent were subsequently hospitalized.<sup>26</sup>

Rates of avoidable hospitalizations—primary care-treatable conditions that result in hospitalization because timely and appropriate care was not provided—are another indicator of inadequate access to primary care. Moreover, many of these avoidable hospitalizations enter the hospital through the ED. An analysis of 1980–1998 data from the CDC’s National Hospital Discharge Survey found that avoidable hospitalizations increased from 2.2 to 3.7 million over that time period (5.9 to 11.5 percent of all hospitalizations). The rate per 10,000 persons was 99.2 in 1980 and rose to 133.8 in 1998. Rates were lower for children but higher for those over age 65. Racial disparities in avoidable hospitalizations also increased during the time period.<sup>27</sup>

A decline in physician-sponsored charity care for the uninsured has also put more pressure on EDs. A recent national study by the Center for Studying Health Systems Change found that private physicians offering charity care dropped from 76.3 percent of physicians in 1996–1997 to 68.2 percent from 2003–2004, and the overall number of charity care hours provided per 100 uninsured dropped from 7.7 to 6.3 over that same time period, an 18 percent decline.<sup>28</sup> These drops may have been offset by access expansions in certain communities such as the addition of community health center resources, federal funds to provide primary care to the uninsured; overall, their impact is unclear.

It has been assumed that having a usual source of care or primary care provider reduces inappropriate ED use. In contrast, a recent analysis found that persons with health insurance and a usual source of care are more likely to visit the ED than those without a usual source of care.<sup>29</sup> Nonurgent ED use by those with a usual source of care appears to stem from a patients' dissatisfaction with their physician. Difficulty getting an appointment, having to wait to get an appointment, or difficulty reaching their provider on the phone all strongly correlate with a nonurgent ED visit.<sup>30</sup> Private practices and primary care clinics typically provide little evening or weekend availability. Community health centers can be equally limited in their after-hours availability. This barrier makes the no-appointment-necessary, "24/7" nature of the ED a relatively convenient and, in some cases, necessary place to access primary care.

Both the insured and the uninsured struggle to get access to timely specialty care. Some primary care doctors, in trying to make referrals, tell their insured patients to go to the ED to see a specialist or obtain diagnostic tests that might otherwise take weeks or months to access via office appointment. To such physicians, the ED is seen as a one-stop shop. For the insured nonurgent person, depending on their insurer's level of reimbursement, a payment incentive may exist to get the specialist to come to the ED to treat them. But for uninsured nonurgent persons, despite a perception of 24/7 access to specialty care in the ED, on-call specialists have no financial incentive to come to the ED to treat them.

**Loosening managed care control** — Most states have adopted a "prudent layperson" standard that upholds consumers' right to seek emergency care if they feel they need it, without concern about prior authorization or fear of denial of coverage by their insurer. The Balanced Budget Act (BBA) of 1997 adopted this standard for Medicare and Medicaid managed care enrollees as well. Many analysts feel that this limitation on managed care companies' attempts to control utilization has increased ED visits. But, it is unclear whether actual visits have increased as a result or if managed care companies are just denying payment for ED visits less frequently. In addition, since few primary care providers bear much financial risk anymore, they have little financial incentive to steer their patients away from the ED.

**On-call specialty coverage** — Many hospitals have a difficult time getting specialists to take call. Hospitals need specialists to take call to care for patients who come to the ED as well as to comply with EMTALA (see text box, next page). Specialists need hospital privileges to practice their profession and to create a patient base. Hospitals, ED physicians, and on-call specialists are typically paid separately, so all bear the financial losses of providing care to the uninsured and underinsured under EMTALA. Hospital administrators are faced with the challenge of balancing hospital finances, providing quality patient care, and complying with statutes and regulations with physician compensation and lifestyle preferences.



## The Emergency Medical Treatment and Active Labor Act

The most significant change in emergency treatment policy took place in 1986 when Congress passed the Emergency Medical Treatment and Active Labor Act (EMTALA).<sup>\*</sup> The law was enacted in response to highly publicized cases of hospitals turning away or inappropriately transferring patients who could not pay for their care, a practice known as patient dumping. Although there is debate and litigation interpreting the statutory and regulatory language, broadly EMTALA creates an individual right to emergency services in Medicare-participating hospitals. The Act applies to anyone presenting to the ED of a Medicare-participating hospital, not just Medicare beneficiaries. This individual, legal right to health care is unique in the United States.

EMTALA places two requirements on hospitals. First, a hospital must provide an appropriate medical screening exam to anyone who comes to the hospital emergency department and requests examination or treatment for a medical condition (or for who care is requested). Second, if the hospital determines that the person has an emergency medical condition, it must provide appropriate stabilization treatment or transfer (and hospitalization, if deemed necessary). To meet their screening and stabilization obligation, the statute requires hospitals to maintain a list of specialists who are “on-call” should their emergency physicians need them. Noncompliance with EMTALA can result in civil monetary penalties of up to \$50,000 per violation and/or the hospital losing its Medicare participation status. While hospitals and physicians bill for the care they provide under EMTALA, there is no federally authorized or appropriated funding that reimburses them for that care when the patient does not have insurance or cannot otherwise pay. As a result, many physicians and hospital administrators refer to EMTALA as an “unfunded mandate.”

CMS’s most recent regulations interpreting EMTALA became effective November 10, 2003. The revision was spurred by two events: (i) it grew out of a broad regulatory reform effort undertaken by the Department of Health and Human Services, and (ii) the 2001 Medicare outpatient prospective payment system rule had expanded where

EMTALA applied, including sites like mammography suites, and the emergency care community was pushing back on these expansions. Medical liability costs were in-

creasingly becoming a concern to physicians, who were reacting by not wanting to take call. The new rule clarified that an emergency department to which EMTALA applies includes all parts of a hospital that are held out to the public as places where emergency services are available, including urgent care centers, psychiatric units, and labor and delivery departments, but not all of the sites outlined in the 2001 outpatient rule. On the matter of on-call coverage, the new rule is perceived to be a relaxation. It clarifies that “[e]ach hospital must maintain an on-call list of physicians on its medical staff in a manner that best meets the needs of the hospital’s patients who are receiving services required [under EMTALA] in accordance with the resources available to the hospital, including the availability of on-call physicians.”<sup>†</sup> CMS emphasized its intent to give hospitals flexibility in maintaining call coverage. For example, a hospital may choose to permit on-call physicians to schedule surgery during the time they are taking call or to permit them to have simultaneous on-call duties at another hospital. Not all specialties available at the hospital must be available through on-call coverage. In these cases, the hospital must have written policies and procedures to respond to coverage conflicts that might arise from these flexibilities.

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) authorized a technical advisory group (TAG) to advise the Secretary of HHS on EMTALA implementation and regulation. The TAG first met in March 2005 and will expire in September 2007. The TAG is studying issues that challenge hospitals’ compliance with EMTALA such as liability, capacity, and reimbursement and will make recommendations for changes to the regulations in a number of areas like physician response time to call.

<sup>\*</sup> *Social Security Act, section 1867; and Code of Federal Regulations (CFR), 42 section 1395dd.*

<sup>†</sup> *CFR, 42 part 489.24; and Brian Kamoie, “EMTALA: Dedicating an Emergency Department Near You,” Journal of Health Law, 37, no. 1 (Winter 2004): 41–60.*



A key concern is that more on-call flexibility for hospitals and physicians may exacerbate crowding in hospital EDs, assuming patients will wait for longer periods for specialists to arrive, tying up ED resources in the process and potentially resulting in poor patient outcomes. The American College of Emergency Physicians (ACEP) surveyed ED directors in 2004 and 2005 to determine the effect of the EMTALA changes on on-call coverage. In 2004, 67 percent of ED directors responding to the survey stated that maintaining adequate call coverage was a problem; that number increased to 73 percent in 2005. Some hospitals include provisions in their staff bylaws and hospital policies that require specialists to take call in exchange for hospital privileges. However, such requirements can be met with resignation threats or demands for compensation. Other hospitals opt for voluntary on-call coverage and offer monetary stipends or assistance with billing and coding as an indirect incentive. According to the ACEP survey, the proportion of EDs paying stipends to specialists to take call increased from 8 percent in 2004 to 36 percent in 2005.

There is some evidence that higher malpractice insurance costs and physician perceptions of the litigious nature of some patients have negatively affected on-call coverage capacity across the country. In August 2003, the GAO studied the impact of rising malpractice premiums on access in five states. Overall they did not find a systemic association between rising malpractice premiums and limited access, but they did find “examples in each of the five states where access to services affecting emergency surgery and

### Mental Health Patients and ED Crowding

While the CDC data show that mental disorders account for less than 5 percent of ED primary diagnoses, a number of surveys point to a significant rise in the number of seriously mentally ill patients showing up in EDs.\* Between 2000 and 2003 the number of ED visits with a primary diagnosis of mental disorder increased about 18 percent compared to a 5 percent increase in total ED visits over those years.† A 2004 survey of emergency physicians conducted by national mental health organizations and the American College of Emergency Physicians found that 61 percent of emergency physicians surveyed felt they were experiencing an escalation in psychiatric patients in their EDs. Additionally, because of difficulty finding a suitable inpatient bed, psychiatric patients were boarding more than twice as long as nonpsychiatric patients. Of those seeing increases in psychiatric patients, the majority blamed state budget cuts for mental health services and a decrease in inpatient psychiatric capacity. The Center for Studying Health Systems Change found similar results from their survey of ED directors in the 12 communities they track. They cited cuts in state and local mental health departments and Medicaid mental health services, decreased inpatient psychiatric capacity, and low reimbursement rates for mental health services as causes.

\* Gregory Luke Larkin et al., “Trends in U.S. Emergency Department Visits for Mental Health Conditions, 1992 to 2001,” *Psychiatric Services*, 56, no. 6 (June 2005).

† Peter Cunningham, Kelly McKenzie, and Erin Fries Taylor, “The Struggle To Provide Community-Based Care To Low-Income People With Serious Mental Illnesses,” *Health Affairs*, 25, no. 3 (May/June 2006): 694–705.

newborn deliveries has been reduced.”<sup>31</sup> Additionally, on-call physicians report that they perceive unassigned patients—those who enter the ED without a designated physician or medical group—as more litigious than those they see in their private practices.

## Consequences of Crowding

The consequences of crowded EDs on quality of care have not been studied comprehensively and therefore little scientific evidence is available to confirm the widely held assumption that crowding adversely affects the quality of patient care. The literature on crowding highlights potential negative consequences such as delayed treatment for those who leave the ED before being seen and those who stay and experience longer waits, prolonged pain and suffering, increased time in transport because of ambulance diversion, fire and safety hazards because of patients boarding in hallways, and increased stress and frustration among staff. For example, one recent study of heart attack patients found that ED crowding delayed the administration of life-saving medications, resulting in quantifiable increases in mortality.<sup>32</sup> A study of the impact of ED diversion on trauma death rates in Houston found that “there was a higher death rate for the most severe cases admitted through interhospital transfer on significant diversion days that approached statistical significance.”<sup>33</sup>

Further study is needed to measure the effect of crowding on individual health but also on public health in light of discussions about the adequacy of emergency capacity to respond to natural disasters, epidemics, and terrorist events. Two federal programs—the Metropolitan Medical Response System and the National Bioterrorism Hospital Preparedness Program—are designed to help metropolitan areas and hospitals develop their response capabilities in case of a disaster. Despite these programs, many hospitals are not prepared for the daily influx of emergency patients, much less those that will arrive because of a bioterrorist attack. In August 2001, the GAO surveyed over 2,000 urban hospitals and found that while four out of five had written emergency response plans, few hospitals had the medical equipment needed to handle a surge of patients, and less than half of the hospitals surveyed had conducted drills or exercises simulating an incident.<sup>34</sup> Similarly, the IOM concluded in their report that little money has actually flowed to hospitals to help them plan and coordinate regionally, attain necessary protective equipment, conduct trainings and drills, or develop communication and surveillance systems. They recommended increased federal funding for hospital emergency preparedness.

## WHAT CAN BE DONE?

Addressing ED crowding at the national policy level is challenging because crowding varies by geographic area and individual hospital. Few national policy interventions are being considered that specifically focus

on addressing ED crowding, and there appears to be little appetite for a policy debate about the need to increase inpatient capacity. Instead, the focus remains on achieving further hospital efficiency. The outcomes of broader health policy debates around adoption of health information technology, Medicaid coverage and benefits, funding for the health care safety net, pay-for-performance incentives, quality reporting, medical malpractice reform, and nursing workforce development all hold potential for improving or exacerbating the crowded situation in some of the nation's EDs. What follows are a number of ideas that have been discussed in the literature regarding ED crowding.

### Reducing Demand for ED Services

- Improve chronic disease management to reduce ED demand, particularly for the elderly.
- Expand access to primary care through community health centers to help reduce crowding in certain communities. The upcoming reauthorization for community health centers<sup>35</sup> provides an opportunity to consider the effect that broadening eligibility for section 330 grant funding could have on improving access to primary care and, thereby, potentially alleviating some ED crowding. In addition, the section 330 grant application and award process could be used to direct federal funds to communities that can demonstrate crowding in their EDs. It is important to note that ED crowding has worsened in the past five years, even as community health centers have been expanding. Further analysis is needed to understand why this is the case.
- Redesign the ED so that it can better approximate a primary care setting by providing continuity of care, health education, and preventive guidance.
- Use the “stick” as opposed to the “carrot” approach to reduce non-urgent ED use: Some hospitals employ a policy whereby nonurgent patients are sent to the financial desk after an initial screening and must either pay upfront to be treated in the ED or pay a smaller fee for the screening and leave with a list of local clinics. (Some question whether this policy complies with EMTALA).<sup>36</sup> Similarly, the Deficit Reduction Act of 2005 (DRA) permits states to submit a state plan amendment to their Medicaid programs allowing hospitals to impose cost-sharing for nonemergency services provided to Medicaid beneficiaries in emergency rooms. Certain patient protections are in place, including a requirement that the beneficiary be given information about an alternate nonemergency provider who can provide the services at limited or no cost. Such approaches have been criticized out of concern that people with potentially emergent conditions will not appropriately seek care in the ED. Because the prudent layperson standard still applies to those in managed care, the ultimate impact of these policies is unclear.

- Target efforts toward injury prevention and data collection on such injuries. One-quarter of all ED visits have a primary diagnosis of injury or poisoning, but up to 35 percent of all visits are injury related when secondary and tertiary diagnoses are considered. “E codes”—external cause of injury codes—were developed by the World Health Organization as a supplement to the International Classification of Diseases (ICD). The four-digit codes are standardized internationally and provide key information about injury events. E codes are required on death records for injury-related deaths but not for hospital discharge data or ED records. Broader adoption and further analysis would provide information about the circumstances of injuries to aid in prevention efforts.
- Establish standard definitions of and accounting for charity care and community benefit to create more transparency in community benefits. Many policymakers have questioned whether nonprofit hospitals provide enough community benefit, charitable care, and discounts to the uninsured to merit their tax-exempt status, but because there is no standard, it is difficult to compare among hospitals. Having such information publicly available might encourage some hospitals to expand their outpatient offerings, which could alleviate ED crowding in a given community.

### Expanding the Supply of ED Services

- Require that hospitals with specialized capabilities but without dedicated emergency departments, including specialty hospitals, accept appropriate transfers of patients from hospitals that are not capable of stabilizing them. The EMTALA technical advisory group recommended and CMS incorporated a provision with this requirement in the fiscal year 2007 Hospital Inpatient Prospective Payment System Proposed Rule. It has been CMS’s longstanding policy that any Medicare-participating hospital with specialized capabilities, whether or not it has a dedicated emergency department, must accept an EMTALA-appropriate transfer if it has the capacity to do so. However, some confusion apparently remains as to whether this policy applies to certain hospitals, including specialty hospitals that typically do not have emergency departments. The proposed rule is still undergoing public comment, so the final outcome of the provision is unknown. There is much interest in how this provision will apply to psychiatric hospitals. Many EDs struggle to stabilize psychiatric patients and look to the ability to transfer them to psychiatric hospitals as a way to best serve the patient, comply with EMTALA, and alleviate crowding in their EDs.
- Compensate hospitals and physicians for EMTALA-related care. The IOM committee recommended that Congress appropriate an initial \$50 million to reimburse hospitals (not emergency physicians or

specialists) for uncompensated emergency care. Already Congress, in Section 1011 of the Medicare Modernization Act of 2003, has authorized \$250 million per year for fiscal years 2005 through 2008 to compensate hospitals, physicians, and ambulance services providers for uncompensated emergency care services provided to undocumented aliens because of EMTALA. Despite the availability of funds, the majority of the allocations have not been collected by eligible providers. While lack of knowledge about the availability of the funds is one reason for the low take-up, others argue that CMS's requirement that providers document the number of eligible patients by inquiring about their citizenship has had the most chilling effect on participation.

- Improve on-call specialist availability and response by having hospitals pay specialists to take call and tying payment to specific response times.
- Reduce physicians' liability concerns and create financial incentives linked to performance measures. The "Access to Emergency Medical Services Act," H.R. 3875, was introduced by Representatives Bart Gordon (D-TN) and Pete Sessions (R-TX) on September 27, 2005, and was referred to the Committee on Ways and Means and the Committee on Energy and Commerce, both in the House of Representatives. The bill seeks to (i) provide limited liability protection for physicians employed by or under contract to hospitals for the EMTALA-related care they provide to the uninsured, (ii) increase physician payments by 10 percent for services provided to Medicare beneficiaries in EDs; and (iii) decrease boarding by increasing Medicare payments to hospitals by 10 percent if they meet standards for prompt admission of ED patients requiring inpatient care.

### Improving ED and Hospital Efficiencies

- Improve overall hospital efficiency and patient flow. This is a key approach to alleviating ED crowding that has garnered considerable support from a number of organizations including the Institute for Healthcare Improvement, the Joint Commission on Accreditation of Healthcare Organizations (JCAHO), and the Robert Wood Johnson Foundation. Successful strategies have included:
  - Implementing fast track/urgent care centers for low acuity patients
  - Dedicating lab and x-ray staff and equipment to the ED
  - Implementing discharge holding units for discharged patients waiting for transportation, medication, or education so inpatient beds can be turned more quickly
  - Smoothing operating room schedule variability by scheduling surgeries more evenly throughout the week to allow for operating room space and inpatient beds for ED patients

- Moving boarding patients from the ED to board on the inpatient floor, thereby redefining them as a “hospital patient” not an “ED patient” and encouraging the inpatient staff to complete the transfer
- Utilizing observation or clinical decision units to monitor patients and reduce the number of patients awaiting inpatient beds
- Create and enforce strong standards that focus specifically on reducing and ultimately eliminating crowding, boarding, and diversion. Effective January 5, 2005, JCAHO implemented a new leadership standard, “Managing Patient Flow,” that applies to all hospital accreditation reviews. The IOM recommended that JCAHO strengthen that standard with a more explicit focus on eliminating crowding, boarding, and diversion. The IOM further recommended that CMS (i) convene a work group to develop boarding and diversion standards against which to measure hospitals and (ii) direct payment policies to reward those hospitals that appropriately manage patient flow and penalize those that do not.

### **Improving the Continuum of Emergency Care**

- Create regionalized, coordinated, and accountable emergency care systems across the country that are highly integrated across 9-1-1, dispatch, police, fire departments, EMS, public health, EDs, and trauma centers. To that end, the IOM recommended that Congress authorize a demonstration program to promote regionalized emergency care systems and create a lead agency in the Department of Health and Human Services that will be responsible for the full continuum of EMS, emergency and trauma care, medical dispatch, and disaster preparedness.

### **CONCLUSION**

Preserving the adequacy and quality of emergency care is a community-wide concern. Many emergency departments across the country are overcrowded and have little surge capacity to handle a bioterrorist attack or influenza pandemic. Thoughtfully untangling and addressing the confluence of factors that creates crowded EDs is critical to preserving EDs and the safety net they provide for everyone.



## ENDNOTES

1. Institute of Medicine (IOM), *Hospital-Based Emergency Care: At the Breaking Point*, Future of Emergency Care Series, uncorrected proofs, June 14, 2006.
2. Pamela Owens and Anne Elixhauser, "Hospital Admissions That Began in the Emergency Department, 2003," Agency for Healthcare Research and Quality, Healthcare Cost and Utilization Project, Statistical Brief #1, February 2006; available at [www.hcup-us.ahrq.gov/reports/statbriefs/sb1.jsp](http://www.hcup-us.ahrq.gov/reports/statbriefs/sb1.jsp).
3. Community hospitals are nonfederal, short-term general hospitals as well as some special hospitals like rehabilitation or orthopedic. They do not include federal, psychiatric, or long-term care hospitals. For more information, see American Hospital Association (AHA), "Fast Facts on U.S. Hospitals from AHA Hospital Statistics, 2006 edition"; available at [www.aha.org/aha/resource\\_center/fastfacts/fast\\_facts\\_US\\_hospitals.html](http://www.aha.org/aha/resource_center/fastfacts/fast_facts_US_hospitals.html).
4. Internal Revenue Service (IRS), Revenue Ruling 69-545, 1969-2 C.B. 117, available at [www.irs.gov/pub/irs-tege/rr69-545.pdf](http://www.irs.gov/pub/irs-tege/rr69-545.pdf); and IRS, Revenue Ruling 83-157, 1983-2 C.B. 94, available at [www.irs.gov/pub/irs-tege/rr83-157.pdf](http://www.irs.gov/pub/irs-tege/rr83-157.pdf). A revenue ruling is a formal interpretation of tax law by the IRS. According to Revenue Ruling 83-157, there are circumstances under which specialized hospitals can be exempted from having an emergency department and still receive tax exemption.
5. "Emergency Departments—An Essential Access Point to Care," *AHA Trendwatch*, 3, no. 1, March 2001.
6. John C. Moorhead *et al.*, "A Study of the Workforce in Emergency Medicine: 1999," *Annals of Emergency Medicine*, 40, no. 1 (July 2002): 3–15; and Linda F. McCaig and Eric W. Nawar, "National Hospital Ambulatory Medical Care Survey: 2004 Emergency Department Summary," Centers for Disease Control and Prevention, National Center for Health Statistics, Advance Data From Vital Health Statistics, no. 372, June 23, 2006.
7. Figure calculated from CDC (McCaig and Nawar, "National Hospital Ambulatory Medical Care Survey") and AHA ("Fast Facts on U.S. Hospitals") data. CDC data shows that 11.5 percent of ED visits were in for-profit hospitals in 2003 (Table 23). AHA 2004 data show 835 for-profit community hospitals and 4,595 total community hospitals with EDs. An estimated 528 for-profit hospitals have EDs (4,595 times 0.115) which represents 63 percent of all for profit community hospitals (528 divided by 835).
8. McCaig and Nawar, "National Hospital Ambulatory Medical Care Survey" and AHA, *TrendWatch Chartbook 2006*, Appendices, tables 2.1 and 3.3, April 2006; available at [www.ahapolicyforum.org/ahapolicyforum/trendwatch/chartbook2006.html](http://www.ahapolicyforum.org/ahapolicyforum/trendwatch/chartbook2006.html).
9. E-mail communication with Lewin Group staff.
10. McCaig and Nawar, "National Hospital Ambulatory Medical Care Survey."
11. Peter Cunningham and Jessica May, "Insured Americans Drive Surge in Emergency Department Visits," Center for Studying Health System Change, Issue Brief No. 70, October 2003, available at [www.hschange.org/CONTENT/613/613.pdf](http://www.hschange.org/CONTENT/613/613.pdf); and Ellen J. Weber *et al.*, "Does Lack of a Usual Source of Care or Health Insurance Increase the Likelihood of an Emergency Department Visit? Results of a National Population-Based Study," *Annals of Emergency Medicine*, 45, no. 1 (January 2005): 4–12.
12. Cunningham and May, "Insured Americans Drive Surge in Emergency Department Visits."
13. McCaig and Nawar, "National Hospital Ambulatory Medical Care Survey."
14. McCaig and Nawar, "National Hospital Ambulatory Medical Care Survey."
15. The ten communities are part of a Robert Wood Johnson Foundation–funded effort to alleviate ED crowding called *Urgent Matters* and include Atlanta; Boston; Detroit; Fairfax County, VA; Lincoln; Memphis; Phoenix; Queens; San Antonio; and San Diego. The George Washington University's School of Public Health and Health Services, Department of Health

Endnotes / continued ►



**Endnotes / continued**

Policy administers the program. For more information, see Marsha Regenstein *et al.*, “Walking a Tightrope: The State of the Safety Net in Ten U.S. Communities,” *Urgent Matters*, The George Washington University Medical Center, School of Public Health and Health Services, Department of Health Policy, May 2004; available at [www.urgentmatters.org/aboutProject/reports/UrgentMatters\\_Walking\\_A\\_Tightrope.zip](http://www.urgentmatters.org/aboutProject/reports/UrgentMatters_Walking_A_Tightrope.zip).

16. McCaig and Nawar, “National Hospital Ambulatory Medical Care Survey.”

17. The Lewin Group analyzed AHA survey data from 1,501 hospitals (approximately 36 percent of all hospitals with EDs). “Emergency Department Overload—A Growing Crisis: The Results of the AHA Survey of Emergency Department (ED) and Hospital Capacity,” The Lewin Group, April 2002.

18. In an effort to understand the scope of ED crowding across the country, the GAO surveyed all community hospitals in metropolitan statistical areas that reported having emergency departments—about 2,000—and had a 74 percent response rate. Their research indicated that crowding was not a significant problem for EDs in nonmetropolitan statistical areas. They also conducted site visits in Atlanta, Boston, Cleveland, Los Angeles, Miami, and Phoenix.

19. Government Accountability Office (GAO), “Hospital Emergency Departments: Crowded Conditions Vary among Hospitals and Communities,” GAO-03-460, March 2003; available at [www.gao.gov/new.items/d03460.pdf](http://www.gao.gov/new.items/d03460.pdf).

20. McCaig and Nawar, “National Hospital Ambulatory Medical Care Survey.”

21. AHA, *TrendWatch Chartbook 2006*, table 2.2.

22. *Health, United States, 2005*, National Center for Health Statistics, Centers for Disease Control and Prevention, table 115; available at [www.cdc.gov/nchs/data/healthstats/2005.pdf#115](http://www.cdc.gov/nchs/data/healthstats/2005.pdf#115).

23. Gloria J. Bazzoli *et al.*, “Does U.S. Hospital Capacity Need to Be Expanded?” *Health Affairs* 22, no. 6 (November/December 2003): 40–54.

24. Eugene Litvak *et al.*, “Emergency Department Diversion: Causes and Solutions,” *Academic Emergency Medicine*, 8, no. 11 (November 2001): 1108–1110.

25. “Taking the Pulse: The State of America’s Hospitals,” American Hospital Association, available at [www.hospitalconnect.com/ahapolicyforum/resources/content/TakingthePulse.pdf](http://www.hospitalconnect.com/ahapolicyforum/resources/content/TakingthePulse.pdf).

26. G. P. Young *et al.*, “Ambulatory visits to hospital emergency departments. Patterns and reasons for use. 24 Hours in the ED Study Group,” *Journal of the American Medical Association*, 276, no. 6 (August 14, 1996): 460–465.

27. Lola Jean Kozak, Margaret J. Hall, and Maria F. Owings, “Trends in Avoidable Hospitalizations 1980-1998: A National Indicator of Gaps and Improvements in Access to Care,” *Health Affairs* 20, no. 2 (March/April 2001): 225–232; available at <http://content.healthaffairs.org/cgi/reprint/20/2/225.pdf>.

28. Peter J. Cunningham and Jessica H. May, “A Growing Hole in the Safety Net: Physician Charity Care Declines Again,” Center for Studying Health System Change, Tracking Report No. 13, March 2006, available at <http://hschange.org/CONTENT/826/?topic=topic02>.

29. Weber *et al.*, “Does Lack of a Usual Source of Care or Health Insurance Increase the Likelihood of an Emergency Department Visit?”

30. Joshua H. Sarver *et al.*, “Usual Source of Care and Nonurgent Emergency Department Use,” *Academic Emergency Medicine*, 9, no. 9 (September 2002): 916–923.

31. GAO, “Medical Malpractice: Implications of Rising Premiums on Access to Health Care,” GAO-03-836, August 2003, 13; available at [www.gao.gov/new.items/d03836.pdf](http://www.gao.gov/new.items/d03836.pdf).

**Endnotes / continued ►**

**Endnotes** / continued

32. Michael J. Schull *et al.*, "Emergency Department Crowding and Thrombolysis Delays in Acute Myocardial Infarction," *Annals of Emergency Medicine*, 44, no. 6 (December 2004): 577–585.
33. Charles E. Begley *et al.*, "Emergency Department Diversion and Trauma Mortality: Evidence from Houston, Texas," *The Journal of Trauma Injury, Infection, and Critical Care*, 57, no. 6 (December 2004): 1264.
34. GAO, "Hospital Preparedness: Most Urban Hospitals Have Emergency Plans but Lack Certain Capacities for Bioterrorism Response," GAO-03-924, August 2003; available at [www.gao.gov/new.items/d03924.pdf](http://www.gao.gov/new.items/d03924.pdf).
35. The current authorization expires on September 30, 2006.
36. Ceci Connolly, "Some Finding No Room at the ER; Screening Out Non-Urgent Cases Stirs Controversy," *The Washington Post*, April 26, 2004.



*The National Health Policy Forum is a nonpartisan research and public policy organization at The George Washington University. All of its publications since 1998 are available online at [www.nhpf.org](http://www.nhpf.org).*