n average, two hospitals a day in Boston closed emergency rooms to ambulances this year, sending patients to other facilities. Boston is not alone in frequent closure of ERs. Last year, the Cleveland Clinic Hospital reportedly was closed to ambulance patients an average of nearly 12 hours a day. Syracuse hospitals do not have the capacity to admit ER patients on an ongoing basis, so they regularly rotate times when they are closed to new patients. Such closure and diversion programs have occurred more frequently over the past two years, according to findings from HSC’s 2000-2001 site visits to 12 nationally representative communities.

ERs are the main entry point into inpatient settings for people requiring nonelective acute care. In addition, many patients with less serious medical problems seek treatment in ERs because they have difficulty getting care elsewhere. Under federal law, patients who walk into an ER cannot be turned away. However, hospitals can exercise more control over patients who arrive by ambulance. When hospitals lack capacity to provide emergency care for patients requiring treatment or admission, they commonly divert ambulances to other hospitals.

Nationally, the number of ER visits increased by 15 percent between 1990 and 1999, according to the American Hospital Association. Many hospitals in HSC’s 12 study sites also report marked rises in ER use, with notable increases occurring in Boston, Cleveland, Greenville and Phoenix.

As ER overcrowding has become more prevalent, and hospitals in any given community experience ER over-load simultaneously, serious threats to patient care emerge. Patients are faced with longer waits in the ER to receive necessary services, and those arriving by ambulance frequently are required to travel farther to receive medical attention. As discussed below, recent ER overflows stem from both demand- and supply-side problems: increased patient demand for ER services and increasingly constrained supply.

Increased Demand for ER Services

Demand for ER services has increased primarily as a result of:

- looser management of care by health maintenance organizations (HMOs);
Stricter enforcement of the federal Emergency Medical Treatment and Labor Act (EMTALA); and

• more patients without insurance seeking care in the ER.

Looser Utilization Management by HMOs. As HMO enrollment grew during the mid-1990s, and plans gained greater leverage over utilization patterns, use of ER services declined. Recently, however, HMOs have been reporting double-digit increases in ER service use. Most attribute this growth to less restrictive management practices—a response to the consumer backlash against managed care and less rigid interpretations of what constitutes a medical emergency, particularly under prudent layperson laws in more than 40 states.

It also appears that HMO enrollees increasingly are turning to emergency rooms for less serious medical problems because they are unable to get timely access to primary care physicians (PCPs). Indeed, PCPs paid by capitation have less incentive to see patients needing urgent care than to refer them to the ER. In addition, changes in HMO structure to accommodate consumer demand for less restrictive health insurance products have contributed to the increased demand for emergency services. For example, when Boston’s Harvard Pilgrim Health Plan departed from a traditional staff model, its urgent care centers were scaled back significantly, increasing pressure on the community’s ERs.

Stricter Enforcement of EMTALA. With new funding authorized under the Health Insurance Portability and Accountability Act (HIPAA) of 1996, the Office of the Inspector General (OIG) at the U.S. Department of Health and Human Services strengthened enforcement of EMTALA. The 1986 federal law requires all hospitals that receive Medicare reimbursement—the vast majority of hospitals in the country—to provide screening for an emergency condition, necessary stabilizing treatment and appropriate transfers for patients, regardless of their ability to pay. In 1998, the OIG issued a special advisory bulletin clarifying implications of the law and stepped-up enforcement. This move put the spotlight on hospitals’ obligation to provide emergency care, including screening the patient, providing stabilizing treatment and, if necessary, admitting. In Phoenix, many downtown hospitals attributed increased provision of ER services primarily to greater focus on EMTALA compliance.

Increased Demand from the Uninsured. Rising numbers of people without health insurance have increased pressure on ERs. Despite a small decline in uninsurance in 1999, the number of people without insurance increased by almost 10 million during the 1990s, increasing demand for care in emergency rooms, which commonly function as the uninsured’s usual source of care.

Table 1
Change in Hospital Capacity, 1994-1999

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency Departments</td>
<td>4,547</td>
<td>4,177</td>
<td>-8.1%</td>
</tr>
<tr>
<td>Medical/Surgical Beds</td>
<td>533,848</td>
<td>439,426</td>
<td>-17.7%</td>
</tr>
<tr>
<td>ICU Beds</td>
<td>72,229</td>
<td>70,215</td>
<td>-2.8%</td>
</tr>
<tr>
<td>Special Care Beds*</td>
<td>15,373</td>
<td>14,848</td>
<td>-3.4%</td>
</tr>
<tr>
<td>Total Inpatient Beds**</td>
<td>621,450</td>
<td>524,489</td>
<td>-15.6%</td>
</tr>
</tbody>
</table>

* Burn care beds and other special care beds intended for care that is less intensive than that provided in an ICU and more intensive than that provided in an acute area.

** Total of medical/surgical beds, ICU beds and special care beds.

Source: American Hospital Association, 1994 and 1999

As ER overcrowding has become more prevalent, and hospitals in any given community experience ER overload simultaneously, serious threats to patient care emerge.
Supply-Side Constraints

Pressure on emergency rooms also stems from supply-side problems. In many communities, the number of ERs has decreased because of hospital closures and mergers, leaving fewer facilities to respond to growing demand. Between 1994 and 1999, the number of ERs across the country decreased by 8 percent (see Table 1).

In addition, newly developing inpatient capacity constraints have compounded ER supply problems. Downsizing and reconfiguration of hospitals’ inpatient capacity have led to delays in admitting patients from the ER. At the same time, there are fewer discharge options because of reduced investment in skilled nursing facilities (SNFs) and home health services, adding to the bottleneck in inpatient units and, consequently, ER overload. Finally, a severe nursing shortage has contributed to hospital capacity constraints (see box).

Downsizing. Anticipating lower utilization under managed care and declining reimbursement from private payers and Medicare, many hospitals significantly reduced inpatient capacity over the past several years. To “right-size” for expected changes in demand and payment, hospitals mothballed beds by not staffing them, and they closed less profitable units. Nationally, the number of medical/surgical beds declined by 18 percent between 1994 and 1999, and the number of intensive care unit (ICU) beds declined by almost 3 percent. Certain communities experienced even more pronounced declines. Over the same period, the number of medical/surgical beds in Boston and Cleveland dropped 29 percent and 21 percent, respectively.

Sometimes, less profitable services were converted to highly specialized units, such as cardiovascular care or cancer centers, that promised to boost revenue. Yet, as more beds were dedicated to these specialized units, hospitals had less operating flexibility during periods of peak demand. Moreover, the overall reductions in inpatient capacity left hospitals with fewer beds to accommodate admissions from the ER.

At the same time, demand for inpatient care remained stronger than expected. A combination of managed care’s success in shifting patients with less acute problems to outpatient settings and technology improvements left hospitals with sicker patients requiring more intensive care. This occurred at a time when many hospitals aggressively pursued increased inpatient business to attract revenue to offset declining reimbursement. The growing popularity of insurance products allowing consumers greater freedom to choose providers contributed to this strategy of vying for patients. However, inpatient volume increased beyond expectations and, coupled with significant downsizing, has resulted in serious capacity constraints in many hospitals’ inpatient units.

Reduced Discharge Options. Shortages of SNFs and home health services that facilitate early discharge from hospitals have compounded inpatient capacity problems. In the past two years, many SNF and home health providers have gone out of business or filed for bankruptcy, including several of the largest for-profit companies. At the same time, changes in Medicare reimbursement under the Balanced Budget Act (BBA) of 1997 for SNFs and home health left hospitals increasingly wary of pursuing opportunities to provide these services. In Phoenix, for example, one hospital closed two hospital-based SNFs and gave up its home care business, reportedly largely as a result of BBA reimbursement changes.

The OIG has monitored changes in the SNF and home health industries, concluding that sufficient capacity remains to serve Medicare beneficiaries. However, hospitals contend that reduced investment in home health and SNFs has resulted in fewer discharge options overall, adding to the bottleneck in inpatient units.

Hospitals’ Responses to ER Overcrowding

To address the most pressing problems, hospitals in many communities have developed coordinated diversion programs to ensure patients maintain reasonable access to care. Some have moved to expand ER capacity. For example, one hospital system in Greenville has led community efforts to alleviate capacity pressures by expanding ERs in other local hospitals with lower occupancy rates.

Others have taken steps to address inpatient capacity constraints by reopening licensed beds. In Boston, Massachusetts General Hospital (MGH) and Brigham and Women’s Hospital have reopened about 300 beds, including most of the beds closed during the mid-1990s as a result of cost-reductions. In addition, MGH recently added 22 nursing positions and two attending physician slots.

A NURSING SHORTAGE

A nursing shortage—which has become severe in many communities—complicates hospitals’ capacity problems by limiting their ability to staff existing beds, particularly those in critical care units. Although nursing shortages tend to be cyclical, hospitals today are more vulnerable to the vicissitudes of nursing supply because of operational changes over the past 10 years. To reduce fixed costs and accommodate lower inpatient utilization expected under managed care, many hospitals downsized nursing staff, retaining a smaller permanent core staff and supplementing with part-time or temporary nurses to cover fluctuations in patient census.

However, hospitals have faced serious obstacles to recruiting and retaining nurses, in part because of the proliferation of other opportunities for them in the managed care and pharmaceutical industries. In addition, the nursing labor pool has been shrinking because of a decline in nursing school enrollment and an increase in the number of nurses retiring. As a result, while demand for inpatient care remains strong, many hospitals cannot hire enough nurses to keep existing beds in operation.
to increase emergency room capacity. Many hospitals have tried to improve recruitment and retention of permanent nursing staff, while bolstering rosters with temporary staff to the extent possible. Another way that hospitals are dealing with the nursing shortage is by reassigning nurses from outpatient clinics to inpatient units.

Hospitals also are focusing on the bottleneck problem by improving the efficiency with which patients are discharged. One approach is to free up beds by discharging patients earlier in the day. Many have tried to decrease lengths of stay by moving patients to extended care settings, when these options are available in the community. As a more long-term approach, many hospitals hope to accelerate patient discharges through increased reliance on clinical guidelines to standardize treatment plans and on hospitalists—physicians who specialize in managing patients’ hospital stays.

Finally, some hospitals have turned to more immediate fixes to inpatient capacity constraints, such as postponing elective admissions. ER physicians in Phoenix advocated this approach recently, when ER overcrowding became unusually severe.

**Implications**

Although excess capacity has long been considered a major problem for U.S. hospitals, overcrowding in the ER—and the role that constrained inpatient capacity plays—suggests a significant change is occurring in the hospital environment. In fact, after a decade of hospitals downsizing and reducing operating costs, local health care systems have been left with little slack to accommodate unforeseen trends in patient volume.

Stopgap measures to address ER overflows, such as diverting ambulances to alternate facilities or requiring patients to delay elective surgery, may help to reduce sporadic strains on capacity, but they focus on only the most immediate problems. Numerous factors underlying the strain on ERs, such as the rising number of uninsured, the declining investment in home health and SNFs and the nursing shortage, may require policy attention.

Moreover, what these stopgap measures do not address is the erosion of emergency stand-ready capacity that has occurred in response to converging market forces and policy changes of the past decade. It is this stand-ready capacity that makes hospitals—and ERs in particular—such vital, yet expensive facilities to maintain. Looking forward, policy makers will need to assess whether market-driven adjustments to the current mismatch of supply and demand adequately address this problem or whether maintaining timely access to medical care for the uninsured and insured alike requires other steps.

**Notes**