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Ambulatory Care: The Key to Healthcare Cost Control

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A New Era of Emergency Care
Planning and Design Consideration

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Abstract: Emergency care is one of the most complex, rapidly growing areas of ambulatory care. Providers need to consider new issues related to management of low-acuity patients, capacity for surge events, and the need to integrate patient focused care into the emergency department environment. This article explores these issues and discusses basic organizational topologies for facilities. **Key words:** *design, emergency, patient management*

LAST YEAR, more than 113 million people were treated in hospital-based emergency facilities, 1 visit for every 3 people in the country (Center for Disease Control and Prevention [CDC], 2006). Statistically, you, or a family member, will pay a visit to an emergency facility at least once every 3 years. For some, it will be for life-saving intervention, for others treatment of less severe injuries, and for many diagnosis and care for minor illnesses. How we as design facilities can play a significant role in the success of the patient experience.

What are the major issues that we should be addressing?

OVERCROWDING

Since the mid-1980s, visits to emergency facilities have increased at an annual growth rate of 2% nationally. Combining this with the closure of hospitals and trauma services, many emergency departments (EDs) are experiencing a 5% net annual growth. As a result of this growth, the inability to admit patients, the addition of new services, and obsolete operating systems, there is frequently insufficient space to allow quick access during peak times of day. Be prepared to wait (Fig 1).

Two major components contributing to this expansion are the basic growth in population and changing utilization rates. Data reported by the CDC show a 26% increase in the visits from the population aged 65 and older over the past 10 years. Other age groups have shown similar but less dramatic increases in use rates. Race can also contribute to increases in hospital visits. Use rates by black or African American are more than double the rate of Asian populations, with white and Hispanic populations falling between these two groups (CDC, 2006).

Closure of trauma and emergency services, combined with the lag in construction, has created severe overcrowding in many facilities. Also contributing to the overcrowding of emergency facilities are constraints in the ability to admit patients resulting from limited critical care and other beds. One recent study estimated that new intensive care unit capacity reduced the emergency service average length of stay for critical care admission by 25 minutes, as well as significantly reduced ambulance diversions (McConnell et al., 2007).

The resulting increase in length of stays within emergency facilities has limited the functional capacity of treatment spaces. The estimated visits per treatment bed have

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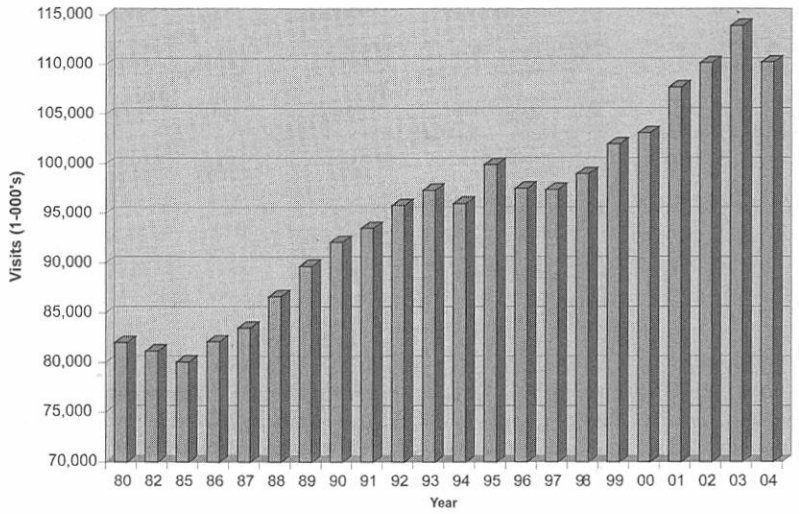

Figure 1. Total emergency department visits, 1980–2004. *Note.* Data from the American Hospital Association/Centers for Disease Control and Prevention. Copyright.

dropped over the past 20 years, with current ratios typically in the range from 1400 to 1500 visits per bed annually (Zilm, 2004).

Hospitals are scrambling to figure out how to respond to these pressures. Freestanding EDs, located miles from the main hospital, providing a full scope of emergency services, are operational in Virginia, North Carolina, Seattle, Houston, and other locations. Other community hospitals are exploring this concept as a way to alleviate capacity constraints at their main campus and as a way to stake out new geographic markets.

Other strategies include establishment of urgent care clinics, streamlining the triage function during peak periods with "rapid assessment" units, and creation of observation/clinical decision unit to manage longer stay patients.

ONE LEVEL OF CARE

Perhaps, no other component of our healthcare system demonstrates what emergency services achieve daily—one class of care. All patients are seen and true emergency care is provided equitably on the basis of medical needs by highly dedicated, frequently overworked, staff. And patients leave the ED with something unfortunately too unique in outpatient care—an immediate diagnosis.

Management of low-acuity patients is currently one of the hotly debated issues within the American Society of Emergency Physicians. The CDC data cited in several studies point to a high percentage of low-acuity patients seen in EDs, with "safety-net" institutions seeing a 25% high level. The costs of providing care within the emergency service shows little sensitivity to overall volumes, inferring that the marginal costs of providing care remains high (Jan, 2007). An equally significant issue is the effectiveness of emergency care in the management of chronic conditions when compared with outpatient setting that can provide consistent monitoring and consultation. Some institutions, such as Aurora Sinai Medical Center in Milwaukee, have achieved significant reductions in ED visits by establishing a network of urgent care center and careful counseling of selected, primarily chronic diagnosis, patients and scheduling of those patients into hospital-supported clinics.

The entry of low-cost alternative services, such as Minute Clinics, currently has minimal overlap with emergency service populations, but could evolve into a viable alternative for selected low-acuity ED visits.