Emergency Care In California: No Emergency?

A striking counterargument that there is indeed a crisis in the emergency care system of California and the nation as a whole.

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ABSTRACT: Glenn Melnick and colleagues’ analysis of emergency department (ED) capacity and access in California is fatally flawed because the authors do not consider the operational constraints that severely compromise ED functioning. Simple counts of ED beds and distance to the closest hospital ED are virtually meaningless without considering, for example, the operational impact of loss of inpatient bed capacity, the nurse shortage, declining availability of on-call specialists, lack of access to primary care, and growing numbers of uninsured people. Other surveys indicate that ED overcrowding and ambulance diversion are serious and growing problems—not only in California, but nationwide.

With publication of the paper by Glenn Melnick and colleagues, those who have been struggling to provide safe care in California’s overcrowded EDs can breathe a sigh of relief. According to the authors, the ED market in California is “robust.” Hospitals are adding ED capacity to meet increased demand and maintain access. No “emergency” exists. This information will come as news to the thousands of patients who are lining the corridors of California’s EDs, the ambulance patients who are diverted from their facility of choice because of serious overcrowding, and the ED nurses who reluctantly agree to work double shifts to maintain minimal levels of staffing.

Melnick and colleagues’ conclusions are based on such limited evidence that it is difficult to take them seriously. To be fair, they do a credible job of tracking changes in California’s population and the fluctuations in the annual number of ED visits that occurred during the study interval. They even acknowledge that some portion of the net rise in ED demand may have been caused by a lack of viable alternatives for patients. They note, for example, that ED visits rose after several physician groups filed for bankruptcy.

During the twelve-year study period, most of the openings and closures of California EDs were tied to the fate of their hospitals. Because the seventy-three hospitals that closed during the study interval were not replaced by new facilities, the state experienced a net loss of thirty hospitals during 1990–2001. Only half of new hospitals entering the market included an ED, so the net loss of EDs was greater than the loss in hospitals statewide.

None of this would matter much if the authors’ next assumption were correct: that the remaining hospitals in California expanded their EDs to a sufficient degree to meet rising demand. What they fail to realize is that access to emergency care is determined by more than simply the number of ED beds. This is the fatal flaw in their study.

The authors acknowledge that constraints on inpatient bed availability “might” be a com-
Complicating factor in their analysis, but they soft-pedal its significance. In fact, in 1990–1999, U.S. hospitals lost more than 100,000 staffed hospital beds and 7,800 medical/surgical intensive care unit (ICU) beds through downsizing, mergers, and closures. Meanwhile, the number of ED visits nationwide grew by 15 percent. Other complicating factors include a nationwide shortage of nurses, the downsizing of ancillary staff, specialists’ growing reluctance to participate in on-call panels, and rising numbers of uninsured.

To support their claim that access to ED care is being maintained, the authors calculate the distance from each Californian’s ZIP code to the closest hospital ED. This assumes that proximity equates with access. It doesn’t. An ED bed is of little use to an incoming patient if it is already occupied. The number of miles to the “closest” ED is irrelevant if the hospital is diverting inbound ambulances or the wait to be seen is prohibitively long. In addition to the size of its physical plant, ED capacity is influenced by input, throughput, and output. Problems with one or more of these dimensions can overwhelm the biggest ED.

Several performance measures offer insight into an ED’s capacity to meet its community’s needs: waiting room times, percentage of patients who leave without being seen, number of treatment spaces filled with admitted patients who can’t be moved to an inpatient unit because no bed is available, and number of hours per week that the ED diverts inbound ambulances because of overcrowding.

Melnick and colleagues did not avail themselves of this information, but others have. Researchers at the University of California, Davis, surveyed directors of California EDs in a range of settings (private, public, and academic). Virtually all of the respondents cited crowding as a problem. In the researchers’ follow-up survey of ED directors in all fifty states, 91 percent reported that overcrowding was a problem. High patient acuity and a shortage of inpatient beds were rated as more important causes of ED crowding than insufficient space in the ED. Susan Lambe and colleagues, who measured ED capacity and use in California in 1990–1999, noted that the total number of EDs in California declined during the study period but was offset by expansion of the number of treatment stations in the EDs that remained. Nonurgent ED visits decreased by 8 percent during the study period, but critical visits grew by 59 percent.

Sandra Schneider and colleagues assessed facility crowding at a single point in time (7 p.m., 12 March 2001) among a nationwide sample of EDs. At that moment, 22 percent of patients in these EDs were already admitted and waiting transfer to an inpatient bed. In the week prior to the survey, 38 percent of participating ED directors reported that they had doubled up patients in exam rooms, 47 percent used nonclinical spaces for patient care, and 59 percent treated patients in hallways. In a nationwide survey of 1,501 hospitals for the American Hospital Association (AHA), the Lewin Group found that more than three out of four urban hospitals—87 percent of hospitals with a Level I trauma center, 90 percent with 300 or more beds, and 81 percent of teaching hospitals—are operating “at” or “above” capacity. ED crowding was noted to be particularly severe in the Northeast and the West Coast. Half of all urban hospitals reported diverting inbound ambulances during the year. Those that diverted more than 20 percent of the time had an average registered nurse (RN) vacancy rate of 16 percent. The most common reason cited for ED saturation was lack of staffed critical care beds. Finally, in a U.S. General Accounting Office (GAO) survey of more than 2,000 hospitals, two-thirds reported that they had diverted inbound ambulances to other hospitals at some point during fiscal year 2001. A smaller portion—about one-tenth—reported being on diversion more than 20 percent of the year. These studies do not describe a system that can be characterized as “robust.”

EDs in California and nationwide are under tremendous stress. This is manifested not only in the compromised state of their operations, but also in economic terms. The Emergency Medical Treatment and Active Labor Act (EMTALA) of 1986 requires that EDs render
care to anyone in need, without regard for the patient's ability to pay. No money is allocated to reimburse health care providers for the cost of these services. It is, in political parlance, an "unfunded mandate."

The American Medical Association recently calculated that the annual bad debt incurred by U.S. physicians for providing care mandated by EMTALA is $12,300. However, emergency physicians incurred more than $138,000 per year. These observations are symptoms of a larger problem: the fact that tens of millions of Americans lack health insurance. For the past three years I served as cochair of an Institute of Medicine (IOM) committee that studied the consequences of uninsurance on individual adults, families, entire communities, and the nation as a whole. Our fourth report included the following statement:

The Committee finds that the adverse effects of uninsurance that accrue to uninsured individuals and families in a community, as well as the financial strain placed on the community's health system, have important spillover effects on health care institutions and providers.

Overcrowded EDs—a phenomenon that threatens access to emergency care for insured and uninsured alike—is one of these "spillover effects." It is but one reason among many that our committee calls on the president and Congress to develop a strategy to achieve universal coverage by 2010. Until that day arrives, the components of the health system on which all of us depend must be preserved. This includes maintaining access to emergency care.

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