Current State of Emergency Care

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I would like to take the opportunity to thank the United States Senate Subcommittee on Bioterrorism and Public Health Preparedness for inviting me today. I am honored by the opportunity to participate in the roundtable discussion on *Crisis in the ER: How Can We Improve Emergency Medical Care?* As has been stated in the recent IOM report on *The Future of Emergency Care*, the emergency care system is but one component of the larger health care delivery system and of the even larger social safety net system. Moreover, this crisis is augmented by fragmented local, regional and national leadership which has lead to inadequately coordinated and integrated systems of care. In addition, unrealistic expectations of daily service performance, disaster response capability and surge capacity have become an additional burden for the emergency care system to shoulder.

Why are emergency departments (ED's) crowded and what can Congress do to improve the situation: Unfortunately, the reasons why ED's are crowded are complex and multifactorial and like much in healthcare and in life, have tremendous local and regional variation. On the "macro" level, a simplistic reason for ED crowding is the rise in ED visits across the country from approximately 90 million visits in 1996 to close to 113 million in 2003 while during approximately that same time period, the number of ED's across the country fell from 4,547 in 1994 to 4,177 in 2000. There are reports of ED's closing weekly across the country with little to no commensurate options for patients. A more complex, but more "micro" realistic view on ED crowding is best described by the Asplin conceptual model of ED crowding. This model breaks the component of the ED visit into three phases: input, throughput and output; it serves as one of the best models to understand the complexity of the problem and will serve as the basis of my thoughts.

Input: This phase represents the entry point into the ED. It is composed of those patients who are truly seriously ill or injured and require emergency care. They may arrive on their own, by ambulance or other emergency vehicle or they may be sent from another healthcare environment because their condition outstrips the capability of the referring location. This phase also captures unscheduled urgent care which is typically a function of the lack of capacity of the current ambulatory care system to support this component of health care. This has increasing been shown to be a function of an individual's desire for immediate care potentially secondary to job conflicts, family and/or convenience. Finally, this phase captures individuals where the ED represents the "safety net". This group is composed of the vulnerable populations in our society: the chronically ill, the

uninsured, the underinsured, prisoners, mental health and those suffering from substance abuse. The drivers of ED crowding in this phase are multiple and many ED's suffer from not just one of these factors, but many of them. One primary crowding driver in this phase is EMTALA which mandates that all patients who present to a hospital ED (in a hospital that receives Medicare/Medicaid funding) must at the very least receive a medical screening exam to ensure that an emergency does NOT exist. The proof and responsibility is ultimately on the provider, but may include diagnostic testing and specialists to reach that conclusion. While some patients have a level of awareness of EMTALA, all healthcare providers do. This means if they opt not to see a patient in their office and send them to an ED, they know the ED must do the screening exam at least. Many ED's and many emergency medicine physicians, because of the level of work and responsibility associated with medical screening exams, just go ahead and complete the patient's evaluation. Another driver in this phase are the difficulties in accessing primary and urgent care on a timely fashion in many communities, especially when evenings and weekends are taken into the equation. Components of this driver range from decreasing reimbursements for primary care physicians from Medicare, Medicaid and Managed Care, to the uninsured who often have no other choice but to seek care in the ED, to the fact that physicians treating patients in the ED have access to a wide range of medical technology and equipment, consultants and other evaluation tools-all in environment. In other words, many ED's have become "one-stop shopping" centers for patients and healthcare providers. Another driver in many parts of the country, but not all, is the influx of undocumented individuals into the system. Border States tend to be most affected, but because of limited options for the healthcare needs of undocumented individuals, the ED becomes a place of choice.

Throughput: This phase represents the actual treatment component of the ED visit. This includes the actual triage process by which we ascertain patient acuity, the nursing assessment, the physician assessment and any diagnostic, treatment and consultative needs. Crowding drivers in this phase include several operational issues. One of those is significant problems with ancillary service delays. Derlet and Richards conducted a survey for the Emergency Nurses Association in which respondents felt that 50% of their ED service delays were due to wait-times for laboratory and radiology process and results. Shortages in health professional staffing also makes significant contributions to crowding in this phase. While there are certainly shortages in radiology and laboratory technicians and pharmacists, a major contributor is nurse staffing. From 1995 to 2000, there was a 26% decrease in the number of new nursing graduates in this country and when compounded with the fact that average age of a nurse is now 47, and that the ED workload for nurses is generally more complex and with worse staffing ratios, then it should come as no surprise that ED's have challenges with nurse staffing. Another crowding driver in this phase is the increasing problem with ED on-call coverage for specialty physicians. In many hospitals and in many communities, there is limited or no neurosurgery coverage for the ED, there is limited or no orthopedic coverage and other specialties are challenged as well. Reasons for the lack of coverage range from reimbursement issues to malpractice concerns which may or may not be legitimate, but certainly create challenges for many ED's.

Output: This phase represents the options for the ED once the patient's ED care has been completed. This ranges from discharge from the ED with primary or ambulatory care follow-up, to transfer to another care facility to hospital admission. It is the hospital admission that has proven to be the most complex and the most challenging because when hospitals reach their inpatient capacity, there is no place for the admitted patient to wait, but the ED. It is not unusual for many ED's to have 25-50 %(or more) of their ED's filled with admitted patients who do not have a bed; hence these patients become "boarders" in the ED. Having ED spots being used by admitted patients means there are no options for the new patients that arrive in the ED. This is turns leads to problems with throughput as described above and ultimately affects the input phase as well which can lead to ambulance diversion. Moreover, in many locales, admissions for pediatric and mental health patients is even more complicated and also contributes to extended stays in the ED.

Options for Congress: While there a lot of ideas, I think there are two overarching options for Congress to address ED crowding: Opportunities and Incentives. A major opportunity exists for Congress to create the appropriate incentives, primarily positive, but negative ones as well, necessary to reduce ED crowding. One such incentive might be for the Centers for Medicare and Medicaid Services to develop payment incentives (and possibly others) that encourage hospitals and health systems to a) reduce the hospital boarding problem by finding ways to facilitate patient movement to the in-patient setting; b) incentives that encourage primary care providers to engage with urgent care patients by either seeing patients in their offices or finding alternative sources of care beyond the ED; c) to evaluate the effect DRG payments have on the current system. As well described in the IOM report, there is research from Munoz-1985 and Henry-2003 that suggests patients admitted from the ED are more "costly" than elective admissions for the same surgical DRG. As such, hospitals are more inclined to focus on elective admissions than those from the ED; and d) to encourage the Joint Commission on the Accreditation of Healthcare Organizations (JCAHO) to reinstate strong standards that sharply reduce and hopefully ultimately eliminate ED crowding, boarding and diversion. As the primary accreditation organization for hospitals and health systems, JCAHO, under a mandate from Congress, is in the appropriate position to force hospitals to meet their crowding demands. Congress can also intervene on the crowding issue by "creating" opportunities. One such opportunity proposed by the IOM would be the development of a demonstration program to encourage states and local regions to identify and test alternative strategies to address crowding on a system level than leaving it strictly to the behavior of individual hospitals. Another great opportunity for Congress is to examine and augment existing research in Emergency Medicine. I currently am a member of the Board of Directors of the Society for Academic Emergency Medicine, the largest organization in the country whose mission is to promote research and education in Emergency Medicine. There is currently no NIH study section with a specific focus on emergency care and there is a great opportunity to create such a section or institute with that focus.

Who is leading the charge to improve emergency care at the federal level and what options exist for enhancing system coordination and integration. Unfortunately, there is no lead organization addressing emergency care at the federal level. In fact, that concept is a specific recommendation from the IOM report which states that the federal government should consolidate functions related to emergency care, currently scattered among multiple agencies, into a single agency in the Department of Health and Human Services. There are agencies responsible for disaster preparedness, bioterrorism, public health and emergency services for children, but they are all acting independently and not under a single umbrella.

In any existing locale, there is the potential for several ED's and several EMS providers not to mention fire and police. Unfortunately, these organizations do not communicate well together, both philosophically as well as logistically. They operate under different leadership structures, often have different missions and visions and almost always have different technologies that prevent adequate coordination on a daily basis, yet alone during the events of a disaster. There are over 6000 9-1-1 systems across the country and they are frequently under different jurisdictions and the standards by which they and EMS providers operate are not under a federal or national standard.

Congress has several options and opportunities to enhance system integration and coordination. One, technology coordination. As mentioned earlier, different ED's, EMS providers, fire and police are frequently using different technology and even if the first responders are on the same frequencies, the hospital ED is often the forgotten link and is not included. Through grants, demonstration projects or awards, Congress can encourage system integration by awarding locales or regions that agree to work together money for technology integration. For example, we should envision a system that allows an EMS provider to pick up a patient from any location, look at a computerized screen in the truck that allows them to see the ED status of the all the ED's in their region, select the most appropriate ED based upon patient condition and acuity, ED status and the other cases that are currently in route to the ED's in that region. Two, system accountability. Unfortunately the number of service providers (ED, EMS, etc) means that there is no one system of accountability of care, there is no centralized database to assess EMS or emergency department care and without a lead organization/agency, there is no one to monitor the process or progress. There has been suggestion that creating a lead agency, composed of the appropriate mix of legislators, physicians, EMS providers and government officials would be an appropriate entity for congress to create and develop.

Summary

Many hospital emergency departments are crowded and the reasons are multifactorial. The problem can best viewed through both a “macro” assessment of the issues as well as the “micro” events that actually occur at the emergency department level. Moreover, problems with ED crowding are inadequately addressed at the federal level. There is currently no lead agency in the federal government that has the responsibility to assess and monitor emergency services and while challenging, there is opportunity for the federal government to step up to the challenge and change emergency services for our future. It is clear that ED crowding is really a function of ‘hospital and system” crowding and solutions should reflect that reality.

There are many issues that affect ED’s on the “macro” level. There are shifting demographic trends in emergency care as ED visits across the country have been rising in the past decade; over 113 million patients were seen in the nation’s emergency departments in 2003, up from 90 million one decade ago. In addition, the number of emergency departments across the country has fallen by over 400 during this same time period. Also on the macro level, emergency departments must comply with EMTALA which mandates that all patients presenting to hospital ED’s must at least provide a medical screening exam for patients. ED’s are also often the first option for care for patients who are uninsured or underinsured, but increasing, even the insured population has come to view the ED as a viable first alternative for care. ED’s have become “one-stop shops” where advances in technology, access to consultants and specialists and diagnostic testing is available of a 24/7/365 basis. Finally, ED’s have become the safety net for the vulnerable populations in our society including the mental ill.

On a “micro” level, hospital ED crowding can be broken into 3 phases: input, throughput and output where problems in any one of these phases will lead to crowding. Input is a composed on legitimate emergencies, but more importantly patients who are vulnerable and those who were unable to access the urgent or ambulatory care system leaving them no other option but the hospital ED. Throughput represents the actual treatment and care phase of the ED visit. Factors that lead to problems with throughput range from staffing inadequacies, particularly nursing, to delays in ancillary testing to problems with on-call specialty/consultant coverage. Output represents that phase where a disposition decision has been made. In most cases, that represents a discharge from the ED. However problems arise when admitted patients, or ED Boarders, remain in the ED when the inpatient units are full.

Unfortunately, there is a no lead federal agency that directs emergency care services; there are instead several agencies, in several departments where emergency care is currently scattered. Unfortunately, this leads to fragmentation, lack of accountability and inadequate monitoring. There exists the opportunity for Congress to create a coordinated, accountable system that is a both a function of opportunity and incentives. This system would be technologically advanced and efficient, would be seamless between multiple entities and would be supported with advanced research.