Statement of

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Hearing on

"The lack of hospital emergency surge capacity: Will the Administration's Medicaid regulations make it worse? Day One"

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Introduction

My name is Roger J. Lewis, MD, PhD. I am an attending physician and professor in the Department of Emergency Medicine at Harbor-UCLA Medical Center, a publicly-funded, Level I Trauma Center and teaching hospital in Los Angeles County, California. I have served as a full-time supervising physician at Harbor-UCLA since 1990 and am a faculty member of the David Geffen School of Medicine at UCLA. Harbor-UCLA Medical Center serves as a regional Disaster Resource Center for the southern section of Los Angeles County. Thus, our institution would be an important provider of healthcare during a local disaster, whether natural or man made, and our staff currently work with 8 local hospitals to ensure regional disaster preparedness for a population of approximately two million people.

The Connections between Emergency Department Crowding, Surge Capacity, and Disaster Preparedness

Over the last five years, my colleagues and I have witnessed an increasing demand for emergency department (ED) and inpatient services at Harbor-UCLA, coupled with ever decreasing resources. This has led to almost continual overcrowding and gridlock in our ED while, paradoxically, we are expected to maintain our hospital's "surge capacity," defined as the ability to provide care for a large influx of patients on short notice in time of disaster. Ours is not an isolated situation but, instead, reflects the current state of emergency healthcare in the United States and a paradoxical, almost incomprehensible, lack of recognition among some policy makers regarding the cause and effect relationships that exist between the fiscal pressures that have led to decreases in hospital capacity, ED gridlock, and our dwindling surge capacity.

To those of us who work in the front lines of the medical care system, it is irrational to believe that an emergency care system that is already overwhelmed by the day-to-day volume of acutely-ill patients, would be able to expand its capacity on short notice in response to a terrorist attack or natural disaster. Moreover, any decrease in the Medicaid funding that supports the trauma center infrastructure and the funding of graduate medical education (GME) (funds which support the residents who provide the majority of care in our cornerstone academic and public healthcare institutions) will severely cripple our ability to meet the nation's needs for emergency care, whether delivered under everyday conditions or in the extraordinary setting of a mass casualty incident.

The Overcrowded Emergency Department

The demand for care in our nation's hospital emergency departments (ED) has been increasing faster than the growth of the U.S. population for years and continues to do so. According to the Centers for Disease Control and Prevention (CDC), the number of ED visits increased 26 percent from 90.3 million visits in 1993 to 114 million in 2003 but, during the same period, the number of EDs decreased by 14 percent.[1] EDs have not been able to keep up. According to Press-Ganey Associates, the average waiting time in EDs is now 3 hours and 42 minutes before an ED patient is seen by a physician.[2] A majority

of urban EDs must routinely divert ambulance traffic because of overcrowding and, for urban EDs reporting diversion, nearly one in eight is on diversion more than 20 percent of the time.[3]

Emergency department crowding is not new. I understand that this is at least the third hearing held by the Committee on Oversight and Government Reform that has addressed this issue. In 2001 *US News and World Report* published a cover story entitled, "Crisis in the ER: Turnaways and Delays are a Recipe for Disaster." In June 2006, the Institute of Medicine of the National Academies (IOM) released a three volume report on the future of emergency care in the United States. The IOM reviewed more than 4,300 published studies, 11 commissioned reports, and heard testimony from 62 experts. After weighing this vast body of evidence, the IOM concluded that trauma and emergency care in the U.S. is at the "breaking point."

Despite the current and increasing need for emergency care, we continue to lose EDs with a resulting reduction in our total ED capacity. In my home state of California, according to the California Medical Association, 75 California EDs have closed since 1991, a loss of 11 percent.[4] Closures have been attributed to high numbers of uninsured patients (20 percent of California residents lack health coverage), low Medicaid reimbursement rates, unfunded mandates requiring hospitals to meet nurse-to-patient staffing ratios, and structural retrofitting to meet current seismic standards (expected to cost $24 billion).[4,5]

Nationwide, the current state of ED crowding was assessed in a simultaneous survey of 250 EDs conducted in 2001. This survey found that 22 percent of ED patients were already admitted but were boarded in the ED and waiting for an inpatient bed; 38 percent of ED directors reported doubling up patients in exam rooms, and 59 percent reported using hallways as patient care areas.[6] Due to ED crowding, an estimated 500,000 ambulance transports are diverted annually from EDs that are full and sent to more distant hospitals.[7,8]

At a fundamental level, ED overcrowding represents an imbalance between the need for emergency medical care and hospitalization, and the available capacity in the healthcare system. This imbalance is the result of a "perfect storm," consisting of rapid and steady increases in ED visits noted above, combined with simultaneous reductions in the number of EDs and especially the number of inpatient hospital beds. The available number of inpatient hospital beds determines, to a large extent, how quickly a patient who requires hospitalization can be moved out of the ED, both so they receive care in a more comfortable setting, and so their space in the ED can be used for the care of a new patient.

Why have the numbers of EDs and hospital beds decreased? Reductions in reimbursement from Medicare, Medicaid and other payers, as well as payment denials, have markedly reduced hospital resources. Another driving factor in the hospital resource equation is the escalating cost of pharmaceuticals, medical supplies and personnel. Finally, the most remarkable factor for both public and private hospitals alike,

is the increasing numbers of uninsured ED visits which are reflected in reports of the California Hospital Association citing that over 50 percent of California EDs are "running in the red." To survive financially, hospitals have been forced to operate with far fewer inpatient beds than previously. Specifically, between 1993 and 2003, the number of inpatient beds declined by 198,000 (17 percent).

The overall result is that fewer inpatient beds are available for an increasing number of emergency patients who are admitted to the hospital. Without available inpatient beds, many admitted patients are "boarded," remaining in the ED while waiting for an inpatient bed. Some patients even wait in non-clinical spaces, including hallways, offices, storerooms, and conference rooms.

There is a common misconception that ED overcrowding is caused by patients seeking treatment for non-urgent care. This is clearly untrue. According to the latest CDC ED data, less than 14 percent of all ED visits are classified as "non-urgent," meaning the patient needed to be treated within 24 hours. Overall, almost 70 percent of the patients arriving at the ED need to be seen within two hours and 15 percent of those patients need to be seen within 15 minutes.

Another consequence of ED overcrowding is ambulance diversion, a request by the hospital to redirect 911 traffic to the next available ED. Importantly, ambulances are only diverted to other hospitals when crowding is so severe that patient safety would be jeopardized if another patient were brought to the overcrowded ED. The GAO has reported that two-thirds of EDs diverted ambulances to other hospitals during 2001, with crowding most severe in large population centers where nearly one in 10 hospitals reported being on diversion 20 percent of the time (more than four hours per day).

A study released by the National Center for Health Statistics found that, on average, an ambulance in the United States is diverted from a hospital every minute because of ED overcrowding or bed shortages. This national study, based on 2003 data, reported air and ground ambulances brought in about 14 percent of all ED patients, with about 16.2 million patients arriving by ambulance. Of these over 16 million patients, 70 percent had urgent conditions that required care within an hour. A companion study found ambulance diversions in Los Angeles more than tripled between 1998 and 2004. During the last several months, our hospital has had to divert ambulance traffic more than half the time.

According to the American Hospital Association (AHA), nearly half of all hospitals (46 percent) reported time on diversion in 2004, with 68 percent of teaching hospitals and 69 percent of urban hospitals reporting time on diversion.

As you know, the Committee on Oversight and Government Reform conducted an "Emergency Care Capacity Survey" in March 2008. Before I describe my hospital's response to that survey, I would like to point out that Harbor-UCLA Medical Center provides acute care and trauma services to a catchment area of over 2 million individuals.

We have over 60 treatment beds in the ED and usually have a census of over 350 acutely-ill patients admitted in the hospital.

Despite this structural capacity, my hospital is frequently overwhelmed with demands for care. For example, on the weekday afternoon that the Committee's survey was conducted (4:30 pm on March 25, 2008), there were 78 patients undergoing treatment in the ED. Because we don't have room for that number of patients, 33 were being treated in chairs or hallways not originally intended for patient care, 37 patients were still in the waiting room waiting to be seen by a physician, and 20 patients we had previously admitted to the hospital were being "boarded" in the ED because there was no room in the inpatient hospital wards. Some of our admitted patients had been waiting one or two full days for a bed upstairs. Not surprisingly, the ED was on ambulance diversion because we had no space for incoming ambulance patients.

The situation we reported on March 25th is typical. During the week preceding the survey, our ED was on diversion for over 100 hours (more than four full days out of the week). It is difficult to claim that my hospital's Level I trauma center has any appreciable "surge capacity" when our hospital routinely functions at greater than 100 percent capacity, the ED waiting times are often greater than 24 hours, and the number of boarded admitted patients in the ED often comprise the majority of patients in the clinical care area. Our adult ED diversion rates (the fraction of the time ambulances were diverted) for January, February, and March of 2008 were 58 percent, 60 percent, and 55 percent, respectively.

The emergency care system across Los Angeles County experiences predictable periodic increases in demand, for example, during seasonal outbreaks of influenza. According to Cathy Chidester, Director of the LA County Emergency Medical Services (EMS) Agency, during this past winter, EDs across Los Angeles and Orange Counties reported an increase in patients presenting with seasonal respiratory illnesses, which put a strain on our local emergency medical services system. In Los Angeles County, the rate ambulances were turned away from hospitals due to ED overcrowding increased from an average of 12 percent in December to 28 percent in February. Patient wait times of 4-6 hours were reported. In Orange County, EDs were saturated for a total of 1,663 hours in February compared to 1,058 hours during the same month last year. This is equivalent to two hospital EDs being saturated and unavailable to ambulance patients for the whole month.

Despite the increasing demands for emergency care and the associated needs for additional capacity, the imbalance between capacity and demand is growing worse. In Los Angeles County in the last five years, ten EDs have closed. In most cases, the hospitals associated with these EDs have closed as well, including one major public hospital and other hospitals have continued to reduce their inpatient capacity.

Medicaid Funding, Trauma Centers, Teaching Hospitals, and Disaster Preparedness

Unfortunately, a policy initiative currently being pursued by the Centers for Medicare and Medicaid Services (CMS) could make matters much worse. Two proposed rules, CMS 2258 and CMS 2279, would severely harm hospitals that serve as the cornerstones of our nation's remaining trauma and emergency care capacity by pulling nearly $4 billion in federal funds from them. Many of the affected institutions anchor the trauma and disaster response systems of our nation's largest cities.

The supplemental Medicaid payments which CMS 2258 will eliminate are vital to the ongoing operation of these hospitals. Level I trauma centers—the largest and most sophisticated—typically care for the most complex and costly patients. Although anyone, rich or poor, can become a trauma victim, a disproportionate number are uninsured. This makes hospitals that focus on trauma, emergency and disaster care highly dependent on public funds, because insurance revenue alone is insufficient to cover their costs.

Graduate medical education (GME) funding—whether provided by Medicare, Medicaid, or both, is another vital source of revenue for these hospitals. CMS 2279 will eliminate it. GME funding provides teaching hospitals with a revenue stream to cover the salaries of hardworking physicians-in-training. These doctors provide their communities, in turn, with vital services in such areas as trauma, burn and emergency care.

The Los Angeles County Department of Health Services (LACDHS) operates the nation's second largest local public hospital system, and serves as the primary healthcare provider to the County's uninsured and indigent residents. LACDHS provides medical care to nearly 700,000 individual patients and is responsible for approximately 2.5 million outpatient visits each year. Its hospitals train 40 percent of all medical residents in the County, and provide 36 percent of all trauma care and 10 percent of all emergency room visits in the County.

Medicaid is, by far, the single largest source of revenue for public hospitals, including those in Los Angeles County. In recognition of their key role in providing medical care to the indigent and uninsured as well as to Medicaid recipients, public hospitals are allowed to receive Medicaid payments that exceed the cost of medical care provided to Medicaid recipients. In addition, public hospitals provide critical high cost services, such as trauma, neo-natal, HIV/AIDS, and burn care. All teaching hospitals, including the County's public hospitals, also have been allowed to claim Medicaid reimbursement of GME costs in recognition of essential medical care provided by residents and interns to Medicaid patients.

On January 18, 2007, the Centers for Medicare and Medicaid Services (CMS) issued a proposed rule to limit Medicaid payments to government providers to no more than the cost of providing services to Medicaid recipients, and, on May 23, 2007, CMS issued a proposed rule to eliminate Medicaid reimbursement of GME costs. The County opposes both proposed rules on the grounds that the proposed rules would greatly reduce

Medicaid funding for safety net hospitals, endangering the patients and communities served by them.

If implemented, both regulations would result in an estimated total combined annual Medicaid revenue loss of $240 million to LACDHS-- $200 million from the cap on Medicaid payments to public hospitals and $40 million from the elimination of Medicaid reimbursement of GME costs. This is on top of a projected fiscal year 2008-09 budgetary shortfall of $198 million, which is expected to multiply in the following four years to a cumulative $1.4 billion by fiscal year 2011-12. The Director of the Department of Health Services has estimated that the implementation of these regulations would require significant reductions in hospital-based or outpatient services equivalent to the closure of one of our major teaching hospitals--including its ED and trauma center--a potential loss of some 90,000 ED visits annually.

In response to the recent survey conducted by this Committee, the administration of Harbor-UCLA Medical Center estimated that the proposed Medicaid regulations would result in a loss of over $50 million in annual funding, representing over 9 percent of our total budget. Such a cut in funding would directly result in a reduction of inpatient and ED capacity, as well as virtually eliminating any surge capacity that still exists.

Because Harbor-UCLA Medical Center is both a teaching hospital and a trauma center, we have a substantially higher number of physicians on site at any time, compared to a non-teaching community hospital, primarily consisting of interns and residents completing their specialty and subspecialty training. This level of staffing, which can only be maintained through the federal support of GME, is a key feature which allows us to cope to some extent with the overwhelming demands for healthcare, and is a key component of our remaining ability to respond to a mass casualty incident. More broadly, any loss of funding for GME across the US would directly reduce the physician manpower available at the trauma centers and teaching hospitals that form the foundation of hospital-based disaster response in many communities.

Our Investment in Disaster Preparedness

Since the attacks of September 11, 2001, substantial resources have been devoted to improving disaster preparedness in the United States, with an emphasis on mitigating terrorist threats. Adequate preparedness can only be achieved with a comprehensive approach that connects local, state and federal programs. At the local level, planning should include all critical providers of disaster healthcare resources including hospitals, clinics, nursing homes, alternate care facilities, public health departments, and EMS systems.[9] While hospitals are only one component of a regional program for disaster management, they represent a critical link in the system. In 2002, the U.S. Department of Health and Human Services (HHS) Health Resources and Services Administration (HRSA) established the National Bioterrorism Hospital Preparedness Program (NBHPP)[10] with an explicit goal to improve the preparedness of hospitals for bioterrorism. The program's priorities included improving hospital surge capacity, decontamination capability, and isolation capacity, as well as supplementing

pharmaceutical supplies, and supporting training and education.[11] When President Bush reauthorized the Pandemic and All Hazards Preparedness Act (Public Law 109-417) in 2006, oversight of the NBHPP was moved from HRSA to the Assistant Secretary of Preparedness and Response, and the NBHPP was renamed the Hospital Preparedness Program (HPP).[11]

Efforts to enhance hospital preparedness have appropriately focused on improving "surge capacity," defined by the American College of Emergency Physicians as the "healthcare system's ability to manage a sudden or rapidly progressive influx of patients within the currently available resources at a given point in time."[12] Surge capacity is influenced by three essential elements: staff, supplies and equipment, and structure.[13,14]

In 2006, the federal government granted $474,210,000 to be used by HPP recipients to improve communication systems, to network among community stakeholders, conduct training, and stockpile supplies and equipment.[15] An example of just some of the items that were expected to be purchased by the awardees with these funds include: medical-surgical supplies; specialized personal protective equipment (Level C); mobile decontamination trailers; ventilators; HEPA filters; pharmaceuticals; such as antidotes to nerve agent exposure and antibiotics; water; portable generators; evacuation chairs and sleds; portable monitors, fluid warmers, tents, tables, cots, chairs, lights, heaters, hand-washing sinks, and toilets; storage trailers; walkie-talkies, a call-back system; body bags, and a fully-loaded truck. The recommendation was that all of these items should be readily deployable to any disaster site at a moment's notice.

Many of the items required by the HPP program would only be needed in time of biological or chemical attack. Our nation needs a balanced and logical approach to terrorism preparedness; one focused on the most likely terrorist threat—explosive devices. Rather than strengthening our nation's capacity to respond to the most likely mass casualty events, including terrorist bombings, we have directed the vast amount of preparedness resources and energy into efforts to develop biological countermeasures against bioterrorism. By one estimate, the federal government has spent more than $32 billion to date on biodefense.

Faced with many of the same enemies and threats, our allies have identified different priorities for terrorism preparedness. In February, 2007, Kobi Peleg, PhD, MPH, Director of Israel's National Center for Trauma and Emergency Medicine Research, Co-chair of the master program for emergency and disasters management in Tel-Aviv University, and one of the world's leading experts on terror-related mass casualty events, gave a briefing for Hill staff entitled "Dealing with Terror MCI [Mass Casualty Incidents] Lessons Learned from the Israeli Experience." Over the course of his presentation, Dr. Peleg described several ways Israel's approach differs from that of the United States. Notably, because Israeli EDs must always be prepared to absorb a sudden influx of victims, they are never allowed to become gridlocked. If an ED becomes crowded, admitted patients are promptly moved to inpatient units, even inpatient hallways if necessary.

Acquisition and Stockpiling of Supplies and Equipment Does Little to Create Surge Capacity

Unfortunately, while the acquisition of supplies, equipment, and pharmaceuticals is a necessary step towards preparedness, it is not sufficient to ensure adequate hospital surge capacity. Simply stockpiling materials fails to address important existing deficiencies in the US healthcare system that limits an effective disaster response.

"Disasters are local" is a basic tenet of preparedness, as the initial response to a disaster always begins at the local level. Yet, local hospital capacity has diminished markedly over the past 20 years. According to an AHA 2007 survey, the majority of US hospitals routinely function at greater than 100 percent capacity.[3]

The lack of hospital surge capacity must be addressed to improve disaster preparedness. Stockpiled supplies and written plans are of little use without sufficient available ED capacity and inpatient hospital capacity. While the current focus on tangible and measurable parameters is well intentioned, a strategy based on stockpiling alone as an effective disaster preparedness strategy is misguided. In the aftermath of a catastrophic disaster, effective use of stockpiled supplies, pharmaceutical agents, and equipment also requires adequate available patient care space and qualified personnel.[16]

On June 22, 2007, the House Committee on Oversight and Government Reform held a hearing on The Government's Response to the National Emergency Care Crisis. At this hearing, three national experts on emergency care—a trauma surgeon, an emergency physician, and an EMS Medical Director—testified that our nation is not prepared to handle a major terrorist bombing, much less a major natural disaster or flu pandemic. When asked if HHS' Hospital Bioterrorism Preparedness Program (which has disbursed more than $2.7 billion in federal funds to the states) has produced any discernable improvement in the emergency care crisis, all three experts answered "no".

Closing Summary

In summary, hospitals and EDs across the U.S. increasingly function at or above their designed capacity. Prior fiscal pressures have encouraged reductions in the number of inpatient beds and discouraged the creation and maintenance of hospital surge capacity. Simultaneously, the demand for emergency medical care has increased, leading to overcrowded EDs, full hospitals, and a marked reduction in disaster surge capacity. Although ED closures and the downsizing of hospitals are logical strategies for improving fiscal efficiency, these efforts to decrease healthcare costs run counter to simultaneous efforts to maintain disaster response capability.

Current federal programs intended to enhance the disaster response capability of hospitals have emphasized the acquisition of supplies and equipment, focused on relatively unlikely threats, and largely ignored the real limitations of an overwhelmed and crumbling emergency care infrastructure.

The proposed Medicaid regulations will directly result in further reductions in hospital and ED capacity and, ironically, specifically target trauma centers and teaching hospitals—the very institutions whose surge capacity we must maintain if they are to function in the time of disaster or terrorist attack.

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