



**TESTIMONY BEFORE THE
HOUSE COMMITTEE ON ENERGY AND COMMERCE
SUBCOMMITTEE ON HEALTH**

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On behalf of Trauma Center Association of America (TCAA)

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Chairman Upton, Ranking Member Pallone, Chairman Pitts, Ranking Member Green, and members of the Committee, thank you for holding this hearing on establishing military and civilian partnerships for trauma care, and for inviting the Trauma Center Association of America (TCAA) to speak. TCAA is a non-profit, 501(c)(6) association representing trauma centers and systems across the country and is committed to ensuring access to life-saving trauma services.

My name is Jorie Klein, and I have dedicated my career to improving access to trauma care for all in need. I oversee and manage the trauma program for Parkland Health & Hospital System, a major Level I trauma center that provides the highest level of trauma care in Dallas and its surrounding region to approximately 7,000 trauma patients annually. It was my privilege to participate on the National Academy of Medicine Committee on Military Trauma Care's Learning Health System and Its Translation in to the Civilian Sector. And it was my distinct honor to serve with such distinguished Committee members, including Doctors Schwab and Marcozzi also here with us today, and the impressive military leaders.

I appreciate the Subcommittee's interest in these important issues that are critical to our nation and for the opportunity to share my thoughts and experience in how to establish a triple win from all perspectives in improving access to civilian trauma care, military trauma care readiness, and response to mass casualty incidents. Before beginning my statement, I would like to especially thank Dr. Burgess and Representative Green for their continued leadership over so many years in improving access to trauma care for seriously injured patients.

Trauma – the Neglected Epidemic:

Please allow me to begin by sharing the sobering reality of the state of civilian trauma care in the US:

- ❖ Trauma is the leading cause of death for Americans under age 46, accounting for more than half of the deaths in this age group.

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- ❖ Trauma has an economic cost of \$670 billion in medical care and expenses and lost productivity in 2013 alone.
- ❖ Trauma is the number one cause of years of potential life lost before 75 – greater than cancer or heart disease.
- ❖ Of 147,790 US deaths from trauma in 2014, as many as 20% may have been preventable with optimal trauma care – this equates to nearly 30,000 preventable deaths in a single year – 10 times the number of deaths from the 9/11 attacks.
- ❖ Since 2001, about 2 million US civilians died from trauma and 6800 service members died in theater. Thus, the vast majority of trauma injuries and deaths occur in the civilian population.
- ❖ Victims of traumatic injury treated at a Level I trauma center are 25% more likely to survive than those treated at a general hospital.
- ❖ Unfortunately, 45 million Americans lack access to a major trauma center within an hour following the injury which is the most optimal time to decrease death, disability and the negative consequences of the injury and opportunities to improve.

Optimal Trauma Care Can Save Lives:

The "value" proposition for trauma care is well documented. The care provided by trauma centers, including specialist physicians, nurses and their entire trauma teams, has a dramatic and cost-effective impact on patients' subsequent quality of life. In fact, trauma care is more cost effective than many other interventions, including dialysis for kidney failure.ⁱ For those severely injured in motor vehicle crashesⁱⁱ, initial triage to a non-trauma center increases the risk of death within the first 48 hours by at least 30%.ⁱⁱⁱ Compared against the two higher cost medical conditions, significantly more adult patients are treated for trauma (26.4 million) than are treated for heart disease (22.5 million) or cancer (15.3 million) at a substantially lower cost per patient^{iv}. This demonstrates that investments in trauma care and trauma systems is sound financial investment for our nation.

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The immediate availability of emergency medical personnel and timely access to major trauma and burn centers is essential to saving lives. The outcome from a survivable injury should not be a matter of chance. The public's expectation that trauma care will always be available to them wherever they reside or travel has yet to be met.

Trauma will continue to occur, despite our best prevention efforts. Unfortunately, access to trauma care is threatened in some geographic regions of our nation by losses associated with the high cost of treating severely injured patients, including those unable to pay for their care, as well as a growing shortage of trauma related physicians (e.g. trauma, neurological and orthopaedic surgeons) who rely on contracts with trauma centers to cover the costs of trauma call to ensure that 24/7/365 days of trauma care are available.

Trauma Care in the U.S. is a Frayed Patchwork Quilt:

Only one in ten hospitals serves as a major trauma center. These trauma centers care for the critical and most seriously injured. The challenges facing major trauma centers, trauma systems and physicians who treat these patients during the most vulnerable time of their life are profound. The costs of maintaining a Level I trauma center are attributed to maintaining a trauma physician call panel of up to 16 specialist physicians with the knowledge and skills to treat critically injured individuals, and an entire team of trauma nurses, from the resuscitation setting to the operating room, intensive care unit, and inpatient units. Support from integrated teams of respiratory therapists, radiology, blood bank, social works, chaplains, rehabilitation specialist and other individuals make up our trauma teams. Level I trauma centers must also provide education of the next generation of physician and trauma team members, prevention programs to the community and research specific to improving trauma outcomes.

The combination of market pressures and reduced reimbursement, as well as a growing shortage of on-call specialists, challenge the trauma center's ability to maintain their commitment to the community to provide critical life-saving trauma care. Trauma centers typically do not reconstitute once closed, and it takes years to re-establish or develop a new

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functioning, verified trauma center. Closures usually result from lack of commitment due to financial resources, physician availability and uncompensated trauma care.

Reimbursement for trauma care needs to change. It is outdated and does not align with the most appropriate means by which trauma care is provided. For example, the trauma activation fee is supposed to help with the costs of trauma center readiness 24/7. Yet, it has severe limitations –

- ❖ Trauma centers can only bill the activation fee for outpatients (not inpatients);
- ❖ The patient must be coded as critical care, even though we activate for many trauma patients that have the potential for disability and decreased life productivity to decrease the impact of the injury. This is often referred to as overtriage which is necessary to provide prompt care to trauma patients to identify occult injuries.
- ❖ The trauma patient must have been brought in by EMS or be transferred by another hospital requiring a prior notification – we can't bill the activation fee for walk-ins, such as a mother bringing in a child; this is a frequent occurrence in the rural environment because people do not want to wait for EMS.
- ❖ We must keep the trauma patient in the trauma bay for 30 minutes, even though medically we should be striving to get the patient into the operating room or imaging much faster than that. An example is a patient that is shot in the chest. Most highly functioning trauma centers strive to have the patient out of the trauma resuscitation area within ten minutes.

Zero Preventable Deaths After Injury Cannot Be Achieved Without Federal Funding and Re-Aligned Reimbursement:

Our Committee is calling for a national infrastructure and national trauma care system that consistently achieves ZERO preventable deaths after injury. We provided numerous recommendations and I wish to highlight a few key thoughts from the perspective of someone responsible for a major civilian trauma center.

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First and foremost, we need federal funding. The Congress, and this Committee has repeatedly enacted in a bipartisan basis \$224 million in authorized funding for trauma programs in the Public Health Service Act including for trauma systems, trauma centers, and improve access to life saving trauma care. The Administration has failed to request funding and the Congress has yet to appropriate any funds toward these programs. The Energy & Commerce Committee unanimously moved to reauthorize these vital programs via legislation sponsored by Representatives Burgess and Ranking Member Green, H.R. 647 and H.R. 648. These bills are languishing in the Senate. The Senate Labor-HHS appropriations legislation included no funding for these programs. If we want to achieve ZERO preventable deaths after injury and save the lives of the 30,000 people which we believe could be saved each year, the Congress must reprioritize federal funding and commit to meaningful and sustained funding for the trauma systems and trauma centers.

I strongly encourage the Committee to establish a permanent, self-sustaining revenue stream for these programs, and a new one for military/civilian partnerships. Such a stream could be derived from user fees or increased violations of federal law that could produce life-threatening traumatic injury. Each year we have 4,000 deaths on from large trucks and busses on our highways. Surely there is a means by which to request that those who cause these injuries to contribute toward the trauma care system to ensure its availability for those so unfortunate as to need it.

Second, we need to revamp our reimbursement methodology. The Center for Medicare and Medicaid Services needs to study and propose a new methodology for trauma care that includes an add-on for every patient for whom the trauma team activates, regardless of whether they end up being outpatients or inpatients or die, and that is not time-dependent and doesn't require pre-notification.

To illustrate this in real terms, for the numerous patients brought to Orlando Regional Medical Center after the Pulse attack that weren't transported by EMS, Orlando Regional could not bill

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an activation fee. That's crazy. And if the trauma programs that this Committee has worked diligently to reauthorized were funded, the Secretary would have the resources to exercise the emergency authority she has to provide immediate financial support to Orlando Regional and the dozens of patients it has so diligently worked to save.

Third, we must also strengthen federal investments in trauma research and ensure that the resources are committed and aligned with trauma research at a level that is equal to the burden of injury in America. America should strive for 0% preventable deaths after injury, improved patient outcomes, and integrated systems of care. It is recommended for a National Trauma Research Action Plan be established with appropriated resources, funding and a coordinated, joint approach to trauma care research across the continuum of care and national organizations that currently hold pieces of the trauma care puzzle: DoD, HHS, NIH, AHRQ, CDC, FDA, PCORI, DOT, and the VA, along with others (academic institutions, professional societies, foundations).

Trauma Center Perspective on Embedding Military Trauma Teams & Personnel:

I believe that the promise of an integrated national trauma care system between civilian and military and across the nation can be achieved and includes the establishment of civilian/military partnerships in which military teams and personnel are integrated into the civilian trauma world.

Creating a partnership between civilian trauma centers and the military, and embedding teams and personnel will be beneficial in many ways. It will improve the ability of trauma centers to meet our civilian mission to provide trauma care to all victims of traumatic injury in our communities, ensuring the latest research from the battle field is applied. It will enhance the readiness of military teams in times of peace to reduce preventable deaths of soldiers in times of war. And it will enable a military team to be mobilized not just overseas, but also to respond to a mass casualty event like the one we've just experienced in Orlando. There are several key components to making this concept successful from the hospital trauma center perspective.

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First, embedding entire military teams is essential in Level I centers where there is sufficient high acuity trauma patients to maintain experience, competency, training and surgical proficiency of the team. I believe that we should be focusing on centers with high acuity trauma cases, as evidenced by at least 20% of the admitted trauma patients having an injury severity scores of equal to or greater than 15.

Second, these teams should be placed in academic Level I centers, with multiple missions that include research, prevention and education. This will expose the teams to these critical facets of trauma care beyond the patient bedside and enhance the existing trauma staff ability to fulfill these necessary responsibilities.

Third, centers in which military teams are embedded must demonstrate a strong commitment to high quality trauma care through dedicated and risk adjusted systems of measurement.

Fourth, these centers must be community and regional leaders in disaster response, and demonstrate participation in regional system integration of the hospital preparedness program partnerships into the overall response to all hazards events.

Fifth, the teams must be fully integrated into the trauma center environment and schedule such that they train and work as a team. This is what will enable them to be deployed successfully overseas and in the event of a mass casualty response.

I also support creating the opportunity for the military to embed an individual physician, nurse or other trauma team member in other levels of trauma centers to improve their skills, maintain proficiency, and support on-call coverage for those trauma centers, particularly those centers already struggling to cover their trauma call panel.

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The Reality of Trauma Center Viability:

From the hospital trauma center perspective, there are complex issues associated with such military/civilian trauma partnerships that include, but are not limited to financing.

It is the responsibility of civilian trauma centers first and foremost to ensure our ability to meet the needs of our communities, and to ensure the continued existence, clinical capability and proficiency of our civilian trauma teams. Resuscitation, surgical and critical care proficiency for trauma teams is equally important in the civilian and military sectors. We must ensure a global capability and exposure to penetrating and blunt trauma for all, especially when military teams deploy elsewhere, so we can ensure our continued ability to treat victims of severe injury in our own communities.

There is a financial reality for hospitals voluntarily maintaining a trauma center, particularly the high cost of a multi-mission academic Level I center. It is very expensive to do so. Trauma centers pay millions each year to physician specialists to take trauma call to ensure the immediate availability of these essential physicians, including subspecialists such as neurosurgeons and orthopaedic surgeons. Trauma centers, especially busy Level I's, can incur enormous losses each year in uncompensated trauma care due to their commitment to serve all regardless of the ability to pay. There are other major expenses including the cost of medical liability of treating the most severely injured – liability that is borne by the hospital regardless of any other liability coverage of the professional physician. There are programmatic costs of quality measurement and performance improvement, community prevention programs, scheduling, educational programs, data collection and data reporting to the National Trauma Data Bank, as well as basic administrative costs. Thus, it is essential that trauma centers have sufficient resources with which to embed these military teams and incorporate them into the daily mission of a major trauma center. Without ensuring sufficient resources to the hospital, hospitals may not engage and this venture will not be successful.

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Trauma Center Preparedness and Response to Mass Casualty Events:

In order to prepare for and respond to mass casualty events, we must have the ability to surge from our existing trauma care system. While we must have enough trauma centers to care for every day victims of traumatic injury, neither can we sustain too many centers as well. We need to balance access to trauma care for the severely injured with the need to concentrate essential trauma services so that trauma teams are proficient and their skills remain honed to the unique nature of treating and repairing traumatic injury.

One key benefit to the establishment of these military teams in major trauma centers is the prospect of being able to deploy these teams to other trauma centers that must surge quickly in response to a mass casualty incident without diluting the amount of trauma cases necessary in our major centers to ensure the highest quality of everyday trauma care. The mobility of such teams could be extraordinarily helpful in fulfilling a need for immediate surge during a catastrophe without adding unnecessary or extraordinary costs on a day-to-day basis.

Conclusion:

Again, thank you for holding this hearing and examining the state of trauma care in the 114th Congress and how we can improve it to achieve zero preventable deaths after injury. I believe that the prospect of embedding military teams in Level I academic trauma centers and enabling the placement of other military clinicians in other levels of trauma centers is a win for all – for victims of traumatic injuries in our communities and regions, for the trauma centers working every day to serve the community's needs, for the military to maintain proficiency to prevent future soldier death and disability, and improve our nation's preparedness and response capability for catastrophic events. Thank you for the opportunity to testify before you today. I am happy to answer any questions that you may have.

ⁱ MacKenzie EJ, et al. the Value of Trauma Center Care. *J Trauma* 2010; 69: 1-10.

ⁱⁱ Haas B, Stukel T, Gomez D, et al. The mortality benefit of direct trauma transport in a regional trauma system: A population based analysis. *Trauma Acute Care Surg* Volume 72, Number 6, 2011; MacKenzie EJ, Rivara FP, Jurkovich GJ, et al. A national evaluation of the effect of trauma center care on mortality. *N Engl J Med*. 2006; 354; 366-378

ⁱⁱⁱ Haas B, Stukel T, Gomez D, et al. The mortality benefit of direct trauma transport in a regional trauma system: A population based analysis. *Trauma Acute Care Surg* Volume 72, Number 6, 2011.

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^{iv} Ibid. Mean expenditures per person on most costly conditions among men and women, adults age 18 and older, 2008. For trauma related disorders: \$2,475 for women and \$2635 for men; for heart disease \$3,723 for women and \$4,363 for men; and for cancer \$4,484 for women and \$4,873 for men.