

STRENGTHENING OUR NATIONAL TRAUMA SYSTEM

HEARING BEFORE THE SUBCOMMITTEE ON HEALTH OF THE COMMITTEE ON ENERGY AND COMMERCE HOUSE OF REPRESENTATIVES ONE HUNDRED FOURTEENTH CONGRESS SECOND SESSION

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CONTENTS

	Page
Hon. Joseph R. Pitts, a Representative in Congress from the Commonwealth of Pennsylvania, opening statement	1
Prepared statement	2
Hon. Gene Green, a Representative in Congress from the State of Texas, opening statement	4
Hon. Fred Upton, a Representative in Congress from the State of Michigan, opening statement	6
Prepared statement	7
Hon. Frank Pallone, Jr., a Representative in Congress from the State of New Jersey, opening statement	8
Hon. Joseph P. Kennedy, III, a Representative in Congress from the Commonwealth of Massachusetts, prepared statement	91

WITNESSES

Jorie Klein, BSN, RN, Director, Trauma Program, Rees-Jones Trauma Center at Parkland	10
Prepared statement	12
David Marcozzi, MD, University of Maryland Department of Emergency Medicine	23
Prepared statement	26
C. William Schwab, MD, FACS, Professor of Surgery, Penn Presbyterian Medical Center	32
Prepared statement	34
Craig Manifold, DO, FACEP, Committee Chair, American College of Emergency Physicians	46
Prepared statement	48
Answers to submitted questions ¹	103
J. Brent Myers, MD, MPH, FACEP, President-Elect, National Association of EMS Physicians	58
Prepared statement	60
Answers to submitted questions ²	106

SUBMITTED MATERIAL

Statement of the American College of Surgeons, submitted my Mr. Pitts	92
Statement of America's Essential Hospitals, submitted my Mr. Pitts	98
Statement of the American Hospital Association, submitted my Mr. Pitts	101

¹ Mr. Manifold did not respond to questions for the record.

² Mr. Myers did not respond to questions for the record.

STRENGTHENING OUR NATIONAL TRAUMA SYSTEM

TUESDAY, JULY 12, 2016

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON HEALTH,
COMMITTEE ON ENERGY AND COMMERCE,
Washington, DC.

The subcommittee met, pursuant to call, at 10:00 a.m., in room 2322 Rayburn House Office Building, Hon. Joe Pitts (chairman of the subcommittee) presiding.

Members present: Representatives Pitts, Guthrie, Shimkus, Murphy, Burgess, Blackburn, Lance, Griffith, Bilirakis, Long, Ellmers, Bucshon, Brooks, Collins, Upton (ex officio), Green, Engel, Butterfield, Castor, Sarbanes, Matsui, Schrader, Kennedy, Cárdenas, and Pallone (ex officio).

Staff present: Rebecca Card, Assistant Press Secretary; Paul Edattel, Chief Counsel, Health; Bob Mabry, Fellow, Health; Graham Pittman, Legislative Clerk; Adrianna Simonelli, Professional Staff Member; Heidi Stirrup, Health Policy Coordinator; Sophie Trainor, Policy Coordinator; Jeff Carroll, Minority Staff Director; Waverly Gordon, Minority Professional Staff Member; Tiffany Guarascio, Minority Deputy Staff Director and Chief Health Advisor; Samantha Satchell, Minority Policy Analyst; Kimberlee Trzeciak, Minority Health Policy Advisor; Megan Velez, Minority FDA Detailee; and C.J. Young, Minority Press Secretary.

OPENING STATEMENT OF HON. JOSEPH R. PITTS, A REPRESENTATIVE IN CONGRESS FROM THE COMMONWEALTH OF PENNSYLVANIA

Mr. PITTS. The time of 10 o'clock having arrived, the subcommittee will come to order. I ask unanimous consent to recognize and allow our colleague, Representative Rick Hudson, who's on the full committee, to waive onto the Health Subcommittee for today's hearing. Without objection, so ordered.

I recognize myself for an opening statement. Today's hearing is an important discussion that will examine the areas where we can improve our national trauma system and the care provided by emergency responders.

The recent events in Orlando, Paris and San Bernardino remind us of the very real threat of mass casualty events that can produce large numbers of traumatically injured casualties.

Terrorism, criminal violence and road traffic accidents all produce traumatic injuries which is the leading cause of death for those under age 46. Because it disproportionately affects young

people, trauma is the number-one cause of productive life years lost, greater than cancer or heart disease.

A recent Institute of Medicine report released just last week estimates that one in five trauma deaths may be preventable or, in other words, about 30,000 people might be saved every year if your nation's trauma system is better optimized today.

We'll hear from witnesses on ways to address our trauma and emergency medical systems. First we will hear from three authors of IOM report entitled "A National Trauma Care System Integrating Military and Civilian Trauma Care to Achieve Zero Preventable Deaths After Injury."

They will discuss a number of recommendations included in the report aimed at improving trauma care. Our other two witnesses will discuss legislation introduced by Congressman Richard Hudson designed to ensure our first responders have access to critical medications needed to treat emergency conditions in the field.

One of our main challenges in addressing emergency and trauma care is leadership. Responsibility for planning, coordination, communications, and response are divided across multiple agencies and jurisdictions.

The axiom when everyone is responsible no one is responsible applies. Leadership at the federal level is required to achieve coordination and ultimate accountability.

While strong national leadership is needed, we must also bolster those on the front lines at the local level. Here we can look to the military's incredible advances in trauma care over more than a decade of war.

Lessons learned during war time often drive innovation in civilian trauma care. This is not surprising, as many experienced combat medical personnel often leave the military and go into civilian practice during peace time. Outside of war our military trauma teams have few opportunities to care for severely injured patients at their base hospitals. The IOM proposes integrating military trauma teams into busy civilian trauma centers in order to improve not only military trauma care but civilian trauma care.

I look forward to the discussion and encourage the thoughtful dialogue about these critical issues. I look forward to hearing our witnesses today and yield the balance of my time to Dr. Burgess.

[The prepared statement of Mr. Pitts follows:]

PREPARED STATEMENT OF HON. JOSEPH R. PITTS

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The Chairman will recognize himself for an opening statement.

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Terrorism, criminal violence, and road traffic accidents all produce traumatic injuries, which is the leading cause of death for those under age 46. Because it disproportionately affects young people, trauma is the number one cause of productive life years lost, greater than cancer or heart disease.

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I look forward to the discussion and encourage a thoughtful dialogue about these critical issues.

I yield the balance of my time to _____.

Mr. BURGESS. Thank you, Mr. Chairman. I appreciate your yielding.

I'm glad we're doing this today. It's timely, given the events of last Thursday and Friday. The nation was riveted upon the emergency rooms at Parkland, at Baylor Hospital and the country stands in awe of the service that was rendered to fallen police officers during that sad interval in our nation's history.

I do want to recognize and thank Dr. Robert Mabry, the Health Subcommittee's Robert Wood Johnson Fellow, for the work he has done in this area and certainly for his service to the country.

As a lieutenant colonel in the Army and an emergency room physician Dr. Mabry brought a lot of expertise to bear for this subcommittee on this issue particularly.

Mr. Chairman, as you mentioned, we have recently received the National Academy's report and it identifies a unique opportunity to improve the state of trauma care for Americans at home and in combat. A partnership between our military and civilian health systems could bolster the availability of an expert work force in two ways, first by integrating military providers into civilian systems and second, military providers would be able to continue practicing and maintain their skill levels between deployments.

The Military, Civilian, and Mass Casualty Trauma Readiness Partnership Act would facilitate this partnership through grant program which would allow us to examine how federal support of such partnerships could strengthen our trauma capabilities.

This bill has the potential to save American lives here at home as well as abroad. Again, I want to thank all of our witnesses for being here today. This is an important topic, one that, again, unfortunately, because of recent events in Dallas, Texas we've seen just how critical your service is to the country.

Mr. Chairman, I will yield back.

I yield to Mr. Hudson.

Mr. HUDSON. I thank the gentleman and thank you, Mr. Chairman, for holding this very important hearing and allowing me to join in today.

Regarding our first panel, I know firsthand the experience and expertise of our military trauma teams. So I want to thank my colleagues, Dr. Burgess and Dr. Bob Mabry, Army physician, along with the committee for their work and expertise on this important legislation.

I am also excited to hear from our second panel today as this is an issue I have personally been invested in for over a year. I want to ask everyone to imagine for a moment that a loved one has been injured or the excruciating pain with the responding EMS personnel trained to treat them are helpless to do anything about their pain. Under current law, this could become a reality.

Congressional action is needed immediately and that's why I authored the bipartisan Protection Patients' Access to Emergency Medications Act with my colleague, Mr. G.K. Butterfield, to clarify existing law so EMS personnel can continue to administer life-saving medications to patients.

This is vital for our patients and EMS personnel in North Carolina and across the United States. I want to thank you, Chairman Pitts, for your leadership and holding this important hearing.

I want to thank Mr. Butterfield for his partnership and I want to underscore the importance of this being a bipartisan measure. There's a lot of issues here that become very highly partisanized. But this is one that doesn't have to be and it hasn't been because of the strong work of Mr. Butterfield and others working with me. And I want to thank all of my colleagues for this opportunity today and look forward to working to move this legislation into law.

Thank you, Mr. Chairman. I yield back.

Mr. PITTS. Chair thanks the gentleman. I now recognize the ranking member of the subcommittee, Mr. Green, 5 minutes for an opening statement.

**OPENING STATEMENT OF HON. GENE GREEN, A
REPRESENTATIVE IN CONGRESS FROM THE STATE OF TEXAS**

Mr. GREEN. Thank you, Mr. Chairman. And we're here today to examine two distinct but important ideas. The first is H.R. 4365, the Protecting Patient Access to Emergency Medications Act is authored by our colleagues on the committee, Representatives Butterfield and Hudson from North Carolina.

This legislation would clarify the oversight of care provided by emergency medical services practitioners through standing orders. Standing orders allow physicians and medical directors to establish preset protocols for EMS practitioners to follow when delivering emergency care on the ground.

They are especially important in the administration and delivery of controlled substances in emergency situations when time is of the essence.

The second proposal is a discussion draft to authorize a tiered grant program to civilian trauma centers that are engaged in military-civilian partnerships. This proposed bill will also require a study on how trauma care is reimbursed.

Last month, the National Academies of Science, Engineering and Medicine—NASEM for short—released a report entitled “A National Trauma Care System Integrated Military and Civilian System to achieve Zero Preventable Deaths After Injury.”

Trauma injury is the leading cause of death of those under age 46 and it is the third leading cause of death overall. Trauma has definitive causes which establish method of treatment and prevention.

Frequent forms of trauma include motor vehicle accidents, gunshot wounds, and falls. Traumas also result with large-scale man-made or natural disasters, too many of which we have seen recently and will continue to experience regardless of the best prevention efforts.

Survival among severely injured patients requires specialist care delivered promptly and in a coordinated manner. Care begins at the scene of injury, continues to the emergency department and on to the hospital operating room and on to the hospital operating room and intensive care unit.

This is true in both civilian and military context. Also true is the optimal response and care depends on advanced planning, preparation and coordination to produce smooth transitions and the proper sequence of interventions. Trauma care systems are the backbone of preparedness.

Unfortunately, despite clear evidence of its value in war zones and here at home, one in seven Americans, 45 million people, lack access within one hour, known as the golden hour, to a trauma center able to treat their severe injuries.

The NACEM report states that the military has made significant strides over the past decade in improving trauma care based on lessons learned during wartime.

And Mr. Chairman, years ago when we were heavily involved in Iraq and Afghanistan our committee, Health Subcommittee, went to Baghdad, Balad and in Afghanistan to see the coordination between what they do and the success they were having.

And at one time in the Houston area we—at our Level 1 trauma centers at Memorial Hermann and Ben Taub they trained our military physicians because on a Friday or Saturday night you would see things in there that you would see in a war time.

But after Iraq and Afghanistan now we need to work together because I was so impressed. I would see a hurt soldier come in and have the many disciplines working on that soldier at very primitive conditions compared to what we have in our communities.

But I think there’s a lot we can learn from the military. There are nearly 30,000 preventable fatalities for trauma injury every year that could have been avoided if optimal care was provided through coordinated trauma care’s system.

The NACEM envisions a national trauma care system and allows the continuous and seamless exchange of knowledge across military and civilian health care sectors. This would better provide optimal delivery of trauma care to save the lives of Americans injured in the United States or on the battlefield.

Improving our national trauma care system is an issue that I’ve championed for years with my colleague and fellow Texan, Representative Mike Burgess. We worked to shore up our trauma cen-

ters, expand access to care and improve the regionalization of our nation's trauma systems.

On a bipartisan basis we worked to enact and sustain federal trauma programs that enhance access to trauma care for all Americans. We currently have two bills to strengthen the future availability of trauma care which the House of Representatives passed 9 months ago and are awaiting action in the Senate.

I am encouraged by this subcommittee's attention to such an important and overlooked issue and appreciate our witnesses for their thoughtful testimony today.

I look forward to hearing more about the proposed legislation and our continued work to improve trauma care both for our men and women in combat and civilians and veterans here at home.

We must ensure that the proper systems and sites of care are in a place to provide timely lifesaving care to all injured Americans. As we grapple with how to best support our men and women in uniform and respond to tragedies at home we cannot assume that trauma care will miraculously be there.

It's the responsibility of Congress to make certain that the right care is available at the right time and we can make the most impact over the difference between life and death.

And again, Mr. Chairman, I thank you for calling this hearing. I yield back.

Mr. PITTS. Chair thanks the gentleman.

I'll now recognize the chair of the full committee, Mr. Upton, 5 minutes for an opening statement.

OPENING STATEMENT OF HON. FRED UPTON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MICHIGAN

Mr. UPTON. Well, thank you, Mr. Chairman.

Trauma causes such tremendous economic and human costs in Michigan and every state across the country. New National Academy of Medicine, NAM report, underscores that we need to do more and this report cites nearly 30,000 preventable civilian deaths per year due to trauma. Not overseas in distant war-torn land but here at home in the U.S.

NAM points to a number gaps in our national trauma system, including the inconsistency in trauma care quality over time and in specific geographic areas.

They also found a diffusion of responsibility across agencies of the government. Additionally, they found significant gaps in our ability to exchange knowledge and best practices, the result of which is significant variation in trauma care deliver which in turn, of course, leads to unnecessary suffering and lives lost.

The NAM report puts forth several recommendations on how to move forward including improving the leadership of trauma care, integrating military and civilian trauma data system best practices and research, reducing regulatory barriers and, of course, improving trauma care quality processes.

Today, we're going to hear from two emergency medical service physician medical directors. The practice of medicine in a pre-hospital environment is very unique and is a key part of our health care system.

Our EMS folks, physicians, paramedics, other first responders are the front line of our emergency medical and trauma care system. They got to have the tools, training and support to rapidly stabilize and treat a variety of emergency conditions 24/7 in every community across the country.

These EMS physicians will discuss the implication of H.R. 4365, the Protecting Patient Access to Emergency Medications Act of 2016 introduced by Mr. Hudson, to ensure first responders have critical emergency medications needed to treat a variety of emergency and life-threatening conditions.

[The prepared statement of Mr. Upton follows:]

PREPARED STATEMENT OF HON. FRED UPTON

Trauma causes tremendous economic and human costs to Michigan and our nation. A new National Academy of Medicine (NAM) report underscores we need to do more. This report cites nearly 30,000 preventable civilian deaths per year due to trauma—not overseas in a distant war torn land—but here at home in the United States.

The NAM points to a number of gaps in our national trauma system, including the inconsistency in trauma care quality over time and in specific geographic areas. They also found a diffusion of responsibility across agencies of the government. Additionally, they found significant gaps in our ability to exchange knowledge and best practices, the result of which is significant variation in trauma care delivery which in turn leads to unnecessary suffering and lives lost.

The NAM puts forth several recommendations on how to move forward, including: improving the leadership of trauma care; for integrating military and civilian trauma data systems, best practices and research; reducing regulatory barriers; and improving trauma care quality processes.

Today we will also hear from two emergency medical services physician medical directors. The practice of medicine in prehospital environment is very unique and is key part of our healthcare system. Our EMS physicians, paramedics and other first responders are the front line of our emergency medical and trauma care system. They must have the tools, training and support to rapidly stabilize and treat a variety of emergency conditions 24 hours per day in every community in the US. These EMS physicians will discuss the implications of HR 4365, the Protecting Patient Access to Emergency Medications Act of 2016, introduced by Mr. Hudson to ensure first responders have critical emergency medications needed to treat a variety of emergency and life-threatening conditions.

I would like to thank the witness for coming here today and look forward to their testimony.

Mr, UPTON. I yield the balance of my time to Mrs. Blackburn.

Mrs. BLACKBURN. Thank you, Mr. Chairman. Welcome to our witnesses. We are pleased that you are here.

I represent Fort Campbell and also right outside of my district is the Vanderbilt University Medical Center and I want to tell you I am so pleased that Mr. Hudson has brought the bill forward and that we are having the hearing today and talking about the report from the academies.

I think this is very appropriate for us to do. Taking down the barriers between the military and civilian healthcare, the exchange of information, looking for how best to make the appropriate response is something that is timely.

I think that it is also needed and looking at the delivery model and optimal delivery. Important for us to have this discussion.

So Mr. Chairman, I thank you for the time and with that I yield back.

Mr. PITTS. Chair thanks the gentlelady. I now recognize the ranking member of the full committee, Mr. Pallone, 5 minutes for an opening statement.

OPENING STATEMENT OF HON. FRANK PALLONE, JR., A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY

Mr. PALLONE. Thank you, Mr. Chairman.

Whether it's a gruesome sports injury or an injury from an accident on the interstate or a gunshot wound, we depend on our trauma care system to provide the services necessary to save lives and prevent disability.

In the case of an emergency no one should be forced to wonder whether quality services will be available and we're fortunate to have access to some of the best trauma care in the world, ensuring access to quality trauma care based on the best available evidence.

However, there are gaps in our current system and unfortunately sometimes the determination of whether a person survives or dies depends on if the injury occurs near a good trauma center and I think we'd all agree that this is unacceptable.

All of our trauma services should be world class and that's why I'm eager to hear today about recommendations from the recent report that aimed to strengthened our trauma systems to ensure that patients get the services they need when a health emergency arises.

In particular, one of the recommendations which is the subject of draft legislation being examined today encourages the development of military and civilian partnership by placing military trauma teams and personnel in civilian trauma care centers and I look forward to hearing more from our witnesses about the legislation's impact on our trauma care system.

In addition to ensuring the availability of trauma care services we must also make certain that providers have the flexibility they need under federal law to treat patients in emergencies. Another topic of discussion today is H.R. 4365, the Protecting Patient Access to Emergency Medications Act. This bill would amend the Controlled Substances Act to clarify that emergency service personnel can administer controlled substances under a standing order from a physician, medical director who oversees emergency care.

I understand this would codify what is current practice and ensure that patients have ready access to important and often life-saving drugs in emergency situation.

This bill would also streamline the emergency medical services registration process and would also hold the MS agencies responsible for receiving, storing and tracking controlled substances.

While I support the intent of this legislation I understand the drug enforcement agency wasn't to ensure the proper safeguards are in place under this framework to limit the potential for diversion or misuse.

And so again, I look forward to hearing more from our witnesses today about how EMS agencies can and will ensure a appropriate regulatory safeguards are in place to prevent diversion of controlled substances and I look forward to continuing to work with my col-

leagues and the sponsors, the DEA and stakeholders, to address these issues.

Mr. Chairman, these are critically important issues. I'm glad our committee continues its track record of working to improve the public health care system to better serve our communities and protect patients, and I yield the remainder of my time to Mr. Butterfield.

Mr. BUTTERFIELD. Thank you very much, Mr. Pallone, for yielding time and thank you, Mr. Chairman, for convening this hearing today on strengthening our national trauma system.

This is a subject that we all care so deeply about and I know our five witnesses today feel very strongly about this issue and so thank you for the hearing and I thank the five of you for your willingness to testify.

Mr. Chairman, trauma can occur in many forms from concussions or burns to injuries on the athletic field or even highway accidents. Pediatric trauma is the most frequent killer of children in our country.

Trauma does not need to lead to death or even permanent disability. By providing access to trauma care within what is known as the golden hour or the time immediately following the injury and I'm sure our guests will talk about that today, we can dramatically reduce those threats.

Of approximately 1,200 hospitals in the country, only about one out of every five hospitals are designated for trauma. Even fewer are equipped to handle the challenges of pediatric trauma care.

And so in May, Congressman Richard Hudson, my dear friend and colleague that usually sits on the other side of the aisle but today he's on my side of the aisle—I don't know if that's an omen, Mr. Upton—Mr. Upton has left. But thank you for sitting with us today, Richard.

But in May, Richard and I launched the Pediatric Trauma Caucus to work to ensure that the U.S. trauma care network has the appropriately trained workforce, resources and evidence-based practices to meet the challenges of pediatric care. And so I'm pleased today that we are considering 4365. This bipartisan bill clarifies existing law so that EMS personnel under the supervision of a physician can administer lifesaving medication to patients in their care.

This legislation ensures EMS personnel have the necessary tools to help victims of traumatic events receive medically appropriate treatments before arriving at the hospital.

In rural communities such as mine and congested urban areas alike, such as Dr. Myers, hospitals and clinics can be difficult to access and in many cases the administration of treatments can prevent death or permanent disability.

So I thank you. I look forward to the hearing. I yield back.

Mr. PITTS. Chair thanks the gentleman. That concludes the opening statements verbal. All written opening statements of members will be made a part of the record.

I have a UC request. I'd like to submit the following documents for the record: statements from the American College of Surgeons; America's Essential Hospitals; and the American Hospital Association.

Without objection, so ordered.

[The information appears at the conclusion of the hearing.]

We have one panel of witnesses today. I'll introduce them in the order of their presentation. We'll start with Ms. Jorie Klein, director, trauma program, Rees-Jones Trauma Center at Parkland.

Then Dr. David Marcozzi, University of Maryland, Department of Emergency Medicine, Dr. Bill Schwab, professor of surgery, Penn Presbyterian Medical Center, Dr. Craig Manifold, committee chair, American College of Emergency Physicians. Finally, Dr. Brent Myers, president elect of the National Association of EMS Physicians.

Thank you for coming today. Your written testimony will be placed in the record. You'll each be given 5 minutes to summarize your testimony. And so at this time the chair recognizes Ms. Klein 5 minutes for her summary.

STATEMENTS OF JORIE KLEIN, BSN, RN, DIRECTOR, TRAUMA PROGRAM, REES-JONES TRAUMA CENTER AT PARKLAND; DAVID MARCOZZI, MD, UNIVERSITY OF MARYLAND DEPARTMENT OF EMERGENCY MEDICINE; C. WILLIAM SCHWAB, MD, FACS, PROFESSOR OF SURGERY, PENN PRESBYTERIAN MEDICAL CENTER; CRAIG MANIFOLD, DO, FACEP, COMMITTEE CHAIR, AMERICAN COLLEGE OF EMERGENCY PHYSICIANS; AND J. BRENT MYERS, MD, MPH, FACEP, PRESIDENT-ELECT, NATIONAL ASSOCIATION OF EMS PHYSICIANS

STATEMENT OF JORIE KLEIN

Ms. KLEIN. Mr. Chair, Ranking Members Pallone and Member Green, thank you very much for the opportunity to be here with you. I am a trauma nurse. I am the director of the trauma program at Parkland Hospital and I also am chair of the State Trauma Systems Committee.

It is my privilege to participate in the National Academy of Science Committee that has brought forward this report. I would like to also recognize Dr. Burgess, who I have trained at Parkland Hospital and is very familiar with our environment.

So when we talk about trauma we often talk about it as the neglected disease and that is not a term that's new to us. Actually, R.A. Cowley from the shock trauma center introduced that term back in 1966. The sad thing is that those terms and many of the things that were pointed out in that report 50 years ago are still true today. You heard about the stats. Many of you read them.

I'll just give you some stats from my state. Our state reported 121,000 injuries in our trauma registry last year. This year so far from January my trauma center has evaluated 4,322 trauma patients. When we talk about those patients they all need quick response care.

So what we would like to do is have you consider our report, look at the federal investment in trauma care. If you look at the number of individuals that are dying from trauma care and you look at the number of dollars that are appropriated for trauma care, trauma advances, trauma research you will find that there is a disparity there.

So, again, we're asking you to reconsider some of that or help us move forward with that. The key concepts of the National Academy Report, again our committee called for developing a national trauma system and that national system includes integration of the civilian as well as the military, which includes all aspects from the prehospital to the acute care, inside the hospital for stabilization as well as research in prevent activities.

I'm here today also representing the Trauma Center Association of America which strongly supports the bill that's being produced—the grant programs being developed that will actually create an opportunity for military teams to be inside the trauma centers. And, again, this could be very, very helpful.

Many of the trauma centers, again, are growing. Our trauma center last month had a 35 percent increase in our number of trauma patients and, unfortunately, nothing else in the system increased 35 percent. I don't have 35 percent more nurses, dollars, or resources to manage those patients.

So some of the points, again, embedding the military teams as they would be fully integrated into the team and they would learn to work as a team. If you don't know how to work as a team in trauma you set the patients up for risk and that is one of the most critical things that we see.

One of the other things that the report called for is a study. If you look at the deaths that were produced from the reports from the military as well as civilian, there are preventable deaths and when we talked about preventable deaths we're talking about after the injury occurred. And so we would like to see research and funding to address that and to create a nation that has zero preventable deaths.

Again, appropriate funding would help support that and a national place to call home for trauma. We need a trauma center cost study that includes an opportunity to look at different billing systems. The billing system that we currently have and things that we can bill for trauma, for example, if the patient arrives by ambulance you can bill for it. If the patient is transferred you can bill your trauma activation fee. On Thursday night, several of those patients arrive to our trauma center in the police car, which means we cannot bill for some of the most critical patients that we have cared for and that means the bill falls back to other resources.

So we must establish a national research action plan again to look at these deaths, to look at our system and to create systems that every echelon of care there's appropriate handoff and knowledge and the receiving provider knows and is competent how to manage a trauma patient.

So in conclusion, I would like to say thank you for the opportunity to be here with you and, again, I would like to engage any other further discussion that you might have regarding these proposed bills.

Thank you.

[The statement of Ms. Klein follows:]

TRAUMA CENTER
— Association of America —
ADVOCACY • FINANCE • OPERATIONS

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

Jorie Klein, RN, BSN

Director of Trauma Program, Parkland Health & Hospital System

On behalf of Trauma Center Association of America (TCAA)

June 24, 2016

2322 Rayburn House Office Building
Washington, DC

For further information, contact:

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Statement of Jorie Klein

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.

Statement of Jorie Klein

- ❖ 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 decreased 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.

Statement of Jorie Klein

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

Statement of Jorie Klein

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.

Statement of Jorie Klein

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

Statement of Jorie Klein

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.

Statement of Jorie Klein

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.

Statement of Jorie Klein***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.

Statement of Jorie Klein

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.

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

² 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

³ 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.

Statement of Jorie Klein

^{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.

Mr. PITTS. Chair thanks the gentlelady and now recognizes Dr. Marcozzi 5 minutes for his summary.

STATEMENT OF DAVID MARCOZZI

Dr. MARCOZZI. Good morning, Chairman Pitts, Ranking Member Green and members of the subcommittee.

I'm honored to have served on the committee that we're discussing here to release the report on trauma care. The committee is part of the National Academies of Sciences chartered by the Congress in 1863 to advise the government on matters of science technology. Thank you for your invitation to testify today. It was an honor to serve on this prestigious committee under the leadership of Dr. Don Berwick. I want to begin my remarks by pausing to remember those who lost their lives during the recent tragedies in Dallas, in Orlando, and thank those who answered the call to respond to those crises. My sympathies go out to those affected by these and all tragedies due to trauma. Additionally, I want to recognize a legendary trauma surgeon and committee member from New Orleans, Dr. Norm McSwain, who passed away during the drafting of our report. His death was a great loss. Finally, I want to thank the sponsors of this work, the Department of Defense, the Department of Homeland Security, importantly, for its supporting a comprehensive deliverable aimed at improving our nation's approach to trauma care.

One could say I've worked on both sides of multiple aisles. Within the legislative and executive branches of government, under Republican and Democratic administrations as a policy maker and practicing physician and finally working within the military and civilian sectors. It is these experiences that help shape my remarks today.

Right now, regardless of time, age of payer, emergency and trauma systems across our nation are diagnosing and treating those who are ill, injured, or depressed. Those two health delivery systems are inextricably linked. That care has an impact on their community and the populations they serve. Appreciating this, I reflect on a prior hearing by the House Oversight and Government Reform Committee on June 22nd, 2007. This committee hearing was in response to a 2006 Institute of Medicine report that released their reports on the state of our nation's emergency care. Dr. Schwab likely remembers that well as he was one of the presenters there testifying that day. At that time, Ranking Member Tom Davis commented, "Emergency critical care services are in critical condition." He went on, "Such a fragile, fragmented system holds virtually no surge capacity in the event of a natural disaster or terrorist event."

Representative Cummings, who chaired that meeting, further remarked, "After providing a thorough overview of the challenges facing our nation's emergency care system, the time for action is long overdue."

Our nation's trauma care systems are a vital component of both our nation's health delivery system and our nation's resilience. As the leading cause of death under those at the age of 46, preventing injury is certainly an optimal strategy. But unfortunately, people still fall or are involved in motor vehicle accidents, get assaulted, are shot or are stabbed.

In addition to those unfortunate daily occurrences of traumatic injury, recent events and remarks by CA Director Brennan and Secretary of Department of Homeland Security Johnson, strongly compel us to assure that our nation's emergency and trauma systems also stand at the ready for mass casualties.

Coining a phrase from a comprehensive federal guidance on how best to respond to terrorist bombings, a robust system needs to be ready to respond in a moment's notice to injuries. Simply, that system delivers optimal trauma care and lives will be saved. Designing that system to achieve optimal outcomes is also important economically as care to victims of trauma totaled \$600 billion in 2013.

The title of a famous book, "Good to Great," allows me to put in context advances in trauma care and highlight findings in two recommendations that I'll discuss I hope you'll find germane to our discussion today.

We are good in many aspects of trauma care but we aren't great. As an example identified by the committee on this dichotomy was the finding that approximately a thousand service members died of potentially survivable injuries from 2001 to 2011. One thousand. Here at home, nearly 150,000 trauma deaths occurred in 2014. As many of 30,000 of those deaths were preventable. That's 80 deaths a day that potentially are survivable that we don't yet act on.

First and foremost, we are good at leadership but we aren't great. There are federal offices and programs that attempt to address this issue. But those civilian entities have small staff and little or no funding to influence and improve our nation's emergency trauma systems.

Within the military, the joint trauma system's future remains tenuous and it is not currently utilized across all combatant commands. This is a glaring omission by the Department of Defense.

In short, there is no single entity within HHS or DoD with the authority and accountability to guide the delivery of optimal trauma care.

Prehospital care has achieved success due to tireless champions for improving the care the lives that are saved when we recall 911 due to paramedics, emergency technicians, and physicians. Chief James Robinson, Lieutenant Colonel Bob Mabry, Captain Frank Butler, Colonel Russ Kotwal are just four of those champions that worked to shape the recommendations of this committee in pre-hospital care.

We are good but we aren't great. EMS remains a patchwork of symptoms, fragmented and largely isolated from health delivery and health delivery reform efforts. Unfortunately, and as dictated by Congress, prehospital care is considered only a transport mechanism, not part of the health delivery mechanism and apparatus of the nation.

As a result, we don't have a seamless construct that includes medical care provided before you enter the doors of a hospital. The report outlines recommendations on how to address this.

In conclusion, traumatic injury is nonpartisan and the delivery of optimal trauma care is a shared responsibility by Democratic and Republican leadership alike. Both sides of the aisle can and should support a system that benefits service members sitting in harm's way as well as every American.

The report on National Trauma Care System Integrating and Military Civilian Systems to Achieve Zero Preventable Deaths after Injury Presents a vision for national trauma care—for a national trauma care system with a bold aim of zero preventable deaths after injury and minimal trauma-related disability. The committee's work on this report serves as a dedication to the lives cut short because of trauma whether on our streets, at a dance club, at a marathon, within our towns, our schools, our movie theaters, our places of worship or work. We are good, but we aren't great and we should be.

Thank you, and I look forward to your questions.

[The statement of Dr. Marcozzi follows:]

26

**Hearing on
Strengthening our National Trauma System**

Statement of

David Marcozzi, M.D., MHS-CL, FACEP

Associate Professor and Director of Population Health
Department of Emergency Medicine, University of Maryland School of
Medicine

On behalf of the National Academies of Sciences, Engineering, and
Medicine

Before the
Subcommittee on Health
Committee on Energy and Commerce
U.S. House of Representatives

June 24, 2016

Good morning Chairman Pitts, Ranking Member Green, and members of the Subcommittee. My name is David Marcozzi. I am an Associate Professor of Emergency Medicine at the University of Maryland and served as a member of the Committee on Military Trauma Care's Learning Health System and its Translation to the Civilian Sector. The Committee is part of the National Academy of Sciences, chartered by Congress in 1863 to advise the government on matters of science and technology. Thank you for your invitation to testify today. It was an honor to serve on this prestigious Committee under the leadership of Dr. Don Berwick. I want to begin my remarks by pausing to remember those who lost their lives during the recent Orlando mass casualty and thank those who answered the call and responded to that crisis. My sympathies go out to those affected by this tragedy. Additionally, I want to recognize a legendary trauma surgeon and Committee member from New Orleans, Dr. Norm McSwain, who passed away during the drafting of our report. His death was a great loss. Finally, I want to thank the sponsors of this work for mutually supporting a comprehensive deliverable aimed at improving our nation's approach to the delivery of trauma care.

I guess you could say that I have worked on both sides of multiple isles-- as a Senate fellow, in policy as a senior advisor serving in positions at HHS and the White House, under Democratic and Republican administrations, as a practicing emergency physician in Level one Trauma Centers, and as an army doctor. It is these experiences that help shape my remarks.

Right now regardless of time, age or payer, emergency and trauma systems across our nation are diagnosing and treating those who are ill, injured or depressed. Those 2

health delivery systems are inextricably linked. Their care has an impact on the community and population they serve. Appreciating this, I reflected on a prior hearing by the House Oversight and Government Reform Committee on June 22, 2007 in response to the 2006 Institute of Medicine release of 3 reports on the state of our nation's emergency care. Dr. Schwab likely remembers that well, as he was one of the experts testifying that day. Many of the remarks in that hearing are, unfortunately, just as applicable today. At the time, ranking member Tom Davis commented, "Emergency critical care services are in critical condition." He went on "such a fragile, fragmented system holds virtually no surge capacity in the event of a natural disaster or terrorist attack." Representative Cummings who chaired that meeting further remarked, after providing a thorough overview of the challenges facing our nation's emergency care system, "the time for action is long overdue."

Our nation's trauma care systems are vital components of both our nation's health delivery system and our nation's resilience. As the leading cause of death in those under the age of 46, preventing injuries is certainly an optimal strategy but unfortunately people still fall, are involved in motor vehicle accidents, get assaulted, or are shot or stabbed. In addition to those unfortunate daily occurrences of traumatic injury, recent events and remarks by CIA Director Brennan and Secretary of the Department of Homeland Security Johnson strongly compel us to assure that our nation's emergency and trauma systems also stand ready for mass casualties. Coining a phrase from comprehensive federal guidance on how best to respond to terrorist bombings, a robust system needs to be ready to respond *In a Moment's Notice* to injuries. Simply, when that system delivers optimal care, lives are saved. Designing that system to achieve optimal outcomes is also

important economically, as care to victims of trauma totaled \$600.5 billion in 2013.

The title of the famous book “Good to Great” allows me to put in context advances in trauma care and highlight findings and two recommendations I hope you will find germane to our discussion today. For we are good in many aspects of trauma care, but we aren’t great. An example identified by the Committee of this dichotomy was the finding that approximately 1000 service members died of potentially survivable injuries from 2001-2011 in Iraq and Afghanistan. Here at home, nearly 150 thousand trauma deaths occurred in 2014 – with as many as 30,000 of those deaths preventable with optimal trauma care. That is 400 trauma deaths each day, 80 of which could be saved.

First and foremost, we are good at leadership but we aren’t great. There are offices and programs that attempt to address this issue, but those civilian entities have small staffs and little or no funding to influence and improve our nation’s emergency and trauma systems. Within the military, the Joint Trauma System’s future remains tenuous and it is not currently utilized across all combatant commands. This is a glaring omission by the Department of Defense. In short, there is no single entity within HHS or DOD with the authority and accountability to guide the delivery of optimal trauma care. The Committee concluded that the White House should lead the integration of military and civilian trauma care to establish a national trauma care system and that this initiative would include assigning a locus of accountability and responsibility within HHS and DOD that would ensure the development of common best practices, data standards, research, and workflow across the continuum of trauma care.

The Affordable Care Act could be used as a lever to address these issues, but presently is not. I have heard it said that if you show me your books, I’ll tell you your

priorities. In January 13, 2016 the Congressional Research Service released a report entitled the Discretionary Spending Under the Affordable Care Act (ACA) and Table 9 of that report entitled *ACA Discretionary Spending: Emergency Care and Trauma Services* lists the multiple programs authorized to address and improve emergency and trauma care but states “no appropriations were identified” from FY2010 to FY2016 for those authorizations.

Prehospital care has achieved success due to tireless champions for improving that care and lives are saved when we call 9-1-1 due to the efforts of paramedics, emergency medical technicians and physicians. Chief James Robinson, LTC Bob Mabry and COL Russ Kotwal are just three of those champions that worked to shape the recommendations of the Committee dealing with prehospital care. We are good, but we aren't great. EMS remains a patchwork of systems, fragmented and largely isolated from health delivery and health delivery reform efforts. Unfortunately and as dictated by congress, prehospital care is considered only a transport mechanism by HHS, not part of the healthcare delivery system. As a result, we don't have a seamless system that includes the medical care provided before you enter doors of a hospital. The report outlines recommendations to address this issue.

Traumatic injury is non-partisan and the delivery of optimal trauma care is shared responsibility by democratic and republican alike. Both sides of the isle can and should support a system that benefits service members sent into harm's way as well as every American. The report, *A National Trauma Care System: Integrating Military and Civilian Trauma Systems to Achieve Zero Preventable Deaths After Injury*, presents a vision for a national trauma care system with a bold aim of zero preventable deaths after

injury and minimal trauma-related disability. The Committee's work on this report served as a dedication to those lives cut short because of trauma--whether at a dance club, marathon, on our streets, within our towns, in our schools, at our movie theatres, in our places of worship or work or any other location within our nation or on battlefields overseas. We are good, but we aren't great and we need to be. Thank you and I look forward to your questions.

Mr. PITTS. Chair thanks the gentleman.
I now recognize Dr. Schwab 5 minutes for his summary.

STATEMENT OF C. WILLIAM SCHWAB

Dr. SCHWAB. Thank you. My name is Bill Schwab and I'm a trauma surgeon. I'm a professor of surgery and I've trained military and civilian trauma surgeons for the last 40 years of my life.

I think as we focus on what's going on in the streets of America it's appropriate to take a moment and realize that we have soldiers, airmen, Marines, and Navy in harm's way.

Yesterday, a letter arrived from one of my trainees who is currently six miles from Fallujah, Iraq, and I read this letter from Lieutenant Colonel John Schavonis, a surgeon: "I write this sitting in my tent about five or six miles from Fallujah, Iraq. The tent is pretty big and it has great air conditioning. We have hot showers, three minutes combat style, no more, and fresh fruit.

"Outside it's about 104 degrees, a dry heat we mockingly like to say. Our spirits are good. Over the past few weeks I've done over dozens of major operations—thoracotomies, exploratory laparotomies, amputations, craniotomies and all of them to save soldiers' lives.

"Now an intense battle rages in Fallujah. We are quiet for the time being. I am as ready as I can be for whatever comes through these doors and the reason is because of what you taught me. Your insights, your intellect, your skills, your cell phone always being on brings me the strength and the courage to go on."

I am the product of a military civilian partnership. The United States Navy put me through medical school and trained me as a trauma surgeon during Vietnam. Every one of my teachers in surgery had served in Vietnam. Trauma surgery became my genes. I'm going to discuss briefly recommendation 11 of the National Academy report which calls for integrating and optimizing the civilian network of America's best and busiest trauma centers as robust platforms to train, sustain and retain military teams in an expanded expert trauma workforce necessary to perform the primary mission of the Department of Defense's military health system readiness, battlefield medicine, and combat surgery.

I'm going to share some data with you that we gleaned and published after 2 years of extensive research. I won't bore you with the methodology but let me just say it was extensive and involved. Over 40 face to face interviews with leaders from the United States military medical corps, all three services as well as civilian leaders. We looked at how well prepared surgeons were to go to war, and I want to clarify I'm going to use the word surgeons just to abbreviate the time. But this also relates to physicians, nurses, allied health professions and administrators. Our research showed that the best word to describe the preparation prior to deployment to go to battle is inconsistent. Inconsistent in training, inconsistency in skills and inconsistency in competency.

And please don't blame the men and women that wore the uniform, because the military has very little opportunity to train in trauma surgery in their hospitals. The most common invasive or surgical procedure done in military hospitals is obstetrical delivery. The most common diagnosis and treatments rendered by military

physicians and surgeons are the care of the diseases of aging among beneficiaries.

There is only one level of trauma center in the entire Department of Defense at its 51 hospitals. As important, when war ramps up there is very little time to train physicians and nurses to go to war. What was necessary and what is necessary is to provide a constant training platform, a network of national military civilian excellent trauma centers that has embedded full trauma teams interdisciplinary that are continuously practicing trauma night after night, day after day. And when called upon can rapidly deploy to support the modern war machine.

Let me give you some statistics that might be a bit shocking. What was the average age of the general surgeon that deployed to Iraq and Afghanistan? Thirty-six. How many years of practice did they have under their belt? Two. How many times were they accompanied by another surgeon who had combat experience? Eighteen percent of the time. That implies tremendous flaws in preparing to serve those men and women put in harm's way to defend our freedoms and our democracy.

This has been studied before. The Rand Corporation in 2008 did an extensive study and documented that the best place to prepare military providers for combat and battlefield medicine are in the busy trauma centers of the United States. They also went on and studied with nine health organizations any problems that might arise—financial, business, statutory licensing, and interestingly enough, none of the problems, one, were identified as insurmountable, number two, the nine healthcare organizations were optimistic and said they would even be willing to do cost sharing, and last, from 2009 to 2014 when we interviewed the leaders of the five current military civilian trauma training hospitals, no problem had arisen with any of the things that I mentioned.

Mr. PITTS. Your time has expired. Would you wrap up, please?

Dr. SCHWAB. I would like to just show you one map because it's very important, if I could.

This map is actually a map that we generated looking at American Colleges Surgeon data. These are the busiest and the best academic trauma centers in the United States. We asked the question whether it was capacity to absorb as many as 20 to 25 of these teams by looking at this data and the answer is yes, there is. I will also point out that in those orange and yellow dots are some of the most stressed hospitals in the United States, the safety net hospitals in inner city America who could greatly benefit from the placement of these military teams to health care of those victims of violence that you're reading about in the papers.

Thank you very much, Mr. Chairman.

[The statement of Dr. Schwab follows:]

Energy and Commerce Committee

House of Representatives

Washington, DC

July 10, 2016

C. William Schwab MD FACS

Professor of Surgery, Perelman School of Medicine

**Founding Chief, Division of Traumatology, Surgical Critical
Care and Emergency Surgery, Penn Medicine**

Philadelphia, Pa.

National Academy of Science, Engineering and Medicine

**Committee on Military Trauma Care's Learning Health
System and its Translation to the Civilian Health Sector.**

Testimony on findings and recommendations from the work done for the Scudder Oration 2014 and its accompanying paper Journal of the American College of Surgeons, August 2015 that informed the NASEM's Committee on Military and Civilian Trauma Care and the recent report:

“A National Trauma Care System: Integrating Military and Civilian Trauma Systems to Achieve Zero Preventable Deaths.” (June 17, 2016)

The “Achieve Zero Preventable Deaths’ by creating a single National Trauma System report is an extensive and well supported by evidence, data and expert testimony. The report has eleven leading recommendations that we feel will protect all Americans from death after injury, at home and while serving in the defense of our country. As well, it urges the *recreation* of the synergy between the two sectors- military readiness and civilian trauma care to greatly improve our overall medical response to disaster and mass casualty events, natural and intentional, that occur on American soil.

I said recreates as the concept of a combined system of military and civilian physicians, surgeons, nurses, researchers and leaders working in partnership to advance combat casualty care, develop leaders in medicine and nursing and translate the human devastation of the battlefield to the research laboratories in our medical universities *is not new*. Prior to Viet Nam and for the first 175 years of this country's history, this was the norm and greatly benefited the health and welfare of our country. After VN it disappeared.

I will address Recommendation 11, which calls for integrating and optimizing the civilian network of America's best and busiest trauma centers as robust platforms to train, sustain, and retain military trauma teams and an expanded expert trauma workforce necessary to support the PRIMARY MISSION of the DOD MHS---Readiness.

Recommendation 11: To ensure readiness and to save lives through the delivery of optimal combat casualty care, the Secretary of Defense should direct the development of career paths for trauma care (e.g., foster leadership development, create joint clinical and senior leadership positions, remove any relevant career barriers, and attract and retain a cadre of military trauma experts with financial incentives for trauma-relevant specialties). Furthermore, the Secretary of Defense should direct the Military Health System to pursue the development of integrated, permanent joint civilian and military trauma system training platforms to create and sustain an expert trauma workforce.

How did our committee arrive at this recommendation and what evidence and data supports such a recommendation?

First let me say, the last two decades have seen astounding and significant advances in military medicine, improving trauma care for combat, mass casualty, and civilian injuries. However, as in all the history of medicine, as the war intensity decreases and periods of interwar peace emerge, there is little to NO opportunities for the military workforce to maintain the trauma surgical, resuscitative and reconstruction skills necessary for the battlefield. In fact, DOD data show that throughout the military beneficiary care (TRICARE), drives the practices of most surgeons and physicians. The most common procedures in military hospitals are obstetrical and the medical management of diseases related to the aging in the enormous beneficiary population of the retired military. Thus, those astounding skills and abilities to save the most devastating wounds is quickly slipping away. Don't blame the individual physician or nurse as the military has little to almost no opportunity for military teams to care for

| 7/11/20167/10/2016

severe trauma. There is only one Level I Trauma Center in the DOD and two other verified lower level trauma centers.

History also records that as military action returns, there is little time to prepare and relearn the necessary skill set a military surgeon needs to deal with combat, mass casualty events and the horrors brought to the human body. The first few years of war begin with poorly prepared trauma and combat casualty teams. The price of this is death. Thus to overcome these two problems the military must create an expert trauma (combat surgical) workforce that practices its skills daily and continuously performs at the highest clinical level. As well, this workforce needs to be able to rapidly deploy in support of the more contemporary war fighting models. Our recommendation, is to harness the modern civilian trauma system and partner with the best civilian teaching trauma centers to create vibrant trauma training platforms.

Data that we reviewed and published showed that surgeons at Military Treatment Facilities (military hospitals) did far less resuscitations, few trauma operations and had almost no daily exposure to the management of trauma cases compared to a modestly busy trauma surgeon in civilian practice. Yet once deployed, those same surgeons had to perform traumatic amputations, complex blood vessel repairs, extensive wound debridements, craniotomies, and emergency airway procedures. With time they learned but few had the necessary expert skills needed in the early war years. ,

In that same paper, we reported on how the DOD prepared the surgeons and their teams to go to war. The answer was it was inconsistent, lacked coordination across the three Services and lacked standardization for curricula and skill sets. As well, no assessment of the predeployment or "just in time" training of military surgeons could be found. This preparation is of utmost importance when one looks at the characteristics of the surgeons who went to war.

Most of the front-line surgeons were young (mean age of 36 years) at the time of first deployment, and averaged 2 years of board certification. Most had little to no combat experience and many had not seen civilian combat surgery or had a concentrated experience in a high volume civilian trauma center. As well, when we reviewed questionnaire data from recently deployed military surgeons, they all requested more training in combat surgical procedures and stated they had little exposure to these.

Our survey, largely of nonfellowship-trained general surgeons, asked what additional surgical experiences they would request on completing their tours. Hemorrhage control at difficult anatomical sites, mediastinal and thoracic injury management and burn care topped the list. Of note, almost 15% requested additional experience with fasciotomy, a simple common procedure and mainstay technique for trauma surgeons! These findings suggest serious flaws in preparation for the front line and first time battlefield surgeons.

The Recommendation 11 of the NASEM report provides a effective and efficient solution as to where these skills are best learned and refreshed on a constant bases for a military medical readiness workforce-- at a very busy civilian urban level I trauma center. Reports starting in the 1990s confirm that, when staffed and structured correctly, these sustained and intense immersion clinical experiences provide a vibrant and effective environment for providers to learn new skills and refresh proficiencies. Those same reports support these environments for pre-hospital, allied health, nursing, special teams, physicians and surgeons to acquire both individual and a the best potential for team training. A more recent report favorably compares the caseloads, severity and type of cases seen at the Center for the Sustainment of Trauma and Readiness Skills program in Baltimore with those of the Role 3 USAF Theater Hospital in Balad, Iraq. Although no civilian center can replicate the case load or wounds of the battlefield, this study concluded that the intensity of high injury severity cases, shock, and exposure to a high volume of soft tissue cases and debridements offers the closest approximation. In a report from a US Marine Corps Shock Trauma Platoon, at a less intense Level I center, benefit was subjectively recognized and valued by the authors.

During the mid war years, the RAND Corporation at the request of the DOD further studied how best to maintain military medical skills in peacetime. This 2008 report strongly recommended stationing military surgeons and teams in civilian trauma centers settings where the case mix resembles the case mix when deployed. The report tested a "willingness to accept" model of placing 12 member teams on a sustained bases (3-4 years) with periodic return to military hospitals. Nine civilian health care

organizations were interviewed to explore potential problems with the model. The questionnaire and interviews were extensive. All but one organization were optimistic and willing to proceed with such a model if created. The exception was a fire department which had concern because of its labor union and the potential perception that any influx of "discounted" labor would affect its members. The report explores the three physician specialties that are critical for rapid battlefield deployment: general/trauma surgeons, orthopaedists, and anesthesia providers. It sought to assure that these would be fully integrated for advanced training, expansion of skills and maintenance at high proficiencies. Again, NO issues were felt to be insurmountable and the civilian organizations were willing to negotiate and explore cost sharing models with the DOD. Unfortunately, nothing, to my knowledge was ever done in response to the report.

Other aspects of this military-civilian training model were explored. We asked if the model would be attractive to military physicians and to the civilian medical leaders. In addition we sought to

To understand how to optimally train and retain surgical skills for future conflicts and what professional factors would influence these key trauma specialists to continue military service. We developed a detailed questionnaire and analyzed the responses of 86 surgeons. These surgeons were military affiliated (Active Duty, Reservists, Recently Separated or Retired). The majority had deployed early in the war years and

now were more senior and experienced. Most were involved in teaching trauma surgery, some had been deployed multiple times and the majority had subsequently completed advanced surgical training in trauma and surgical critical care.

In terms of how to effectively sustain skills, there was almost universal support for achieving this at civilian academic medical and trauma centers as full-time surgical faculty and staff for clinical practice and as trainers for rotating military trauma teams. More than 85% of the respondents felt this model to be effective and attractive. This confirmed the findings and recommendations of the RAND report discussed briefly above.

Let me conclude. Recommendation 11 of the NASEM report is well supported with data, evidence and expert testimony. If implemented it builds on five existing centers that would benefit from a more structured and standardized readiness command within the DOD, which is covered in other aspects of the report.

By greatly increasing the number of current national military civilian training trauma center sites at America's best medical universities it provides a greater number of military trauma experts able to deploy without stripping the teams from the centers conducting on going training for reservists or sustainment training for other active duty specialists. Military faculty and staff would be integrated into the culture, organization, clinical and academic services of the university and medical center and have

opportunity to develop the expertise to be trauma leaders and administer trauma programs and centers as well as maintain their clinical trauma careers. These “permanent” or sustained military trauma teams and supportive workforce elements would be on assignment to the civilian hospitals for extended time periods and serve as fully integrated faculty and staff. These civilian trauma centers should be selected based on volume, acuity and DOD profiles that assure adequate and continuous exposure to large volumes of critical injury and promotes clinical expertise for individual providers and the military trauma teams.

Where possible, our struggling “safety net hospitals,” many of which serve the inner city poor and some of our most violent areas, are in need of supplemental staffing and should be reviewed for military training centers if they fit all the criteria developed by the DOD.

See Attachment “Map” of potential military civilian trauma training centers (from JACS Aug 2015). Not inclusive of all potential centers.

Thank you for the opportunity to speak today to the Committee and I look forward to your questions.

C. William Schwab MD, FACS.

(JACS Aug 2015)

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| 7/11/20167/10/2016

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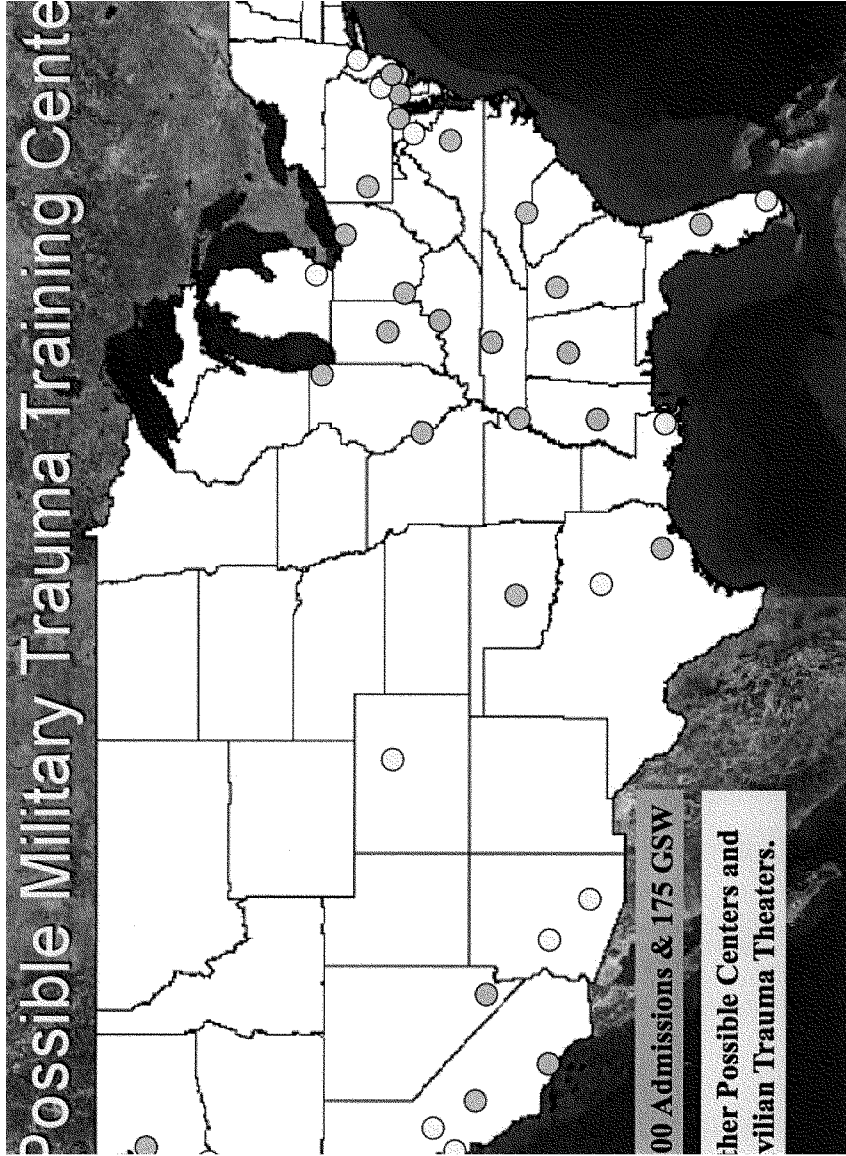
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The above are my abbreviated comments based on the two years of research performed under my direction and by me to explore how to secure a viable and improved partnership between military and civilian medical sectors in order to optimize learning platforms and embed military trauma personnel at America's academic medical universities for trauma and combat casualty care. This investigation used an iterative process, consisting of literature reviews, interviews of military and civilian physicians, administrators and health system executives and a new survey of military affiliated surgeons to craft and validate recommendations for immediate action.

| 7/11/20167/10/2016

The opinions expressed were those of the author and not approved or endorsed by the ACS, DOD or other governmental agency when published in August 2015.



Mr. PITTS. Chair thanks the gentleman and now recognizes Dr. Manifold 5 minutes for your summary.

STATEMENT OF CRAIG MANIFOLD

Dr. MANIFOLD. Thank you, Mr. Chairman.

My name is Craig Manifold and I'm an EMS medical director in San Antonio, Texas and current chairman of the American College of Emergency Physicians EMS committee. And on behalf of the 35,000 members of the American College of Emergency Physicians I'd like to thank you for the opportunity to testify today regarding House Resolution 4365, Protecting Patient Access to Emergency Medications Act of 2016.

A critical component of EMS care is the ability of paramedics to administer controlled substances to patients when they follow the EMS medical director's treatment protocols, more commonly referred to as standing orders. However, patient's access to these life-saving medications is in jeopardy and Congress must take action quickly, and I emphasize and request quickly, to codify the use of standing orders in the prehospital setting.

In my written testimony I provide a brief synopsis on why this legislation is needed at this time and briefly the DA does not believe the standing orders comply with the 1970 Controlled Substance Act, which was the beginning of the Emergency Medical Services. And so the issues and procedural processes could not have been envisioned at the time of the enactment of the Controlled Substance Act. But the DEA was prepared to promulgate a rule prohibiting the use of these standing orders for EMS personnel.

ASEP, in conjunction with National of EMS Physicians and the National Association of EMTs determine the legislation would be needed to codify the current practice of medicine and ultimately lead to the introduction of this resolution by Representatives Hudson and Butterfield. And thanks to the efforts of our groups, our coalition partners, the bill has received the support of over 120 bipartisan cosponsors and stakeholder organizations at this time.

While codifying the use of standing orders for EMS personnel is essential, we also want the legislation to advance policies that would provide uniformity, clarity and certainty for EMS agencies and their medical directors around the country. One of the easiest solutions to reduce confusion and duplicity with regard to the primary point of contact between the EMS agency and the DEA is to simplify the registration process.

Currently, most EMS medical directors rather than the EMS agency itself register with the DEA and then their agency obtains and administers the controlled substances associated with these processes. This utilizes the medical director's individual DEA number and places a tremendous burden on these often volunteer positions because of the potential liability of the medical director if the ambulance services a drug diversion. Many of my colleagues and I believe it makes sense for the EMS agency to be registered with the DEA. It should be an agency, not an individual, which assumes the responsibility for ordering, storing, dispersing and administering these controlled substances. EMS agency registration would also allow for the entire organization to be united under one enrollment, thereby streamlining the process and reducing admin-

istrative costs while still preserving accountability. Maintaining a separate registration for individual locations and vehicles under the purview of the EMS agency is extremely time consuming, duplicative, and expensive. Preventing the misuse or unintended use of the medications and controlled substances is a solemn comment on the EMS medical director's job.

We as the medical directors and the associated management staff work diligently to oversee the implementation, administration, and monitoring of these controlled substances within their agencies. My colleagues and I take this responsibility very seriously and we believe that provisions of House Resolution 4365 will actually reduce the opportunities for drug diversion. Although diversion is not a common occurrence, in fact one recent survey of large EMS agencies across the U.S. showed less than 20 diversions were investigations over the last 5 to 10 years for nearly 70,000 doses administered annually.

As I previously mentioned, many EMS agencies rely on their medical director's DEA license to order, transport, and administer controlled substances. These medications can only be delivered to the address associated with the registration. In the recent past, that meant these controlled substances were delivered to my house. Alternatively, I could have waited for address changes and ordering processes to be updated. But this would have placed patient care in jeopardy and I was not willing to do that. It makes sense for these substances to be delivered to a central location operated by the EMS agency where there would be direct supervision of these medications at all times.

It's also vital that the EMS agency has the ability to transfer controlled substances within its own organization. A colleague in Houston, Texas, has over 100 DEA registrations due to the requirement of meeting a specific DEA registration for every brick and mortar facility or fire station where medications are stored. Completing a distributorship registration requires a complex procedure, expense, and increases potential for diversion. The ability for an EMS agency to track and monitor these controlled substances within the agency will improve the efficiency and the medical care provided.

In conclusion, if the DEA prohibits the use of standing orders in EMS, patients will needlessly suffer and potentially die. Thankfully, the DEA has given us time to pursue legislative and relief that will codify the use of standing orders and make other common sense changes that will improve the delivery of care in the prehospital setting.

However, I do not believe this grace period is unlimited. Congress must take action quickly to ensure millions of Americans who require emergency medical services each year are not prohibited from receiving these life saving medications.

On behalf of ASEP and myself, I would like to thank the members of Congress who have supported this resolution, our coalition partners who have helped advance this legislation and the National Association of EMTs in particular for their work who have added to this critical issue in today's hearing. I look forward to answering questions you may have about this bill and my testimony.

Thank you, Mr. Chair.

[The statement of Dr. Manifold follows:]

Statement of

Craig Manifold, D.O., F.A.C.E.P.

American College of Emergency Physicians (ACEP)
Chairman
EMS Committee

EMS Medical Director
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Before the
House Committee on Energy and Commerce
Subcommittee on Health
U.S. House of Representatives

Hearing on
"Strengthening our National Trauma System"

Presented
June 24, 2016

I. Introduction

Thank you Mr. Chairman. My name is Craig Manifold, D.O., F.A.C.E.P., and I am an EMS Medical Director in San Antonio, Texas, and the current chairman of the American College of Emergency Physicians' (ACEP) EMS Committee. On behalf of the 35,000 members of the ACEP, I would like to thank you for this opportunity to testify today about H.R. 4365, the "Protecting Patient Access to Emergency Medications Act of 2016," sponsored by Representatives Richard Hudson (R-NC) and G.K. Butterfield (D-NC), and why it's imperative that this legislation be enacted as soon as possible.

The current practice of Emergency Medical Services (EMS) medicine is of significant importance to the nation's health and public safety. Thousands of physicians serving as EMS medical directors provide medical oversight to tens of thousands of EMS professionals who respond to calls for help 24 hours a day, seven days a week, 365 days a year. Most of my EMS medical director colleagues voluntarily fill these vital roles and it is through their physician licenses that these individuals are able to provide health care services in their communities.

One of the most critical components of this care is the ability of paramedics to administer controlled substances to patients when they follow our medical protocols, more commonly referred to as "standing orders," set forth by the EMS medical director. However, patients' access to these life-saving medications is in jeopardy and Congress must take action quickly to codify the use of standing orders in the pre-hospital setting.

II. Controlled Substances Act

The U.S. Congress enacted the Controlled Substances Act (CSA) in 1970 to establish federal drug policy under which the manufacture, importation, possession, use, and distribution of certain substances is regulated. The law created five Schedules to classify various narcotics, drugs and other substances based on their medical use and potential for abuse. Over the years, the Drug Enforcement Administration (DEA) has promulgated a number of rules to update the regulations associated with the CSA. However, they tend to focus on the types of facilities and services that were available in 1970 rather than for all aspects of the modern health care system, in particular the mobile nature of EMS.

The practice of EMS medicine and its supporting technology and medications have evolved substantially since the CSA was enacted. One significant improvement in patient care has been the use of controlled substance medications by paramedics to abate life-threatening conditions such as seizures and treating pain from traumatic injuries, such as fractures, burns and amputations. Administration of these controlled substances follows strict protocols set forth by the EMS medical director so that these drugs will be available when and where they are needed. These standing orders dictate the circumstances under which various controlled substances may be used without directly seeking the medical director's assent prior to their administration because appropriate, and sometimes life-saving, care demands immediate action.

Take, for instance, the EMS response to a child who is undergoing a long convulsive seizure. On this occasion, the paramedic only has minutes to act or the patient can suffer permanent injuries or even death. This is not the time for them to seek permission for a time-sensitive treatment, but

rather to follow their training and the medical director's standing orders for the administration of the anti-seizure medication (benzodiazepine). Unfortunately, this is the type of care that is at immediate risk if the DEA promulgates a rule that explicitly bans the use of standing orders because the orders are not "patient specific."

DEA Ruling on Standing Orders

In 2011, a paramedic within the Anchorage Fire & Ambulance Districts in Louisville, Kentucky asked the DEA what their policy was pertaining to EMS and the administration of controlled substances to patients prior to arrival at a hospital. The paramedic stated in his letter that they currently had to obtain oral permission from a physician to administer a narcotic to any patient, but they were hoping to revise their protocols to allow the use of non-patient specific standing orders for patients meeting predefined criteria.

In response, the DEA Office of Diversion Control stated that under the terms of the CSA and its implementing regulations the administering or dispensing of a controlled substance would only be valid if it was patient and issue specific. They also said a practitioner may not delegate this responsibility. Therefore, the dispensing of a controlled substance in response to a standing order would not be valid.

While this letter was in response to a specific question raised by a specific EMS agency, it established the formal position of the DEA with regard to the use of standing orders. For several years, DEA was content not to enforce this ruling because standing orders are necessary to protect and provide appropriate care for patients. However, this was starting to change and

several of my EMS medical director colleagues were notified by their regional DEA representatives that they intended to start imposing the ban on standing orders.

DEA Rule to Ban Standing Orders

Until recently, these were regional decisions and pronouncements. In October 2014, the DEA sent representatives to ACEP's annual (Scientific Assembly) meeting in Chicago to notify us they intended to promulgate a rule that would explicitly ban the use of standing orders. As you may imagine, this news was quite shocking and not well received by my EMS medical director colleagues.

A few months later, the DEA attended the National Association of EMS Physicians (NAEMSP) annual meeting in New Orleans where the issue was once again discussed, but no suitable resolution achieved. The DEA representatives reiterated their position that the CSA requires each prescription be associated with a written order and a single patient.

This is not only an impossible standard for EMS medical directors to meet, but it would absolutely devastate our ability to provide the necessary, emergent treatments for severely ill or injured patients. When an ambulance is called to a medical emergency, there is no way to know in advance the name and address of the individual(s) who will need to be treated and explicit oral authorization (even with this information) is not always available. There are too many instances when a patient is incapable of sharing this information with us or communication between the paramedic and the medical director is impractical or even unfeasible.

It should be noted that we collect this information for the official medical record after the care is provided and we follow local, state and federal regulations regarding the maintenance of those patient records.

Legislative Solution

We tried to reach an administration solution to this dilemma, but were unable to do so. When that effort failed, ACEP, NAEMSP and the National Association of EMTs (NAEMT) decided we would need to seek a legislative solution that would explicitly allow the use of standing orders in an effort to maintain appropriate patient care. As with most laws, legislative and regulatory updates are often necessary to keep the law relevant and consistent with current needs and practices.

It took some time, but our negotiations finally led to the introduction of H.R. 4365 and we are tremendously thankful to the bill's sponsors, Representatives Hudson and Butterfield, as well as the other original co-sponsors, Representatives Steve Cohen (D-TN), Blake Farenthold (R-TX), Joe Heck (R-NV) and Raul Ruiz (D-CA), for their support. As of Monday, the bill had 117 bipartisan co-sponsors.

While codifying the use of standing orders for EMS personnel is essential, we also wanted this legislation to advance policies that would provide uniformity, clarity and certainty for EMS agencies and their medical directors around the country. Not only will these provisions greatly improve EMS medical direction and patient care, they will establish even better controls to prevent EMS drug diversion.

DEA Registration

One of the easiest solutions to reduce confusion and duplicity with regard to the primary point of contact between the EMS agency and the DEA is to simplify the registration process. Currently, most EMS medical directors, rather than the EMS agency itself, register with the DEA and then their agency obtains and administers controlled substances through their medical director's individual DEA number. That places a tremendous burden on these volunteers because of the potential liability for the medical director if the ambulance service experiences a drug diversion.

Many of my colleagues and I believe it makes sense for the EMS agency to be registered with the DEA. It should be an agency, not an individual, which assumes the responsibility for ordering, storing, disbursing, and administering controlled substances. EMS agency registration would also allow for the entire organization to be united under one enrollment, thereby streamlining the process and reducing administrative costs while still preserving accountability. Maintaining a separate registration for individual locations and vehicles under the purview of the EMS agency is extremely time-consuming and expensive.

Medical Direction

Another common-sense provision in this bill is a requirement that each EMS agency have at least one medical director who is responsible for the oversight of all medical services provided by the agency. This individual must be a physician licensed in the state where they practice and where the EMS agency is located.

The EMS medical director would be responsible for patient transportation decisions; establishing medical protocols (including standing orders); overseeing all aspects of patient care provided by EMS personnel; establishing drug formularies for the agency; dispensing and administration of all medications and controlled substances to patients; training EMS personnel; and overseeing quality improvement for the agency. In short, the medical director should oversee all aspects of the medical services being provided and the EMS agency should be responsible for the administrative services.

Oversight of Controlled Substances/Diversion

One of the most important responsibilities of the EMS medical director is his/her work to prevent the misuse or unintended use of medications and controlled substances that are available on EMS vehicles. EMS medical directors and the associated management staff work diligently to oversee the implementation, administration and monitoring of controlled substances within their agencies. My colleagues and I take this responsibility very seriously and we believe the provisions in H.R. 4365 will actually reduce opportunities for drug diversion, although diversion is not a common occurrence in EMS. In fact, one recent survey of large EMS agencies in the U.S. showed less than 20 diversions or investigations for nearly 70,000 doses of controlled substance administered.

As I previously mentioned, many EMS agencies rely on their medical director's DEA license to order, transport and administer controlled substances. These medications can only be delivered to the address associated with your registration. In the recent past, that meant these controlled substances had to be delivered to my house. Alternatively, I could have waited for address

changes and ordering processes to be updated but this would have placed patient care in jeopardy and I was not willing to do that. I can assure you I have had more than one conversation with my wife and children about the types of substances that are arriving at our home with my name on them. Clearly, it makes more sense for these substances to be delivered to a central location operated by the EMS agency, where there would be direct supervision of these medications at all times.

It is also vital that the EMS agency has the ability to freely transfer controlled substances within its own organization. A colleague in Houston, Texas has had to have over one hundred DEA registrations due to the requirement of needing a specific DEA registration with every brick and mortar facility (fire station) where medications are stored. Completing a "distributorship" registration requires complex procedures, expense and increased potential for diversion. The ability for an EMS agency to track and monitor the movement of controlled substances within the agency will improve the efficiency and delivery of medical care to ill or injured patients.

Conclusion

If the DEA prohibits the use of standing orders in EMS, patients will needlessly suffer and die. Thankfully, the DEA has given us time to pursue legislative solutions that will codify the use of standing orders and make other common-sense changes that will improve the delivery of care in the pre-hospital setting. However, I do not believe this grace period is unlimited. Congress must take action quickly to ensure millions of Americans who require emergency medical services each year are not prohibited from receiving these life-saving medications.

In addition to those Members of Congress who have supported H.R. 4365, I would like to thank our coalition partners who have helped advance this legislation. I would especially like to thank NAEMT for their work to add this critical issue to today's hearing. Finally, I would like to thank the members of this committee for the opportunity to testify today about how essential the provisions of H.R. 4365 are to optimal patient care.

Mr. PITTS. I know recognize Dr. Myers 5 minutes for his summary.

STATEMENT OF J. BRENT MYERS

Dr. MYERS. Good morning, Chairman Pitts, Ranking Member Green, distinguished members of the subcommittee. My name is Brent Myers and I serve as the president elect of the National Association of EMS Physicians, 1,500 members strong, the vast majority of whom are EMS physicians providing daily oversight for the EMS care that's rendered in the streets of the United States. I would like to thank you for holding this particular hearing as it relates to strengthening our trauma system and the National Academy's report recommendation number ten which focuses on EMS and this ties directly in to the bill that we're talking about this morning, the Patient Access to Emergency Medicines Act of 2016. Our membership would like to thank Representative Hudson, Representative Butterfield, and their more than 100 co-sponsors of this very important legislation.

Dr. Manifold and I committed that we would not have duplicative testimony so he has covered the issue of registration and I'm going to move directly into standing orders and talk about the direct importance for daily patient care of this very important concept.

The beginning of the Controlled Substances Act referenced normal medical care as we think about it in a hospital. So if you think about a patient that comes in a hospital and I, as an emergency physician encounter that patient I would write an order in the chart or put it into the electronic medical record and a nurse would enact that single order for a single registered patient. That simply does not apply in the EMS environment. We encounter patients who are trapped, who are burned, who have near amputations, who have overdoses on cocaine or other medications, and place our providers at risk and we must be able to immediately provide life-saving and safety-preserving medications to those patients. And the way that that is accomplished in almost every community in the United States is via a standing order or a written protocol.

For 12-and-a-half years I've had the honor and privilege to serve as the medical director for Wake County EMS in Raleigh, North Carolina. During those twelve and a half years, over 1 million EMS responses occurred under my medical direction. The ability of those 250 paramedics, 1,500 firefighters and 200 emergency medical dispatchers to work on a standing order is the only way that the important care for those patients was provided and, indeed, is true across the country.

I'm going to use just a little bit of my time to give a couple of examples from our community about how these standing orders are so important. Before the end of the day today, a paramedic in Raleigh, North Carolina, based on a standing order will provide a seizure control medication to an actively seizing patient, many of whom are pediatric patients and in the absence of a standing order those patients would continue to seize and potentially suffer brain damage. Before the end of the day today, a paramedic in Raleigh, North Carolina will administer a medication to a cocaine overdose that will provide control to that situation and provide safety for the

providers—law enforcement, firefighters and EMS—who have responded to that situation.

In the next 3 hours and every 3 hours until the end of the day a paramedic in Raleigh, North Carolina, based on standing orders will provide pain medication to a severely injured patient. These include in the past year a 2-year-old that experienced burns over 40 percent of their body who was able to receive immediate pain medication. Seventy-seven year old active individuals who were in their work shed at their house and amputated three digits of their fingers. How wonderful to be 77 years old but how horrible to be there if we could not have provided immediate pain control for that citizen based on the standing orders. Five-year-olds with 20 percent body surface area burns, a 34-year-old male who suffered near complete amputation in a motor vehicle crash and was uncontrollable due to pain and could not be extricated from that severe environment were it not for medications on standing orders.

So these are not theoretical concepts. This is day to day practice of medicine in the United States and what we are asking with this particular bill is not anything new. It is the preservation and codification of our current practice.

And with that, I yield my time. Thank you very much.

[The statement of Dr. Myers follows:]



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

"Strengthening Our National Trauma System"

Brent Myers, M.D.

President-Elect, National Association of EMS Physicians (NAEMSP)

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Statement of Brent Myers, M.D.

Introduction:

Good morning Chairman Pitts, Ranking Member Green and distinguished members of the Subcommittee. My name is Brent Myers and I served as the Director and EMS Medical Director for the Wake County Emergency Medical Service for over a decade.

I want to commend you for holding this hearing on Strengthening Our National Trauma System. The National Academy of Medicine's report is extremely important in jumpstarting a new conversation about how to achieve zero preventable deaths. Part of achieving zero preventable deaths includes ensuring emergency medical services practitioners (EMS) who treat and transport seriously injured patients are able to immediately administer life-saving medications.

I am pleased to be here on behalf of the National Association of EMS Physicians to express our strong support for the Protecting Patient Access to Emergency Medications Act of 2016, H.R. 4365. On behalf of our ~1500 members, the majority of whom are EMS physicians, we wish to thank Representative Hudson for his tremendous leadership, and the support from Representative Butterfield, Doctors Heck and Ruiz, as well as the other 113 cosponsors of this vital legislation.

Our goal in securing enactment of H.R. 4365 is to preserve our model of care that for 40 years has delivered timely and efficient life-saving treatment to millions of patients. The legislation addresses several critical issues: 1) it will statutorily preserve our ability to utilize standing orders, otherwise known as EMS protocols, to govern the administration of life-saving

Statement of Brent Myers, M.D.

medicines; 2) it will provide a clear framework to enable DEA to oversee EMS in a consistent manner across the nation and clarify the rules for us to follow in a uniform manner to prevent diversion.

Background on Unique Nature of EMS Model of Care Delivery:

Modern emergency medical services systems (EMS) systems are designed to bring sophisticated emergency medical care to the patient's side. While our EMS systems do not routinely utilize physicians to deliver care, the public expects to receive equivalent care provided by EMS personnel. As such, EMS systems require knowledgeable physician participation and supervision at every level.

The National Association of EMS Physicians is made up of physicians and other EMS professionals partnering to foster excellence in EMS Medicine. The majority of our members are physicians who serve as medical directors for EMS agencies, some of whom are board certified in EMS Medicine. Many of our members are emergency physicians, while some others are board certified in family practice or internal medicine.

The model of delivery in emergency medical services is unique – EMS practitioners, such as paramedics and EMTs, work under the license of a physician medical director who supervises all the care provided by these practitioners in the field according to protocols or “standing orders.” Such standing orders govern the type of care and treatment provided by practitioners in the field to patients with emergency medical conditions, including the administration of medicines and controlled substances.

Statement of Brent Myers, M.D.

Medical care and the administration of medicines provided to patients in a facility is different. In a hospital inpatient unit, a doctor will prescribe a specific order or medicine for a specific patient that is carried out by a nurse. In the field, that isn't possible – EMS practitioners arrive at the scene to provide care and transport to a patient with an emergency medical condition. Our practitioners must quickly assess the patient's condition, often with limited information, and provide immediate treatment and medicines, sometimes not even knowing the name of the patient. The physician medical director creates standing orders in advance to direct the best treatment for specific emergency medical conditions such as trauma or seizure. The EMS practitioner utilizes these orders to provide the treatment and medicines needed by the patient at the scene. For the vast majority of patients, this gives the paramedics the ability to immediately treat the patient and administer medications without additional consultation. These standing orders only apply for treatment provided by practitioners in the course of EMS evaluation and transport and no medications are prescribed or dispensed for use later. In special circumstances, the paramedics will call their medical directors or emergency physicians at the hospital to address patient treatment issues that are not contemplated in the proscribed standing orders. In general, these calls are reserved for unique situations that fall outside of protocol or high risk but not time-sensitive situations like a patient refusal of transport.

Preserve Use of Standing Orders:

The Drug Enforcement Administration has informed us that they believe the Controlled Substances Act prohibits the use of standing orders that enable EMS practitioners to administer controlled substances such as pain and anti-seizure medicines to patients in need in the field.

Statement of Brent Myers, M.D.

The DEA further indicated that they are preparing to promulgate regulation that would prohibit the use of standing orders. This would be catastrophic for our most seriously ill and injured patients.

Prohibiting the use of standing orders would endanger the lives of thousands of patients across the nation. For many of these patients, the delay caused by calling for permission to give a medication that the practitioner already knows is required would lead to worsening patient outcomes. Additionally, communication systems are far from perfect and a significant number of scene providers may be unable to reach a physician. This would certainly have a disproportionate negative effect on patients in rural or frontier environments.

We utilize controlled substances for a variety of emergency medical conditions. For example, we administer morphine or fentanyl to patients with major traumatic injuries to calm their bodies and minds, and to prevent further tissue or organ damage. We know that administration of pain management in the field produces better patient outcomes and certainly a better patient experience. Most importantly, failure to manage pain in a severely injured patient can result in death or serious disability. We also administer benzodiazepines to seizing patients – failure to administer such medicine as soon as possible after the onset of the seizure can have catastrophic results also including death or permanent brain injury. Additionally, these medications are important to the safety of our practitioners and other public safety partners such as police officers. Controlled substance are often used to calm patients who may be at increased risk of violence because of drug use or severe mental illness. Use of these medications results in decreased risk to both the provider and the patient. In most instances

Statement of Brent Myers, M.D.

there isn't time for the paramedics to call a physician to secure permission to administer such life-saving drugs. Additionally, there simply aren't enough physicians to take these calls if it became mandatory to speak to a physician for every administration of a controlled substance, nor can they undertake 25 million ambulance calls themselves.

To ensure our ability to continue providing immediate and life-saving care, it is imperative that the Congress amend the Controlled Substances Act to preserve our ability to utilize standing orders as provided for in H.R. 4365. And, it is essential that the Congress enact this vital legislation now, before a regulation is promulgated that would endanger patients.

Improve Clarity of Rules and Consistency in DEA Enforcement to Prevent Diversion:

We strongly support appropriate oversight of EMS by the DEA, including through the promulgation of a regulation specific to EMS. The existing regulations are applicable to non-mobile environments and so don't meaningfully fit with our mobile health care delivery environment. We believe that updating the Controlled Substances Act, as addressed by H.R. 4365, will provide a clear framework and necessary roadmap to enable the DEA to better tailor its oversight to our mobile environment. Ultimately, we believe this will result in better and more consistent management of controlled substances and reduced opportunity for diversion throughout the industry.

One key area in need of clarification is registration with the DEA. In other health care settings, it is the entity that registers with the DEA, such as hospitals. Right now, for most non-hospital based EMS agencies, the medical director is using his or her DEA registration number as a

Statement of Brent Myers, M.D.

physician on behalf of all the patients served by the EMS agency. This has led to confusion and inconsistent enforcement across the nation, and even among neighboring jurisdictions in how DEA offices interpret and enforce existing rules. For example, several medical directors have been required to register a “distributor” for the purpose of receiving and moving drugs from one location to another. Other medical directors have been required by their local DEA office to receive controlled substances at their home residences as the registrant physician. We even have situations where the same medical director with an EMS agency serving multiple DEA office jurisdictions must utilize differing protocols and procedures due to inconsistent guidance from those DEA offices. In some instances, DEA offices have required the agency medical director to obtain a new DEA number for each station in the EMS system. As a result, some EMS physicians have more than 30 DEA registration numbers.

We believe, and the American Ambulance Association agrees, that the EMS agency should most appropriately be the registrant. This will enable the EMS agency to be responsible for all administrative aspects of receipt, movement and control of the drugs. And it will enable physician medical directors to be responsible for all medical aspects of administering controlled substances to patients in need. These clear lines of delineation provided for in H.R. 4365 will enable consistent interpretation and enforcement across the nation so that we can treat patients in need and minimize diversion to the greatest extent possible.

Conclusion:

Mr. Chairman and Ranking Member Green, we greatly appreciate the Subcommittee holding this hearing on this vital issue of improving our nation’s trauma system and this crucial

Statement of Brent Myers, M.D.

legislation to protect patient's access to life-saving medications. The EMS community is united in preserving our model of care delivery for the patients we serve and creating a meaningful framework for clear guidelines and consistent enforcement to prevent diversion. We urge your expeditious passage through the Subcommittee and Committee of H.R. 4365 to enable us to continue saving lives every day.

Thank you for the opportunity to testify before you today and for your consideration of this essential legislation.

Mr. PITTS. Chair thanks the gentleman. That completes the opening statements of the witnesses. We'll begin questioning. I'll recognize myself 5 minutes for that purpose. Start with you, Ms. Klein.

The National Academy of Medicine Committee called trauma care in the military and civilian sectors "a portrait of lethal contradiction." On one hand, we have never had better systems of care but on the other hand so many trauma patients don't receive the benefit and needlessly die or sustain lifetime disabilities.

The committee's report essentially called for overhauling our national trauma system to integrate military and civilian trauma and this is a sea change from where we are today.

What do you believe are the most critical components to changing this paradigm and achieving the committee's goal of zero preventable deaths?

Ms. KLEIN. I would say it has to start with the national leadership. Second to that it needs to start with the infrastructure. The great trauma centers that you hear talked about are typically in an urban area and that means if you're in the rural areas of the United States you're at great risk.

And so we've got to figure out systems to move these people out and have current systems in the rural area and move them swiftly into the trauma centers to take care of them and the ideal is to have an integrated system with the military and the civilian hospitals working hand in hand to accomplish that.

Mr. PITTS. Thank you.

Dr. MARCOZZI, in the last few years we've seen much destruction as a result of manmade and natural disasters and responded to significant threats from infectious diseases such as Ebola, influenza, now Zika.

Six months ago, this committee held a hearing focused on another IOM report focused on improving the health care response to cardiac arrest. Are we building parallel systems for these conditions?

Should we be or should we be taking a more strategic look at where the gaps are in emergency care delivery system and approaching this with a broader perspective?

Dr. MARCOZZI. Thank you for the question, Chairman.

I think that, in those conditions that you just described, minutes matter, and when minutes matter system design has to be precise and accurate to affect the care of those individuals whether or not it's a cardiac arrest patient, a gunshot victim, or a victim of a mass casualty, be it a bombing.

So to that end, I think we are slightly building different systems and I also think that the way the health delivery systems are evolving are to encourage minimization of surge capacity, the minimization and just in time staffing, just in time supply chains, which is at odds with the concepts of mass casualty and surge development, and that's a challenge for us as a nation.

But there's a way to proceed forward, and you mentioned is there a strategic path forward and I think there is, and the way to do that is to take some concepts that are championed by preparedness colleagues across the nation that are championed by trauma surgeons and emergency physicians and move them into the health de-

livery reform aspects. So we don't develop two different systems of care.

We develop a uniform system of care that is able to be applied to both the cardiac arrest patient, the stroke victim, the trauma patient, or the gunshot victim because when minutes matter, getting the system right is important. And to do that effectively I think both the military and the civilian sectors need to learn from each other, develop one system that actually is a learning health system and this is what's described in our report. The vision is there. The means to accomplishment is there.

I think that strategically both the Congress and the executive sides of government, the authorizing language and the appropriators need to think about how we can best shape not just a grant program because I don't think we can grant our way to success on this. I think we need to include what we think about as delivery of care, what we're discussing today, and move it within the health delivery construct of what we do every day. Thank you, sir.

Mr. PITTS. Thank you.

Dr. Schwab, we know that historically many surgical and medical advances are made during war time. What happens to these lessons? How are they integrated in the medical practice? How are they passed on? Are these lessons truly learned? If not, why not?

Dr. SCHWAB. Thank you, Mr. Chairman. It's a good question.

Medical history shows that actually it takes about a year of war time for physicians and nurses to actually perfect their skills.

It takes much less time for those physicians and nurses to work back or to move back into civilian communities and not use those skills. So the lessons learned from war are not readily adapted or inconsistently adapted to the civilian practices.

What the National Academy and its recommendations are trying to do is to formalize a bidirectional platform for learning, for teaching, for education, for creating experts that can go back and forth between the military and civilian sector and as important to focus those people rendering care and seeing the problems as the translators to the research laboratories.

And so in that way in the future the vision is is that lessons learned will be lessons maintained and shared. From the military to the civilian and during peacetime from the civilian to the military.

Thank you, sir.

Mr. PITTS. The chair thanks the gentleman. My time has expired.

The chair recognizes the ranking member, Mr. Green, 5 minutes for questions.

Mr. GREEN. Thank you.

Ms. Klein, I understand that Parkland took seven patients from the Dallas attack on the police last week. Can you elaborate on the kinds and degrees of costs that it takes for a major trauma center like Parkland to be prepare to handle devastating injuries and mass casualty incidents?

Ms. KLEIN. Yes, sir. Well, the first thing I will just have to say is that a hospital has to be integrated into the system and the system is EMS and for Texas we are very blessed.

We have a very strong trauma system which includes our regional system and part of the regional system means in 19 counties

the hospital's EMS agencies, public health come together to look at plans, how to execute and how to manage these plans.

On this particular night, we knew that there was an event going on downtown. No one knew that there was significant danger in this event. And so all of a sudden how we were notified is that we had a police car with an injured officer in it on our dock.

At that time we began to activate and be able to move forward. So our activation process we have three levels of disaster response. We spoke immediately to downtown to our office of emergency management and we also talked to our regional trauma advisory council to put them on alert this had occurred.

In a few minutes we had six of our faculty surgeons that were downstairs. Three remained downstairs. The others went to the operating suite to wait in that particular area. Anesthesia was downstairs.

Those officers—three, four of them were severely injured. The others had wounds that obviously needed operative intervention and stabilization but they were not in a life situation distress.

And so the message needs to be that the trauma center, as far as I'm concerned, is the absolute foundation for disaster response. Then you have to expand it out. It has to be a system. The system has to be able to respond and, again, it is the foundation.

So, and last year, or 2 years ago when Ebola hit I happened to be the director of disaster response at that time as well. Our hospital spent \$750,000 to mitigate should a patient with Ebola hit our system.

We never got one patient. We have critiqued our response and asked ourselves what would we do different and the answer is the same. We feel like we were strongly prepared.

We had people that were trained for medical decontamination that stood up and were immediately available. But we bought the suits that you needed and so we felt like our response was adequate.

Mr. GREEN. In the Metroplex in Dallas/Fort Worth is there another level one trauma center other than Parkland?

Ms. KLEIN. Yes, sir. There is. There is Baylor's, a level one trauma center. Methodist is a level one trauma center and we are very fortunate to have Children's that sits right beside us as a level one pediatric trauma facility.

Mr. GREEN. OK. So you have three in the Metroplex?

Ms. KLEIN. Yes.

Mr. GREEN. OK.

Ms. KLEIN. And that particular night one of the other hospitals got patients and then all of a sudden we were notified that all the other trauma centers had shut down and we remained open.

In the course of 7:00 p.m. to 7:00 a.m. we received 17 trauma activations, motor vehicle crashes, motorcycle crashes, and severe burns and our trauma center remained open the entire time caring for all the citizens that hit our doors.

Mr. GREEN. My frustration is Houston. Our two level one trauma centers are right next to each other, at Memorial Hermann and our public hospital, Ben Taub.

Ms. KLEIN. Yes.

Mr. GREEN. And relatively recently the one in Galveston at UTMB has opened up so we have three within a 50-mile radius.

In your opinion what does the National Academy of Medicine Committee focus on creating a national trauma care system? How do you picture that to fit in with the state trauma system would fit with the national picture?

Ms. KLEIN. Well, again, I think there needs to be national infrastructure just like R.M. Caley called for in the neglected disease. There has to be some type of national voice to say this is what we're going to do and set the stage. That should trickle down to the state level.

The state level should be held accountable for that and then it's going to trickle down to the regional. Everything, to me, is regional. You can't create something in North Carolina that's going to specifically work every single time in Texas or New Mexico or New York.

But there has to be structures that say these are the pieces that you have to have and you have to be compliant with this in some way to hold people accountable to address that, plus the funding. Our hospital last year spent \$65 million on uncompensated trauma care.

We have a little bill back that we can get money from the state. We got \$7 million back. So there has to be some way to fund that infrastructure because these citizens are usually the ones that are at their most productive years of life. So we can not only save them but put them back on the street so they can return to work. Then we have done a good job.

Mr. GREEN. Thank you.

I'm almost out of time. But I agree with our other witnesses about the military and because, like I said, I saw the success in Iraq and Afghanistan, the quickness that may not happen in even our level one trauma centers back 10 years ago. But I appreciate you all being here today because I think there's a lot of coordination we can do to help, and again, thank you for being here.

Mr. PITTS. The chair thanks the gentleman.

I now recognize the vice chair of the health subcommittee, Mr. Guthrie, 5 minutes for questions.

Mr. GUTHRIE. Thank you, Mr. Chairman, and I appreciate it.

And Dr. Marcozzi, I want to ask you a question based on your role on the committee on military trauma care learning and health systems.

One of the recommendations from the committee was to ensure that EMS be made a seamless component of health delivery system rather than merely a transport mechanism. Why the emphasis on prehospital care? I just want you to elaborate and give you an opportunity to elaborate.

If we really wanted to eliminate preventable deaths shouldn't the focus be on getting the patient to the hospital as quickly as possible and can you explain what really can be done by paramedics and EMTs and what do you propose needs to be done to improve prehospital care?

Dr. MARCOZZI. I think the committee did a good job in its due diligence and learned the lessons from what the military learned and if you look at the data from those thousand service members

what should be palpable to everyone, every American, that a thousand brothers, sisters, fathers, daughters, could have been saved from potentially survivable death, of those the majority of those deaths occurred in the prehospital sector.

So before they hit the doors of a hospital, not coined a hospital overseas, their deaths were potentially survivable with the right care. Now, why is that? It's not the medics. It's not the physicians.

It's not the PAs necessarily don't or aren't providing as optimal care as they could but we're not providing the system of care and integrating that delivery of care in the prehospital sector with the hospital sector's care. So why is that? And you start to pull that string and fundamentally that's a congressional—the Social Security Act has not defined prehospital care as one of the service types defined by CMS.

So therefore it is subject to a different set of—it's a different look than how we deliver care in the hospital sector and the long-term care sector versus what we do in the prehospital sector.

But the truth of the matter is when someone has anaphylaxis or someone gets shot that care that's delivered in the back of an ambulance should be seamless. From a patient-centered standpoint, that care is delivered on scene in the back of a rig and to the emergency department to the trauma suite.

That team of providers has to be all integrated and coordinated and right now, unfortunately, prehospital care is subject to a fragmented system and championed by good folks like Dr. Myers in North Carolina to try and do the right thing.

But federally I think we can shepherd that system better and make it part of a system of care and not necessarily as an outsider. That requires leadership and a leader to help do that.

Mr. GUTHRIE. Thank you for those comments. I appreciate you elaborating further.

And Dr. Schwab, in your testimony you describe the benefit to both civilian hospitals and military combat readiness, utilize military trauma teams in civilian hospitals as a way they can hone their skills and be best prepared for high-level traumas on the battlefield. Can you elaborate on why you recommend the entire military team be assigned to civilian centers and not just military surgeons?

Dr. SCHWAB. Well, thank you. By saying the military trauma team, military trauma team defines a little bit less of a work force than actually the entire medical corps of the Army, Navy, and Air Force.

In discussion with the Department of Defense after the report came out, there's actually been discussion about all military medical personnel ought to have some knowledge about what's going on on the battlefield. But there are core specialties—I'm using that word to describe physicians—and core practices among nursing and allied health professions that are necessary for trauma and combat casualty care.

Three specialties are necessary for rapid deployment and, again, both the Rand study and our study found that very quickly in the early war years general surgery—trauma surgery—orthopedic surgery and anesthesia providers were the three specialists that were absolutely necessary but quickly the military ran out of those spe-

cialties because they were so rapidly deployed and they needed rest periods.

So we're not saying the whole military medical provider core be assigned to them. But those specialties, those nurses and allied health professions that are necessary or combat designated, need to be placed into these trauma centers in order to train and sustain their proficiencies.

Mr. GUTHRIE. OK. Thank you very much.

And that concludes my questions and I yield back.

Mr. MANIFOLD. Mr. Chair, if I perhaps could add to the comments.

Mr. GUTHRIE. Yes. As long as I get my 30 seconds back. OK.

Mr. MANIFOLD. I apologize. I give you the perspective of an emergency medicine physician and military physician with the United States Air Force and developing the critical care, air medical transport teams and mobile field surgical teams.

That component of a field perspective is critical on a day-to-day basis on trauma care, being faced with that. I trained at Milford Hall Medical Center in San Antonio and we had trauma patients every day and when we went to war when I was deployed to Afghanistan with my team we were ready to go from day one.

That doesn't occur in every environment, particularly in the military setting and that's where the advantages of these programs recommended by the National Academy of Sciences through their program report is integrating those teams into the civilian community allows us to prepare and deploy those folks at a moment's notice.

Not only does it enhance your combat readiness but also our disaster response and domestic response capabilities by having these folks prepared. And as the joint surgeon for the Texas National Guard, it allows me to assure that my medical members are prepared to walk out the door and also enhances the opportunity to have additional military medical personnel perhaps serve in the military without a full-time response component but being able to serve in a part-time reserve component capacity.

Mr. GUTHRIE. I think I agree and I'm supportive. I appreciate that and I yield back.

Mr. PITTS. The chair thanks the gentleman.

I know recognize the gentlelady from Florida, Ms. Castor, 5 minutes for questions.

Ms. CASTOR. Well, thank you, Mr. Chairman and Mr. Green, for calling this hearing on how we improve trauma care and thank you to all of the witnesses here today.

Our discussion draft of the Military-Civilian and Mass Casualty Trauma Readiness Partnership Act being considered today would encourage civilian trauma systems to accept the placement of military trauma teams into the civilian care delivery system and I wanted to say I strongly support this. I am so pleased that the committee is being proactive on this because I have seen it work back home in Tampa.

Tampa is home to MacDill Air Force Base where we have the headquarters for Central Command and Special Operations Command. We have the Air Mobility Wing and they are all supported by the Sixth Medical Group and they have started a partnership

with our level one trauma center, Tampa General Hospital, back in 2011 starting with nurses and it has now evolved to surgeons and then the full team approach.

It has been a benefit to the community because we have fantastic specialists and dedicated military members taking care of my neighbors. But it has also provided the training that the medical group has needed on—where they wouldn't get it in other places because the Air Force and military has scaled back a lot of their hospitals on bases across the country.

So this is going to be an important part of the future. Tampa General Hospital is our safety net hospital. It's the only level one trauma center on the west coast of Florida, big metropolitan area. It's the home of one of our only burn units in the state and it's our teaching hospital.

So it's a perfect place. So I wanted to drill down into some of the criteria as we—this discussion draft says we're going to provide grants.

We don't have all the money in the world to do this everywhere. We're going to have to be particular. So Dr. Schwab, what criteria should be fundamental to these kind of partnerships?

What kind of invectives and specifics do we need to build into this so that we get we're efficient with the tax dollars?

Dr. SCHWAB. Thank you very much. It's a great question, and one of the things that we've published earlier is the chance of survival in this country is based on where you get hurt and we know from the data in Tampa that you do pretty well. So congratulations on that.

Let me just say that I don't want to define for the Department of Defense what they need. But we know from other studies and comparative studies between what combat physicians and surgeons see on the battlefield and what is seen in our large very, very busy trauma centers that it's a good match.

First, you need very, very high volume. The medical terminology is you need extremely high case severity indexes, which means that the cases are life threatening or limb threatening and unless receiving some type of operative or invasive intervention in a time manner, death is loss.

Penetrating injury, unfortunately, in this country, all too common, but gun wound injury is a great thing. And then the ability to have mass casualty. Where does that come exclusive of what you're reading about and seeing in newspapers?

It actually comes with inner city violence and specifically gun violence. Again, in report this is cited but our own work and publications actually from the trauma center in New Jersey shows that many times when there is warring factions in urban violence, trauma centers receive two, three, five, six, seven wounded people at one time.

What is interesting about that a terrible liability to our country is the asset is training teams how to respond to mass casualties.

The other piece, and you mentioned it is, these happen to be in academic centers because another part of recommendation 11 is that the Department of Defense and specifically the secretary of the Department of Defense create career paths for military physi-

cians and nurses to become trauma experts and be able to run their own trauma centers or their own trauma programs.

So placing these in academic medical centers is extremely important. And the last thing I would say, and it was on the map, one of the things that's fascinating, if you look at who responded to the questionnaire where we got all of our data—this is in 2014—86 military physicians responses.

They were divided pretty equally between active duty reservists, recently separated, and retirees. So these are gray grizzlies. These are people that had been to war, deployed multiple times.

It's fascinating. Where do they go when they leave the military? They go to the urban centers, one of which is Tampa. But they go to the urban centers and they're there. So there's this symbiosis that we're looking for, this efficiency that we have combat experienced teachers already in many of these academic medical centers.

To quote one of the other representatives, we have the right model with the right people in the right places. It's just waiting to be nationalized, memorialized, and funded.

Thank you very much.

Ms. CASTOR. Thank you very much.

Mr. PITTS. The chair thanks the gentlelady.

Now recognizes the gentleman from Pennsylvania, Dr. Murphy, 5 minutes for questions.

Mr. MURPHY. Thank you. This is a fascinating discussion. I particularly want to thank Dr. Marcozzi and Dr. Schwab. I'm also a Navy Medical Service Corps. And I currently work at Walter Reed Hospital and we also have a unit in Pittsburgh at our 911th Air Force where C-130s have an air med evacuation unit. So Dr. Manifold, your thoughts are important too, as I look at this.

And I certainly see that as things have ramped down at Walter Reed we don't have the same number of trauma cases. There has been other things which the hospital has done. I think it's an important model whether it's oncology or orthopedics, et cetera, to maintain the skill set of physicians.

But I do think this idea of having military physicians embedded in civilian trauma units is important.

But there's another level to this I want to ask about. One, who is in charge in the country? Is DOD, VA, HHS, CDC—is there a system already in place where people work together? Anybody? Is anybody in charge?

Dr. SCHWAB. So one of the questions we ask leading up to the publication that came out in 2015 using interviews. The responsibility for combat readiness—trauma combat casualty care is diffuse across many leaders and many programs and departments in the Department of—

Mr. MURPHY. But it needs to be united, doesn't it, and if some—

Dr. SCHWAB. Not only needs to be united but there needs to be actually one particular leader and one of the recommendations actually we—there's 11 main recommendations and 61 subordinate recommendations. It was hard to go through those.

But one of the very strong recommendations amongst leadership is that the Department of Defense and specifically the secretary recognized that within the military medical health system—that

there be one commander, one person in charge of readiness in trauma and combat casualty care. It's a strong recommendation supported by other recommendations to support that office so that policy, standards and assessment of medical care for combat is put in place.

Mr. MURPHY. To add to this too is that I remember participating in a exercise called Operation Lycoming Reach with the 911th and then NOSC, Naval Operations Support Center, in Pittsburgh, and as well as other military and civilian trauma physicians and nurses participated.

So, first, the volunteers were made up to look like various trauma victims, put on C-130s, flown out to different parts of New York and Pennsylvania, where then they did a triage of a mass casualty, and then brought back. Then, the hangar was set up with lots of cots and other triage and emergency care was done there, and then they were put in ambulances at various hospitals in Pittsburgh, really followed the whole way through.

And I want to say, do you think that with regard to these grant programs that gives us enough robust training? Because, obviously, when you have a mass casualty event—and as we heard Nurse Klein who also said—it is going to go to multiple hospitals.

Not only is there a tremendous value in having a military physician embedded in the emergency area and trauma areas, but also the cross-training that takes place with regard to we have got some military reservists who are trauma physicians, emergency physicians, and nurses, and we are going to have to be ready if we have a mass casualty event that is from a terrorist attack or something else, to send teams into areas and pull patients out around the country.

Should we beef this up and add more robust parts to this? Bill? Anyone? Colonel, can you comment on that? Or—

Dr. MARCOZZI. So just to harken back to your first question, and then I will just jump to your second. So the first question Dr. Schwab mentioned around the DOD leadership, and DOD leadership needs to be on two sides on the defense. We recognize that the Rangers did it right. The Rangers did it right because Colonel Kotwal talked to then-Colonel Stanley McChrystal and said, "Sir, you need to shoot, move, communicate, and do medical." And so the Rangers dropped their preventable deaths from 27 percent to 3 percent. Across the combat and commands right now, we don't have that, so there needs to be two ownerships to this discussion today, both the medical and the line.

Second, on the civilian side of the house, right now there is certainly an ownership from the CDC on preventing injury at the CDC. But owning potentially survivable deaths at HHS right now, to coin a medical phrase, is bradycardic. And I think that it requires some energy and motivation, either from the Congress or injected as a result of appropriations to help them improve this neglected area of delivery of trauma care, to that end, on mass casualty development between the civilian and the military sector.

I think that if we realize what the report describes and what Dr. Schwab did a great job of coining with regard to military coming into the civilian sector, they are standing shoulder to shoulder. I would be shoulder to shoulder with a civilian who has never

been deployed. This trauma surgeon would be shoulder to shoulder with someone who has never seen the type of injuries we saw in Afghanistan and Iraq.

So I think that that hybrid model is joint. It is not joint just across all services. It is joint because it is a civilian-military construct to get right because both sides of that house need to reduce their potentially survivable deaths. So, and this doesn't require a lot of funding. It just requires two different systems and an encouragement and a nudge to have them work together to achieve this.

Mr. MURPHY. I know we are out of time. I hope you will give us a response, Ms. Klein.

Mr. Chairman, this might be one of those areas I would recommend that perhaps the committee might want to go over to someplace like Walter Reed and some other areas and meet with the trauma teams there onsite and see what takes place.

Thank you very much. I yield back.

Mr. PITTS. The chair thanks the gentleman. I now recognize the gentleman, Mr. Cárdenas, for 5 minutes for questions.

Mr. CÁRDENAS. Thank you very much, Mr. Chairman, and thank you for having this hearing.

I am not a doctor, and I have never played one on TV, and I don't pretend to play one in Congress. But I have been a 20-year veteran of being a legislator now, and I have played the role of being a budget chairman when I was the Chairman of the Conference Committee in California, where for the first time we oversaw a budget of \$100 billion. Sounds like a lot of money but, unfortunately, it wasn't enough to do all the wonderful things that you are talking about here that we would like to do there.

But let's bring it back to our national situation. When it comes to our emergency room preparedness, why are you talking to Congress? Isn't this a free market issue? What does Congress have to do with increasing our capacity here? That is a smart aleck question. I just hit the softball right there, ladies and gentlemen. It is all yours.

Dr. MANIFOLD. I think part of the address, without getting into the specifics of financing, is we feel that the response component—

Mr. CÁRDENAS. Call it resources, call it whatever you want—

Dr. MANIFOLD [continuing]. The resourcing for response capabilities, the disaster, the contingency components are not adequately funded in today's environment. We have attempts, we have—

Mr. CÁRDENAS. Is the free market going to pay for it? Come on, let's be honest. Is the free market going to pay for what you are asking us to have in the United States? The answer is no. Now continue.

Dr. MANIFOLD. No. Yes.

Mr. CÁRDENAS. OK. I was hoping one of you would say that, but go ahead.

Dr. MANIFOLD. No, I am happy to say that. I was just trying to get around to that without getting myself in trouble in the Federal Register. I think that that is true. We have this piecemeal approach. And particularly from an emergency healthcare system, that is one of the things in the federal component of this that is

very fragmented is that there is not a single federal agency responsible for emergency healthcare systems.

The medical care through the Health and Human Services, we have a response component primarily through Department of Homeland Security, we have a robust EMS component through Department of Transportation, and so there is not a coordinated federal effort to put those resources together. And so I think there is opportunity. It will not be a free market component to currently structure our response and disaster component with that.

Mr. CÁRDENAS. Anybody else like to add? Nurse? Go ahead.

Ms. KLEIN. I was just going to comment that the free market in healthcare usually means that I am going to go and look for the patients who have some type of funding. And when you are dealing with disasters, not everybody has funding. And so there have been facilities who stood up and said, "Hey, I want to be the mecca, I want to be this," and the first time there is a real event and they have uncompensated patients that they have in their hospital, sometimes not three months, five months, or six months, but a year, because there is nowhere to place them, they very quickly change their tune.

So it should be for all, not just the patients who have funding.

Dr. MARCOZZI. Thank you, sir. Thanks for the question. I think a lot bubbles down to the economics of this. I mean, the truth is, a bomb affects a Democrat just as much as it affects a Republican, affects a payer, an insured patient just as much as a non-insured patient.

But I think that right now the current construct of our government is that we either have supplementals for the next latest disaster, or we have a \$250 million approximately hospital preparedness program to try and influence a \$3 trillion health delivery system.

The economics just aren't there, so I think that we have to figure out a more strategic way to blend what we do every day and prepare this construct in that, so that we are ready for the mass casualty and we deliver the right economically optimized, best outcome, delivery system that we are able to achieve. And, right now, I think that those two agendas—there is a chasm between the two.

Mr. CÁRDENAS. So right now, when it comes to the federal funding component of everything you are describing today, we are woefully short on funding the various aspects of what we should be considering and hopefully potentially funding, so that we could bring to fruition all of the things that you are advocating today.

Dr. MARCOZZI. I am speaking on behalf of myself, not the committee.

Mr. CÁRDENAS. Sure.

Dr. MARCOZZI. But I don't think we can grant our way to success. The \$3 trillion industry is set up to be a head in the bed, and to try and shift to an outpatient market delivery system versus an inpatient system, and capitated systems. And certainly in Maryland that is where we are going.

So we have to think about the healthcare delivery system today, right now, and then figure out a way to weave in concepts of preparedness into that healthcare delivery system. But setting up isolated, individual systems that are disparate, one for preparedness

and one for how we do things today right now, it just won't get us where we need us to be.

Mr. CÁRDENAS. Yes.

Dr. SCHWAB. I just want to comment from the military point of view, and that is, military health is a \$50 billion a year—

Mr. CÁRDENAS. Or so.

Dr. SCHWAB [continuing]. Or more. What is interesting is that almost all of that goes to beneficiary care. Beneficiary care dominates what military physicians, nurses, must deliver every day. There is no direct appropriation for readiness trauma combat casualty care.

Believe me, I am a surgeon, I am not an economist, but maybe reappropriating or redirecting appropriations, one of which is talked about in the recommendation, saying to the military, "You must recognize that your funds have to go to have readiness force." And the reason is no one else can deliver this on the battlefield but the military health system.

Mr. CÁRDENAS. Thank you for your perspectives. I appreciate it, ladies and gentlemen.

Mr. PITTS. The chair thanks the gentleman and now recognizes the gentleman from Texas, Dr. Burgess, for 5 minutes for questions.

Mr. BURGESS. Thank you, Mr. Chairman. And, again, I want to acknowledge that Ms. Klein and I did work together a number of years ago. I won't identify how many years ago it was.

And I also want to acknowledge the presence of William Garner here in the committee room. William was on the committee staff when Chairman Dingell was chairman of the committee. And, William, we appreciate now your service at Parkland Hospital down in Dallas.

So we have the report that several of you worked on, and we appreciate your service in that regard, and now the recommendation of a civilian-military partnership. And I think we have heard several different angles on some of the difficulties that will be inherent in starting this. At the same time, there are going to be difficulties on the scaling side.

But I wonder if, Ms. Klein and Dr. Marozzi and Dr. Schwab, if you would all just try to summarize some of those inherent obstacles that will have to be overcome. And, Dr. Schwab, we will start with you and then move back down the line.

Dr. SCHWAB. Thanks very much. Let me just say that we are going to build on something. We have five military-civilian trauma training centers since 1998. We have three for the military, for the United States Air Force, we have one for the Army, we have one for the Navy. They have been the prototypes. They have been the pilot studies.

We know from interviewing both the military and the civilian leaders of the programs that many of the things that one might perceive have been worked through—licensing, state stature, state medical society authorization. They have been worked through.

We do know that each state is slightly different, and so, again, depending on what states the center went into, there would be certain things that had to be worked through through state statures and through licensing.

As far as the other thing that needs to be worked through—and, again, I didn't get a chance to go through this—is the capacity. We don't want these military teams to interfere with post-graduate training for our doctors and nurses.

Now, if you think about it, we have 9 trauma centers that admit 5,000 patients a year. Some of them are safety net hospitals that are paying moonlighting fees for doctors, surgeons, and nurses just to staff. What is fascinating is that both Rand and our study found that those would be centers where those military teams would supplement and possibly be cost effective in delivering care as well as training.

Mr. BURGESS. Thank you.

Dr. Marcozzi?

Dr. MARCOZZI. I don't have anything.

Mr. BURGESS. Ms. Klein?

Ms. KLEIN. I would just comment from the nurse's perspective is, if you look at putting a trauma team in, let's say, Parkland, so there would be some significant advantages to Parkland. For example, we have, you know, 10 nurses vacant in the ICU, 15 in the ER. The nurses that come from the military, obviously, we could plan in there and take that position, so we wouldn't fill that position.

If you look at our physicians, in the academic world, they want to do more publications, and they want to do more research. And so if there was another person there to take call, then that would give everybody a little bit more time to do that. So I can see where it would be a significant advantage to have these experts join us.

And somebody asked about disaster preparedness. When we do our drills, when we do actual responses, having the military there with us, we will all learn command and control and incident command and what we call, you know, disaster medicine, which means you are going to move them forward and do the minimal care to get them to the next echelon of care. We will learn it together.

Mr. BURGESS. Ms. Klein, let me just ask you because you referenced it in your opening statement. Some of the first patients you got Thursday night were in automobiles, whether they were police cars or private cars, and then that affects your reimbursement down the line. Can you just kind of walk us through that and some of the inherent difficulties Parkland now is likely to experience from that?

Ms. KLEIN. Right. So, in the trauma center, the only fee that we can put—and we call it the readiness fee, to be honest with you. So that means that everything you have you have to have 24 hours a day, you know, to be a trauma center, we bill into our trauma activation fee.

So in our trauma activation fee, for every patient that comes in that arrives by transport, meaning from transfer or transported by our EMS agency, that trauma activation fee can be applied. If the patient arrives by private vehicle, then it doesn't.

So in this case, on that night, there were three patients critically wounded that we have to say we cannot bill that trauma activation fee for that patient. So we do that. CMS spent a couple of years with this, as you are familiar with. And one of the things they looked at very carefully was our trauma activation billing. And so

we are meticulous to make sure that we have validated whether that fee is applicable to those patients.

So if we could, we are allowed to do the appropriate activation fee for every patient that came through those doors, it would be a much more fair process for the trauma centers, and it would also make sure that that readiness fee is applicable across every patient that hits the door that meets the trauma criteria.

Mr. BURGESS. Now, Mr. Chairman, I would just point out, that is a very important point because, as Ms. Klein pointed out, they are the court of last appeal in North Texas. They don't get to say, "We are full." They don't get to say, "We are tired." That is where you go when all the chips are down and everything is stacked against you.

Thank you, Mr. Chairman. I will yield back.

Mr. PITTS. The chair thanks the gentleman, and I now recognize the gentlelady from North Carolina, Mrs. Ellmers, for 5 minutes for questions.

Mrs. ELLMERS. Thank you, Mr. Chairman, and I want to thank the panel for being here today for this subcommittee hearing. This is so vitally important. As a nurse, I understand that, and I just want to thank everyone—Ms. Klein, Dr. Marcozzi, Dr. Schwab, Dr. Manifold, and Dr. Myers.

Dr. Myers, I did not realize until you started your testimony that you are in the Raleigh area. So thank you for what you are doing, and all of you. Your service is amazing, and so needed, and we do need to fix this problem.

Ms. Ward, I will start with you. I just want to know—in particular, as we know, there are always inside politics in all hospitals. Do you find that hospitals are embracing the idea of a trauma military team coming in?

Ms. KLEIN. Well, I certainly haven't discussed it with all the trauma centers, but I know in our hospital I think it will be a welcome addition. Again, I think the challenges, I mean, we all know about credentialing, licensure.

Mrs. ELLMERS. Yes.

Ms. KLEIN. All of that would have to be addressed by the regulatory system before it was ever implemented. But for our system, we are an academic hospital, just like Dr. Schwab, and we embrace education and have new people there frequently. I think one of the things that we would probably ask for is that the people who are sent there at least have 12 months and not a rotator of every 3 months, so then you are really doing orientation.

Mrs. ELLMERS. So that it is more of a—

Ms. KLEIN. A consistent basis.

Mrs. ELLMERS [continuing]. Consistent issue.

Ms. KLEIN. Right.

Mrs. ELLMERS. So that there is a consistency there. I agree. I agree.

Dr. Schwab, I just want to tell you, I represent Fort Bragg, and a couple of months ago I had the opportunity to actually go down and visit their combat training in the field, their trauma readiness, and I was amazed by what they were doing, and the evolution since being at war for so long, how things have changed over time, and the differences that I see in that ability.

So I thank you, and I see the importance of this, and I hope that we can move forward with this. I think these are incredible ideas to move forward on.

And, Dr. Manifold, you spoke about the inventory, the controlled substances inventory process now, incredible, and absolutely—I know we also talked about the fragmentation of all of these services. It sounds like an absolute nightmare. Can you expand a little more on what you were speaking about?

Dr. MANIFOLD. The concerns with management of the controlled substance are we all have the same goal of effectively being able to administer those medications to our patients in need, at the same time balancing and minimizing any potential for diversion of these type of medications. And so we understand that component of wanting to be able to track medications through.

And so what happens currently in an ideal situation is a medication is ordered on a special form. It arrives from the manufacturer. It may come to an office, what is directed on the physician's license, and that is then inventoried, put in a safe place. It may be placed in a vial or with a tracking number, and then be put in the place it would be administered to a patient.

In a physician's office or a hospital setting, that is the model that was placed for the Controlled Substance Act that was written in 1970. For emergency medical services, we have vehicles and personnel that are on the move continuously. They may not be at that brick-and-mortar station. They may be moving to the hospital, and they may have to go back to a supervisor or a central location, which takes them out of their response area to be restocked with those controlled substances.

And, again, from a medical director standpoint, when I have to have a direct—or a separate license for each one of those facilities, it can be very problematic in trying to manage and control that. If I have a license or a product that is sent to that facility, and the individual there doesn't recognize the name, doesn't understand the importance of this delivery, who knows where that goes to because it has not been entered into our system.

And, hence, we want to with this legislation try and enhance that process of tracking and monitoring the control system.

Mrs. ELLMERS. And I can see, Dr. Myers, that you very much agree with that as well. And I can see how this probably contributes to a lot of errors. Not that anyone would make those errors knowingly, obviously, but I can see how there is just an incredible disconnect between efficiency and the ability to be in a controlled environment, because that is essentially what we are talking about here is trying to control chaos.

So, Dr. Myers, would you like to also, in just the few seconds that I have—

Dr. MYERS. Sure. Just succinctly, 4365 does one thing that helps us all, and that is it creates a mechanism that actually applies to EMS that officers from the DA can utilize. The problem we have today is there is no mechanism, and so every person in the enforcement arm is trying to do the best they can under a law that just does not fit the practice. And so we end up with this disparate way of doing it, through no one's intention. This is the solution to that problem.

Mrs. ELLMERS. Well, thank you, again.

And thank you, Mr. Chairman, for bringing this important subcommittee hearing. Thank you.

Mr. PITTS. The chair thanks the gentlelady.

I now recognize the gentleman from New York, Mr. Engel, for 5 minutes for questions.

Mr. ENGEL. Thank you, Mr. Chairman. The state of our trauma system is I think something that most of us have likely given relatively limited thought to until a personal national tragedy brings it to the forefront. I would imagine every one of us has relied on our trauma system for care either for ourselves or for a loved one, so I would like to start out by saying thank you to all the healthcare professionals present today who have dedicated their lives to caring for those in trauma situations. Your work is truly lifesaving.

Ms. Klein, I found the portions of your testimony concerning trauma activation fees very alarming. If my understanding of your testimony is correct, a gunshot victim might have to wait in a trauma bay for a full half-hour before moving to an operating room in order to ensure that the trauma center receives the activation fee it needs to pay its bills. Is that true? Is that the case?

Ms. KLEIN. No. There has to be 30 minutes of critical care. It can be applied at any time, and, you monitor that. So if a physician is there looking at the X-rays, putting in chest tubes, managing the airway, you can clearly see where that 30 minutes is addressed.

In our situation, I will be honest with you, if a patient is, what you described is in our trauma bays more than 30 minutes, then we have an issue with that. So most of our gunshot wounds to the chest or to the abdomen come into our trauma rooms and go straight to the operating suite.

Mr. ENGEL. OK. Let me ask you about partnerships between civilian trauma centers and the military. You contended that such partnerships might, and I am going to quote you, "enable a military team to be mobilized, not just overseas, but also to respond to a mass casualty event like the one we have just experienced in Orlando." Can you elaborate on how these partnerships would help facilitate such response?

Ms. KLEIN. Sure. So obviously, the expectation is that these military teams would be embedded in our trauma center, so they would become our colleagues, not people that were visiting us. And so when you go through a disaster response, everybody should be trained for the hospital response, as well as how they are going to work in the region.

So I will give you a perfect example. When Katrina hit, we had 21,000 people visit Dallas. Houston had the same amount. And so when you look at that, we activated a health care facility in the convention center. So that means that we had to take people from the hospitals, from our EMS off their normal jobs and put them in this convention center to take care of patients.

If we by chance had a military team embedded in us, that would give us additional resources to be able to do that. So we would have the opportunity as a civilian hospital to learn, but they would also have the opportunity to learn.

Now, in those situations there weren't a lot of critical gunshot-wound type of events like that, but had we had them embedded with us during the event that happened Thursday night, they might have been the one that took the patient to the OR and the civilian trauma surgeon, wait for the next patient to come through. And that is the expectation that we see happening.

Mr. ENGEL. Thank you. Dr. Marcozzi, you cited a startling statistic during your testimony. And I quote you again. "Approximately 1,000 service members died of potentially survivable injuries from 2001 to 2011 in Iraq and Afghanistan. Here at home, nearly 150,000 trauma deaths occurred in 2014." Can you elaborate on that?

Dr. MARCOZZI. Certainly, sir. So there was a study done and it was championed by a trauma surgeon who started to ask, well, of the lives that we lost in Iraq and Afghanistan, could I have saved any of those? So I asked the right questions and actually did a very unique way to look at were those lives lost and looked at the autopsy reports of those patients and then started to quantify how many of those patients could have had lives saved. And then he quantified that and found out that by his potentially survivable definition that approximately 1,000 service members from 2001 to 2011 were deemed potentially survivable.

The majority of those cases were in the pre-hospital sector, as I mentioned, and of those in the pre-hospital sector, the majority of those died of three different reasons. The first was hemorrhage, the second was airway, and the third was pneumothorax. So addressing those in the pre-hospital sector would certainly mitigate or decrease those number of potential lives lost, and you saw a significant pivot by the Department of Defense to embrace some of that literature, although late. And you saw tourniquets being employed much more readily in theater to save some of those lives.

So that and Secretary Gates' 1 hour. Minutes matter in trauma care, and when the Secretary came out with the 60-minute golden-hour rule, that a patient needed to be transported back to a military treatment facility within 60 minutes, that changed and decreased our mortality in theater. So those two were significant changes to the way the military does things and speaks to that, 1,000 service members.

Mr. ENGEL. Thank you, Mr. Chairman. I see my time is expired. Thank you. Thank you to the witnesses.

Mr. PITTS. The chair thanks the gentleman. Is the gentleman Mr. Collins ready or do you want me to—the chair recognizes the gentleman from New York, Mr. Collins, 5 minutes for questions.

Mr. COLLINS. Yes, thank you, Mr. Chairman.

As the former county executive of Erie County, Erie County Medical Center is a trauma one. We are the go-to trauma center for anyone and everyone in western New York. And so I guess, I am certainly familiar with how lifesaving a nearby trauma center—and you were saying minutes matter. I know what we are talking about with the military, making sure we share best practices. What we have learned here, we share there.

And so I guess perhaps part of my question is we had a case with the Buffalo Bills several years back, a spinal cord injury on the field, and lo and behold, and it was a trauma surgeon who was the

Bills' doctor went and used what they called moderate hypothermia, cold therapy, which frankly had probably never been used before on the football field. And the prognosis then of this player was night and day, night and day different than what a traditional therapy might have been, somebody thinking truly out of the box.

So I guess my real question is if anyone would want to weigh in on how we are in fact communicating one trauma center to another, whether it is military, civilian, or civilian or even with trauma physicians. The best of the best save lives every day, and we know too tragically in some cases folks who might have been near Erie County Medical Center would have lived and those not near did not.

So, you know, I think that is a general thing of what Congress might be able to do to help move that along.

Dr. SCHWAB. Well, having been born and brought up in upstate New York, moderate hypothermia is present 6 months of the year.

But let me just say that your question is how well does communication take place. Communication on the civilian side actually in all of the disciplines I think proceeds fairly well. There are established academic societies where research, observation, data is presented, peer review is accomplished and those that are felt worthy are published and people learn pretty quickly. And by pretty quickly I mean within a matter of years what is going on.

Where there seemed to be a wall that occurred and was really strengthened after Vietnam for whatever reason, probably just the adversity to the Vietnam War, where that all broke down was between the military and the civilian worlds. There is very little formal bidirectional way the military can communicate with civilians. It does occur, but it is much more informal.

Interestingly enough, one of the things that we are talking about that would be interesting to this committee is reusing and asking information technology, data people, software developers to make all of our electronic medical records and our decision-support tools proactive at the bedside so that we can be informed about the latest data at the bedside while we are making decisions. That would lead to some standardization and therefore decrease actually mistakes that are made and even potentially save more lives.

So I think one of the things and one of the reasons we were asked to serve on the committee was to increase and find ways to formally promote bidirectional flow across all disciplines but between the military and civilian sectors. Thank you, sir.

Mr. COLLINS. So another issue, we talk about NIH funding a lot, 21st Century Cures in particular, looking at increased funding, in my cases, that leads to cancer and other illnesses. Is there a way that trauma centers can access NIH funding of any significance, or is that not a normal pathway that we see?

Dr. SCHWAB. So, again, one of the things that the report really focused on is if you look at the burden of injury, both death, disability, and you look at long-term disability, especially because trauma is the leading cause of death and long-term disability in people under 46—

Mr. COLLINS. I have only got 30 seconds but—

Dr. SCHWAB [continuing]. You basically see that there is very little funding.

One of the things I would invite your attention to on chapter 4, 33, is looking at NIH funding measured against the burden of disease for Americans and injuries at the bottom of the list. So the answer is there is no formal trauma funding in the NIH for trauma—

Mr. COLLINS. I think that whole issue is one we are going to have to look at because in many cases what was happening has just continued and maybe it is time to re-jigger that, the priorities.

Dr. SCHWAB. Yes.

Mr. COLLINS. Yes. Thank you.

Dr. SCHWAB. Thank you.

Mr. COLLINS. Thank you, Mr. Chairman. I yield back.

Mr. PITTS. The chair thanks the gentleman and now recognizes the gentleman from Indiana, Dr. Bucshon, 5 minutes for questions.

Mr. BUCSHON. Thank you, Mr. Chairman.

I was a cardiovascular and thoracic surgeon for 15 years prior to coming to Congress, so thank you all for what you do on behalf of your patients. It is appreciated. I know. I have been there. I was also a Navy Reserve officer from '89 to '99, never got called up but I was ready.

So my question is going to be maybe to Dr. Schwab and Dr. Marcozzi about manpower issues. First of all, I support this idea, this concept about integrating the systems. It is important. I think it makes sense.

That said, even though I was in a community hospital, obviously I had had a lot of background in trauma surgery and still did a fair amount on the thoracic side. I would have been willing, had I been—I wasn't on IRR or anything but had I been called, I would have been willing to go in a heartbeat for a month or two to Afghanistan or to Iraq and helped if needed or somewhere else to support—to Germany to support people from Germany that were going in theater. But that isn't really a possibility. And when I became a Member of Congress, I discussed that with the head of the Navy Reserve from the formal admiral, Admiral Debbink was his name. Any thoughts on that in not only helping train people that are active-duty in the trauma setting but having the ability to access potential people who you may not think would be otherwise available to you if needed? Any thoughts?

Dr. MARCOZZI. So, as a reservist, it is palpable to me that there is a better way to address these issues. I think that from a military standpoint this requires DOD, which is going to be kind of a change for them to make dedicated billets at some of these major civilian trauma—

Mr. BUCSHON. Yes, I guess I should clarify. I was not a reservist. I wasn't in the reserve. Through the reserve, I understand there was ways to access that. But for a variety of reasons, I wasn't still in the reserve. I had been in and was out.

Dr. MARCOZZI. Yes, sir. So I think that there is a way that DOD can help shape what these joint military civilian trauma centers look like. It requires dedicated billets and dedicated staffing. And the center itself has to understand, during a deployment, those assets will be removed from there, so building in a safety mechanism so that the care is kind of continuous when they get deployed, that system can absorb that loss because what will likely occur will be

they will become part of the infrastructure of the center and then the center will just adopt them as part of their own. Unfortunately, they will get deployed and then the center will have to absorb that. So strategically thinking about how to employ them correctly is important.

And the second piece of this is how do you blend an approach between the reservist, the IRR, which I think are a potential untapped resource to actually achieve what we are trying to describe. Right now, I think that the Department of Defense doesn't do that entirely right. I think that there was a lot of testimony to the committee that says that reservists who are deployed went potentially before their training was complete on how to manage trauma care. So better training prior to deployment contiguous is going to be important.

Mr. BUCSHON. Because for me, just the economics of it and, where I was in my practice and with my family it would have been difficult to rejoin the reserve, but to be called for 6 months or a year, it is just not a practical situation. But for a month or two, it would be something that I would have done in a heartbeat.

Dr. MARCOZZI. One of the things that is not so apparent is that this is aimed across the DOD, the military health system, reservists, National Guard, and even some other contract people that work for the DOD.

But let's just look at this reserve thing. If you look at the map of the United States and you look at where our busiest trauma centers are and you just say that you are a reservist and I will pick on you and you are in a busy practice in a community and you want to do your 2 weeks and you want to re-certify or sustain in your trauma aspect, by creating this national network with these centers regionally, you could do that and go home every night as opposed to now, which is reservists being stationed and sent for 2 weeks of training actually all over the Department of Defense. And so there is some real cost-efficiencies here for reservists that need to train or learn new or sustained skills by creating a national network of these training centers, especially among the high-volume centers. Thank you.

Mr. BUCSHON. Thank you. I yield back.

Mr. PITTS. The chair thanks the gentleman.

That concludes the first round. We will have one follow-up per side. The chair recognizes Dr. Burgess 5 minutes for follow-up.

Mr. BURGESS. Thank you, Mr. Chairman.

We have been talking about the possibility of setting this up, scaling it, building on what has already been there. Let me ask a question from a different perspective and primarily I am directing this at Ms. Klein, Dr. Marcozzi, and Dr. Schwab. But is there a danger in becoming over-provided on the trauma side?

Dr. SCHWAB. One of the recommendations—let me back up. We asked the same question and were asked the same question on the committee. Currently, there seems to be a surge among the for-profit health corporations to establish level 2 and even level 3 trauma centers in the more affluent communities, therefore, decreasing the volume going to our level 1 trauma centers, which are the training centers.

One of our recommendations, therefore, may be on the surface contradictory. One of our recommendations is that, where appropriate, a sample, a group of military treatment facilities—that is military hospitals—become American College of Surgeons verified trauma centers and participate in the civilian system.

We think that is doable and will not take away from the other trauma centers that are charged with the education and research of the civilian sectors and may be these training centers. The DOD would have to be selective, and they would probably have to follow a model that was created in San Antonio because San Antonio has the only level 1 trauma center in the military which is fully integrated into the civilian trauma and emergency system.

Dr. MARCOZZI. Dr. Burgess, my comment would be, wouldn't that be a nice problem to have, was my first initial reaction. I think that when we start to try and strategize—

Mr. BURGESS. It was difficult for me to ask the question. I just want you to know that. And I also want you to know that I can't believe I used provider as a verb.

Dr. MARCOZZI. So I think that there is a deficit right now in our go-to-war mission for the Department of Defense, and it primarily revolves around the ability to care for soldiers on battlefields. And when I say soldiers, generally all services on battlefields. And that is a neglect that we need to address as a nation, as a Congress, as a White House because we can't do our nation's—we can't ask young service members to go in harm's way and not provide them the best ability to save their life if they were injured on a battlefield.

So I think that I would like to have another congressional hearing on how do we reduce our trauma capability in 5 years for the Department of Defense when we get there from here, but right now, I think that there was a recognition from the committee that the current strategy that DOD uses to best care for soldiers on the battlefield is inadequate, and I think the report describes a vision on how to get there from here.

Mr. BURGESS. The genesis of asking the question, a couple of years ago we had the Ebola crisis, if you will, in the Dallas-Ft. Worth area, and you did have patients showing up at one of these ancillary—they were actually not ancillary. They are full ERs. And how do you—scarce resource, the moon suits that were available, how do you deal with the distributional problems that when a patient—you can't control where the patient accesses. So that was one of the reasons that made me think in terms of is there going to be some problem with our designation.

So I realize it may be a good problem to have and I would obviously welcome working through that, but at the same time, from a planning standpoint where we are talking about planning being one of the primary foci of this, from the planning standpoint, I think that is one of the things that we have to consider.

I am sorry, Ms. Klein. You wanted to say something as well.

Ms. KLEIN. There are two ways we can look at this. So, first, to take a patient to a facility that you know is going to have to turn around and transfer that patient to another facility in some ways to me doesn't make sense because they should go where they are needed to go in the first place. And so some of these facilities, espe-

cially in Texas we are having the standalone ERs; and don't get me wrong, I think there is definitely a role for the freestanding emergency departments—but to be engaged in some of these critical pieces, they need to be prepared, yes. But if you know you are going to take a patient there that is going to have to be transferred, there are some questions there. It doesn't mean it can't happen, but we just need to look at that.

But one of the things I really want to talk about is data management. So to answer your question and some of the other questions is that this should be a data-driven system. And the performance improvement process in a trauma center is the DNA of that trauma center. If it is a strong PI process, then you are going to have a strong program. And why? Because you are looking every day at what you are doing right, what needs to be fixed, what needs to be adjusted.

And so part of what this model that we are talking about is to bring together the civilian trauma center's data and performance improvement with the military and asking who is doing it right and who is doing it best and how do we learn from you? We have a thing called Trauma Quality Improvement Program through the American College of Surgeons. We call it TQIP. And in TQIP we compare our hospitals. We call it benchmarking. And so the ideal is to provide that same opportunity in the military world so we can see where are our best performers and how do we get there? How do we follow their lead to be best performers ourselves?

Mr. BURGESS. Thank you. Thank you, Mr. Chairman. I will yield back.

Mr. PITTS. The chair thanks the gentleman and now recognizes Mr. Green, 5 minutes for a follow-up.

Mr. GREEN. Thank you, Mr. Chairman. And as I said earlier, at University of Texas Health Science Center in Houston where Dr. Burgess went, we had an ER doctor who actually was the one who told me back before 9/11 that they were training a lot of their—they were doing rotations from the military through Ben Taub Hospital and Memorial Hermann, which is right next door to each other. And when I was in Iraq, I was surprised even at Landstuhl in Germany the military would call up neurosurgeons, anesthesiologists, and they would serve their 90-day rotation so they could still have a practice back home.

But because of our issues with the lack of level 1 trauma centers in our country, I think it is a great idea to see if we can partner with the Department of Defense and say these are facilities that you can be trained in, and it helps us with the funding, too, because, again, we have second and third level may be easy in some areas, but level 1 takes a big investment, whether it be Parkland or in Houston. So I think that is a great idea to do that.

Dr. Marcozzi, you had the opportunity to participate in both the military and civilian trauma from so many vantage points, so do you believe this Federal leadership is important by improving our ability to serve both our military and our civilians in trauma? And to what extent does the military medicine for trauma differ for civilian trauma care?

Dr. MARCOZZI. Yes, thank you, sir. I appreciate the question. So believe it or not, last night anticipating questions I actually did a

back-of-the-envelope look on who would own this report from at least the congressional side. And in a quick look, the Senate Armed Services Committee, the Senate Finance Committee, the Senate HELP Committee, the Senate Veterans' Affairs Committee, House Armed Services Committee, the House Ways and Means Committee, the House Energy and Commerce Committee, the House and Senate Appropriations Committee, and the House Committee on Veterans' Affairs would have and has equities within this report.

Mr. GREEN. Yes.

Dr. MARCOZZI. So to that end on the executive side not only does the White House and policymakers have ownership of this but so does OMB. And both of those, from an administrative standpoint, have to embrace what we have described here because—

Mr. GREEN. Yes.

Dr. MARCOZZI. And the only place to execute a multi-departmental effort has to be championed at the White House. What the committee realized is to have this be a successful effort, both need to be successful. If one arm of that fails, then both arms fail. So the White House needs to own this. Congress can certainly help the administration, encourage them to embrace some of the recommendations here. But if the White House does that and calls the Department of Defense and the Department of Health and Human Services to task on this and says create a nidus for leadership and accountability and data collection, then both will actually succeed in their efforts.

Mr. GREEN. Well, of course, in Congress the Energy and Commerce Committee would like to have all the jurisdiction, but you are right, Homeland Security, Armed Services, of course appropriators, and so that makes it sometimes difficult to be able to put these all together, and that is why there does need leadership from the White house, I guess, in doing that.

But you have given me some ideas and, like I said, Congressman Burgess and I for years have authorized funding for trauma care, but it is tough to get the money out of the appropriators. And so this gives us a way that maybe we can bring in other resources because a partnership between the private sector and the military has worked on medical research, breast cancer research. It has helped us in the private sector as well as the military so there may be a way that we could do that on trauma. And again, I am more interested in level 1 trauma because of the need for it in our urban areas.

So, again, Mr. Chairman, thank you for the hearing. I think it has been real educational for members and I look forward to working with you on it.

Mr. PITTS. Thank you. The chair agrees. And we have heard some very good recommendations and issues that need to be addressed here today and some important information.

That concludes the questions of the members present. We will have some follow-up questions in writing, other members may have in writing. We will send those to you. We ask that you please respond. I remind members that they have 10 business days to submit questions for the record, so they should submit their questions by the close of business on Tuesday, July 26.

With that, this hearing is adjourned.
[Whereupon, at 12:04 p.m., the subcommittee was adjourned.]
[Material submitted for inclusion in the record follows:]

PREPARED STATEMENT OF HON. JOSEPH P. KENNEDY, III

Thank you, Mr. Chairman. Recently, I spoke with a constituent whose family was forever changed by the Boston Marathon bombing and the life-saving work of first responders and trauma care providers especially those at Brigham and Women's Hospital (BWH). The story the Reny family shared with me is inspiring and critically relevant to today's hearing, and I would like share some of their words now.

On April 15, 2013, Gillian Reny, an eighteen year old high school student and aspiring dancer, stood near the finish line of the Boston Marathon with her parents, Steven and Audrey Epstein Reny, waiting for her sister Danielle to finish the race. Then two bombs went off and a beautiful day turned to heartbreaking tragedy for the Renys and all of Boston.

When first responders rushed the Renys to Brigham and Women's Hospital, doctors and nurses worked heroically to save Gillian's life. In the process, they also saved both of her legs, a miraculous outcome.

Inspired by Gillian's resilience and forever grateful to the BWH team that saved her life, the Reny family established the Gillian Reny Stepping Strong Fund in February 2014.

The goal is to fund innovative trauma research, training world class clinicians, and transforming outcomes for trauma survivors. The Stepping Strong Fund fuels innovative research and clinical programs in trauma healing and limb reconstruction.

To date, the Stepping Strong Foundation has raised over \$7 million and counting. With this momentum, BWH is moving to the next level, with the creation of the Stepping Strong Trauma Center. The program will now from a virtual catalyst for change into a physical hub, anchoring a sustainable network dedicated to the collaborative research endeavors in trauma, limb salvage, and tissue regeneration.

Whether we are talking about caring for victims of mass violence such as the Boston Marathon bombing, responding to natural disasters, or treating America's injured men and women in uniform, a strong trauma system plays an invaluable role in our nation's health care system. While the Affordable Care Act included funding for several trauma care programs, including regional systems for emergency care and trauma care centers, we must continue to provide robust funding to ensure that an experienced, collaborative trauma system is there when we need it most.

I am grateful to the Reny family for their bravery and for allowing me to share their story today.

Thank you, Mr. Chairman. I yield back.



**Statement of the
American College of Surgeons**

**To the Subcommittee on Health
Committee on Energy and Commerce
United States House of Representatives**

**RE: Strengthening Our National Trauma System
Discussion draft – Military, Civilian, and Mass Casualty Trauma Readiness Partnership
Act**

July 12, 2016

On behalf of the more than 80,000 members of the American College of Surgeons (ACS), we would like to thank the Members of the Health Subcommittee for holding this important hearing. Discussing the role of a nationwide, comprehensive trauma system, and advancing trauma care through partnering our civilian and military trauma providers will have a positive impact on the provision of trauma care in our country. We appreciate this opportunity to provide you with a summary of what the ACS and our Committee on Trauma (COT) have been doing to advance trauma care throughout the country.

The ACS strongly supports strengthening our nation's trauma care system and looks forward to further reviewing the discussion draft of the Military, Civilian, and Mass Casualty Trauma Readiness Partnership Act. The College is eager to partner with the Energy and Commerce Committee as this legislation works through the legislative process with the goal of developing an integrated civilian/military trauma system that would work toward eliminating preventable death after injury.

The ACS COT was formed in 1922 and has made continuous efforts to improve care of injured patients in our society. Today, our trauma activities are administered through an 83-member Committee, overseeing a field force of more than 3,500 ACS members nationwide who are working to develop and implement meaningful programs for trauma care in local, regional, national, and international arenas. In that light, it has been a priority of the ACS and COT to establish and maintain high-quality and adequately-funded trauma systems throughout the United States and within our Armed Forces. The ACS was a sponsor of the recently released National Academy of Medicine (NAM) report – *A National Trauma Care System: Integrating Military and Civilian Trauma Systems to Achieve Zero Preventable Deaths After Injury* – and we are proud that several of our members assisted in the production of that report.

Despite our prevention efforts, 35 million Americans are injured each year and almost 200,000 die after trauma, an average of one person every 3 minutes. According to the Centers for Disease Control and Prevention (CDC), trauma is the leading cause of death for children and adults under age 44 in the United States. Currently, nearly 45 million Americans lack access to the highest level of trauma care within one hour of being injured. Receiving this care within the so-called "golden hour" assures the best possible outcome after a serious injury. Pediatric trauma accounts for almost 60% of all deaths under age 18, yet only 10% of children are treated at specialized pediatric trauma centers due to lack of access. Patients treated in a verified trauma center have a reduction in death rates of at least 25% compared to patients treated in hospitals without immediate trauma care facilities. These facilities include dedicated physicians, nurses, and immediate access to specialized equipment needed for the care of the most severe injuries. Sadly, only 10% of our nation's hospitals are currently equipped to treat severe and life-threatening traumatic injuries. According to the NAM report, an estimated 20% of deaths after injury are potentially preventable with access to the appropriate level of emergency medical services (EMS) response and prompt transport to a verified trauma center.

In addition to being a major public health problem, costs related to trauma rank as the second most costly condition in America, totaling over \$670 billion in 2013. This includes medical expenses, lost wages, and lost productivity. Accordingly, we believe that improving access to trauma care and EMS for all Americans will yield immense returns in efficiencies within public health and safety and in overall health care expenditures.

In 2014, the ACS formalized a partnership with the Department of Defense (DoD) Military Health System (MHS) to exchange information and incorporate best practices from both civilian and military health systems. The partnership was charged with the following goals:

- Share information related to the curriculum used to teach military surgical skills through expansion of the ACS Advanced Surgical Skills for Exposure in Trauma course and other programs
- Share information related to existing education offerings of importance to military and surgical communities that are interested in humanitarian and disaster response
- Share information related to validation of the military's *Optimal Resources* handbook
- Share information related to potentially increasing the involvement of military surgeons in the ACS senior leadership program
- Share information related to review of the DoD Combat Casualty Care Research Program
- Share information on relevant research portfolios, including research conducted through the ACS National Trauma Data Bank® and Trauma Quality Improvement Program®
- Share information related to systems-based practice, including dissemination of surgical clinical practice guidelines and development of an optimal resources manual for surgical care

Through this partnership we have increased the capability of military trauma care to develop a well-rounded and comprehensively trained military/civilian trauma surgeon. One of the prime examples of civilian health care advancements derived from the battlefield is the use of tourniquets. Through experience gained in the wars in Iraq and Afghanistan, the military determined that improvised tourniquets were not the most effective, and subsequently came to promote the use of professionally designed tourniquets. When translated to the civilian sector, this advancement prompted both medical first responders and bystanders to use tourniquets to save life and limb during the Boston Marathon bombing and other mass casualty events.

Great lessons have been learned through the exchange of information between the military and civilian trauma care communities but more are yet to be taught. Adequate trauma research funding by governmental agencies, including the Department of Defense, and private industry should become a priority due to the fact that trauma has claimed so many lives and is unfortunately likely destined to claim more. Educating, equipping, and empowering the public, as is being proposed by the ACS supported *Stop the Bleed* campaign, could save additional lives similar to the introduction of bystander cardiopulmonary resuscitation. Failure to take action at this time in our history could have tragic results.

We applaud the Committee for highlighting the critical issue of improving our trauma care system and introducing this legislation. We feel that increasing military civilian partnerships is a critical step toward achieving the goal of zero preventable injury deaths as highlighted in the NAM report. Creating a grant program to assist civilian trauma centers in partnering with military trauma professionals establishes a pathway to provide patients with the highest quality of trauma care in times of peace and in war-time by assuring that our military medical corps is kept in a constant state of readiness for deployment to conflicts, humanitarian needs, or to natural or man-made disasters.

The ACS would recommend amending the section that defines eligibility by removing section (e)(1)(D) which states that trauma centers must demonstrate a need for integrated military trauma care providers to maintain or improve the trauma clinical capability of such trauma center. This requirement could result in a center becoming dependent on military providers, which could be extremely problematic when those providers must deploy. Imbedding trauma care teams into high-volume civilian trauma centers will work to achieve and maintain readiness among military providers and alleviate demand at civilian centers. Additionally, we would recommend that trauma centers that have already established successful partnerships with the US Military are provided an opportunity to bypass a new application and/or are given the highest priority when selecting grant recipients.

The ACS would also suggest that the Committee consider modifying the legislation to incorporate grants to cover trauma systems instead of trauma centers. This would shift focus from single facility-based partnerships to community based partnerships that include practice opportunities in the pre-hospital setting. This will also enhance cooperation and collaboration within communities and may require development of consortia within the local communities in order to apply for the grant. The ACS COT utilizes a regional system consisting of ten regions to cover all 50 states – this could be used as a starting point for establishing a structure to better incorporate military and civilian trauma centers. This would allow military teams to remain close to their home base by having their partnering civilian trauma center in the same region.

Overall, we feel this legislation is a good first step in beginning the conversation on comprehensive trauma care, however, there are several key aspects that must be addressed before we can make substantive progress. First, we need to establish a nationwide commitment to prioritize injury care and to ensure the development of regional systems of care. Currently, the development of systems for injury care is a state or local responsibility, one that is not always prioritized or addressed by state or local government. As a result, viewed at a national level our trauma system is a patchwork that has both areas of excellence and areas of mediocrity, wherein the odds of survival are highly dependent on the geographic location of the incident. There is strong need for guidance at the Federal level that sets the expectation that state and local governments must address the problem of injury as a public health issue.

Further, we need to address the way trauma centers are designated. While this is correctly left to state regulation, all too often state agencies lack the statutory authority and political support to make these oft-times difficult decisions. As a result, there are inappropriate trauma facilities designated in areas where they are not needed and too few in areas where they are lacking. In August of 2015 the ACS COT convened a panel of medical and trauma stakeholders, across a broad spectrum of roles, to establish consensus around the principle that designation of trauma centers should be based on need and not subject to local politics. The ACS COT panel concluded with the following guidelines designed to optimize regional trauma system function:

- The designation of trauma centers is the responsibility of the governmental lead agency with oversight of the regional trauma system. The lead agency must have a strong mandate, clear statutory authority, and the political will to execute this responsibility.

- The lead agency should be guided by the local needs of the region(s) for which it provides oversight. As such, it is the responsibility of physicians, nurses, prehospital health care providers, and their respective organizations to advocate for the interests of the patients and citizens they serve throughout the entire region. The collective interests of these citizens and patients supersede the interests of the providers and their respective organizations.
- Trauma center designation should be guided by the regional trauma plan based upon the needs of the population being served, rather than the needs of individual health care organizations or hospital groups. It is the professional obligation of the surgeons, physicians, nurses, emergency medical services (EMS) providers, and public health professionals to work together to ensure that the patients' needs come first.
- Trauma system needs should be assessed using measures of trauma system access, quality of patient care, population mortality rates, and trauma system efficiency. Possible measures to be considered include:
 - Number of Level I and Level II centers per 1,000,000 population
 - Percentage of population within 60 minutes of a Level I/Level II center
 - EMS transport times
 - Percentage of severely injured patients seen at a trauma center
 - Trauma-related mortality (including close review of deaths felt to be preventable)
 - Frequency and nature of inter-hospital transfers
 - Percentage of time trauma hospitals are on diversion status
- Allocation of trauma centers should be reassessed on a regular schedule based on an updated assessment of trauma system needs.
- The applicability of specific metrics and benchmarks for trauma care resources, as well as the resources available to meet these needs, will vary from region to region; the details of the needs assessment methodology and regional trauma center designation criteria should be derived through a broad-based, locally driven consensus process that is balanced, fair, and equitable.
- An international group of recognized experts, stakeholders, and policymakers should be convened to discuss and plan for optimal future regional trauma system development.

The ACS asks this Committee to adopt language reflective of the COT panel recommendations for how trauma centers are designated and to establish legislative guidelines that ensure trauma systems are structured in a way that serves the needs of the population served and provides a stable system framework that is not subject to variations in the health care market.

The ACS appreciates the Committee's inclusion of data reporting requirements, and specifically mentioning the Trauma Quality Improvement Program (TQIP), a landmark ACS program. The measuring and recording of data is a cornerstone of advancing trauma care. Through the interpretation of trauma data, we can identify key characteristics at a facility that will help to improve patient outcomes on a global scale.

In addition to the goals of this legislation, the ACS believes that funding our trauma systems and centers would be a positive first step toward shoring up struggling trauma programs and developing regionalized systems to meet the needs of all Americans. Without a nationwide system, the goal of zero preventable trauma deaths is not obtainable. This draft legislation is a

starting point in cultivating a system of trauma care that will cover all Americans while working to ensure that our Armed Forces are prepared with a state of readiness in order to limit the loss of life and limb to our armed service members, both domestic and abroad.



**Statement for the Record
Submitted to
U.S. House of Representatives Committee on Energy and Commerce
Subcommittee on Health
Hearing on Strengthening our National Trauma System
Tuesday, July 12, 2016
By
Bruce Siegel, MD, MPH, President and CEO
America's Essential Hospitals**

America's Essential Hospitals appreciates the opportunity to submit this testimony to the U.S. House of Representatives Committee on Energy and Commerce regarding legislation to strengthen the nation's trauma care system.

America's Essential Hospitals represents about 275 hospitals and health systems that provide care to all, including low-income and other vulnerable people. Since 1981, America's Essential Hospitals has initiated, advanced, and preserved programs and policies that help these hospitals ensure access to care. America's Essential Hospitals supports its members with advocacy, policy development, research, and education.

Of particular interest and relevance to the subcommittee are the vital services our members provide to entire communities—notably level I trauma centers, burn units, and other high-acuity care. Our members also train the nation's health care professionals and provide public health and care coordination.

The large and mostly urban academic medical centers that constitute a majority of our membership operate at the center of emergency preparedness and disaster response efforts. Our hospitals are on the front lines of responses to natural and man-made disasters, disease epidemics, and communitywide traumatic events. Often, our members are the only hospital within a city or multistate region capable of treating severe trauma, burns, poisonings, and other life-threatening injuries. In fact, in the nation's 10 largest cities—home to more than 25 million people—our member hospitals operated 45 percent of all level I trauma centers, 80 percent of burn care beds, and more than a third of psychiatric care beds in 2014.¹

¹ Landry C, Ramiah K, Rangarao S, Roberson B. 2014 Essential Data, Our Hospitals, Our Patients; Results of America's Essential Hospitals 2014 Annual Member Characteristics Survey. America's Essential Hospitals. June 2016. <http://essentialdata.info/>. Accessed June 1, 2016.

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The response to the tragic shootings June 12, 2016, at an Orlando nightclub demonstrated clearly why we must sustain and strengthen our trauma care system. The shooting occurred within blocks of central Florida's only level I trauma center, Orlando Regional Medical Center (ORMC), an America's Essential Hospitals member. This coincidence of geography certainly contributed to many more lives saved than might otherwise be expected in a shooting of this magnitude. The heroic efforts of ORMC staff saved most of the more than 40 victims brought to the hospital.

Many of our other members have risen to meet the needs of the community during national tragedies. Examples in recent years include Parkland Health & Hospital System, in Dallas, during last week's mass shooting of police officers and bystanders; Arrowhead Regional Medical Center, during the December 2015 San Bernardino, California, terror shootings; Erlanger Health System, during the July 2015 Chattanooga, Tennessee, military base shootings; Temple University Health System, in Philadelphia, during the May 2015 Amtrak derailment; and Boston Medical Center, during the April 2013 Boston marathon bombing.

But we should not have to rely on a coincidence of geography to protect us from the next mass shooting—or earthquake, bombing, or other tragedy. Rather, we must act now to bolster our ability to respond quickly and effectively to disaster, wherever it occurs. We must have the resources, expertise, and funding in place *today* to protect our communities from tomorrow's mass casualty event.

Essential hospitals are ideally positioned as front-line providers for traumatic events. They bring to bear not only expertise in trauma and other high-acuity care, but research and data capabilities and public health functions. But these hospitals also operate with a zero percent margin on average,² which puts at risk their ability to meet disaster response needs.

The National Academies of Sciences, Engineering, and Medicine report, *A National Trauma Care System: Integrating Military and Civilian Trauma Systems to Achieve Zero Preventable Deaths After Injury*, is a seminal call to action for our nation. The data are alarming: 2 million civilian trauma deaths could have been prevented in the past 15 years, and trauma remains the leading cause of death under age 45. We can and must do better as a nation to develop a new and integrated system to better treat the 860,000 people who suffer traumatic injuries each year in the United States and to strengthen our military and catastrophic preparedness and response capabilities.

As we work together to improve survival rates and reduce permanent disabilities from traumatic injury—and achieve the vision of zero preventable deaths—it is essential our approach to trauma system improvement considers all types of traumatic injury and

² Ibid.

the cost of treatment—more than \$56 billion annually, according to estimates.

Operating a busy level I trauma center is an expensive proposition. Our essential hospitals that voluntarily operate trauma and burn centers sustain enormous costs for their on-call panel of specialist physicians and for the uncompensated care they provide. Many of our members are challenged to recruit and retain the physician call panel necessary to treat the most complex cases, from injury onset through surgery, intensive care, and rehabilitation.

Stable and predictable reimbursement and funding is vital for essential hospitals serving low-income populations and geographic regions to maintain a major trauma center. Accordingly, we support a study of costs and reimbursement for trauma care, particularly at major trauma centers. We want to ensure the ability of essential hospitals to continue serving their communities—particularly hospitals with high levels of uncompensated trauma care.

America's Essential Hospitals stands ready to work with the Subcommittee on Health and the National Academies to achieve their vision of zero preventable deaths after injury. We appreciate the opportunity the subcommittee has given us to share our thoughts on the nation's trauma care system.

If the committee or any other interested party wishes to learn more about trauma care and needs of the nation's essential hospitals, contact Shawn Gremminger, director of legislative affairs, at 202-585-0112 or sgremminger@essentialhospitals.org.



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July 11, 2016

The Honorable Joe Pitts
Chairman, Subcommittee on Health
Energy and Commerce Committee
U.S. House of Representatives
Washington, D.C. 20515

The Honorable Gene Green
Ranking Member, Subcommittee on Health
Energy and Commerce Committee
U.S. House of Representatives
Washington, D.C. 20515

Dear Chairman Pitts and Ranking Member Green:

On behalf of our nearly 5,000 member hospitals, health systems and other health care organizations, and our 43,000 individual members, the American Hospital Association (AHA) appreciates the opportunity to submit comments regarding actions Congress can take to strengthen our national trauma system, including the Protecting Patient Access to Emergency Medications Act of 2016 (H.R. 4365).

Hospital emergency departments (EDs) provide immediate care to the critically injured and ill. EDs stand always ready – 24 hours a day, seven days a week, 365 days a year – to deliver the most advanced medical care available in their communities. Emergency medical services (EMS) provide critical triage, treatment and transportation of patients to the ED to ensure access to life-saving care during medical emergencies.

EMS practitioners are often called on to administer medications during the crucial moments between when they first reach a patient and they arrive at an ED, with access to a wider range of emergency care services. H.R. 4365 would clarify that medications governed by the Controlled Substances Act (CSA) may be administered by EMS practitioners pursuant to a standing order issued by a physician medical director of an EMS agency. If EMS practitioners cannot rely on standing orders to authorize administration of medications governed by the CSA, treatment may be delayed for patients in pain or experiencing other significant symptoms.

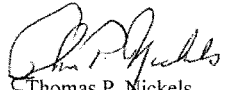
We applaud the Committee, Rep. Richard Hudson and Rep. G.K. Butterfield for your leadership in highlighting this important issue at your July 12 hearing, "Strengthening Our National Trauma System." The AHA also looks forward to working with the Committee as H.R. 4365 moves through the legislative process and urges the Committee to address this to ensure access to emergency medications during EMS transport.



The Honorable Joe Pitts
The Honorable Gene Green
July 11, 2016
Page 2 of 2

Thank you for the opportunity to share our views on strengthening our nation's trauma system. The AHA looks forward to working with Congress, the Drug Enforcement Administration and all other stakeholders to ensure that EMS patients maintain appropriate access to medications governed by the CSA.

Sincerely,

A handwritten signature in black ink, appearing to read "Thomas P. Nickels". The signature is written in a cursive style with a large initial "T".

Thomas P. Nickels
Executive Vice President

103

July 29, 2016

Mr. Craig Manifold, DO, FACEP
EMS Committee Chair
American College of Emergency Physicians
14683 Marin Hollow
Helotes, TX 78023

Dear Mr. Manifold:

Thank you for appearing before the Subcommittee on Health on July 12, 2016, to testify at the hearing entitled "Strengthening our National Trauma System."

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. The format of your responses to these questions should be as follows: (1) the name of the Member whose question you are addressing, (2) the complete text of the question you are addressing in bold, and (3) your answer to that question in plain text.

To facilitate the printing of the hearing record, please respond to these questions with a transmittal letter by the close of business on August 12, 2016. Your responses should be mailed to Jay Gulshen, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, DC 20515 and e-mailed in Word format to jay.gulshen@mail.house.gov.

Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,

Joseph R. Pitts
Chairman
Subcommittee on Health

cc: The Honorable Gene Green, Ranking Member, Subcommittee on Health

Attachment

Attachment — Additional Questions for the Record

The Honorable Frank Pallone, Jr.

The Controlled Substances Act was passed in 1970 as a federal drug policy to regulate the manufacture, importation, possession, use and distribution of substances with potential for abuse. The DEA Office of Diversion Control is tasked with ensuring that controlled substances manufactured for legitimate medical use are not diverted for illegal purposes, a task that is of critical importance given the ongoing prescription drug abuse epidemic in this country.

1. Please discuss any training emergency service providers receive on how to recognize and prevent drug diversion in their work environment.
2. As you noted in your testimony, preventing drug diversion requires vigilant oversight by EMS medical directors. Please discuss how EMS agencies currently regulate inventory of controlled substances and any best practices EMS agencies utilize to prevent drug diversion.
3. You also noted in your testimony that you believe the provisions in H.R. 4365 will reduce opportunities for drug diversion. Please explain specifically how H.R. 4365 will help to reduce diversion.

One of the safeguards in place to regulate diversion involves registration with the DEA to ensure practitioners are handling controlled substances in accordance with federal laws. Further, the registration process provides the DEA with transparency around all locations where controlled substances are stored and held. Simplification of the registration process is one of the reforms you highlighted in your testimony that would help clarify the primary point of contact between the EMS agency and the DEA.

4. Please describes how the process for registering with DEA works for EMS medical personnel works currently. In particular, can you explain any barriers or challenges that currently exist in the registration process from an EMS perspective?
5. How would H.R. 4365 improve the current registration process for EMS medical personnel?
6. What are some of the challenges or difficulties you have faced as an individual registered with DEA that would be alleviated if you were instead an official of an agency that is registered?
7. You noted in your testimony that it should be an agency, not an individual, which registers with the DEA, however, H.R. 4365 goes further and would require a single registration per state, not just per location of an emergency medical services agency. While this may simplify the registration process, it also seems to reduce transparency around the EMS agency locations that are administering controlled substances. Can you discuss why a single registration per state, and not a separate registration per location is appropriate?

As we learned at the hearing, the majority of scenarios in which emergency medical services occur require quick action and reliance upon training the practitioners have received. Often these

practitioners rely upon the “standing orders” as a way to work under the license of a physician medical doctor and administer controlled substance medication without the need for a patient specific oral or written prescription in every situation. It was further discussed at the hearing that the administration of medication in an emergency medical situation may be so time-sensitive that waiting to get confirmation from a physician medical director to administer a drug could result in increased harm to patients.

8. How frequently are standing orders for EMS reviewed and updated by EMS medical directors?
9. Do such standing orders apply for any treatment outside the course of EMS evaluation and transportation to facilities?
10. What alternatives to standing orders, if any, might be available that would allow for the administration of medical care in an emergency situation?
11. Can you describe how a lack of standing orders would impact EMS practitioners, both state and Federal, and the ability of EMS providers to provide emergency patient care?

For years the DEA has not enforced the agency’s ruling that dispensing controlled substances under standing orders in EMS situations violates the regulations set out by the Controlled Substances Act. You stated in your testimony that the DEA recently sent representatives to annual meetings of emergency practitioners to notify providers that they intend to promulgate a rule to explicitly ban the use of standing orders. You then said that no suitable resolutions were reached between the two groups at that time.

12. Please describe in further detail the conversations between the DEA and EMS providers in the time since the DEA’s intent to ban standing orders was made.
13. Given the recognition by DEA of the problem facing EMS providers, and the fact that DEA has not been enforcing the patient and issue specific order requirement, please explain why you think legislation is the appropriation solution.
14. I understand that DEA has indicated it is working to address the concerns of EMS providers administratively. Have there been any further discussions between the DEA and EMS providers about how DEA could address the concerns of EMS providers through rule-making, rather than through legislation? If so, please describe these discussions. If not, please explain why.

July 29, 2016

Dr. Brent Myers
President-Elect
National Association of EMS Physicians
18000 West 105th Street
Olathe, KS 66061

Dear Dr. Myers:

Thank you for appearing before the Subcommittee on Health on July 12, 2016, to testify at the hearing entitled "Strengthening our National Trauma System."

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. The format of your responses to these questions should be as follows: (1) the name of the Member whose question you are addressing, (2) the complete text of the question you are addressing in bold, and (3) your answer to that question in plain text.

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2. Please discuss how EMS agencies currently regulate inventory of controlled substances and any best practices EMS agencies utilize to prevent drug diversion.
3. Please explain specifically how H.R. 4365 will help to reduce diversion.

In your testimony, you stated that emergency medical providers strongly support oversight by the DEA but are concerned that existing regulations do not fit meaningfully into the mobile health care delivery environment. Like you, I recognize that additional flexibility may be needed in emergency medical situations to allow health care providers to quickly administer lifesaving medications, however, I also want to ensure that we continue to support DEA in its important efforts to appropriately regulate controlled substances so as to minimize the potential for abuse and diversion.

4. How does the modern model of EMS service look different from the model of care that was in existence at the time the Controlled Substance Act was enacted?
5. You note in your testimony how providing medical care in a facility is different than an emergency situation, noting the ability of providers in a facility to provide a specific order or medicine for a specific patient. DEA has indicated that they believe a patient and issue specific order is also necessary in an emergency situation. Can you explain why such a requirement may not be possible for emergency medical providers?
6. Please discuss further how updating the Controlled Substances Act to address the mobile emergency medicine environment would provide a framework for the DEA to better tailor its oversight of EMS providers to account for the unique model of care used in emergency medicine.

As we learned at the hearing, the majority of scenarios in which emergency medical services occur require quick action and reliance upon training the practitioners have received. Often these practitioners rely upon the “standing orders” as a way to work under the license of a physician medical doctor and administer controlled substance medication without the need for a patient specific oral or written prescription in every situation. It was further discussed at the hearing that the administration of medication in an emergency medical situation may be so time-sensitive that

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