



# **DoD Sponsored Trauma Care and Research:**

**Required by HASC Report for FY 2016  
114-102, Page 162**

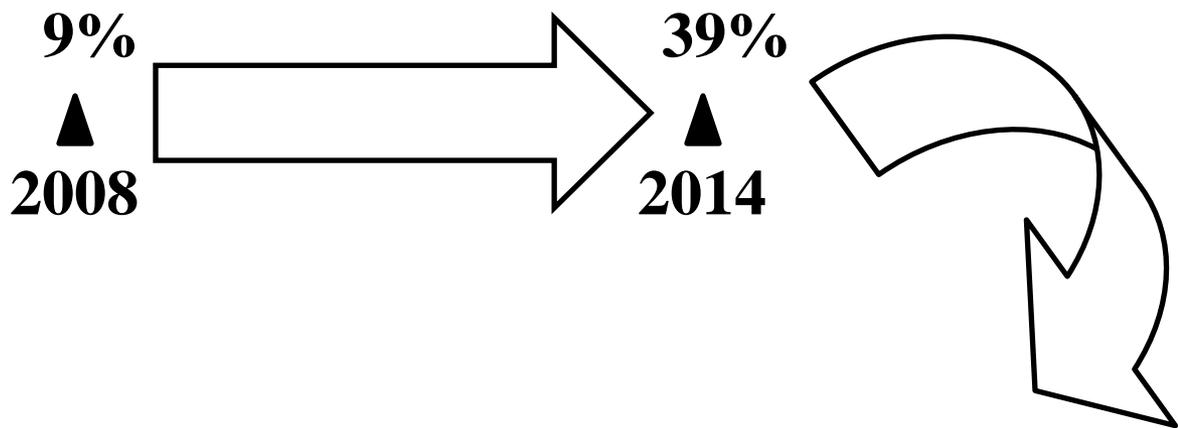
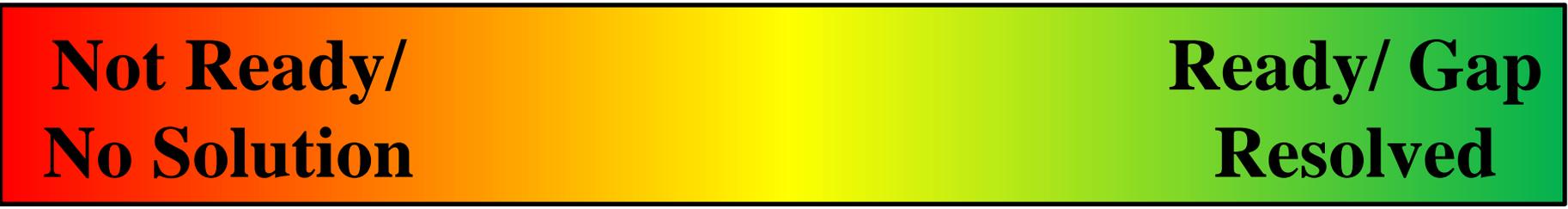


# Progress in Combat Casualty Care



- **During the wars in Afghanistan and Iraq, progress was made in the care of injured service personnel through investments in military-relevant trauma research (i.e. *Combat Casualty Care Research Program*) and a military trauma system (i.e. *Joint Trauma System*).**
- **Investments resulted in new knowledge (i.e. evidence for practice guidelines) and materiel (i.e. device & technology) solutions which improved military capability to save lives and improve recovery of the injured Warfighter**

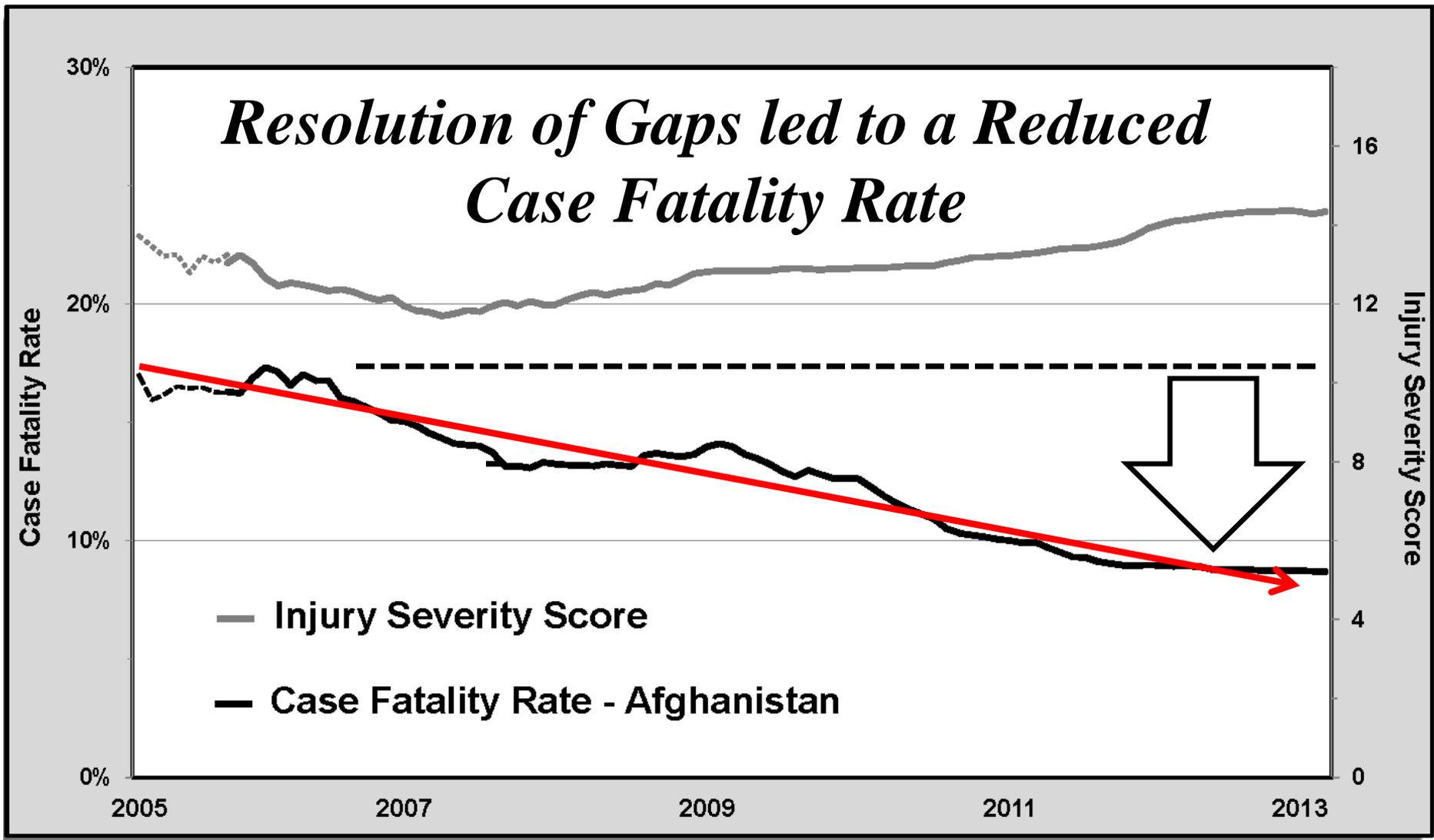
- With this research investment between 2008 and 2013 there was a 30% resolution of Priority-1 gaps in DoD Combat Casualty Care



**Net gain of 30% gap resolution – *but work remains***



# Impact of Research - Reduced Mortality



# Sustain Focus on Resolving Gaps in Inter-War Period

IN THE LAB,  
ON THE  
BATTLEFIELD



## VIEWPOINT

### No Drift

*Drift: deviation from a true representation, or reading; especially: a gradual change in the zero reading in any quantitative characteristic that is supposed to remain constant*

Merriam-Webster Unabridged Dictionary

**There should be no drift** from commitment to military trauma care and combat casualty care research. An abundance of articles in the lay press have recently described the heroic efforts made to save shattered lives and limbs following the explosive events at the Boston Marathon on April 15, 2013.<sup>1-3</sup> Recognition of the extreme burden of injury stemming from malicious acts on US soil provides sage perspective on the value of medical advances made during war and their translation to civilian trauma care.<sup>4-7</sup> The burden of injury resulting from the improvised explosive devices in Boston, Massachusetts, underscores the importance of the military's experience in managing and researching complex blast injury. The nation's investment in combat casualty care research since 2001 has resulted in the most advanced trauma system in history and the lowest case fatality rate recorded in war.<sup>8</sup> Equally relevant today, the results of military trauma research have translated life-saving lessons into civilian practice.<sup>6</sup> More than ever, there should be no drift from the nation's commitment to military trauma care and combat casualty care research.

**Todd E. Rasmussen, MD**  
The US Army Institute of Surgical Research, Joint Base Fort Sam Houston (San Antonio), Texas, The Norman M. Rich Department of Surgery, The Uniformed Services University of the Health Sciences, Bethesda, Maryland, and currently with US Combat Casualty Care Research Program, Fort Detrick, Maryland.

**David G. Baer, PhD**  
The US Army Institute of Surgical Research, Joint Base Fort Sam Houston (San Antonio), Texas.

**JAMA  
Surgery  
2014**

- At the end of military conflicts there is tendency for these advances and the combat casualty care capability to degrade
- DoD should not drift from clarion mission of pursuing resolution of gaps in combat casualty care



# Establishing a Multi-Center Clinical Research Capability



- **To sustain advances in military trauma care, to continue to pursue resolution of priority gaps and to maintain historic low case fatality rates the DoD is creating a coordinated, multi-center clinical research network among civilian and military trauma centers in the US.**
- **This network will be referred to as the *Linking Investigation in Trauma & Emergency Services* or LITES and will be used to perform prospective observational and controlled studies on high-priority topics in military trauma care.**



# Establishing a Multi-Center Clinical Research Capability



- **LITES network to be initiated with FY15 dollars in a 2016 Request for Proposals (RFP).**
- **LITES to be sustained using 2016 Congressional Appropriation of \$10M.**
- **DoD will POM a baseline for LITES network in FY17-22 and future appropriations can applied to the network if available.**
- **Award mechanism will allow dollars to be added to LITES over a 10 year period (*Indefinite Quantity & Duration* to optimized flexibility).**



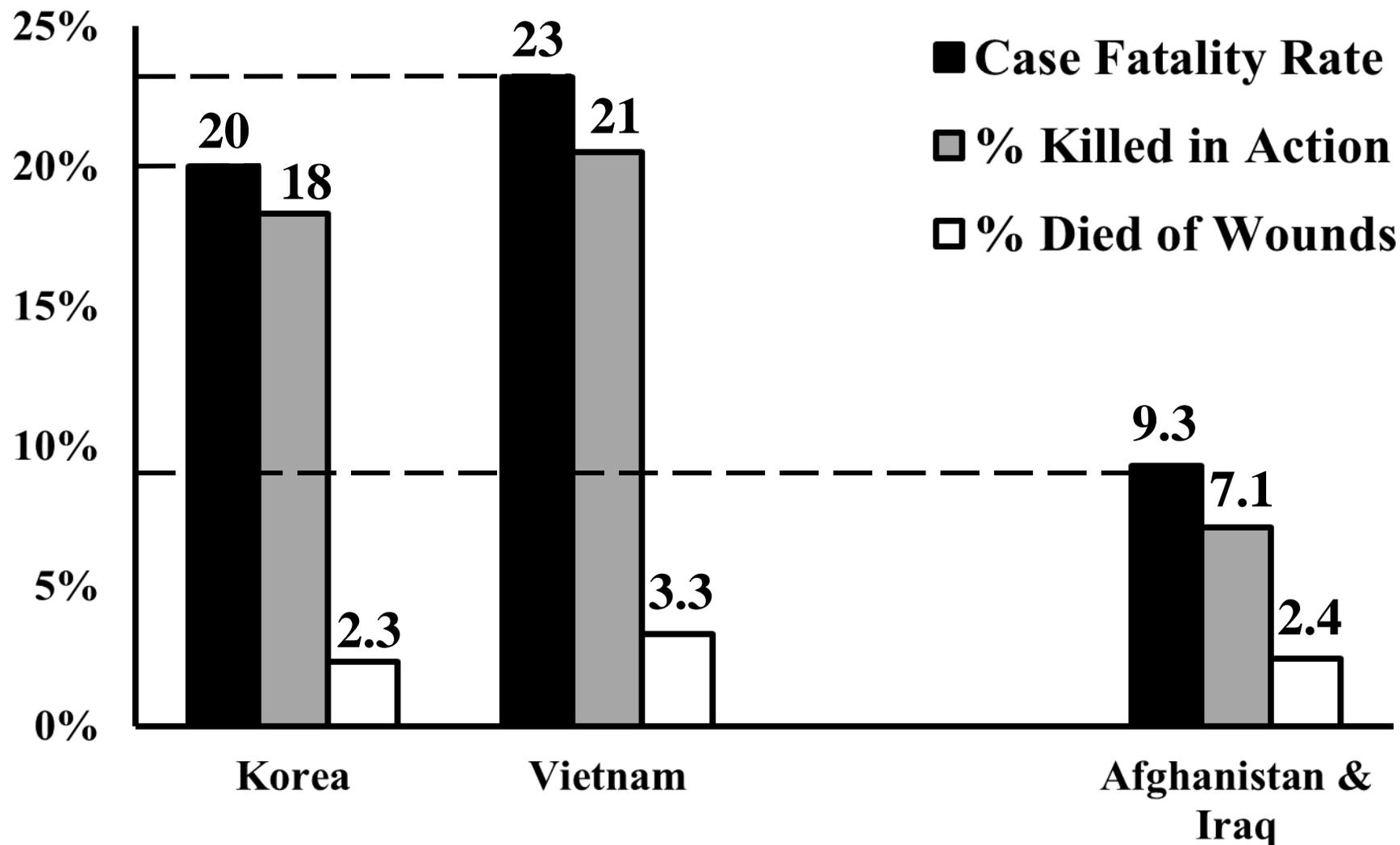
- Back-ups



# Impact of Research – Reduced Mortality



## Concluding Casualty Statistics (2001-2014)





# Secondary Benefit of DoD Research – Civilian Care



- **Because a large portion of the trauma research performed by the DoD is accomplished at civilian trauma centers and within civilian trauma systems, the results stemming from the investment translate to care of those injured in accidents, crashes, intentional acts of violence or natural disasters in the US.**



# Secondary Benefit of DoD Research - Civilian Care

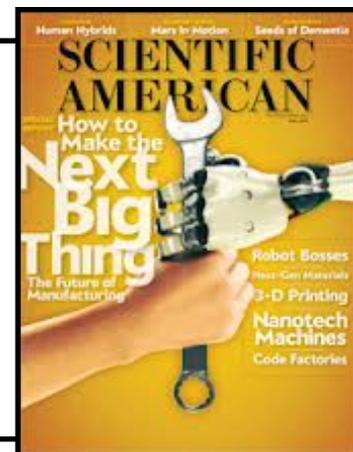


## THE NEW REPUBLIC

**Return of the Tourniquet: What we learned from war saved lives in Boston**

**Lydia DePillis**

**April 17, 2013**



**From Baghdad to Boston: War Lessons on Amputations  
Help Blast Victims Walk Again**

**Tara Haelle, April 16<sup>th</sup>, 2013**

# Secondary Benefit of DoD Research - Civilian Care

IN THE LAB,  
ON THE  
BATTLEFIELD



## VIEWPOINT

### Implications of Combat Casualty Care for Mass Casualty Events



Eric A. Elster, MD  
Norman M. Rich  
Department of Surgery,  
Uniformed Services  
University of the Health  
Sciences, Bethesda,  
Maryland, and Naval  
Medical Research  
Center, Silver Spring,  
Maryland.

Violence from explosives and firearms results in mass casualty events in which the injured have multiple penetrating and soft tissue injuries. Events such as those in Boston, Massachusetts; Newtown, Connecticut; and Aurora, Colorado, as well as those in other locations, such as Europe and the Middle East, demonstrate that civilian trauma may at times resemble that seen in a combat setting. As the civilian sector prepares for and re-

dence of preventable death. Moreover, none of the regiment's 32 fatalities died of preventable causes during the

**JAMA 2013;310(5):475**

...niques for extremity bleeding and hemostatic dressings for bleeding not amenable to tourniquets.

Care During Transport

## ORIGINAL ARTICLES

### Surgical Response to Multiple Casualty Incidents Following Single Explosive Events

Brandon W. Propper, MD,† Todd E. Rasmussen, MD,\*†§ Scott B. Davidson, MD,†§ Sheri L. VandenBerg, RN,† W. Darrin Clouse, MD,\*†§ Gabe E. Burkhardt, MD,† Shaun M. Gifford,† MD, and Jay A. Johannigman, MD\*§

**Ann Surg 2009;250:311-315**



# DoD Research Improved National & Homeland Security

CAMP AND BASE SOLUTIONS

## The Silver Lining Of War

SIGNIFICANT ADVANCES HAVE BEEN MADE IN COMBAT CASUALTY CARE AS A RESULT OF MORE THAN A DECADE OF CONFLICT IN AFGHANISTAN. BUT AS TROOPS WITHDRAW, WHERE TO FROM HERE FOR COMBAT MEDICINE, AND CAN THE ADVANCES MADE IN RECENT YEARS BE SUSTAINED?

*Defense Procurement International –2014*

- **Investment in DoD trauma research provides a “2 for 1” return - improves survival and recovery of combat injured (*national security*) and improves the lives of citizens injured on streets, highways and neighborhoods of the nation (*homeland security*).**