



## **American College of Surgeons Trauma Funding Legislative Toolkit**

This document is a resource for ACS Chapters, Fellows, and Committee on Trauma (COT) advocates to advocate for public funding of state trauma systems. Overall, this toolkit can be used to help Chapters develop a legislative action plan and engage grassroots to support trauma funding initiatives with the goal of establishing a nationwide trauma system capable of furthering our zero preventable deaths and disability initiative.

Included in the document are the following:

1. History and background on Public Funding for State Trauma Systems
2. Matrix of State Funding
3. Maryland Funding Model
4. Sample letter to legislators
5. Sample action alert
6. Sample talking points
7. List of resources



## **History and Background**

This toolkit has two points of focus related to recent trends in state public funding of regional trauma systems. The American College of Surgeons Committee on Trauma has called for the development of regional trauma systems since the release of the Bulletin article “Optimal Hospital Resources for Care of the Injured Patient” in 1976. Since then, efforts have been made to encourage states to develop and fund a legislatively mandated trauma system that includes a mix of trauma centers that provide optimal trauma care, such as prevention, access, prehospital care and transportation, acute hospital care, rehabilitation and research activities.

The College’s effort to establish state trauma systems includes advocating for the public funding of the systems. Today, 30 states provide some level of public funding for their state’s trauma systems utilizing a mix of direct appropriation of public dollars in the state budget to direct funding sources via fines and fees associated with vehicle registrations, driver services or penalties for committing traffic violations.

In addition to advocating for state legislation to establish funding mechanisms for trauma systems in the remaining 20 states, the College is also focused on protecting and enhancing the existing funding sources in the states that currently allocate public funding. In 2016, the state of Mississippi approved legislation that reallocated the user fee and fines directly funding the state’s trauma system away from the system, instead directing those dollars to the state’s general fund to pay down the state’s budget shortfall.

Economic challenges facing state governments threaten funding sources for state trauma systems receiving public dollars while at the same time could make it more difficult to secure funding in the states that do not currently provide public funding for their trauma systems.

Trauma related injury and death is a burden on the U.S. health care system and a significant driver of lost opportunity to national and state economies. Yet, a fully funded trauma system can provide a significant return on investment as a study published in 2017 demonstrated in Arkansas showing the state’s \$20 million annual trauma system budget resulted in an estimated \$186 million economic impact from the lives saved.<sup>1</sup>

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<sup>1</sup> Maxson, Todd, et al. (2017). Does the Institution of a Statewide Trauma System Reduce Preventable Mortality and Yield a Positive Return on Investment for Taxpayers? *Journal of the American College of Surgeons*, Vol. 224, Issue 4, p489–499.

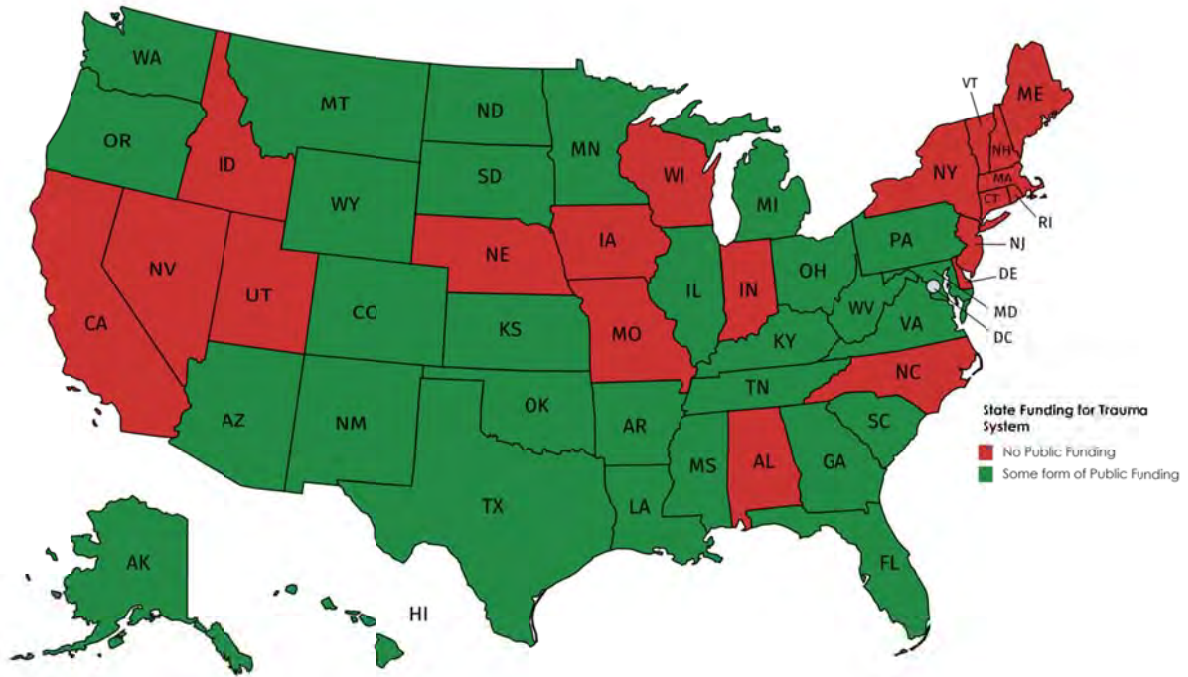


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### State Public Funding of Trauma Systems



**State-Specific Funding Information<sup>2</sup>**

State Funding		
The state provides formal funding mechanisms for the trauma system through:	Fees on moving/motor vehicle violations.	Colo., Fla., Ill., Kan., Miss., Ohio, Okla., Texas, Wash.
	Fees on criminal penalties.	Fla., Ill., Mich., Va.
	Vehicle registration/driver's license fees.	Miss., Okla., Texas, Va., Wash.
	Cigarette/tobacco fee.	Ark., Hawaii, Okla., Tenn., Texas
	General fund appropriation.	Alaska, Ga., Ky., La., Md., Mont., N.M., N.D., Pa., S.C., S.D., Tenn., Texas, W.Va., Wyo.
	Ambulance or EMT operations fee.	Texas
	Other.	Ariz., Colo., Minn., Ore., Texas
The state provides formal funding mechanisms for the EMS system through:	Fees on moving/motor vehicle violations.	Calif., Colo., Fla., Minn., Miss., N.J., Ohio, Okla., Texas, Wash.
	Fees on criminal penalties.	Ariz., Fla., Hawaii, Nev., Okla., Utah
	Vehicle registration/driver's license fees.	Hawaii, Md., Miss., N.C., Texas, Wash.
	Cigarette/tobacco fee.	Ariz., Hawaii, Okla., Texas
	General fund appropriation.	Calif., Iowa, La., Md., Minn., Nev., N.H., N.Y., N.D., S.C., S.D., Tenn., Texas, Utah, Va., W.Va., Wis., Wyo.
	Ambulance or EMT operations fee.	Ariz., Colo., Ga., Ill., Md., Nev., Texas
	Other.	Ariz., Kan., Neb., N.M., Ore., Texas

<sup>2</sup> National Conference of State Legislatures (2012). *The Right Patient, The Right Place, The Right Time; A Look at Trauma and Emergency Services Policy in the States.*



## **Maryland Funding Model**

In 2003, the Maryland General Assembly created the Maryland Trauma Physician Services Fund to fund the state's trauma system reimbursing trauma physicians for uncompensated care losses. Additionally, the state raised Medicaid payments to 100 percent of the Medicare rate when a Medicaid patient receives trauma care at a designated trauma center.

The Maryland Trauma Physician Services Fund is financed through a \$5 surcharge on the 2-year motor vehicle registrations and renewals. The fund collected more than \$12.3 million dollars in fiscal year 2016.

In addition to the Physician Services Fund, the Maryland trauma system includes EMS and hospital services components. The Emergency Medical Services Operational Fund (EMSOF) covers trauma stand-by costs for hospitals, helicopter operations, EMS services and other emergency services operations. The EMSOF is funded by a biannual \$29 surcharge on vehicle registrations and from a \$7.50 moving violation surcharge. The state has estimated \$83.6 million in available funding for fiscal year 2018.

The Health Services Costs Review Commission was established to address payments for indigent care by financially regulating the costs, payer mix and patient acuity for hospitals and trauma centers as well as establishing the rates that they can charge third-party payers. The cost structure is non-negotiable between hospitals and all payers. The rate paid by insurers is the same for all including Medicare and Medicaid.<sup>3</sup>

States considering new funding sources for their trauma system might consider adding a trauma fund dedicated fee to vehicle registrations similar to the \$5 Maryland surcharge.

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<sup>3</sup> Pollak, Andrew N. (2006). Maryland sets example for funding of trauma care. AAOS Bulletin, October. <http://www2.aaos.org/bulletin/oct06/cover6.asp>



### Sample Chapter/State COT Letter to Legislators

*Note that this is intended as a general guideline for a letter from the Chapter leadership or State COT Chair. The letter will need to be drafted to address the specific needs to optimally fund the state's trauma system whether it is increasing funding, protecting an existing funding source or allocating public funding for the first time.*

DATE

The Honorable LEGISLATOR NAME

CHAMBER

ADDRESS

RE: Funding for STATE Trauma System

Dear TITLE NAME:

On behalf of the members of the STATE ***Chapter of the American College of Surgeons/State Committee on Trauma of the American College of Surgeons***, I am writing to urge you to support legislative efforts to ***fund/restore funding*** for the state's trauma system.

The American College of Surgeons' Committee on Trauma (COT) was established in 1922 to focus on improving the care of injured patients, believing that trauma is a surgical disease demanding surgical leadership. In 1976, the COT adopted principles of care for trauma patients that identified the need for established statewide trauma systems to address the needs of all injured patients. An ideal trauma system includes all the components identified with optimal trauma care, such as prevention, access, prehospital care and transportation, acute hospital care, rehabilitation, and research activities.

While the state of NAME has agreed with this principle of care for trauma patients, the ***level/lack*** of public investment for the state's trauma system is severely lacking, resulting in insufficient resources to meet the needs for the state's citizens. To maintain an efficient trauma system, we recommend that the state ***establish a trauma fund/increase investments in the state's trauma fund*** at an annual level of \$XXX,XXX,XXX.

A study published in 2017 that studied the effectiveness of the state of Arkansas's trauma system concluded that the state's \$20 million investment in the system resulted in a lifetime value of



\$2,365,000 per trauma patient saved equating to nearly \$186 million annual economic impact for the state.<sup>4</sup> A fully funded trauma system is optimized to reduce death and disability and benefit the state.

Again, I urge you to support the efforts to ***fund/restore funding*** for the state's trauma system.

Sincerely,

NAME

TITLE

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<sup>4</sup> Maxson, Todd, et al. (2017). Does the Institution of a Statewide Trauma System Reduce Preventable Mortality and Yield a Positive Return on Investment for Taxpayers? *Journal of the American College of Surgeons*, Vol. 224, Issue 4, p489–499.



### **Sample Action Alerts**

*The following are sample draft action alerts envisioning different legislative scenarios including cuts to trauma system funding and requesting trauma system funding. It is advised to work with the ACS State Affairs staff to create action alerts based on the specific need in your state.*

#### **Draft Alert to Fight Funding Cut**

##### **Alert Text for Members**

The STATE legislature is considering a proposal that will be part of the state's fiscal year budget that will reduce the amount of money appropriated to the state's trauma system.

We need you to take action to urge your lawmakers to reject this proposal in an effort to save the lives of trauma patients in STATE.

Contact your legislator today!

The proposal includes redirecting funds collected via traffic violations and administrative vehicle fees that are currently dedicated for the trauma system fund. Changing the funding source for the trauma system could put the system's annual funding in jeopardy and unsustainable for future trauma patients.

##### **Email/Letter Text for Legislators**

Dear LEGISLATOR:

I am writing to ask you to reject the budget proposal that will redirect dedicated revenue away from the state's trauma system fund.

Trauma related injury is a leading cause of avoidable death nationwide, and must be addressed at the state level. A fully funded and organized trauma system is able to adequately respond to the needs of trauma patients and save lives. Recent research has demonstrated that a fully funded trauma system can have an economic multiplier of nearly nine times the amount invested by a state.

This budget proposal will have significant repercussions on ability of trauma centers and physicians to provide the level of care needed in the event of a traumatic injury or emergency event.





I urge you to reject this proposal and protect the funding for the state's trauma system.

Sincerely,  
NAME

### **Draft Alert to Request Public Funding**

#### Alert Text for Members

The STATE Chapter of the American College of Surgeons has engaged the STATE legislature to enact legislation, BILL #, which will dedicate public investment in the state's trauma system. BILL # is scheduled for a hearing/vote this DATE.

Contact your legislator and ask them to support BILL #.

#### Email/Letter Text for Legislators

Dear LEGISLATOR:

I am writing you to support BILL # that will establish a dedicated source of revenue for a state trauma fund to ensure a fully functioning statewide trauma system.

Trauma related injury is a leading cause of avoidable death nationwide and must be addressed at the state level. A fully funded and organized trauma system is able to adequately respond to the needs of trauma patients and save lives and reduce disability. Recent research has demonstrated that a fully funded trauma system can have an economic multiplier of nearly nine times the amount invested by a state, (research: <http://www.sciencedirect.com/science/article/pii/S1072751517300625?via%3Dihub>).

This legislation will help provide the necessary resources for the state's trauma centers and physicians to provide the level of care needed in the event of a traumatic injury or emergency event.

I urge you to support BILL # and invest in saving lives.

Sincerely,  
NAME



### Sample Talking Points

The American College of Surgeons Committee on Trauma has called for the implementation and funding of regional trauma systems since 1976 based on a principle that “The needs of all injured patients are addressed wherever they are injured and wherever they receive care.”

The ACS Committee on Trauma is focused on improving care for injured patients under the belief that traumatic injuries are a surgical disease demanding surgical leadership.

Trauma related injury is one of the most preventable causes of death in the United States.

Published research on Arkansas’s trauma system has demonstrated that the state’s \$20 million public investment into the trauma system has resulted in a 9 fold return on investment to the state’s economy contributing nearly \$186 million annually.

Currently, 30 states provide some form of public investment in the state’s trauma system.

A simple and sustainable model for trauma system funding is to include a low dollar surcharge on all vehicle registrations dedicated solely to the state trauma fund.

A fully funded trauma system will have the resources needed to respond to emergency situations to treat patients with life threatening trauma injuries and save lives.

Treating severely injured patients at trauma centers reduces mortality by more than 25 percent.

Unfortunately, approximately 46.7 million Americans lack access to a Level I trauma center within the "golden hour" post injury when chances of survival are greatest.

The federal government has not made necessary investments in maintaining and increasing the number of appropriately placed trauma centers in the U.S., leaving a fragile trauma system and too many Americans without timely access to trauma care. In the absence of a robust federal program, states have an opportunity to step in and provide this much needed service. By funding state level trauma systems, legislators can save lives and potentially earn a significant return on the investment.

Our current patchwork of state trauma systems is not sustainable and must be addressed before further deterioration.



### **ACS Committee on Trauma Guidelines on Trauma Center Designation Based Upon System Need**

In order to best serve the needs of injured patients through optimization of regional trauma system function, the ACS Committee on Trauma supports the following guidelines:

- 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
  - 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.

Source: <http://bulletin.facs.org/2015/01/statement-on-trauma-center-designation-based-upon-system-need/>



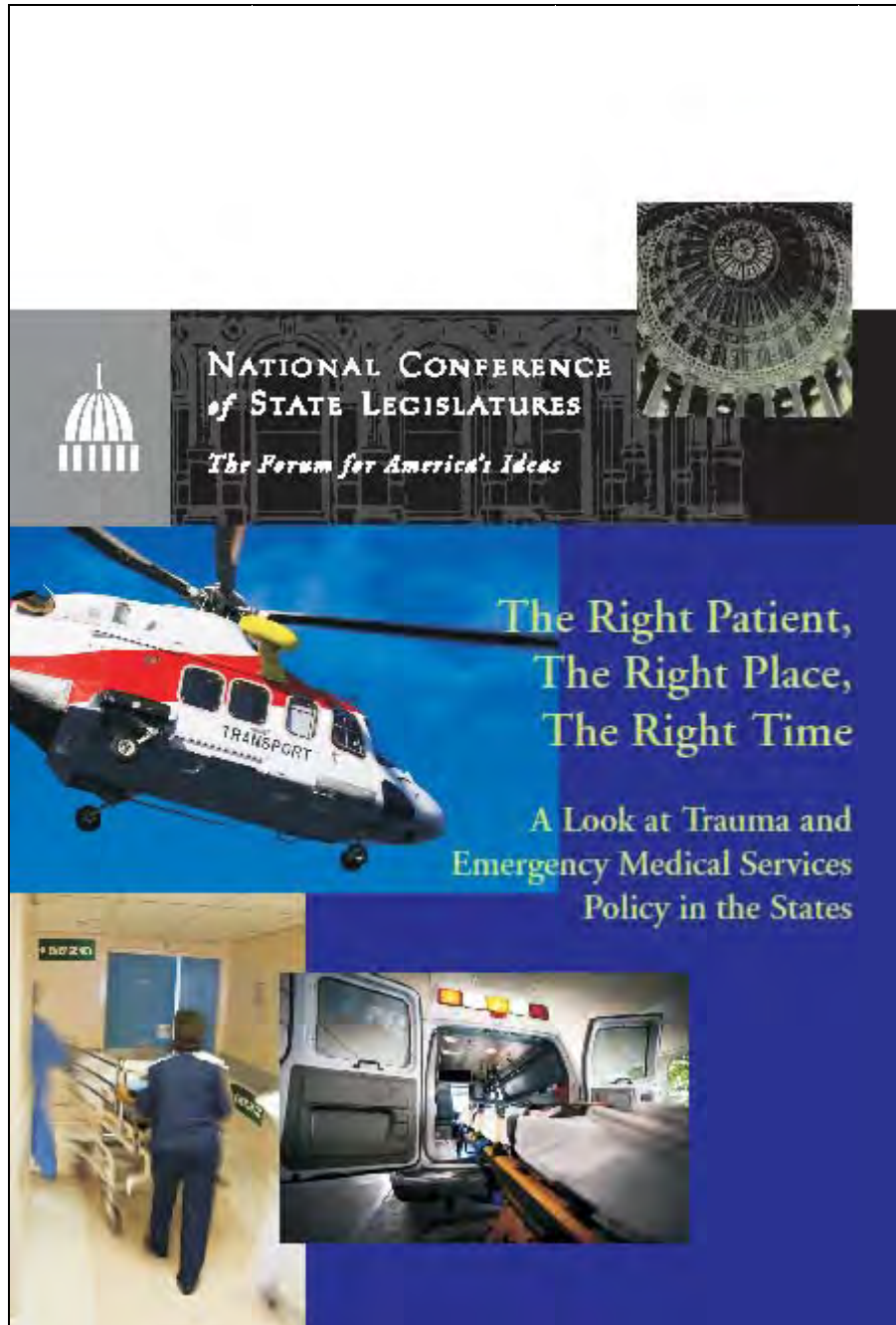
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## Resources

NCSL Trauma System Report (double click image to read the full report)



NCSL Trauma System Report (double click image to read the full report)

Figure 1 Andrew Pollak, MD FACS article Maryland Trauma System (Double Click to View Full Article)

6/28/2017

AAOS Bulletin - October, 2006

## Maryland sets example for funding of trauma care

*Model includes EMS, hospital and physician services*

By Andrew N. Pollak, MD

On a national basis, a major challenge to the development and implementation of effective trauma care systems is how to fund the three essential components of such a system: emergency medical services (EMS), hospital services and physician services. Maryland has one of the most organized and effective trauma care systems in the United States, in part due to funding mechanisms that ensure the fiscal viability of each of these components.

### Background

The history of organized trauma care in Maryland dates to 1961 when R Adams Cowley, MD, developed an intensive care unit for the management of complications of postoperative shock at the University of Maryland Hospital. His work underscored the importance of rapid shock correction in preventing acute respiratory distress syndrome and multisystem organ failure. He defined the "Golden Hour" as the time during which correction of shock from any cause (including trauma) could lead to increased survival.

To save the lives of trauma patients, Dr. Cowley convinced the Maryland governor and state legislature of the need for an organized network of trauma centers. The network would be supported by local EMS agencies that would provide on-site rapid assessment. State-wide helicopter availability would ensure expeditious transport of trauma patients to the most appropriate treatment facility.

The Maryland Institute for Emergency Medical Services Systems (MIEMSS), established by the state legislature, was both a designated trauma hospital and a state agency that oversaw EMS operations, including the establishment of a trauma center network with differing levels of care. In 1993, the R Adams Cowley Shock Trauma Center was separated from MIEMSS, incorporated into the University of Maryland Medical Center and designated in statute as the state's primary adult resource center for trauma.

The current state network consists of eight regional trauma centers. The Cowley Center is the referral center of last resort for head injury, spinal cord injury, multiply injured patients and complex injuries beyond the scope of providers at regional centers. Under law, the helicopter system is part of the state police aviation division, which also conducts

Andrew Pollak, MD FACS article Maryland Trauma System (Double Click to View Full Article)





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[Maryland Trauma Fund Fact Sheet \(double click image to read full document\)](#)

Maryland Health Care Commission                      Health Services Cost Review Commission

**FACT SHEET**  
about  
**MARYLAND TRAUMA PHYSICIAN SERVICES FUND**

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*What is the Maryland Trauma Physician Services Fund?*

In June 2003, Governor Robert Ehrlich signed Senate Bill 479, Maryland Trauma Physician Services Fund ("Fund"). The Maryland Health Care Commission ("MHCC") and the Health Services Cost Review Commission ("HSCRC") are the designated state agencies responsible for the implementation of Senate Bill 479 and maintaining the funds collected for physician reimbursement.

The Fund will provide the following benefits to trauma physicians and trauma centers:

1. Reimbursement to trauma physicians for trauma services provided to patients without health insurance up to 100 percent of the Medicare rate for the Baltimore carrier locality;
2. Increased reimbursement rates to trauma physicians providing trauma care to Maryland Medical Assistance Program (Medicaid) enrollees up to 100 percent of the Medicare rate for the Baltimore carrier locality;
3. Reimbursement to trauma centers for on-call stipends associated with maintaining trauma specific physicians; and
4. Allows trauma center physician stand-by costs to be included in the hospital's HSCRC recognized rate.

*What is the source of funding for the Maryland Trauma Physician Services Fund?*

The Fund is financed through a \$5 surcharge added to the 2-year vehicle registration renewal fees collected by the Maryland Motor Vehicle Administration.

*Who is eligible to receive payments from the Fund?*

Under this law, only certain trauma physician specialties are eligible to receive reimbursement for treating uninsured and Medicaid-enrolled trauma patients. S.B. 479 defines a trauma physician as a trauma surgeon, orthopedic surgeon, neurosurgeon, critical care physician and anesthesiologist as eligible for payment from the Fund. In addition, physicians practicing emergency medicine can receive reimbursement for trauma services provided to uninsured patients; however, the Maryland General Assembly capped funds allocated to emergency medicine doctors at \$250,000 annually.

*How will the Commission utilize the Maryland Trauma Registry in conjunction with the Fund?*

The Maryland Trauma Registry is a data base of information maintained by all trauma centers within Maryland. A trauma patient must be listed on the Trauma Registry administered by the Maryland Institute for Emergency Medical Services Systems (MIEMSS). The Commission will utilize such information from the Registry as Patient Trauma Registry Number, Date of Admission, Date of Discharge from the acute care hospital or Date of Release from the emergency room, and diagnosis and/or exclusion codes in determining whether to reimburse for trauma services provided to trauma patients.

[Maryland Trauma Fund Fact Sheet \(double click image to read full document\)](#)



Arkansas ROI Study (double click image to read full study)

## Does the Institution of a Statewide Trauma System Reduce Preventable Mortality and Yield a Positive Return on Investment for Taxpayers?



Todd Maxson, MD, FACS, Charles D Mabry, MD, FACS, Michael J Sutherland, MD, FACS, Ronald D Robertson, MD, FACS, James O Booker, MD, FACS, Terry Collins, RN, Horace J Spencer, MS, Charles F Rinker, MD, FACS, Teri L Sanddal, BS, Nels D Sanddal, PhD, REMT

- BACKGROUND:** In July 2009, Arkansas began to annually fund \$20 million for a statewide trauma system (TS). We studied injury deaths both pre-TS (2009) and post-TS (2013 to 2014), with attention to causes of preventable mortality, societal cost of those preventable mortality deaths, and benefit to tax payers of the lives saved.
- STUDY DESIGN:** A multi-specialty trauma-expert panel met and reviewed records of 672 decedents (290 pre-TS and 382 post-TS) who met standardized inclusion criteria, were judged potentially salvageable, and were selected by a proportional sampling of the roughly 2,500 annual trauma deaths. Deaths were adjudicated into sub-categories of nonpreventable and preventable causes. The value of lives lost was calculated for those lives potentially saved in the post-TS period.
- RESULTS:** Total preventable mortality was reduced from 30% of cases pre-TS to 16% of cases studied post-TS, a reduction of 14%. Extrapolating a 14% reduction of preventable mortality to the post-TS study period, using the same inclusion criteria of the post-TS, we calculate that 79 lives were saved in 2013 to 2014 due to the institution of a TS. Using a minimal standard estimate of \$100,000 value for a life-year, a lifetime value of \$2,365,000 per person was saved. This equates to an economic impact of the lives saved of almost \$186 million annually, representing a 9-fold return on investment from the \$20 million of annual state funding invested in the TS.
- CONCLUSIONS:** The implementation of a TS in Arkansas during a 5-year period resulted in a reduction of the preventable death rate to 16% post-TS, and a 9-fold return on investment by the tax payer. Additional life-saving gains can be expected with ongoing financial support and additional system performance-improvement efforts. (*J Am Coll Surg* 2017;224:489–499. © 2017 by the American College of Surgeons. Published by Elsevier Inc. All rights reserved.)

Trauma patients are best cared for in an organized trauma system (TS) that has adequate numbers of functioning trauma centers (TCs) to receive those injured patients. This has been shown repeatedly in both civilian

and military environments.<sup>1-9</sup> Similarly, the study of deaths and the mechanisms and events leading up to those deaths are an essential part of the quality-improvement infrastructure of a robust TS. A subset of deaths, those that are preventable or potentially preventable, represents a group of patients that are particularly important to study to improve the quality of care and reduce mortality for the entire TS. Preventable trauma mortality studies have served as the underlying basis for TS development and improvement dating back to 1970s. It is essential to learn lessons from those unfortunate deaths so that those lessons can then lead to improvements in the TS, reducing mortality and morbidity in the future.<sup>10-13</sup>

Those states that have implemented an inclusive TS have documented substantial reductions in rates of preventable trauma deaths. Arkansas remained the last state

**Disclosure Information:** Nothing to disclose.  
**Support:** This research received grant support from the Arkansas Department of Health to conduct the preventable mortality study.  
Charles F Rinker, MD, FACS is retired.  
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Arkansas ROI Study (double click image to read full study)





Study Pennsylvania Trauma System Effectiveness (double click image to read full study)

ORIGINAL ARTICLE

## Outcomes of Adult Trauma Patients Admitted to Trauma Centers in Pennsylvania, 2000-2009

Laurent G. Glance, MD; Turner M. Osler, MD; Dana B. Mukamel, PhD; Andrew W. Dick, PhD

**Objective:** To examine longitudinal trends in mortality for injured patients admitted to trauma centers.

**Design, Setting, and Participants:** Retrospective cohort design of 208 866 patients admitted to level I or level II trauma centers in Pennsylvania between 2000 and 2009 using the Pennsylvania Trauma Outcome Study database. Multivariate logistic regression was used to estimate the temporal trend for in-hospital mortality.

**Main Outcome Measures:** Patients were stratified by injury severity to estimate mortality trends in patients with low-severity, moderate, severe, and very severe injuries.

**Results:** Comparing 2000-2001 data with 2008-2009 data, the odds of mortality decreased by 29% (adjusted odds ratio [AOR]=0.71; 95% CI, 0.59-0.85) and the odds of major complications decreased by 32% (AOR=0.68; 95% CI, 0.57-0.81). Between 2000 and 2009, the mor-

tality rate for patients admitted with moderate trauma decreased by 42% (AOR=0.58; 95% CI, 0.46-0.71) and the mortality rate for patients with severe trauma decreased by 51% (AOR=0.49; 95% CI, 0.40-0.60). Mortality rates for patients admitted with mild trauma or with very severe trauma did not change significantly during this period.


**Conclusions:** In-hospital mortality and major complications for adult trauma patients admitted to level I or level II trauma centers declined by 30% between 2000 and 2009. After stratifying patients by injury severity, the mortality rate for patients presenting with moderate or severe injuries declined by 40% to 50%, whereas mortality rates remained unchanged in patients with the least severe or the most severe injuries.

Arch Surg. 2012;147(8):732-737

**Author Affiliations:** Department of Anesthesiology, University of Rochester School of Medicine and Dentistry, Rochester, New York (Dr Glance); Department of Surgery, University of Vermont College of Medicine, Burlington (Dr Osler); and Department of Medicine, Center for Health Policy Research, University of California, Irvine (Dr Mukamel), and RAND Health, RAND, Santa Monica (Dr Dick).

**T**HE LANDMARK INSTITUTE OF Medicine report *To Err Is Human: Building a Safer Health System*<sup>1</sup> has focused widespread attention on the impact of medical errors on patient outcomes and the need for transformational change in health care delivery. In addition to the unsafe care documented in the Institute of Medicine report, influential reports from RAND have revealed that patients receive only about half of recommended care.<sup>2,3</sup> Less attention has been focused on the accumulating evidence that outcomes across a wide spectrum of medical and surgical conditions have actually improved substantially over time. For example, the mortality rate after myocardial infarctions has decreased by nearly 25% during the past 10 years.<sup>4</sup> The mortality rate for Medicare patients hospitalized for heart failure decreased 16% between 1993 and 2006.<sup>5</sup> Operative mortality rates for major cardiovascular procedures have declined 13% for aortic valve replacements, 21% for coronary artery bypass grafting,

and 36% for abdominal aortic aneurysm repair during the last 10 years.<sup>6</sup> Similar improvements in mortality rates have been achieved for major cancer resections.<sup>6</sup>

 **CME available online at [www.jamaarchivescme.com](http://www.jamaarchivescme.com) and questions on page 690**

Trauma is the leading cause of years of potential life lost prior to age 65 years, exceeding heart disease and cancer.<sup>7</sup> Since the release of the Institute of Medicine report entitled *Accidental Death and Disability: The Neglected Disease of Modern Society*,<sup>8</sup> national attention has been focused on this "neglected epidemic." The extent to which those efforts have resulted in improved patient outcomes for injured patients is unknown. Unlike other medical and surgical populations, mortality trends for trauma patients have not been explored in great depth. Our goal in this study was to determine whether the mortality improvements reported for medical and surgical patients during the last 10

Study Pennsylvania Trauma System Effectiveness (double click image to read full study)





### **Contact**

For questions, requests for further information or assistance with advocacy initiatives regarding trauma system funding and development, contact Christopher Johnson, State Affairs Associate at (202) 672-1502; [CJohnson@facs.org](mailto:CJohnson@facs.org) or Christian Johnson, State Affairs Associate at (202) 672-1522; [christianjohnson@facs.org](mailto:christianjohnson@facs.org).