Virginia Department of Health
Office of Emergency Medical Services

Trauma Fund Report on

Use of Funds in
Improving Virginia's Trauma System, and

Review of Feasible Long Term Financing
Mechanisms and Potential
Funding Sources for Virginia's Trauma Centers

Pursuant to Item 290 of 2008 Appropriation Act

November 19, 2008

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Executive Summary: In Virginia, 13 hospitals voluntarily undergo trauma center designation and commit to provide a higher level of care necessary to the seriously injured. Despite the value trauma centers provide to the community, trauma centers face a variety of challenges that have led to a loss of trauma center designation or downgrades in coverage across the nation as well as in Virginia. These challenges are deterring additional hospitals from seeking trauma center designation.

Trauma Fund Summary: In the 2004 General Assembly Session, House Bill 1143 amended the Code of Virginia by adding § 18.2-270.01 which established the Trauma Center Fund for the Commonwealth of Virginia. This was the first step in addressing the challenges faced by Virginia's trauma centers.

This bill required that persons convicted of criminal violations pursuant to §§ 18.2-36.1, 18.2-51.4, 18.2-266 or 46.2-341.24 (DUI), and who had also been previously convicted of one or more of these violations, pay a fine of $50 into the Trauma Center Fund.

House Bill 2664, passed during the 2005 Legislative Session, required that before granting or restoring a license or registration to any person whose driver's license or other privilege to drive motor vehicles or privilege to register a motor vehicle has been revoked or suspended, the Commissioner of the Department of Motor Vehicles must collect from that person a fee of $40 in addition to all other fees provided for in this section. The additional $40 fee must be paid into the Trauma Center Fund.

The 2006 Appropriations Act had appropriated $1,884,877 (General Fund) per year in FY07 and FY08 for the Trauma Center Fund. However, these funds were subsequently eliminated as part of the VDH FY08 budget reduction plan. The 2008 Appropriations Act further directs the transfer of $1,000,000 from the Trauma Center Fund to the General Fund each year. These actions were taken in response to the fact that the fund was growing at a faster rate than had originally been projected. While the fund was originally anticipated to generate about $5 million annually, it is currently generating approximately $10 million per year.

Item 286D of the 2006 Appropriations Act required the Virginia Department of Health (VDH), in consultation with the State Emergency Medical Services Advisory Board's Trauma System Oversight and Management Committee, to (i) review the criteria used to distribute funding to the trauma centers, (ii) make refinements as necessary to encourage existing trauma centers to upgrade their trauma designation, and (iii) assess whether this additional general fund support can be used as matching funds to maximize federal Medicaid revenues. VDH shall report on the use of these funds in improving Virginia's trauma system to the Governor and the Chairmen of the House Appropriations and Senate Finance Committees by December 1 of each year.

Additionally, Item 297 of the 2006 Appropriations Act required that the Commissioner of Health review current funding provided to trauma centers to offset uncompensated care losses, report on feasible long-term financing mechanisms, and examine and identify potential funding sources on the federal, state and local level that may be available to Virginia's trauma centers to support the system's capacity to provide quality trauma services to Virginia citizens. As sources are identified, the Commissioner shall work with any federal and state agencies and the Trauma System Oversight and Management Committee to assist in securing additional funding for the trauma system.

In the 2008 Appropriation Act, this reporting requirement was modified. Item 290 states that the Commissioner of Health shall review current funding provided to trauma centers to offset uncompensated care losses, report on feasible long-term financing mechanisms, and examine and identify potential funding sources on the federal, state and local level that may be available to Virginia's trauma centers to support the system's capacity to provide quality trauma services to Virginia citizens. As sources are identified, the Commissioner shall work

with any federal and state agencies and the Trauma System Oversight and Management Committee to assist in securing additional funding for the trauma system.

Trauma System Funding Challenges: The Trauma System faces financial burdens for two major reasons; uncompensated or undercompensated care and readiness costs that are not factored into reimbursement rates by public or private insurers. Traumatic injury knows no socioeconomic boundaries and predominately strikes young adults in their twenties and thirties. Consequently, it causes more years of productive life to be lost than heart disease, cancer, and stroke combined. Trauma patients are disproportionately uninsured at a rate 20% higher than all other medical conditions. This higher rate is attributed largely to young adults no longer being covered by their parents' health insurance and not yet achieving professional positions that offer them health benefits or a sufficient level of benefits to cover a major injury.

Table 1

Annualized Inflation Rate using the Consumer Price Index

Source of Losses	2003	2004	2005	2006	2007	2008
Unreimbursed Readiness Cost of Publicly Insured Patients	$5,000,000	$5,135,000	$5,309,590	$5,479,497	$5,632,923	$5,773,746
Unreimbursed Readiness Cost of Privately Insured Patients	$12,000,000	$15,240,000	$15,758,160	$16,262,421	$16,717,769	$17,135,713
Unreimbursed Readiness Cost of Uninsured Patients	$6,400,000	$8,128,000	$8,404,352	$8,673,291	$8,916,143	$9,139,047
Losses on Clinical Care Provided to Publicly Insured Patients	$7,000,000	$8,890,000	$9,192,260	$9,486,412	$9,752,032	$9,995,833
Losses on Clinical Care Provided to Uninsured Patients	$13,600,000	$17,272,000	$17,859,248	$18,430,744	$18,946,805	$19,420,475
	$44,000,000	$45,188,000	$46,724,392	$48,219,573	$49,569,721	**$50,808,964**

Source: *2004 JLARC report "The Use and Financing of Virginia Trauma Centers."*

Additionally, Trauma System readiness costs are not accounted for by public or private payers. Payment from these sources is based on the actual clinical care that was provided. The specialized training, extra staffing, surgical specialties that must be immediately available, and extra infrastructure required by trauma center designation must be absorbed by the facility and are usually either cross-subsidized by other initiatives or else abandoned. Table 2 demonstrates the portion of funding lost by trauma centers annually, specific to readiness.

Table 2

Annualized Inflation Rate using the Consumer Price Indexes

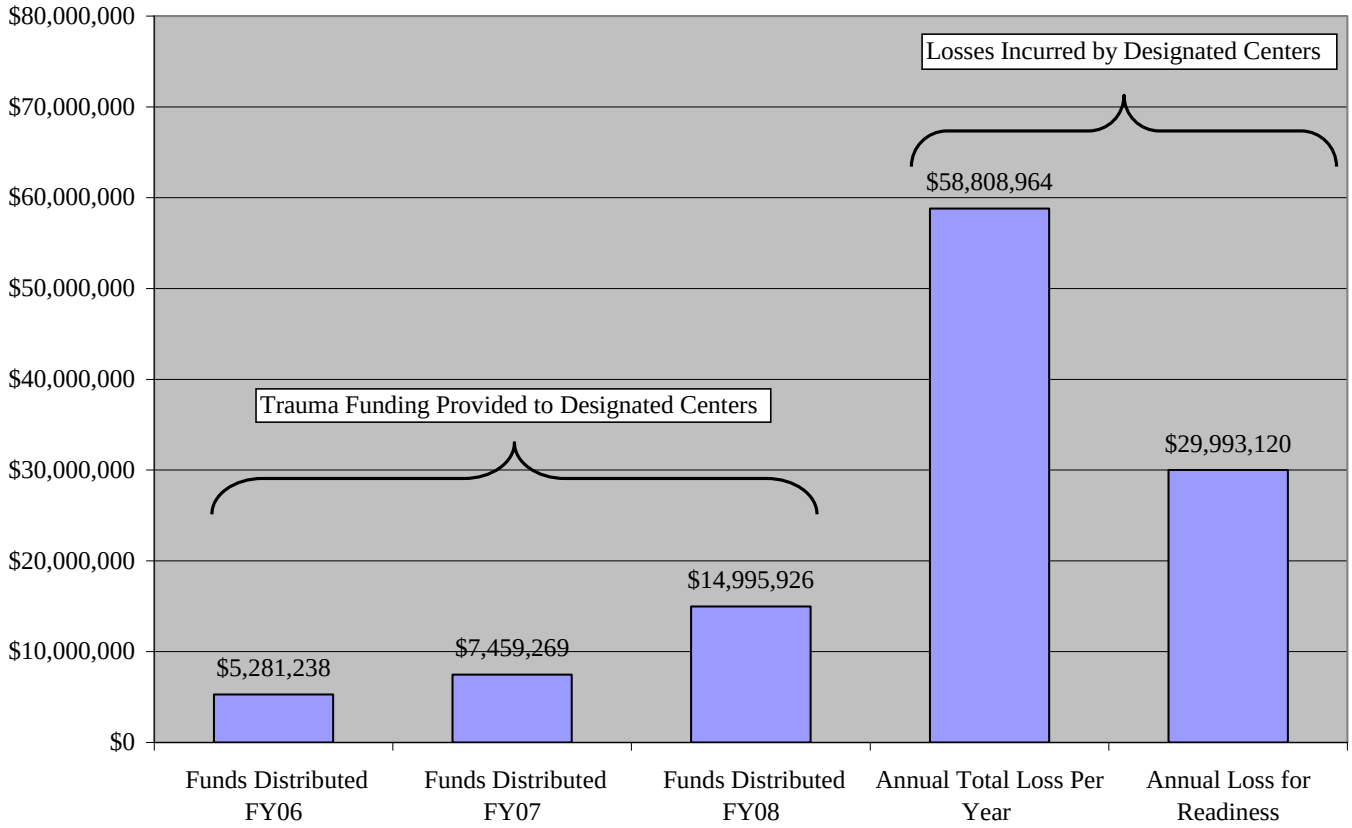
Source of Readiness Loss	2003	2004	2005	2006	2007	2008
Clinical Staff Readiness	$12,000,000	$12,324,000	$12,743,016	$13,150,793	$13,519,015	$13,856,990
Administrative Infrastructure	$3,900,000	$4,953,000	$5,121,402	$5,285,287	$5,433,275	$5,569,107
Training/Backfilling	$600,000	$762,000	$787,908	$813,121	$835,888	$856,786
Research	$700,000	$889,000	$919,226	$948,641	$975,203	$999,583
Support Services	$800,000	$1,016,000	$1,050,544	$1,084,161	$1,114,518	$1,142,381
All Other	$1,300,000	$1,651,000	$1,707,134	$1,761,762	$1,811,092	$1,856,369
Air Transportation	$1,400,000	$1,778,000	$1,838,452	$1,897,282	$1,950,406	$1,999,167
Higher Staff Levels	$2,600,000	$3,302,000	$3,414,268	$3,523,525	$3,622,183	$3,712,738
	$23,300,000	$26,675,000	$27,581,950	$28,464,572	$29,261,580	$29,993,120

Source: *2004 JLARC report "The Use and Financing of Virginia Trauma Centers."*

VDH's Office of Emergency Medical Services (OEMS) administers the Trauma Center Fund and has developed a methodology for disbursing monies from the fund. OEMS has encouraged stakeholder participation in the development of a disbursement policy for the Trauma Center Fund by establishing the Trauma Fund Panel (Panel), a subcommittee of the State EMS Advisory Board's, Trauma System Oversight, and Management Committee. The current level of funding distributed to designated trauma centers covers approximately 25% of the total loss incurred by the designated hospitals and 50% of losses caused by readiness costs.

Figure 1

Trauma Funds Distributed vs. Baseline Loss Per Year



The Use of Trauma Center Funds for Maintaining and Improving Virginia's Trauma System: The Trauma Fund directs funds to be used for defraying the costs of providing emergency medical care to victims of automobile accidents attributable to alcohol or drug use and to recognize uncompensated care losses. The Appropriations Act describes uncompensated care losses as including readiness costs and clinical services incurred by providing care to uninsured trauma patients. The level of readiness required of a trauma designated hospital is unparalleled by other disciplines and is where VDH/OEMS has focused the efforts of the Trauma Center Fund in supporting Virginia's Trauma System.

The cost of readiness is not included in the reimbursement rates provided by health insurers, the Disproportionate Share Hospital program, the State and Local Hospitalization program, or the Indigent Health Care Trust Fund program. Hospitals designated as trauma centers incur readiness costs because they must be ready to treat trauma patients 24 hours a day, have a host of specialists available to care for patients in any

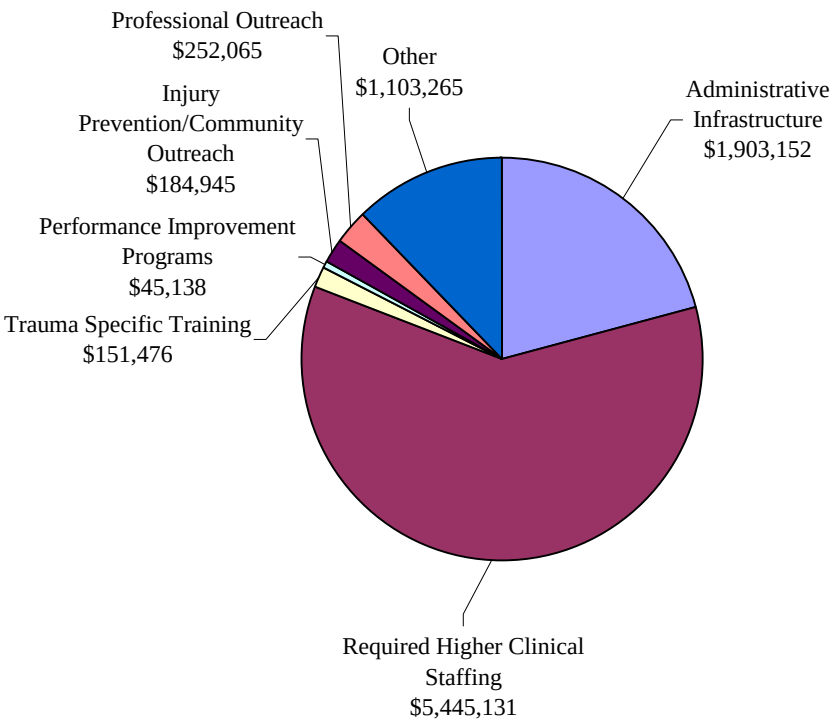
condition, employ a larger clinical staff than other hospitals, and maintain an administrative infrastructure designed to ensure that the highest level of care is consistently provided. Eligible recipients of the Trauma Fund must use the funds they receive for specific areas including:

- Support administrative infrastructure dedicated to the trauma program as required for designation, including, but not limited to (figure 4):
  - Trauma Medical Director,
  - Trauma Nurse Coordinator,
  - Trauma Registrar(s),
  - Trauma Performance Improvement Coordinator, or
  - Other administrative staff to support program.
- Support higher staffing levels that will assure quality trauma care day or night to include (figure 5):
  - Trauma Surgeons,
  - Other physician specialties,
  - Mid level/physician extenders,
  - Increased nursing staff to meet required nurse patient ratios, or
  - Ancillary support staff needed to meet state designation criteria.
- Support extensive trauma-related staff training either by hosting or funding staff for any of the following:
  - Continuing medical education for all levels of clinicians,
  - Trauma-related certification classes, i.e. Advanced Trauma Life Support, Trauma Nurse Core Curriculum, Advanced Trauma Care for Nurses, Course for Advanced Trauma Nursing,
  - Trauma-related classes or conferences,
  - Training equipment, aids, materials and supplies, or
  - Backfilling for staff attending trauma educational events.
- Support a trauma specific comprehensive performance improvement program by funding any of the following:
  - The purchase or maintenance of trauma registry software that is capable of also submitting data to the Virginia Statewide Trauma Registry,
  - Information Technology support for trauma registry software to assure its use on a day to day basis and to provide support for exporting data to state and national databanks,
  - Support of multidisciplinary performance improvement committees or,
  - Offsetting the cost of preparing and undergoing state trauma verification.
- Support for injury prevention/community outreach to include any of the following:
  - Trauma center and system awareness, or
  - Community/Public education program(s) related to injury prevention (staffing, supplies marketing, travel supplies etc.).
- Support for outreach program(s) such as:
  - Educating staff at non designated hospitals on trauma care and trauma triage,
  - Providing performance improvement related feedback to non designated hospitals and their staff,
  - Educating prehospital providers on trauma care and trauma triage, or
  - Providing performance improvement related feedback to prehospital providers/agencies.
- Support for trauma related research that will be shared with and support the Virginia Trauma System.

Directing that funds be used in this manner supports the enhancement and maintenance of a viable trauma system. Figure 2 shows how Virginia's Designated Trauma Centers used Trauma Center Fund monies distributed during FY08.

Figure 2

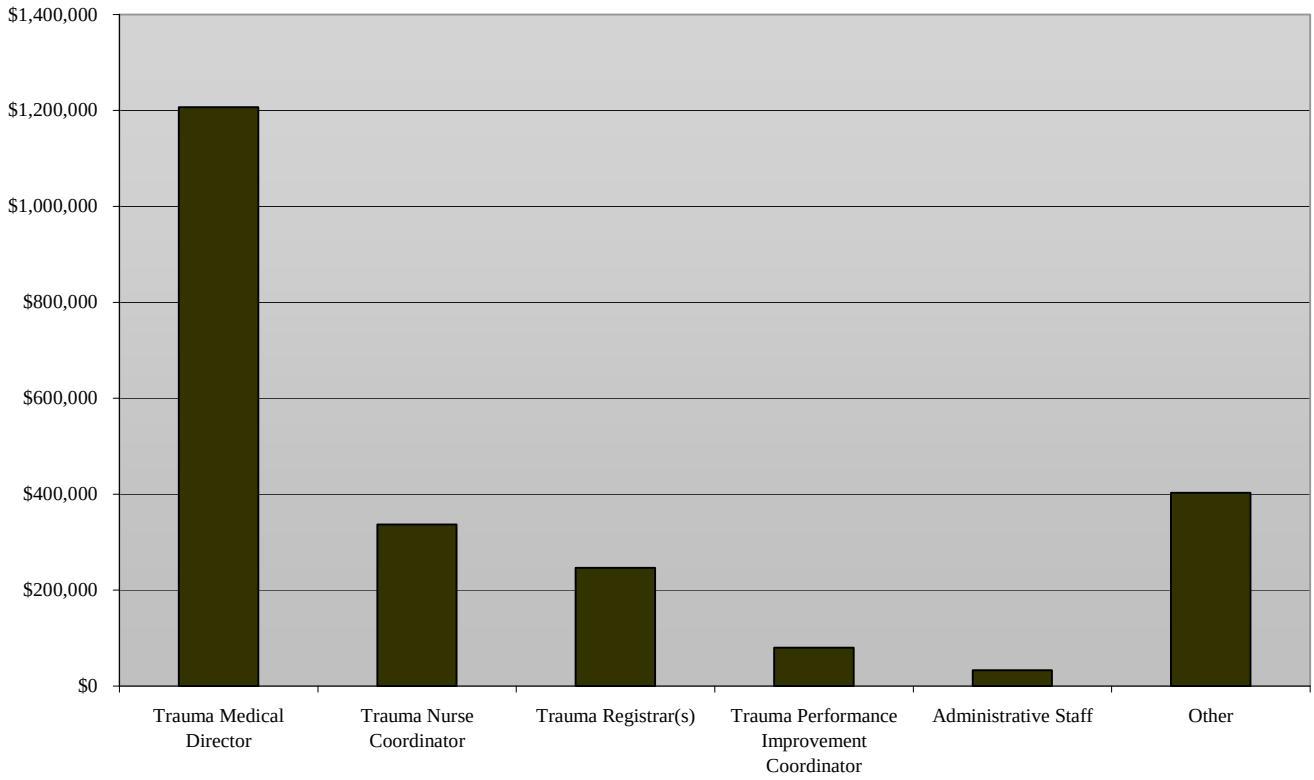
Trauma Center Fund Usage FY08



While all hospitals participate in trauma care, one of the cardinal differences between a designated trauma center and an undesignated hospital is the trauma program or trauma service. The purpose of having a trauma service as a distinct service line within the facility is to integrate, coordinate, develop, and evaluate the components necessary for effective care of the seriously injured patient. While each of the components such as a trauma surgeon or emergency resuscitation equipment may be adequate on an isolated basis, it is the integration of the components that enhance trauma care. The program should address all levels of care from pre-hospital to post discharge. In order to maintain a coordinated trauma center, certain core functions are required to establish the infrastructure needed to accomplish the needs of a "trauma program" and figure 3 demonstrates how the Trauma Center Fund supports this infrastructure.

Figure 3

Trauma Designation Infrastructure Supported by the Trauma Fund (FY08)



In addition to the core personnel required to manage the programmatic portion of a trauma program, many clinical specialists are required to be immediately available to the severely injured person. The various specialty physicians are required to be on call and available 24 hours per day, 365 days per year. Many of these physicians require compensation for being on- call even though they may not see a patient during this time and therefore no revenue is generated to offset the cost of having clinicians on-call. Table 3 below shows the surgical and medical specialties required of a Designated Level I Trauma Center.

Table 3

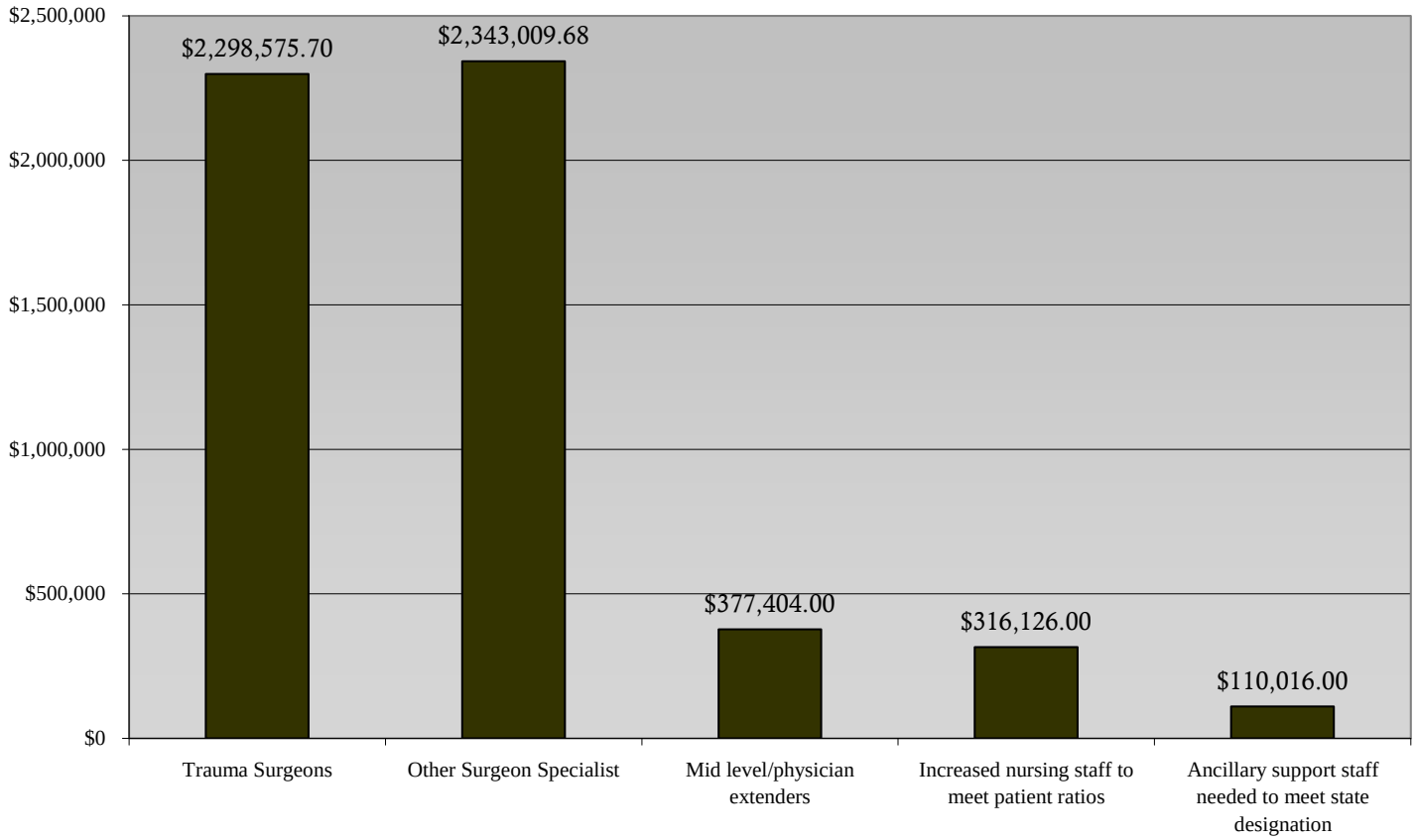
Surgical Specialists	Non-surgical Specialists
Trauma Surgery	Anesthesia
Orthopaedic Surgery	Cardiology
Neurosurgery	Pulmonology
Thoracic Surgery	Gastroenterology
Cardiac Surgery	Hematology
Pediatric Surgery	Infectious Disease
Hand Surgery	Internal Medicine
Microvascular/Replant Surgery	Nephrology
Plastic Surgery	Pathology
Maxillofacial Surgery	Pediatrics
Ear, Nose, and Throat Surgery	Radiology

Oral Surgery	Interventional Radiology
Ophthalmic Surgery	
Gynecological/Obstetrical Surgery	

The cost associated with maintaining trauma surgeons and all of the other surgical and non-surgical physician specialists on-call at all times is the primary threat to hospitals voluntarily maintaining their trauma center designation. Figure 4 demonstrates how the Trauma Center Fund has been instrumental in helping to maintain Trauma Center Designation.

Figure 4

Additional Staffing Supported by the Trauma Center Fund FY08

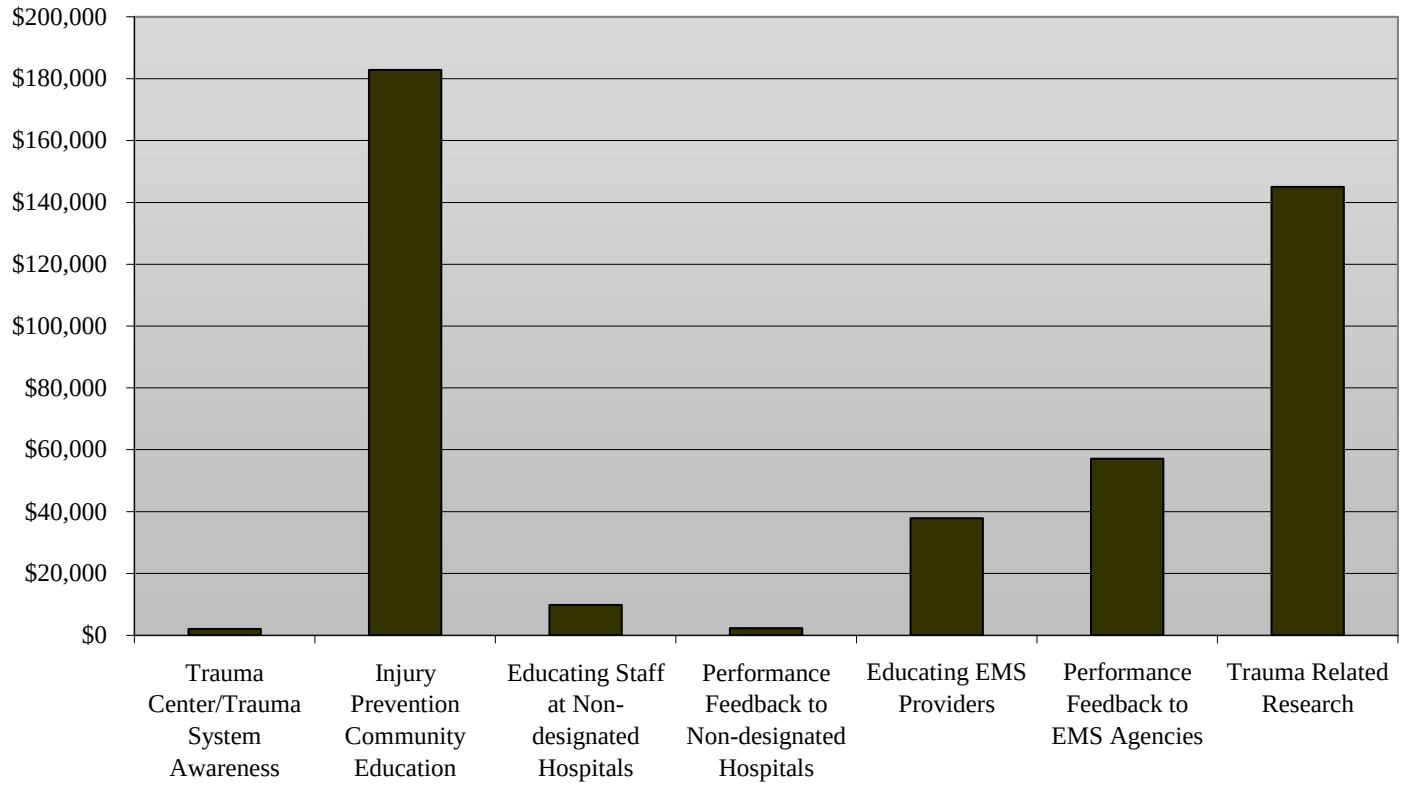


Other non-clinical components of a trauma program include a strong performance improvement program and community and professional outreach. The presence of a performance improvement program is critical to the existence of the trauma center. While every hospital participates in performance improvement, not every performance improvement program addresses the needs of a trauma service. The performance improvement program is specifically oriented to trauma patients; one that covers multidisciplinary issues as well as all phases of trauma care from pre-hospital care to rehabilitation. The medical director(s) and trauma nurse coordinator(s) must have oversight for the program.

Because trauma centers are part of an overall statewide trauma system, criteria exist that require centers to provide information, feedback, and education to the general public, hospitals, and emergency medical service (EMS) agencies within their catchment area. This process ensures the continuous quality improvement of care being provided to trauma patients through the Commonwealth. Figure 5 shows how Trauma Center Funds supported this process.

Figure 5

Research/Community Education/Professional Outreach Supported by the Trauma Fund - FY08



Feasible Long Term Financing Mechanisms, Examine, and Identify Potential Funding Sources for Virginia's Trauma Centers: Currently the only dedicated funding to Virginia's Trauma System is the Trauma Center Fund. Trauma System advocates and stakeholders continue to attempt to bring attention to the financial needs of trauma centers and state trauma systems. National organization such as the American College of Surgeons, the Coalition for Trauma Care and others continue to demonstrate the need for a national level trauma program to support state trauma systems and for higher reimbursement rates to be set for trauma specific health care, but have been unsuccessful with their attempts each year.

The Coalition for American Trauma Care, which is underwritten by many prestigious organizations such as the American College of Emergency Physicians, the American College of Surgeons, the American Association for Neurological Surgeons, the Society of Trauma Nurses and more, has been a strong advocate for trauma care on the federal level.

Through the Coalition, these organizations have called on federal decision makers to restore funding for the Health Resources and Services Administration (HRSA) Trauma-EMS program. HRSA's Trauma-EMS program, which lost its funding two years ago, served as a vital key to the development of state trauma systems. Without this program being restored, state trauma programs will remain fragmented on a regional and national level.

The Coalition for American Trauma Care has also advocated for maintaining federal support for programs such as the Hospital Preparedness Grants provided by the Office of Emergency Preparedness and Response, the Centers for Disease Control and Prevention's National Center for Injury Prevention and Control, and finally HRSA's Traumatic Brain Injury grant. These federal programs have a direct impact on Virginia's trauma centers and have all had their funding decreased or eliminated.

Other trauma system related federal programs that saw their funding eliminated in FY06 were the EMS portion of the Preventive Health and Health Services (PHHS) Block Grant and the Rural EMS Training and Equipment program (Rural EMS TEAP). The PHHS supported an infrastructure for EMS systems and the Rural EMS TEAP supported EMS systems in rural areas to meet the challenges unique to those areas with staffing, education, and by providing equipment that may not other wise be able to be purchased. Both of these programs were key programs that supported our trauma system because EMS is the front line to accessing a trauma center.

Several trauma specific organizations have sought to work towards convincing policy makers to consider adjusting Medicare and Medicaid reimbursement rates to better compensate hospitals and physicians for treating traumatic injuries. These efforts unfortunately had to be placed on hold when greater and more global cuts to Medicare reimbursement rates of 10.6 percent were being proposed during the last federal budget. The readiness costs associated with patients being treated for life threatening injuries does not take into account the costs associated with always being prepared to care for these injuries.