

ALASKA STATE HOUSE OF REPRESENTATIVES

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**Session**

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State Capitol
Room 214

REPRESENTATIVE JOHN COGHILL

HB 168 Certification and Designation of Trauma Centers

Sponsor Statement

Trauma injuries can within moments take a person from perfect health to a critical life threatening condition. Trauma is any bodily injury from an external force including car crashes, shootings, falls, snow machine crashes, and stabbings. There is a "golden hour" after the injury during which proper treatment and appropriate interventions will potentially save a trauma patient's life and prevent further damage to the injured person.

Trauma is the leading cause of death for Alaskans between the age of one and forty-four and more than 800 Alaskans are hospitalized each year for spinal cord and brain injuries.

A trauma system is an organized multidisciplinary response to managing treatment of severely injured people and it spans the full spectrum from prevention and emergency care to recovery and rehabilitation. A trauma system enhances the chance of survival by making sure patients are brought to the most appropriate facility in the most efficient manner and that optimal care is delivered every step of the way.

Texas, Oklahoma, California, Alabama, Washington and Mississippi have implemented programs to address uncompensated trauma services. This legislation would recreate a trauma care fund which could reimburse trauma centers for uncompensated or undercompensated services. The bill would create an incentive for becoming a certified trauma center but does not force facilities to become certified trauma centers.

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REPRESENTATIVE JOHN COGHILL

Designate Trauma Centers and the Uncompensated Trauma Care Fund

Sectional

Section 1. AS 18.08.082 currently prescribes by regulation criteria for training programs and for personnel involved in emergency medical services. This section adds a requirement for the commissioner of Health and Social Services establish special designations for varying levels of services offered by a certified trauma center.

Section 2. Establishes a trauma care fund to be used to compensate certified trauma centers for uncompensated trauma care. The fund can accept money appropriated by the legislature, which can include donations, income from the fund, and of the other designated receipts. The commissioner is given authority to establish a special committee for review of the program and limits are set on the distribution of the funds.

Section 3. The bill has an immediate effective date.

HOUSE BILL NO. 168

IN THE LEGISLATURE OF THE STATE OF ALASKA

TWENTY-SIXTH LEGISLATURE - FIRST SESSION

BY REPRESENTATIVE COGHILL

Introduced: 3/9/09

Referred: Health and Social Services, Finance

A BILL

FOR AN ACT ENTITLED

1 **"An Act relating to state certification and designation of trauma centers; creating the**
2 **uncompensated trauma care fund to offset uncompensated trauma care provided at**
3 **certified and designated trauma centers; and providing for an effective date."**

4 **BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:**

5 * **Section 1.** AS 18.08.082 is amended by adding a new subsection to read:

6 (c) The commissioner shall establish special designations in regulation for
7 varying levels of trauma care provided by a certified trauma center that shall be used
8 to set compensation eligibility and amounts under AS 18.08.085. The designations
9 shall be based on nationally recognized standards and procedures.

10 * **Sec. 2.** AS 18.08 is amended by adding a new section to read:

11 **Sec. 18.08.085. Uncompensated trauma care fund; creation.** (a) The
12 uncompensated trauma care fund is created. The purpose of the fund is to compensate
13 certified trauma centers in the state that receive a special designation under
14 AS 18.08.082(c) for care uncompensated by the person receiving the care or by any

1 other source.

2 (b) The fund consists of money appropriated to it by the legislature, including
3 donations, recoveries of or reimbursements for awards made from the fund, income
4 from the fund, and other program receipts from activities under this chapter.
5 Appropriations to the fund do not lapse.

6 (c) The commissioner shall administer the fund in accordance with the
7 provisions of this chapter. The commissioner shall spend money from the
8 uncompensated trauma care fund for the purpose established in (a) of this section. The
9 commissioner may establish and seek the advice of a special committee for review of
10 statewide trauma care and compensation standards.

11 (d) The commissioner may not provide more than 25 percent of the total
12 assets, including earnings, of the fund in a fiscal year to one trauma center.

13 * **Sec. 3.** This Act takes effect immediately under AS 01.10.070(c).

FISCAL NOTE

STATE OF ALASKA
2009 LEGISLATIVE SESSION

Fiscal Note Number: _____
Bill Version: HB 168
() Publish Date: _____

Identifier (file name): HB168-DHSS-IPEMS-04-07-09 Dept. Affected: Health and Social Services
Title Trauma Care Centers/Fund RDU Public Health
Sponsor HSS by Request Component Injury Prevention/Emergency Medical Services
Requester House HSS Component Number 2876

Expenditures/Revenues (Thousands of Dollars)

Note: Amounts do not include inflation unless otherwise noted below.

	Appropriation Required	Information					
OPERATING EXPENDITURES	FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Personal Services							
Travel							
Contractual							
Supplies							
Equipment							
Land & Structures							
Grants & Claims							
Miscellaneous							
TOTAL OPERATING	0.0	0.0	0.0	0.0	0.0	0.0	0.0

CAPITAL EXPENDITURES								
----------------------	--	--	--	--	--	--	--	--

CHANGE IN REVENUES (
----------------------	--	--	--	--	--	--	--	--

FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts								
1003 GF Match								
1004 GF								
1005 GF/Program Receipts								
1037 GF/Mental Health								
Other Interagency Receipts								
TOTAL		0.0	0.0	0.0	0.0	0.0	0.0	0.0

Estimate of any current year (FY2009) cost: _____

POSITIONS

Full-time								
Part-time								
Temporary								

ANALYSIS: (Attach a separate page if necessary)

HB 168 establishes a mechanism to provide a financial incentive for hospitals to become designated as certified trauma centers in order to encourage their participation in a statewide trauma system, with the goal of improving delivery of trauma care in the Alaska medical system. This bill establishes a fund for reimbursement of trauma care for uninsured or underinsured patients, and allows designated trauma centers to apply for compensation of claims that are otherwise uncompensated by insurance or other funds.

The Department proposes to manage this fund using existing staff resources.

Prepared by: Beverly Wooley, Director Phone 465-3092
Division Public Health Date/Time 4/7/09 12:00 AM
Approved by: Alison Elgee, Assistant Commissioner Date 4/7/2009
DHSS Finance & Management Services

Bill History/Action for 26th Legislature**BILL:** HB 168**SHORT TITLE:** TRAUMA CARE CENTERS/FUND**BILL VERSION:****CURRENT STATUS:** (H) HSS**STATUS DATE:** 03/09/09

THEN FIN

SPONSOR(s): REPRESENTATIVE(s) COGHILL

TITLE: "An Act relating to state certification and designation of trauma centers; creating the uncompensated trauma care fund to offset uncompensated trauma care provided at certified and designated trauma centers; and providing for an effective date."

Bill Number: [Search Bills](#) [Next Bill](#)[Full Text](#)[Sponsor Statement](#)[Display Committee Action with Bill History](#)

Jm-Date	Jm-Page	Action
03/09/09	0409	(H) READ THE FIRST TIME - REFERRALS
03/09/09	0409	(H) HSS, FIN
03/09/09	0409	(H) REFERRED TO HEALTH & SOCIAL SERVICES

Similar Subject Match or Exact Subject Match

FUNDSHEALTH & SOCIAL SERVICESHOSPITALSLICENSINGMEDICAL CARE**Bill Number:** [Display Bill](#)[Next Bill](#)[Return to Basis Main Menu \(26th Legislature\)](#)

HOUSE BILL NO. 169

IN THE LEGISLATURE OF THE STATE OF ALASKA

TWENTY-SIXTH LEGISLATURE - FIRST SESSION

BY REPRESENTATIVE COGHILL

Introduced: 3/9/09

Referred: Finance

Funding Information:	General Fund	\$	5,000,000
	Other Funds		-0-
	Total	\$	5,000,000

A BILL**FOR AN ACT ENTITLED**

1 **"An Act appropriating \$5,000,000 to the uncompensated trauma care fund; and**
 2 **providing for an effective date."**

3 **BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:**

4 * **Section 1.** The sum of \$5,000,000 is appropriated from the general fund to the
 5 uncompensated trauma care fund (AS 18.08.085) to capitalize the fund.

6 * **Sec. 2.** The appropriation made by sec. 1 of this Act is for the capitalization of a fund and
 7 does not lapse.

8 * **Sec. 3.** **CONDITIONAL EFFECT.** The appropriation made by sec. 1 of this Act takes
 9 effect only if an Act enacted by the Twenty-Sixth Alaska State Legislature establishing the
 10 uncompensated trauma care fund becomes law.

11 * **Sec. 4.** If this Act takes effect under sec. 3 of this Act, it takes effect July 1, 2009.

Bill History/Action for 26th Legislature

BILL: HB 169

SHORT TITLE: APPROP: TRAUMA CARE FUND

BILL VERSION:

CURRENT STATUS: (H) FIN

STATUS DATE: 03/09/09

SPONSOR(s): REPRESENTATIVE(s) COGHILL

TITLE: "An Act appropriating \$5,000,000 to the uncompensated trauma care fund; and providing for an effective date."

Bill Number:	<input type="text"/>	Search Bills	Next Bill
Full Text			
Sponsor Statement			
Display Committee Action with Bill History			

Jrn-Date	Jrn-Page	Action
03/09/09	0409	(H) READ THE FIRST TIME - REFERRALS
03/09/09	0409	(H) FIN
03/09/09	0409	(H) REFERRED TO FINANCE

[Similar Subject Match](#) or [Exact Subject Match](#)[APPROPRIATIONS](#)[FUNDS](#)[HEALTH & SOCIAL SERVICES](#)[MEDICAL CARE](#)[SPECIAL APPROPRIATIONS](#)[STATE AID](#)

Bill Number:	<input type="text"/>	Display Bill
Next Bill		

[Return to Basis Main Menu \(26th Legislature\)](#)

Alaska Brain Injury Network			
Alaska Scorecard and TBI Dashboard – (DRAFT)			
DRAFT #1 – May 22, 2008			
<input type="radio"/> Getting worse <input checked="" type="radio"/> Not changing <input checked="" type="radio"/> Improving			
	5-year Trend	Current Data	Source
SCORECARD: A “scorecard” provides a snapshot of the status of TBI issues in the State of Alaska			
Traumatic Brain Injury Non-fatal Incidence Rates			
TBI rate per 100,000	<input checked="" type="radio"/>	98.6	1
Causes			
Falls	<input type="radio"/>	28.7	1
Motor Vehicle Transportation Occupant	<input checked="" type="radio"/>	24.7	1
Assault	<input checked="" type="radio"/>	12.2	1
ATV	<input type="radio"/>	6.5	1
Bicycle	<input checked="" type="radio"/>	4.5	1
Snowmachine	<input checked="" type="radio"/>	4.4	1
Pedestrian	<input checked="" type="radio"/>	3.6	1
Sports	<input checked="" type="radio"/>	1.8	1
Water Transport	<input checked="" type="radio"/>	1.3	1
Suicide Attempt	<input checked="" type="radio"/>	.8	1
Gender			
TBI percentage among males		65.4 %	1
TBI percentage among females	<input checked="" type="radio"/>	33.2 %	1
Ethnicity			
Percentage of TBI population that is Alaska Native		34%	1.a
Percentage of TBI population that is White		53%	1.a
Percentage of TBI population that is Other; unknown, Pacific Islander, Hispanic, Black, American Indian, Asian		22%	1.a
Those at highest risk for hospitalization due to TBI (rate per 100,000)			
Males age 80+		301.3	1
Females age 80+		217.2	1
Males age 70-79		215.7	1
Males age 15-19		200.9	1
Traumatic Brain Injury Numbers			
TBI hospitalizations/year		640	1.b
TBI deaths/year		150	1.b
Est. TBI-related Emergency Department Visits		2953	2

- 1 Alaska Trauma Registry 2001-2005 – Non-fatal TBI hospitalizations
- 1.a Alaska Trauma Registry 1996-2005 – Non-fatal TBI hospitalizations
- 1.b Alaska Trauma Registry 2006 – Non-fatal TBI hospitalizations
- 2 HRSA TBI Implementation Grant

Alaska Trauma Registry records those who are hospitalized for more than 24 hours. This does not include the number of people who visit the emergency department and are sent home in the same day. This does not include the number of returning service members with traumatic brain injury.

DASHBOARD: A "dashboard" provides a way to see how well an activity is working to affect the TBI population

○ Getting worse

↔ Not changing

○ Improving

Dashboard: Behavioral Health

TBI and Mental Health	Spot look trend	Current Data	Source
Percentage BH clients screening positive for TBI	↔	32%	3
TBI and Substance Use			
Alcohol-related TBI 100,000		33%	1
TBI and Suicide			
Percentage of suicide victims with history of TBI		32%	4

Dashboard: Education

Special Education			
Number of children in Special Education statewide with TBI diagnosis (2007)	↔	66	5

Dashboard: Justice

Corrections			
Percent of incarcerated Alaskans (adults) who are Trust beneficiaries, including those with cognitive disabilities		42%	6

Dashboard: Employment

Vocational Rehabilitation

Number of TBI cases		167	7
Number of TBI cases closed employed		17	7
Number of TBI cases closed with plan for employment		11	7
Average wage at closure		\$12.54	7

Dashboard: Providence

ImPACT Program

Number of baselines (ImPACT)		57	8
Number of student/athletes seen in program (ImPACT)		25	8

Emergency Department

Patients given the diagnosis of "head injury" or "concussion in Emergency Department in 2006		547	8
% of TBI-related ED visits that led to hospitalizations		1%	8
% of ED visits that are Pediatric		15%	8

Dashboard: Alaska Brain Injury Network

TBI Advisory Board

Est. Board Member Volunteer hours/year	⬆	1054	9
Board Member Participation in Quarterly Board Meetings		83%	9
Ex-officio participation in quarterly board meetings		65-80%	9
% of survivors/family members on TBI board		55%	9
% Board Members who give a financial contribution		100%	9

TBI Resource Navigation

Average new consumer contacts per month	⬆	30	9
Average unique visitors/month to ABIN website	⬆	750	9
Number of people on Alaska Brain Matters Listserve	⬆	100+	9

3 AKAIMS

4 Suicide Follow-back Study

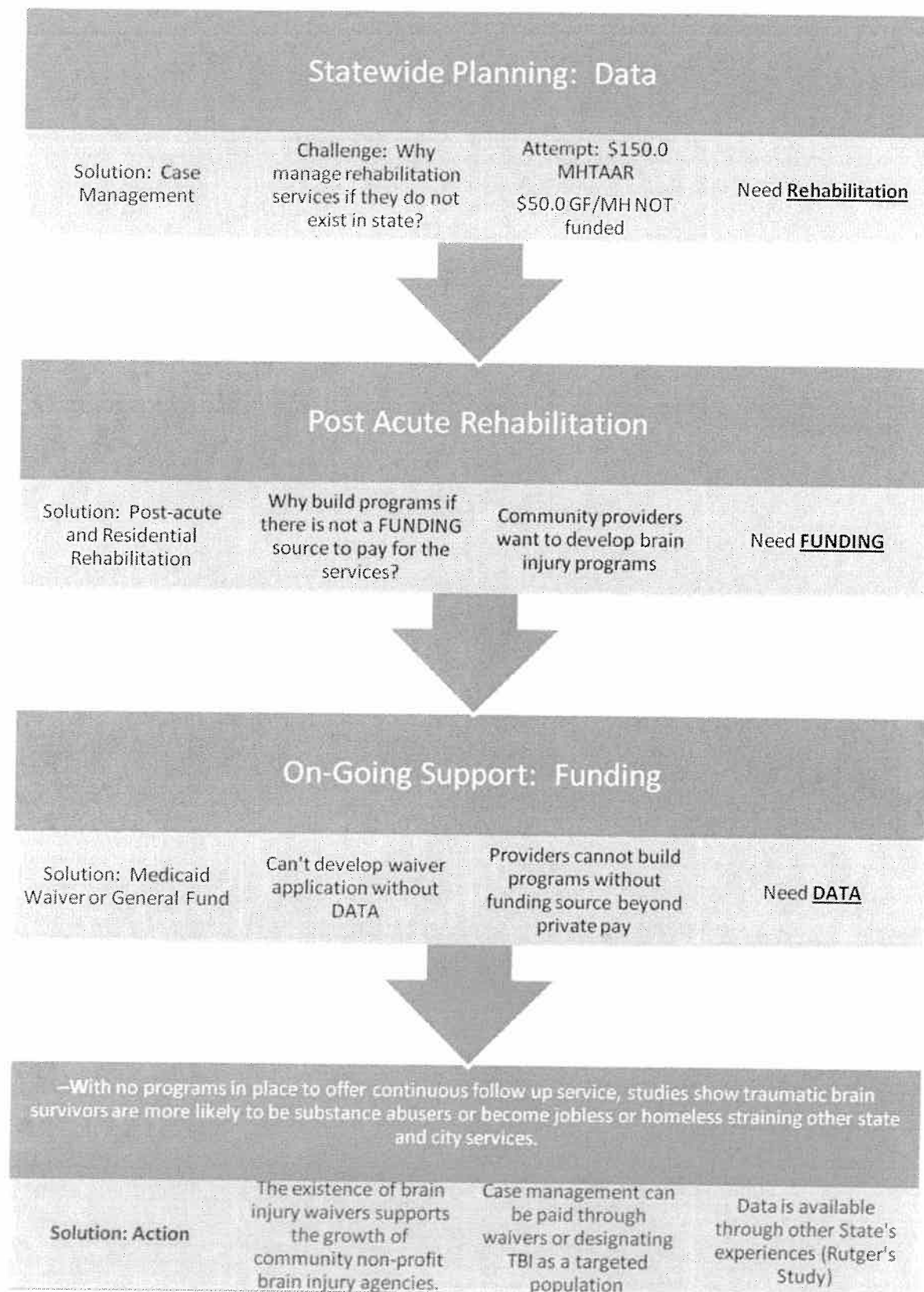
5 <http://www.eed.state.ak.us/stats/>

6 Trust/DOC Study 07

7 Division of Vocational Rehabilitation (FY07)

8 Providence Neuroservices

9 Alaska Brain Injury Network





Every 15 seconds someone sustains a traumatic brain injury (TBI) in the U.S.

Thirty years ago, only half of all people with brain injury survived; now 78% survive. This means that many individuals now live with significant disability requiring a full range of services.

Every year the Alaska Department of Health & Social Services reports about 800 traumatic brain injury (TBI) cases resulting in hospitalization or fatality. The Alaska TBI rate is 28% higher than the national average. The TBI rate in rural Alaska is one of the highest in the nation.

It is estimated that at least 10,000 Alaskans are living with brain injury today.

The Alaska Brain Injury Network, Inc.

(ABIN) is a non-profit organization dedicated to Alaskans whose lives have been changed by brain injury.

ABIN's Board of Directors represent all regions of Alaska and the extended brain injury community – survivors, family members, service providers, health educators, researchers and those who write laws and policy.

ABIN works with their Alaska Mental Health Trust Authority partner boards to advocate for policy changes, programs, and facilities to better serve the brain injury population.

ABIN's staff focuses on early identification, connecting brain injury survivors with services, providing support and education for families, and bringing professional training to Alaska.

The goal for every brain injury survivor is the best possible recovery for a fulfilling and productive life. Achieving that goal requires full range of services close to home. This includes...

- Prevention
- Early identification and intervention
- Access to skilled specialists
- Community-based post injury services
- Continuing rehabilitation
- Brain injury support groups and in-state resources

What you can do...

- **Be aware of the burden of brain injury nationally and to the state of Alaska**
- **Support a TBI Resolution for Brain Injury Awareness Month.**
- **Become familiar with ABIN Priorities in the GF/MH Budget; Prevention, Training, and Resource Navigation**

Upcoming ABIN Priorities

In-state rehab facility – for neurobehavioral beneficiaries.

Brain Injury Waiver - recommendations for the current Medicaid waiver system to accommodate the services needed by brain injury survivors: neuropsychological assessment, cognitive and functional therapy, case management, counseling, home modifications, transportation, respite care, and more.

TBI Screening and early intervention – promotes better recovery and saves money.



www.alaskabraininjury.net
3745 Community Park Loop, Ste 240
Anchorage, AK 99508
(907) 274-2824

Alaska Brain Injury Network, Inc. helps identify, develop, implement, and sustain needed programs and resources that promote prevention and expand treatment and service delivery to Alaskans who experience TBI and their families.

ALASKA COUNCIL ON EMERGENCY MEDICAL SERVICES

ACEMS
P.O. Box 110616
Juneau, AK 99811-0616
(907) 465-3027



April 9, 2009

Representative Coghill
Juneau, Alaska

Representative Coghill,

Trauma is any bodily injury from an external force. Trauma puts a tremendous burden on families and communities in Alaska. An average of 400 Alaskans die each year from trauma. For every death, 11 people are hospitalized. One in four hospital admissions is uncompensated which puts an additional burden on the State's health care system. HB 168 is offered to assist in this dilemma.

House Bill 168 provides the DHSS Commissioner authority to establish special designations in regulation for varying levels of trauma care so that a 'Certified Trauma Center' would be eligible to recoup expenses as a result of uncompensated care being rendered. The purpose of the fund is to reimburse certified trauma centers in the state for care uncompensated by the person receiving the treatment or by any other source. HB 169 would then set up the uncompensated trauma care fund that would help cover some of the losses suffered by the trauma center rendering the care.

The Alaska Council on EMS seeks your support for a fully functioning trauma system, including funding for the development of trauma centers and legislation addressing the issue of incentives for trauma center designation and uncompensated care of trauma patients. The added benefit of HB 168, we believe, would be an incentive for more hospitals in the state to become 'Certified Trauma Centers' thereby assisting in the development in a state wide trauma care system.

The American College of Surgeons met 11/08 in Anchorage to assess the States trauma system. The passage of HB 168 & 169 would provide support to address some of the areas that were noted in the report.

Thank you for your support of this critical issue.

David Hull, Chair
Alaska Council on Emergency Medical Services

cc Bill Hogan, DHSS Commissioner
Dr. Jay Butler, Chief Medical Officer
Tim Bundy, Section Chief IPEMS



**Alaska Native
Tribal Health Consortium**

Administration · 4000 Ambassador Drive · Anchorage, Alaska 99508 · Phone: (907) 729-1900 · Fax: (907) 729-1901 · www.anthc.org

POSITION PAPER

CONTACT: Valerie Davidson, Senior Director
Legal and Intergovernmental Affairs
Through Pat Jackson, State Liaison for Alaska Native Health
523-0363 – pajackson@anthc.org
DATE: April 8, 2009

RE: HB 168 – State certification and designation of trauma centers and creating the
uncompensated trauma care fund
HB 169 – Appropriating \$5,000,000 to the uncompensated trauma care fund

POSITION: Support

ANTHC supports HB 168 and HB 169 as important steps in increasing the trauma care capacity in the state.

The Alaska Native Tribal Health Consortium (ANTHC) is a tribally controlled, non-profit statewide tribal health organization formed pursuant to federal law to provide a range of medical and community health services for more than 130,000 Alaska Natives. It is part of the Alaska Tribal Health System (ATHS), which is owned and managed by the 231 federally-recognized tribes in Alaska and by their respective regional health organizations.

ANTHC and Southcentral Foundation jointly manage the Alaska Native Medical Center (ANMC), the tertiary hospital of the ATHS located in Anchorage. ANMC is the only Level II Trauma Center in the Indian Health Service/tribal health system nationally. ANMC is also the only Level II Trauma Center in Alaska. The nearest Level I Trauma Center is in Seattle.

Trauma system development is a public health priority. A comprehensive system of trauma care is an essential part of the public safety net. Regionalized trauma systems based on a network of coordinated Trauma Centers designated at the appropriate level improves health outcomes and reduces costs. ANMC, as the highest level designated Trauma Center in the State of Alaska, is the lynchpin for the state's trauma system, and provides the foundation for continued statewide system development.

Trauma Center designations were created as a way to improve outcomes for patients who face extraordinary medical issues. On balance, early and appropriate medical attention to life-threatening health issues reduces overall length of stay in the hospital and reduced complications for many patients. Without trauma care, the costs of health care for trauma patients will be greater, including trauma patients who are Medicaid eligible.

The cost of providing trauma care at ANMC has more than doubled over the past four years and funding has not kept pace. ANMC's Trauma Center simply cannot be maintained at current revenue levels. If ANMC's Trauma Center designation is discontinued because funding levels have rendered the service unsustainable, the hospital faces reductions in staffing. Diversions of patients to non-tribal providers would increase, and because the federal government reimburses 100% of the cost of services provided for Native clients at Native facilities but a smaller percentage at non-tribal providers, there would be an increased cost to the state's general fund budget.

ANTHC supports HB 168 and HB 169 as important steps by the State to encourage and support appropriate trauma care options for Alaskans. Because we are Alaska's only Level II Trauma Center we recommend removing the language in section (d) on Page 2, Line 11, that limits appropriations to any one facility to 25%.

Thank you for your consideration.



**Trauma System Consultation
State of Alaska
Anchorage, Alaska**

**November 2nd-5th, 2008
American College of Surgeons
Committee on Trauma**

A multidisciplinary working group prepared this document based on the consultation visit that took place on November 2nd-5th, 2008 in Anchorage, Alaska and included the following members:

Team Leader:

*Reginald Arthur Burton, MD FACS
Chief, Trauma and Surgical Critical Care
BryanLGH Medical Center
Chief, Region VII, ACSCOT
Lincoln, NE*

Team:

*Jane Ball, RN, DrPH
Technical Advisor TSC
American College of Surgeons
Director, National Resource Center (EMS-C & Trauma) – Retired
Washington, DC*

*Samir M. Fakhry, MD FACS
Chief, Trauma and Surgical Critical Care Services
Associate Chair for Research and Education
Inova Fairfax Hospital
Falls Church, VA*

*Drexdal Pratt, CEM
Chief
NC Office of Emergency Medical Services
Raleigh, NC*

*Nels D. Sanddal, MS, REMT-B
Technical Advisor TSC
President, Critical Illness and Trauma Foundation
Bozeman, MT*

*James D. Upchurch, MD
Billings Area, IHS, EMS Medical Director
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*Jolene R. Whitney, MPA
Deputy Director
Emergency Medical Services and Preparedness
Utah Department of Health
Salt Lake City, UT*

ACS Staff:

*Holly Michaels
Program Coordinator
Trauma Systems Consultation
American College of Surgeons*

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Executive Summary

American College of Surgeons Trauma System Consultation Visit Alaska Department of Health and Social Services November 2nd-5th, 2008

The American College of Surgeons, Trauma Systems Evaluation and Planning Committee (TSEPC) is honored to have been invited to the largest state in the nation and to have listened as the state's impassioned health care providers and public servants discussed their success and remaining challenges. We are pleased to provide this report and to encourage you to implement the key recommendations to improve the system of trauma care for all Alaskans and visitors, regardless of where that injury may occur.

It is clear that Alaska recognizes the significance of its injury problem as witnessed both by epidemiological descriptions of fatal and non-fatal injury and by the extensive focus on injury prevention programs across the state. Alaska's current trauma system is a testament to the adage that "necessity is the mother of invention". Clearly the "Last Frontier" is challenged with issues of geography, remoteness, inclement weather and limited health care resources. State and regional leaders, along with a wide ranging cadre of health care providers are to be congratulated for their efforts to achieve the trauma system mantra of "getting the right patient to the right place in the right amount of time". Whether this has involved training a hunting buddy to be an Emergency Trauma Technician, or a local aviation service has figured out how to carry a litter in a small aircraft, or a rural Critical Access Hospital has strived to become certified or designated as a Level IV trauma center, clear progress has been demonstrated toward the betterment of trauma care in Alaska.

The achievements to date have largely been unplanned with limited coordination. As a result, incongruity exists within the current trauma system. Several Alaska Native facilities have sought and achieved verification/designation as trauma centers. These facilities are to be commended for their dedication and commitment to trauma care and the trauma system. To date, few of the facilities serving the majority population have made a similar commitment to achieving nationally recognized standards of trauma care.

The current leadership of the Alaska Department of Health and Social Services recently made a commitment to trauma system development by making this a priority project in the 2009 work plan. This represents an opportunity to begin the process to coordinate, systematize and institutionalize these efforts so that, regardless of where someone is injured in Alaska or what their racial and ethnic heritage might be, all have equal access to optimal trauma care. Alaska must make a commitment of resources, both fiscal and human, to achieve the recommendations outlined in this document. The consultation team encourages the state to retain the opportunity for system ingenuity when addressing the challenges that Alaska's geography and environment impose when increasing the standardization of trauma system processes.

Advantages and Assets of the Alaska Trauma System

- The lead agency for trauma is identified. Statute designates the Alaska Council on EMS (ACEMS) as an advisory group with responsibility for trauma.
- The state has very committed individuals who use their time and expertise every day to serve Alaska citizens.
- The state has extensive and creative networks for transport.
- Three large medical centers with extensive subspecialty expertise exist within the state.
- A large Level I trauma center in Seattle freely accepts adult and pediatric trauma patients.
- One medical center maintains ACS Level II verification standards and other facilities have obtained consultation and are working toward verification.
- All 24 acute care hospitals provide data to the Alaska trauma registry.
- Injury prevention activities are well established.
- The EMS Goals document categorizes communities by size and remoteness and identifies the resources that should be available for health care and trauma care.
- The state created the Emergency Trauma Technician program to prepare community members to provide initial trauma care.

- Initial efforts have been made to obtain legislative change.

Challenges and Vulnerabilities of the Alaska Trauma System

- The state has many challenges due to geography, weather, and remote and isolated communities.
- No trauma system strategic plan has been developed.
- No standards exist for scene trauma triage or trauma inter-facility transfers.
- Trauma system issues receive limited attention by the Alaska Council on EMS, and thus little visibility within the Department of Health and Social Services.
- The general public is not aware of trauma system issues.
- The state has limited human resources for the provision of trauma care. The lead agency also has limited human resources for trauma system management.
- The ACEMS has no formal trauma representatives.
- There are two healthcare systems for trauma care, one for Native Alaskans and one for other Alaskans.
- Few incentives exist for hospitals to participate in the trauma system.
- No statewide evaluation of system performance is conducted.
- The trauma registry data are not current.

Priority Recommendations Summary

This report contains more than seventy recommendations. Of these, the TSEPC team felt that the following were the most critical to the system's short and long-term success.

Statutory Authority and Administrative Rules

- **Enact legislation to expand the membership of the ACEMS to represent the trauma system and to include the following members appointed as follows:**
 - **One member, appointed by the Governor, shall represent the Alaska Chapter of the American College of Surgeons Committee on Trauma.**
 - **One member, appointed by the Governor, shall be a general surgeon who routinely participates in the care of injured patients.**
 - **One member, appointed by the Governor, shall represent the Alaska Chapter of the American Academy of Pediatrics.**
 - **One member, appointed by the Alaska Legislature, upon the recommendation of the Speaker of the House of Representatives.**
 - **One member, appointed by the Alaska Legislature, upon the recommendation of the President of the Senate.**
- **Require participation of all acute care hospitals in the trauma system within a 2 year time frame.**
 - **Facilities should seek trauma center designation at a level appropriate for their capabilities.**
 - **Other facilities, such as remote health care clinics, should participate with rapid patient assessment and stabilization and by following guidelines for trauma triage and transfer.**

System Leadership

- **Form an Alaska Technical Advisory Committee (ATAC) and task it with providing the Alaska Council on Emergency Medical Services (ACEMS) with recommendations regarding the following functions: data systems, trauma system planning, system-wide performance improvement and patient safety, trauma education (Advanced Trauma Life Support [ATLS], Trauma Nurse Core Curriculum [TNCC], Prehospital Trauma Life Support [PHTLS], etc), trauma center review and certification, injury prevention and control, public policy, and research.**

Coalition Building and Community Support

- **Develop and disseminate public information about the challenges in providing trauma care and the status of the trauma system in the state for Alaskans.**

Lead Agency and Human Resources Within the Lead Agency

Develop an appropriate position classification and duty statement for a 1.0 full time equivalent (FTE), permanent trauma system manager that specifies education as a health professional, experience in trauma or emergency health care, and the administrative skills and clinical understanding necessary to support trauma system development.

Trauma System Plan

- **Develop a comprehensive trauma system strategic plan consistent with the Health Resources and Services Administration (HRSA) *Model Trauma System Planning and Evaluation* document.**

System Integration

- **Ensure that the Injury Prevention and Emergency Medical Services (IPEMS) Section is engaged in planning with disaster preparedness, emergency management, and public health functions for integration of the trauma system.**

Financing

- **Provide state funding to hire a fulltime trauma system manager.**

Emergency Medical Services

- **Develop a central coordination center for statewide air medical resources that will maintain an updated registry of all medical aircraft to include medical services and flight characteristics (e.g., load capacity, instrument rating, landing requirements, etc); and to monitor the availability and location of air resources in near real-time.**

Definitive Care Facilities

- **Establish, as soon as practical, a second Level II Trauma Center in Anchorage in accordance with American College of Surgeons Committee on Trauma (ACS-COT) verification criteria to meet the existing volume and acuity demands.**
- **Mandate participation of all acute care hospitals in the trauma system within a 2 year time frame with trauma center certification/designation appropriate to their capabilities.**
- **Study pediatric trauma care needs with the goal of establishing one or more centers of excellence in pediatric trauma care.**

System Coordination and Patient Flow

- **Implement standardized prehospital triage and trauma activation protocols customized to the three response areas (Anchorage, Southeast, and the bush).**

Disaster Preparedness

- **Integrate all components of the trauma system into state and local disaster planning activities.**

System-wide Evaluation and Quality Assurance

- **Develop an initial set of 3-5 statewide system performance indicators from among the list of nine provided in the Pre-Review Questionnaire.**

Trauma Management Information Systems

- **Ensure that all elements considered essential to system development, evaluation and performance improvement in the State of Alaska are included and functional in the new trauma registry and are consistent with the National Trauma Data Standard definitions.**

Trauma System Assessment

Injury Epidemiology

Purpose and Rationale

Injury epidemiology is concerned with the evaluation of the frequency, rates, and pattern of injury events in a population. Injury pattern refers to the occurrence of injury-related events by time, place, and personal characteristics (for example, demographic factors such as age, race, and sex) and behavior and environmental exposures, and, thus, it provides a relatively simple form of risk-factor assessment.

The descriptive epidemiology of injury among the whole jurisdictional population (geographic area served) within a trauma system should be studied and reported. Injury epidemiology provides the data for public health action and becomes an important link between injury prevention and control and trauma system design and development. Within the trauma system, injury epidemiology has an integral role in describing the root causes of injury and identifying patterns of injury so that public health policy and programs can be implemented. Knowledge of a region's injury epidemiology enables the identification of priorities for directing better allocation of resources, the nature and distribution of injury prevention activities, financing of the system, and health policy initiatives.

The epidemiology of injury is obtained by analyzing data from multiple sources. These sources might include vital statistics, hospital administrative discharge databases, and data from emergency medical services (EMS), emergency departments (EDs), and trauma registries. Motor-vehicle crash data might also prove useful, as would data from the criminal justice system focusing on interpersonal conflict. It is important to assess the burden of injury across specific population groups (for example, children, elderly people and ethnic groups) to ensure that specific needs or risk factors are identified. It is critical to assess rates of injury appropriately and, thus, to identify the appropriate denominator (for example, admissions per 100,000 population). Without such a measure, it becomes difficult to provide valid comparisons across geographic regions and over time.

To establish injury policy and develop an injury prevention and control plan, the trauma system, in conjunction with the state or regional epidemiologist, should complete a risk assessment and gap analysis using all available data. These data allow for an assessment of the "injury health" of the population (community, state, or region) and will allow for the assessment of whether injury prevention programs are available, accessible, effective, and efficient.

An ongoing part of injury epidemiology is public health surveillance. In the case of injury surveillance, the trauma system provides routine and systematic data collection and, along with its partners in public health, uses the data to complete injury analysis, interpretation, and dissemination of the injury information. Public health officials and trauma leaders should use injury surveillance data to describe and monitor injury events and emerging injury trends in their jurisdictions; to identify emerging threats that will call for a reassessment of priorities and/or reallocation of resources; and to assist in the planning, implementation, and evaluation of public health interventions and programs.

OPTIMAL ELEMENTS

I. There is a thorough description of the epidemiology of injury in the system jurisdiction using population-based data and clinical databases. **(B-101)**

- a. There is a through description of the epidemiology of injury mortality in the system jurisdiction using population-based data. **(I-101.1)**
- b. There is a description of injuries within the trauma system jurisdiction, including the distribution by geographic area, high-risk populations (pediatric, elderly, distinct cultural/ethnic, rural, and others), incidence, prevalence, mechanism, manner, intent, mortality, contributing factors, determinants, morbidity, injury severity (including death), and patient distribution using any or all the following: vital statistics, ED data, EMS data, hospital discharge data, state police data (data from law enforcement agencies), medical examiner data, trauma registry, and other data sources. The description is updated at regular intervals. **(I-101.2)**
Note: Injury severity should be determined through the consistent and system-wide application of one of the existing injury scoring methods, for example, Injury Severity Score (ISS).
- c. There is comparison of injury mortality using local, regional, statewide, and national data. **(I-101.3)**
- d. Collaboration exists among EMS, public health officials, and trauma system leaders to complete injury risk assessments. **(I-101.4)**
- e. The trauma system works with EMS and public health agencies to identify special at-risk populations. **(I-101.7)**

II. Collected data are used to evaluate system performance and to develop public policy. **(B-205)**

- a. Injury prevention programs use trauma management information system data to develop intervention strategies. **(I-205.4)**

III. The trauma, public health, and emergency preparedness systems are closely linked. **(B-208)**

- a. The trauma system and the public health system have established linkages, including programs with an emphasis on population based public health surveillance and evaluation for acute and chronic traumatic injury and injury prevention. **(I-208.1)**

IV. The jurisdictional lead agency, in cooperation with the other agencies and organizations, uses analytic tools to monitor the performance of population based prevention and trauma care services. **(B-304)**

- a. The lead agency, along with partner organizations, prepares annual reports on the status on injury prevention and trauma care in the state, regional, or local areas. **(I-304.1)**
- b. The trauma system management information system database is available for routine public health surveillance. There is concurrent access to the databases (ED, trauma, prehospital, medical examiner, and public health epidemiology) for the purpose of routine surveillance and monitoring of health status that occurs regularly and is a shared responsibility. **(I-304.2)**

CURRENT STATUS

Injury is the leading cause of death for Native Alaskans of all ages. Injury is the third leading cause of death for all Alaskans. Like the remainder of the United States, injury is the leading cause of death for the population between 1 and 44 years of age. Leading mechanisms for unintentional injury include the following: motor vehicle crash, falls, airplane crash, fire, all terrain vehicles, snow machine, and firearms. Suicide is a leading cause of injury death for ages 15 to 64 years. Injury mortality is significantly higher in Alaska than in the remainder of the United States where injury is the fifth leading cause of death; however it was reported that the state's injury mortality rate has decreased significantly over the last 30 years.

Healthy Alaskans 2010 describes significant injury prevention objectives for the state, with indicators identified for unintentional injury, occupational fatalities, attempted suicide, nonfatal, hospitalized traumatic brain injury, prenatal physical abuse, population using seatbelts, and households keeping firearms locked and loaded. A strategic plan for addressing these injury prevention objectives was not identified.

A dedicated staff working on epidemiology is assigned to the Department of Health and Social Services (DHSS) Injury Prevention and EMS (IPEMS) Section to coordinate the data analysis for various injury focus areas. Additionally, the Native Alaska Epidemiology Center analyzes data related to injury among the native population. A report on Native Alaskan injury morbidity and mortality was published in 2008.

Access to numerous population-based databases (e.g., vital statistics, fatal analysis reporting system, public safety information system, civilian fire fatality statistics, uniform crime reporting, medical examiner case database, and hospital discharge data system) are readily available for study of the injury problem.

Funding from grants and other state agencies has been obtained and creatively used to support injury surveillance. The state has many population-based injury databases used to describe the injury problem. Numerous injury surveillance activities are ongoing, such as the violent deaths reporting, occupational injuries, motor vehicle crashes, and traumatic brain injuries. The Alaska trauma registry which has data from all 24 acute care hospitals has been used extensively to describe the patterns of injury in the state.

The state had a State and Territorial Injury Prevention Directors Association (STIPDA) assessment conducted in 2003. Work was reported to be still in progress to address many of the recommendations included in the report.

The state has a wealth of data about the injury problem. Primary injury prevention has been the priority focus of information shared with the public and members of the injury coalition. The data have been used to compete successfully for numerous federal grants and state agency projects.

The state website has fairly recent information and reports about injury trends for selected injuries, particularly regarding injury mechanisms for which the state has grant funding. Several publications were reported to be in draft stage related to grant funded activities, but no general description of the injury problem in the state has been published since *Healthy Alaskans 2010*.

No apparent linkage has been made between injury prevention and injury control, which would integrate secondary and tertiary prevention (or the care provided after the patient is injured) in the injury epidemiology focus. Alaskans have not been informed about the injury problem, its relationship to trauma care, and the need for a trauma system.

RECOMMENDATIONS

- Develop fact sheets for public education regarding injuries that require hospitalization and a trauma system.
- Expand the focus of injury epidemiology to report on trauma patient outcomes and the relationship to the trauma system.

Indicators as a Tool for System Assessment

Purpose and Rationale

In the absence of validated national benchmarks, or norms, the benchmarks, indicators and scoring (BIS) process included in the Health Resources and Services Administration's *Model Trauma System Planning and Evaluation* document provides a tool for each trauma system to define its system-specific health status benchmarks and performance indicators and to use a variety of community health and public health interventions to improve the community's health status. The tool also addresses reducing the burden of injury as a community-wide public health problem, not strictly as a trauma patient care issue.

This BIS tool provides the instrument and process for a relatively objective state and sub-state (regional) trauma system self-assessment. The BIS process allows for the use of state, regional, and local data and assets to drive consensus responses to the BIS. It is essential that the BIS process be completed by a multidisciplinary stakeholder group, most often the equivalent of a state trauma advisory committee. The BIS process can help focus the discussion on various system strengths and weaknesses, can be used to set goals or benchmarks, and provides the opportunity to target often limited resources and energies to the areas identified as most critical during the consensus process. The BIS process is useful to develop a snapshot of any given system at a moment in time. However, its true usefulness is in repeated assessments that reveal progress toward achieving various benchmarks identified in the previous application of the BIS. This process further permits the trauma system to refine goals to be attained before future reassessments using the tool.

OPTIMAL ELEMENT

- I. Assurance to constituents that services necessary to achieve agreed-on goals are provided by encouraging actions of others (public or private), requiring action through regulation, or providing services directly. **(B-300)**

CURRENT STATUS

In early 2007, the Benchmark, Indicators and Scoring (BIS) document from the *Model Trauma System Planning and Evaluation* document was distributed to the Trauma System Review Committee (TSRC). Seven of the sixteen members completed the BIS scoring. Results were compiled and means were calculated for each indicator. Those summary scores were presented to the TSRC at their May, 2007, meeting. The TSRC selected benchmarks 205, 206 and 208 for improvement over the succeeding year.

Specifically, the TSRC identified three tactics to improve scores for identified benchmarks. These tactics included:

1. Select three measures of patient care that can be reviewed by the committee.
2. Compare and contrast transfers from designated Level IV facilities with those from non-designated facilities.
3. Review deaths in transport and deaths within 24 hours of admission.

When queried about the status of these tactical objectives, the TSRC members noted that little progress has been made in completing those processes. Initial data were reviewed from the state trauma registry to begin the process. However, the consensus was that the data needed additional cleaning, so the project was placed on hold and has not been revisited.

Those who had participated in the BIS review relayed some frustration about the process, stating that they did not have sufficient information to answer each of the indicators. Other states that have completed the BIS process in the same individual process have had similar experiences; however, when states have completed the BIS in a facilitated group process, individuals from across the trauma system spectrum learn a great deal about other areas of the trauma system. These facilitated processes have been conducted in many different formats, including audio teleconferencing, segmentation of the BIS by section, and in face-to-face retreats.

When participants were asked about whether the BIS might be revisited, little enthusiasm was expressed for undertaking the process, probably due to the frustration associated with the initial process and the low perceived value of the outcome.

RECOMMENDATIONS

- Select and complete one of the three tactical objectives identified in the May, 2007, TSRC meeting.
- Secure funding to support a facilitated trauma system assessment utilizing the Benchmark, Indicators and Scoring (BIS) process with the newly formed Alaska Trauma Advisory Committee (ATAC) and other trauma system stakeholders and state partners.
- Repeat the BIS process at regular intervals (e.g., every two years) as a means of establishing and monitoring system benchmarks

Trauma System Policy Development

Statutory Authority and Administrative Rules

Purpose and Rationale

Reducing morbidity and mortality due to injury is the measure of success of a trauma system. A key element to this success is having the legal authority necessary to improve and enhance care of injured people through comprehensive legislation and through implementing regulations and administrative code, including the ability to regularly update laws, policies, procedures, and protocols. In the context of the trauma system, comprehensive legislation means the statutes, regulations, or administrative codes necessary to meet or exceed a predescribed set of standards of care. It also refers to the operating procedures necessary to continually improve the care of injured patients from injury prevention and control programs through post injury rehabilitation. The ability to enforce laws and rules guides the care and treatment of injured patients throughout the continuum of care.

There must be sufficient legal authority to establish a lead trauma agency and to plan, develop, maintain, and evaluate the trauma system during all phases of care. In addition, it is essential that as the development of the trauma system progresses, included in the legislative mandate are provisions for collaboration, coordination, and integration with other entities also engaged in providing care, treatment, or surveillance activities related to injured people. A broad approach to policy development should include the building of system infrastructure that can ensure system oversight and future development, enforcement, and routine monitoring of system performance; the updating of laws, regulations or rules, and policies and procedures; and the establishment of best practices across all phases of intervention. The success of the system in reducing morbidity and mortality due to traumatic injury improves when all service providers and system participants consistently comply with the rules, have the ability to evaluate performance in a confidential manner, and work together to improve and enhance the trauma system through defined policies.

OPTIMAL ELEMENTS

I. Comprehensive state statutory authority and administrative rules support trauma system leaders and maintain trauma system infrastructure, planning, oversight, and future development. **(B-201)**

- a. The legislative authority states that all the trauma system components, emergency medical services (EMS), injury control, incident management, and planning documents work together for the effective implementation of the trauma system (infrastructure is in place). **(I-201.2)**

- b. Administrative rules and regulations direct the development of operational policies and procedures at the state, regional, and local levels. **(I-201.3)**
- II. The lead agency acts to protect the public welfare by enforcing various laws, rules, and regulations as they pertain to the trauma system. **(B-311)**
 - a. Laws, rules, and regulations are routinely reviewed and revised to continually strengthen and improve the trauma system. **(I-311.4)**

CURRENT STATUS

The IPEMS Section has served as the administrative unit for trauma and emergency medical services (EMS) since 1977. The Alaska State Statutes (AS 18.08.010), related to EMS and Trauma as revised in 1993, provide the agency with authority for the development, implementation, and maintenance of a statewide comprehensive EMS system. Historically the IPEMS has provided leadership with dedicated individuals who have committed themselves to the improvement of trauma and emergency care for the state. Leadership within the IPEMS has experienced changes beginning in 2004 due to the retirement of its Chief and reorganization within the DHSS.

A significant strength for the IPEMS Section is that it currently has support from the senior leadership within the DHSS to provide for the development and regulatory oversight of the state's EMS and trauma system. The statutory authority and departmental support provide an opportunity for the IPEMS Section to identify and collaborate with the numerous stakeholders for trauma and EMS to include the Alaska Hospital Association, the Native Alaskan healthcare providers, prehospital provider organizations, health professional organizations, and numerous governmental and non-governmental entities.

The Alaska Council on Emergency Medical Services (ACEMS) was established in statute (AS 18.08.020). The council has eleven members appointed by the Governor, and it is charged with advising the Commissioner of DHSS and Governor regarding the planning and implementation of a statewide EMS system. Membership of the council includes prehospital professionals, other healthcare professionals, an EMS administrator, a hospital administrator and members of the public. The ACEMS currently has no required surgical, pediatric, or legislative representation on the council.

The Trauma System Review Committee (TSRC) is appointed by the Commissioner of DHSS. It is comprised of physicians and other healthcare professionals tasked to review the trauma system data. The committee is a legal medical review organization under statute AS 18.23.010-070, and membership is approved by the State Medical Board.

The TSRC's work in reviewing the trauma registry data and monitoring the care being delivered to the state's citizens and visitors is provided confidentiality and liability protection in statute AS 18.23.020. This represents another significant strength in the state's EMS and trauma system. The committee's role beyond the review of trauma registry data is not clearly defined and no direct connection to the ACEMS currently exists.

Recently the TSRC proposed a legislative effort titled the Alaska Trauma Improvement Act, but insufficient legislative support was obtained for passage in the last (2006) legislative session. The efforts and success of the TSRC to promote improvements in trauma care for all Alaskans is commendable and can be attributed to the vision and leadership provided by its chair Dr. Frank Sacco and to the dedication of its membership. Currently hospital participation in the statewide trauma system is voluntary and no incentives are provided to promote participation. For an inclusive trauma system approach and to improve trauma care statewide all hospitals should be required to participate, not only by submission of trauma data, but at some level of trauma system participation.

The state EMS medical director's current role does not include medical oversight of the trauma system. The state does not have a trauma medical director or advisor identified to provide the IPEMS Section with guidance in the development and oversight of the trauma system. The designation of a trauma surgeon to such a role would increase the state's ability to fully integrate all phases of care, including prehospital, into a statewide inclusive trauma system.

RECOMMENDATIONS

- **Enact legislation to expand the membership of the ACEMS to represent the trauma system and include the following members appointed as follows:**
 - **One member, appointed by the Governor, shall represent the Alaska Chapter of the American College of Surgeons Committee on Trauma.**
 - **One member, appointed by the Governor, shall be a general surgeon who routinely participates in the care of injured patients.**
 - **One member, appointed by the Governor, shall represent the Alaska Chapter of the American Academy of Pediatrics.**
 - **One member, appointed by the Alaska Legislature upon the recommendation of the Speaker of the House of Representatives.**
 - **One member, appointed by the Alaska legislature upon the recommendation of the President of the Senate.**
- **Require participation of all acute care hospitals in the trauma system within a 2 year time frame.**

- **Facilities should seek trauma center designation at a level appropriate for their capabilities.**
- **Other facilities, such as remote health care clinics, should participate with rapid patient assessment and stabilization and by following guidelines for trauma triage and transfer.**
- Require all hospitals and clinics to submit data to the state trauma registry.
- Amend the Alaska Administrative Code (AAC) to give the IPEMS Section responsibility for development of a statewide plan for the implementation and monitoring of an inclusive trauma system.

System Leadership

Purpose and Rationale

In addition to lead agency staff and consultants (for example, trauma system medical director), there are other significant leadership roles essential to developing mature trauma systems. A broad constituency of trauma leaders includes trauma center medical directors and nurse coordinators, prehospital personnel, injury prevention advocates, and others. This broad group of trauma leaders works with the lead agency to inform and educate others about the trauma system, implements trauma prevention programs, and assists in trauma system evaluation and research to ensure that the right patient, right hospital, and right time goals are met. There is a strong role for the trauma system leadership in conveying trauma system messages, building communication pathways, building coalitions, and collaborating with relevant individuals and groups. The marketing communication component of trauma system development and maintenance begins with a consensus-built public information and education plan. The plan should emphasize the need for close collaboration between coalitions and constituency groups and increased public awareness of trauma as a disease. The plan should be part of the ongoing and regular assessment of the trauma system and be updated as frequently as necessary to meet the changing environment of the trauma system.

When there are challenges to providing the optimal care to trauma patients within the system, the leadership needs to effect change to produce the desired results. Broad system improvements require the ability to identify challenges and the resources and authority to make changes to improve system performance. However, system evaluation is a shared responsibility. Although the leadership will have a key role in the acquisition and analysis of system performance data, the multidisciplinary trauma oversight committee will share the responsibility of interpreting those data from a broad systems perspective to help determine the efficiency and effectiveness of the system in meeting its stated performance goals and benchmarks. All stakeholders have the responsibility of identifying opportunities for system improvement and bringing them to the attention of the multidisciplinary committee or the lead agency. Often, subtle changes in system performance are noticed by clinical care providers long before they become apparent through more formal evaluation processes.

Perhaps the biggest challenge facing the lead agency is to synergize the diversity, complexity, and uniqueness of individuals and organizations into a finely tuned system for prevention of injury and for the provision of quality care for injured patients. To meet this challenge, leaders in all phases of trauma care must demonstrate a strong desire to work together to improve care provided to injured victims.

OPTIMAL ELEMENTS

- I. Trauma system leaders (lead agency, trauma center personnel, and other stakeholders) use a process to establish, maintain, and constantly evaluate and improve a comprehensive trauma system in cooperation with medical, professional, governmental, and other citizen organizations. **(B-202)**
- II. Collected data are used to evaluate system performance and to develop public policy. **(B-205)**
- III. Trauma system leaders, including a trauma-specific statewide multidisciplinary, multiagency advisory committee, regularly review system performance reports. **(B-206)**
- IV. The lead agency informs and educates state, regional, and local, constituencies and policy makers to foster collaboration and cooperation for system enhancement and injury control. **(B-207)**

CURRENT STATUS

The IPEMS Section of the DHSS is the lead agency charged with development, implementation, and maintenance of a statewide comprehensive EMS system, including trauma care. The DHSS has identified the development of a statewide trauma system as one of its 2009 priorities. Both the DHSS Commissioner and Chief Medical Officer were supportive of obtaining an American College of Surgeons (ACS) Trauma Systems Consultation, and both attended. Alaska has not established a clear process for developing, maintaining and continually evaluating a comprehensive trauma system, and this, in part, was the impetus for this consultative visit.

The Alaska Trauma Registry Review Committee was created to review registry data, provide guidance for trauma registry improvement, and review and approve requests for release of registry data. The TSRC role has broadened over the years to include reviewing trauma registry data, making recommendations for trauma system improvement, and reviewing facilities for Level IV trauma center designation. The name has also changed, to become the Trauma Systems Review Committee (TSRC). The TSRC has multidisciplinary membership appointed by the IPEMS Section and approved by the Alaska Medical Board. The chairperson of the Alaska Chapter of the American College of Surgeons Committee on Trauma (ACS-COT) is currently a member of the TSRC.

The TSRC has been attempting to effect change by conducting selected studies from the trauma registry to evaluate trauma care, and then developing care guidelines, such as the head injury management guidelines for rural facilities.

Recommendations from the TSRC that have been transmitted to the lead agency have not always resulted in action or change, and the TSRC is not empowered to make changes in the trauma system. Individuals from the committee are also active in proposing new trauma system improvement legislation.

By statute the ACEMS is charged with advising the Governor and the Commissioner of DHSS with regard to the planning and implementation of a statewide EMS system that by definition includes trauma. From a review of ACEMS minutes, this council has primarily addressed prehospital issues with little focus on issues related to the broader trauma system. The Chair of the Alaska Chapter of the ACS-COT regularly attends meetings of ACEMS, and he has reported trauma system issues and advances to the council. The Alaska COT has been active in proposing trauma system improvements and change.

While the surgeons of the Alaska Native Healthcare System are very active in trauma systems development and performance improvement, other community surgeons in Anchorage are not as actively engaged. The trauma nurse coordinators from the hospitals throughout the state appear to be experienced, knowledgeable, and active in trying to improve the trauma system.

The state does not have a group of multidisciplinary trauma stakeholders; however the large number of participants present at the trauma system consultation (TSC) demonstrates that the state has interested stakeholders. No forum exists for trauma system problem resolution. A state trauma advisory body that serves as a subcommittee of the ACEMS is a recommended strategy for giving stakeholders an opportunity to participate in trauma system development.

RECOMMENDATIONS

- **Form the Alaska Trauma Advisory Committee (ATAC) and task it with providing the Alaska Council on Emergency Medical Services (ACEMS) with recommendations regarding the following functions of the trauma system: trauma system planning, data systems, systemwide performance improvement and patient safety, trauma education (Advanced Trauma Life Support [ATLS], Trauma Nurse Core Curriculum [TNCC], Prehospital Trauma Life Support [PHTLS], etc), trauma center review and designation, injury prevention and control, public policy, and research.**
- Ensure that the Alaska Trauma Advisory Committee (ATAC) has a broad multidisciplinary membership that might include legislative personnel and representation from the Alaska Native Healthcare System, the public sector hospital systems, the Alaska Hospital Association, emergency nurses, prehospital providers, and the media.
- Develop trauma stakeholder discussion groups (e.g., trauma medical directors, trauma coordinators, trauma registrars) to provide direction and

broad-based, multidisciplinary and multi-committee support for trauma system development.

- Make the existing TSRC a subcommittee of the ATAC, sanctioned by the Alaska Medical Board and narrow its focus to specifically concentrate on issues of system performance and improvement.

Coalition Building and Community Support

Purpose and Rationale

Coalition building is a continuous process of cultivating and maintaining relationships with constituents (interested citizens) in a state or region who agree to collaborate on injury control and trauma system development. Key constituents include health professionals, trauma center administrators, prehospital care providers, health insurers and payers, data experts, consumers and advocates, policy makers, and media representatives. The coalition of key constituents comprises the trauma system's stakeholders. The involvement of these key constituents is important for the following:

- Trauma system plan development
- Regionalization: promoting collaboration rather than competition between trauma centers
- System integration
- State policy development: authorizing legislation and regulations
- Financing initiatives
- Disaster preparedness

The coalition should be effectively organized through the formation of multidisciplinary state and regional advisory groups to coordinate trauma system planning and implementation efforts. Constituents also communicate with elected officials and policy leaders regarding the development and sustainability of the trauma system. Information and education are needed by constituents to be effective partners in policy development for trauma system planning. Regular communication about the status of the trauma system helps these key partners to recognize needs and progress made with trauma system implementation.

One of the most effective ways to educate elected officials and the public is through an organized public information and education effort that may involve a media campaign about the burden of injury in the state and the need for trauma system development. Information and education are important to reduce the incidence of injury in all age groups and to demonstrate the value of an effective trauma system when a serious injury occurs.

OPTIMAL ELEMENT

- I. The lead agency informs and educates state, regional, and local constituencies and policy makers to foster collaboration and cooperation for system enhancement and injury control. **(B-207)**

CURRENT STATUS

Alaska does not currently have a coalition of trauma stakeholders who meet or communicate about the trauma system. It was reported that a prior trauma stakeholder group, associated with federal grant funding, had met but was disbanded when federal funding ended. This trauma system consultation was one of the first opportunities for health professionals, acute care facility administrators, state agency representatives, prehospital providers, and data managers to meet and focus on aspects of the trauma system.

The most significant barrier to sustaining a trauma stakeholder group was identified as geography and the high cost associated with travel to a central location. Alternate mechanisms of communication such as an electronic listserv or web-based conferencing have not been investigated. Another barrier is the lack of a state trauma manager with adequate time to facilitate communication among stakeholders interested in trauma care issues.

Developing a trauma system has only recently become a priority goal of the DHSS. It was reported that Alaskans have an expectation that they will be cared for in the event of injury, and they believe the resources of a trauma system are in place. No public education regarding trauma care and the need for a trauma system has yet been initiated. Some education of elected state officials has been initiated, but it may be challenging to make the trauma system a priority without strong public support.

RECOMMENDATIONS

- **Develop and disseminate public information about the challenges in providing trauma care and the status of the trauma system in the state for Alaskans.**
- Establish a mechanism of communication (e.g., electronic listserv or discussion group) for stakeholders with an interest in trauma system development.
 - Ensure that information about planning meetings is posted and accessible to stakeholders in a timely manner.
- Identify mechanisms for interested individuals to participate in trauma system planning from remote locations (e.g., web-based teleconferencing).

Lead Agency and Human Resources within the Lead Agency

Purpose and Rationale

Each trauma system (state, regional, local, as defined in state statute) should have a lead agency with a strong program manager who is responsible for leading the trauma system. The lead agency, usually a government agency, should have the authority, responsibility, and resources to lead the planning, development, operations, and evaluation of the trauma system throughout the continuum of care. The lead agency, empowered through legislation, ensures system integrity and provides for program integration with other health care and community-based entities, namely, public health, EMS, disaster preparedness, emergency management, law enforcement, social services, and other community-based organizations.

The lead agency works through a variety of groups to accomplish the goals of trauma system planning, implementation, and evaluation. The ability to bring multidisciplinary, multiagency advisory groups together to accomplish trauma system goals is essential in developing and maintaining the trauma system and is part of providing leadership to evolving and mature systems.

The lead agency's trauma system program manager coordinates trauma system design, the adoption of minimum standards (prehospital and in-hospital), and provides for overall system evaluation through performance indicator assessment and assurance. In addition to a trauma program manager, the lead agency must be sufficiently staffed to actively participate in each phase of development and in maintaining the system through a clearly defined structure for decision making (policies and procedures) and through proactive surveillance and evaluation. *Minimum* staffing usually consists of a trauma system program manager, data entry and analysis personnel, and monitoring and compliance personnel. Additional staff resources include administrative support and a part-time commitment from the public health epidemiology service to provide system evaluation and research support.

Within the leadership and governance structure of the trauma system, there is a role for strong physician leadership. This role is usually fulfilled by a full- or part-time trauma medical director within the lead agency.

OPTIMAL ELEMENTS

- I. Comprehensive state statutory authority and administrative rules support trauma system leaders and maintain trauma system infrastructure, planning, oversight, and future development. **(B-201)**
 - a. The legislative authority (statutes and regulations) plans, develops, implements, manages, and evaluates the trauma system and its component parts, including the identification of the lead agency and the designation of trauma facilities. **(I-201.1)**
 - b. The lead agency has adopted clearly defined trauma system standards (for example, facility standards, triage and transfer guidelines, and data collection standards) and has sufficient legal authority to ensure and enforce compliance. **(I-201.4).**
- II. Sufficient resources, including financial and infrastructure-related, support system planning, implementation, and maintenance. **(B-204)**

CURRENT STATUS

The role of the IPEMS Section in trauma system development is clearly stated in state statutes; however, better definition of how the agency integrates trauma care into the overall EMS program is needed, such as through the development of a statewide trauma strategic plan (See Trauma System Plan).

The trauma system is currently managed by a trauma system manager (0.2 full-time equivalent [FTE]) and a trauma registrar (1.0 FTE). The trauma registrar is supported by two contracted positions. The trauma registrar also has computer and epidemiology support from the National Institute for Occupational Safety and Health (NIOSH) Field Station staff. The IPEMS Section also has an impressive injury prevention program and staffing. However, the lead agency is not adequately staffed to meet the demands of developing and maintaining a statewide trauma system through trauma program assessment, policy development, and performance improvement activities.

The present job classification for the trauma manager is a Public Health Specialist II position which does not specify any education or experience requirements related to emergency health care. The present job description identifies the additional duties and responsibilities for the state trauma manager to include serving as the state Emergency Medical Services for Children (EMSC) program manager and the manager of grants for the state rural automated external defibrillator program. Additional duties and responsibilities for this position include analyzing the continuing education needs and soliciting

educational sessions for the annual EMS Symposium. It was reported that the EMSC responsibilities have now been shifted to another position. However, the remaining responsibilities would significantly impact the individual's ability to focus on trauma system development.

Staffing is currently insufficient within the lead agency to encourage and support trauma stakeholders in building a statewide inclusive trauma system. A qualified trauma manager is needed to facilitate the development of a statewide trauma system plan. As the position is currently vacant, the timing is optimal to revise the job description and job classification to enable recruitment of an individual who is a health professional (e.g., nurse with a BSN or MSN) with experience in trauma or emergency health care.

Additionally, the trauma system has no designated physician to provide medical oversight. The IPEMS Section has a designated emergency physician serving as the State EMS Medical Director, but this individual has no responsibilities for trauma system medical control and oversight. If a Trauma Medical Director can not be recruited and hired, potentially a Trauma Medical Oversight Subcommittee of the ATAC could be created to fulfill this responsibility and support the State EMS Medical Director.

RECOMMENDATIONS

- **Develop an appropriate position classification and duty statement for a 1.0 full time equivalent (FTE), permanent trauma system manager that specifies education as a health professional, experience in trauma or emergency health care, and the administrative skills and clinical understanding necessary to support trauma system development.**
- Recruit a trauma manager.
- Develop a mechanism for trauma system medical oversight (e.g., hire a Trauma Medical Director, develop a subcommittee of the Alaska Trauma Advisory Committee).
- Ensure that the trauma system has trauma medical direction.

Trauma System Plan

Purpose and Rationale

Each trauma system, as defined in statute, should have a clearly articulated trauma system planning process resulting in a written trauma system plan. The plan should be built on a completed inventory of trauma system resources identifying gaps in services or resources and the location of assets. It should also include an assessment of population demographics, topography, or other access enhancements (location of hospital and prehospital resources) or barriers to access. It is important that the plan identify special populations (for example, pediatric, elderly, in need of burn care, ethnic groups, rural) within the geographic area served and address the needs of those populations within the planning process. A needs assessment (or other method of identifying injury patterns, patient care review/preventable death study) should also be completed for initial trauma system planning and updated periodically as needed to assess system changes over time.

The trauma system plan is developed by the lead trauma agency based on the results of a needs assessment and other data resources available for review. It describes the system design, integrated and inclusive, with adopted standards of care for prehospital and hospital personnel and a process to regularly review the plan over time. The plan is built on input from trauma advisory committees (or stakeholder groups) that assist in analyzing data, identifying resources, and developing system standards of care, including system policies and procedures and overall system design. Ideally, although every stakeholder group may not be satisfied with the plan or system design, the plan, to the extent possible, should be based on consensus of the advisory committees and stakeholder groups. These advisory groups should be able to review the plan before final adoption and approve the plan before it is submitted to the lead agency with authority for plan approval.

The trauma system plan is used to guide system development, implementation, and management. Each component of the trauma system (for example, prehospital, hospital, communications, and transportation) is clearly defined and an established service level identified (baseline) with goals for enhancement (benchmark). Within the plan are incorporated other planning documents used to ensure integration of similar services and build collaboration and cooperation with those services. Service plans for emergency preparedness, EMS, injury prevention and control, public health, social services, and mental health are examples of services for which the trauma system plan should include an interface between agencies and services.

OPTIMAL ELEMENT

I. The state lead agency has a comprehensive written trauma system plan based on national guidelines. The plan integrates the trauma system with EMS, public health, emergency preparedness, and incident management. The written trauma system plan is developed in collaboration with community partners and stakeholders. **(B-203)**

- a. The trauma system plan clearly describes the system design (including the components necessary to have an integrated and inclusive trauma system) and is used to guide system implementation and management. For example, the plan includes references to regulatory standards and documents and includes methods of data collection and analysis. **(I-203.4)**

CURRENT STATUS

In 1993, Alaska secured funding from HRSA to develop a statewide trauma system plan. A task force was created to draft a trauma plan within the existing *Alaska EMS Goals* document. The 1992 Health Resources and Services Administration (HRSA) *Model Trauma Care System Plan* draft was utilized as the basis for the development of this trauma system plan. The grant funding also enabled the state to develop two additional documents: Trauma Triage, Transport and Transfer Guidelines and a Guide on Rehabilitation Services. No mention was made of work performed during federal trauma grant funding from 2002 to 2004.

The *Alaska EMS Goals* document is a guide for the development of EMS and trauma systems by categorizing communities throughout the state by remoteness and resources that should be available. The document identifies specific challenges that Alaska communities face such as access and availability of care, limited road access, availability of training, and recruitment and retention of EMS volunteers. The classifications of communities can also be used to identify levels of care and capabilities to manage the trauma patient.

The *Alaska EMS Goals* document provides a brief overview of EMS system needs in Alaska and lists the state's priorities for grant funding. The integration and consideration of special organizations such as rural health networks, critical incident stress management teams, community injury prevention organizations and local emergency preparedness councils are reflected in the document, along with topics such as seasonal impacts, special populations, hazardous materials, injury prevention, air medical transportation, communications, trauma care, and quality assurance.

An assessment tool called the EMS Community Checklist is available to communities in order to determine their current status in meeting EMS and Trauma system goals within a specified community classification. It is unclear if the data from the assessment tools have been collated and utilized for state system planning.

The community classification in the goals document references classification levels from rural to urban using a 1-5 numbering system. This numbering system is inconsistent with the ACS standards for level of trauma center verification which are in reverse order by facility capabilities.

The TSRC has adopted the *ACS Resources for Optimal Care of the Injured Patient for Acute Care Facilities*, as the standard for trauma center certification (the term used by Alaska for designation). The *Alaska EMS Goals* document clearly specifies the adoption of these standards within each community categorization. The document also promotes the utilization of the various triage and treatment guidelines for the trauma patient. In addition, the guide specifies the importance of establishing an inclusive trauma system and the utilization of trauma registry data to assess the effectiveness of the system.

The *Alaska EMS Goals* document was last updated in 2003, making it consistent with planning and evaluation standards of the time. The guide does not incorporate the 2006 *HRSA Model Trauma System Planning and Evaluation* document that promotes a public health approach to trauma system development.

Overall, the *Alaska EMS Goals* document provides the necessary and comprehensive guidelines for the development and enhancement of the components of a state trauma system. A state assessment to determine at what level the communities have met the goals, has not been accomplished to determine the current needs or trauma resources and assets available.

The IPEMS Section has established five reasonable goals for the trauma system with the limited state resources that are available. Though the goals appear to be achievable, it is unclear how the needs for these goals were determined and how they will be measured and accomplished.

The state has seven EMS regions and EMS Councils. Specific areas of the *Alaska EMS Goals* document recognize the importance of these regional and local assets. However, utilization of these resources for trauma system assessment and strategic planning has not been clearly demonstrated.

RECOMMENDATIONS

- **Develop a comprehensive trauma system strategic plan based on the Health Resources and Services Administration (HRSA) *Model Trauma System Planning and Evaluation* document.**
- Consider revising the *Alaska EMS Goals* document by reversing the community classification numbering system to be consistent with the American College of Surgeons Committee on Trauma (ACS-COT) trauma center verification levels (e.g., urban is 1 and isolated community is 5).
- Ensure that the comprehensive trauma system plan is integrated and made consistent with the 2003 *Alaska EMS Goals* document, the state health plan, the injury prevention plan, the rural health plan and disaster preparedness plans.

System Integration

Purpose and Rationale

Trauma system integration is essential for the daily care of injured people and includes such services as mental health, social services, child protective services, and public safety. The trauma system should use the public health approach to injury prevention to contribute to reducing the entire burden of injury in a state or region. This approach enables the trauma system to address primary, secondary, and tertiary injury prevention through closer integration with community health programs and mobilizing community partnerships. The partnerships also include mental health, social services, child protection, and public safety services. Collaboration with the public health community also provides access to health data that can be used for system assessment, development of public policy, and informing and educating the community.

Integration with EMS is essential because this system is linked with the emergency response and communication infrastructure and transports severely injured patients to trauma centers. Triage protocols should exist for treatment and patient delivery decisions. Regulations and procedures should exist for online and off-line medical direction. In the event of a disaster affecting local trauma centers, EMS would have a major role in evacuating patients from trauma centers to safety or to other facilities or to make beds available for patients in greater need.

The trauma system is a significant state and regional resource for the response to mass casualty incidents (MCIs). The trauma system and its trauma centers are essential for the rapid mobilization of resources during MCIs. Preplanning and integration of the trauma system with related systems (public health, EMS, and emergency preparedness) are critical for rapid mobilization when a disaster or MCI occurs. The extensive impact of disasters and MCIs on the functioning of trauma centers and the EMS and public health systems within the affected region or state must be considered, and joint planning for optimal use of all resources must occur to enable a coordinated response to an MCI. Trauma system leaders need to be actively involved in emergency management planning to ensure that trauma centers are integrated into the local, regional, and state disaster response plans.

OPTIMAL ELEMENTS

I. The state lead agency has a comprehensive written trauma system plan based on national guidelines. The plan integrates the trauma system with EMS, public health, emergency preparedness, and incident management. The written trauma system plan is developed in collaboration with community partners and stakeholders. **(B-203)**

- a. The trauma system plan has established clearly defined methods of integrating the trauma system plan with the EMS, emergency, and public health preparedness plans. **(I-203.7)**

II. The trauma, public health, and emergency preparedness systems are closely linked. **(B-208)**

CURRENT STATUS

The two groups involved with EMS and trauma are the ACEMS and the TSRC. Membership on the ACEMS is dictated in statute and consists of two physicians with experience in either emergency medicine or trauma, emergency nurses, prehospital providers, an EMS administrator, a hospital administrator, and consumers. Currently the only formal trauma involvement is the Chair of the ACS-COT who serves in a liaison capacity. TSRC membership includes a trauma registrar, epidemiologist, surgeon, emergency physician, hospital administrator, hospital trauma director, all Anchorage trauma nurse coordinators, two prehospital EMS personnel, a pediatrician, and six other miscellaneous members.

Little apparent integration occurs between other trauma stakeholders. Even with EMS representation on the TSRC and a trauma liaison on ACEMS, an EMS participant reported continuing issues regarding communications with the hospitals providing trauma care in Anchorage. Issues were said to involve diversion status and availability of specialty care providers, stemming from the differing level of commitment to trauma care by the facilities.

No integration was reported between the state trauma system and other related services, such as public safety or law enforcement agencies, mental health services, and social services. While psychiatric and social services consultations are available within the verified trauma care center and remaining two hospitals providing trauma care, there was no evidence of ongoing discussions regarding ways to improve interactions or for planning better system integration in the future.

Integration with the Office of Rural Health to support trauma education across the state was described. Integration with numerous other agencies was demonstrated by the transfer of funds for specific program support (see the Financing Section).

The membership of the future ATAC should include representation from fire, law enforcement, social services, injury prevention, mental health, and protective services, in addition to health professionals involved in trauma care. Having a consumer of trauma care or their family member would also bring the public perspective to issues. Legislative representatives would bring much needed insight into legal methods of change. Agencies that could also be included as formal or liaison members include the Office of Rural Health, the Alaska Native Healthcare System, and disaster preparedness agencies. The broader the representation working on the trauma system, the broader the attack base for resolution.

RECOMMENDATIONS

- **Ensure that the Injury Prevention and Emergency Medical Services (IPEMS) Section is engaged in planning with disaster preparedness, emergency management, and public health functions for integration of the trauma system.**

Financing

Purpose and Rationale

Trauma systems need sufficient funding to plan, implement, and evaluate a statewide or regional system of care. All components of the trauma system need funding, including prehospital, acute care facilities, rehabilitation, and prevention programs. Lead agency trauma system management requires adequate funding for daily operations and other important activities such as advisory committee meetings, development of regulations, data collection, performance improvement, and public awareness and education. Adequate funding to support the operation of trauma centers and their state of readiness to care for seriously injured patients within the state or region is essential. The financial health of the trauma system is essential for ensuring its integrity and its improvement over time.

The trauma system lead agency needs a process for assessing its own financial health, as well as that of the trauma system. A trauma system budget should be prepared, and costs should be reported by each component, if possible. Routine collection of financial data from all participating health care facilities is encouraged to fully identify the costs and revenues of the trauma system, including costs and revenues pertaining to patient care, administrative, and trauma center operations. When possible, the lead agency financial planning should integrate with the budgets and costs of the EMS system and disaster, rehabilitation, and prevention programs to enable development of a comprehensive financial health report.

Trauma system financial planning should be related to the trauma plan outcome measures (for example, patient outcome measures such as mortality rates, length of stay, and quality-of-life indicators). Such information may demonstrate the value added by having a trauma system in place.

OPTIMAL ELEMENTS

- I. Sufficient resources, including financial and infrastructure-related, support system planning, implementation, and maintenance. **(B-204)**
 - a. Financial resources exist that support the planning, implementation, and ongoing management of the administrative and clinical care components of the trauma system. **(I 204.2)**
 - b. Designated funding for trauma system infrastructure support (lead agency) is legislatively appropriated. **(I-204.3)**

- c. Operational budgets (system administration and operations, facilities administration and operations, and EMS administration and operations) are aligned with the trauma system plan and priorities. **(I-204.4)**

II. The financial aspects of the trauma systems are integrated into the overall performance improvement system to ensure ongoing fine tuning and cost-effectiveness. **(B-309)**

- a. Collection and reimbursement data are submitted by each agency or institution on at least an annual basis. Common definitions exist for collection and reimbursement data and are submitted by each agency. **(I-309.2)**

CURRENT STATUS

Although Alaska has no designated state funding for the development and maintenance of a statewide trauma system, the IPEMS Section has been creative in leveraging funding to support various aspects of the trauma system. The IPEMS Section receives significant funding from several sources (primarily federal grants and other state allocations) that is being used to support the state's efforts to maintain the trauma system. However, many of these funding sources will only provide short term assistance. The current funding sources include the following:

- Community Health Grants to support Community Health Aide Training and medical supervision of the community health aides throughout the state based on a formula defined in AS 18.28.010.
- Rural Health Flexibility Funding is used to provide trauma training to Critical Access Hospitals and emergency services.
- The state provides capital project funding to support the communication needs of emergency responders for the maintenance and replacement of communications equipment.
- HRSA's Emergency Medical Services for Children program funding pays a portion of the salary support for the individual filling the part-time trauma manager position.
- Centers for Disease Control (CDC) Disaster Preparedness funds were used to pay for the ACS-COT trauma system consultation visit.
- NIOSH provides funding for one FTE and two contractors to support the trauma registry.

- Federal Emergency Preparedness Grants are pass-through funds used to develop and implement fire and burn injury prevention strategies. Recipients include the Municipality of Anchorage, the Alaska Native Tribal Health Consortium, and the Alaska State Hospital and Nursing Home Association.
- The state also provides funding to local agencies from the Code Blue Project Funds to provide EMS equipment and ambulances for local communities. With the assistance of the Department of Agriculture (USDA), the Rasmusson Foundation, and the Denali Commission, approximately \$14 million was received to provide new EMS equipment in 2008. A local match is required for the foundation funding and is key to the success of the project.
- The state also provides resources to regional EMS agencies to develop a comprehensive EMS system as outlined in the Alaska EMS Goals document.

Currently, the state does not employ either the State EMS Medical Director or a Trauma Medical Director. However, they contract with an MD, on a part-time basis to, serve as the State EMS Medical Director. State funding to support EMS and trauma system medical direction is critical to the development and maintenance of a statewide inclusive trauma system.

The state does not charge fees for the designation of trauma center site visits. However, charging a fee for trauma center certification/designation would likely go directly to the state general fund due to the state's constitutional requirement prohibiting dedicated funds for program support. In addition, given the fact that trauma center certification/designation is currently voluntary, charging fees may be an impediment to implementing the state's inclusive trauma system.

Levels I-III trauma centers are verified by the ACS after which the state certifies/designates them as trauma centers at these levels. Level IV certifications/designations are conducted by the IPEMS based on meeting the criteria of the ACS Committee on Trauma. No state funding is available to support trauma center readiness or uncompensated care.

The trauma registry includes a mechanism to collect financial data regarding trauma patients, and all the hospitals participate in the registry. The data are not submitted from all hospitals in a timely manner, and the information is not currently being used for financial planning or evaluation of the statewide system.

RECOMMENDATIONS

- **Provide state funding to hire a fulltime trauma system manager.**
- Provide state funding to ensure sufficient medical direction for the trauma and EMS programs.
- Determine a method of providing financial support for hospitals certified/designated by the state as trauma centers to assist with uncompensated care and the cost of readiness.
- Encourage the use of FLEX grant funding for the preparation of eligible facilities to become certified/designated as Level IV trauma centers.