

SB

168

<target><bill>SB 168</bill><subject>SB
168</subject><comm>SF26</comm></target>

TRAUMA CARE IN ALASKA



Creating a Trauma
Care Fund



House Bill 168

Senate Bill 168

1.



ALASKA'S TRAUMA SYSTEM DEVELOPMENT FOLDER
TRAUMA LEGISLATION HOUSE AND SENATE BILLS 168

SECTION	TOPIC
1	Sponsor Back Up & HB 168
2	Trauma Fact Sheet
3	Trauma Care in Alaska 2010 Slides
4	Alcohol Screening & Brief Intervention in the Injured Patient: Injury Prevention in the Hospital & ER
5	Trauma Mortality Rates-Anchorage
6	Trauma System Consultation – State Of Alaska, November 2008
7	Preparing for the Worst – NSCL Report
8	Emergency Trauma Care Needs Improvement in Alaska Letter Alaska Needs A Better Trauma System Letter
9	American College Of Surgeons Recommendations
10	Appendix Harris Poll Objectives And Methodology Alaska State Medical Association (ASMA)Letter Of Support National Conference Of State Legislatures Trauma System Funding Mechanisms By State Uncompensated Trauma Care By State Trauma Legislation Sticks From Other States

Alaska State Legislature



Senate Health & Social Services Committee Senator Bettye Davis, Chair

Senate Bill 168 – Sponsored by Senate Health & Social Services Committee

"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."

Sponsor Statement

SB 168 addresses the urgent need for a comprehensive state-wide trauma center system coordinating and integrating the efforts of Emergency Medical Services (EMS), public safety agencies, air medical services, and health care facilities to ensure that patients receive the most efficient, effective care possible from time of injury through rehabilitation. Trauma care systems have been shown to reduce death from injury by as much as 25 percent and are recognized as an integral part of a state's EMS and disaster response system. Only eight states reportedly have fully functioning systems and 15 states have no system.

Trauma is any life-threatening occurrence, either accidental or intentional, that causes injuries. The leading causes of trauma are motor vehicle accidents, falls, and assaults. Trauma is the leading cause of death among Americans under 44 years of age. A trauma center is a hospital, clinic, or other certified entity equipped to provide comprehensive emergency medical services to patients suffering traumatic injuries. Trauma centers were established by the medical establishment in response to traumatic injuries that often require complex and multi-disciplinary treatment including surgery, in order to give the victim the best possible chance for survival and recovery.

SB 168, Section 1, adds subsection (c) to AS 18.08.082, Emergency Medical Services, to address the state certification and designation of trauma centers; it creates the "Uncompensated Trauma Care Fund" under Section 2, AS 18.08.085, to offset uncompensated trauma care provided at certified and designated trauma centers; and it provides for an immediate effective date. The bill requires the commissioner to establish special designations in regulation of Levels I-IV of certified trauma centers that shall be used to set compensation eligibility and amounts under the Uncompensated Trauma Care Fund.

Although the current Alaska statutes revised in 1993 require certification of hospitals, clinics, or other entities represented as trauma centers, the statutes do not require or provide incentives for participation. The Uncompensated Trauma Care Fund will provide the needed incentive for hospitals, clinics, and other entities to seek certification as trauma centers. Since the state statutes and regulations in this area were enacted over 15 years ago only three of 24 eligible Alaska hospitals reportedly have successfully completed the verification and certification process as trauma centers.

In order to qualify as a trauma center, a hospital must meet certain criteria as established by the American College of Surgeons. Trauma centers vary in their specific capabilities and are identified by "Level" designation: Level-I being the highest, to Level-IV being the lowest. Higher levels of trauma centers will have trauma surgeons available, including those trained in such specialties as neurosurgery and orthopedic surgery as well as highly sophisticated medical diagnostic equipment and specialized treatment units. Lower levels of trauma centers may only be able to provide initial care and stabilization of a traumatic injury and arrange for transfer of the victim to a higher level of trauma care.

Under the Alaska trauma center system, it is anticipated that tertiary hospitals designated as higher level trauma centers will ensure availability of critical care specialists 24 hours a day, seven days a week. The Alaska Native Medical Center is a Level II trauma center, Yukon Kuskokwim Regional and Norton Sound Regional Hospitals are Level IV. It is believed that there are adequate medical resources to establish more Level II trauma centers in Anchorage, and it is considered feasible to establish level III and IV centers throughout the state. Because of long transport times, trauma centers at all levels are necessary to improve patient outcomes. Level I trauma centers have critical care specialists in the hospital or on call at all times. The closest Level I trauma center is Harborview Medical Center in Seattle.

The operation of a trauma center is extremely expensive. Some areas are under-served by trauma centers because of this expense. For example, Harborview Medical Center in Seattle is the only Level I trauma center to serve the entire states of Washington, Idaho, Montana, and Alaska. In Florida, Orlando Regional Medical Center, reportedly built to serve five counties, now serves more than twenty.

Patient traffic at trauma centers can vary widely, as there is no way to schedule the need for emergency services. A variety of different methods have been developed for dealing with this. Halifax Health in Daytona Beach, Florida reportedly is deploying a "pod system," allowing trauma care to be provided by several different small emergency departments at different hospitals, rather than at one central large trauma center. It is anticipated that Alaska, likewise, will have to develop a trauma center system which best suits its needs. It is anticipated that persons critically injured in remote areas of Alaska will be transported directly to a distant trauma center by plane and helicopter for faster and better medical care than if they had been transported to a closer hospital or clinic which is not a designated trauma center. The designation, coordination, and funding of a trauma center system in Alaska as provided by SB 168 will save time and lives. SB 168 will also provide the financial incentives for more participation by hospitals, clinics and other certified trauma care entities which are not available under present law.

ALASKA STATE HOUSE OF REPRESENTATIVES

**Contact:**

Interim Address:

3340 Badger Road
North Pole, AK 99705
(907)-488-5725
Fax# (907)-488-4271

Session

(907)-465-3719
FAX# (907)-465-3258
State Capitol
Room 214

SENATOR JOHN COGHILL

HB 168 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. Would permit the appropriation of unrestricted alcohol beverage taxes to the trauma care fund. The alcohol and other drug abuse treatment and prevention fund. Half of the alcohol beverage taxes are restricted to use in the

Section 4. The bill has an immediate effective date.

CS FOR HOUSE BILL NO. 168(HSS)
IN THE LEGISLATURE OF THE STATE OF ALASKA
TWENTY-SIXTH LEGISLATURE - SECOND SESSION

BY THE HOUSE HEALTH AND SOCIAL SERVICES COMMITTEE

Offered: 2/17/10
Referred: Finance

Sponsor(s): REPRESENTATIVES COGHILL, Kerttula, Lynn, Cissna, Keller, Herron

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 including a portion of the tax levy on
4 alcohol as a source of money that may be appropriated to the trauma care fund; and
5 providing for an effective date."

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

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

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

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

13 **Sec. 18.08.085. Uncompensated trauma care fund; creation.** (a) The

1 uncompensated trauma care fund is created. The purpose of the fund is to compensate
 2 certified trauma centers in the state that receive a special designation under
 3 AS 18.08.082(c) for care uncompensated by the person receiving the care or by any
 4 other source.

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

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

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

16 * Sec. 3. AS 43.60 is amended by adding a new section to read:

17 **Sec. 43.60.055. Disposition of proceeds; availability for appropriation to**
 18 **the uncompensated trauma care fund.** The portion of the tax collected under
 19 AS 43.60.010 that is not separately accounted for under AS 43.60.050(a) may be
 20 appropriated to the uncompensated trauma care fund (AS 18.08.085). Nothing in this
 21 section creates a dedicated fund.

22 * Sec. 4. This Act takes effect immediately under AS 01.10.070(c).

SENATE BILL NO. 168

IN THE LEGISLATURE OF THE STATE OF ALASKA

TWENTY-SIXTH LEGISLATURE - FIRST SESSION

BY THE SENATE HEALTH AND SOCIAL SERVICES COMMITTEE BY REQUEST

Introduced: 3/27/09

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).

ALASKA STATE HOUSE OF REPRESENTATIVES



SENATOR JOHN COGHILL

HB 168 Certification and Designation of Trauma Centers

Sponsor Statement

This legislation would create a trauma care fund which could reimburse trauma centers for uncompensated or undercompensated services. The bill would create incentives for becoming a certified trauma center but does not force facilities to become certified trauma centers.

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.

There is a "golden hour" after the injury during which proper treatment and appropriate interventions will potentially save a patient's life and prevent further damage to an injured person. Personal trauma is any bodily injury from an external force including car crashes, shootings, falls, snow machine crashes, and stabbings.

A good 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. Alaska has many good parts to our trauma response but we must do better.

FISCAL NOTE

STATE OF ALASKA
2010 LEGISLATIVE SESSION

Fiscal Note Number: 1
Bill Version: CSSB 168(HSS)
(S) Publish Date: 2/24/10

Identifier (file name): SB168-REV-TRS-2-8-10 Dept. Affected: Revenue
Title: Uncompensated Trauma Care fund RDU: Taxation and Treasury
Component: Treasury Division
Sponsor: Senate HSS committee
Requester: Senate Health and Social Services Component Number: 121

Expenditures/Revenues (Thousands of Dollars)

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

	Appropriation Required	Information						
		FY 2011	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
OPERATING EXPENDITURES								
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	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	0.0

Estimate of any current year (FY2010) cost: _____

POSITIONS

Full-time	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Part-time	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temporary	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ANALYSIS: (Attach a separate page if necessary)

This bill establishes a fund to compensate certain certified trauma centers in Alaska for care uncompensated by the person receiving the care or by another source. This fund will be invested within the GeFonsi investment pool No additional costs have been identified.

Prepared by: Pamela J. Leary, Comptroller
Division: Treasury
Approved by: Ginger Blaisdell, Director
Administrative Services Division

Phone 465-2300
Date/Time 2-8-10; 10:01am
Date 2-8-10; 8:16pm

FISCAL NOTE

STATE OF ALASKA
2010 LEGISLATIVE SESSION

Fiscal Note Number: 2
Bill Version: CSSB 168(HSS)
(S) Publish Date: 2/24/10

Identifier (file name): SB168-DHSS-IPEMS-02-08-10 Dept. Affected: Health & Social Services
Title: Trauma Care Centers/Fund RDU: Public Health
Component: Injury Prevention/Emergency Medical Services
Sponsor: HSS By Request
Requester: Senate HSS Component Number: 2876

Expenditures/Revenues (Thousands of Dollars)

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

	Appropriation Required	Information						
		FY 2011	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
OPERATING EXPENDITURES								
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 (FY2010) cost: _____

POSITIONS

Full-time								
Part-time								
Temporary								

ANALYSIS: (Attach a separate page if necessary)

SB 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: Ward B. Hulburt, M.D., MPH, Chief Medical Officer / Director Phone 269-8126
Division: Public Health Date/Time 2/4/10 2:27 PM
Approved by: Alison Elgee, Assistant Commissioner Date 2/8/2010
DHSS Finance & Management Services

FISCAL NOTE

STATE OF ALASKA
2010 LEGISLATIVE SESSION

Fiscal Note Number: 3
Bill Version: CSSB 168(HSS)
(S) Publish Date: 2/24/10

Identifier (file name): _____ Dept. Affected: Health & Social Services
Title Relating to state certification, designation of trauma centers, RDU _____
creating the uncompensated trauma care fund Component _____
Sponsor Senate Health & Social Services Committee _____
Requester _____ Component Number _____

Expenditures/Revenues (Thousands of Dollars)

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

	Appropriation Required	Information						
		FY 2011	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
OPERATING EXPENDITURES								
Personal Services								
Travel								
Contractual								
Supplies								
Equipment								
Land & Structures								
Grants & Claims		5,000.0	5,000.0					
Miscellaneous								
TOTAL OPERATING		5,000.0	5,000.0	0.0	0.0	0.0	0.0	0.0

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

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

FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts	3,100.0	3,100.0						
1003 GF Match								
1004 GF	1,900.0	1,900.0						
1005 GF/Program Receipts								
1037 GF/Mental Health								
Other Interagency Receipts								
TOTAL	5,000.0	5,000.0	0.0	0.0	0.0	0.0	0.0	0.0

Estimate of any current year (FY2010) cost: _____

POSITIONS

Full-time								
Part-time								
Temporary								

ANALYSIS: (Attach a separate page if necessary)

This bill creates the uncompensated trauma care fund to be used to compensate certified trauma centers for practicing at the highest national standards for trauma care.

Prepared by: Celeste Hodge, Committee Aide Phone 465-3822
Division: Senate Health & Social Services Committee Date/Time _____
Approved by: Senator Bettye Davis Date 2/10/2010
Senate Health & Social Services Committee

26th Legislature(2009-2010)

Bill History/Action for 26th Legislature

BILL: HB 168

SHORT TITLE: TRAUMA CARE CENTERS/FUND

BILL VERSION:

CURRENT STATUS: (H) FIN

STATUS DATE: 02/17/10

SPONSOR(S): REPRESENTATIVE(S) COGHILL, Kerttula, Lynn, Cissna, Keller, Herron

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:

Jrn-Date	Jrn-Page	Action
03/09/09	0409	(H) READ THE FIRST TIME - REFERRALS
03/09/09	0409	(H) HSS, FIN
03/23/09	0567	(H) COSPONSOR(S): KERTTULA
02/17/10	1500	(H) HSS RPT CS(HSS) NT 5DP
02/17/10	1500	(H) DP: T.WILSON, SEATON, LYNN, HERRON, KELLER
02/17/10	1500	(H) FN1: ZERO(DHS)
02/17/10	1500	(H) FN2: ZERO(REV)
02/17/10	1501	(H) REFERRED TO FINANCE
02/17/10	1514	(H) COSPONSOR(S): LYNN, CISSNA, KELLER, HERRON

Similar Subject Match or Exact Subject Match

FUNDS

HEALTH & SOCIAL SERVICES

HOSPITALS

LICENSING

MEDICAL CARE

Bill Number:

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



IPEMS UNITS

Emergency Medical Services Injury Surveillance & Prevention



Trauma-Emergency Medical Services System in Alaska

Background:

Alaska's Trauma-EMS System is a work in progress. A great deal has been accomplished since 1992 when the state received the first year of a three-year federal grant specifically targeted toward trauma care system development. Since federal funding has been re-instated, there has been further momentum in enhancing our system.

We currently have a committee the Alaska Trauma System Review Committee that assists the State in the development, enhancement, and evaluation of our Trauma-EMS System.

In 1993 Alaska passed enabling legislation for trauma care system development and accompanying regulations, ([AS 18.08.010-015](#), and [AAC 26.710-745](#)) were adopted in 1996.

Trauma Center Designation:

An important component of Alaska's trauma care system is certified trauma centers. Trauma centers provide an organized and timely response to traumatic injury. What this means in Alaska is:

- The hospital has demonstrated commitment to providing the best trauma care possible by allowing experts to review staffing and qualifications, procedures, protocols and resources;
- The hospital meets state and national standards for providing timely and optimal care for the trauma patient, and;
- The hospital is prepared to treat and transport trauma patients according to Alaska's system-wide plan.

There are four levels of trauma center designation/certification. Alaska has adopted the criteria set forth by the American College of Surgeons Committee on Trauma (ACSCOT). Prior to applying for state certification, Level I, II, and III

American College of Surgeons recommendations for a trauma system:

- [ACS Recommendations Presentation](#)

Trauma Training:

Continuing education training in trauma care for healthcare providers is an important component of a Trauma-EMS System.

Advanced Trauma Life Support (ATLS) Courses are offered periodically throughout the year in Anchorage at the Alaska Native Medical Center (ANMC) and occasionally in other areas of the state. For more information on the ATLS courses at ANMC, contact [Mary Leemhuis, RN](#) at (907) 729-2729; or [Cassie Williams, RN](#) at (907) 729-2936. In addition, Providence Alaska Medical Center is providing ATLS courses. Contact [Jeanne Molitor, RN](#) for information.

Basic Trauma Life Support (BTLIS) Courses are offered periodically through the EMS Regional offices. [Contact the nearest office](#) for more information.

Trauma Nursing Core Course (TNCC) and Emergency Nursing Pediatric Course (ENPC) are other courses available around the state. For more information contact [Jeanne Molitor, RN](#). For TNCC only contact [Mary Leemhuis, RN](#) or [Margaret \(Rocky\) Carlson, RN](#).

Trauma care continuing medical education training is often available at the State and Regional EMS Symposia. Click [HERE](#) for more information.

Alaska Trauma Registry:

Alaska is very fortunate to have a great

trauma centers must complete an application to ACSCOT and have a verification visit by a team from ACSCOT. Using ACSCOT criteria, Level IV trauma centers are verified by a state team, appointed by the Alaska Division of Public Health.

- **Level I – Regional Resource Center** – Level I Trauma Centers generally serve large cities or population-dense areas. A Level I Trauma Center is responsible for providing leadership in research, professional and community education. There are no Level I Trauma Centers in Alaska because, there are no trauma research and teaching facilities in Alaska.

- **Level II – Regional Trauma Centers** – A Level II Trauma Center provides comprehensive trauma care and serves as a lead trauma facility for a geographical area. A Level II Trauma Center provides educational outreach and prevention programs and assumes responsibility for trauma system leadership. There are emergency physicians and nurses in-house to initiate resuscitation and stabilization, with surgical teams on call and promptly available.

- **Level III – Area Trauma Center** – The Level III Trauma Center provides assessment, resuscitation, emergency surgery, and stabilization and, for the most critically injured patients, arranges for transfer to a Level I or Level II trauma center that can provide further definitive care. A general surgeon must be promptly available and the facility must be involved with prevention and have an active outreach program for its referring communities.

- **Level IV – Local Trauma Stabilization Center** – Level IV Trauma Centers are small rural facilities that provide initial evaluation and assessment of injured patients prior to transfer to a larger referral facility.

For more information, you can download a brochure about [Trauma Center Certification in Alaska](#).

Below are documents/links to assist hospitals interested in seeking Trauma Center Designation.

For the American College of Surgeons, Committee on Trauma (ACSCOT) Level I, II, III verification program visit:
<http://www.facs.org/trauma/verificationhosp.html>

For the pre-review questionnaire for Level I, II, and III verification visit:
<http://www.facs.org/trauma/prq.doc>

To request for a verification visit from ACSCOT visit:
<http://www.facs.org/trauma/sitevisitapplication1006.doc>

source of data through our [Alaska Trauma Registry](#).

Links:

[American College of Surgeons](#) is a scientific and educational association of surgeons founded to improve the quality of care for the surgical patient by setting high standards for surgical education and practice. The Committee on Trauma works to improve the care of injured and critically ill patients – before, en route to, and during hospitalization. Their web site has information on trauma center designation and Advanced Trauma Life Support courses.

[American Trauma Society](#) is dedicated to the prevention of trauma and improvement of trauma care. The society is a strong advocate for injury care and prevention and have numerous programs.

[American College of Emergency Physicians](#) promotes the highest standards of patient care through its advocacy and leadership efforts. Their web site has numerous resources on a variety of topics.

[TRAUMA.ORG](#) provides global education, information and communication resources for professionals in trauma and critical care.

Alaska Trauma/EMS List Server

Alaska Trauma/EMS program is pleased to announce the list server that we have developed to disseminate information from the federal and state Trauma/EMS programs. This forum can also be used to improve communication between the facilities and open opportunities for sharing. Please be advised that if you send a message via the list serve it will go to everyone that is a member.

To join this free list, send an e-mail message to:

list.manager@list.state.ak.us

The body of the message should be:

Subscribe ak-trauma

- Level IV Trauma center information
 - o Pre-review Questionnaire (Level IV Trauma Center Checklist) [coming soon]
 - o Level IV, Desirable and Expected Resources/Services
 - o Level IV Request for a verification visit
 - o Performance Improvement for Small Rural Hospitals in Alaska
 - o Performance Improvements Sample meeting minutes

[IPEMS Extranet Home](#) | [IPEMS Internet](#) | [State of Alaska](#) | [Department of Health & Social Services](#) | [Site Map](#)
[Emergency Medical Services](#) | [Injury Surveillance & Prevention](#)
[Webmaster](#) | [News](#) | [Contact Information](#)
© Copyright 2007 Section of Injury Prevention & Emergency Medical Services



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 number keeps accumulating. Brain Injury can be a life-long disability

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 the Alaska Mental Health Trust Authority, Department of Health and Social Services, and partner boards to advocate for policy changes, programs, and facilities to better serve the brain injury population.

ABIN connects survivors and family members with others. Please contact us to learn about brain injury programs in your region.

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 fiscal and social burden of brain injury nationally and to the state of Alaska**
- **Become familiar with ABIN Priorities in the Governor's FY09 GF/MH Budget: Brain Injury Training for Providers.**
- **Support the Housing Trust, www.akhousingtrust.com**
- **Join [Alaska Brain Matters](#) listserv to meet Alaskans who have been touched by traumatic brain injury.**

ABIN Priorities

In-state rehab facility – many Alaskans are left in a hospital setting because there is no post-acute rehabilitation option in the State. Others are sent out of State. It is time for Alaskans to have treatment for their brain injury. Research shows outcomes improve with quality rehabilitation.

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.



alaska
brain injury
network

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.

You KNOW us...



The Public Health Burden of Brain Injury (prevalence)

5.3 million Brain Injuries

- 5 million persistent Mental Illness
- 4 million Alzheimer's
- 3 million Stroke
- 2 million Epilepsy
- 900,000 HIV/AIDS
- 500,000 Cerebral Palsy
- 400,000 Spinal Cord Injury

Brain injury accounts for more years of lost productivity than any other injury.

The Financial Burden of Brain Injury

- It is estimated that over a lifetime, it can cost between \$600,000 and \$1,875,000 to care for a survivor of severe TBI.
- Direct medical costs and indirect costs of TBI such as lost productivity totaled an estimated 60 billion dollars in the United States in 2000. (*Centers for Disease Control and Prevention*)
- Every dollar used for brain injury rehabilitation saves up to \$35 in future medical costs. (Rhode Island Brain Injury Association)

Prevention is the only cure for Brain Injury

- The three leading causes of brain injury nationally and in Alaska are:
1) motor vehicle crashes 2) falls and 3) assaults.
- One-third of all TBIs recorded in the Alaska Trauma Registry were alcohol related.
- The use of safety belts is the single most effective measure to prevent traumatic brain injuries.
- Helmets are estimated to be 37% effective in preventing fatal injuries to motorcyclists. (*National Highway Traffic Safety Administration*)
- Bicycle helmets are 85-88 percent effective in mitigating head and brain injuries. Every dollar spent on a bike helmet saves \$40 in direct medical costs and other costs to society. (*National Highway Traffic Safety Administration*)
- 60-67% of injured U.S. soldiers sent from Iraq to Walter Reed Army Medical Center have a TBI from blasts, severe falls and motor vehicle accidents. (*United Press International, July 2004*). These soldiers are now returning home to Alaska for continuing treatment and rehabilitation.

Traumatic Brain Injury is a beneficiary group participating in the Alaska Mental Health Trust Authority "You Know Me" Anti-Stigma Campaign.

Alaska Brain Injury Network			
Alaska Scorecard and TBI Dashboard – (DRAFT)			
DRAFT #1 – May 22, 2008			
○ Getting worse		↔ Not changing	● 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	●	98.6	1
Causes			
Falls	○	28.7	1
Motor Vehicle Transportation Occupant	●	24.7	1
Assault	●	12.2	1
ATV	○	6.5	1
Bicycle	●	4.5	1
Snowmachine	●	4.4	1
Pedestrian	●	3.6	1
Sports	●	1.8	1
Water Transport	↔	1.3	1
Suicide Attempt	●	.8	1
Gender			
TBI percentage among males		65.4 %	1
TBI percentage among females	↔	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	Spot look trend	Current Data	Source
Number of children in Special Education statewide with TBI diagnosis (2007)	⇔	66	5

Dashboard: Justice

Corrections	Spot look trend	Current Data	Source
Percent of incarcerated Alaskans (adults) who are Trust beneficiaries, including those with cognitive disabilities		42%	6

Dashboard: Employment

Vocational Rehabilitation	Spot look trend	Current Data	Source
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

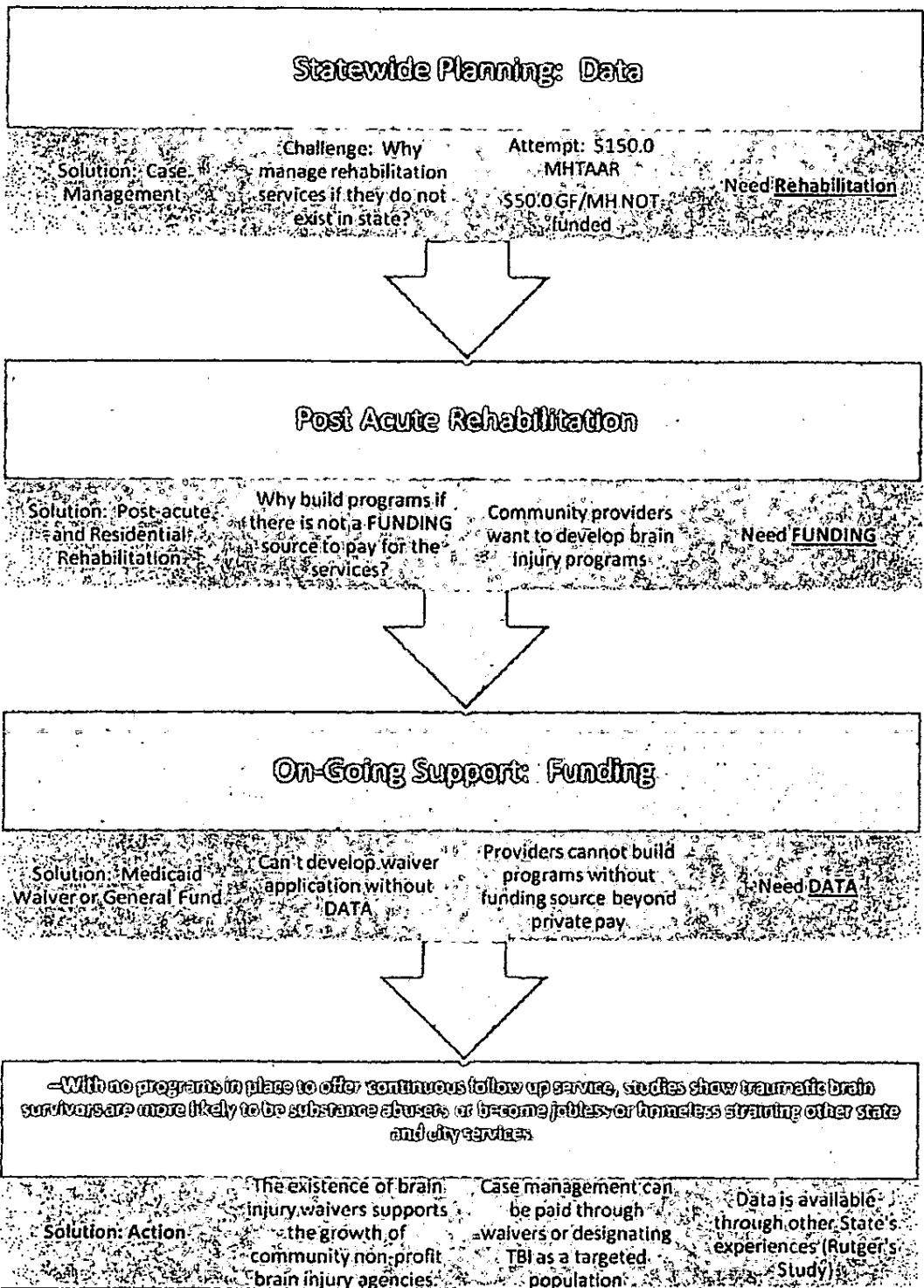
Dashboard: Providence

ImPACT Program	Spot look trend	Current Data	Source
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	Spot look trend	Current Data	Source
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 | 7 Division of Vocational Rehabilitation (FY07) |
| 4 Suicide Follow-back Study | 8 Providence Neuroservices |
| 5 http://www.eed.state.ak.us/stats/ | 9 Alaska Brain Injury Network |
| 6 Trust/DOC Study 07 | |



Alaska Trauma Hospitals as of April 2009

Name	Designation	Certification date	Certification due
Alaska Native Medical Center (Anchorage)	Level II	November 2006	2009
Mt. Edgecumbe Hospital (Sitka)	Level IV	April 2007	2010
Yukon-Kuskokwim Delta Regional Hospital (Bethel)	Level IV		2010
Sitka Community Hospital (Sitka)	Level IV	January 2007	2010
Norton Sound Regional Hospital (Nome)	Level IV	October 2006	2010

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 State Hospital and Nursing Home Association

426 Main St
Juneau, Alaska 99801
(907) 586-1790
www.ashnha.org

**TESTIMONY ON SENATE BILLS 168 and SENATE BILL 169
February 8, 2010**

ASHNHA represents 27 private, federal, state, and tribal health care facilities located throughout Alaska. The testimony presented here has been approved by ASHNHA's general membership (see detailed member list at bottom of testimony).

ASHNHA's membership supports **SB 168** and its companion bill **SB 169**.

This incentive based approach to increasing trauma treatment capability in Alaska is well reasoned and addresses one key barrier that discourages facilities from seeking trauma designation. A key barrier not addressed by SB 168 is the availability and cost associated with assuring certain physician specialties are on hand to deal with trauma cases. This barrier will continue to limit the ability of hospitals to achieve optimal trauma designation levels unless it too is addressed. In order to solve this problem Alaska's physician community will have to be included in the discussion.

A possible approach might be to broaden Section 18.08.085 to allow the Commissioner of DHSS discretion to use the 'fund' to help offset costs incurred to meet physician staffing requirements necessary to achieve trauma designation. We understand other states are deploying innovative strategies to address the physician staffing challenge which Alaska could possibly learn from and incorporate into this incentive based program if the language of Section 18.08.085 were broader.

ASHNHA supports **SB 168** and **SB 169** and urges their passage from Senate HSS to the next committee of referral at the earliest possible time. Thank you for the opportunity to testify.

This Testimony is on Behalf of the Following Alaska Health Care Facilities

Alaska Regional Hospital, Alaska Native Medical Center, Bartlett Regional Hospital, Central Peninsula General Hospital, Cordova Community Medical Center, Denali Center Nursing Home, Fairbanks Memorial Hospital, Heritage Place Nursing Home, Kakanak General Hospital, Ketchikan General Hospital, Manillaq Health Center, Mt. Edgecumbe Hospital SEARHC, Norton Sound Regional Hospital, Petersburg Medical Center, Providence Alaska Medical Center, Providence Extended Care Center, Providence Kodiak Island Medical Center, Providence Seward Medical & Care Center, Providence Valdez Medical Center, Sitka Community Hospital, South Peninsula Hospital, St. Elias Specialty Hospital, Wrangell Medical Center, Yukon Kuskokwim Delta Regional Hospital, North Star Behavioral Health, Wildflower Court Nursing Home.

ASHNHA Contact: Rod Betit • rbetit@ashnha.com • 907 586-1790



**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.

More Funding Needed To Fight Brain Injuries In Alaska

By Corey Allen-Young, CBS 11 News Reporter
KTVA

Posted:02/26/2009 05:34:33 PM AKST

Known as the silent epidemic, traumatic brain injury here in Alaska is the highest in the country. That's why partnerships are being made statewide to come up with solutions. The key word is solutions as leaders are looking for a permanent fix to decreasing traumatic brain injuries in Alaska. Experiencing a traumatic brain injury can change a life forever. "The recovery process after traumatic brain injury is journey that happens daily and it will continue," said Jill Hodges, of the Alaska Brain Injury Network. With 800 Alaskans being hospitalized or dying and over 10,000 Alaskans currently living with traumatic brain injuries, the consequences could be devastating.

"Yeah it will change your life and everybody else's around you," said Frank Box, who experienced a traumatic brain injury. "It can happen to you while you are walking across the street, you can fall and slip on the ice, or if you are playing a sport or riding a bicycle especially without a helmet, you can also suffer traumatic brain injury," said Christie Artuso, who is the director of the Providence Neuroscience Center. "My brother was a such a vibrant, outgoing person, and for this to happen to him is just unreal," said Duain White, whose brother suffered a traumatic brain injury in an ATV accident.

Taking into account that traumatic brain injuries are the leading cause of death and disability among children and young adults in Alaska, the need to be aware of what exactly can cause an injury is crucial. "We can't do that without the prevention needed and the education needed of our population to tell them about TBI (traumatic brain injury) and to also tell them on how to be healthy," said Don Kashevaroff, who is the CEO of the Alaska Native Tribal Health Consortium. "What we don't have in the state of Alaska is an effective rehabilitative program for people who have been afflicted with a traumatic brain injury can be helped with cognitive therapies, thru rehabilitative therapies to return to a normal functioning life," said Artuso.

Thirty years ago, one half of people who experienced a brain injury survived. Now the number has increased to 78 percent. But officials say the problem in our state is that traumatic brain injury survivors are not getting the services needed for life long living. While people who are victims of traumatic brain injuries do receive initial help there are many questions of what happens next for them. And with money in low supply to provide any additional support, officials say other agencies could be feeling the burden.

With over 10,000 Alaskans currently living with traumatic brain injuries, getting additional care and support is badly needed. "We were just released from the hospital and that was it there was no long term therapy, there was no where to go to offer cognitive therapy, long term physical therapy," said White. "We want to help them maintain their relationships, maintain their families, maintain their lifestyles," said Artuso. "What we need are community and governmental support to do that because currently there is no resources."

Adding more resources is what folks are banking on in helping their loved ones live normal functioning lives. "Is that all we can offer him, is that the best he's going to be doing the rest of his life, its very frustrating," said White. "Treatment, rehabilitation services are essential, they are the key to recovery and sometimes eventual abilities for our brothers or sisters, and family members," said Hodges. With no programs in place to offer continuous follow up service, studies show traumatic brain survivors are more likely to be substance abusers or become jobless or homeless straining other state and city services.

Close Window

Send To Printer

Uninsured Trauma Victims Face High Death Rate

(Nov. 16) — It's federal law: All seriously injured emergency and trauma patients must be given equal lifesaving care, whether or not they can pay for it. But that's not happening, according to a new report. The study, conducted by Children's Hospital Boston research fellow Dr. Heather Rosen and colleagues from three other hospitals, found that uninsured trauma victims ages 18 to 30 are dying at an annual rate 89 percent higher than insured victims with identically severe injuries.

As the health reform tornado continues to swirl on Capitol Hill, the data could provide fresh ammunition for those pushing for expanded health insurance coverage.

The study, published today in the Archives of Surgery, examines the survival rates for patients brought to about 900 U.S. trauma centers between 2002 and 2006, analyzing some 690,000 patients who had suffered penetrating trauma — such as wounds inflicted by a gun or knife — or blunt trauma from vehicle crashes and falls. Earlier research found 18,000 extra deaths a year among uninsured victims of such injuries. Rosen and the other researchers chose to focus on the 18-to-30-year-old subset because they had fewer existing conditions — comorbidity — that muddy the evaluation of the cause of death.

Courtesy of Heather Rosen

Dr. Heather Rosen, a research fellow at Children's Hospital Boston who authored the study.

The study concludes that there is "pervasive evidence of disparities in screening, hospital admission, treatment and outcome due to insurance status." Overall, uninsured patients had the highest rate of death, even after controlling for age, sex, race, and severity and mechanism of injury.

In an e-mail interview, Rosen puts it more plainly: "Uninsured patients in the

United States have a higher risk of dying after trauma, even though there is universal access to emergency care."

That the absence of insurance leads to preventable deaths of patients with cancer, diabetes, respiratory and other chronic diseases is by now accepted wisdom among medical professionals. But existing policy is supposed to protect victims of trauma and other acute medical events, for whom instant medical intervention makes the difference between survival and death. In 1986, in response to widespread dumping of uninsured critically injured or ill patients onto the street or on lesser hospitals, Congress passed the Emergency Medical Treatment and Active Labor Act. It mandated that hospitals and ambulance services provide care to anyone who needs emergency treatment, regardless of citizenship, legal status or ability to pay.

But if the law is not preventing uninsured trauma patients from receiving standard care, as Rosen's study indicates, the question becomes why.

Trauma is well-studied, and the specific steps that must be taken to keep the lethal dominoes from falling are well-established. Dr. R Adam Cowley, one of the fathers of the field, sermonized on the importance of the "Golden Hour" that exists between an injury and getting the patient definitive treatment. "Who's paying the bill is the last thing we have time to worry about," he liked to say. Trauma doctors and nurses insist that mentality continues to govern today, even as the high cost of trauma care and ICU follow-up — which can run to hundreds of thousands of dollars for a single patient — have brought trauma centers in Los Angeles, Miami and other urban areas to the edge of bankruptcy and created pressure to cut costs.

Interviewed over the weekend, nine members of five different trauma units who had read the study all had the same message: "Not in my shop." "They will tell you

they don't even know the funding status of most of their patients until after they've been hospitalized for some time," says Dr. Harold Sherman, a retired trauma surgeon in Pittsburgh. "They take and treat all comers equally as required by their ethics and the law, and certainly don't actively discriminate on the basis of insurance status."

Some trauma specialists I spoke with recall representatives from the hospital billing departments sometimes hovering at the fringes of the bloody ballet to save a life. But as a trauma social worker from Washington, D.C. — who declined to allow her name to be used because she isn't authorized to speak to reporters — puts it: "They would never be foolish enough to tell a trauma surgeon to not order this or that test, or cancel a scan or expensive lab work because they found no insurance card in the patient's wallet."

"What surgeon, ER doc or nurse would risk their license and violate federal law to keep the billing office happy?" the social worker adds.

The problems, Sherman explains, creep in after patients leave trauma care. "Post-discharge care certainly does vary with insurance status. It is a constant irritant to trauma surgeons."

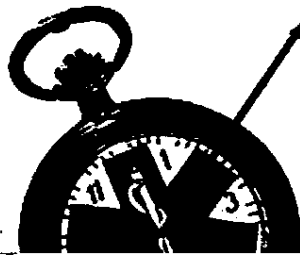
Dr. Gregory Jurkovich, chief of trauma for Seattle's Harborview Medical Center, claims his hospital had not seen the disparity in treatment described in Rosen's report, but he too says that follow-up efforts are falling short. For the underinsured, he says, "there is decreased access to rehabilitation and chronic care services."

Such anecdotal evidence squares with another finding of Rosen's study: Even when everything else was equal, "uninsured patients received significantly fewer radiographic studies and were less likely to be admitted compared with insured patients with similar diagnoses."

In a comment published with the journal article, Dr. Brent Eastman, a trauma and vascular surgeon from Scripps Memorial Hospital in San Diego who was just elected chairman of the Board of Regents of the American College of Surgeons, noted that emergency rooms and trauma centers "are the safety net for many communities." He called for Rosen's conclusions to be taken seriously.

Rosen cautions that the definitive cause for the higher death rate for uninsured people remains to be determined. Still, the hard number — the nearly 90 percent jump in mortality rates for uninsured accident victims — speaks loudly on its own. "Although the lack of insurance may not be the only explanation," she says, "the accidental costs of being uninsured in the United States today may be too high to continue to overlook."

2009 AOL Inc. All Rights Reserved.



IT'S ABOUT TIME GEORGIA NEEDS A TRAUMA SYSTEM

TRAUMA OVERVIEW	NEWS & RESOURCES	GET INVOLVED
---------------------------------	--------------------------------------	------------------------------

It's about time... the golden hour.

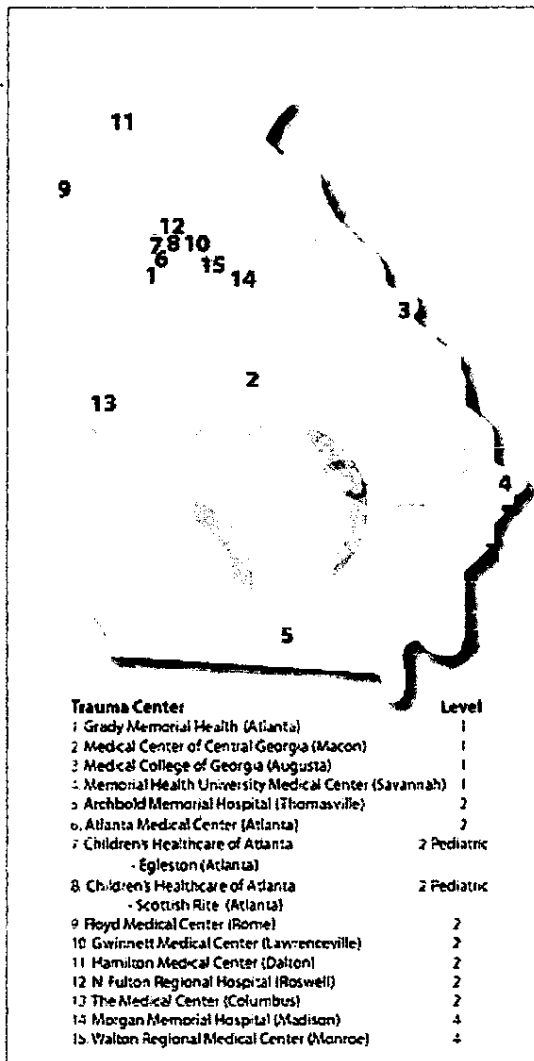
The clock begins ticking the instant that the car crashes, the worker falls, or the bullet rips into the victim.

Then it's a race against time and distance. A trauma patient's chances of survival increase dramatically if he or she receives care within the "golden hour" immediately following injury. Rapid response by emergency medical technicians in ground and air ambulances is critical. So is the distance to the nearest trauma center - a special hospital facility with the resources and medical specialists to handle the most severe injuries. [View our interactive map to determine the distance to your nearest trauma center.](#)

Most hospitals with an emergency room are not trauma centers. In Georgia, only 15 of the state's 152 acute-care hospitals are - an alarmingly inadequate number. Georgia should have approximately 25-30 designated trauma centers in strategic locations to adequately address trauma and emergency preparedness needs.

It's about time... to save as many as 700 lives a year.

Although some regions of Georgia have excellent trauma care, gaps exist. Georgians in many areas simply do not have fast access to trauma care. As a result, of the estimated 40,000 cases of major trauma each year in Georgia, only about 10,000 are treated in designated trauma centers.



Get Invo

[Sign the E-r](#)

[How you ca](#)

News:

[Press Release: Go Commends Pass: Speeder Legisla Governor Perdue's](#)

[Super speeders' t governor 3/25/ Business Cr](#)

[House votes to axi tax 3/12/09 Atlat Constitution, Gol](#)

[State house approv vehicle taxes 3/1 Telegra](#)

[Super Speeder f Trauma Care 3/9/0 News](#)

[UPDATED: Hous stiffer penal 'superspeeders' 3. Journal-Constitutio Live](#)

[Cagle: Senate Strengt Trauma Netwo georgia.gov, Office Casey C:](#)

[The "golden matter of life & March '09 GEM Magazi](#)

[Trauma Day at: Demonstrated Wid Trauma Funding 2/](#)

[EMS director un 2/19/09 Cordele](#)

Access to trauma care is a matter of life and death. Trauma is the number one killer of Americans between the ages of one and 44, and the number three cause of death across all age groups. Studies report that as many as one third of trauma deaths occurring in areas without an organized trauma care system are preventable. Georgia's trauma death rate is significantly higher than the national average: 63 of every 100,000 people compared to the national average of 56 per 100,000. If Georgia's death rate improved to the national average, it would mean a difference of as many as 700 more lives saved every year.

MEDIA ADVISORY
at the Ca

The clock is tick
Augusta Ch

Status of Trauma
Condition Winter 2
Society of Anesthe
Newslet

It's about time ...that Georgia has a statewide trauma system.

Georgia's trauma death rate have an adequate statewide trauma system.

The movement to establish a statewide trauma system in Georgia began 30 years ago and in recent years there has been progress. In 2006, the state legislature began a study of the infrastructure and funding mechanisms needed. In 2007 lawmakers passed Senate Bill 60 and created the Georgia Trauma Care Network Commission to continue the work. And, in early 2008, Gov. Sonny Perdue and the General Assembly approved a one-time \$58.9 million appropriation which the Commission later distributed to trauma care providers. But the General Assembly has stopped short of a long-term solution.

What citizens :

*As an emergenc
former trauma prog
I cannot begin to
need for this to occ
our legislators to
issue immediately -
been done years at
lives could have t
We'll never know
Estrada, Sa

The keys are establishing an integrated trauma infrastructure throughout the state, and easing the financial burden on those who provide trauma care, but are not paid for their services. Financial losses due to the cost of uncompensated care by hospitals, physicians and emergency medical services (EMS) providers discourage hospitals from adding new trauma centers and pressure participating hospitals to close their trauma centers.

About the (
Statewide Trau
Team (G

The Georgia Statew
Action Team (GSTA
coalition of hospital
providers, physician
local government of
business leaders ar
interested in creatin
trauma system. A pi
member advisory br
representing stakeh
every region of Geo
the trauma awarene
For more about the
the GSTAT advison
here.

Now it's time for action that will ensure that trauma care will be available for our families, our neighbors and us.

More delay means more lives lost.

Now is the time for Georgia's local government officials, business leaders and citizens to join with hospital administrators, physicians, nurses, and EMS providers in declaring support for development of a statewide trauma system.

This Web site examines trauma care in Georgia. It is sponsored by the Georgia Statewide Trauma Action Team (GSTAT), a coalition of hospitals, EMS providers, physicians, nurses and others interested in creating a statewide trauma system. The cost of licensing and maintaining this Web site is underwritten by a grant from Healthcare Georgia Foundation, Inc. We hope it enlightens you, and inspires you to join us in working for a statewide trauma system.

Rynnieva Moss

From: Christopher Clark [cgalaska@yahoo.com]
Sent: Wednesday, March 11, 2009 8:44 AM
To: Tim Barry; John Bitney; Shannon Devon; Peter Fellman; Linda Hay; Paul Labolle; Karen Lidster; Tom Maher; John Manly; Rynnieva Moss; Jane Pierson; Chris Wyatt
Subject: Daily News editorial: Attracting doctors - Legislature can raise Alaska's stake in competition for docs; Obama right to nix mileage tax

Attracting doctors

Legislature can raise Alaska's stake in competition for docs

Published: March 10th, 2009 06:54 PM
Last Modified: March 10th, 2009 06:54 PM

Alaska's shortage of primary care doctors has been described as grim. A study two years ago found **we needed 400 more doctors to provide the same level of care as is available elsewhere in the country.** One result is that few doctors will accept the low rates paid by Medicare, the government insurance for those 65 and older. **It's a horrible situation for Alaska's senior citizens.**

Two bills introduced during this legislative session would help relieve the shortage of doctors and other health care workers, and both are worth passing.

Senate Bill 18 would increase the number of state-subsidized medical students in each class of the WWAMI program operated through the University of Washington. Alaska WWAMI students spend their first year of study at UAA.

These students offer an excellent return -- according to the Alaska Physician Supply Task Force study in late 2006, half of Alaska WWAMI students end up practicing in the state, and a few WWAMI students from other states join them.

The state raised the number of Alaska WWAMI students in each class to 20 in 2007.

SB 18 would increase the number by a modest amount, to 24. That's the most UAA can accommodate without incurring expensive overhead costs, said Sen. Bill Wielechowski of Anchorage, the bill's sponsor.

Adding the four students would cost the state little to no money the first year. But by the fourth year, when we would have an additional 16 Alaska students in med school, the state cost is estimated at \$550,000 per year.

A second bill, SB 139 [by Sen. Donny Olson], calls for the state to pay financial incentives to already-qualified doctors, nurses or other health workers if they take certain jobs in Alaska.

The bill, with a bipartisan group of sponsors, would carry out a plan developed by a group of health care professionals including representatives of the Alaska Primary Care Association and the Alaska State Hospital and Nursing Home Association.

The state would offer financial incentives to as many as 90 workers, from physicians to nurses, to come work in Alaska. Those who take hard-to-fill jobs, or treat a share of uninsured patients or those on Medicare or Medicaid, would get priority.

3/12/2009

Each person would be guaranteed the incentive for three years as long as they kept working here.

The state would either repay part of their student loans or, if the health worker didn't have loans, simply pay them directly. The individual payments would range from \$20,000 per year for nurses, physicians assistants and some others, to \$35,000 for doctors, pharmacists and dentists, to \$47,000 for doctors who accept the hardest-to-fill positions.

The state's cost for three years' worth of incentives would be \$7.5 million.

That sum is large enough to cause concern this year, with a big drop in state revenues anticipated.

But consider this: Forty-four of the 50 states already offer financial incentives to lure health workers. Alaska is not competitive for health care jobs, and people are suffering because of it.

BOTTOM LINE: The Legislature should pass two bills to relieve a critical shortage of health care workers in Alaska.

Not now

Obama right to nix mileage tax

States and the federal government rightly worry that they'll see less revenue to pay for road work as Americans turn to more fuel-efficient vehicles and future technology takes us further from the internal combustion engine.

One solution is a mileage tax, whereby vehicles would be equipped with GPS tracking devices and people would be taxed according to the miles they drive rather than the gallons of gasoline they purchase.

Oregon has already run a pilot program for such a tax, and a federal mileage tax has gained favor in the Democratic Congress despite the opposition of President Obama.

Concerns for revenue and how to pay for road building and maintenance are valid. But the mileage tax is the wrong solution, at least for now.

First, a major shift in transportation tax policy shouldn't be done on the fly in the middle of an economic crisis. There are too many unanswered questions. Among them:

- Is the ability to track people's driving one we want governments to have?
- How does such a tax encourage the use of higher-mileage vehicles? Is the owner of a hybrid getting 35 mpg going to pay the same tax as the owner of a gas-guzzling Hummer?
- Do we really want to charge people more for miles driven during rush hours, a premium that's been suggested in some states?

Raise the gasoline tax if necessary, but let's not be talking about a mileage tax until we've done a lot more research.

BOTTOM LINE: Mileage tax? Maybe down the road. Maybe.

3/12/2009

Alaska Statewide Trauma System

Fact Sheet

What is Trauma?

Trauma is any bodily injury from external force. Although many people think of trauma as "accidents", it is better thought of as a disease. Like heart disease and cancer, trauma has identifiable causes and risk factors; and like these conditions, prevention is the best strategy. However, even with the best prevention efforts we still need to be able to take care of the seriously injured. We need to show the same commitment that we brought to cardiac and cancer treatment to trauma care. The seriously injured require timely diagnosis and treatment by health care professionals who are appropriately trained and provided with the necessary resources to reduce the risk of death or permanent disability.

Impact of Trauma in Alaska

Trauma is a tremendous burden on families and communities. In the 1990s, nearly 5,000 Alaskans died from trauma.

- For Alaskans, ages 1 to 44, trauma is the leading cause of death.
- On average, more than 400 Alaskans die from trauma each year. For every injury death, eleven people are hospitalized for trauma-related injuries. For every trauma death that occurs in the hospital, there are an estimated 3 people discharged with permanent disability.
- On average, more than 800 Alaskans are hospitalized each year for central nervous system injury (spinal cord and brain injuries).
- In 2004, motor vehicles were the leading cause of injury death (117), followed by firearm-related injuries (116).
- In 2004, the economic cost of hospital stay alone for trauma patients in Alaska was estimated at over \$73 million. One in four hospital admissions were uncompensated.

Years of Potential Life Lost to Trauma

Death from trauma is tragic at any age. Society's loss is especially great because so many young people die from trauma. The impact can be measured in "years of potential life lost:" the number of years between early death from injury and the average age of death at age 70. Using years of potential life lost, trauma is the leading cause of potential life lost for all Alaskans followed by cancer and heart disease.

What is a Trauma System?

A trauma system is a predetermined, organized, multidisciplinary response to managing the care and treatment of severely injured people. It spans the full spectrum of care; from prevention and emergency care to recovery and rehabilitation. Best practice standards guide each stage of care to ensure that injured patients are promptly transported to and treated at facilities appropriate to their severity of injury and that they receive optimal care at each stage of their treatment.

A statewide trauma system also provides a framework for disaster preparedness and response. As part of its activities, a trauma system coordinates and monitors the

movement and care of severely injured people. Ideally, the trauma system identifies the needs and resources available at any moment and responds to insure optimal care.

Why Have a Trauma System?

For a severely injured person, the time between an injury and receiving definitive care is the most important predictor of survival—the “golden hour.” The chance of survival diminishes with time, despite of the availability of resources and modern technology. A trauma system enhances the chance of survival by making sure that patients are brought to the most appropriate facility in the most efficient manner and that they receive optimal care each step of the way. Trauma systems benefit everybody regardless of income, race, party affiliation or locale. States with mature, comprehensive statewide trauma systems have experienced:

- A 9 percent decrease in motor vehicle crash deaths.
- A 15-20 percent increase in the survival rates of seriously injured patients.
- An increase in productive working years.
- An improvement in statewide disaster preparedness.

Disaster Preparedness

Trauma systems play a vital role in the community response to natural disasters or manmade incidents. Despite concerns over bioterrorism, experience has shown that the vast majority of terrorist attacks will involve explosive devices. We also do know that Alaska will experience major earthquakes in the future. A functioning trauma system is the framework for developing an organized coherent response to these incidents

Alaska's Trauma System

In 1990, state authority for designating trauma centers was created in Alaska. Under this statute hospital participation is entirely voluntary. Criteria were established and the process for designation at Levels I-IV outlined. Since the original legislation there have been only three hospitals that have been designated by the state. One level II and four level IV centers. Clearly to fully realize the benefits of a trauma system more widespread participation is needed. Alaska's trauma system is ideally an inclusive system, recognizing the vital role that rural communities, hospitals and health care professionals play in the care and management of the trauma patient. Wide-scale involvement is critical to get optimal outcomes for the seriously injured.

Review of Alaska Trauma Care by the American College of Surgeons November 2008

The Alaska Department of Health and Social Services (DHSS) recently contracted with the Committee on Trauma of the American College of Surgeons to review trauma care in Alaska. The full report is available on the DHSS website (www.chems.alaska.gov). It notes our strengths and weaknesses and makes recommendations for improving trauma care in our state.

Strengths include: well established injury prevention programs; extensive and creative networks for ground and air medical transport; medical subspecialty availability at three

Anchorage hospitals; and a good relationship with Harborview Medical Center (Level I trauma center) in Seattle.

Deficiencies include the lack of an additional Level II trauma center in Anchorage and the existence of two patterns of trauma care, one for Alaska natives that follows national standards and one for the rest of the state. The review team members noted that among the nontribal hospitals " few of the facilities serving the majority population have made a similar commitment to achieving nationally recognized standards of trauma care". They also noted that there is no statewide trauma plan and no incentive or requirements for hospitals to participate in the system. Additionally, there are few resources at the state level for trauma system management and coordination. Perhaps as important as any of the above, they noted that there seemed to be very little public awareness of trauma system issues.

The review team made 15 priority recommendations. Several involve better organization of state resources and development of a comprehensive statewide trauma plan. The most sweeping recommendation was that all acute care hospitals be required to become designated trauma centers at a level appropriate to their resources and size within two years. They further stated that there should be a second level II trauma center in Anchorage as soon as possible. In addition, an assessment of pediatric trauma care needs should be completed with the goal of developing at least one pediatric trauma center of excellence.

The Alaska Trauma Systems Review Committee oversees the statewide trauma system in Alaska. The system addresses four primary components: trauma hospital designation criteria; trauma registry (monitors system performance and provides feedback for improvement); EMS/pre-hospital triage and transport guidelines; and inter-facility (hospital to hospital) transfer guidelines.

Where To Go From Here

- Increased hospital participation is necessary for the statewide trauma system to function optimally.
- There need to be incentives for hospitals to provide the staff and resources required for trauma center designation.
- Legislation to cover the cost of uncompensated trauma care and to limit the medical liability for care given at designated trauma centers are two incentives that have been successful in other states.

House Bills 168 and 169 have been introduced by John Coghill to encourage hospitals to participate in the trauma system by covering some of the cost of uncompensated trauma care when it is given at designated trauma centers.

The goal of the statewide trauma system is to see every hospital in Alaska designated at an appropriate level.

- *Surveys show that the general public overwhelmingly supports having a hospital in their community that is prepared for and capable of effectively managing a seriously injured patient—and are willing to pay for it!

*2005 Harris Interactive poll, "The American Public's Views of and Support for Trauma Systems: A Congressional Briefing."

Alaska Statewide Trauma System contact information:

Frank Sacco MD FACS
Chair Trauma Systems Review
Committee

fsacco@anmc.org

907 729 2732

Julie Rabeau
Trauma Program Manager
Department of Health and Social
Services

julie.rabeau@alaska.gov

907 334 2175

Mailing Address:

Dept of Surgery
Alaska Native Medical Center
4315 Diplomacy Drive
Anchorage, AK 99508

Mailing Address:

Alaska Department of Health and Social Services
Division of Public Health Preparedness Program
3601 C Street Suite 756
Anchorage, Alaska 99503-0616



Alaska Statewide Trauma System

Fact Sheet

What is Trauma?

Trauma is any bodily injury from external force. Although many people think of trauma as "accidents", it is better thought of as a disease. Like heart disease and cancer, trauma has identifiable causes and risk factors; and like these conditions, prevention is the best strategy. However, even with the best prevention efforts we still need to be able to take care of the seriously injured. We need to show the same commitment that we brought to cardiac and cancer treatment to trauma care. The seriously injured require timely diagnosis and treatment by health care professionals who are appropriately trained and provided with the necessary resources to reduce the risk of death or permanent disability.

Impact of Trauma in Alaska

Trauma is a tremendous burden on families and communities. In the 1990s, nearly 5,000 Alaskans died from trauma.

- For Alaskans, ages 1 to 44, trauma is the leading cause of death.
- On average, more than 400 Alaskans die from trauma each year. For every injury death, eleven people are hospitalized for trauma-related injuries. For every trauma death that occurs in the hospital, there are an estimated 3 people discharged with permanent disability.
- On average, more than 800 Alaskans are hospitalized each year for central nervous system injury (spinal cord and brain injuries).
- In 2004, motor vehicles were the leading cause of injury death (117), followed by firearm-related injuries (116).
- In 2004, the economic cost of hospital stay alone for trauma patients in Alaska was estimated at over \$73 million. One in four hospital admissions were uncompensated.

Years of Potential Life Lost to Trauma

Death from trauma is tragic at any age. Society's loss is especially great because so many young people die from trauma. The impact can be measured in "years of potential life lost:" the number of years between early death from injury and the average age of death at age 70. Using years of potential life lost, trauma is the leading cause of potential life lost for all Alaskans followed by cancer and heart disease.

What is a Trauma System?

A trauma system is a predetermined, organized, multidisciplinary response to managing the care and treatment of severely injured people. It spans the full spectrum of care; from prevention and emergency care to recovery and rehabilitation. Best practice standards guide each stage of care to ensure that injured patients are promptly transported to and treated at facilities appropriate to their severity of injury and that they receive optimal care at each stage of their treatment.

A statewide trauma system also provides a framework for disaster preparedness and response. As part of its activities, a trauma system coordinates and monitors the

movement and care of severely injured people. Ideally, the trauma system identifies the needs and resources available at any moment and responds to insure optimal care.

Why Have a Trauma System?

For a severely injured person, the time between an injury and receiving definitive care is the most important predictor of survival—the “golden hour.” The chance of survival diminishes with time, despite of the availability of resources and modern technology. A trauma system enhances the chance of survival by making sure that patients are brought to the most appropriate facility in the most efficient manner and that they receive optimal care each step of the way. Trauma systems benefit everybody regardless of income, race, party affiliation or locale. States with mature, comprehensive statewide trauma systems have experienced:

- A 9 percent decrease in motor vehicle crash deaths.
- A 15-20 percent increase in the survival rates of seriously injured patients.
- An increase in productive working years.
- An improvement in statewide disaster preparedness.

Disaster Preparedness

Trauma systems play a vital role in the community response to natural disasters or manmade incidents. Despite concerns over bioterrorism, experience has shown that the vast majority of terrorist attacks will involve explosive devices. We also do know that Alaska will experience major earthquakes in the future. A functioning trauma system is the framework for developing an organized coherent response to these incidents

Alaska's Trauma System

In 1990, state authority for designating trauma centers was created in Alaska. Under this statute hospital participation is entirely voluntary. Criteria were established and the process for designation at Levels I-IV outlined. Since the original legislation there have been only three hospitals that have been designated by the state. One level II and four level IV centers. Clearly to fully realize the benefits of a trauma system more widespread participation is needed. Alaska's trauma system is ideally an inclusive system, recognizing the vital role that rural communities, hospitals and health care professionals play in the care and management of the trauma patient. Wide-scale involvement is critical to get optimal outcomes for the seriously injured.

Review of Alaska Trauma Care by the American College of Surgeons November 2008

The Alaska Department of Health and Social Services (DHSS) recently contracted with the Committee on Trauma of the American College of Surgeons to review trauma care in Alaska. The full report is available on the DHSS website (www.chems.alaska.gov). It notes our strengths and weaknesses and makes recommendations for improving trauma care in our state.

Strengths include: well established injury prevention programs; extensive and creative networks for ground and air medical transport; medical subspecialty availability at three

Anchorage hospitals; and a good relationship with Harborview Medical Center (Level I trauma center) in Seattle.

Deficiencies include the lack of an additional Level II trauma center in Anchorage and the existence of two patterns of trauma care, one for Alaska natives that follows national standards and one for the rest of the state. The review team members noted that among the nontribal hospitals " few of the facilities serving the majority population have made a similar commitment to achieving nationally recognized standards of trauma care". They also noted that there is no statewide trauma plan and no incentive or requirements for hospitals to participate in the system. Additionally, there are few resources at the state level for trauma system management and coordination. Perhaps as important as any of the above, they noted that there seemed to be very little public awareness of trauma system issues.

The review team made 15 priority recommendations. Several involve better organization of state resources and development of a comprehensive statewide trauma plan. The most sweeping recommendation was that all acute care hospitals be required to become designated trauma centers at a level appropriate to their resources and size within two years. They further stated that there should be a second level II trauma center in Anchorage as soon as possible. In addition, an assessment of pediatric trauma care needs should be completed with the goal of developing at least one pediatric trauma center of excellence.

The Alaska Trauma Systems Review Committee oversees the statewide trauma system in Alaska. The system addresses four primary components: trauma hospital designation criteria; trauma registry (monitors system performance and provides feedback for improvement); EMS/pre-hospital triage and transport guidelines; and inter-facility (hospital to hospital) transfer guidelines.

Where To Go From Here

- Increased hospital participation is necessary for the statewide trauma system to function optimally.
- There need to be incentives for hospitals to provide the staff and resources required for trauma center designation.
- Legislation to cover the cost of uncompensated trauma care and to limit the medical liability for care given at designated trauma centers are two incentives that have been successful in other states.

House Bills 168 and 169 have been introduced by John Coghill to encourage hospitals to participate in the trauma system by covering some of the cost of uncompensated trauma care when it is given at designated trauma centers.

The goal of the statewide trauma system is to see every hospital in Alaska designated at an appropriate level.

- *Surveys show that the general public overwhelmingly supports having a hospital in their community that is prepared for and capable of effectively managing a seriously injured patient—and are willing to pay for it!

*2005 Harris Interactive poll, "The American Public's Views of and Support for Trauma Systems: A Congressional Briefing."

Alaska Statewide Trauma System contact information:

Frank Sacco MD FACS
Chair Trauma Systems Review
Committee

fsacco@anmc.org

907 729 2732

Mailing Address:

Dept of Surgery
Alaska Native Medical Center
4315 Diplomacy Drive
Anchorage, AK 99508

Julie Rabeau
Trauma Program Manager
Department of Health and Social
Services

julie.rabeau@alaska.gov

907 334 2175

Mailing Address:

Alaska Department of Health and Social Services
Division of Public Health Preparedness Program
3601 C Street Suite 756
Anchorage, Alaska 99503-0616



TRAUMA CARE IN ALASKA 2010

Frank Sacco MD, FACS
Alaska Trauma Systems Review Committee



Goals

- Trauma as a public health problem here in the US and Alaska.
- Trauma systems- Treating the severely injured.
- American College of Surgeons Review: Trauma Care in Alaska.
- The Future.

Introduction

“If a disease were killing our children at the rate unintentional injuries are, the public would be outraged and demand that this killer be stopped.”

C. Everett Koop, MD, ScDC. ScD
Former US Surgeon General
Former General Chairman, The National SafeKids Campaign

Introduction

- Injury is a major public health problem
 - Leading cause of death in 1st 4 decades of life
 - Leading cause of loss of productivity
- Despite the magnitude little public focus
- The “neglected disease” since 1966
- Significant progress in individual patient care
- Trauma systems shown to save lives

Trauma in Alaska

- Second highest trauma mortality in the US
- Leading cause of death age 1-44.
- 400-500 alaskans die each year.
- Over 5000 hospital admissions.
- Over 1000 with permanent disability.

All Cause Mortality Alaska

10 Leading Causes of Death Alaska
2005, All Races, Both Sexes

Rank	Age Groups										All Ages
	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	
1	Congenital Anomalies 15	Unintentional Injury 4	Unintentional Injury 3	Unintentional Injury 13	Unintentional Injury 47	Unintentional Injury 54	Unintentional Injury 55	Malignant Neoplasms 104	Malignant Neoplasms 163	Malignant Neoplasms 419	Malignant Neoplasms 732
2	Unintentional Injury 13	Congenital Anomalies 2	Malignant Neoplasms 2	Congenital Anomalies 1	Stroke 81	Stroke 28	Stroke 24	Heart Disease 71	Heart Disease 111	Heart Disease 406	Heart Disease 627
3	Maternal Pregnancy Comp. 7	Unintentional Injury 1	Congenital Anomalies 1	Heart Disease 1	Unintentional Injury 10	Unintentional Injury 10	Malignant Neoplasms 30	Unintentional Injury 56	Unintentional Injury 29	Cerebrovascular Disease 139	Unintentional Injury 313
4	Short Gestation 6			Unintentional Injury 1	Heart Disease 6	Malignant Neoplasms 7	Heart Disease 26	Stroke 25	Chronic Low. Respiratory Disease 26	Chronic Low. Respiratory Disease 117	Cerebrovascular Disease 178
5	Unintentional Injury 2			Malignant Neoplasms 1	Malignant Neoplasms 6	Heart Disease 6	Liver Disease 10	Liver Disease 16	Cerebrovascular Disease 19	Alzheimer Disease 80	Chronic Low. Respiratory Disease 168
6	Necrotizing Enterocolitis 2			Meningitis 1	Cerebrovascular Disease 1	Diabetes Mellitus 2	Cerebrovascular Disease 7	Chronic Low. Respiratory Disease 14	Diabetes Mellitus 17	Diabetes Mellitus 57	Stroke 181
7	SIDS 2				Congenital Anomalies 1	Nephritis 2	Unintentional Injury 10	Diabetes Mellitus 14	Liver Disease 12	Unintentional Injury 39	Diabetes Mellitus 93
8	Six Tied 1				Diabetes Mellitus 1	Congenital Anomalies 1	Septicemia 4	Cerebrovascular Disease 12	Influenza & Pneumonia 11	Influenza & Pneumonia 30	Alzheimer Disease 61
9	Six Tied 1				Pneumonitis 1		Three Tied 2	Three Tied 5	Stroke 8	Nephritis 28	Liver Disease 52
10	Six Tied 1						Three Tied 2	Three Tied 5	Septicemia 7	Parkinson Disease 22	Influenza & Pneumonia 44

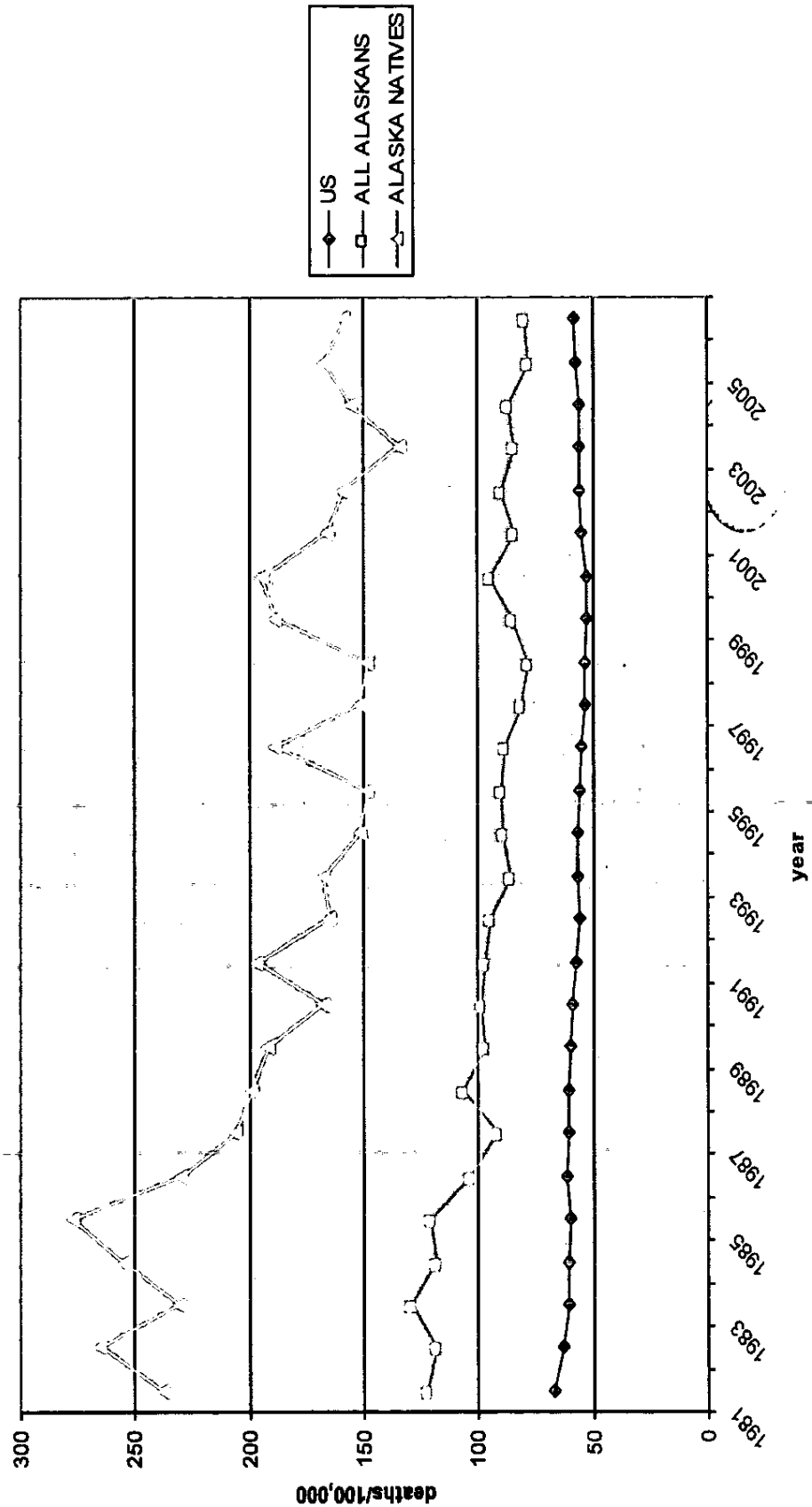
Produced By: Office of Statistics and Programming, National Center for Injury Prevention and Control, Centers for Disease Control and Prevention

Data Source: National Center for Health Statistics (NCHS), National Vital Statistics System

WISQARS™

Trauma Mortality in Alaska

Age Adjusted Trauma Mortality



Trauma in Alaska

- Motor vehicle crashes leading cause of death.
- Firearm related injuries, second.
- 2004 hospital cost for Alaska trauma patients over \$73 million.
- ~ 25% over trauma admissions uncompensated.

Trauma Systems

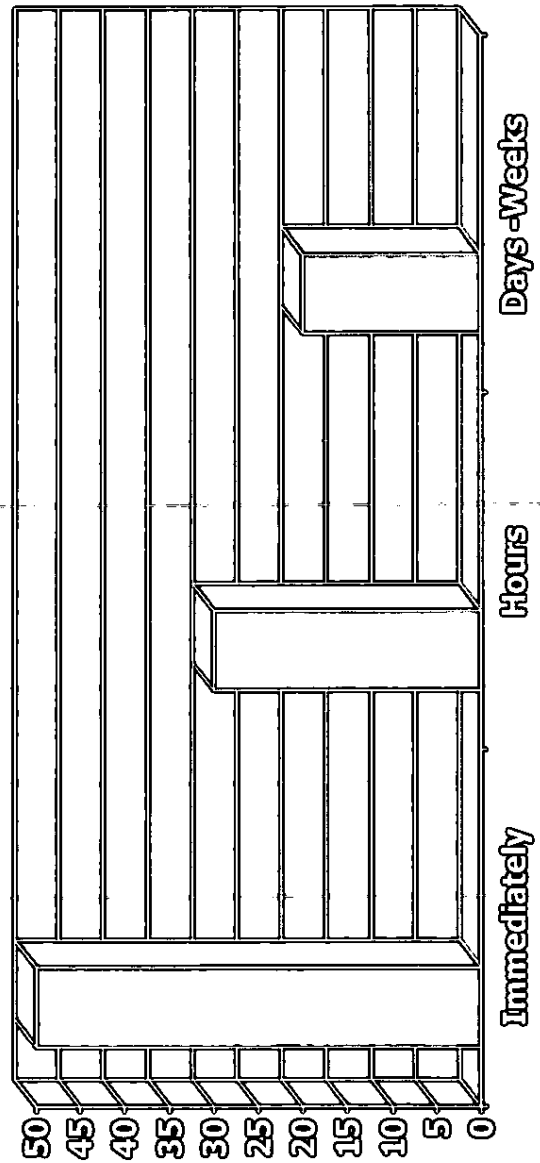
Wounded in the remote jungle or rice paddy of Vietnam, an American citizen has a better chance for quick definitive surgical care by board certified specialists than were he hit on a highway near his home in the continental United States. Even if he were struck immediately outside the emergency room of most United States hospitals rarely would he be given such prompt, expert operative care as routinely is furnished from the site of combat wounding in Vietnam."

Eiseman, Journal of Trauma, 1967

Trauma Systems

- ◆ A trauma system consists of hospitals, personnel, and public service agencies with a preplanned response to caring for the injured patient.

Death from Trauma



Trauma Systems: Military Experience

➤ “The only victor in war is medicine”

Mayo brothers WWII

Vietnam and Iraq development of systems of care to ensure optimal care from injury to rehab.

Trauma Systems

“Getting the right patient to the right place in the right amount of time.”

- ◆ Facilities (trauma center designation)
- ◆ Personnel (training)
- ◆ Patient transport
- ◆ Triage

Facilities-Trauma Centers

- Level I -Definitive subspecialty care, research.
- Level II – Definitive subspecialty care, surgery, orthopedics, neurosurgery.
- Level III- General surgery, orthopedics, no neurosurgery
- Level IV- Stabilization, limited or no surgical capacity

Trained Personnel

- ▶ ATLS
- ▶ TNCC
- ▶ PHTLS
- ▶ ETT first responders
- ▶ RTTDC

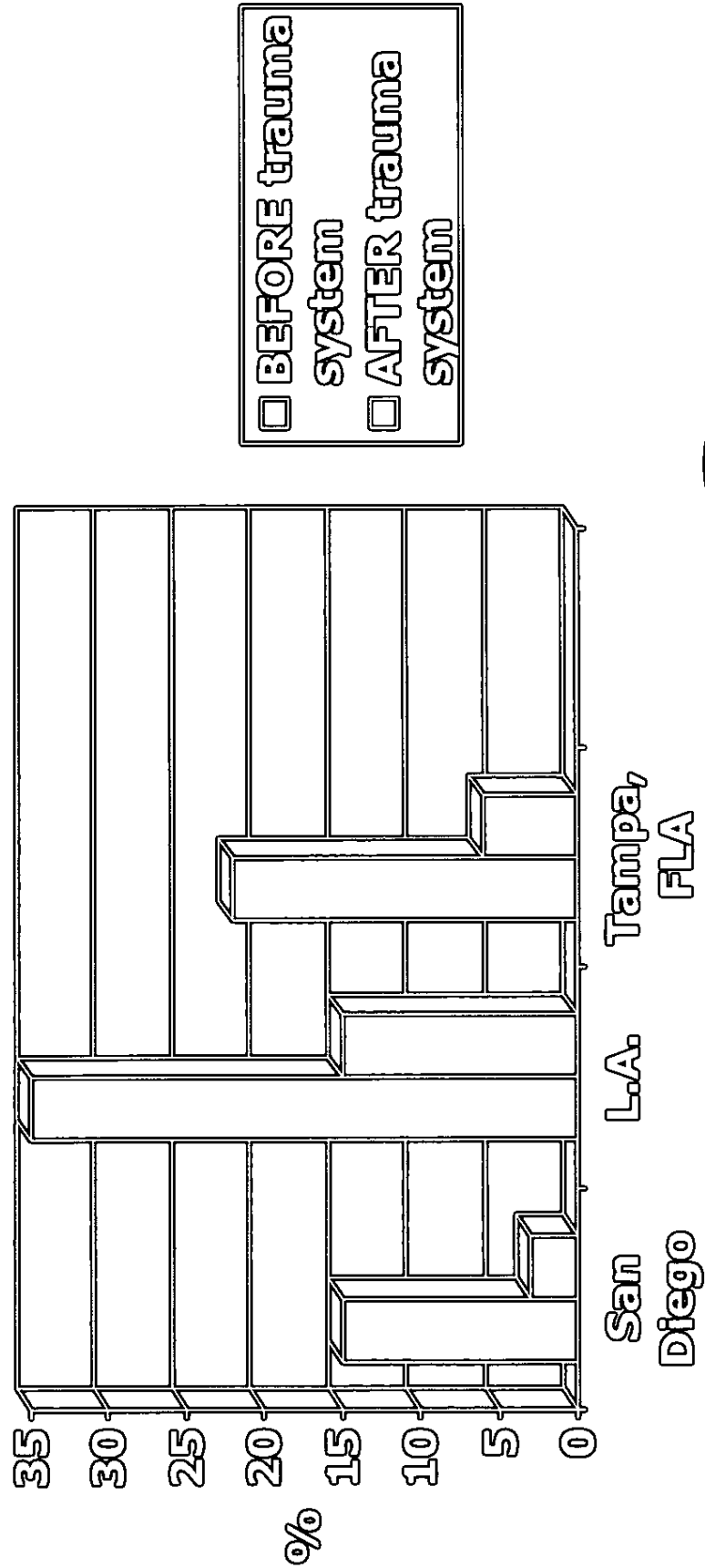
Transport and triage

- Guidelines that take into account local resources and capabilities.
- Head Injury Guidelines.
- Burn Triage.

Trauma Systems

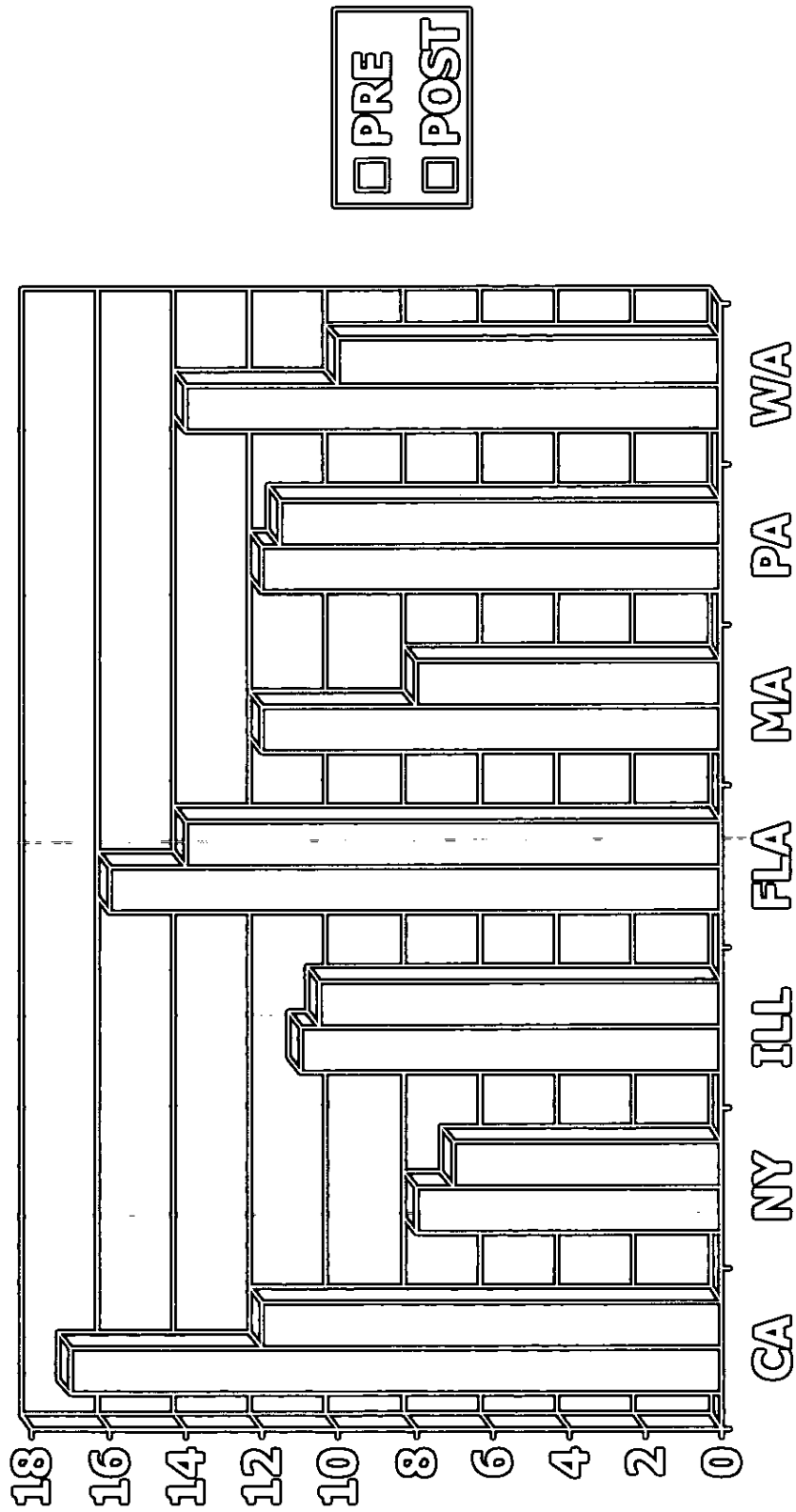
- 15-25% improvement in survival of the seriously injured.
- Increase productive working years
- Improve statewide disaster preparedness.
- Inclusive systems -best

Preventable Deaths: The impact of trauma systems



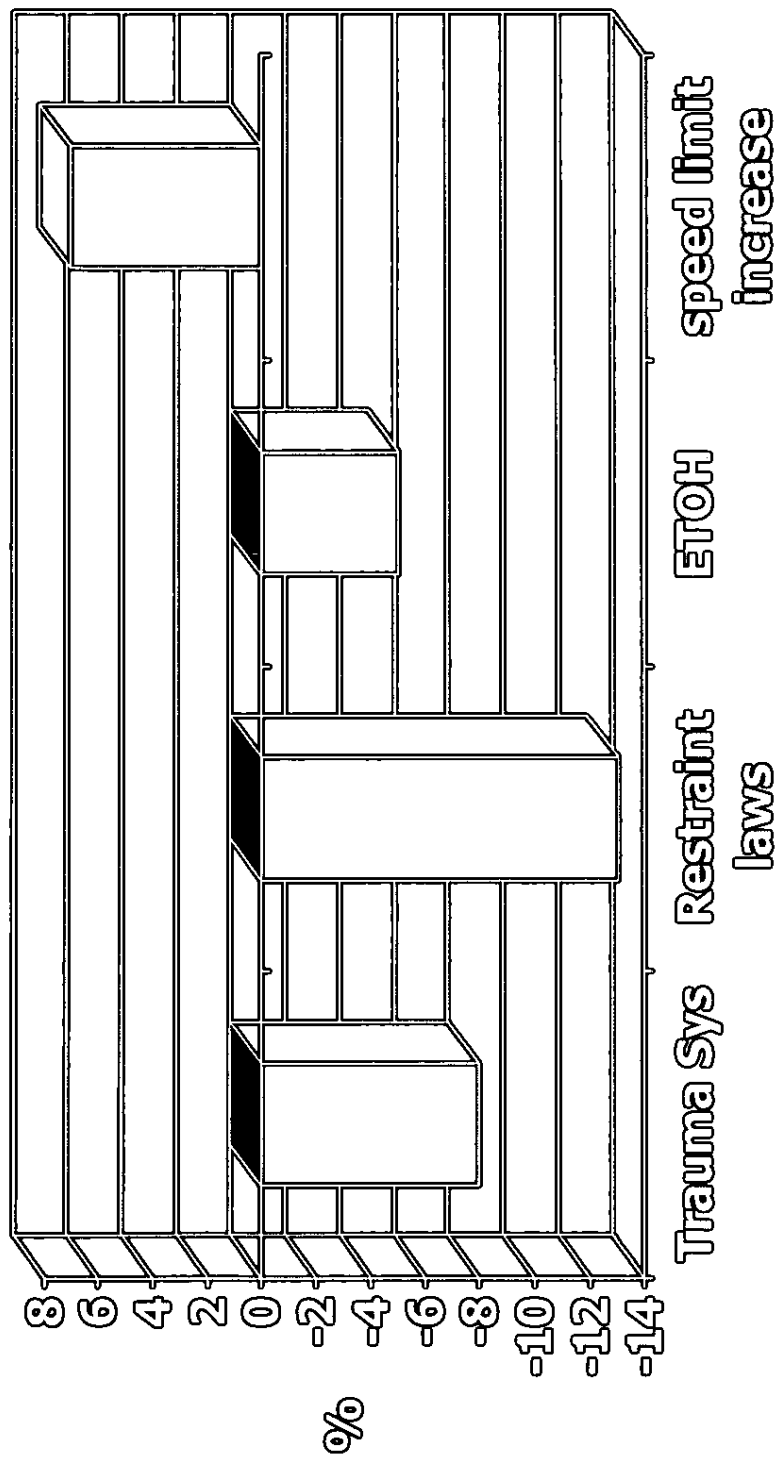
Trauma Systems & crash mortality

Nathens et.al. 2000



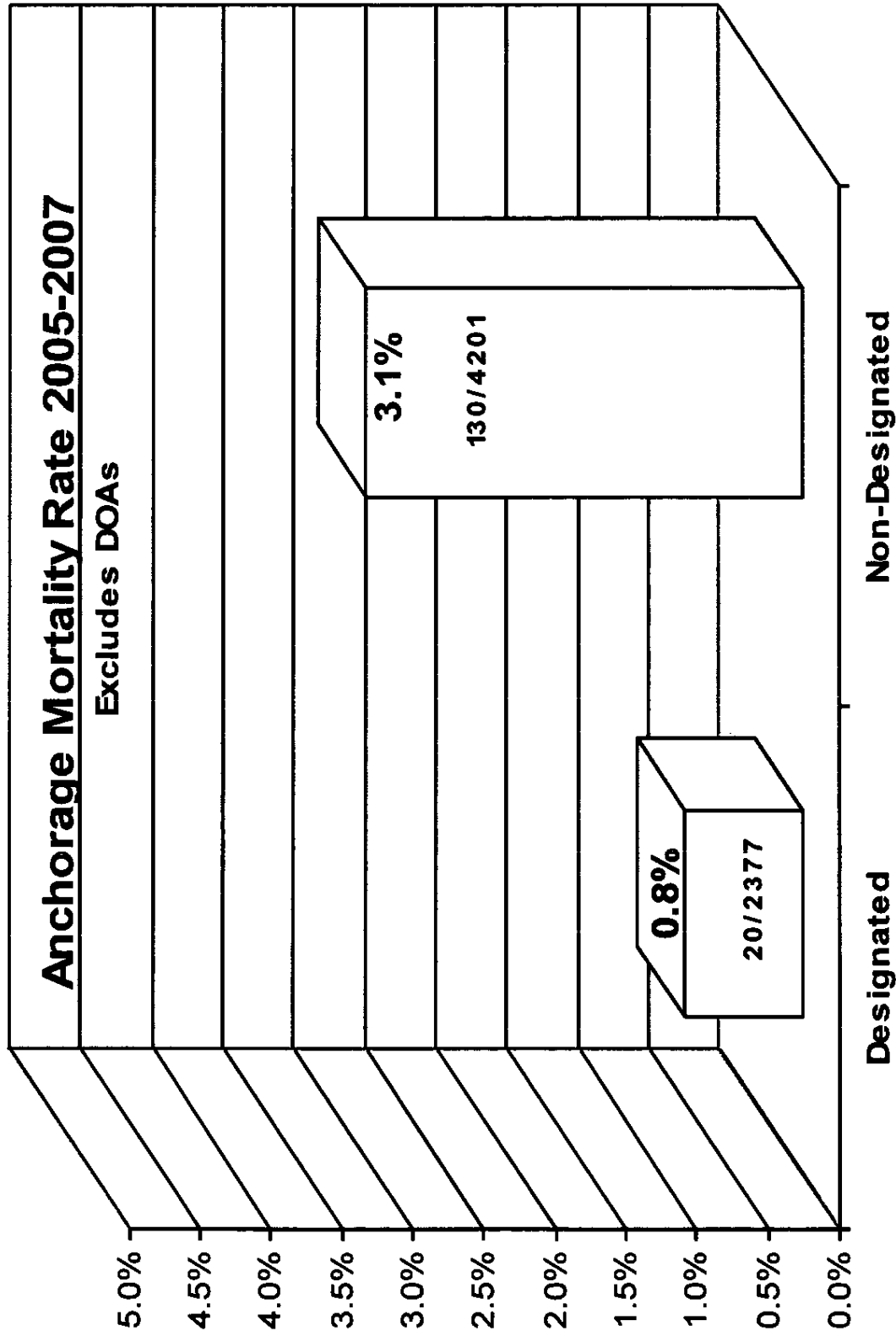
Trauma systems & crash mortality

Nathens et.al. 2000



Anchorage Mortality Rate 2005-2007

Excludes DOAs



Non-Designated

Designated

> Alaska Trauma Registry (p<.01)

**Mortality Rates for Pediatric & Adults
With ISS 0-14 & ISS 15-75
2005-2007 (Excludes DOAs)**

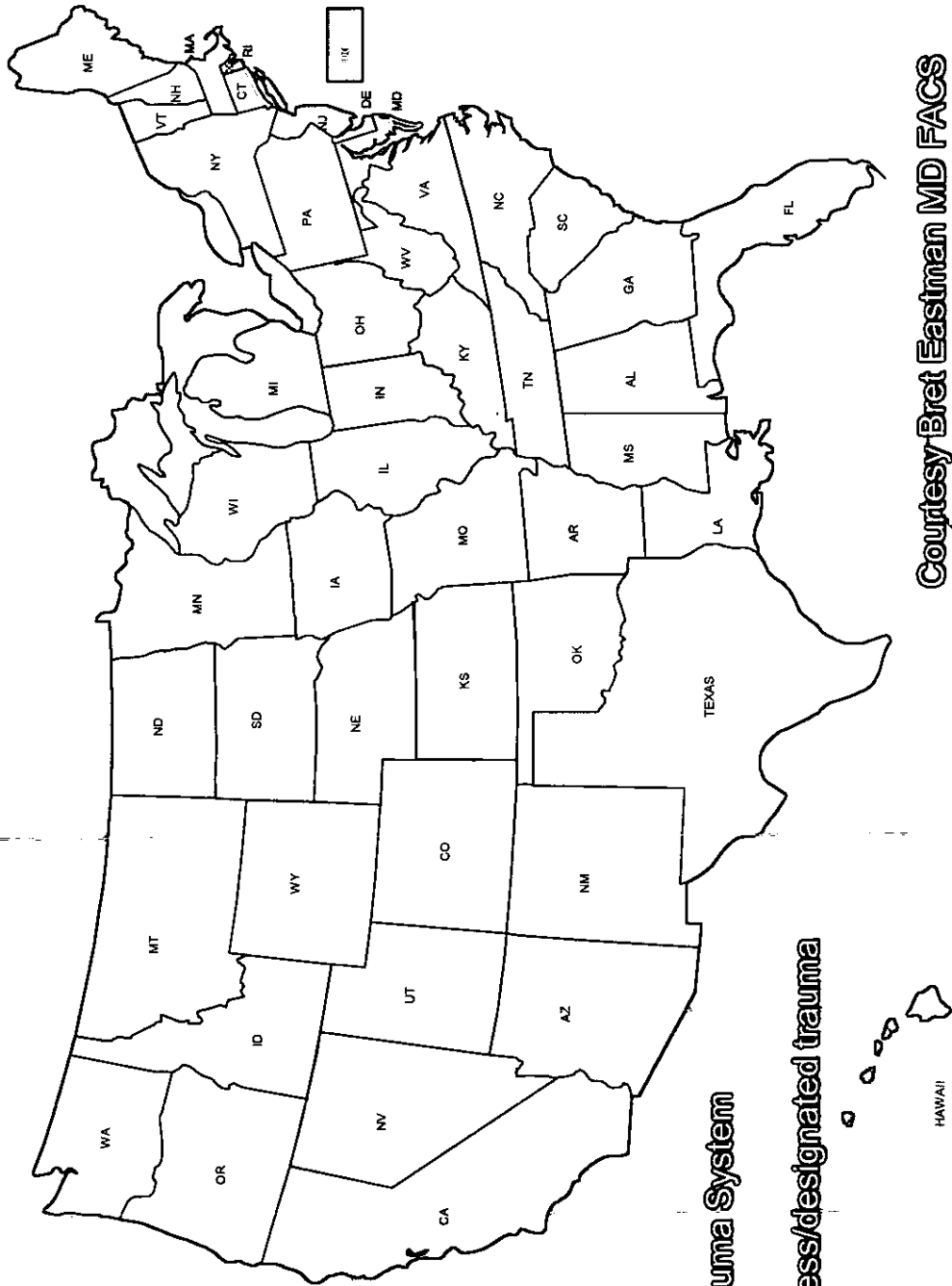
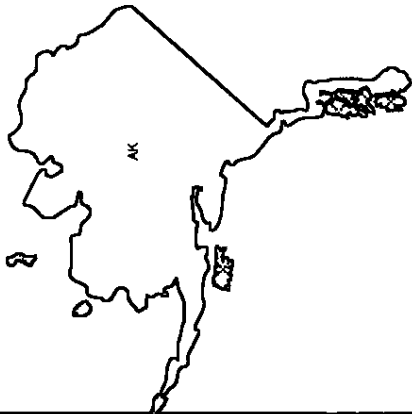
0/542
0%

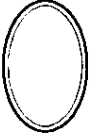

Trauma Center Growth Over Time

	1991	2002	2009
Level I	165	190	199
Level II	209	263	269
Level III	76	251	362
Level IV-V	21	450	748
Total	471	1,154	1,578
Pediatric Only			41

Courtesy Anthony Carlini ATS TIEP

US Trauma Systems 2009



-  Statewide Trauma System
-  Work in progress/designated trauma Centers

Courtesy Bret Eastman MD FACS
2009 Scudder Oration

ALASKA The Great Land



Trauma Systems and the Public

- 2004 Harris poll to assess public knowledge and perceptions on trauma and trauma care.
- Most Americans are not aware that injury is the leading cause of death for children, youth, and adults under the age of 34.

Harris Poll

- After hearing a description of a trauma center, almost all Americans feel it is extremely or very important to be treated at a trauma center in the event of a life-threatening injury.

Harris Poll

- Almost 9 out of 10 of Americans feel that having a trauma center nearby is as important as or more important than having a Fire Department or Police Department.

Harris Poll

- At the time of the survey although 75% thought there was a trauma system where they lived only about 20% actually lived in an area covered by a trauma system.
- Nearly all Americans believe that if they had a serious or life-threatening injury, they would be taken to the hospital that is best equipped to handle their specific injury in less than 1 hour.

Harris Survey- Conclusions

- The majority of the public thinks it is important to have a trauma system. (It is a nonpartisan issue.)
- Most people think they have it already.
- Many who think they are covered by a regional system are not.

Alaska Trauma System

- 1993 statute- EMS authority for designating trauma centers created.
- Hospital participation voluntary.
- Standards for trauma center designation follow American College of Surgeons criteria.

Alaska Trauma System

Verification of compliance by outside reviewers for Level I, II, III

◆ In-state review for Level IV

Current Status -16 Years Later

>24 hospitals in Alaska

Verified / Certified

- 1 Level II ANMC
- 4 Level IV centers- NSH -MEH - YKHC -SCH
- 9 other facilities with reviews or consultations.

Non-Verified

- 2 centers providing care for multiple trauma patients
- 6 centers that provide surgical capabilities
- 2 military hospitals

Alaska Trauma Facilities

- Alaska -Only state without a designated Level I or II trauma center that serves the majority of the population.
- Anchorage is the largest city in the US without a designated Level I or II center for the majority of the population.

Insanity

“Insanity is doing the same thing in the same way and expecting a different outcome”

- Old Chinese Proverb

State of Alaska DHSS
Trauma System Consultation
November 2-5 2008

ACS-COT Site Visit Team

- Reginald A. Burton, MD FACS
Team Leader, Trauma Surgeon
- Jane Ball, RN, DrPH
ACS Consultant
- Samir M. Fakhry, MD FACS
Trauma Surgeon
- Holly Michaels
ACS Program Coordinator
- Drexdal Pratt, CEM
State EMS Director
- Nels Sanddal, PhDc, REMT-B
ACS Consultant
- James D. Upchurch, MD
Emergency Physician

Objective

- To help promote a sustainable effort in the graduated development of an inclusive trauma system for Alaska
- Multidisciplinary review of the trauma system
- 17 states have been reviewed

Executive Summary

C

Advantages & Assets

- Committed individuals who use their time and expertise every day to serve Alaska citizens
- Extensive networks for transport
- 3 large medical centers with extensive subspecialty expertise within the state
- Large Level I trauma center in Seattle which freely accepts adult and pediatric trauma patients

Advantages & Assets

- One center maintains ACS Level II verification standards and others have obtained consultations and are working toward verification.
- Alaska Trauma Registry- all 24 acute care hospitals provide data.
- Injury prevention activities are well established.
- Initial efforts at legislative change.

Challenges and Vulnerabilities

- No trauma system plan
- Geography / Weather / Remote and isolated communities
- No standards for scene trauma triage or trauma inter-facility transfers
- Trauma system issues have limited visibility within state government.

Challenges and Vulnerabilities

Public not aware of trauma system issues.

Limited human resources.

Few incentives for hospitals to participate.

No statewide evaluation of system performance.

Trauma Care in Alaska 2009

- “There are two healthcare systems for injured patients. One for Alaska natives that adheres to national standards and another for the majority of the population”

ACS-COT Alaska Trauma Systems Review
11/2009

Executive Summary

➤ “Several Alaska Native facilities have sought and achieved verification and designation as trauma centers. To date few of the facilities serving the majority population have made a similar commitment to achieving nationally recognized standards of trauma care.”

ACS-COT Alaska Trauma Systems Review
(11/2008)

Recommendations: 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 all Alaskans.

Recommendations: Definitive Care Facilities

- > Establish, as soon as practical, a second Level II Trauma Center in Anchorage in accordance with ACS 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 designation appropriate to their capabilities.

Recommendations: Definitive Care Facilities

- Study pediatric trauma care needs and establish one or more in-state centers of excellence in pediatric trauma care.
- Determine a method of providing financial support for hospitals designated/certified by the state as trauma centers to assist with uncompensated care and the cost of readiness

Recommendations: System Coordination and Patient Flow

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

Recommendations: Financing

- Provide state funding to hire a fulltime trauma system manager.
- Determine a method of providing financial support for hospitals designated/certified by the state as trauma centers to assist with uncompensated care and the cost of readiness.

Themes

- You are closer than you think – many of the components are already in place.
- Alaska is a unique environment different from anywhere else
- You have developed innovative solutions to your unique challenges.
- Despite differences amongst stakeholders, all agree with the need for a consensus developed and integrated trauma system.

ACS Recommendations- Actions

- Commitment by DHSS to create a trauma manager position and develop a statewide trauma plan.
- Trauma Systems Review Committee working to develop metrics to measure trauma system performance.
- Legislation to create incentives for facilities to participate.

Alaska Trauma Systems Review Committee

- MDs, nurses, administrative, and prehospital representation
- Oversight- Trauma Registry
 - Level IV Trauma verification
 - EMS triage and interfacility transfer guidelines
 - Trauma system performance improvement.

Alaska Trauma System: Facility Participation

- Increasing facility participation is essential.
- “Carrots and/or sticks”
- ACS recommends both
- Mandatory participation and payment for uncompensated care.

House and Senate Bills 168 and 169

➤ Introduced by Representative John Coghill(R) and Senator Bettye Davis(D) March 2009.

➤ Creates a fund to pay for uncompensated trauma care given at designated trauma centers.

Barriers

Hospital Administration concerns

- Extra cost especially at Level IIs
- Lack of physician support.
- Lack of demand from the community.

Provider Concerns

- Not needed " we do fine"
- No financial incentive to do it.
- More rules and regulations.

Social Change

- Pearl Harbor: A sudden crisis causes fundamental change.
- The Tipping Point: Pressure builds to an inflection point of change.
- Glacial Erosion: A steady growth or pressure that is hard to resist or ignore.

Ian Morrison-Author, Futurist

How can you help?

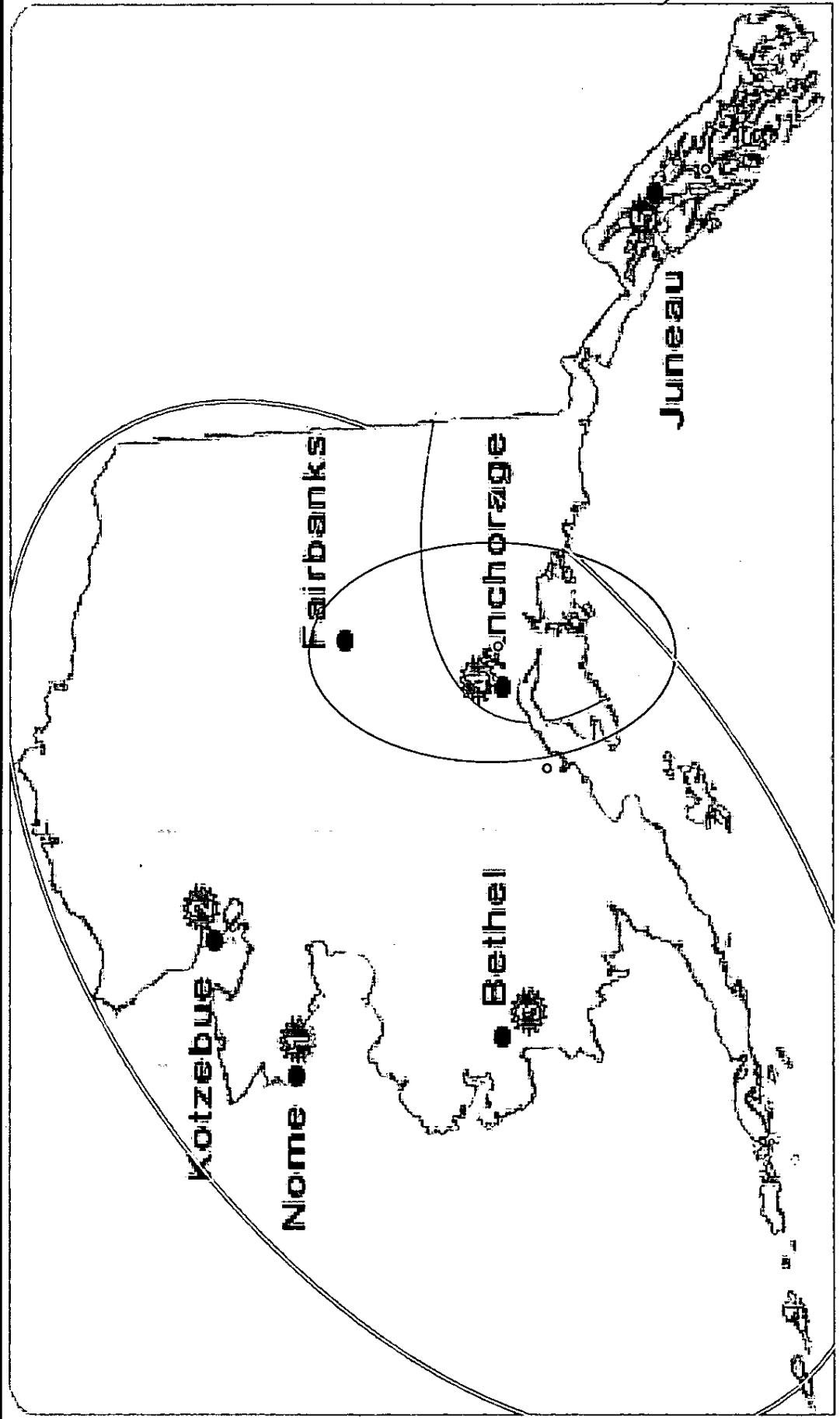
The Tipping Point

- Letters/emails to your legislators H.B. and S. 1688 and 1689.
- Letters/emails to your your hospital administration
- Ballot initiative?. (ie Arizona)

Vision

- An integrated system that addresses trauma from injury prevention through acute care and rehabilitation.

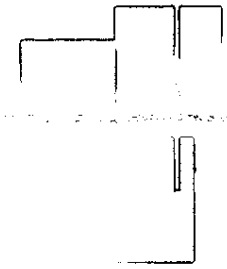
The Future: Alaska Trauma System(s)



Why is this important?

Because it makes a difference and it is the care you want for your family and neighbors if they are seriously injured.



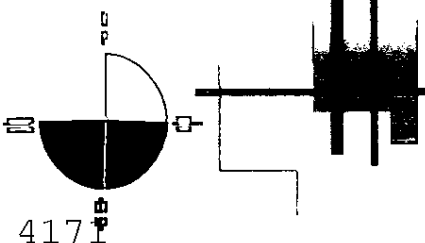


Alcohol Screening and Brief Intervention in the Injured Patient:

Injury Prevention in the Hospital and ER

Injury Terminology

- Trauma=Injury
 - Unintentional
 - Classified by Mechanism of Injury (E-Codes)
 - Intentional
 - Suicide
 - Homicide
- Injury Recidivism
- Injury Prevention
- Trauma Costs



FIVE LEADING CAUSES OF DEATH FOR DECEDENTS 15 TO 24 YEARS OF AGE

American Indians and Alaska Natives, IHS Service Area, 1996-98 and U.S. All Races and White Populations, 1997
(Rate per 100,000 population)

	AII/AN	U.S.		Ratio	
	Rate	All Races	White	AII/AN to U.S.	AII/AN to U.S. White
	Adjusted ^{1/}	Rate	Rate	All Races	White
ALL CAUSES	193.4	86.2	77.5	2.2	2.5
Accidents	106.3	36.5	38.3	2.9	2.8
Motor vehicle	82.9	27.9	29.5	3.0	2.8
Other accidents	23.4	8.6	8.8	2.7	2.7
Homicide and legal intervention	37.4	11.4	11.9	3.3	3.1
Suicide	21.3	16.8	8.3	1.3	2.6
Malignant neoplasms	5.1	4.5	4.4	1.1	1.2
Diseases of the heart	4.1	3.0	2.5	1.4	1.6

^{1/} Adjusted to compensate for misreporting of Indian race on death certificates.
NOTE: Causes of death are listed based upon the order of adjusted number of deaths.

ALCOHOLISM DEATH RATES

(Rate per 100,000 population)

AII/AN	U.S.	
Adjusted ^{1/}	All Races	White
3.7	0.3	0.3



Injury Mortality & Alcohol

- Trauma is the leading cause of death among Alaska natives
- Alcohol Intoxication has been repeatedly associated with over half of trauma incidence and mortality.
- This Alcohol-Injury Relationship is well known throughout Alaska

Public Health Impact of Alcohol Use & Abuse

- Alcohol abuse is a preventable public health problem contributing to 100,000 deaths and costing 185 billion dollars annually.
- Alcohol misuse has far-reaching implications for the; individual drinker, family, workplace, community, and health care system.

Alcohol and Injury

What Percent of American Indian and Alaska Native Deaths Are Alcohol-Related?

- ❖ Motor Vehicular— 73%
- ❖ Pedestrian —75%
- ❖ Homicide —85 %
- ❖ Suicide —84%

Sources: May P, *The Epidemiology of Alcohol Abuse Among American Indians: the Mythical and Real Properties*. The Primary Care Provider, Volume 20, March 1995, Indian Health Service; . *Ethnicity and Alcohol-Related Fatalities, 1990-1994*, by Voas RB and Tipetts AS, National Highway Traffic Safety Administration, 1999. Courtesy of D. Wallace

Trauma Centers & ED Alcohol Patients

◇ **25-55% test+ for alcohol on ED admission**

◇ **25-50% have a diagnosable alcohol use problem**

◇ **These Pts are 3.5 times more likely to be re-admitted for another trauma episode**

◇ **Death from another trauma episode is almost 6 times greater than for the general population**

'Controlling Alcohol Problems among Hospitalized Trauma Patients'

"To combat America's injury epidemic, trauma care systems have steadily improved over the last 30 years; such improvements include the development of highly successful Level I and Level II trauma centers."

"These improvements in care have not reduced the incidence of trauma-related deaths that occur at the scene (~ 50%). These numbers will change only when prevention efforts are increased."

Ronald V. Maier, MD, FACS, *J Trauma (Supplement)* 2005;59:S1-S2

IHS-Tribal ASBI PROGRAM

Strategic Approach

- Targeted Injury Control Initiative
- Brings Alcohol Screening into the Trauma, ED and Acute Care Settings
- Expanded and Universal Screening Applications for other Substance Abuse and “Injurious Behaviors” i.e., Spousal and Child Abuse
- Low Cost and Cost Effective

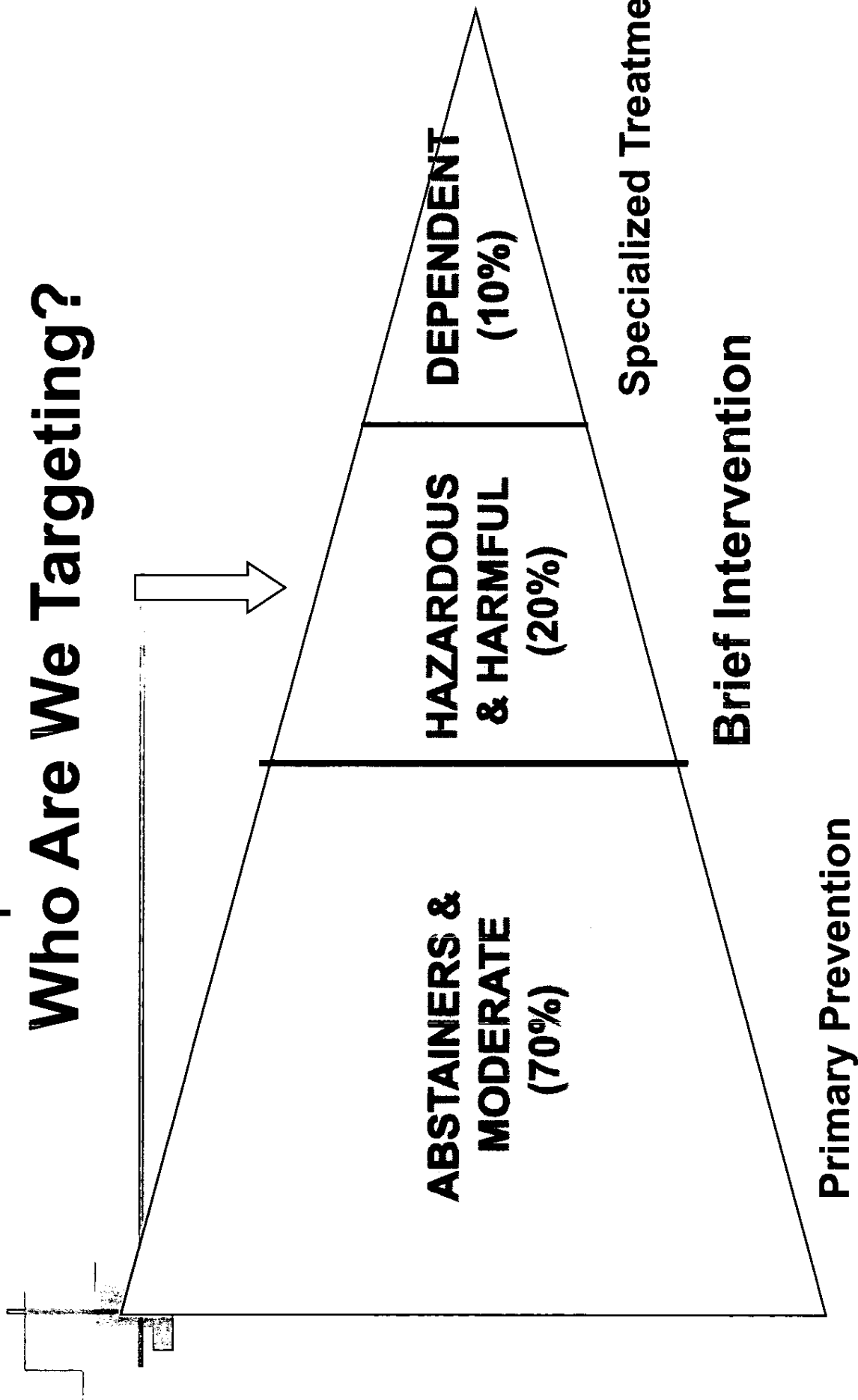


IHS-Tribal (ASBI) Program

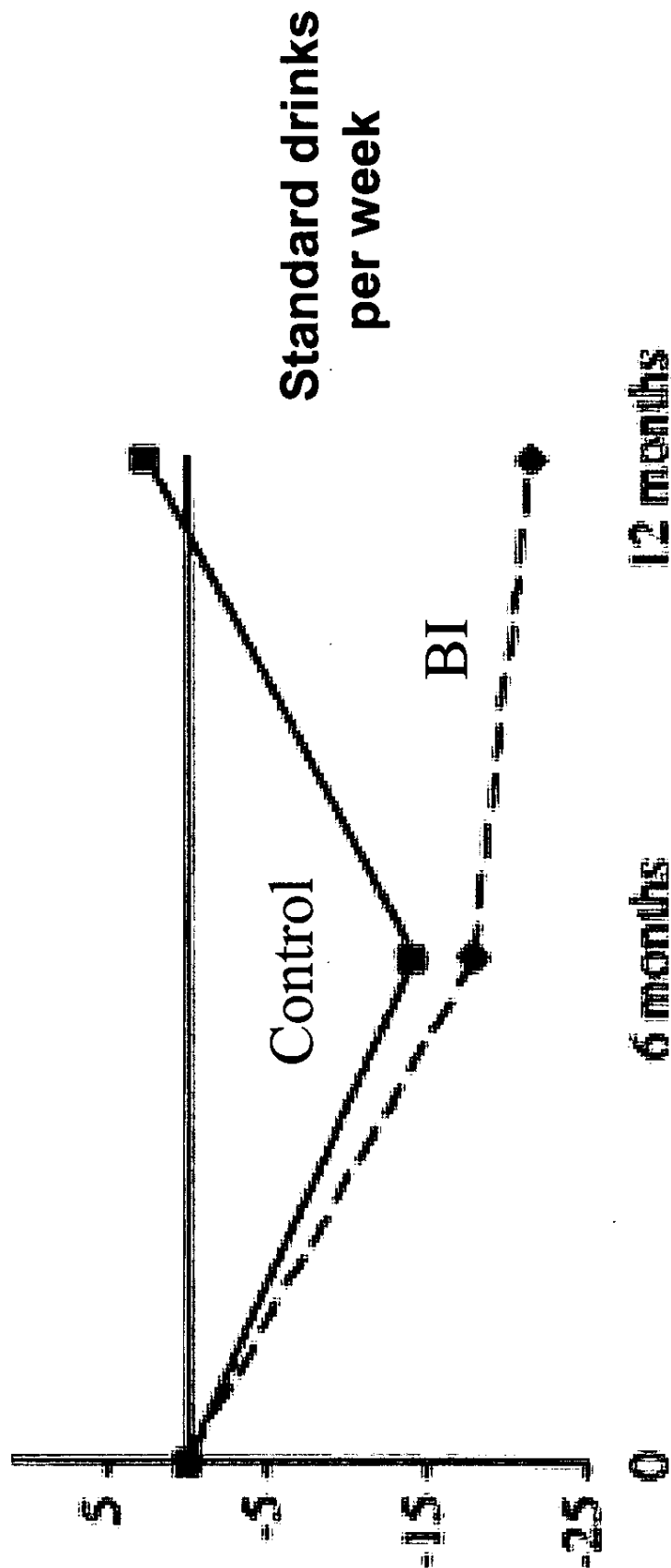
*“ALCOHOL SCREENING AND A BRIEF
NEGOTIATED INTERVIEW, DURING -
THE TEACHABLE MOMENT, AFTER
INJURY, CAN BE EFFECTIVE IN
REDUCING RE-INJURIES (RECIDIVISM)
UP TO 50% FOR SEVERAL YEARS”*

DR Boyd MDCCM, FACS

The Spectrum of Alcohol Use: Who Are We Targeting?




Alcohol Interventions in a Trauma Center as a Means of Reducing the Risk of Injury Recurrence
Gentilello LM (Dunn CW) et al: Ann Surg 1999;230:473-483



Literature Review

- Prochaska and DiClemente* (1983)
- Bien et al (1993)
- Gentilello* (1999)
- D'Onofrio* and Degutis* (2002, 2005)
- Dischinger* and Soderstrom* (2001)
- Moyer et al (2002)
- Soderstrom* and DiClemente*, (2005)
- Sanddal(s)* and Upchurch*, (2005)
- Schermer*, (2006)

*Assisting the IHS-Tribal ASBI Program

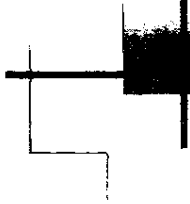


ASBI Conceptual Rationale

- Teachable Moment
- Readiness for Change
- Non-Judgmental Environment
- Provided by a Variety Health Care Practitioners
- Decrease Loss of Limb, Life and Trauma Dollars
- Within the Acute Care Setting

The Transtheoretical Model of Intentional Behavior Change

Carlo C. DiClemente, PhD



STAGES OF CHANGE

PRECONTEMPLATION →

CONTEMPLATION →
(Post-Injury)

PREPARATION →

ACTION →

MAINTENANCE

RATIONALE for ED INTERVENTION



A Trauma or ED encounter provides a
" WINDOW OF OPPURTUNITY"

Excessive drinking patients are:

- MORE OPEN TO SEEING DRINKING AS PROBLEM
- MORE VULNERABLE TO LINKING CONSEQUENCES TO DRINKING
- MORE MOTIVATED TO CHANGE
- HAVE A MORE MOBILIZED FAMILY SYSTEM

**A review of screening and brief intervention (SBI)
for alcohol problems: Implications for Emergency
Medicine Practice**

Gail D'Onofrio & Linda C. Degutis

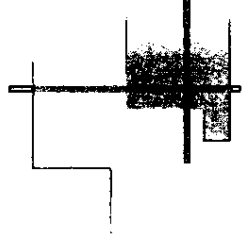
Evidence-based review of SBI

39 studies

(30 randomized controlled, 9 cohort)

**These studies take into account recent
trauma center & emergency departments**

Positive effect in 32 of 39 studies - 82%



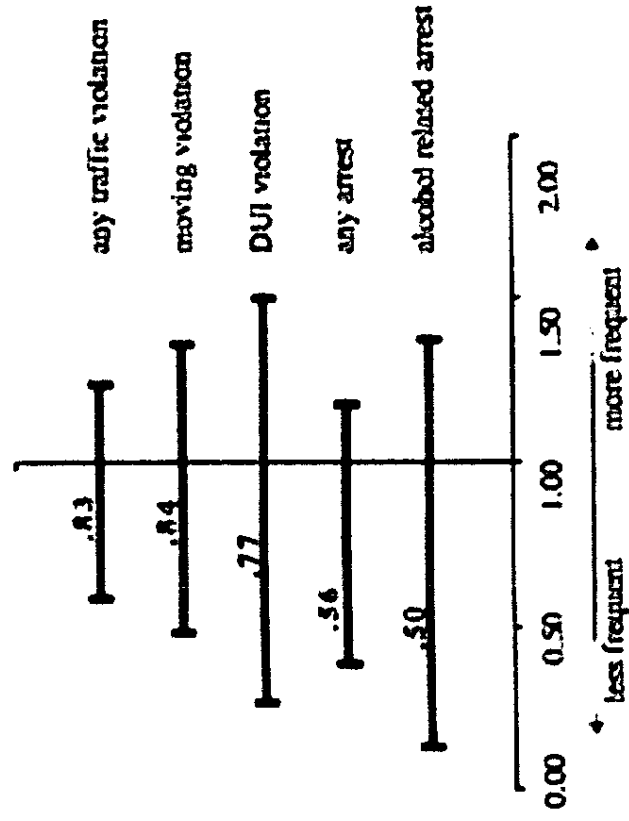
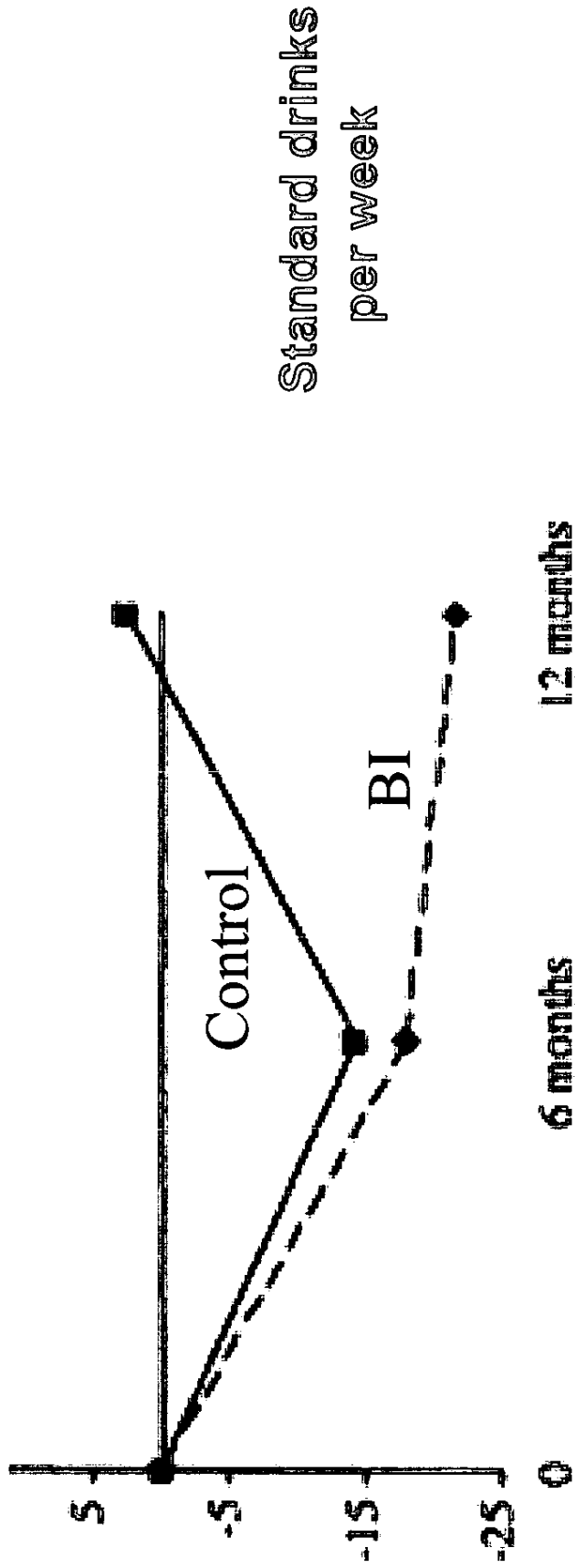
Key Trauma Center Study

Shown beneficial results with a brief intervention in TC patients.

The experimental group demonstrating decreases in drinking at 6 months and at one year.

- The control group returned to pre-injury level (or higher) at one year.
- They experimental group had a 47% reduction in injuries requiring emergency department care or trauma center admission.

Gentilello LM, Rivara FP, Donovan DM, Jurkovich GJ, et al: Alcohol interventions in a trauma center as a means of reducing the risk of injury recurrence. *Ann Surg*, 1999;230: 473-483.



Gentilello et al Ann Surg '99

Courtesy of Carl A. Soderstrom, MD

R.A. Cowley STC Longitudinal Death Study

- Not offering advice/intervention to STC patients who test positive for alcohol misuse results in significant subsequent higher death rates from injury.
- 27,000 patients discharged from the STC and followed for 1.5 to 14.5 years.
- A subsequent injury death occurred in 1,631 or (23%) in those who tested toxicology positive at the initial STC admission.

Dischinger PC, Mitchell KA, Kufera JA, Soderstrom CA, et al: A longitudinal study of former trauma center patients: the association between toxicology status and subsequent injury mortality. *J Trauma* 2001;51:55-564.

Billings Area Injury Death Study



- 38% of patients with fatal injuries had a previous IHS Service Unit ETOH encounter without prevention counseling within the previous six months.
- Injury-Prevention activities should be initiated at the time of any health-system contact in which alcohol use is identified.
- Intervention strategies should be developed that convey the immediate risk of death from injury in these patients.

Analysis of Prior Health System Contacts as a Harbinger of Subsequent Fatal Injury in American Indians. TL Sanddal, J Upchurch, ND Sanddal and TJ Esposito; Journal of Rural Health, 2005

Trauma Center Study: DUI Recidivism

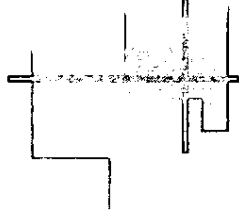
- Patients who receive BI during a trauma center admission are less likely to be arrested for DUI within 3 years of discharge.
- BI represents a viable intervention to reduce DUI after trauma center admission.

Trauma center brief interventions for alcohol disorders decrease subsequent driving under the influence arrests. Schermer CR, Moyers TB, Miller WR, Bloomfield LA. J Trauma. 2006 Jan;60(1):29-34.

ASBI COST-EFFECTIVENESS

- "Cost-Benefit" analysis for injured patients demonstrates a savings of nearly four dollars in direct injury related medical costs for every dollar invested in screening and intervention for injured patients".
- 4 Trauma \$ vs. 1 ASBI \$

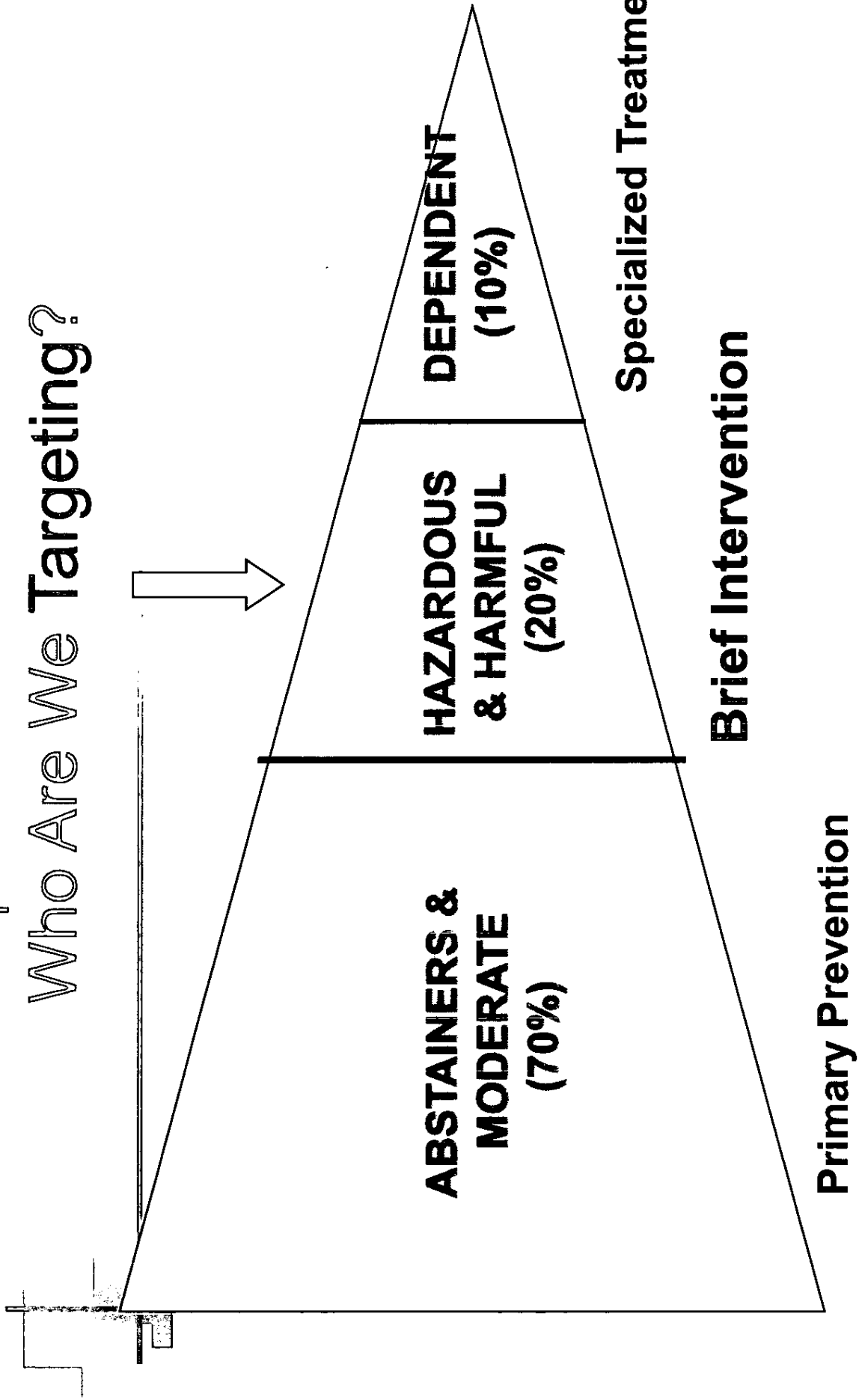
Gentilello. Lm. Et al, Alcohol interventions for trauma patients treated in emergency departments and hospitals: a cost benefit analysis. *Ann. Surg.* 2005;241:541-550

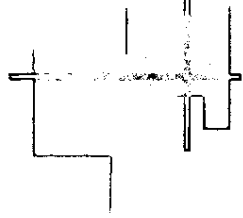


ASBI Efficacy

- Evidence-based review on ASBI identified 39 published studies including 30 randomized controlled and 9 cohort studies; a positive effect was demonstrated in 32 of these studies (82%).
- The effectiveness of brief intervention for risky drinking has been established in primary care & emergency department/ trauma settings.
- Brief interventions (5-10 minutes) delivered by a physician, nurse or nurse practitioner as part of routine primary care were found to significantly reduce alcohol consumption by high-risk drinkers at 12 month follow up.
- These data provide compelling evidence that ASBI can reduce alcohol-related injury recidivism (repeat injury).

The Spectrum of Alcohol Use: Who Are We Targeting?





IHS Target ASBI Populations

1. Young Teens and Adults
2. Non-dependent Alcohol Abusers
3. Hazardous or Harmful Behavior
4. Injury Causing an to themselves or others
5. Injury Presentation to an IHS-Tribal Emergency Department, Urgent or Ambulatory Care
6. Are in the "Teachable Moment"



"Prevention Paradox"

- For every known alcohol dependent person there are more than six persons who have alcohol related problems, but are not dependent.
- A majority of this group of non-dependent alcohol user group are in the hazardous and harmful alcohol use group.

Personal Communication with Daniel Hungerford, DPH, MS; CDC; May 2006

ASBI Recommendations

- WHO (1989, 1992, 2001)
 - Developed the AUDIT for screening, assessment, & intervention
- USPHS Preventive Services Task Force (2002)
 - established ASBI as an "alpha" rated procedure, that is, supported by Level I evidence (properly conducted, randomized, controlled trials) and recommended to be offered in the emergency department setting.
- ACEP (2002)
 - Promoted use of ASBI in the ED
 - Provided CD-ROM tool for Emergency Physicians, "Put the Brakes on the Next Drunk Driver"
- NHTSA (2005)
 - ASBI was one of three priority Initiatives to help reduce driving while impaired (DWI) & focus greater attention on the impaired driving problem.
- ACS COT (2006)
 - ASBI Program to be required for all Level I & II TC
 - ACS-COT SBIRT Program

Alcohol Screening (AS)

- Pre-Screen or Clinical Assessment
- CAGE
- Single Question
- AUDIT



Patient Triage to BI

- Patients with a Positive Screen are ...TRIAGED
- Within the ED or PCC by MD or RN staff prior to discharge and...
- Outpatient follow-up after injury within 7 days
- Service Unit admitted patients within several days or prior to discharge
- Trauma Center Referral admissions with a discharge "Back-Referral" to IHS-Tribal Primary Care and/or Behavioral Health



Alcohol Screening and Brief Intervention (ASBI) Project

BNI Training Manual

Gail D'Onofrio MD, MS¹

Michael V. Pantalon Ph.D. ²

Linda C. Degutis DrPH¹

David Fiellin MD³

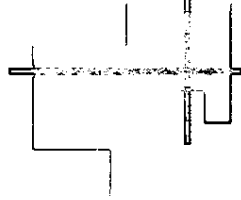
Patrick G. O'Connor MD³

¹Department of Surgery, Section of Emergency Medicine, ²Department of Psychiatry, Division of Substance Abuse & ³Department of Medicine, Yale University School of Medicine
New Haven, CT



4 Steps of the Yale BNI

- **Raise The Subject**
- **Provide Feedback**
- **Enhance Motivation**
- **Negotiate And Advise**



ASBI-BNI Website

**A collaboration between Boston
University School of Public Health and
Boston Medical Center's Dept. of
Emergency Medicine***

<http://www.ed.bmc.org/sbirt/index.ht>

m

***Includes 5 Excellent Teaching Case
Scenarios**



IHS-Tribal ASBI Plan

■ Phase I

- Conceptualize and Develop Program February 2006
- Dissemination of Information to all IHS and Tribal Hospitals and EMS Systems
- Establish SU "Champions" and develop Hospital programs
- ASBI Leadership Conference, IHS-HQ 31 Jan1Feb 2007

■ Phase II

- Collaboration with ACS-COT, introduction of IHS ASBI to distant receiving ED & Trauma Centers and "back-referral" program
- IHS-Tribal Leadership, Training, and Assessments
- Train-The-Trainer (TTT) Conferences at Five (5) Sites; Aberdeen, Billings, Navajo, Oklahoma, Phoenix

■ Phase III

- Introduce IHS ASBI to all IHS-Tribal Clinics
- Research and Future Applications

ASBI Train-The-Trainer

Sites(5)

- Crow- BIL, J. Upchurch, S. Wegner K.

Masis

- GIMC-NAV , J Stone, J. Flaherty, P.

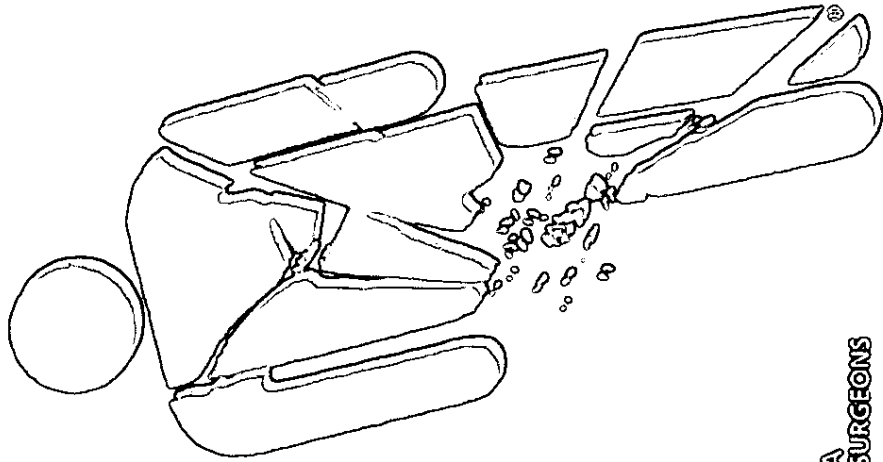
Stuart

- PIMC-PHX, A. Dekker, G. Butler (20 April)

- Rosebud- ABR, D. Lehman, D.

LaRocque

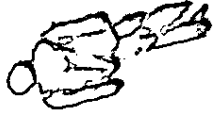
**RESOURCES
FOR
OPTIMAL CARE
OF THE
INJURED
PATIENT
2006**



**COMMITTEE ON TRAUMA
AMERICAN COLLEGE OF SURGEONS**

CHAPTER 18

Prevention



Level I & II - Essential

“Have a mechanism to identify patients who are problem drinkers”

Level I – Essential

“Must have the capability to provide an intervention for patients identified as problem drinkers.”

2006 ACS Frequently Asked Questions (FAQ) website in development as of Jan 15, 2007 facs.org/trauma/faq_answers.htm

**Alcohol Screening and Brief Intervention
(SBI) for Trauma Patients**

COT Quick Guide



AMERICAN COLLEGE OF SURGEONS
Committee on Trauma

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

Center for Disease Control and Prevention, National Center for Injury Prevention and Control
National Institute on Alcohol Abuse and Alcoholism
Substance Abuse and Mental Health Services Administration, Center for Substance Abuse Treatment

DEPARTMENT OF TRANSPORTATION
National Highway Traffic Safety Administration

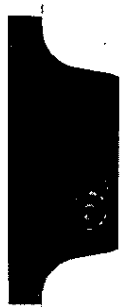
**"Must Reading"
ACS COT SBI 2006**

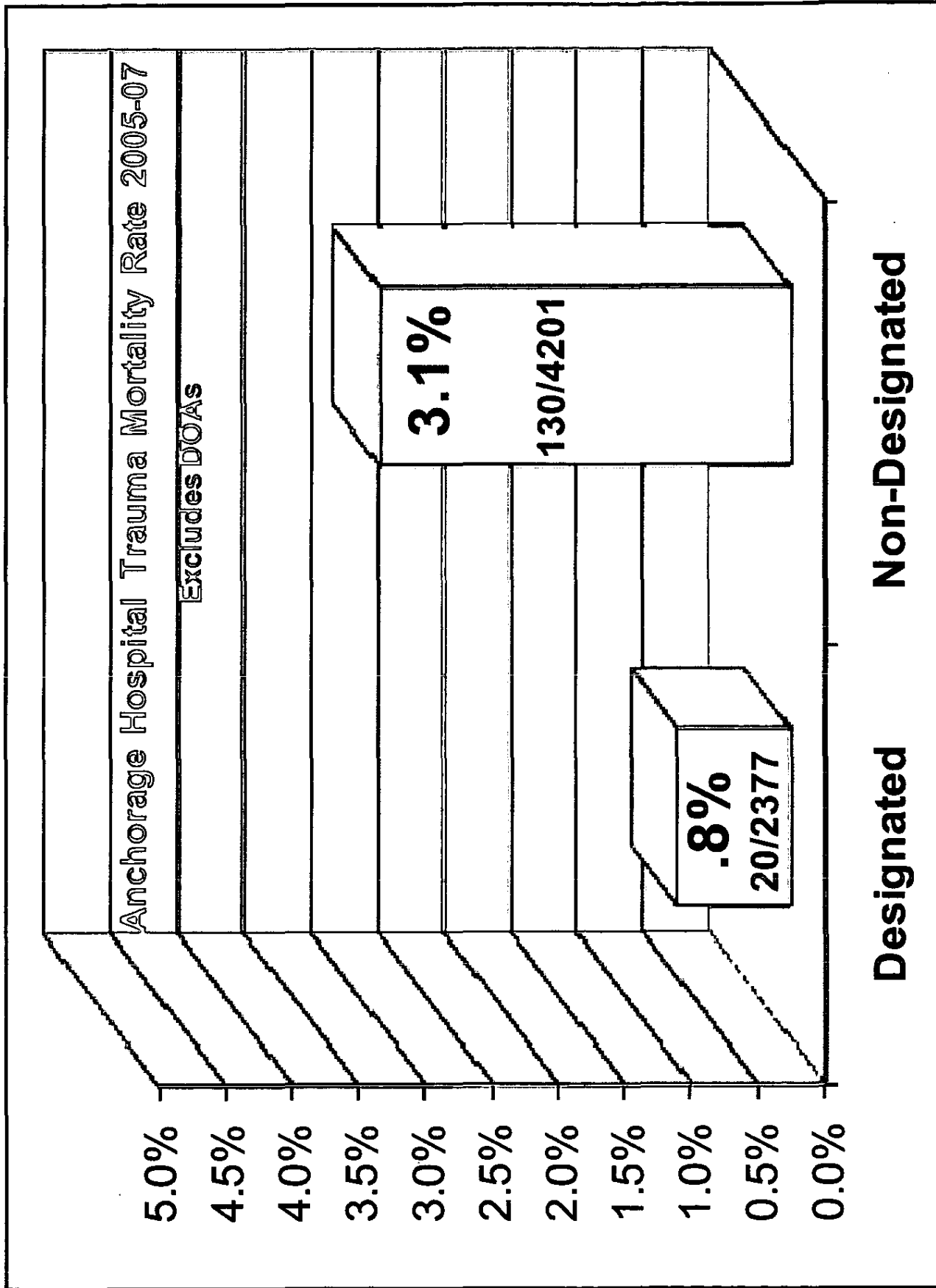
"Although this guide is intended to help Level I and II trauma centers implement SBI, the COT recommends that all trauma centers incorporate alcohol screening and brief intervention as part of routine trauma care."

www.mayatech.com/sbirt/documents/SBIRT_guide_Sep07.pdf

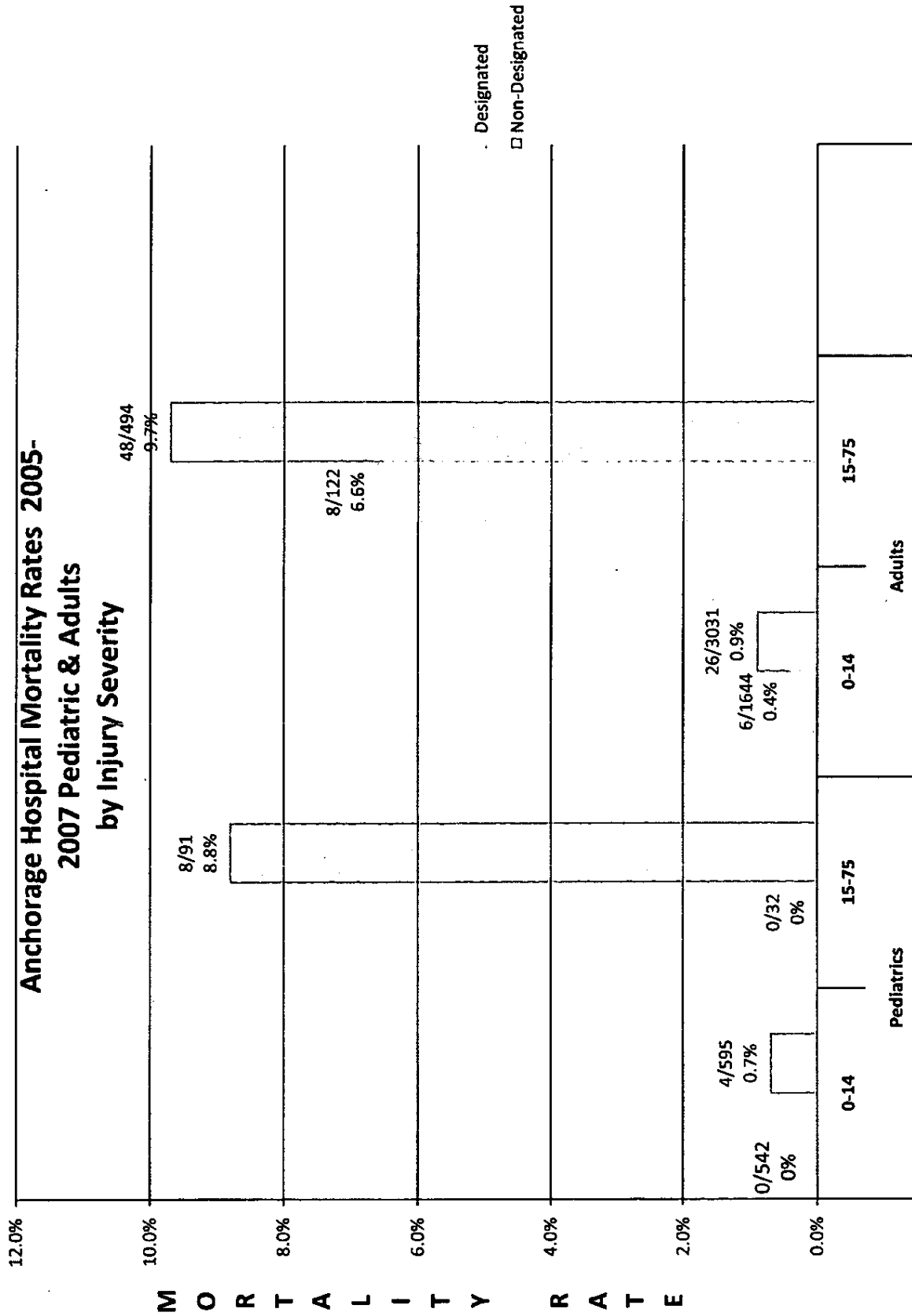
ASBI Documentation and Reimbursement

- Chart Documentation, PCC and HER
- Pre-Screen, Alcohol Screen (AS)& Brief Intervention (BI)
- Coding
- CPT-HCPCS Codes
- H-0049 Screening
- H-0050 Screening and Brief Intervention,
- RPMS
- CRS... GPRA
- Billing and Reimbursement
- ICDA Codes





Anchorage Hospital Mortality Rates 2005- 2007 Pediatric & Adults by Injury Severity



Trauma System Consultation
State of Alaska
Anchorage, Alaska

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

PRIORITY RECOMMENDATIONS AMERICAN COLLEGE OF SURGEONS ALASKA TRAUMA SYSTEM REVIEW

November 2-5 2008

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.
 - 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.
- Study pediatric trauma care needs with the goal of establishing one or more centers of excellence in pediatric trauma care.

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.

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.

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.

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.

Statutory Authority and Administrative Rules

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.

(
(
• 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.



Volume 27, Issue 461

February 20, 2006

PREPARING FOR THE WORST: STATES ADDRESS TRAUMA CENTERS' TROUBLES

By Christina Kent

Victims of traumatic events are at least 25 percent more likely to live if they're taken to a certified trauma center than if they are taken to a non-trauma center, according to a carefully controlled, nationwide study in the Jan. 26 *New England Journal of Medicine*.

That finding could give a boost to state legislators who are scrambling to find new sources of funds for the centers, which provide care for the most expensive conditions in the nation. In January, the Agency for Healthcare Research and Quality reported that trauma disorders have become, for the first time, the most expensive condition to treat. According to the agency's Medical Expenditure Panel Survey, trauma-related disorders cost the nation \$71.5 billion in 2003 – topping the cost of treating heart conditions (\$68 billion), cancer (\$48 billion), mental disorders (\$47 billion), and cardiopulmonary disease and asthma (\$46 billion).

Trauma centers differ from general hospital emergency departments in that they provide, on a 24/7 basis, teams of trauma surgeons, plastic surgeons and other specialists who can deal with the most severe injuries within the "golden hour" – the early period of trauma where skilled intervention may mean the difference between life and death or life-long disability. The centers are capable of dealing with the most severe, life-threatening injuries, including blunt force wounds, multiple internal injuries, burns, broken bones and severe shock.

"Trauma is the number one killer of people aged one to 40," said Dr. J. Wayne Meredith, chairman of the American College of Surgeons' trauma committee. "One of the most prominent tools to prevent those deaths is the trauma system."

The nation's approximately 600 regional trauma centers – which also are often public and teaching hospitals – collectively lose \$1 billion a year, according to Connie Potter, executive director of the National Foundation for Trauma Care. And they're facing growing pressure from rising health-care costs, increases in the number of un- and underinsured patients, and physicians' growing unwillingness to provide on-call trauma care, which many regard as underpaid and highly risky (because of possible malpractice lawsuits).

A 2004 report by the Foundation says that, without corrective action, the current rate of closures among the nation's trauma centers will increase, and 10 percent to 20 percent will close within three years.

Preventing Closures

States play an enormously important role in providing trauma care. Not only do they pass legislation authorizing state agencies to design trauma systems, but they strive to keep the trauma centers functioning by channeling to them special funding streams.

Since car crashes are the number one cause of trauma (see chart), many states elect to help pay for trauma care by imposing fines on individuals who are convicted of drunken or reckless driving, or who lose their driver's

license. Some states also use revenues from tobacco, alcohol or firearms taxes, while others tax auto insurance or fine persons convicted of illegal drug distribution.

A number of states are currently considering legislation to shore up their trauma centers; some bills would address the crisis in getting physicians to provide on-call trauma care by increasing their reimbursement.

In New Mexico, [HB 356](#) and [SB 356](#), introduced at the behest of Gov. Bill Richardson, would provide \$6 million to create a trauma system fund. Of that amount, \$4 million would go to support trauma services at the University of New Mexico hospital and \$2 million would go to strengthen the trauma system throughout the state.

In Hawaii, the Legislature is considering [HB 3142](#), which states that Hawaii's "extreme isolation and limited physician re-supply capability renders Hawaii uniquely vulnerable to natural disasters that may occur in a mid-Pacific environment." The bill would create a fund to reimburse the state's only trauma center for documented un- or under-compensated care (including supplemental funding for treatment given to Medicaid beneficiaries). The fund would draw money from state surcharges, the state's environmental response revolving fund, as well as any funds that are separately appropriated by the Legislature or granted by Congress (as long as they don't place an obligation upon the Legislature to continue the purpose for which the federal funds are made available).

In Florida, [HB 1697](#) and [HB 497](#) were signed into law in 2005 after first being vetoed by the governor, who reportedly had concerns about the way the funds were to be distributed. The first bill is expected to raise as much as \$4.7 million annually for the state's trauma centers by increasing the penalties for motorists who cause serious injuries (they now will be charged \$500) or fatalities (\$1,000) in traffic accidents.

The second bill will provide new funding for in-state trauma care by increasing the fine for running a red light from \$60 to \$125. Florida's 20 trauma centers incur an annual net loss of \$96 million, said Amy Maguire, director of the Alliance to Save Florida's Trauma Care. The funds will be distributed to the hospitals based on their state of "readiness" (e.g., how many physicians are on call), and the severity and volume of injuries treated.

Pennsylvania, which has one of the oldest trauma systems in the nation, is considering a bill ([HB 502](#)) that would seek to retain trauma providers by increasing their reimbursement. The bill notes that many high-risk health-care providers and institutions in the state are being paid less than Medicare rates by private insurers. "[H]igh-risk health-care providers and institutions may leave this Commonwealth or close down if the low reimbursements continue," the bill states. It would require insurers to pay 25 percent more than the Medicare fee to high-risk providers (defined as those who pay malpractice premiums in one of the four highest classes) for providing covered treatment to trauma patients at a state-accredited Level 1 or 2 trauma center - or the provider's "usual and customary charge," whichever is less.

If states play the primary role in creating trauma centers, the federal government historically also has contributed. For years, the Health Research and Services Administration's (HRSA) Trauma/Emergency Medical Services program provided grants to states to help them plan trauma systems. But the federal FY 2006 budget zeroed out funds for that program. It had been funded at about \$3.4 million a year since 2001, Potter said, and grants to individual states had averaged about \$40,000 per state.

Both Potter and Meredith were highly critical of the fact that the program was eliminated. "Having a federal agency that supports trauma care is critical," Meredith said. "It's the catalyst, the grist of the mill." Trauma costs the nation billions of dollars a year, he noted. "Spending \$3 to \$4 million to keep that on track seems like a pretty good investment to me." Repeated calls to HRSA for comment were not returned.

How Many?

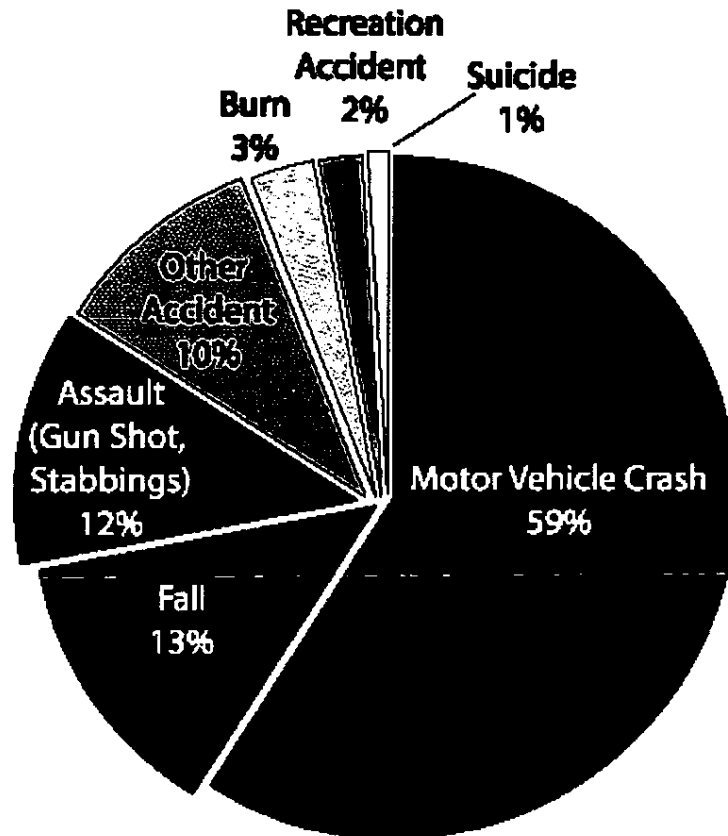
September 11th and Hurricanes Katrina and Rita have raised the profile of trauma centers. But it's not clear how many centers the nation needs. A September 2005 [issue brief](#) by Charles Branas at the University of Pennsylvania notes that the geographic distribution of trauma centers varies widely across states and regions. Branas and colleagues calculated that 84.1 percent of the U.S. population has access to a Level 1 or 2 trauma center within one hour. (Level 1 and 2 trauma centers provide the most sophisticated care; Level 3 centers transport the most severely wounded patients to a Level 1 or 2 center.)

The Northeast has the greatest access, followed by the West, the Midwest, and the South. About 36.7 million people - most of whom live in rural areas - do not have access within one hour, Branas found.

A significant proportion of people could reach a trauma center within the "golden hour" by crossing state lines, Branas pointed out. As of 2005, 47 states had protocols to enhance interstate cooperation during mass casualty incidents, but just 31 states had standardized protocols for border crossing of day-to-day trauma patients.

Policymakers who are trying to evaluate their trauma systems can measure how long it takes their state's residents to reach a trauma center, in comparison to national norms, Branas suggested. This would enable policymakers to "more realistically allocate scarce resources," he wrote.

Trauma Center Patient Cause of Injury Percent of Patients



Source: National Foundation for Trauma Care.

Tara Lubin contributed reporting to this story.



[\(printer-friendly version\)](#)

© Copyright 2006, [State Health Notes](#)

© 2006 National Conference of State Legislatures, All Rights Reserved

Denver Office: Tel: 303-364-7700 | Fax: 303-364-7800 | 7700 East First Place | Denver, CO 80230 | [Map](#)

Washington Office: Tel: 202-624-5400 | Fax: 202-737-1069 | 444 North Capitol Street, N.W., Suite 515 | Washington, D.C. 20001

Summary of Trauma Systems and Funding Mechanisms by State

State	ACS Trauma System Consultation	ACS BIS Facilitation	Legislated Trauma System?	Is that System Funded?	Fines/Fees on Moving Violations	Fines/Fees on Other Criminal Penalties	Motor Vehicle Registration/License Plates or Driver's License Renewal Surcharge	Cigarette Excise Tax	Gambling	General Revenue Funds	Surcharge on 911 calls	Other
Alaska	2008	575	Yes	No								
Alabama	In Discussion		Yes	No				X				
Arkansas	2007		Yes	Yes				X	X*			
Arizona	2002*		No	Yes	X							
California	In Discussion		Yes	Yes			X					
Colorado	2006		Yes	No								
Connecticut			Yes	Yes								
Delaware	In Discussion		Yes	Yes								
District of Columbia			No	Yes	X					X*		
Florida	2009		Yes	Yes								
Georgia	2005		No	Yes				X				
Hawaii			Yes	Yes								
Iowa			Yes	No								
Idaho			No	Yes	X							
Illinois	2006		Yes	Yes								
Indiana	2008		Yes	No								
Kansas	2008		Yes	Yes	X							
Kentucky	Possible 2009		Yes	No								
Louisiana			Yes	No								
Massachusetts			Yes	No								
Maryland			Yes	Yes			X					
Michigan			Yes	No								
Minnesota	2007		Yes	Yes						X*		Weapons License, ATV registration, Boat registration
Missouri			Yes	Yes			X					
Mississippi			Yes	Yes	X			X				
Montana	1999		Yes	No								
North Carolina	2004		Yes	No								
North Dakota	2008		Yes	No								
Nebraska			Yes	Yes			X					
New Hampshire			Yes	No								
New Jersey	2008		No	No								
New Mexico			Yes	Yes								
Nevada	2004*		Yes	No						X*		
New York			Yes	No								
Ohio	2002*		Yes	Yes		X						
Oklahoma			Yes	Yes	X		X					
Oregon			Yes	Yes						X		
Pennsylvania	2007		Yes	Yes	X							
Rhode Island	2004		No	Yes	X							
South Carolina			Yes	No								
South Dakota			No	No								
Tennessee	2008		Yes	Yes				X				
Texas	2005*		Yes	Yes	X						X	

*Money to Level 1 only
*Marin County (San Rafael, CA)

*Not a permanent funding source.

*No Permanent Funding Source

*Development of System in Progress
*\$ from General fund, but generated from a hospital license fee of all Hospitals & money from Dept of Health

*Yearly Legislative Appropriation. The surcharges to Pre-hospital/EMS.

*Clark County (Las Vegas, NV)

*Tri-State Trauma Coalition (Cincinnati, OH)

*Southwest Region

Summary of Trauma Systems and Funding Mechanisms by State

State	ACS Trauma System Consultation	ACS BIS Facilitation	Legislated Trauma System?	Is Trauma System Funded?	Fines/Fees on Moving Violations	Fines/Fees on Other Criminal Penalties	Motor Vehicles Registrations/License Plates or Drivers License Renewal Surcharge	Cigarette Excise Tax	General Revenue Funds	Surcharge on 911 calls	Other
Utah	2005	2005	Yes	Yes	X	X					
Virginia			Yes	Yes	X						
Vermont			No	No			X				
Washington			Yes	Yes	X		X				Surcharge on sale or lease of a new vehicle
Wisconsin			Yes	Minimal							
West Virginia	post 2009		Yes	No					X*		
Wyoming	2004		Yes	No							

*Partial funding for Trauma Coordinator position and \$50,000 for RTAC development and infrastructure

Uncompensated Trauma Care by State

Arkansas	Tobacco Tax 56 cents Per Pack
Iowa	Tobacco Tax
Oklahoma	Medicaid Enhanced Rates State Trauma Fund \$24 million Vehicle License Fees
Wisconsin	\$1 Increase in Vehicle Registration Fees
Hawaii	\$5 Registration Fee for EMS
Minnesota	General Fund \$10 Failure to Wear Seatbelt Hospital License Fee (Base Fee Plus Per Bed Fee)
South Carolina	Trauma Fund-no Dedicated Funding Considering Surcharge for Seatbelt Violations, Drunk Driving, Alcohol Tax, Gun Tax
Texas	Surcharges on Drunk Driving and Reckless Driving to Trauma Fund
New Mexico	General Fund-Proposed 1% Fee on Home, Rental, Auto Insurance Policies
North Carolina	General Fund-HRSA Bioterrorism and Preparedness Money

Kentucky	Proposed 5% Tax on Guns and Ammunition
Kansas	Fees on Moving Violations Line Item
Florida	\$5 Motor Vehicle Violation Fee Vehicle License Fees \$25 Drunk Driving Charge
Rhode Island	\$1 Surcharge on all Violations
Arizona	2.3 Million from DUI and Moving Violations
Massachusetts	Vehicle License Fees
Maine	Vehicle License Fees

TRAUMA LEGISLATION STICKS FROM OTHER STATES

State Mandated Designation

Hospital Licensure Dependent on Designation

Medicaid Reimbursement Rates Lower if Not Designated

Medicaid Reimbursement Rates Higher if Designated

Medicaid Eligibility Dependent on Designation



How to reach us

MATT ZERNEY | FRANK GEREMIC | ROSEMARY SHINOHARA
Editorial page editor
Editorial writer
Editorial writer
257-3346
mzerney@adn.com | fgeremic@adn.com | rshinohara@adn.com

LETTERS
Fax: 257-2157
letters@adn.com
Anchorage 99511

Letters/ADN
Box 149001
Anchorage 99511

Daily News Opinion

Emergency trauma care needs improvement in Alaska

By MARK S. JOHNSON and FRANK SACCO, M.D.
Imagine you and your family drive home from a family dinner in Anchorage. As you pass through the major intersection, a drunk driver runs a red light and hits your vehicle head-on. In an instant you and your passengers face a life-or-death situation. If you're still conscious, you may think, thank God this happened in Anchorage where we have state-of-the-art emergency medical services.



Johnson



Sacco

COMPASS: Other points of view

You can be confident that you will receive emergency trauma care that compares favorably with care virtually anywhere else in the nation. Right? Maybe, but maybe not.

has been verified by the American College of Surgeons and certified by the State of Alaska. It is the only Level II Trauma Center in Alaska. Kenmore Hospital has achieved this national standard. Trauma center certification means that a hospital has all the resources readily available to take care of the most seriously injured patients at all times. Backup teams are available and outcomes are continually reviewed to improve care.

Serious traumatic injuries can produce internal bleeding in the brain, spinal cord or internal organs. Often, this bleeding cannot be stopped. Only top surgeons at hospitals specializing in trauma care have performed the

in the excellent injury prevention programs, extensive and creative services on ground and air medical transport, medical specialists in Anchorage and a good relationship with Harborview Trauma Center (level II) in Seattle.

Among Alaska's deficiencies, Anchorage does not have another Level II trauma center, so there are two systems of trauma care (one for Alaska Natives that follows national standards and another for non-Natives). The team identified his state's deficiencies and made a plan to address them. The plan calls for the state to require all hospitals to participate in the system. State government oversees few resources, so it is very hard to make any

ness of these issues. The review team recommends acquiring all acute care hospitals to become designated as trauma centers at the level appropriate to their resources and size within two years (level II, III or IV) if they're not already. We've recommended getting a second level II trauma center in Anchorage as soon as possible, along with expanding trauma centers. Currently, due

to a shortage of Anchorage surgeons willing to take care of children, some seriously injured children above the state's age limit may need to be treated at the Alaska Native Medical Center. Representative John Egnell Jr. recently introduced House Bills 168 and 169 to create incentives for us to become trauma centers and to offset some of the cost of uncompensated trauma care. The Department of Health and Social Services should be commended for this comprehensive and impartial review of trauma care in Alaska. We urge Alaska's legislators and Gov. Paul W. Otlet to fully consider the recommendations in the AEGS report.

We hope the second level never happens to you but, if it does, let's make sure that the care we expect for our loved ones is available for all Alaskans when we need it.

Mark S. Johnson, MPA, retired as chief of Community Health and Emergency Medical Services for the State of Alaska in 2004; Frank Sacco, M.D., is chairman of the Alaska Trauma Systems Review Committee. The full report on Alaska's trauma care system is available at www.aegs.alaska.gov

ougherty
sident & Editor

Larry Persily
Editorial Page Editor

*Norman C. Brown
ne Fanning, Editor and Publisher, 1971-1983
ce Fanning, Editor and Publisher, 1967-1971

OPINION

COMPASS: *Points of view from the community*

Alaska needs a better trauma system

By FRANK SACCO and MARK S. JOHNSON

Alaska is much safer than it was a generation ago. From 1980 to 2004, the unintentional injury death rate dropped more than 50 percent. Without this improvement, an additional 300 Alaskans would have died in 2004. However, Alaska's 2004 rate remained 30 percent above the national average.

We are all aware of the terrible toll of cancer and cardiovascular diseases, but the leading cause of death for people younger than 44 is injury. It remains a major cause of death and disability for all age groups. For every death approximately three people are left with permanent disabilities.

As with other diseases, prevention is preferable to treatment. Alaska's dramatic reduction in injury deaths is largely attributable to prevention, including use of child restraints and safety belts, reduced rates of drunken driving, and increased use of personal flotation devices. Though prevention is paramount, we also must be prepared to provide the best possible care for those who become injured.

A trauma system is an organized, state-coordinated effort to deliver the full spectrum of care to injured people. The integration of EMS systems, public safety agencies, air medical services and health care facilities ensures that patients receive the most efficient, effective care possible from time of injury through rehabilitation. Trauma systems have been shown to reduce death from injury by as much as 25 percent and are recognized as an integral part of a state's EMS and disaster response system.

According to a 2004 Harris poll, most people want a comprehensive trauma system in their area. Throughout the United States, 83 percent of those surveyed felt a trauma system was as essential as having a fire department and 80 percent were willing to pay extra for it. Interestingly, though 75 percent thought there was a trauma system in their state, only eight states have fully functioning systems and 15 states have



Sacco

no system.

Where do we stand? In 1993, the Alaska Legislature provided authority to the Department of Health and Social Services to verify and certify trauma centers. The statute does not require, or provide incentives for, hospital participation. It does state that no hospital can represent itself as a trauma center unless certified by the state.

Regulations adopted in 1996 require trauma centers to meet standards developed by the American College of Surgeons. Four levels are recognized, from Level I (highest) to Level IV (trauma stabilization facility). There are adequate medical resources to establish Level II trauma centers in Anchorage. In addition, it is feasible to establish Level III and IV centers throughout the state. Because of long transport times, centers of all levels are essential for improving outcomes.

Since the statute and regulations were enacted, only three of 24 eligible hospitals have successfully completed the verification and certification process. (Alaska Native Medical Center — Level II, Yukon-Kuskokwim Regional and Norton Sound Regional Hospitals — Level IV)

Alaska is blessed with exceptional physicians and quality medical resources, but lack of an organized trauma system means that access to timely, quality care cannot be assured. In recent years there have been

Alaska is blessed with exceptional physicians and quality medical resources; but lack of an organized trauma system means that access to timely, quality care cannot be assured.



Johnson

times when critical specialties such as neurosurgery and vascular surgery have been unavailable for emergencies, necessitating transfer of some critical patients to Seattle.

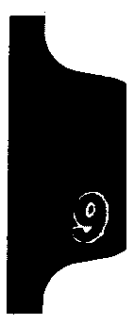
Here are four steps to improve trauma care in Alaska:

1. Residents need to let legislators know that quality trauma care is important.
2. The Legislature should put teeth and incentives in the current statute. Successful approaches in other states include requiring trauma center certification at some level as a condition for hospital licensing and limiting medical liability for injuries treated at trauma centers.
3. Tertiary hospitals should ensure availability of critical sub-specialists 24 hours a day, seven days a week.
4. Local EMS and medical providers should organize regional trauma systems and integrate them with the statewide system.

Developing a comprehensive statewide trauma system, and expanding injury prevention efforts, will make Alaska a safer, healthier place to live.

■ Dr. Frank Sacco is chief of surgery at the Alaska Native Medical Center and chairman of the Alaska Chapter of American College of Surgeons Committee on Trauma. Mark S. Johnson was chief of Emergency Medical Services in the Department of Health and Social Services from 1979 until he retired in 2004.

63





**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
PHS Indian Hospital
Crow Agency, MT*

*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*

TABLE OF CONTENTS

EXECUTIVE SUMMARY 5

 ADVANTAGES AND ASSETS OF THE ALASKA TRAUMA SYSTEM 6

 CHALLENGES AND VULNERABILITIES OF THE ALASKA TRAUMA SYSTEM 7

 PRIORITY RECOMMENDATIONS SUMMARY 8

TRAUMA SYSTEM ASSESSMENT 12

 INJURY EPIDEMIOLOGY 12

 OPTIMAL ELEMENTS 13

 CURRENT STATUS 14

 RECOMMENDATIONS 15

 INDICATORS AS A TOOL FOR SYSTEM ASSESSMENT 16

 OPTIMAL ELEMENT 16

 CURRENT STATUS 16

 RECOMMENDATIONS 17

TRAUMA SYSTEM POLICY DEVELOPMENT 18

 STATUTORY AUTHORITY AND ADMINISTRATIVE RULES 18

 OPTIMAL ELEMENTS 18

 CURRENT STATUS 19

 RECOMMENDATIONS 20

 SYSTEM LEADERSHIP 22

 OPTIMAL ELEMENTS 23

 CURRENT STATUS 23

 RECOMMENDATIONS 24

 COALITION BUILDING AND COMMUNITY SUPPORT 26

 OPTIMAL ELEMENT 26

 CURRENT STATUS 27

 RECOMMENDATIONS 27

 LEAD AGENCY AND HUMAN RESOURCES WITHIN THE LEAD AGENCY 28

 OPTIMAL ELEMENTS 29

 CURRENT STATUS 29

 RECOMMENDATIONS 30

 TRAUMA SYSTEM PLAN 31

 OPTIMAL ELEMENT 32

 CURRENT STATUS 32

 RECOMMENDATIONS 34

 SYSTEM INTEGRATION 35

 OPTIMAL ELEMENTS 36

 CURRENT STATUS 36

 RECOMMENDATIONS 37

 FINANCING 38

 OPTIMAL ELEMENTS 38

 CURRENT STATUS 39

 RECOMMENDATIONS 41

TRAUMA SYSTEM ASSURANCE 42

 PREVENTION AND OUTREACH 42

 OPTIMAL ELEMENTS 43

 CURRENT STATUS 43

 RECOMMENDATIONS 44

 EMERGENCY MEDICAL SERVICES 45

 OPTIMAL ELEMENTS 48

 CURRENT STATUS 49

<i>RECOMMENDATIONS</i>	52
DEFINITIVE CARE FACILITIES	53
<i>OPTIMAL ELEMENTS</i>	55
<i>CURRENT STATUS</i>	56
<i>RECOMMENDATIONS</i>	58
SYSTEM COORDINATION AND PATIENT FLOW	60
<i>OPTIMAL ELEMENTS</i>	61
<i>CURRENT STATUS</i>	62
<i>RECOMMENDATIONS</i>	64
REHABILITATION	66
<i>OPTIMAL ELEMENTS</i>	66
<i>CURRENT STATUS</i>	67
<i>RECOMMENDATIONS</i>	68
DISASTER PREPAREDNESS	69
<i>OPTIMAL ELEMENTS</i>	70
<i>CURRENT STATUS</i>	71
<i>RECOMMENDATIONS</i>	71
SYSTEMWIDE EVALUATION AND QUALITY ASSURANCE.....	72
<i>OPTIMAL ELEMENTS</i>	73
<i>CURRENT STATUS</i>	73
<i>RECOMMENDATIONS</i>	74
TRAUMA MANAGEMENT INFORMATION SYSTEMS.....	75
<i>OPTIMAL ELEMENTS</i>	76
<i>CURRENT STATUS</i>	77
<i>RECOMMENDATIONS</i>	78
RESEARCH.....	80
<i>OPTIMAL ELEMENTS</i>	82
<i>CURRENT STATUS</i>	83
<i>RECOMMENDATIONS</i>	83
FOCUS QUESTIONS	84
ACRONYMS AND GLOSSARY	92
ALASKA COUNCIL ON EMERGENCY MEDICAL SERVICES (ACEMS)	94
APPENDIX A: SITE VISIT TEAM BIOGRAPHICAL SKETCHES	98
APPENDIX B: LIST OF PARTICIPANTS	105

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.

Trauma System Assurance

Prevention and Outreach

Purpose and Rationale

Trauma systems must develop prevention strategies that help control injury as part of an integrated, coordinated, and inclusive trauma system. The lead agency and providers throughout the system should be working with business organizations, community groups, and the public to enact prevention programs and prevention strategies that are based on epidemiologic data gleaned from the system.

Efforts at prevention must be targeted for the intended audience, well defined, and structured, so that the impact of prevention efforts is systemwide. The implementation of injury control and prevention requires the same priority as other aspects of the trauma system, including adequate staffing, partnering with the community, and taking advantage of outreach opportunities. Many systems focus information, education, and prevention efforts directly to the general public (for example, restraint use, driving while intoxicated). However, a portion of these efforts should be directed toward emergency medical services (EMS) and trauma care personnel safety (for example, securing the scene, infection control). Collaboration with public service agencies, such as the department of health is essential to successful prevention program implementation. Such partnerships can serve to synergize and increase the efficiency of individual efforts. Alliances with multiple agencies within the system, hospitals, and professional associations, working toward the formation of an injury control network, are beneficial.

Activities that are essential to the development and implementation of injury control and prevention programs include the following:

- A needs assessment focusing on the public information needed for media relations, public officials, general public, and third-party payers, thus ensuring a better understanding of injury control and prevention
- A needs assessment for the general medical community, including physicians, nurses, prehospital care providers, and others concerning trauma system and injury control information
- Preparation of annual reports on the status of injury prevention and trauma care in the system
- Trauma system databases that are available and usable for routine public health surveillance

OPTIMAL ELEMENTS

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)**

- a. The trauma system leaders (lead agency, advisory committees, and others) inform and educate constituencies and policy makers through community development activities, targeted media messaging, and active collaborations aimed at injury prevention and trauma system development. **(I-207.2)**

II. The jurisdictional lead agency, in cooperation with 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 of injury prevention and trauma care in state, regional, or local areas. **(I-304.1)**

III. The lead agency ensures that the trauma system demonstrates prevention and medical outreach activities within its defined service area. **(B-306)**

- a. The trauma system is active within its jurisdiction in the evaluation of community based activities and injury prevention and response programs. **(I-306.2)**
- b. The effect or impact of outreach programs (medical and community training and support and prevention activities) is evaluated as part of a system performance improvement process. **(I-306.3)**

CURRENT STATUS

The state is to be commended for recognizing the significant problem and impact of injury on Alaskans. The IPEMS Section within DHSS is the primary focus area for injury epidemiology and injury prevention in the state. Numerous programs and sources of funding from other agencies and from grant funding (e.g., NIOSH, Maternal and Child Health, Department of Highway Safety, Medicaid, and CDC) support injury program efforts. Documents provided to the consultant team identified an injury program manager and 8 additional staff members in IPEMS.

The state has numerous groups with which it works successfully to implement injury prevention programs. The Alaska Native Tribal Health Consortium Injury Prevention Program works to develop and disseminate culturally appropriate injury prevention programs. Acute care facilities were reported to be implementing brief alcohol screening and intervention programs.

The Alaska Injury Prevention Center is an example of a coalition formed to promote injury prevention outreach by the Anchorage acute care facilities. This center has progressed beyond its original Anchorage outreach focus to become a nonprofit organization that can develop, implement, and evaluate injury program interventions across the entire state.

The state has been an acknowledged leader in the development of injury prevention programs, such as the Kids Don't Float program that has reduced drowning deaths among children. This program is now sustained through partnerships with the Coast Guard and SafeKids. The state often serves as a facilitator for injury program implementation through its many partnerships, such as Injury Prevention in a Bag with EMTs in small communities. Information about 16 injury mechanisms, their prevention strategies, and resources for injury prevention programs are available on the IPEMS website.

Several state agencies collaborate with IPEMS in conducting injury surveillance and in implementing injury prevention strategies, such as the Alaska Marine Safety and Education Association, Alaska Highway Safety Office, Alaska Division of Fire and Life Safety.

The EMS Goals document describes the importance of implementing injury prevention programs in all communities across the state. Injury prevention education is targeted to prehospital providers during the annual EMS conference, and continuing medical education units are provided. Prehospital providers have been engaged in implementing the Injury in a Bag program as well as other injury prevention programs.

The focus of the state and its extensive programming for primary injury prevention is exemplary. Injury prevention is an important component of the trauma system. An opportunity now exists to expand the primary injury prevention focus to the broader concept of injury control so that this emphasis can be integrated with the future state trauma system.

RECOMMENDATIONS

- Ensure representation of an injury prevention representative on the Alaska Trauma Advisory Council (ATAC).
- Incorporate the concept of "injury control" into the prevention activities to raise awareness of the need for a comprehensive and integrated trauma system.

Emergency Medical Services

Purpose and Rationale

The trauma system includes, and/or interacts with, many different agencies, institutions, and systems. The EMS system is one of the most important of these relationships. EMS is often the critical link between the injury-producing event and definitive care at a trauma center. Even though at its inception the EMS system was a very broad system concept, over time, EMS has come to be recognized as the prehospital care component of the larger emergency health care system. It is a complex system that not only transports patients, but also includes public access, communications, personnel, triage, data collection, and quality improvement activities.

The EMS system medical director must have statutory authority to develop protocols, oversee practice, and establish a means of ongoing quality assessment to ensure the optimal provision of prehospital care. If not the same individual, the EMS system medical director must work closely with the trauma system medical director to ensure that protocols and goals are mutually aligned. The EMS system medical director must also have ongoing interaction with EMS agency medical directors at local levels, as well as the state EMS for Children program, to ensure that there is understanding of and compliance with trauma triage and destination protocols.

Ideally, a system should have some means of ensuring whether resources meet the needs of the population. To achieve this end, a resource and needs assessment evaluating the availability and geographic distribution of EMS personnel and physical resources is important to ensure a rapid and appropriate response. This assessment includes a detailed description of the distribution of ground ambulance and air medical locations across the region. Resource allocations must be assessed on a periodic basis as needs dictate a redistribution of resources. In communities with full-time paid EMS agencies, ambulances should be positioned according to predictable geographic or temporal demands to optimize response efficiencies. Such positioning schemes require strong prehospital data collection systems that can track the location of occurrences over time. Periodic assessment of dispatch and transport times will also provide insight into whether resources are consistent with needs.

Each region should have objective criteria dictating the level of response (advanced life support [ALS], basic life support [BLS]), the mode of transport, and the disposition of the patient based on the location of the incident and the severity of injury. A mechanism for case-based review of trauma patients that involves prehospital and hospital providers allows bidirectional information sharing and continuing education, ensuring that expectations are met at both ends. Ongoing review of triage and treatment decisions allows for continuing quality improvement of the triage and prehospital care protocols. A more detailed discussion of in-field (primary) triage criteria is provided in the section titled: System Coordination and Patient Flow.

Human Resources

Periodic workforce assessments of EMS should be conducted to ensure adequate numbers and distribution of personnel. EMS, not unlike other health care professions, experiences shortages and misdistribution of personnel. Some means of addressing recruitment, retention, and engagement of qualified personnel should be a priority. It is critical that trauma system leaders work to ensure that prehospital care providers at all levels attain and maintain competence in trauma care. Maintenance of competence should be ensured by requiring standards for credentialing and certification and specifying continuing educational requirements for all prehospital personnel involved in trauma care. The core curricula for First Responder, Emergency Medical Technician (EMT) Basic, EMT-Intermediate, EMT Paramedic, and other levels of prehospital personnel have an essential orientation to trauma care for all ages. However, trauma care knowledge and skills need to be continuously updated, refined, and expanded through targeted trauma care training such as Prehospital Trauma Life Support®, Basic Trauma Life Support®, and age-specific courses. Mechanisms for the periodic assessment of competence, educational needs, and education availability within the system should be incorporated into the trauma system plan.

Systems of excellence also encourage EMS providers to go beyond meeting state standards for agency licensure and to seek national accreditation. National accreditation standards exist for ground-based and air medical agencies, as well as for EMS educational programs. In some states, agency licensure requirements are waived or substantially simplified if the EMS agency maintains national accreditation.

EMS is the only component of the emergency health care and trauma system that depends on a large cadre of volunteers. In some states, substantially more than half of all EMS agencies are staffed by volunteers. These agencies typically serve rural areas and are essential to the provision of immediate care to trauma patients, in addition to provision of efficient transportation to the appropriate facility. In some smaller facilities, EMS personnel also become part of the emergency resuscitation team, augmenting hospital personnel. The trauma care system program should reach out to these volunteer agencies to help them achieve their vital role in the outcome of care of trauma patients. However, it

must be noted that there is a delicate balance between expecting quality performance in these agencies and placing unrealistic demands on their response capacity. In many cases, it is better to ensure that there is an optimal BLS response available at all times rather than a sporadic or less timely response involving ALS personnel. Support to volunteer EMS systems may be in the form of quality improvement activities, training, clinical opportunities, and support to the system medical director.

Owing to the multidisciplinary nature of trauma system response to injury, conferences that include all levels of providers (for example, prehospital personnel, nurses, and physicians) need to occur regularly with each level of personnel respected for its role in the care and outcome of trauma patients. Communication with and respect for prehospital providers is particularly important, especially in rural areas where exposure to major trauma patients might be relatively rare.

Integration of EMS Within the Trauma System

In addition to its critical role in the prehospital treatment and transportation of injured patients, EMS must also be engaged in assessment and integration functions that include the trauma system and also public health and other public safety agencies. EMS agencies should have a critical role in ensuring that communication systems are available and have sufficient redundancy so that trauma system stakeholders will be able to assess and act to limit death and disability at the single patient level and at the population level in the case of mass casualty incidents (MCIs). Enhanced 911 services and a central communication system for the EMS/trauma system to ensure field-to-facility bidirectional communications, interfacility dialogue, and all-hazards response communications among all system participants are important for integrating a system's response. Wireless communications capabilities, including automatic crash notification, hold great promise for quickly identifying trauma-producing events, thereby reducing delays in discovery and decreasing prehospital response intervals.

Further integration might be accomplished through the use of EMS data to help define high-risk geographic and demographic characteristics of injuries within a response area. EMS should assist with the identification of injury prevention program needs and in the delivery of prevention messages. EMS also serves a critical role in the development of all-hazards response plans and in the implementation of those plans during a crisis. This integration should be provided by the state and regional trauma plan and overseen by the lead agency. EMS should participate through its leadership in all aspects of trauma system design, evaluation, and operation, including policy development, public education, and strategic planning.

OPTIMAL ELEMENTS

I. The trauma system is supported by an EMS system that includes communications, medical oversight, prehospital triage, and transportation; the trauma system, EMS system, and public health agency are well integrated.

(B-302)

- a. There is well-defined trauma system medical oversight integrating the specialty needs of the trauma system with the medical oversight for the overall EMS system. **(I-302.1)**
- b. There is a clearly defined, cooperative, and ongoing relationship between the trauma specialty physician leaders (for example, trauma medical director within each trauma center) and the EMS system medical director. **(I-302.2)**
- c. There is clear-cut legal authority and responsibility for the EMS system medical director, including the authority to adopt protocols, to implement a performance improvement system, to restrict the practice of prehospital care providers, and to generally ensure medical appropriateness of the EMS system. **(I-302.3)**
- d. The trauma system medical director is actively involved with the development, implementation, and ongoing evaluation of system dispatch protocols to ensure they are congruent with the trauma system design. These protocols include, but are not limited to, which resources to dispatch, for example, ALS versus BLS, air ground coordination, early notification of the trauma care facility, pre-arrival instructions, and other procedures necessary to ensure that resources dispatched are consistent with the needs of injured patients. **(I-302.4)**
- e. The retrospective medical oversight of the EMS system for trauma triage, communications, treatment, and transport is closely coordinated with the established performance improvement processes of the trauma system. **(I-302.5)**
- f. There is a universal access number for citizens to access the EMS/trauma system, with dispatch of appropriate medical resources. There is a central communication system for the EMS/trauma system to ensure field- to-facility bidirectional communications, interfacility dialogue, and all-hazards response communications among all system participants. **(I-302.7)**
- g. There are sufficient and well-coordinated transportation resources to ensure that EMS providers arrive at the scene promptly and expeditiously transport the patient to the correct hospital by the correct transportation mode. **(I-302.8)**

II. The lead trauma authority ensures a competent workforce. **(B-310)**

- a. In cooperation with the prehospital certification and licensure authority, set guidelines for prehospital personnel for initial and ongoing trauma training, including trauma-specific courses and courses that are readily available throughout the state. **(I-310.1)**
- b. In cooperation with the prehospital certification and licensure authority, ensure that prehospital personnel who routinely provide care to trauma patients have a current trauma training certificate, for example, Prehospital Trauma Life Support or Basic Trauma Life Support and others, or that trauma training needs are driven by the performance improvement process. **(I-310.2)**
- c. Conduct at least 1 multidisciplinary trauma conference annually that encourages system and team approaches to trauma care. **(I-310.9)**

III. 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. Incentives are provided to individual agencies and institutions to seek state or nationally recognized accreditation in areas that will contribute to overall improvement across the trauma system, for example, Commission on Accreditation of Ambulance Services for prehospital agencies, Council on Allied Health Education Accreditation for training programs, and American College of Surgeons (ACS) verification for trauma facilities. **(I-311.6)**

CURRENT STATUS

The lead agency for Alaska EMS is the IPEMS Section under the authority of the DHSS. The EMS system is comprised of seven EMS regions that span a huge geographic area with extreme terrain and weather variations. These regions receive varying degrees of funding from the state. The state has approximately 3,300 Emergency Medical Technicians (EMTs), 175 Mobile Intensive Care Paramedics (MICPs) and unknown numbers of first responders.

When injured or ill patients require treatment not available locally, they may be transported by ground (ambulance, privately owned vehicle, snow machine, dog sled), by water (U.S. Coast Guard, fishing boat) or air (rotor or fixed wing, medical private or commercial). EMS ground services in Alaska include five BLS, 39 ALS with occasional BLS, and 33 ALS services. Air medical services include eight Medevac and 10 Critical Care Air Ambulance services with one service also certified as a Perinatal Specialty Air Medical Transport Service. Each of the regional hub cities has at least one air medical service. There are approximately

180 certified and uncertified first responder services across the state, however not all communities are covered.

EMT levels are as follows:

- EMT I (EMT Basic, 1994 U.S. Department of Transportation (DOT) National Standard Curriculum (NSC) with medication module but not manual defibrillation or advanced airway module);
- EMT II (EMT I plus 50 additional hours of training; exceeds EMT Intermediate 85, can administer intravenous fluids (5% dextrose in water, crystalloid volume-replacement solutions) and selected medications (50% dextrose in water and naloxone hydrochloride);
- EMT III (EMT I plus EMT II plus 50 hours of additional training; can administer EMT II medications plus lidocaine, atropine, morphine, and epinephrine 1:1000/1:10,000; apply electrodes, monitor cardiac activity and provide countershock for ventricular fibrillation and pulseless ventricular tachycardia).
- Defibrillator Technician training is available for EMT I and II levels that allows them to perform manual defibrillation.

EMT levels II and III function under direct or indirect supervision of a physician, and if they do not have a medical director they must function at the EMT I level. EMT I, II and III personnel are certified by the IPEMS Section. The local medical director may expand the scope of an EMT I, II or III after approval by the IPEMS Section and submission of a training and evaluation plan. The local medical director is responsible for the expanded care provided.

The Mobile Intensive Care Paramedic (MICP) is licensed by the Alaska State Medical Board which requires completion of training that follows the U.S. DOT NSC for paramedics, successful completion of the National Registry paramedic examination, and obtaining a physician sponsor approved by the Alaska State Medical Board.

First Responders are not certified by the state, including the Alaska Emergency Trauma Technician (ETT). The ETT is trained via a 44 hour course developed by the Public Safety Academy to cover emergency trauma care, medical communication, and Medevac preparations.

Most isolated communities have Community Health Aids (CHA) who are trained and function as the primary care provider either under the distant supervision of a physician or the direct supervision of a nurse practitioner or physician assistant located in the community. CHA's are First Responder or ETT trained with many at the EMT I level or higher. Due to the limited access to roads and a transportation system that depends on air or water and good weather, the injured

patient may be in the care of the CHA for up to 72 hours. It is essential that these communities have optimal communications capabilities for access to physicians and regional medical facilities. Due to the high turnover rate of the CHAs, the state will need to continue to make training programs available so this level of care can continue to be provided in these isolated communities.

The state contracts with an emergency physician on an as needed basis to perform selected duties of the state EMS medical director, and a federally-funded Alaska Native Health Service Medical Director oversees the Indian Health Service/Public Health Service medical directors. Regional and local physician medical directors are largely volunteers. A regional or local medical director for state certified EMT II or III personnel, training programs or courses (EMT II, EMT III or manual defibrillator technician training) or for a service (basic life support (BLS), advanced life support (ALS) or air medical) must be an Alaska licensed physician or a physician working in the regular medical service of the U.S. Armed Services or the U.S. Public Health Service. The medical director must participate in an orientation provided by the IPEMS Section within one year after accepting the responsibility of medical direction. Medical directors of an ALS ground service or air medical service have additional requirements.

Medical director responsibilities for the certified EMT include the following:

- supervise the medical care,
- establish and annually review treatment protocols,
- approve advanced life support standing orders for each state-certified EMT,
- provide quarterly critiques of patient care,
- schedule quarterly on-site supervision, and
- approve a program of continuing medical education for each state-certified EMT supervised.

The licensed MICP functions under a physician sponsor as noted above. While the responsibilities of the medical director of an MICP service are defined, the responsibility of the physician sponsor for the individual MICP is not. The IPEMS Section suggests that the MICP physician sponsor should follow the guidelines outlined for medical directors of certified EMTs. Local and regional EMS medical directors are provided liability coverage for their EMS duties, but their time is not compensated by the state.

Resources for regional and local EMS medical directors include an Alaska Medical Director's Handbook, a physician track during the annual State EMS Symposium, and an EMS Medical Directors' meeting during the symposium, both facilitated by the state EMS medical director.

Online medical direction for EMS providers in rural and remote locations is provided by the hospital or clinic in that region via phone (some locations have limited telemedicine capability). Often the communications system is solely dependent on satellite access. The regional facility will decide on patient disposition and help arrange transport to the most appropriate health care facility. Patient transport may involve multiple transfers requiring various modes of travel.

Alaska's 27 largest communities have Enhanced 911 services. Wireless E-911 is available in Anchorage and Juneau with limited availability in Fairbanks and Kenai. The service is Phase II compliant (Phase II rules require wireless carriers to begin providing more precise Automatic Location Identification). Alaska has uniform minimum standards for training and certification of Emergency Medical Dispatchers.

RECOMMENDATIONS

- **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 (i.e. load capacity, instrument rating, landing requirements, etc); and to monitor the availability and location of air resources.**
- Continue to support the Emergency Trauma Technician training and maximize course availability.
- Develop a program of prehospital continuing education for trauma that includes special populations such as geriatrics and pediatrics.
- Develop a medical director's listserv as a method to disseminate information in a timely manner and encourage interaction among medical directors.
- Continue to develop a National EMS Information System (NEMSIS) - compliant electronic EMS database to support evaluation of the EMS system and as a quality improvement tool for patient care.

Definitive Care Facilities

Purpose and Rationale

Inclusive trauma systems are the systems that include all acute health care facilities, to the extent that their resources and capabilities allow and in which the patient's needs are matched to hospital resources and capabilities. Thus, as the core of a regional trauma system, acute care facilities operating within an inclusive trauma system provide definitive care to the entire spectrum of patients with traumatic injuries. Acute care facilities must be well integrated into the continuum of care, including prevention and rehabilitation, and operate as part of a network of trauma-receiving hospitals within the public health framework. All acute care facilities should participate in the essential activities of a trauma system, including performance improvement, data submission to state or regional registries, representation on regional trauma advisory committees, and mutual operational agreements with other regional hospitals to address interfacility transfer, educational support, and outreach. The roles of all definitive care facilities, including specialty hospitals (for example, pediatric, burn, severe traumatic brain injury [TBI], spinal cord injury [SCI]) within the system should be clearly outlined in the regional trauma plan and monitored by the lead agency. Facilities providing the highest level of trauma care are expected to provide leadership in education, outreach, patient care, and research and to participate in the design, development, evaluation, and operation of the regional trauma system.

In an inclusive system, patients should be triaged to the appropriate facility based on their needs and facility resources. Patients with the least severe injuries might be cared for at appropriately designated facilities within their community, whereas the most severe should be triaged to a level I or II trauma center. In rural and frontier systems, smaller facilities must be ready to resuscitate and initiate treatment of the major injuries and have a system in place that will allow for the fastest, safest transfer to a higher level of care.

Trauma receiving facilities providing definitive care to patients with other than minor injuries must be specifically designated by the state or regional lead agency and equipped and qualified to do so at a level commensurate with injury severity. To assess and ensure that injury type and severity are matched to the qualifications of the facilities and personnel providing definitive care, the lead agency should have a process in place that reviews and verifies the qualifications of a particular facility according to a specific set of resource and quality standards. This criteria-based process for review and verification should be consistent with national standards and be conducted on a periodic cycle as determined by the lead agency. When centers do not meet set standards, there should be a process for suspension, probation, revocation, or dedesignation.

Designation by the lead agency should be restricted to facilities meeting criteria or statewide resource and quality standards and based on patient care needs of the regional trauma system. There should be a well-defined regulatory relationship between the lead agency and designated trauma facilities in the form of a contract, guidelines, or memorandum of understanding. This legally binding document should define the relationships, roles, and responsibilities between the lead agency and the medical leadership from each designated trauma facility. The number of trauma centers by level of designation and location of acute care facilities must be periodically assessed by the lead agency with respect to patient care needs and timely access to definitive trauma care. There should be a process in place for augmenting and restricting, if necessary, the number and/or level of acute care facilities based on these periodic assessments. The trauma system plan should address means for improving acute care facility participation in the trauma system, particularly in systems in which there has been difficulty addressing needs.

Human Resources

The ability to deliver high-quality trauma care is highly dependent on the availability of skilled human resources. Therefore, it is critical to assess the availability and educational needs of providers on a periodic basis. Because availability, particularly of subspecialty resources, is often limited, some means of addressing recruitment, retention, and engagement of qualified personnel should be a priority. At this time, there are no fellowship trained trauma surgeons in Alaska. Periodic workforce assessments should be conducted. Maintenance of competence should be ensured by requiring standards for credentialing and certification and specifying continuing educational requirements for physicians and nurses providing care to trauma patients. Mechanisms for the periodic assessment of ancillary and subspecialty competence, educational needs, and availability within the system for all designated facilities should be incorporated into the trauma system plan. The lead trauma centers in rural areas will need to consider teleconferencing and telemedicine to assist smaller facilities in providing education on regionally identified needs. In addition, lead trauma centers within the region should assist in meeting educational needs while fostering a team approach to care through annual educational multidisciplinary trauma conferences. These activities will do much to foster a sense of teamwork and a functionally inclusive system.

Integration of Designated Trauma Facilities Within the Trauma System

Designated trauma facilities must be well integrated into all other facets of an organized system of trauma care, including public health systems and injury surveillance, prevention, EMS and prehospital care, disaster preparedness, rehabilitation, and system performance improvement. This integration should be provided by the state and/or regional trauma plan and overseen by the lead agency.

Each designated acute care facility should participate, through its trauma program leadership, in all aspects of trauma system design, evaluation, and operation. This participation should include policy and legislative development, legislative and public education, and strategic planning. In addition, the trauma program and subspecialty leaders should provide direction and oversight to the development, implementation, and monitoring of integrated protocols for patient care used throughout the system (for example, TBI guidelines used by prehospital providers and nondesignated transferring centers), including region specific primary (field) and secondary (early transfer) triage protocols. The highest level trauma facilities should provide leadership of the regional trauma committees through their trauma program medical leadership. These medical leaders, through their activities on these committees, can assist the lead agency and help ensure that deficiencies in the quality of care within the system, relative to national standards, are recognized and corrected. Educational outreach by these higher level centers should be used when appropriate to help achieve this goal.

OPTIMAL ELEMENTS

I. Acute care facilities are integrated into a resource efficient, inclusive network that meets required standards and that provides optimal care for all injured patients. **(B-303)**

- a. The trauma system plan has clearly defined the roles and responsibilities of all acute care facilities treating trauma and of facilities that provide care to specialty populations (for example, burn, pediatric, SCI, and others). **(I-303.1)**

II. To maintain its state, regional, or local designation, each hospital will continually work to improve the trauma care as measured by patient outcomes. **(B-307)**

- a. The trauma system engages in regular evaluation of all licensed acute care facilities that provide trauma care to trauma patients and of designated trauma hospitals. Such evaluation involves independent external reviews. **(I-307.1)**

III. The lead trauma authority ensures a competent workforce. **(B-310)**

- a. As part of the established standards, set appropriate levels of trauma training for nursing personnel who routinely care for trauma patients in acute care facilities. **(I-310.3)**
- b. Ensure that appropriate, approved trauma training courses are provided for nursing personnel on a regular basis. **(I-310.4)**

- c. In cooperation with the nursing licensure authority, ensure that all nursing personnel who routinely provide care to trauma patients have a trauma training certificate (for example, Advanced Trauma Care for Nurses, Trauma Nursing Core Course, or any national or state trauma nurse verification course). As an alternative after initial trauma course completion, training can be driven by the performance improvement process. **(I-310.5)**
- d. In cooperation with the physician licensure authority, ensure that physicians who routinely provide care to trauma patients have a current trauma training certificate of completion, for example, Advanced Trauma Life Support® (ATLS®) and others. As an alternative, physicians may maintain trauma competence through continuing medical education programs after initial ATLS completion. **(I-310.8)**
- e. Conduct at least 1 multidisciplinary trauma conference annually that encourages system and team approaches to trauma care. **(I-310.9)**
- f. As new protocols and treatment approaches are instituted within the system, structured mechanisms are in place to inform all personnel about the changes in a timely manner. **(I-310-10)**

CURRENT STATUS

Facilities

Alaska has an inclusive, voluntary trauma system. There are 24 hospitals, two of which are military facilities. Five hospitals are certified/designated trauma centers:

- Level II trauma center: Alaska Native Medical Center
- Level IV trauma centers : Norton Sound Regional Hospital
Yukon Kuskokwim Delta Regional Hospital
Mt. Edgecumbe Hospital
Sitka Community Hospital

Harborview Medical Center in Seattle, WA is the Level I trauma center that supports Southeast Alaska, and often patients from other areas of the state.

The hospitals caring for the largest volume of trauma patients are concentrated in Anchorage:

- Alaska Native Medical Center (certified/designated Level II)
- Providence Alaska Medical Center (not designated), private not-for-profit
- Alaska Regional Hospital (not designated), for-profit

The only other community with more than one hospital is Sitka (Sitka Community Hospital and Mt. Edgecumbe Hospital, both level IV trauma centers).

Large portions of the state are in remote, austere areas with low population, no roads and minimal health care availability. These areas are essentially isolated in periods of bad weather and must rely on local resources for emergency care for extended periods of time.

For purposes of health care delivery, the two distinct populations in Alaska (not including the military), are Native Alaskans and all other Alaskans. Native Alaskans generally receive care via the Alaska Tribal Health System/Alaska Native Tribal Health Consortium, an integrated network of facilities and providers that deliver care to defined beneficiaries. At the local level, community clinics staffed by Community Health Aides or mid-level providers are sources of healthcare in small communities. These clinics are part of an established referral relationship that includes mid-level providers, physicians, regional hospitals, and the Alaska Native Medical Center (Level II trauma center), providing the entire spectrum of acute trauma care. The community clinics and Community Health Aides/mid-level providers assume a significant role for the stabilization and early management of trauma patients prior to transport, and when patients cannot be transported out to larger facilities because of weather or other conditions.

Perception of incentives for hospitals to become certified/designated as trauma centers vary. The Alaska Tribal Health System/ Alaska Native Tribal Health Consortium has recognized the burden of injury on Native Alaskans, leading to the support of trauma center certification/designation of the Alaska Native Medical Center and some level IV facilities. Despite the financial costs associated with verification and certification, participants reported collateral benefits of trauma center certification/designation, including contributing to an overall elevation of the quality of care at that institution and providing service to their community. Although the private non-profit hospitals that serve Alaskans recognize that trauma care is an important contribution to the community, these facilities are reluctant to pursue certification/designation without the support of their medical staffs.

Human Resources

Human resources are limited, and significant problems exist for recruitment and retention of physicians and nurses. The shortages of physicians and nurses will likely worsen in the coming years (Alaska Physician Supply Task Force report, 2006). Since Alaska has no medical school, the option of "growing our own" which has been somewhat successful for other states, will not work without strong collaboration with the University of Washington's WWAMI program, partnership between the University of Washington School of Medicine and the states of Wyoming, Alaska, Montana, and Idaho. For example, there are currently no trauma fellowship trained general surgeons in the state, in any facility. There are surgeons who do trauma surgery. Alaska Native Medical

Center has 3 surgery residents rotating from Phoenix. Providence Alaska Medical Center has family practice residents on rotation.

Several surgical specialties are in jeopardy including pediatric surgery and vascular surgery. One of 2 pediatric surgeons in the state has recently retired, prompting the remaining pediatric surgeon to make tentative plans to leave Alaska. The situation for neurosurgery and orthopedics appears more stable with sufficient numbers in Anchorage to support current volumes. Patients requiring re-implantation and many requiring burns are transported to centers outside Alaska. Among general surgeons taking emergency department call in non-designated hospitals with significant trauma volumes, participants expressed concern regarding the burden of trauma call and identified emerging requests for financial support for taking trauma call.

Among nurses, high turnover rates and staffing with travelers are commonplace challenges. Given the national outlook for nursing shortages, this will likely worsen with time. Critical care nurse staffing levels are especially low and contribute to bypass decisions.

Integration of Designated Trauma Facilities Within the Trauma System

Diversion or inability to accept trauma patients reportedly occurs regularly and appears most often due to emergency department capacity issues, ICU bed availability, or the lack of staffed beds secondary to nursing shortages. On occasion, all 3 emergency departments in Anchorage have closed for trauma at the same time, which prompts the automatic re-opening of all the facilities and trauma patient transports in rotation. No state data are available to describe the frequency of such closings. The impact on EMS has been significant by their report, and this is compounded by challenges in communication about the rotation schedule.

Nondesignated hospitals provide the majority of trauma care in Alaska. Significant concerns were expressed by Fire and EMS crews regarding challenges they have faced when delivering patients to high-volume, nondesignated hospitals in Anchorage. Among these concerns expressed were that the nondesignated hospitals do not have the "system" in place to bring in the personnel resources needed for optimal care in a timely and efficient manner.

RECOMMENDATIONS

- **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.**

- **Require participation of all acute care hospitals in the trauma system within a 2 year time frame with trauma center 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.**
- Develop a memorandum of understanding between certified/designated hospitals and the state lead agency describing mutual roles and responsibilities.
- Support designated trauma center and affiliated physician readiness/standby costs and uncompensated trauma care costs through an identified state funding mechanism.
- Establish a mechanism to routinely track data on emergency department closures or bypass, and develop notification plans that include EMS and hospital stakeholders.
- Pursue a focused, well-funded strategy to recruit trauma surgeons and trauma prepared nurses to the state.
- Increase the number of physician resident positions at Alaska hospitals to encourage potential candidates to relocate to the state.

System Coordination and Patient Flow

Purpose and Rationale

To achieve the best possible outcomes, the system must be designed so that the right patient is transported to the right facility at the right time. Although on the surface this objective seems relatively straightforward, patients, geography, and transportation systems often conspire to present significant challenges. The most critically injured trauma patient is often easy to identify at the scene by virtue of the presence of coma or hypotension. However, in some circumstances, the patients requiring the resources of a Level I or II center may not be immediately apparent to prehospital providers. Primary or field triage criteria aid providers in identifying which patients have the greatest likelihood of adverse outcomes and might benefit from the resources of a designated trauma center. Even if the need is identified, regional geography or limited air medical (or land) transport services might not allow for direct transport to an appropriate facility.

Primary triage of a patient from the field to a center capable of providing definitive care is the goal of the trauma system. However, there are circumstances (for example, airway management, rural environments, inclement weather) when triaging a patient to a closer facility for stabilization and transfer is the best option for accessing definitive care. Patients sustaining severe injuries in rural environments might need immediate assessment and stabilization before a long-distance transport to a trauma center. In addition, evaluation of the patient might bring to light severe injuries for which needed care exceeds the resources of the initial receiving facility. Some patients might have specific needs that can be addressed at relatively few centers within a region (for example, pediatric trauma, burns, severe TBI, SCI, and reimplantation). Finally, temporary resource limitations might necessitate the transfer of patients between acute care facilities.

Secondary triage at the initial receiving facility has several advantages in systems with a large rural or suburban component. The ability to assess patients at non-designated or level III to V centers provides an opportunity to limit the transfer of only the most severely injured patients to level I or II facilities, thus preserving a limited resource for patients most in need. It also provides patients with lesser injuries the possibility of being cared for within their community.

The decision to transfer a trauma patient should be based on objective, prospectively agreed-on criteria. Established transfer criteria and transfer agreements will minimize discussions about individual patient transfers, expedite the process, and ensure optimal patient care. Delays in transfer might increase mortality, complications, and length of stay. A system with an excess of transferred patients might tax the resources of the regional trauma facility. Conversely, inappropriate retention of patients at centers without adequate

facilities or expertise might increase the risk of adverse outcomes. Given the importance of timely, appropriate interfacility transfers, the time to transfer, as well as the rates of primary and secondary overtriage and undertriage, should be evaluated on a regular basis, and corrective actions should be instituted when problems are identified. Data derived from tracking and monitoring the timeliness of access to a level of trauma care commensurate with injury type and severity should be used to help define optimal system configuration.

A central communications center with real-time access to information on system resources greatly facilitates the transfer process. Ideally, this center identifies a receiving facility, facilitates dialogue between the transferring and receiving centers, and coordinates interfacility transport.

To ensure that the system operates at the greatest efficiency, it is important that patients are repatriated back to community hospitals once the acute phase of trauma care is complete. The process of repatriation opens up the limited resources available to care for severely injured patients. In addition, it provides an opportunity to bring patients back into their local environment where their social network might help reintegrate patients into their community.

OPTIMAL ELEMENTS

I. The trauma system is supported by an EMS system that includes communications, medical oversight, prehospital triage, and transportation; the trauma system, EMS system, and public health agency are well integrated.

(B-302)

- a. There are mandatory systemwide prehospital triage criteria to ensure that trauma patients are transported to an appropriate facility based on their injuries. These triage criteria are regularly evaluated and updated to ensure acceptable and system-defined rates of sensitivity and specificity for appropriately identifying a major trauma patient. **(I-302.6)**
- b. There is a universal access number for citizens to access the EMS/trauma system, with dispatch of appropriate medical resources. There is a central communications system for the EMS/trauma system to ensure field-to-facility bidirectional communications, interfacility dialogue, and all-hazards response communications among all system participants. **(I-302.7)**
- c. There is a procedure for communications among medical facilities when arranging for interfacility transfers, including contingencies for radio or telephone system failure. **(I-302.9)**

II. Acute care facilities are integrated into a resource-efficient, inclusive network that meets required standards and that provides optimal care for all injured patients. **(B-303)**

- a. When injured patients arrive at a medical facility that cannot provide the appropriate level of definitive care, there is an organized and regularly monitored system to ensure that the patients are expeditiously transferred to the appropriate system-defined trauma facility. (I-303.4)

CURRENT STATUS

In Alaska, prehospital trauma care and patient triage is highly variable and dependent on location of injury, regional resources and local protocols. As stated in the PRQ:

"There are no statewide protocols for prehospital triage. The Trauma Triage, Transport & Transfer Guidelines developed by the Trauma System Planning and Development Task Force in 1993 and revised in 2002, offers guidelines to assist local EMS agencies and hospitals in developing local protocols. The protocols themselves are developed locally and approved by their medical director."

Trauma care delivery (as most health care in Alaska) is closely tied to geographic location which dictates resources, communication, and transportation. At least three distinct areas are identified based on models of trauma care delivery:

- *Bush area*: these remote areas are geographically isolated and have unique challenges including weather, no roads, and basic health care capabilities with few hospitals.
- *Anchorage area*: this urban environment is the major population center of the state and has several acute care hospitals, advanced infrastructure, and system redundancy in several segments. It is the primary health care referral area for the state for all Alaskans.
- *Southeast*: this area has intermediate capabilities compared to the 2 areas listed above and has a special relationship with Harborview Medical Center (Level I trauma center) in Seattle.

In addition to the geographic differentiation mentioned above, Alaska health care delivery can also be viewed in the context of populations (excluding the military):

- *Native Alaskans*: health care delivery to this population occurs across all geographic regions and is organized and administered by Alaska Tribal Health System/ Alaska Native Tribal Health Consortium, an integrated network of facilities and providers that deliver care to Native Alaskans as defined beneficiaries.

- Alaskans: health care delivery to this population occurs along more typical lines and involves a variety of hospitals and providers in varying density dependent on location and funding source.

Care to Native Alaskans and other Alaskans in the bush is overlapping, as many Alaskans receive primary and emergency care in Alaska Native clinics and hospitals when they are the only resources available. To a degree, some overlapping of trauma care for Native Alaskans and other Alaskans occurs within the Anchorage hospitals when by-pass or diversion causes a trauma patient to be directed to Alaska Native Medical Center or one of the non-certified/designated hospitals.

Many remote areas of the state are faced with unique challenges in the provision of trauma care. Providers and facilities have demonstrated creativity and resourcefulness in their attempt to overcome the problems of distance, limited resources, and communication challenges. This innovation and flexibility is to be commended, and it has been valuable and necessary.

In the more urban regions, such as Anchorage, the transition to more organized, efficient and coordinated systems of patient flow has not been complete. This has been reflected in frustrations expressed by local EMS services, referring physicians from outlying facilities, and members of the local physician provider community. Physicians described the problem of making multiple calls for transfer of a patient to an Anchorage hospital. In some cases Anchorage is by-passed and the patient is sent to Seattle. While there are two pediatric intensive care units in Anchorage hospitals, beds are sometimes unavailable, and children are sometimes sent to Seattle as well.

The situation is further complicated by the co-existence in the Anchorage area of a higher level of organized trauma care at the Alaska Native Medical Center (including a pediatric ICU), while the private not-for-profit hospitals (Providence Alaska Medical Center and Alaska Regional Hospital) maintain non-certified/designated trauma care facilities. All three hospitals serve as regional referral facilities for large areas of the state with Providence Alaska Medical Center receiving the largest volume of patients, including pediatrics. Local EMS as well as referring facilities throughout the state are faced with at least two differing sets of referral guidelines and triage criteria (for Native Alaskans and other Alaskans), as well as varying abilities to provide care to special populations (including burns, pediatrics, and vascular surgery).

In addition to the lack of statewide triage protocols, the flow of patients within the major treating facilities varies greatly. Available trauma registry data from 2006 show that at the designated Level II hospital, Alaska Native Medical Center, the majority of patients are admitted to surgical services. In contrast, at hospitals serving Alaskans, such as Providence Alaska Medical Center, which has the largest trauma patient volume, substantial numbers of patients are admitted to

non-surgical services. With the increase in hospital-based medical specialists (e.g., hospitalists), these trends are likely to have become pronounced. The care of trauma patients on non-surgical services without an organized trauma service is inconsistent with national guidelines, and it likely contributes to inferior outcomes such as longer ICU and hospital stays, higher complication and mortality rates, lower patient and provider satisfaction scores, and increased costs.

Significant divergence of opinion is apparent among providers at the private nonprofit hospitals in Anchorage regarding the need for, and value of, trauma center certification/designation and an organized trauma system. Emergency physicians expressed the opinion that they are able to deliver all aspects of initial care and obtain prompt surgical support, as well as the opinion that there were significant deficiencies in the availability and involvement of surgical specialists. As noted above, EMS services and referring physicians at outlying facilities participating in the TSC supported the latter perspective. Surgeons also expressed divided opinions regarding trauma center designation – surgeons at designated trauma centers are supportive while those at the non-designated facilities expressed serious concerns. Participants indicated that the provision of financial support for on-call responsibilities would facilitate the participation of private surgeons in meeting the certification/designation standards. The support of these groups of physicians would likely facilitate improvements in system coordination and patient flow.

It is recognized that Harborview Medical Center in Seattle provides important referral care for Alaska, especially for special populations (e.g., pediatrics, burns, reimplantation, and rehabilitation). Patient flow to Harborview appears to be relatively straightforward thanks to significant efforts by the receiving facility to treat Alaska patients preferentially and by the placement of fixed-wing aircraft in Southeast Alaska.

Within the state there are 79 ground ambulance units, 19 primarily fixed-wing air services, as well as civilian, Coast Guard, and military helicopters. Many of these units function under very difficult circumstances and succeed because of experience and innovation. No central coordinating agency or mechanism to manage these resources exists, and no easily accessible resource describing runways and equipment that can be used in each location is available.

Repatriation rarely occurs in this system, particularly for patients treated in Seattle.

RECOMMENDATIONS

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

- Preserve the flexibility and encourage the innovation for trauma care that exists in the remote regions of the state.
- Develop an online resource describing available patient transport resources across the state.
- Encourage the adoption of standardized, evidence-based, in-hospital trauma team activation protocols.
- Develop inter-facility transfer criteria to ensure that patients with specialized needs are sent to facilities with matching resources.
- Maintain the existing effective relationship with Harborview Medical Center and develop strategies to improve Medicaid funding for transfers.

Rehabilitation

Purpose and Rationale

As an integral component of the trauma system, rehabilitation services in acute care and rehabilitation centers provide coordinated care for trauma patients who have sustained severe or catastrophic injuries, resulting in long-standing or permanent impairments. Patients with less severe injuries may also benefit from rehabilitative programs that enhance recovery and speed return to function and productivity. The goal of rehabilitative interventions is to allow the patient to return to the highest level of function, reducing disability and avoiding handicap whenever possible. The rehabilitation process should begin in the acute care facility as soon as possible, ideally within the first 24 hours. Inpatient and outpatient rehabilitation services should be available. Rehabilitation centers should have CARF (Commission of Accreditation of Rehabilitation Facilities) accreditation for comprehensive inpatient rehabilitation programs, and accreditation of specialty centers (SCI and TBI) should be strongly encouraged.

The trauma system should conduct a rehabilitation needs assessment (including specialized programs in SCI, TBI, and for children) to identify the number of beds needed and available for rehabilitation in the geographic region. Rehabilitation specialists should be integrated into the multidisciplinary advisory committee to ensure that rehabilitation issues are integrated into the trauma system plan. The trauma system should demonstrate strong linkages and transfer agreements between designated trauma centers and rehabilitation facilities located in its geographic region (in or out of state). Plans for repatriation of patients, especially when rehabilitation centers across state lines are used, should be part of rehabilitation system planning. Feedback on functional outcomes after rehabilitation should be made available to the trauma centers.

OPTIMAL ELEMENTS

- I. The lead agency ensures that adequate rehabilitation facilities have been integrated into the trauma system and that these resources are made available to all populations requiring them. **(B-308)**
 - a. The lead agency has incorporated, within the trauma system plan and the trauma center standards, requirements for rehabilitation services, including interfacility transfer of trauma patients to rehabilitation centers. **(I-308.1)**

- b. Rehabilitation centers and outpatient rehabilitation services provide data on trauma patients to the central trauma system registry that include final disposition, functional outcome, and rehabilitation costs and also participate in performance improvement processes. **(I-308.2)**
- II. A resource assessment for the trauma system has been completed and is regularly updated. **(B-103)**
- a. The trauma system has completed a comprehensive system status inventory that identifies the availability and distribution of current capabilities and resources. **(I-103.1)**

CURRENT STATUS

While rehabilitation resources are available in Alaska, they are relatively limited in scope and capacity. The 20 inpatient rehabilitation beds in Alaska are all in the Anchorage (10 at Alaska Regional Hospital and 10 at Providence Alaska Medical Center). No pediatric rehabilitation beds for children under age 14 years exist in the state. Limited individual outpatient rehabilitation programs exist to support defined patient groups (e.g., traumatic brain injury [TBI]) at hospitals and in the community.

Patients with traumatic brain injury (adult and children 14 years and older) commonly utilize these rehabilitation beds in Anchorage, while most patients with spinal cord injury (SCI) are sent to spinal cord rehabilitation facilities in the lower 48 states. It was reported that patients wait approximately two days for an inpatient rehabilitation bed for TBI, and about 20 days for SCI; however this varies by patient status and availability of a funding source.

Harborview Medical Center in Seattle, WA provides significant support for rehabilitation services to injured patients from Alaska, including pediatric patients. This relationship is longstanding and well-developed, especially with acute care facilities in the Southeastern Alaska. Because Alaska Medicaid reimbursement rates are reportedly lower than Washington Medicaid rates, much of the care provided to patients with Alaska Medicaid transferred to Seattle is uncompensated or undercompensated.

Repatriation of patients transferred to rehabilitation centers is difficult and complicated by many variables (e.g., the cost of travel home, finding a physician to assume care responsibility). It was reported that patients transported out-of-state for rehabilitation frequently do not return to Alaska and that patients who are brought to Anchorage for rehabilitation services are likely to remain in the area.

No state data are available to evaluate the status of rehabilitation in Alaska. No needs assessment has been conducted to identify the rehabilitation needs of trauma patients in the state. Few data describe utilization, ultimate outcomes and dispositions of trauma patients requiring rehabilitation services. It is not clear that efforts are being made to include rehabilitation data and patient outcomes in the state trauma registry.

No rehabilitation specialist (physiatrist) sits on the TSRC.

RECOMMENDATIONS

- Include rehabilitation outcomes in the trauma registry.
- Perform a needs assessment for rehabilitation of trauma patients in Alaska.
- Develop a comprehensive plan to provide a continuum of rehabilitation services from acute care settings to inpatient rehabilitation to outpatient services, especially for traumatic brain injury, spinal cord injury, and pediatric trauma.
- Appoint a rehabilitation specialist to membership in the newly formed Alaska Trauma Advisory Committee (ATAC).
- Encourage rehabilitation centers to attain CARF (Commission of Accreditation of Rehabilitation Facilities) accreditation.
- Evaluate repatriation options for patients transferred to Anchorage or out-of-state.

Disaster Preparedness

Purpose and Rationale

As critically important resources for state, regional, and local responses to MCIs, the trauma system and its trauma centers are central to disaster preparedness. Trauma system leaders need to be actively involved in public health preparedness planning to ensure that trauma system resources are integrated into the state, regional, and local disaster response plans. Acute care facilities (sometimes including one or more trauma centers) within an affected community are the first line of response to an MCI. However, an MCI may result in more casualties than the local acute care facilities can handle, requiring the activation of a larger emergency response plan with support provided by state and regional assets.

For this reason, the trauma system and its trauma centers must conduct a resource assessment of its surge capacity to respond to MCIs. The resource assessment should build on and be coupled to a hazard vulnerability analysis. An assessment of the trauma system's response to simulated incident or tabletop drills must be conducted to determine the trauma system's ability to respond to MCIs. Following these assessments, a gap analysis should be conducted to develop statewide MCI response resource standards. This information is essential for the development of an emergency management plan that includes the trauma system.

Planning and integration of the trauma system with plans of related systems (public health, EMS, and emergency management) are important because of the extensive impact disasters have on the trauma system and the value of the trauma system in providing care. Relationships and working cooperation between the trauma system and public health, EMS, and emergency management agencies support the provision of assets that enable a more rapid and organized disaster response when an event occurs. For example, the EMS emergency preparedness plan needs to include the distribution of severely injured patients to trauma centers, when possible, to make optimal use of trauma center resources. This plan could optimize triage through directing less severely injured patients to lower level trauma centers or nondesignated facilities, thus allowing resources in trauma centers to be spared for patients with the most severe injuries. In addition, the trauma system and its trauma centers will be targeted to receive additional resources (personnel, equipment, and supplies) during major MCIs.

Mass casualty events and disasters are chaotic, and only with planning and drills will a more organized response be possible. Simulation or tabletop drills provide an opportunity to test the emergency preparedness response plans for the trauma system and other systems and to train the teams that will respond. Exercises must be jointly conducted with other agencies to ensure that all aspects of the response plan have the trauma system integrated.

OPTIMAL ELEMENTS

I. An assessment of the trauma system's emergency preparedness has been completed, including coordination with the public health agency, EMS system, and the emergency management agency. **(B-104)**

- a. There is a resource assessment of the trauma system's ability to expand its capacity to respond to MCIs in an all-hazards approach. **(I-104.1)**
- b. There has been a consultation by external experts to assist in identifying current status and needs of the trauma system to be able to respond to MCIs. **(I-104.2)**
- c. The trauma system has completed a gap analysis based on the resource assessment for trauma emergency preparedness. **(I-104.3)**

II. The lead agency ensures that its trauma system plan is integrated with, and complementary to, the comprehensive mass casualty plan for natural and manmade incidents, including an all-hazards approach to planning and operations. **(B-305)**

- a. The EMS, the trauma system, and the all-hazards medical response system have operational trauma and all-hazards response plans and have established an ongoing cooperative working relationship to ensure trauma system readiness for all-hazards events. **(I-305.1)**
- b. All-hazards events routinely include situations involving natural (for example, earthquake), unintentional (for example, school bus crash), and intentional (for example, terrorist explosion) trauma-producing events that test the expanded response capabilities and surge capacity of the trauma system. **(I-305-2)**
- c. The trauma system, through the lead agency, has access to additional equipment, materials, and personnel for large-scale traumatic events. **(I-305.3)**

CURRENT STATUS

Alaska has an active geological environment with frequent earthquakes, extensive volcano eruptions, huge avalanches, periodic flooding and large expanses of fresh and salt water, all of which invite potential disaster. Two-thirds of Alaska is without roads and Alaskans are dependent on air travel for routine and emergent travel. Communication capabilities and disaster resources decrease as distance from population centers increases.

The lead agency for disaster preparedness is the Division of Emergency Services which resides within the Department of Military and Veterans Affairs, Division of Homeland Security and Emergency Management. The DHSS has primary functional responsibility for mass casualty events. Both agencies recognize the need for an effective trauma system as an integral component of disaster capability.

A recent full scale exercise, Alaska Shield/Northern Edge 2007 demonstrated strengths that included effective local interoperable communications equipment. However this interoperability does not necessarily transfer to the majority of the state. Weaknesses identified were lack of coordination of air transports and local/state/military resources, as well as lack of interagency coordination for resource requests and allocation during mass casualty events.

The state has no registry for volunteer medical providers, except for the Alaska Board of Nursing that maintains a registry of nurses who would volunteer to respond to a disaster. There are two Medical Reserve Corps in Alaska, but they are not functional due to lack of funding.

Some EMS providers have received disaster training, but they are not required to obtain or maintain such training.

RECOMMENDATIONS

- **Integrate all components of the trauma system into state and local disaster planning activities.**
- Perform a detailed statewide communication assessment.
- Provide basic all-hazards disaster training for all prehospital providers that can be delivered via a variety of formats.

Systemwide Evaluation and Quality Assurance

Purpose and Rationale

The trauma lead agency has responsibility for instituting processes to evaluate the performance of all aspects of the trauma system. Key aspects of systemwide effectiveness include the outcomes of population based injury prevention initiatives, access to care, as well as the availability of services, the quality of services provided within the trauma care continuum from prehospital and acute care management phases through rehabilitation and community reintegration, and financial impact or cost. Intrinsic to this function is the delineation of valid, objective metrics for the ongoing quality audit of system performance and patient outcomes based on sound benchmarks and available clinical evidence. Trauma management information systems (MISs) must be available to support data collection and analysis.

The lead agency should establish forums that promote inclusive multidisciplinary and multiagency review of cases, events, concerns, regulatory issues, policies, procedures, and standards that pertain to the trauma system. The evaluation of system effectiveness must take into account the integration of these various components of the trauma care continuum and review how well personnel, agencies, and facilities perform together to achieve the desired goals and objectives. Results of customer satisfaction (patient, provider, and facility) appraisals and data indicative of community and population needs should be considered in strategic planning for system development. System improvements derived through evaluation and quality assurance activities may encompass enhancements in technology, legislative or regulatory infrastructure, clinical care, and critical resource availability.

To promote participation and sustainability, the lead agency should associate accountability for achieving defined goals and trauma system performance indicators with meaningful incentives that will act to cement the support of key constituents in the health care community and general population. For example, the costs and benefits of the trauma system as they relate to reducing mortality or decreasing years of productive life lost may make the value of promoting trauma system development more tangible. A facility that achieves trauma center verification/designation may be rewarded with monetary compensation (for example, ability to bill for trauma activation fees) and the ability to serve as a receiving center for trauma patients. The trauma lead agency should promote ongoing dialog with key stakeholders to ensure that incentives remain aligned with system needs.

OPTIMAL ELEMENTS

I. The trauma MIS is used to facilitate ongoing assessment and assurance of system performance and outcomes and provides a basis for continuously improving the trauma system, including a cost-benefit analysis. **(B-301)**

- a. The lead trauma authority ensures that each member hospital of the trauma system collects and uses patient data, as well as provider data, to assess system performance and to improve quality of care. Assessment data are routinely submitted to the lead trauma authority. **(I-301.1)**

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

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

- a. Financial data are combined with other cost, outcome, or surrogate measures, for example, years of potential life lost, quality-adjusted life years, and disability adjusted life years; length of stay; length of intensive care unit stay; number of ventilator days; and others, to estimate and track true system costs and cost-benefits. **(I-309.4)**

CURRENT STATUS

According to the PRQ, the TSRC is charged with "ongoing monitoring and evaluating of the trauma system". Even though the actions of the TSRC are exempt from discovery, it is unclear that the TSRC has truly been empowered or authorized to perform its system evaluation and quality improvement functions. No clear line of authority could be identified in provided documentation for the TSRC to recommend or impose system change. The PRQ illustrates this challenge in the following statement:

"The TSRC has reported findings to the Lead Agency, ACEMS and liaisons, EMS regional coordinators, and trauma care providers via the Annual EMS Symposium... In special circumstances, such as the advancement of a Trauma System Improvement Act, members of the TSRC have shared information with legislators... The TSRC may make recommendations to the Lead Agency and constituent members of the trauma system".

The uncertainty of lines of authority is further exacerbated by the fact that the TSRC formally operates under the aegis of the Alaska State Medical Board.

When asked about specific evaluation and quality assurance processes, the stakeholders present acknowledged that they have neither determined Alaska's preventable mortality rate nor quantified the opportunities for improvement by phase of care.

The TSRC has made significant contributions to the standardization of care through the development of documents such as "Guidelines for the Management and Transfer of Head Injury Patients in Remote and Rural Alaska". However, the impact of this and other guidelines has not been monitored, and adherence to the guidelines was reported as variable. There has not been "loop closure" on these efforts.

The TSRC identified nine indicators of interest and initiated efforts to examine the data necessary to determine the status of those indicators. However, during the first pass of the data, it was reported that the data were of insufficient quality to answer the questions posed by the indicator. Additional data cleaning was needed.

While it was reported that a major impediment to system evaluation and quality assurance was either the lack or quality of data, the ACS team was able to request and receive trauma registry data (2006) that was sufficiently detailed to engage in rudimentary evaluation processes, e.g., stratification of trauma patients by facility and by ISS. While the data are aging, these data serve as a fundamental building block of a system evaluation process.

RECOMMENDATIONS

- **Develop an initial set of 3-5 statewide system performance indicators from among the list of 9 provided in the Pre-Review Questionnaire (PRQ).**
- Examine available data points and definitions, and develop indicators for performance improvement that can be determined on the basis of those data points.
- Formally review the data associated with each indicator on a quarterly to annual basis and start a benchmarking process.
- Report the results of all evaluation and quality assurance processes in an annual report that is presented to all system stakeholders, including the new Alaska Trauma Advisory Committee (ATAC) and Alaska Council on Emergency Medical Services (ACEMS).

Trauma Management Information Systems

Purpose and Rationale

Hospital-based trauma registries developed from the idea that aggregating data from similar cases may reveal variations in care and ultimately result in a better understanding of the underlying injury and its treatment. Hospital-based registries have proven very effective in improving trauma care within an institution but provide limited information regarding how interactions with other phases of health care influence the outcome of an injured patient. To address this limitation, data from hospital-based registries should be collated into a regional registry and linked such that data from all phases of care (prehospital, hospital, and rehabilitation) are accessible in 1 data set. When possible, these data should be further linked to law enforcement, crash incident reports, ED records, administrative discharge data, medical examiner records, vital statistics data (death certificates), and financial data. The information system should be designed to provide systemwide data that allow and facilitate evaluation of the structure, process, and outcomes of the entire system; all phases of care; and their interactions. This information should be used to develop, implement, and influence public policy.

The lead agency should maintain oversight of the information system. In doing so, it must define the roles and responsibilities for agencies and institutions regarding data collection and outline processes to evaluate the quality, timeliness, and completeness of data. There must be some means to ensure patient and provider confidentiality is in keeping with federal regulations. The agency must also develop policies and procedures to facilitate and encourage injury surveillance and trauma care research using data derived from the trauma MIS. There are key features of regional trauma MISs that enhance their usefulness as a means to evaluate the quality of care provided within a system. Patient information collected within the management system must be standardized to ensure that noted variations in care can be characterized in a similar manner across differing geographic regions, facilities, and EMS agencies. The composition of patients and injuries included in local registries (inclusion criteria) should be consistent across centers, allowing for the evaluation of processes and outcomes among similar patient groups. Many regions limit their information systems to trauma centers. However, the optimal approach is to collect data from all acute care facilities within the region. Limiting required data submission to hospitals designated as trauma centers allows one to evaluate systems issues only among patients transported to appropriate facilities. It is also important to have protocols in place to ensure a uniform approach to data abstraction and collection. Research suggests that if the process of case abstraction is not routinely calibrated, practices used by abstractors begin to drift.

Finally, every effort should be made to conform to national standards defining processes for case acquisition, case definition (that is, inclusion criteria), and registry coding conventions. Two such national standards include the National Highway Traffic Safety Administration's National Emergency Medical Services Information System (NEMSIS), which standardizes EMS data collection, and the American College of Surgeons National Trauma Data Standard, which addresses the standardization of hospital registry data collection. Strictly adhering to national standards markedly increases the value of state trauma MISs by providing national benchmarks and allowing for the use of software solutions that link data sets to enable a review of the entire injury and health care event for an injured patient.

To derive value from the tremendous amount of effort that goes into data collection, it is important that a similar focus address the process of data reporting. Dedicated staff and resources should be available to ensure rapid and consistent reporting of information to vested parties with the authority and vision to prevent injuries and improve the care of patients with injuries. An optimal information reporting process will include standardized reporting tools that allow for the assessment of temporal and/or system changes and a dynamic reporting tool, permitting anyone to tailor specific "views" of the information.

OPTIMAL ELEMENTS

- I. There is an established trauma MIS for ongoing injury surveillance and system performance assessment. **(B-102)**
 - a. There is an established injury surveillance process that can, in part, be used as an MIS performance measure. **(I-102.1)**
 - b. Injury surveillance is coordinated with statewide and local community health surveillance. **(I-102.2)**
 - c. There is a process to evaluate the quality, timeliness, completeness, and confidentiality of data. **(I-102.4)**
 - d. There is an established method of collecting trauma financial data from all health care facilities and trauma agencies, including patient charges and administrative and system costs. **(I-102.5)**
- II. The trauma MIS is used to facilitate ongoing assessment and assurance of system performance and outcomes and provides a basis for continuously improving the trauma system, including a cost-benefit analysis. **(B-301)**
 - a. The lead trauma authority ensures that each member hospital of the trauma system collects and uses patient data, as well as provider data, to assess system performance and to improve quality of care. Assessment data are routinely submitted to the lead trauma authority. **(I-301.1)**

- b. Prehospital care providers collect patient care and administrative data for each episode of care and not only provide these data to the hospital, but also have a mechanism to evaluate the data within their own agency, including monitoring trends and identifying outliers. (I-301.2)
- c. Trauma registry, ED, prehospital, rehabilitation, and other databases are linked or combined to create a trauma system registry. (I-301.3)
- d. The lead agency has available for use the latest in computer/technology advances and analytic tools for monitoring injury prevention and control components of the trauma system. There is reporting on the outcome of implemented strategies for injury prevention and control programs within the trauma system. (I-301.4)

CURRENT STATUS

The State of Alaska has worked diligently over several decades to develop, maintain, and improve a systemwide trauma registry. This has meant an evolutionary process involving at least two vendors and substantial challenges in linking disparate computer languages that exist in the Native Alaskan and other Alaskan record keeping systems. The State is to be commended for its persistence in this regard.

The lead agency maintains a full-time trauma registrar which represents, in fact, the most significant personnel commitment dedicated to the trauma program. Funds to support this position come from external sources (NIOSH).

Currently all hospitals contribute to the statewide trauma registry. For the larger facilities, this involves electronic data transfer. However, for the smaller facilities, the process involves on-site abstraction of records, completion of a data abstract summary, and manual input into the system. A contract employee is assigned the responsibility of facilitating this process. She described multiple challenges at some of the smaller hospitals, such as limited personnel resources for abstracting, enormous travel distances and costs for her to visit the hospitals, a reluctance by the hospitals to ask for or accept consultative help, and persistent turnover of data registrars at the hospitals. These challenges result in a significant delay (up to 2 years) in acquiring trauma data from all acute care facilities. In some cases, the consultant performs data abstraction at some of the smaller hospitals in an effort to get data submission caught up.

A second contract employee is used to clean and validate the data. She demonstrated significant adeptness with the system registry data by fulfilling several requests of the ACS team during their deliberations. For example, she was able to easily stratify injury severity by hospital and track transfers in an out of each facility. The contract employees are responsible for an annual training of trauma registrars.

During the discussion of the management information system, it was revealed that recently a new trauma registry vendor has received the Alaska contract. There was substantial discordance with the manner in which the vendor was selected, with the end-users (e.g., registrars, trauma managers, trauma directors, and the TSRC) having little to no input into the process. While data input into the new system is tentatively scheduled to begin January 1, 2009, concern was expressed by participants that during the transition period there was the potential for data to be delayed or, perhaps, even lost. Several participants suggested that they might maintain their current system in lieu of using the newly acquired system.

One of the perceived advantages of the new trauma system is that it can, and will, be linked with electronic prehospital data since the same vendor holds a single contract for the provision of both systems. The effectiveness of this linkage could not be fully ascertained at the time of the ACS visit since the systems were only then "coming on-line". However, it is important to note that similar efforts by other states to link the trauma registry and prehospital data systems have not been universally successful, even when the same vendor has been used for each system. The IPEMS Section will need to work closely with the vendor to monitor progress in meeting contract expectations. The state is to be commended for obtaining a grant that will enable to the lead agency to perform additional linkage with other, free standing, data sets such as the traffic crash database.

Alaska has a data rich environment. Numerous other databases exist and have been used for epidemiologic and prevention activities. However, they have only been used in a limited capacity to help steer and manage the trauma system.

Specific policies and procedures have been developed by the TSRC concerning the release of trauma registry data. Several researchers have accessed the data system following these guidelines.

RECOMMENDATIONS

- **Ensure that all elements considered essential to system development, evaluation and performance improvement in the State of Alaska are evident and working in the new trauma registry and are consistent with the National Trauma Data Standard (NTDS) definitions.**
 - This should be tasked to a peer review protected subcommittee, (e.g. the Trauma System Review Committee) of the Alaska Technical Advisory Committee (ATAC), in collaboration with the trauma registrar, trauma registrar contract employees, and the vendor.
- Safeguard the legacy data by maintaining the current software system separately and discretely from the new system until a legacy data transfer has occurred and validation queries have been completed.

- Minimize gaps and delays in data during the trauma registry transition process by maintaining dual systems until the transfer of legacy and concurrent data has been completed and validated.
- Establish mechanisms for capturing data from remote facilities in a timely manner, e.g., provide scanners and/or encrypted methods of electronic transmission of records in lieu of travel to each facility.
- Submit statewide trauma registry data to the National Trauma Data Bank (NTDB) on an annual basis.
- Achieve linkage and integration with other data sets, specifically, prehospital and hospital discharge data (UB 92/04).
- Use existing data, beginning immediately, for system development and quality improvement activities, in spite of its acknowledged imperfections.
- Provide reports on at least a quarterly basis to all stakeholders.

Research

Purpose and Rationale

Overview of Research Activity

Trauma systems are remarkably diverse. This diversity is simply a reflection of authorities tailoring the system to meet the needs of the region based on the unique combination of geographic, economic, and population characteristics within their jurisdiction. In addition, trauma systems are not fixed in their organization or operation. The system evolves over years in response to lessons learned, critical review, and changes in population demographics. Given the diversity of organization and the dynamic nature of any particular system, it is valuable when research can be conducted that evaluates the effectiveness of the regional or statewide system. Research drives the system and will provide the foundation for system development and performance improvement. Research findings provide value in defining best practices and might alter system development. Thus, the system should facilitate and encourage trauma-related research through processes designed to make data available to investigators. Competitive grants or contracts made available through lead authorities or constituencies should provide funds to support research activities. All system components should contribute to the research agenda. The extent to which research activities are required should be clearly outlined in the trauma system plan and/or the criteria for trauma center designation.

The sources of data used for research might be institutional and regional trauma registries. As an alternative, population-based research might provide a broader view of trauma care within the region. Primary data collection, although desirable, is expensive but might provide insights into system performance that might not be otherwise available.

Trauma Registry-based Research

Investigators examining trauma systems can use the information recorded in trauma registries to great advantage to determine the prevalence and annual incidence rate of injuries, patterns of care that occur to injured patients in the system's region, and outcomes for the patients. These data can be compared with standards available from other trauma registries, such as the NTDB. Such comparisons can then enable investigators to determine if care within their region is within standards and can allow for benchmarking. Initiating and sustaining injury prevention initiatives is a vital goal in mature trauma systems. Investigators can take a leadership role in performing research using trauma registry data that identify emerging threats and instituting public health measures to mitigate the threats. For example, a recent surge in death and disability related to off -road

vehicles can be identified and the scope of the problem defined in terms of who, where, and how riders are injured, and then, through presentations and publications, the public can be informed of a new threat.

Trauma system administrators have a responsibility to control investigators' access to the registry. The integrity and reliability of data in a trauma systems registry are essential if accurate research and valid conclusions are to be reached using the data. Trauma system administrators should have a process that screens data entered into the system's composite registry from individual institutions. There should be a mechanism that ensures that the information is stored in a secure manner. Investigators who seek access to the trauma registry must follow a written policy and procedure that includes approval by an authorized institutional review board. Trauma registry data may include unique identifiers, and system administrators must ensure that patient confidentiality is respected, consistent with state and federal regulations.

Population-based Trauma System Research

A major disadvantage of using only trauma registry data to conduct research that evaluates injured patients in a region is the bias resulting from missing data on patients not treated at trauma centers. Specifically, most registry data are restricted to information from hospitals that participate in the trauma system. Although ideally all facilities participate in the form of an inclusive system, many systems do not attain this goal. Thus, a population-based data set provides investigators with the full spectrum of patients, irrespective of whether they have been treated in trauma centers or nondesignated centers or were never admitted to the hospital owing to death at the scene of incident or because their injuries were insufficiently severe to require admission. The state and national hospital discharge databases are examples of population-based data. These discharge databases contain information that was abstracted from medical records for billing purposes by hospital employees who enter these data into an electronic database. For investigators seeking a wider perspective on the care of injured patients in their region, these more inclusive data sets, compared with registries, are essential tools. Other population based data that may be of help include mortality vital statistics data recorded in death certificates. Selected regions might have outpatient data to capture patients who are assessed in the ED and then released.

Investigators can use these population-based data to study the influence of a regional trauma system on the entire spectrum of patients within its catchment area.

Participation in Research Projects and Primary Data Collection

Multi-institutional research projects are important mechanisms for learning new knowledge that can guide the care of injured patients. Investigators within trauma systems can participate as co-investigators in these projects. Investigators can participate by recruiting patients into prospective studies, being leaders in the design and administration of grants, and preparing manuscripts and reports. Evidence of this collaboration is that investigators within a trauma system are recognized in announcements of grants or awards. Lead agency personnel should identify and reach out to resources within the system with research expertise. These include academic centers and public health agencies.

Measures of Research Activity

Research can be broadly defined as hypothesis-driven data analysis. This analysis leads the investigators to a conclusion, which might become a recommendation for system change. Full manuscripts published in peer reviewed research journals are an exemplary form of research activity. Research reported in annual reviews or in public information formats intended to inform the trauma system's constituency can also be considered legitimate research activity.

OPTIMAL ELEMENTS

- I. The trauma MIS is used to facilitate ongoing assessment and assurance of system performance and outcomes and provides a basis for continuously improving the trauma system, including a cost-benefit analysis. **(B-301)**
 - a. The lead agency has available for use the latest in computer/technology advances and analytic tools for monitoring injury prevention and control components of the trauma system. There is reporting on the outcome of implemented strategies for injury prevention and control programs within the trauma system. **(I-301.4)**

- II. The lead agency ensures that the trauma system demonstrates prevention and medical outreach activities within its defined service area. **(B-306)**
 - a. The trauma system has developed mechanisms to engage the general medical community and other system participants in their research findings and performance improvement efforts. **(I-306.1)**

 - b. The effect or impact of outreach programs (medical community training/support and prevention activities) is evaluated as part of a system performance improvement process. **(I-306.3)**

- III. To maintain its state, regional, or local designation, each hospital will continually work to improve the trauma care as measured by patient outcomes. **(B-307)**

- a. The trauma system implements and regularly reviews a standardized report on patient care outcomes as measured against national norms. (I-307.2)

CURRENT STATUS

A specific research agenda has not been developed for the Alaska trauma system. However, a reasonable representation of trauma-related literature can be found using an electronic medical literature search. Several articles use the trauma registry as a basis of data. Unfortunately, most of the articles are aging. Several are published in *Alaska Medicine*, which reportedly is changing from a quarterly publication to an annual publication.

A wealth of scientific and technical publications has been produced in the Alaska injury prevention literature. Again several of these publications use trauma registry data, at least partially, as a basis for the publications.

The University of Alaska – Anchorage currently offers a Master of Public Health (MPH) degree within its Department of Health Sciences. Linkages between the MPH program and the trauma system were not discussed. The lead agency has direct access to a staff epidemiologist.

RECOMMENDATIONS

- Establish a collaborative relationship between the University of Alaska-Anchorage's public health program and the lead agency's epidemiologist and the Alaska Trauma Advisory Committee (ATAC).
- Develop, jointly, a research agenda that can build on the current trauma registry data and expand to include more rigorous research projects.
- Attempt to minimize Institutional Review Board approval challenges while still maintaining full protection of any/all subjects.

Focus Questions

1. How can Alaska attain full participation of hospitals in the statewide trauma system?

Trauma centers and trauma systems have been demonstrated to decrease mortality following injury.^{1,2,3} All of the acute care hospitals in Alaska are currently providing care for injured patients. However; trauma patients in Alaska who are not Native Alaskans do not have routine access to a verified/designated Level I or II trauma center. A trauma system will fully attain the benefits of improved patient care and superior outcomes only when all facilities institute and follow evidence-based guidelines to decrease variability in care and deviations from the standard of care. Central to this evolution is the implementation of a rigorous, multidisciplinary performance improvement program. A coordinated system of trauma care within acute care facilities accomplishes the following:

- improved communications,
- streamlined coordination of care issues,
- increased physician satisfaction,
- a sense of pride in trauma care providers throughout the facility, and
- the community is reassured that everything possible is being done to provide them state-of-the art trauma care.

Trauma systems have been well studied, and these studies form the basis for the recommendations and guidelines found in the *ACS-COT Resources for Optimal Care of the Injured Patient* document.

Hospitals, healthcare providers, and physicians in Alaska are already providing trauma care. The adoption of an inclusive trauma system with verified/designated trauma centers would enable facilities in the state to provide trauma care to all Alaskans with less variability in care, better patient outcomes, lower resource utilization, and higher patient and provider satisfaction. In many cases, trauma care within an organized and verified trauma center also results in lower costs as evidence-based practice replaces less efficient practice patterns.

Only five hospitals are currently verified/designated trauma centers in Alaska. Reasons expressed by participants for not becoming verified and designated are varied but fall into two main categories:

- Administrator's concerns regarding increased costs to be borne by the hospital and the potential impact on the medical staff
- Lack of broad physician support

Administrators' concerns

Administrators' concerns involve a number of issues related to trauma center verification:

- Multi-system trauma patients require an organized system of care for optimal outcomes which increases institutional readiness costs.
- "Poor" uninsured case mix of trauma patients.
- Effect on hospital operations such as disruption of operating room schedules, filling ICU beds, etc.
- Physicians tend to be reluctant to participate and may elect to abandon a hospital that seeks designation.

Lack of physician support

Medical staff support for trauma center verification tends to be lukewarm at private hospitals for a number of reasons:

- Trauma patients have higher rates of uncompensated care than "elective" patients.
- Trauma patients are more likely to sue a physician (unfounded).
- The care of trauma patients imposes undue burdens including night and weekend work, and this care is generally disruptive of elective practices.

To address the above mentioned concerns, a number of issues should be openly discussed by key representatives of the identified groups, and a variety of solutions should be considered. It is likely that no one answer fits every situation and a combination of flexibility and transparency is needed.

While it is true that verification/designation as a trauma center requires commitment by administration and medical staffs, the benefits in improved patient outcomes, decreased complication rates and length of stay, and increased patient and provider satisfaction can outweigh the costs. In the case of the hospitals and physicians in Alaska who are already providing trauma care, an inclusive trauma system would likely make trauma care easier and less costly.

The cost of readiness is significant in trauma centers and may be addressed through several means. The recently introduced trauma activation fees using the 68x designation on the UB 92/UB 04 form can relieve a significant portion of these costs. Trauma activation fees can only be submitted if the center is verified/designated. A number of states have provided financial support to their trauma centers through legislation or appropriations. State financial support for trauma care is usually linked to trauma center verification/designation and continued participation in an organized trauma system. Trauma center verification/designation carries important benefits to hospitals in terms of disaster

preparedness, and this may be especially relevant in Alaska given its unique geography and circumstances.

The issues of poor case mix and disruption of hospital operations are best addressed by considering the impact of verification/designation on hospital functions. For a hospital that is already caring for trauma patients, the introduction of a trauma system will likely mean an overall increase in the efficiency of caring for these patients, secondary to improvements required in the verification process. Decreased ICU and hospital length of stay, lower resource consumption and lower rates of complications will improve hospital bottom lines while increasing patient and provider satisfaction.

Physician concerns should be carefully addressed as a functional trauma system requires broad physician support. This is especially true for the specialties of general surgery (including pediatric surgery), orthopedic surgery, neurosurgery, anesthesia and emergency medicine. The Anchorage area hospitals have ample physician specialization to provide optimal care with the following estimated numbers:

- 30 surgeons, many sub-specialized.
- 40 orthopedists
- 6 neurosurgeons
- 4 cardiac surgeons
- 2 pediatric surgeons

Education can alleviate the concerns that trauma patients are more litigious than average.

The concerns regarding reimbursement and work hours are real and require more focused solutions. Trauma patients do, in fact, have higher rates of uncompensated care than elective patients in almost all regions of the United States. They are also more likely to arrive during evening and night hours.⁴ The specific concerns of physicians should be acknowledged and actions should be taken to address them. For hospitals, actions may include one or more of the following options:

- Provide an on-call stipend to cover the perceived burden of trauma call. This would include high volume specialists who are not ordinarily in-house and who agree to participate in the activities of the trauma center, including performance improvement and continued medical education (CME). Most frequently this would include general surgery, orthopedics, and neurosurgery.

- Recruit one or more trauma/surgical critical care specialists to provide the core trauma care functions. Such individuals would support the private physicians and decrease their burden by providing back-up, assuming the care of patients admitted to the hospital, and taking responsibility for organizing the requisite activities for verification. By providing an actual trauma service with a specialized team led by a trauma/surgical critical care boarded specialist, the community surgeon can transfer patient care the following morning and feel confident the patient will receive state-of-the-art care. This frees the private physician to continue with his/her surgical practice. The specialist-led trauma service would improve care by decreasing variability, complications, length of stay and dissatisfaction.
- Support the private physicians through CME expenses, liability coverage, or a fund to cover a portion of uncompensated care exposure.

While this will require substantial financial support from hospital administration initially, the improvement in outcomes and the increase in patient and provider satisfaction should return at least a portion of the investment. Additional revenue through activation fees and state support would also contribute to deferring any start-up and readiness costs. Providing hospitals and physicians with financial support as part of a proposed inclusive trauma system plan will likely facilitate the adoption of trauma center verification/designation.

In addition, the implementation of an inclusive trauma system in Alaska with broad hospital participation would provide a critical element in disaster preparedness.⁵ The vital role of trauma centers in support of disaster management should also be a central part of any funding requests to the legislature.

RECOMMENDATIONS:

- Verify/designate all the medical facilities in Anchorage who wish to provide trauma care at levels commensurate with these resources and commitment
- Develop city-wide trauma triage guidelines for Anchorage with further application to the needs of in-coming transfer patient.
 - Establish a predetermined plan that accounts for subspecialty needs of the patient matched with the hospitals' capabilities.
 - Establish trauma diversion guidelines with back-up plans.

- Develop evidence-based trauma team activation criteria
 - Use the “status 1” only when there is prehospital physiologic evidence that the patient requires an immediate surgical response.
 - Start tracking surgical response times for “status 1” patients from time of notification. Benchmark to the ACS verification guideline of a surgeon being present on arrival of patient or within 15 minutes of notification. The threshold is to meet this 80% of the time.
 - Study outcomes associated with use of the criteria to further refine them for optimal patient outcomes with minimal physician encumbrance.
- Identify physician leadership – trauma champions
 - Encourage Level II trauma centers (or hospitals that seek to become Level II trauma centers) to consider recruiting a trauma/surgical critical care specialist who can provide a knowledgeable back-up for sub-specialized surgeons who may or may not be comfortable with caring for a multi-system critically injured patient.
- Develop trauma chart forms
 - Establish standardized trauma patient admission orders. Establish automatic orders for glucose monitoring and control, peptic ulcer prophylaxis, deep vein thrombosis prophylaxis and surveillance, head injury protocols, etc.
 - Ensure that trauma history and physical forms have prompts for problem documentation areas such as Glasgow Coma Scale scores, procedures performed, notification and arrival times, critical care times, etc.
- Address finance issues
 - Encourage medical facilities to invest in the trauma service to obtain and maintain verification/designation.
 - Recruit and retain trauma/critical care specialists.
 - Initiate discussions with general surgeons to identify their needs to be able to provide the call coverage and to identify patient care issues.
 - Track costs that can be recouped by improved patient length of stay, decreased cost of care, and the value of improved medical staff satisfaction.
 - Charge trauma activation fees (can only be charged by verified/designated centers).
 - Seek legislation to include assistance for uncompensated care and readiness fees for verified/designated trauma centers.

REFERENCES

1. MacKenzie EJ et al. A National Evaluation of the Impact of Trauma Center Care on Mortality. *New England Journal of Medicine*, 354: 366-78, 2006.
2. Rutledge R, Fakhry SM, Meyer AA, Sheldon GF, Baker CC: An Analysis of the Association of Trauma Centers with Per Capita Hospitalizations and Death Rates from Injury. *Annals of Surgery*, 218:512-524, 1993.
3. Nathens AB, Jurkovich GJ, Cummings P, Rivara FP, Maier RV. The effect of organized systems of trauma care on motor vehicle crash mortality. *JAMA*, 283:1990-1994, 2000.
4. Vaziri, K, Roland JC, Robinson L, Fakhry SM. Optimizing Physician Staffing and Resource Allocation: "Sine Wave" Variation in Hourly Trauma Admission Volume. *Journal of Trauma, Injury, Infection and Critical Care*, 62:610-4, 2007.
5. Gerberding JL, Hughes JM, Koplan JP. Bioterrorism preparedness and response. *JAMA*, 287:898-900, 2002.

2. How can Alaska better coordinate resources, especially air medical, for every day trauma responses, as well as disaster response?

Assessment:

Alaskans depend on aircraft for routine travel and medical transport, especially those who reside in the isolated two-thirds of the state without roads. At any given place or time, local providers are familiar with local resources available, but may not know about back-up resources available in the region. Local providers may then be challenged to make multiple calls when their primary local air medical resource is not available.

Coordinating trauma care resources in the state of Alaska requires current knowledge of the status of those resources, e.g., personnel, equipment, communication, facilities. To date, a comprehensive needs or resource assessment of the trauma system has not been conducted. While some of this information is available, such as for facilities, it is lacking for other aspects of the trauma system, such as air medical resources.

Policy Development:

Once an air medical resource assessment has been completed, information collected about all trauma system resources (including military, National Guard, and Coast Guard) should be organized by region and made available to users in an easily retrieved format. A central coordination center could then be created to track the air medical assets available and in use throughout the state, and this information could potentially be available on-line. Likewise, the EMS regions could develop and maintain a regional resource information database that could be updated regularly.

The next step could be the establishment of a regional "one call does all" service. Such services could assist a referring provider to obtain the aircraft that matches the patient's need and local landing restrictions. The regional service could also help direct community-based air medical resources to available and appropriate facilities and assist in the coordination of ramp transfers. The "one call does all" concept includes the identification of the receiving trauma facility that best matches the patient's needs.

The regional centers would feed information about the aircraft deployed to the central coordination hub. This coordination hub would be useful in a state disaster, and could potentially be maintained by the state's emergency management system. This type of statewide system status coordination hub would need to be operable and accessible at all hours and be updated in near real-time.

Another problem that the state faces is the lack of comprehensive guidelines for the indications of air medical transport. The reality is that urgent or even routine, non-emergent medical care not available in the local community may require air

travel. Development of guidelines will help ensure the optimal use of the air resources in a safe and efficient manner.

Assurance:

This service could optimize resource utilization locally and statewide on a continuous basis. Performance improvement could be conducted using trauma registry data to determine changes in time to transfer, and appropriateness of facility selection.

Recommendations

- Decrease patient transfer times by developing 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, and landing requirements).
 - Monitor the availability and location of air resources.
 - Provide availability status to users.
 - Coordinate air medical resources in a disaster situation.
- Develop regional system status databases of current trauma resources that are utilized to provide a 'one call does all' service for referring providers and support a statewide trauma resources data bank.
- Develop a state registry for disaster volunteers, similar to the Emergency System for Advanced Registration of Volunteer Health Professionals.
- Update and keep current the Trauma Triage, Transport and Transfer Guidelines.
- Use the Guidelines for the Management of Head Injuries in Remote and Rural Alaska as a template to develop other transport guidelines to optimize resources.
- In more populated areas with more than one healthcare facility, develop a tracking system of real time bed capacity for time sensitive diseases (trauma, ST elevated myocardial infarction [STEMI], stroke, etc.) and share that information with EMS dispatch in order to prevent delays or mistakes in patient destination (right patient to right facility).

Acronyms and Glossary

AAC - Alaska Administrative Code
ACEMS - Alaska Council on Emergency Medical Services
ACS – American College of Surgeons
ACS-COT- American College of Surgeons Committee on Trauma
ALS – advanced life support+
ATAC - Alaska Trauma Advisory Committee
ATLS – Advanced Trauma Life Support

BIS – Benchmarks, Indicators, and Scoring
BLS – basic life support

CARF - Commission on Accreditation of Rehabilitation Facilities
CDC – Centers for Disease Control
CHAs – Community health aides
CME – continuing medical education

DHSS – Department of Health and Social Services
DOT – US Department of Transportation

EMS – Emergency Medical Services
EMSC – Emergency Medical Services for Children
EMTs – Emergency medical technicians

FTE – full-time equivalent

HRSA - Health Resources and Services Administration

ICU – intensive care unit
IPEMS – Injury Prevention and Emergency Medical Services Section

MICPs – Mobile intensive care paramedics
MPH – Master of Public Health degree

NEMSIS – National EMS Information System
NIOSH - National Institute for Occupational Safety and Health
NSC – National Standard Curriculum for EMTs
NTDB – National Trauma Data Bank
NTDS – National Trauma Data Standard

PHTLS – Prehospital Trauma Life Support

SCI – spinal cord injury
STEMI - ST-Segment Elevation Myocardial Infarction
STIPDA – State and Territorial Injury Prevention Directors Association

TBI – traumatic brain injury
TNCC – Trauma Nurse Core Curriculum
TSC – Trauma system consultation
TSRC - Trauma System Review Committee

Alaska Council on Emergency Medical Services **(ACEMS)**

The mission of the Emergency Medical Services program in Alaska is to reduce both the human suffering and economic loss to society resulting from premature death and disability due to injuries and sudden illness. The Governor's Alaska Council on Emergency Medical Services, also known as "ACEMS," provides the Commissioner of the Department of Health and Social Services and the Governor with recommendations related to all aspects of EMS, including distribution of funding, and policy development. The Council:

- brings together technical resources, experience, and knowledge to assist and advise on the continued development of the EMS and trauma system in Alaska;
- advises the state EMS staff and EMS regional directors regarding public education and generation of broad community support for the goals of the EMS program;
- provides recommendations regarding EMS program policy and priorities; and
- reviews EMS or EMS-related program proposals on request of the Commissioner of the Department of Health and Social Services, the Director of the Division of Public Health, and Section of Injury Prevention and EMS staff.

ACEMS was established by Alaska Statute 18.08 and meets two times a year to take action on issues affecting EMS in Alaska.

Alaska Council on Emergency Medical Services
As of 9/2008

BOARD MEMBERS	NOTES
<p>Ronald L. Bowers, EMT-III P.O. Box 6 Dillingham, AK 99576 PH# 842.4186 FAX# 842.4186 ronmariejris@yahoo.com <i>Consumer Position</i> <i>Term Expires: 11/05/11</i></p>	
<p>Sharon (Sherry) K. Breaker P.O. Box 779 Nome, AK 99762 PH# 443.6947 PH# 443.3221work FAX# 443.4869 sbreaker@gci.net & sbreaker@nshcorp.org <i>Consumer Position</i> <i>Term expires: 11/5/09</i></p>	
<p>John A. Dickens, EMT-III Box 89 Emmonak, AK 99581 PH# 949.1858 FAX# 949.1226 mightyjades@yahoo.com <i>Prehospital Emergency Care Provider Position</i> <i>Term Expires: 11/05/11</i></p>	
<p>Don Hudson, DO 7130 E. Chester Heights Circle Anchorage, AK 99504 PH# 337.7990 FAX# 333.3262 donalddhudson@gci.net <i>Emergency Medicine Physician Position</i> <i>Term Expires : 11/05/10</i></p>	
<p>David Hull, MICP 827 Brown Deer Road Ketchikan, AK 99901 PH# 225.5051 PH# 723.6051 cell daveh@borough.ketchikan.ak.us <i>Prehospital Emergency Care Provider Position</i> <i>Term Expires 11/05/11</i></p>	Chair
<p>Danita N. Koehler, MD Chief Emergency Medicine Bassett Army Community Hospital 1060 Gaffney Road, #7400 Ft. Wainwright, AK 99703 PH# 361.5593 work PH# 496.0911 pager PH# 361.5144 ER Danita.koehler@us.army.mil <i>Emergency Medicine Position</i></p>	

<i>Term expires: 11/5/2012</i>	
Steven D. O'Connor, MICP PO Box 1472 Kenai, AK 99611 PH# 776.8525 corvy@alaska.net <i>Consumer Position</i> <i>Term Expires 11/05/08 will be re-instated</i>	
Karen F. O'Neill, MD, FACEP Norton Sound Health Corp/Regional Hospital P.O. Box 966 Nome, AK 99762 PH# 443.3311 FAX# 443.3610 oneill@nshcorp.org <i>Hospital Administrator Position</i> <i>Term Expires 11/05/10</i>	
Roy L. Sursa, EMT-III 3291 Amber Bay Loop Anchorage, AK 99515 PH# 349.9536 sursal@muni.org <i>Prehospital Provider Position</i> <i>Term Expires 11/5/10</i>	
Soren Threadgill, MICP Anchorage Fire Department 100 E. 4 th Avenue Anchorage, AK 99501-2506 PH# 267.4932 FAX# 267.4984 threadgills@ci.anchorage.ak.us <i>EMS Administrator Position</i> <i>Term Expires 11/05/08 will be re-instated</i>	
VACANT <i>Emergency Nurse Position</i> <i>Term Expires 11/05/09</i>	
LIAISON REPRESENTATIVES	
Cindy Cashen 3167 Pioneer Ave. Juneau, AK 99801 PH# 465.4374 FAX# Cindy.cashen@alaska.gov Appointed: 4/20/06	Alaska Highway Safety Office
Barbara (BJ) Coopes, MD 10400 Elies Dr. Anchorage, AK 99508 PH# FAX# bcoopes@povak.org Appointed: 5/11/05	Pediatric Community
Lt. Col. Charles C. Foster 11RCC/CC HQ AK ANG Stop 2	Rescue Coordination Center

<p>P.O. Box 5800 Anchorage, AK 99505 PH# FAX# _____@_____</p> <p>Appointed: 10/5/00</p>	
<p>Frank Sacco, MD Department of Surgery Alaska Area Native Medical Center 4315 Diplomacy Dr. Anchorage, AK 99508 PH# FAX# franksacca@anmc.org Appointed: 10/4/02</p>	<p>American College of Surgeons Alaska Native Tribal Health Consortium</p>
<p>Terry Smith Department of Veterans Affairs Division of the Emergency Services P.O. Box 5750 Fort Richardson, AK 99505 PH# FAX# _____@_____</p> <p>Appointed: 10/4/02</p>	<p>Division of Emergency Services</p>
<p>Ken Zafren, MD 10181 Curvi Street Anchorage, AK 99516 PH# FAX# zafren@alaska.com Appointed: 10/21/01</p>	<p>State EMS Medical Director</p>

Appendix A: Site Visit Team Biographical Sketches

REGINALD A BURTON, MD, FACS- TEAM LEADER

Dr. Burton started his Trauma career while in high school when he got his first EMT certification. He worked as an EMT throughout college and medical school to offset his tuition. He and his wife, Dr. Snyder, moved to Ohio after finishing his residency in Surgery in 1992.

Dr. Burton was very active in the establishment of the Trauma System in Ohio. He developed and was the Trauma Director of the first ACS verified level III trauma center in Ohio, while continuing to participate in trauma call at the Level I trauma center in Dayton. He gave numerous lectures throughout the state on trauma center development, trauma center Performance Improvement programs, and EMS/Hospital integration of trauma plans. He became the medical director for the Fire/EMS services in two surrounding cities and sat on the regional EMS Council. He was the Co-Chairman of the Southwest Ohio Regional Trauma System from 1997 until 2002. He was the Chairman of the Region 2 Physician Advisory Board to the Ohio State Trauma Board for 5 years until he moved to Nebraska. He sat on the Data Committee of the Ohio Trauma Board during the statewide trauma registry development, and helped work out many issues enabling it to start functioning 2000.

Dr. Burton took a sabbatical and did a Trauma/Surgical Critical Care Fellowship at the renowned R. Adams Cowley Shock Trauma Center in Baltimore Maryland in 2006-7, and is currently the Director of Trauma and Surgical Critical Care at Bryan LGH Medical Center in Lincoln, Nebraska. He is a Clinical Associate Professor in Surgery at the University of Nebraska. He is the Medical Director of Region 2 in the Nebraska Statewide Trauma System, Chair of the Nebraska Statewide Trauma Data and Performance Improvement Committee, and the author of the Nebraska Trauma Performance Improvement training workshop. His team developed a web-based trauma registry reporting system that has enabled small critical access hospitals in rural Nebraska to report their trauma data to the Nebraska Statewide Trauma Registry, and thus also to the National Trauma Data Bank.

Dr. Burton has been a site visitor for the ACS Verification Committee since 2000. He became the Chairman of the Nebraska ACS Committee on Trauma in 2002, and is the current Regional Chief of Region 7 (Nebraska, Kansas, Missouri, and Iowa). Dr. Burton was also involved in the ACS Political Action Taskforce briefing on trauma issues to state senators and congressmen in Washington, D.C. in March, 2005. He was the ACSCOT representative to the National EMS Workforce Stakeholders Meeting and the HHS State Trauma Leadership meeting in 2006. He represented rural trauma physicians in the National Rural Health Association's meeting with federal partners in Washington, D.C. this year. Dr. Burton has always been an outspoken advocate for Trauma System Development.

JANE W. BALL, RN, DRPH

Dr. Jane W. Ball served as the Director of the National Resource Center (NRC) at the Children's National Medical Center in Washington, D.C. from 1991 through 2006. The NRC provided support to two Federal Programs in the U. S. Department of Health and Human Services' Health Services and Resources Administration (HRSA): the Emergency Medical Services for Children (EMSC) Program and the Trauma-Emergency Medical Services Systems Program. As director of the NRC, she coordinated the support provided to the Federal Program Directors as well as the provision of technical assistance to state grantees. Support to the Federal Program Directors often included meeting facilitation, preparation of special reports (such as the Model Trauma Systems Evaluation and Planning document), and consultation on Program issues. Technical assistance often included strategic planning, providing guidance in securing funding, developing and implementing grants, developing injury prevention plans and programs, building coalitions, shaping public policy, conducting training, and producing educational resource materials.

Dr. Ball has authored numerous articles and publications as well as several health care textbooks, including Mosby's Guide to Physical Examination (6 editions), Child Health Nursing (first edition), Pediatric Nursing: Caring for Children (4 editions), Maternal and Child Nursing (2 editions), and Pediatric Emergencies: A Manual for Prehospital Care Providers (2 editions). One of these texts, Pediatric Nursing: Caring for Children, received the 1999 and 2001 Robert Wood Johnson Foundation Last Acts Coalition Outstanding Specialty Book Award. As an expert in the emergency care of children, Dr. Ball has frequently been invited to join committees and professional groups that address the unique needs of children.

Dr. Ball recently completed her term as the President of the National Academies of Practice, an organization composed of distinguished health care practitioners from 10 disciplines that promote education, research, and public policy related to improving the quality of health care for all through interdisciplinary care. She currently serves as the organization's Immediate Past President.

Dr. Ball graduated from the Johns Hopkins Hospital School of Nursing. She obtained her master's degree and doctorate in Public Health from John Hopkins University School of Hygiene and Public Health. She is a Certified Pediatric Nurse Practitioner.

SAMIR M. FAKHRY, MD, FACS

Dr. Fakhry graduated from the American University of Beirut, School of Medicine in 1981. He completed his residency in general surgery and his fellowship in critical care and trauma at the University of North Carolina at Chapel Hill and North Carolina Memorial Hospital, Chapel Hill, N.C. in 1987.

From 1988 until 1991 he led the trauma program as Director for Trauma Services at George Washington University Medical Center in Washington D.C. In 1991, he accepted a position as Director, Surgical Critical Care Services at UNC Hospitals in Chapel Hill, NC. While at UNC, he rose to the rank of Associate Professor of Surgery with Tenure and was awarded several teaching awards by the medical students and the surgical residents. He remained there until 1997 when he was recruited to the Inova Regional Trauma Center at Inova Fairfax Hospital in Falls Church, Virginia as the Chief of Trauma Services.

Since 1997 he has held the position of Chief, Trauma and Surgical Critical Care Services at the Inova Regional Trauma Center. Additionally, he holds the positions of Associate Chair for Research and Education, Department of Surgery; Medical Director for the Inova Regional Trauma Center Injury Prevention Program; Professor of Surgery, VCU, Inova Campus; Clinical Professor of Surgery at Georgetown University School of Medicine; and is the immediate past Chair of the American College of Surgeons Washington DC Committee on Trauma.

Dr. Fakhry has been heavily involved in trauma and surgical critical care research. He has numerous peer-reviewed publications, abstracts and book chapters to his credit. He is a member of many national societies and serves on several national committees and boards. He is a frequent speaker locally as well as nationally.

Dr. Fakhry maintains a high interest in all aspects of trauma. He has been Principal Investigator (PI) for the Crash Injury Research and Engineering Network (CIREN) Center at Inova Fairfax Hospital since May, 2000. With injury prevention as a goal he has worked closely with The National Highway Traffic Safety Administration (NHTSA), automobile manufacturers and bio-engineers to help produce safe vehicles. In addition to the CIREN project, he has been awarded funding for numerous projects in areas of injury prevention, surgical critical care and trauma. These include medical informatics applications, head trauma, intestinal injury, aggressive driving, teen DUI prevention and surgical education.

DREXDAL PRATT

Chief Drexdal Pratt heads the Office of Emergency Medical Services in the Division of Health Service Regulation of the North Carolina Department of Health and Human Services. His agency manages Emergency Medical Services and Trauma and the Assistant Secretary for Preparedness and Response (ASPR) Hospital Preparedness Cooperative Agreement.

Mr. Pratt is a graduate of the Institute of Government at the University of North Carolina at Chapel Hill, the EMS Management Institute at the University of North

Carolina at Charlotte, and Forsyth Technical Community College. He is also a Certified Emergency Manager (CEM) and a Certified Public Manager (CPM).

Mr. Pratt joined the North Carolina Office of Emergency Medical Services in 1987 as a Regional Coordinator. He was promoted through the ranks, first to Regional Supervisor, and then to Chief of the agency in 1999.

Mr. Pratt served two terms as Chair of the Region I EMS Advisory Council. He received the National Association of County Commissioner's Achievement Award for coordinating the development of the Stokes County NC computer-aided dispatch program.

Currently, Chief Pratt serves as a Commissioner on the Governor's State Emergency Response Commission and serves as Chairman of the Commission's Homeland Security Medical Committee. In addition, Mr. Pratt serves as Chairman of the NC Hospital Preparedness Committee.

NELS D. SANDDAL, MS, REMT-B

Mr. Sanddal is currently the president of the Critical Illness and Trauma Foundation (CIT), in Bozeman, Montana. CIT is a non-profit organization dedicated to improving the outcomes of people who are injured in rural America through programs of prevention, training, and research. He recently completed a detachment as the Director of the Rural EMS and Trauma Technical Assistance Center which was funded by the Department of Health and Human Services, Health Resources and Services Administration. Mr. Sanddal worked as the training coordinator for the EMS and Injury Prevention Section of the Montana Department of Public Health and Human Services in the late 1970's. He has served as the Chairperson of the National Council of State EMS Training Coordinators and as the lead staff member for that organization, as well as the National Association of EMT.

Mr. Sanddal has been a co-investigator for six state or regional rural preventable trauma mortality studies and has conducted research in the area of training for prehospital and nursing personnel as well as in rural injury prevention and control. He is a core faculty member for the NHTSA Development of Trauma Systems course and has conducted several statewide EMS assessments for NHTSA. Mr. Sanddal served on the IOM Committee on the Future of Emergency Care in the U.S.

He received his EMT training in Boulder, Montana, in 1973 and has been an active EMT with numerous volunteer ambulance services since that time. He currently responds with the Gallatin River Ranch Volunteer Fire Department where he serves as the Medical Officer and Assistant Chief.

He completed his undergraduate work at Carroll College, received his Master's degree in psychology from Montana State University and is currently completing his doctorate in Health and Human Behavior from Walden University.

JIM UPCHURCH, MD, MA, REMTP

Dr. Upchurch began his medical career in 1971 as a Special Forces Medic courtesy of the US Army. He graduated from the University of Texas Medical Branch at Galveston in 1982 and completed a Family Practice residency from the University of Oklahoma in 1985. Since 1985, he has served as an Indian Health Service (IHS) Physician on the Crow Indian Reservation in Montana. The majority of his clinical practice involves emergency medicine (EM), Emergency Medical Services (EMS), surgery and obstetrics. He maintains current National Registry certification and state licensure as a paramedic. In 2003, he completed a masters degree in educational technology from George Washington University.

Dr. Upchurch is a long-standing member of the National Association of EMS Physicians and the American College of Emergency Physicians. Since 1986, he has functioned as EMS medical director for Big Horn County in Montana and guided their basic care program to the advanced life support level, including critical care interfacility transport. He also provides EMS medical direction for Big Horn Canyon National Park and the Incident Medical Specialist Program, US Forest Service, Region I.

Dr. Upchurch is director of a small non-profit organization, EMS Education & Training. They offer distance and face-to-face educational opportunities to rural and frontier EMS personnel in Montana who desire to advance their level of care. He is an active ACLS, ACLS EP, ATLS and PHTLS instructor. Recently, he authored the Geriatric chapter for the sixth edition of *Nancy Caroline's Emergency Care in the Streets*, released in 2007.

Although Montana has no recognized state EMS medical director, Dr. Upchurch has served in that function for many years and represents Montana on the National Council of State EMS Medical Directors of the National Association of State EMS Officials. He functions at the IHS national level as a consultant on EM and EMS issues. He also sits on the Montana Board of Medical Examiners and on the board for the Critical Illness and Trauma Foundation.

JOLENE R. WHITNEY, MPA

Jolene R. Whitney has worked with the Bureau of Emergency Medical Services, Utah Department of Health for 27 years. She spent the first 6 years of her career as a regional EMS consultant. She became Assistant Training Coordinator in 1986. She has been a program manager for EMS systems and trauma system development since 1991. She is currently a Deputy Director for the Bureau of EMS and Preparedness, which includes Trauma System Development, Chemical

Stockpile Emergency Preparedness, Hospital Disaster Planning, ED, Trauma and Pre-hospital databases, EMS Licensing and Operations, CISM, and EMS for Children.

She spent 250 hours in the Olympic Command Center, serving as an EMS liaison for the 2002 Winter Olympics in Salt Lake City, Utah. She has been involved with all aspects of EMS including ambulance licensure, EMS councils, certification and training, computer testing, and curricula development. She has experience in statute and rule development, grant writing, system plan development, coalition building, and disaster preparedness. She has served on several national committees and teams, including a state EMS system assessment for NHTSA, reviewing rural trauma grant applications, developing the HRSA model trauma system plan and the NASMESO trauma system planning guide, and the NHTSA curriculum for an EMT refresher course.

Jolene has a Masters in Public Administration from Brigham Young University and a B.S. in Health Sciences, with an emphasis in Community Health Education from the University of Utah. She was certified as an EMT-Basic in 1979. She also obtained certification as an EMT instructor and became certified as an EMT III (Intermediate) in 1983. She has attended numerous conferences, courses, and workshops on EMS, trauma and disaster planning and response. She also completed a course for investigator training from CLEAR. Jolene is a co-author of three publications on domestic violence and hospital surge capacity planning.

She is the current Chair for the National Council of State Trauma System Managers/NASEMSO. She is a member of the American Trauma Society, previous member of the National Association of State EMS Training Coordinators.

In 2005, she was nominated by her staff and received a Utah Manager of the Year Nominee Award from the Governor. She also received recognition from the Utah Association of Emergency Medical Technicians in 2006.

Appendix B: List of Participants

TraumaSystems evaluation & planning committee



American College of Surgeons
Trauma Systems Consultation
November 2nd-5th, 2008

Name	Title	Organization
Abbott, Sally	SOA Preparedness Coordinator	SOA (State of Alaska)
Allard, Faith	RNFP Director	SOA
Andraschko, Andrea	Communication Specialist	ARH (Alaska Regional Hospital)
Barros, Nancy	SOA Program Manager	SOA
Bowman MD, J. Dani	Pediatrician	ANMC (Alaska Native Medical Center)
Brown MD, Ken	Planning Manager	BRH (Bartlett Regional Hospital)
Bryson, George	Staff Writer	Anchorage Daily News
Bundy, Tim	Section Chief, EMS	IPEMS (Injury Prevention & Emergency Medical Services) SOA
Butler MD, Jay	Chief Medical Officer	SOA- DHSS
Carr, Pat	Section Chief	SOA Health Planning and Systems Development
Chennault MD, Regina	Surgeon	ANMC
Coopes MD, B.J.	Director of Pediatric ICU	TCHAP (The Children's Hospital at Providence)
Crum RN, Bev	ER Manager	Ketchikan General Hospital
Davis, Rick	COO	ARH (Alaska Regional Hospital)
Derring RN, Shelly	Director of Clinical Operations	Airlift Northwest
DeGreef RN, Margie	Assistant with Administrative Services	PKIMC (Providence Kodiak Island Medical Center)

Name	Title	Organization
Fisher, Bryan	Chief of Operations	ADHSEM (Alaska Division of Homeland Security and Emergency Management)
Funk, Beth	State Epidemiologist	DHSS (SOA Department of Health and Social Services)
Gariepy RN, Debbie	TNC- Nurse	ARH
Gilkey, Ed	Chief Physician Executive	ANMC
Godfrey, Gerad	Chair	Violent Crimes Compensation Board
Goodrich, Craig	Fire Chief	Anchorage Fire Department
Greenberg MD, Matt	ED Director	YKHC (Yukon Kuskokwim Health Corporation)
Hecks, Sue	Director	Southern Region EMS
Hilgendorf, Rebecca	Acting Director	DSDS (Division of Senior and Disabilities Services) SOA
Hoebelheinrich MD, S. Roger	MD	CPGH (Central Peninsula General Hospital)
Hull-Jilly, Debra	IPU Unit Manager	IPEMS (Injury Prevention & Emergency Medical Services) SOA
Ives, George	Program Manager	PH- SOA
Jessop, Dan	Administrator	ANMC
Johnson, Mark	Volunteer	Former SOA Section of Community Health and EMS
Lamb, Ed	CEO	ARH
Lamoureux, Bruce	Senior Administrator	PAMC (Providence Alaska Medical Center)
Leemhuis RN, Mary	Trauma Program Manager, Nurse	ANMC
Leighty, Bobbi	Director of SE Region EMS	SEREMS (S.E. Region EMS)
Lerner MD, Deborah	Pediatrician	PAMC
Levy MD, Mike	Emergency Medicine Physician	ARH
Mackin, Jim	Preparedness Director	SOA/DHSS

Name	Title	Organization
Mandsager MD, Richard	TCHAP Director	PAMC
Maskay, Raj	Public Health Specialist	Section of Injury Prevention and EMS, SOA
Molitor RN, Jeanne	Course Director	SOA
Olliff, Terry	EMS Unit Manager	SOA IPEMS
Parks MD, Stephen	MD	PAMC/Lifemed
Poggi, Stephen R.	EMS	AFD (Anchorage Fire Department)
Potashnik, Dave	Emergency Medical Service Officer/Assistant Chief	North Slope Borough Fire Department- Barrow
Potts, Joanne	Program Manager	ARH
Robinette MD, Danny	MD	Northern Alaska Medical Surgical
Sacco MD, Frank	Trauma Systems Review Committee Chair/Surgeon	ANMC
Scandling, Bruce	Program Manager/Legislative Liaison	SOA Division of Public Health
Searles MD, Grant	MD	Anchorage Surgical and Bariatric
Simonsen RN, Barb	State Trauma Analyst/Nurse	IPEMS
Smith MD, Linda	ED Physician	ARH
Somervell, Philip	Epidemiologist	NIOSH (National Institute for Occupational Safety and Health)
Thompson RN, Mary	Trauma Program Manager	PAMC
Wilder MD, Norman	Chief Medical Officer	ARH
Wooley, Bev	Director PH, DHSS	SOA
Zafren MD, Ken	SOA EMS Medical Director	SOA





Objectives and Methodology

- The Coalition for American Trauma Care commissioned Harris Interactive to conduct a survey of the public's views of and support for trauma systems.
- Telephone interviews were conducted with a nationally representative sample of 1000 adults aged 18 and over, between November 3rd and 14th, 2004.
- Final data were weighted by age, education, gender, income, and region, where necessary, using 2003 Current Population Survey data to adjust for sampling biases, if any.
- With 1,000 respondents, the sampling error is +/- 3%.



Key Topics

- Knowledge about leading causes of death
- Perceived value of and expectations about trauma centers
- Perceived value of and expectations about trauma systems
- Willingness to support funding of trauma centers and systems
- Disaster preparedness and trauma systems





Harris Interactive Ground Rules For Publicly Released Surveys

- Harris Interactive Inc. has very strong ground rules for surveys which may be publicly released. No other survey firm has stronger rules.
- Our **Five Rules** ensure that our surveys are never used to lead or mislead policymakers or the public. We do not do "hired gun surveys."
 1. The survey must be fair, balanced and comprehensive.
 2. If the survey is publicly released, the full survey report must be released.
 3. We will not include questions for possible publication about our clients' company or their products or brand names, or the names of their competitors. (The one exception: we sometimes do readership surveys or audience measurement surveys which ask about our clients.)
 4. The survey must not be used to mislead the public, the media, policymakers or anyone else.
 5. We need to review the information that is being released prior to its release in order to check for accuracy.



Overview

- Most Americans are not aware that injury is the leading cause of death for children, youth, and adults under the age of 34.
- After hearing a description of a trauma center, Americans value them highly and appreciate the importance of having one within easy reach.
 - Almost all Americans feel it is extremely or very important to be treated at a trauma center in the event of a life-threatening injury.
 - Nearly nine in ten Americans think it is extremely or very important for an ambulance to take them to a trauma center in the event of a life-threatening injury, even if it is not the closest hospital.
 - Nearly all Americans *believe* that if they had a serious or life-threatening injury, they *would* be taken to the hospital that is best equipped to handle their specific injury in less than 1 hour.
- Majorities of Americans feel that having a trauma center nearby is as important as or more important than having a Fire Department or Police Department.



Overview (cont.)

- After hearing a description of a trauma system, nearly all Americans recognize the importance of having a trauma system in place in their state.
- Large majorities feel that having a trauma system in place is as important as or more important than having State Police or HAZMAT teams.
- About two in three Americans would be extremely or very concerned if they learned that the trauma system in their state did not meet recognized standards. (However, a 2002 survey of the status of trauma system development conducted by the Health Resources and Services Administration of the U.S. Department of Health and Human Services shows that only 8 states have fully developed trauma systems, 12 states do not have the authority to designate trauma centers, and the rest are in varying stages of partial development.)
- Americans are willing to spend their own money to have trauma centers and systems in place in their states.
- Generally, Americans have high expectations of their states' trauma centers and systems when it comes to handling natural disasters or terrorist attacks.

Alaska State Medical Association

4107 Laurel Street • Anchorage, Alaska 99508 • (907) 562-0304 • (907) 561-2063 (fax)

October 13, 2008

Regina Chennault, MD
Frank Sacco, MD
4315 Diplomacy Drive
Anchorage, AK 99508

Via fax: 729-2746

RE: Alaska Trauma System

Dear Drs. Chennault and Sacco:

Thank you, Dr. Chennault for presenting at the ASMA House of Delegates Meeting on Saturday, September 27, 2008.

By consensus the ASMA HOD supported the concept of an appropriate trauma system for Alaska. However, the proposal recommended that there be a \$500,000 cap on all damages for treatment of trauma patients in a state certified trauma center. The HOD recommended that be dropped from your proposal as any cap on economic damages would likely be found unconstitutional in Alaska. Additionally, the HOD also recommended that the proposal be amended to provide for a mechanism to directly compensate physicians for providing treatment for uninsured trauma patients in a state certified trauma center. (This would be for physicians who are not employees of that certified trauma center).

Several individual HOD members also suggested that you may wish to explore Alaska's "Good Samaritan" laws in lieu of any special economic damages caps which, as previously stated, are constitutionally problematic.

Please let me know if I may be of any future assistance.

Sincerely,



By: James J. Jordan, Executive Director
For: The Alaska State Medical Association

CC: John Raster, MD, Speaker of the House
Tom Vasiloff, MD, President
J. Ross Tanner, MD, Immediate Past President

ALASKA STATE LEGISLATURE
SENATE HEALTH AND SOCIAL SERVICES STANDING COMMITTEE

April 8, 2009

1:36 p.m.

MEMBERS PRESENT

Senator Bettye Davis, Chair
Senator Joe Paskvan, Vice Chair
Senator Johnny Ellis
Senator Joe Thomas
Senator Fred Dyson

MEMBERS ABSENT

All members present

COMMITTEE CALENDAR

SENATE BILL NO. 66

"An Act relating to a mental health patient grievance procedure."

HEARD AND HELD

SENATE BILL NO. 168

"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."

HEARD AND HELD

SENATE BILL NO. 169

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

HEARD AND HELD

PREVIOUS COMMITTEE ACTION

BILL: SB 66

SHORT TITLE: MENTAL HEALTH PATIENT GRIEVANCES

SPONSOR(s): SENATOR(s) DAVIS

01/21/09	(S)	READ THE FIRST TIME - REFERRALS
01/21/09	(S)	HSS, FIN
04/01/09	(S)	HSS AT 1:30 PM BUTROVICH 205
04/01/09	(S)	Bills Previously Heard/Scheduled
04/08/09	(S)	HSS AT 1:30 PM BELTZ 211

04/08/09 (S) Heard & Held
04/08/09 (S) MINUTE (HSS)

BILL: SB 168

SHORT TITLE: TRAUMA CARE CENTERS/FUND

SPONSOR(s): HEALTH & SOCIAL SERVICES BY REQUEST

03/27/09 (S) READ THE FIRST TIME - REFERRALS
03/27/09 (S) HSS, FIN
04/08/09 (S) HSS AT 1:30 PM BELTZ 211

BILL: SB 169

SHORT TITLE: APPROP: TRAUMA CARE FUND

SPONSOR(s): HEALTH & SOCIAL SERVICES BY REQUEST

03/27/09 (S) READ THE FIRST TIME - REFERRALS
03/27/09 (S) HSS, FIN
04/08/09 (S) HSS AT 1:30 PM BELTZ 211

WITNESS REGISTER

TOM OBERMEYER
Staff to Senator Davis
Alaska State Legislature
Juneau, AK

POSITION STATEMENT: Commented on SB 66, SB 168 and SB 169.

BRENDA KNAPP, Program Administrator
Treatment and Recovery
Division of Behavioral Health
Department of Health and Social Services (DHSS)

POSITION STATEMENT: Supported the concept of SB 66, but had many concerns.

JEAN MISCHEL, Attorney
Legislative Legal Services
Legislative Affairs Agency
State Capital
Juneau, AK.

POSITION STATEMENT: Answered questions on SB 66.

JAMES GOTTSTEIN, President/CEO
Law Project for Psychiatric Rights (Psych Rights)

POSITION STATEMENT: Strongly supported SB 66.

FAITH MEYERS, speaking for herself

POSITION STATEMENT: Supported SB 66.

DARENCE COLLINS, representing himself
POSITION STATEMENT: Supported SB 66.

RON ADLER, Director
Alaska Psychiatric Institute
Department of Health and Social Services (DHSS)
POSITION STATEMENT: Commented on SB 66.

DR. JAY BUTLER, Chief Medical Officer
Department of Health and Social Services (DHSS)
POSITION STATEMENT: Neutral stance on SB 168.

ROD BETIT, President/CEO
Alaska State Hospital and Nursing Home Association (ASHNHA)
POSITION STATEMENT: Supported the concept of SB 168.

MARK JOHNSON, former chief of Emergency Medical Services
POSITION STATEMENT: Supported SB 168.

ACTION NARRATIVE

1:36:32 PM

CHAIR BETTYE DAVIS called the Senate Health and Social Services Standing Committee meeting to order at 1:36 p.m. Present at the call to order were Senators Paskvan, Thomas, Dyson and Davis.

SB 66-MENTAL HEALTH PATIENT GRIEVANCES

1:37:01 PM

CHAIR DAVIS announced consideration of SB 66.

1:37:13 PM

TOM OBERMEYER, staff to Senator Davis, sponsor of SB 66, read the sponsor statement. He explained that SB 66 replaces a one-paragraph mental health grievance procedure under AS 47.30.184(7) with a much more comprehensive process. It recognizes and protects to a much greater extent the constitutional right of due process to an aggrieved patient who is undergoing treatment at a public or private evaluation facility or mental health unit.

Because of the exceptional circumstances under which such patients are admitted and treated, due process requires special safeguards. SB 66 provides a reasonable opportunity for informal or formal resolution of concerns or grievances with timely written complaints, responses and appeals, department review,

maintenance of records and reporting. It covers all state and private mental health facilities or hospital mental health units licensed in this state. New procedure requires detailed complaint forms, written answers by an impartial body within five days, three levels of appeal including response to urgent grievances within 24 hours. The timelines are strict because many patients are only in mental health facilities for a matter of days and grievances or appeals cannot be heard before discharge. A grievance may be filed at any time, but there is a statutory limitation of year after being discharged from the facility or unit.

1:38:39 PM

SB 66 provides notice of the grievance procedure upon admission to the facility, easy access to grievance forms and a secure complaint box in which to deposit the forms. The contents of the complaint box are to be read each day, and the original copy of the form must be kept in the patient record. The department is charged with reviewing all grievances and responses. Facilities and units must file quarterly reports of the number and type of grievance and the resolution including litigation. SB 66 prevents mental health facilities or units from "front loading" or asking patients to go through an informal complaint process before filing a grievance. In this way grievances in the past were reportedly were seldom heard and there is no written record of a grievance on which to file an appeal.

The bill allows for personal representatives to act in the interest of the patient in the grievance process as well as providing an appointed patient advocate in the mental health facility or unit.

He noted that the department sent over some suggestions that include adding a definition of "grievance." He said typically there is no record of what is going on and many of the people who are involved in the process are denied due process because they are mentally ill. He explained that due process involves deprivation of life, liberty or property, and the main problem here is a lack of liberty, particularly in those who are in forced civil commitments. The department has said maybe this bill should only apply to those, but they are trying to recognize that this state doesn't have a procedure or standard form that allows these patients to have routine issues dealt with in a timely way.

Finally, three levels of appeal have been set up. The first two levels go up to the commissioner; no response is needed. If they

want to appeal to the third level - the administrative hearing officer, the department is asked to intervene. This means that the hearing officer would make a determination, and then it would be turned over to the commissioner to accept or make some other determination. At that point, the administrative process is over and the next step would be court. This does not anticipate that the process of criminal law will not apply should the police be called, but it ensures that there will be a record of what goes on throughout the process.

1:42:51 PM

SENATOR PASKVAN moved to adopt the proposed committee substitute (CS) to SB 66, labeled 26-LS0239\E, as the working document. There being no objection, version E was before the committee.

SENATOR ELLIS joined the meeting.

1:44:07 PM

CHAIR DAVIS asked Mr. Obermeyer to explain the changes in the CS.

MR. OBERMEYER said essentially the CS ties up some loose ends. "Formal grievance" was replaced with "grievance" on page 2, line 2, and "written" was added before "notice" on page 3, line 2, and "appeal" before "procedure" on line 9. On page 3, lines 12-14 added "a written response to the grievance on the form required by one of the subsection within five days after receipt of the grievance and after each level of requested review."

The written response is supposed to include a list of options to resolve the grievance including a level-3 appeal. It also changed the time frame to appeal from 20 days to 30 in subsection 5(c) on page 3, line 30. Page 4, lines 1-4 adds "the hearing officer shall make findings and recommendations to the commissioner who shall make a final written decision on or before the 5th day after the commissioner receives the recommendations." This is to give the department an opportunity to resolve the matter at the lowest level, and if it is determined it can't be resolved the patient can go to court.

MR. OBERMEYER said that the hearing process has many more formalities and it is truly an independent body. One of the big concerns in the process is that impartiality is almost impossible unless you do get to an impartial administrative hearing officer; however, the biggest problem is that most grievances are not ever heard and there is no documentation that they ever occurred.

1:47:56 PM

MR. OBERMEYER said language on page 5, lines 6-7, says the facility or unit shall make a good faith effort to mail a response to a grievant that has been discharged from the facility. The facility is defined to mean "hospital or clinic in which mental health patients receive evaluation or treatment and for which public funds are provided" on page 5, line 26. Page 6, lines 2-3 describes a unit as "a discrete portion of facility dedicated to the treatment or evaluation of mental health patients."

1:50:07 PM

BRENDA KNAPP, Program Administrator, Treatment and Recovery, Division of Behavioral Health, Department of Health and Social Services (DHSS), said they support the spirit of the bill and share the legislature's desire to ensure that mental health patients in the state are treated fairly, receive appropriate treatment and that their concerns, when they have them, are heard. But they do have some concerns with the bill as written and those are in a memo.

She advised that first of all, there are already grievance policies in place. Certainly the hospital facilities with designated evaluation and treatment facilities and stabilization facilities are all accredited by the joint commission are required to have and follow grievance procedures. But within the community system, which would also be impacted by this bill, any grantee is required as part of their RFP procedure to provide a copy of their grievance procedure for consumer complaints. That has to be approved by the department in order for them to receive funding. She said her experience is that having the grievances resolved at the lowest level does work. If it can't be resolved, the department is already required in AS 47.36.060 to investigate and respond to complaints made by a patient or an interested party on behalf of a patient.

Although the current bill sets forth some new requirements - one of them being the three levels of review - the third one requiring department intervention, it does nevertheless require that copies of all grievance activity and the resolutions of those complaints be provided to the department. This would be a huge volume of documentation, and the department would be required to review all grievance documents that are provided for compliance with the section.

1:53:41 PM

MS. KNAPP said although they might only be required to intervene on the third level, all levels would require review for compliance. Certainly if something was found to be mishandled they would have an obligation to investigate and follow through. So it raises a level of work for the department that has been handled at the local level. They deal mostly in communities with non-profits or with municipal or tribal entities that do have their own governing boards where grievances of any sort are resolved. "We have that that works."

The bill also requires a specific form to be used for grievances. At this time the community programs have to design a form and submit it to the department for approval. They are given models they can use and have some latitude within their own structure to tailor it to their own needs as long as some of the core elements are there. Certainly the Joint Commission has standards regarding what the grievance procedure and policy would look like for the inpatient facilities. The state would like to move toward accreditation of community facilities but that represents a lot of money to providers.

Another concerning aspect of the bill is the broad definition of grievance. Currently it is a concern or a complaint that is unresolved. This bill broadens it to include "suggestions" which widens the arena. It is too broad.

1:56:37 PM

MS. KNAPP pointed out that there are other venues for patients and recipients of community based services to express their concerns without having to fill out a form and wait for a formal procedure - organizations such as the State Mental Health Board, the Mental Health Trust Authority, the Disability Law Center, Office of Public Advocacy and the Ombudsman. She concluded by saying they are very willing to work with the committee on this bill.

1:58:29 PM

CHAIR DAVIS asked how many grievances have come before the department per year.

MS. KNAPP answered probably about five actual grievances in the past five years.

CHAIR DAVIS asked if that doesn't seem odd to her.

1:59:10 PM

MS. KNAPP said that was not surprising, because she has worked in the community system for many years and knows how grievances are handled. It doesn't surprise her that they are resolved at the level in which they occur. If a grievance involves a criminal act, of course, it is referred to law enforcement.

SENATOR DYSON said he thought this bill changes what "grievance" means and that more things might fall into it now.

MS. KNAPP agreed.

SENATOR DYSON asked her to help him understand the down side of this from the department's perspective.

MS. KNAPP said if grievances can be successfully handled at the level at which they occur, it seems appropriate to do that, and to require that the department be copied on all documents surrounding that seems like an unnecessary administrative burden. They want staff to focus on real problems.

SENATOR DYSON asked if, in her profession, there is a possibility of people using the grievance process inappropriately out of spite.

MS. KNAPP replied that is true in any field, but all complaints merit review.

2:03:16 PM

SENATOR DYSON asked since she said she appreciated the spirit of the legislation if she was inferring that improvements could be made to the system.

MS. KNAPP said that if there is the perception of a problem, there is a problem. So it is important to look at the concerns of those who perceive the problem and find what the reasons might be.

SENATOR DYSON asked if this department had been audited in regard to this issue in recent history.

MS. KNAPP said she did not know.

CHAIR DAVIS asked her to find out.

CHAIR DAVIS said Jean Mischel, drafting attorney for this legislation, and they should ask her to address the change in definition of "grievance" with her.

2:05:41 PM

MR. OBERMEYER commented that the definition of "grievance" was intentionally put into the statute because many of the issues that come before these facilities are often changed from what might be a grievance to a suggestion or a complaint. So it gives the facility the opportunity to talk the individual out of what they are doing. This recognizes the problem of "front loading" and making a grievance disappear.

2:07:39 PM

JEAN MISCHER, Attorney, Legislative Legal Services, said the definition used here is very broad. Alaska statute has no other definition of grievance; so lacking that, the courts would apply the dictionary definition. This change goes beyond that, and it is a policy call for the legislature.

2:09:10 PM

JAMES GOTTSTEIN, President/CEO, Law Project for Psychiatric Rights (Psych Rights), said he was on the Mental Health Board and strongly supported SB 66. The board pushed through standards for grievances and he wrote a letter to the Chair on 2/16/09 on this issue. He said the administration didn't appreciate the way mental health clients are marginalized just by being classified as mental health clients. So whatever they do can easily be dismissed and disregarded unless safeguards are in place. So it is very important that this bill puts those safeguards in place.

Also, when he was still on the board they pushed for putting the requirements they had negotiated with the department into regulations so that they would be more permanent.

In line with what he said before about people being marginalized, they are often really coerced into accepting things, and that's another reason why there really should be oversight of the process.

MR. GOTTSTEIN said it is interesting that the administration would complain about the huge amount of paperwork if this were enacted and at the same time say that there were only five grievances in five years. It strains credulity to say only five grievances were unresolved to the satisfaction of clients in five years. He thought the current process was suppressing the elimination of the problems that are going on.

2:13:24 PM

FAITH MEYERS, speaking for herself, supported SB 66. The current psychiatric patient grievance procedure statute, AS 47.30.847, does not adequately protect patients and their rights. { As a former psychiatric patient, she said she had been in acute care psychiatric facilities, evaluation units and had received treatment as an out-patient. As an advocate, she has talked to former psychiatric patients and their newsletter includes results of a recent survey that shows dissatisfaction with current psychiatric patient procedures.

She stated that 10 different categories of clients receiving services from the DHSS who are not satisfied can file an appeal with the department or with an administrative law judge. Alaska may be the only state that does not allowing psychiatric patients to file an appeal to a higher level. Even individuals in prisons or jails can file an appeal with the Department of Corrections, but as of now all psychiatric patients do not have a clear path to file an appeal either with DHSS or an administrative law judge. Either would be acceptable.

MS. MEYERS said the loopholes in the current statute allow psychiatric facilities to deny patients their right to file a grievance at the time of their choosing. It is important that patients receive a written copy of the grievance procedure and associated rules, get a written response in a timely manner, be able to file a grievance when they choose instead of having to through the facility informal complaint resolution process first, be able to appeal to a higher authority when dissatisfied with the resolution, and to have grievance reporting that will be looked at by more than one person within 24 hours for an emergency grievance. These are all rights given by SB 66.

2:17:40 PM

DARENCE COLLINS, representing himself, supported SB 66. In Maine, he said, people sued their DHSS equivalent to force improvements in the state psychiatric patient grievance procedure. In the state of Georgia, the legislature stepped in, in 2008 and revised the grievance procedure statute after it was shown that their equivalent of DHSS was not properly investigating psychiatric patient complaints or keeping records of them.

At ease at 2:18 p.m.

MR. COLLINS said the Alaska Psychiatric Institute (API) that is managed by DHSS in a 2006 report showed 256 complaints filed by patients in a 12-month period; not one was considered a

grievance, and not one person received a written response, which is a federal requirement. The loophole and inadequacy in the current grievance procedure statute allowed API to treat all complaints informally. He enumerated complaints included safety, sexual abuse, and medications. API has made some improvements, but nothing stops them from going back to their old habits and 50 other facilities are still doing the same type of thing.

2:22:19 PM

MR. COLLINS said two reports from the Ombudsman's Office were critical of DHSS because they did not want to keep statistics. SB 66 will require DHSS to keep statistics. The same report indicated that DHSS has not investigated a psychiatric complaint in many years even though they are required to do so by AS 47.30.660. The department cannot by law delegate its responsibility of investigating a patient's complaint to a non-state entity, but that is exactly what DHSS is doing. He said that revising and updating psychiatric patient procedure statutes is a national trend as is making them uniform.

2:25:08 PM

SENATOR PASKVAN asked if an internal peer review process had been performed at API, which is confidential.

RON ADLER, Director, Alaska Psychiatric Institute, Department of Health and Social Services (DHSS), said, "We are always in a continuous state of continuous quality improvement." All complaints and grievances are review by both himself and the medical director; they have a Patients' Rights and Ethics Committee that reviews these and looks at trends and documents them as they are relevant. The medical staff at API has a peer review process that is confidential.

SENATOR PASKVAN asked how many of those processes have been completed on average per year.

MR. ADLER responded that he could get that data for him.

SENATOR PASKVAN said he wanted to see if any of the 256 complaints were addressed in the 2006 review.

MR. ADLER stated that API deals with a number of people who have disturbances of thoughts, and he takes exception to anyone who says x number of people complain of sexual misconduct or violence, whatever. That is just the kind of thing they hear from people who are incapacitated at time of admission. Once they stabilize, they will frequently either retract their

complaint or not acknowledge that it was going on out of embarrassment.

2:29:34 PM

CHAIR DAVIS asked him to provide that information to her office.

SENATOR DYSON asked when someone has been involuntarily been committed, has a guardian ad litem been appointed.

MR. ADLER answered that a "court visitor" and a public defender come in and work with the patient and represent him in any legal proceedings that are relevant to commitment status and medication orders.

SENATOR DYSON said he worries about an organization that is far less professional than API, that is just warehousing folks and may not be properly caring for people. If that organization was not being professional, how would an outside person ever find out and "blow the whistle?"

2:31:40 PM

MR. ADLER replied that the federally funded authority in the state is the Disability Law Center that is headquartered in Anchorage, but has offices in Juneau and Fairbanks. They are very active with API; their telephone number is at each treatment unit, and if there is any allegation of violation of human rights they are quick to investigate. The scope of the Center's authority goes beyond that of the state hospital and includes the private sector.

SENATOR DYSON asked who has oversight of conduct at the 50 other facilities.

MR. ADLER responded that his impression is that Alaska is a very small state; the Mental Health Board conducts quarterly meetings in various parts of the state and spends a great deal of time taking public testimony and/or holding town halls to get input from the local constituents to see how the system can be improved. It's always been amazing to him when a consumer of services makes a statement that things aren't right without going into detail. And then after testimony has closed, a number of people who are involved in the system engage the person to see what is wrong and a subcommittee is established to make changes. That is the same process that started when Faith Meyers brought complaints about her treatment at API.

MR. ADLER said he thinks Alaska has a very transparent and collaborative process; it is very difficult for any type of misconduct to occur. The things that need to be changed have already been changed through a process of oversight and collaboration through the variety of stakeholder meetings and public testimonies that go on throughout the year.

2:35:32 PM

MS. KNAPP added that within the community system of 50 or so grantee programs, these are voluntary programs; people are not "committed" to them. If a person is deemed not competent to manage her own affairs, a guardian would be appointed. If they might be a danger to themselves they might be committed for a period of time so they are not actually locked down. Family members are often the guardians.

2:36:53 PM

SENATOR DYSON said the inference is that some of the people who are complaining, if indeed it was bad, they could leave. He assumed that people who are involuntarily committed are not free to leave.

MS. KNAPP replied yes; that would be if they are in the psychiatric unit under commitment at Bartlett Hospital, which is the designated evaluation and treatment facility. But at the community program like Juneau Alliance for Mental Health they are free to leave.

SENATOR PASKVAN asked if the results of the medical review or joint accreditation are confidential.

MR. ADLER answered that the joint commission review is public; the peer and medical reviews are confidential.

2:38:52 PM

CHAIR DAVIS asked Ms. Knapp for a list of grantees and to identify the levels of care provided by the grantees and hospitals. She advised that the bill will probably not get another hearing this session, but she was going to appoint a subcommittee. Her feeling is that there is a reason for the bill, and she appreciated the department's willingness to work with her on it.

MS. KNAPP agreed.

SENATOR DYSON asked for any audits.

2:41:19 PM

CHAIR DAVIS said if one wasn't available, she may have to request one. She closed public testimony and held SB 66 in committee.

SB 168-TRAUMA CARE CENTERS/FUND

2:42:09 PM

CHAIR DAVIS announced consideration of SB 168.

TOM OBERMEYER, staff to Senator Davis, sponsor of SB 168, read the sponsor statement. It is about 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.

SB 168 addresses the urgent need for a comprehensive statewide trauma center system coordinating and integrating the efforts of emergency medical services, public safety agencies, air medical services and health care facilities to insure that patients receive the most efficient and effective care from time of injury through rehabilitation. Trauma care systems have been shown to reduce death from injury by as much as 25 percent and are recognized as an integral part of the state's EMS and disaster response system. Only eight states have fully functioning systems and 15 states have no system.

Trauma is any life threatening occurrence either accidental or intentional that causes injuries. The leading causes of trauma are motor vehicle accidents, falls and assaults; trauma is the leading cause of death among Americans under 44 years of age.

A trauma center is a hospital, clinic or other certified entity equipped to provide comprehensive emergency medical services to patients suffering traumatic injuries. They were established by the medical establishment in response to traumatic injuries that often require complex and multi-disciplinary treatment including surgery in order to give the victim the best possible chance for survival and recovery.

2:43:57 PM

Section 1 in SB 168 adds subsection (c) to emergency medical services to address the state certification and designation of trauma centers. It creates the uncompensated trauma care fund under section 2 to offset uncompensated trauma care provided at

certified and designated trauma centers and provides for an immediate effective date.

The bill requires the commissioner to establish special designations in regulation of levels of 1-4 of certified trauma centers that shall be used to set compensation eligibility and the amounts under the uncompensated trauma care fund. Although current Alaska statutes revised in 1993 require certification of hospitals, clinics or other entities representative of trauma centers, they do not require or provide incentives for participation. The uncompensated trauma care fund will provide the needed incentives for hospitals for clinics and other entities to seek certification as trauma centers.

Since the state's statutes and regulations in this area were enacted over 15 years ago, only 3 of 24 eligible Alaska hospitals reportedly have successfully completed the verification and certification process as trauma centers. In order to qualify as a trauma center, a hospital must meet certain criteria established by the American College of Surgeons. Trauma centers vary in their specific capacities and are identified by levels 1-4; 1 being the highest. Higher levels of trauma centers will have trauma surgeons available including those trained in such specialties as neurosurgery, orthopedic surgery, as well as highly sophisticated medical diagnostic equipment and specialized treatment units. Lower levels of trauma centers may only be able to provide initial care and stabilization of a traumatic injury and arrange for transfer of the victim to a higher level trauma care.

2:45:52 PM

MR. OBERMEYER said under the Alaska trauma center system, it is anticipated that tertiary hospitals designated as higher level trauma centers will insure the availability of critical care specialists 24 hrs/day, 7 days/wk. The Alaska Native Medical Center is a level 2 trauma center; Yukon Kuskokwim and Norton Sound Regional Hospitals are level 4. It is believed that there are adequate medical resources to establish more level 2 trauma centers in Anchorage, and it is considered feasible to establish level 3 and 4 centers throughout the state. Because of long transport times trauma centers at all levels are necessary to improve patient outcomes. Level 1 trauma centers have critical care specialists in the hospital or on call at all times.

The closest level 1 trauma center is Harborview Medical Center in Seattle. The operation of a trauma center is extremely expensive. Some areas are underserved by trauma centers because

of this expense. For instance, Harborview is the only level 1 trauma center to serve the entire states of Washington, Idaho, Montana, and Alaska.

He said that patient traffic at trauma centers can vary widely as there is no way to schedule the need for emergency services. A variety of different methods have been developed for dealing with this. Halifax Health in Daytona Beach, Florida, reportedly is employing a pod system to be provided by several different small emergency departments at different hospitals rather than one large trauma center.

It is anticipated that Alaska, likewise, will have to develop a trauma center system which is best suited to its needs. It is anticipated that persons critically injured in remote areas of Alaska will be transported directly to a distant trauma center by plane and helicopter for faster and better care than if they had been transported to a closer hospital, which is not designated a trauma center.

The designation, coordination and funding of a trauma center in Alaska as provided under SB 168 will save time and lives. It will also provide the financial incentives for more participation by hospitals, clinics and other certified trauma care entities which are not available under present law.

He drew the committee's attention to the attachments and documents that indicate that in Alaska the leading cause of death in persons ages 1 to 44 is trauma; the average number of fatalities from trauma is 400 each year, and for every injury death, 11 people are hospitalized for trauma-related injuries. For every trauma death that occurs in the hospital, there are an estimated 3 people discharged with permanent disability. On average, more than 800 Alaskans are hospitalized annually with central nervous system injury (spinal cord or brain injuries). In 2004 motor vehicles were the leading cause of injury death (117), followed by firearm injuries (116). In 2004, the economic cost of hospital stays for trauma patients in Alaska was estimated at over \$73 million; 1 in 4 of those hospital admissions were uncompensated.

CHAIR DAVIS set SB 168 aside.

SB 169-APPROP: TRAUMA CARE FUND

2:49:14 PM

CHAIR DAVIS asked Mr. Obermeyer to provide a brief overview of SB 169.

MR. OBERMEYER explained that SB 169 is the appropriation bill that asks the state to fund the uncompensated trauma fund at \$5 million.

SB 168-TRAUMA CARE CENTERS/FUND

CHAIR DAVIS returned attention to SB 168 to continue taking testimony.

2:50:46 PM

DR. JAY BUTLER, Chief Medical Officer, Department of Health and Social Services (DHSS), said Alaska's trauma death rate has declined over the last 30 years thanks to prevention efforts, but it is still significant. The department took a neutral stance on SB 168.

DR. BUTLER said, "A better job can be done with the medical management of trauma victims." To begin a systematic approach to improving trauma care in Alaska, the DHSS hosted the American College of Surgeons' Committee on trauma system evaluation and planning this past November. The committee noted that Alaska has no trauma system and the report included over 70 recommendations for improving trauma care and creating a statewide trauma system. Among the priority recommendations was a recommendation to require all acute care hospitals to seek trauma center designation appropriate to their capacity within the next two years to improve the quality of medical care for trauma victims and improve outcomes.

DR. BUTLER said SB 168 provides an incentive for hospitals to become certified trauma centers rather than creating a mandate. It creates a fund for reimbursement of trauma care that would be provided for care to uninsured or underinsured patients. There are a number of potential sources of funds, and the department has been working to develop the sources further. However, he said because of the uncertainty involving funding, the administration is taking a neutral stance on SB 168.

2:53:07 PM

SENATOR DYSON asked if the administration requested this bill.

CHAIR DAVIS replied no; it was requested by others than the department.

2:54:10 PM

ROD BETIT, President/CEO, Alaska State Hospital and Nursing Home Association (ASHNHA), said they support the concept of SB 168. The detailed report from the College of Surgeons prescribes a mandatory approach, which he didn't think would be well received for a variety of reasons. This is a priority that his members selected to work on in 2009, and he understands it is one of the department's priorities, too. The trauma system needs to be improved; the reasons why it hasn't happened need to be understood why it hasn't happened before. Some of those include the availability of physicians and their willingness to serve because there are very significant and time sensitive requirements around each classification level in the trauma scheme, and the costs to do that. And since there is clear evidence that if you have trauma centers, they attract more uncompensated care that has to be dealt with as well as what levels are care should be in each community.

He understood that Alaska has five designated facilities, four of those are tribal. The one with the highest level designation is Alaska Native Medical Center. Those are staff model hospitals where the physicians work for those hospitals. One private facility that is certified at the lowest level is co-located in a community with one of those tribal facilities. The rest have struggled with ways to meet the conditions of certification - being private hospitals with physicians who do not work for them and having a shortage of some of the types of physicians needed and the ability to make sure the physicians will be there within the time response required. This is one issue they don't know how to solve at this point, but a group within the AHNSHA is working on it. This is a great approach to try to pull more facilities in and get them designated. Clearly, uncompensated care is one way to do that, but unless they can figure out some of the logistical problems around physician availability, they won't get as far as the committee would like with this piece of legislation.

2:57:49 PM

SENATOR PASKVAN asked, if it were funded at the \$5 million level, what range of hospitals would want to participate in the plan.

MR. BETIT answered that since this deals with "a half a glass" and deals with uncompensated care, but not with the physician cost or availability, none said they would be willing to move forward to get the designation. It's a step in the right direction, but maybe the \$5 million could be matched through

some disproportionate sharing funding that Medicaid makes available that the state hasn't fully capitalized on. Maybe some of that could also go into offsetting some of the increased costs for the physician on call and recognizing that they have to have the right physicians available to be on call. He hoped to work with the department on these issues over the next few months.

2:59:09 PM

MARK JOHNSON, former chief of Emergency Medical Services, said during that time that he served, he worked very hard to develop an EMS system in Alaska and made a lot of progress. One of the issues they worked on was to improve the trauma system in Alaska where they made some limited progress. In the 1990s with the use of some federal grant funds, his office co-sponsored American College of Surgeon reviews of eight different hospitals in Alaska that created reports on their strengths and weaknesses. Some hospitals have been reviewed multiple times. The report that the college came out with addressed some issues mentioned by Mr. Betit as well as going into a lot more detail on how to solve some of the problems.

It's been said for many years, that trauma systems require commitment, and unless the medical community and the hospitals are willing to provide it, they aren't going to solve the problem, Mr. Johnson said, and he's been dealing with it for decades. The reality is that Alaska's hospitals are not meeting national standards in trauma care, and the public is not well served by that. Harris polls indicate that nationwide, people actually think they live in a community with a trauma system, but in fact in many places it doesn't exist.

MR. JOHNSON said reducing complications and lengths of stay can produce better outcomes and more lives saved, and these can all result in downstream long term savings. One of the biggest problems in this state is on-call. Sometimes a surgeon is needed immediately, but they must be called to find somebody available. Those calls take time and that sometimes results in bad outcomes. That should be pre-planned and pre-arranged; and that's what this is about.

3:02:55 PM

SENATOR DYSON said "commitment" sounds like money.

MR. JOHNSON said to some extent that is true, but other things can be done that don't cost much. You look at creative solutions, and some are in this report.

CHAIR DAVIS said this bill will come back next session. [SB 168 was held in committee.]

3:04:11 PM

There being no further business to come before the committee, she adjourned the meeting at 3:04 p.m.

ALASKA STATE LEGISLATURE
SENATE HEALTH AND SOCIAL SERVICES STANDING COMMITTEE

February 22, 2010

1:31 p.m.

Draft

MEMBERS PRESENT

Senator Bettye Davis, Chair
Senator Joe Paskvan, Vice Chair
Senator Johnny Ellis
Senator Joe Thomas
Senator Fred Dyson

MEMBERS ABSENT

All members present

COMMITTEE CALENDAR

SENATE BILL NO. 168

"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."

MOVED CSSB 168(HSS) OUT OF COMMITTEE

PREVIOUS COMMITTEE ACTION

BILL: SB 168

SHORT TITLE: TRAUMA CARE CENTERS/FUND

SPONSOR(s): HEALTH & SOCIAL SERVICES BY REQUEST

03/27/09	(S)	READ THE FIRST TIME - REFERRALS
03/27/09	(S)	HSS, FIN
04/08/09	(S)	HSS AT 1:30 PM BELTZ 211
04/08/09	(S)	Heard & Held
04/08/09	(S)	MINUTE(HSS)
02/10/10	(S)	HSS AT 1:30 PM BUTROVICH 205
02/10/10	(S)	Heard & Held
02/10/10	(S)	MINUTE(HSS)
02/22/10	(S)	HSS AT 1:30 PM BUTROVICH 205

WITNESS REGISTER

REPRESENTATIVE COGHILL

SENATE HSS COMMITTEE

- 1 -

DRAFT February 22, 2010

State Capitol
Juneau, AK

POSITION STATEMENT: Sponsor of SB 168.

ROD BETIT, President
Alaska State Hospital and Nursing Home Association
Juneau, AK

POSITION STATEMENT: Testified in favor of the amendment to the committee substitute to SB 168.

WARD HURLBURT M.D., MPH, Chief Medical Officer
Department Of Health and Social Services
Division of Public Health
Anchorage, AK

POSITION STATEMENT: Supported SB 168.

DR. REGINA CHENAULT, Chair
College of Surgeon's Committee on Alaska Trauma
Anchorage, AK

POSITION STATEMENT: Supported SB 168.

ACTION NARRATIVE

1:31:44 PM

CHAIR BETTYE DAVIS called the Senate Health and Social Services Standing Committee meeting to order at 1:31 p.m. Present at the call to order were Senators, Ellis, Dyson, Paskvan and Davis.

SB 168-TRAUMA CARE CENTERS/FUND

1:32:05 PM

CHAIR DAVIS announced consideration of SB 168.

1:33:45 PM

REPRESENTATIVE COGHILL provided an overview of the committee substitute (CS) for SB 168. It contains language that points to the alcohol tax as a funding source to be used not only to help fill the fund itself, but to help match federal disproportionate share money [Medicaid disproportionate share hospital (DSH) payment adjustment program].

The amendment to the CS removes the word "uncompensated" from the title and other parts of the CS. According to the state's Medicaid official, this will increase the state's flexibility in the use of disproportionate share money. He said he is comfortable with that amendment.

1:36:42 PM

ROD BETIT, President, Alaska State Hospital and Nursing Home Association, Juneau, Alaska, testified in favor of the amendment to the committee substitute, which broadens the language in the bill to include more than uncompensated care. That is a key factor that has kept hospitals from moving to those higher trauma designation levels. Broadening the use of those funds will allow the department to work through barriers to accomplish the purpose of this bill without compromising the use of disproportionate share funds.

1:38:01 PM

WARD HURLBURT M.D., MPH, Chief Medical Officer, Department Of Health And Social Services, Division of Public Health, testified that, in his experience as a surgeon, alcohol is definitely associated with unintentional trauma in Alaska.

1:39:15 PM

DR. REGINA CHENAULT, Chair, College of Surgeon's Committee on Alaska Trauma; member of the Violent Crimes Compensation Board and the Alaska State Trauma System Review Committee, Anchorage, Alaska, thanked the committee for recognizing the link between alcohol and trauma in the state. She said the violent crimes board tracked the association of drugs and alcohol to trauma for several years and found that it was a factor from 70 to 88 percent of the time.

1:40:33 PM

CHAIR DAVIS closed public testimony.

SENATOR PASKVAN moved to adopt the proposed committee substitute (CS) to SB 168, labeled 26-LS0799\R, as the working document of the committee. There being no objection, version R was before the committee.

SENATOR PASKVAN provided an overview of Amendment 1 to draft version R. He said the purpose is to remove the word "uncompensated" throughout the bill, where it refers to trauma care.

CHAIR DAVIS asked for a motion to adopt the amendment.

SENATOR PASKVAN moved to adopt Amendment R.1 to CSSB 168. There being no objection, Amendment R.1 was adopted.

SENATOR THOMAS read from page 2, line 14(d), which provides that "the commissioner may not provide more than 25 percent of the total assets, including earnings, of the fund in a fiscal year to one trauma center." He said 50 percent of that fund [Alcohol and Other Drug Treatment and Prevention Fund (ADTP)] {is already dedicated for drug and alcohol related prevention and asked if the 25 percent refers to the entire amount, or the 50 percent that remains beyond that dedicated amount.

TOM OBERMEYER said the statutory authority is found in AS 43.60.050.

REPRESENTATIVE COGHILL said his understanding is that the amount of the tax available to the [trauma care] fund from the alcohol tax is a specified amount and the amount that can be appropriated from the fund is also limited, so there are two different limitations. The intent was that only so much of the alcohol tax would come into this fund.

1:45:50 PM

SENATOR PASKVAN moved to report CSSB 168 as amended from the committee with individual recommendations and attached fiscal note(s). There being no objection, CSSB 168(HSS) moved from committee.

1:46:55 PM

There being no further business to come before the committee, Chair Davis adjourned the meeting at 1:46 p.m.

ALASKA STATE LEGISLATURE
HOUSE HEALTH AND SOCIAL SERVICES STANDING COMMITTEE

April 9, 2009

3:05 p.m.

MEMBERS PRESENT

Representative Bob Herron, Co-Chair
Representative Wes Keller, Co-Chair
Representative John Coghill
Representative Bob Lynn
Representative Paul Seaton
Representative Sharon Cissna
Representative Lindsey Holmes

MEMBERS ABSENT

All members present

COMMITTEE CALENDAR

HOUSE BILL NO. 188

"An Act relating to the taxation of moist snuff tobacco, and amending the definition of 'tobacco product' in provisions levying an excise tax on those products."

- HEARD AND HELD

HOUSE BILL NO. 168

"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."

- HEARD AND HELD

HOUSE BILL NO. 223

"An Act relating to the qualifications for residential psychiatric treatment center caregiver staff; and providing for an effective date."

- HEARD AND HELD

PREVIOUS COMMITTEE ACTION

BILL: HB 188

SHORT TITLE: TAX ON MOIST SNUFF

SPONSOR(s) : REPRESENTATIVE(s) HERRON

03/12/09	(H)	READ THE FIRST TIME - REFERRALS
03/12/09	(H)	HSS, L&C, FIN
03/24/09	(H)	HSS AT 3:00 PM CAPITOL 106
03/24/09	(H)	<Bill Hearing Rescheduled to 03/26/09>
03/26/09	(H)	HSS AT 3:00 PM CAPITOL 106
03/26/09	(H)	Heard & Held
03/26/09	(H)	MINUTE(HSS)
04/09/09	(H)	HSS AT 3:00 PM CAPITOL 106

BILL: HB 168

SHORT TITLE: TRAUMA CARE CENTERS/FUND

SPONSOR(s) : REPRESENTATIVE(s) COGHILL

03/09/09	(H)	READ THE FIRST TIME - REFERRALS
03/09/09	(H)	HSS, FIN
04/09/09	(H)	HSS AT 3:00 PM CAPITOL 106

BILL: HB 223

SHORT TITLE: TRAINING FOR PSYCHIATRIC TREATMENT STAFF

SPONSOR(s) : HEALTH & SOCIAL SERVICES

04/08/09	(H)	READ THE FIRST TIME - REFERRALS
04/08/09	(H)	HSS
04/09/09	(H)	HSS AT 3:00 PM CAPITOL 106

WITNESS REGISTER

ROB EARL, Staff
to Representative Bob Herron
Alaska State Legislature
Juneau, Alaska

POSITION STATEMENT: Introduced the proposed CSHB 188, Version N, for the prime sponsor, Representative Herron.

DR. FRANK SACCO, Chair
Alaska Trauma Systems Review Committee
Anchorage, Alaska

POSITION STATEMENT: Presented a Power Point titled "Trauma Care in Alaska 2009" and answered questions about the Alaska trauma system.

DR. REGINA CHENNAULT, Chair
Alaska Committee on Trauma;
American College of Surgeons
Alaska Native Medical Center

Anchorage, Alaska
POSITION STATEMENT: Spoke in support of HB 168.

DR. DANNY ROBINETTE
Northern Alaska Medical Surgical
Fairbanks, Alaska
POSITION STATEMENT: Spoke in support of HB 168.

GERAD GODFREY, Chair
Alaska Violent Crimes Compensation Board
Juneau, Alaska
POSITION STATEMENT: Spoke about HB 168.

DAVID HULL, Chairman
Alaska Council on Emergency Medical Services
Ketchikan, Alaska
POSITION STATEMENT: Testified in support of HB 168.

ROD BETIT, President & CEO
Alaska State Hospital and Nursing Home Association (ASHNHA)
Juneau, Alaska
POSITION STATEMENT: Testified about HB 168.

MARK JOHNSON, Chief (ret.)
Community Health and Emergency Medical Services
Department of Health and Social Services (DHSS)
POSITION STATEMENT: Testified about HB 168.

DR. JAY BUTLER, Chief Medical Officer
Office of the Commissioner
Department of Health and Social Services (DHSS)
Anchorage, Alaska
POSITION STATEMENT: Testified about HB 168.

MYRA MUNSON, Attorney
The Boys and Girls Home of Alaska
Fairbanks, Alaska
POSITION STATEMENT: Testified about HB 223.

PAT HEFLEY, Deputy Commissioner
Office of the Commissioner
Department of Health and Social Services (DHSS)
Juneau, Alaska
POSITION STATEMENT: Testified about HB 223.

STACIE KRALY, Chief Assistant Attorney General;
Statewide Section Supervisor

Human Services Section
Civil Division (Juneau)
Department of Law (DOL)
Juneau, Alaska

POSITION STATEMENT: Answered questions about HB 223.

STACY TONER, Deputy Director
Division of Behavioral Health
Department of Health and Social Services (DHSS)
Juneau, Alaska

POSITION STATEMENT: Answered questions about HB 223.

BEVERLY WOOLEY, Director
Division of Public Health
Department of Health and Social Services (DHSS)
Juneau, Alaska

POSITION STATEMENT: Answered questions about HB 223.

JIM MALEY, President & CEO
Alaska Children's Services (ACS)
Anchorage, Alaska

POSITION STATEMENT: Testified about HB 223.

JEFF JESSEE, Chief Executive Officer
Alaska Mental Health Trust Authority (AMHTA)
Department of Revenue (DOR)
Anchorage, Alaska

POSITION STATEMENT: Testified about HB 223.

KATE BURKHART, Executive Director
Alaska Mental Health Board (AMHB)
Office of the Commissioner
Department of Health and Social Services (DHSS)
Juneau, Alaska

POSITION STATEMENT: Answered questions about HB 223.

FRAN PURDY, Executive Director
Alaska Youth & Family Network (AYFN)
Anchorage, Alaska

POSITION STATEMENT: Testified about HB 223.

ACTION NARRATIVE

3:05:45 PM

CO-CHAIR WES KELLER called the House Health and Social Services
Standing Committee meeting to order at 3:05 p.m.

(3) maintains a vending machine that dispenses cigarettes, cigars, tobacco, or products containing tobacco or nicotine ; or

(4) holds a business license endorsement under AS 43.70.075 and allows a person under 19 years of age to sell a cigarette, a cigar, tobacco or a product containing tobacco or nicotine.

He explained that this would regulate products that contained either tobacco or nicotine. He said that the issue revolved around two methods for taxes on tobacco, and he asked the sponsor to formulate a per nicotine dose tax, so that the committee could achieve a balanced discouragement to each nicotine delivery system.

3:19:21 PM

CO-CHAIR KELLER closed testimony.

[HB 188 was held over. Co-Chair Keller's objection to the motion to adopt the committee substitute (CS) for HB 188, Version 26-LS0714\N, Bullock, 4/9/09, as the working document, was left pending.]

HB 168-TRAUMA CARE CENTERS/FUND

3:19:35 PM

CO-CHAIR KELLER announced that the next order of business would be HOUSE BILL NO. 168, "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."

3:20:19 PM

REPRESENTATIVE COGHILL stressed that it was a high priority for Alaska to have an emergency trauma delivery system. He explained that he would like to incentivize hospitals to attain trauma center designation, and to direct funding for trauma uses. He noted that two central issues were for uninsured patients, and for payment to the hospitals for the new programs. He suggested that hospitals which increased their trauma designation would receive repayment for the expenses. He referred to the "Trauma System Consultation" report from its November 2-5, 2008, meeting in Anchorage, Alaska. [Included in

the members' packets] He noted that the report contained suggestions of ways for Alaska to improve its trauma system. He opined that hospitals would be reluctant, but would support this program. He summarized that there was an important need to take care of Alaskans who were hurt, and that there should not be a question of where the payment would come from.

3:27:48 PM

DR. FRANK SACCO, Chair, Alaska Trauma Systems Review Committee, said that his report would demonstrate why this was important, what had been done so far, and what was still needed. He quoted the former U.S. Surgeon General, C. Everett Koop, "If a disease were killing our children at the rate unintentional injuries are, the public would be outraged and demand that this killer be stopped." He opined that a public health system approach was the only proven way to make an impact. He stated that the leading cause of death for individuals up to 44 years of age was trauma, and yet it was still not recognized.

3:31:15 PM

DR. SACCO referred to slide 5, "Trauma in Alaska," and detailed the annual impact to Alaskans.

3:31:45 PM

DR. SACCO directed attention to the comparative deaths by trauma in the U.S. and Alaska on slide 6, "Death from Trauma in Alaska." He pointed out the high rate for Alaskans and the much higher rate for Alaska natives, and he noted that the Alaska trauma death rate was second only to New Mexico.

3:32:21 PM

DR. SACCO explained that the leading causes of traumatic death in Alaska were motor vehicles and firearms, slide 7, "Trauma in Alaska." He disclosed that 25 percent of the \$73 million cost for trauma care in Alaska was not compensated.

3:32:53 PM

DR. SACCO compared the time from injury to death on slide 8, "Death from Trauma." He pointed out that intervention during the golden hours would improve survival.

3:33:27 PM

DR. SACCO indicated slide 9, "Trauma Systems," and read "A trauma system consists of hospitals, personnel, and public service agencies with a preplanned response to caring for the injured patient."

3:33:51 PM

DR. SACCO considered slide 10, "Trauma Systems," and described the facilities, the personnel training, the patient transport, the triage. He said "a trauma system was getting the right patient to the right place in the right amount of time."

3:34:20 PM

DR. SACCO looked at slide 11, "Facilities-Trauma Centers," and reviewed the definitions for Levels I-IV of trauma centers.

3:35:28 PM

DR. SACCO spoke about the various trauma related courses, which included ATLC, TNCC, RTTDC, and ETT, on slide 12, "Personnel."

3:36:07 PM

DR. SACCO directed attention to slide 13, "Transport and triage," and spoke about the guidelines that take into account local resources and capabilities.

3:36:35 PM

DR. SACCO referred to "Trauma Systems" on slide 14, and declared that trauma systems improved survival of the seriously injured by 15 -25 percent, increased the productive working years, and enhanced the statewide disaster preparedness.

3:37:25 PM

DR. SACCO spoke to slide 15 "Preventable Deaths: the impact of trauma systems," and he compared the decrease to percentages of preventable deaths for three major metropolitan areas.

3:37:47 PM

DR. SACCO continued on to slide 16, "Trauma Systems & crash mortality," which depicted a state to state comparison for crash mortality before and after the introduction of trauma systems.

3:37:59 PM

DR. SACCO explained that slide 17, "Trauma systems & crash mortality" revealed the impact on mortality rates with trauma systems, seat belt restraint laws, lower allowable blood level alcohol, and increases to the speed limit.

3:38:21 PM

DR. SACCO spoke about slide 18, "Anchorage Mortality Rate 2005-2007" which depicted the lower mortality rate for designated, as opposed to non-designated, trauma centers in Anchorage. He explained that the next slide reflected the significant differences for age group mortality rates between the designated and non-designated trauma centers. He reviewed the next slide, "Trauma Center and Disaster Preparedness," and noted that a trauma center maintained its readiness, was staffed for all types of injuries, had a broad communications network, and had the resources to facilitate the patient's recovery.

3:39:21 PM

DR. SACCO stated that slide 21 "Trauma Systems and the Public," showed that 83 percent of the people wanted a trauma system in their area.

3:39:47 PM

DR. SACCO said that slide 22, also titled "Trauma Systems and the Public," affirmed that 75 percent of people interviewed thought there was a trauma center system in their state, but in actuality only 15 percent of the people lived in a state with a comprehensive system.

3:40:17 PM

DR. SACCO explained slide 23, "Alaska Trauma System," and noted that a 1993 Alaska statute created the EMS authority for designating trauma centers, set national standards for trauma centers, and made hospital participation in the trauma system voluntary. He said that in the 15 years since, there was only one Level II trauma center and four Level IV centers in Alaska, which were all listed on slide 25, "Current Status."

3:41:54 PM

DR. SACCO introduced the Site Visit Team on slide 26, and he described the "Objective," slide 27, which was "To help promote a sustainable effort in the graduated development of an inclusive trauma system for Alaska."

3:42:20 PM

DR. SACCO continued on to slide 28, "Advantages & Assets," and emphasized that Alaska had very committed individuals who served Alaska, that there was an extensive transport network, that there were three large medical centers with extensive expertise in the state, and that there was a very good relationship with Harborview Medical Center in Seattle for sending trauma patients. He also listed the Level II facility, with other small hospitals working toward verification of Level IV. He said the Alaska Trauma Registry received data from all 24 acute care hospitals.

3:43:27 PM

DR. SACCO moved on to slide 30, "Challenges and Vulnerabilities." He declared that Alaska did not have a trauma system plan, there were no trauma standards, there were limited human resources, there were few incentives for hospital participation, and there was not a statewide performance evaluation.

3:44:24 PM

DR. SACCO directed attention to slide 31, "Trauma Care in Alaska 2009," and concluded: "There are two healthcare systems for injured patients. One for Alaska natives that adheres to national standards and another for the majority of the population." [original punctuation provided]

3:44:32 PM

DR. SACCO referred to the recommendations on slide 32, "Definitive Care Facilities," and said that a second Level II Trauma Center had to be established in Anchorage, and that participation by all acute care hospitals should be mandated within two years for trauma center designation appropriate to their capabilities. He continued with slide 33, and declared that there was a need for pediatric trauma care capability. He concluded that it was necessary to determine a method of financial support to trauma centers for uncompensated care.

3:45:30 PM

DR. SACCO noted that slide 36, "Alaska Trauma Systems Review Committee," reflected that the committee met twice a year and that its role was to review the Level IV hospitals and the interfacility transfer guidelines, and make suggestions for trauma system improvement.

3:45:57 PM

DR. SACCO explained that "Head Injury Guidelines for Rural and Remote Alaska," were implemented primarily by the tribal health system and it decreased unnecessary medevacs by 75 percent, with no adverse consequences.

3:47:10 PM

DR. SACCO commented on slide 38, "Current Activity US," and compared that both Georgia and Arkansas put millions of dollars into the trauma system, whereas Alaska was the only state without a designated Level 1 or Level 2 trauma center, other than the Native Health Service facility. He added that federal legislation was currently being considered for help to trauma centers.

3:48:24 PM

DR. SACCO concluded with slide 39, "Alaska Trauma System: "Where do we go now?" and said that it was necessary to increase facility participation for development of an inclusive system.

3:49:08 PM

REPRESENTATIVE CISSNA asked about community emergency response training.

DR. SACCO, in response to Representative Cissna, explained that the difference between designated and non-designated hospitals was determined by the ability to maintain a minimum care level. He endorsed the need to organize providers and facilities to ensure that this care level was always available.

DR. SACCO, in response to Representative Cissna, explained that the mortality rates were adjusted per 100,000 people, and that Alaskans had the second highest rate.

3:52:30 PM

REPRESENTATIVE CISSNA referred to the need for funding, and asked what could be done that was not funding related.

DR. SACCO said that there were over 70 recommendations in the American College of Surgeons report [Included in the members' packets], many of which did not require any funding. He gave two examples: mal-practice caps on damages at a designated trauma center and Medicare and Medicaid allowable billing by designated trauma centers for the Emergency Room activation of a trauma team.

3:55:37 PM

CO-CHAIR KELLER opened public testimony.

3:55:55 PM

DR. REGINA CHENNAULT, Chair, Alaska Committee on Trauma, American College of Surgeons, Alaska Native Medical Center, said that she agreed with Dr. Sacco, and that a trauma system was also the best design for handling any disaster. She stated that appropriate trauma care did reduce mortality.

3:58:26 PM

DR. DANNY ROBINETTE, Northern Alaska Medical Surgical, observed that there was an increasing manpower shortage for general surgery. He noted that trauma patients were often under insured and he suggested that there be incentives for doctors. He said that it became necessary to medevac a patient to Seattle when the Anchorage medical system did not have the availability.

4:01:45 PM

GERAD GODFREY, Chair, Alaska Violent Crimes Compensation Board, related a personal story which reflected the flaws in the trauma response time. He said that the ad hoc committee had realized that there was not a standardized procedure for all the potential variables. He opined that there was unwillingness from the hospitals to go along with the training, the protocols, and the start up cost. He supported the pro active approach of the American College of Surgeons.

4:08:00 PM

DAVID HULL, Chairman, Alaska Council on Emergency Medical Services, said that trauma care needed to be addressed. He offered examples of emergency medical systems that had treated trauma patients, and he advocated for an entire trauma care system.

4:12:30 PM

ROD BETIT, President & CEO, Alaska State Hospital and Nursing Home Association (ASHNHA), said that ASHNHA agreed that work needed to be done on the trauma care system, and that there should be incentives for initiating the system. He opined that DHSS needed to agree on its importance before any talks would be effective. He observed that there was a significant cost to guarantee the availability of physicians and nurses for the required time response. He remarked that it was different for staff model hospitals, as the physicians worked for that hospital, than for private hospitals, where the physicians did not work for the hospital. He agreed that HB 168 was a good idea.

4:16:45 PM

MR. BETIT, in response to Representative Coghill, said that the Medicaid disproportionate share funds were available, as these were often left unused.

4:17:22 PM

REPRESENTATIVE COGHILL agreed that having an already existing funding stream was optimal.

4:17:27 PM

MARK JOHNSON, Chief (ret.), Community Health and Emergency Medical Services, referred to the initial legislation passed in 1993, which had set up the aforementioned voluntary system. He explained that DHSS had co-sponsored the American College of Surgeons review of eight different hospitals in Alaska. He said that he participated in the reviews, and that many facilities were close to designation. He opined that incentives were necessary for enthusiasm for the designation process. He stressed that the trauma system would save lives.

4:19:38 PM

DR. JAY BUTLER, Chief Medical Officer, Office of the Commissioner, Department of Health and Social Services (DHSS), said that injury deaths could not be controlled like a disease. He reported that a systematic approach to improve trauma care had become a DHSS priority. He shared that an American College of Surgeons recommendation was for each acute care hospital to seek trauma center designation, appropriate to its capacity, within the next two years. He affirmed that the goal was to improve the quality of care for trauma victims. He stated that HB 168 provided an incentive to become a trauma center. He cited potential funding sources for reimbursement to hospitals for underinsured trauma patients. He noted that DHSS recognized the importance of trauma care, but that there was uncertainty for fiscal support. He observed that the administration had taken a neutral stance.

4:22:37 PM

REPRESENTATIVE SEATON asked how many trauma deaths were alcohol related, and if it was necessary to address the larger problem of alcoholism.

DR. BUTLER, in response to Representative Seaton, agreed that alcohol was a component and that the reduction to the legal limit for blood alcohol was a part of the larger solution.

REPRESENTATIVE COGHILL, in response to Representative Seaton, said that he was open to the inclusion of other aspects for prevention, as these also had an impact on the system.

4:25:53 PM

DR. BUTLER spoke about teachable moments, and he shared that non-fatal incidences of trauma, specifically alcohol related events, were excellent teachable moments.

4:26:42 PM

DR. SACCO agreed with the use of teachable moments, and he gave examples to the success with alcohol intervention and education. He suggested that a requirement for trauma centers was to teach injury prevention to high risk populations.

4:29:17 PM

REPRESENTATIVE COGHILL, in reference to the bill, reflected that it was important to "be quick but don't get in a hurry." He

agreed that there were complexities to the issues, but that people's lives were involved.

4:30:34 PM

CO-CHAIR KELLER closed public testimony.

[HB 168 was held over.]

HB 223-TRAINING FOR PSYCHIATRIC TREATMENT STAFF

4:31:00 PM

CO-CHAIR KELLER announced that the final order of business would be HOUSE BILL NO. 223, "An Act relating to the qualifications for residential psychiatric treatment center caregiver staff; and providing for an effective date."

The committee took an at-ease from 4:31 p.m. to 4:36 p.m.

4:36:57 PM

CO-CHAIR KELLER acknowledged that there had been ongoing discussion and negotiation about HB 223. He opened public testimony.

4:39:12 PM

CO-CHAIR HERRON moved to adopt the proposed Committee Substitute (CS) for HB 223, Version 26-LS0842\C, Mischel, 4/8/09, as the working document.

REPRESENTATIVE HOLMES objected for the purpose of discussion.

MYRA MUNSON, Attorney, The Boys and Girls Home of Alaska, said that the Committee Substitute (CS) set a new level of caregiver qualification for residential psychiatric treatment centers (RPTC). She noted that there were currently three caregiver standards, and she explained the requirements for each option. She reported that HB 223 allowed for a fourth qualification option.

4:45:47 PM

REPRESENTATIVE HOLMES asked for a clarification for the new qualification.

FISCAL NOTE

STATE OF ALASKA
2010 LEGISLATIVE SESSION

Fiscal Note Number: 1
 Bill Version: CSSB 168(HSS)
 (S) Publish Date: 2/24/10

Identifier (file name): SB168-REV-TRS-2-8-10 Dept. Affected: Revenue
 Title: Uncompensated Trauma Care fund RDU: Taxation and Treasury
 Component: Treasury Division
 Sponsor: Senate HSS committee
 Requester: Senate Health and Social Services Component Number: 121

Expenditures/Revenues (Thousands of Dollars)

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

	Appropriation Required	Information						
		FY 2011	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
OPERATING EXPENDITURES								
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	0.0

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

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

FUND SOURCE (Thousands of Dollars)

	FY 2011	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
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 (FY2010) cost: _____

POSITIONS

	FY 2011	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Full-time	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Part-time	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temporary	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ANALYSIS: (Attach a separate page if necessary)

This bill establishes a fund to compensate certain certified trauma centers in Alaska for care uncompensated by the person receiving the care or by another source. This fund will be invested within the GeFonsi investment pool. No additional costs have been identified.

Prepared by: Pamela J. Leary, Comptroller Phone 465-2300
 Division: Treasury Date/Time 2-8-10; 10:01am
 Approved by: Ginger Blaisdell, Director Date 2-8-10; 8:16pm
Administrative Services Division

FISCAL NOTE

STATE OF ALASKA
2010 LEGISLATIVE SESSION

Fiscal Note Number: _____
 Bill Version: CSSB168(HSS)
 () Publish Date: _____

Identifier (file name): SB168CS(HSS)-DHSS-IPEMS-03-05-10 Dept. Affected: Health & Social Services
 Title Trauma Care Centers/Fund RDU Public Health
 Component Injury Prevention/Emergency Medical Services
 Sponsor Senate HSS by Request
 Requester Senate Finance Component Number 2876

Expenditures/Revenues (Thousands of Dollars)

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

	Appropriation	Information						
	Required	FY 2011	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
OPERATING EXPENDITURES								
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 (FY2010) cost: _____

POSITIONS

Full-time								
Part-time								
Temporary								

ANALYSIS: (Attach a separate page if necessary)

This bill 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 using alcohol taxes, and allows designated trauma centers to apply for payments.

This assumes that funding of \$5 million for the trauma care fund would be provided under another fiscal note. The Department proposes to administer this fund using existing staff resources. Significantly higher funding levels may require additional resources to support greater trauma center capacity development.

Prepared by: Ward B. Hurlburt, M.D., MPH, Chief Medical Officer / Director Phone 269-8126
 Division Public Health Date/Time 3/4/10 12:00 AM

Approved by: Alison Elgee, Assistant Commissioner Date 3/5/2010
DHSS Finance & Management Services

FISCAL NOTE

**STATE OF ALASKA
2010 LEGISLATIVE SESSION**

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

Identifier (file name): CSSB 168(HSS) Dept. Affecter: Health & Social Services
 Title: Trauma Care Centers/Fund RDU: _____
 Component: _____
 Sponsor: Senator Bettye Davis
 Requester: Senate Finance Committee Component Number: _____

Expenditures/Revenues (Thousands of Dollars)

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

	Appropriation Required	Information						
		FY 2011	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
OPERATING EXPENDITURES								
Personal Services								
Travel								
Contractual								
Supplies								
Equipment								
Land & Structures								
Grants & Claims		5,000.0		5,000.0	5,000.0			
Miscellaneous								
TOTAL OPERATING		5,000.0	0.0	5,000.0	5,000.0	0.0	0.0	0.0

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

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

FUND SOURCE

1002 Federal Receipts	2,500.0		2,500.0	2,500.0				
1003 GF Match								
1004 GF	2,500.0		2,500.0	2,500.0				
1005 GF/Program Receipts								
1037 GF/Mental Health								
Other Interagency Receipts								
TOTAL	5,000.0	0.0	5,000.0	5,000.0	0.0	0.0	0.0	0.0

Estimate of any current year (FY2010) cost: _____

POSITIONS

Full-time								
Part-time								
Temporary								

ANALYSIS: (Attach a separate page if necessary)

This bill creates the trauma care fund to be used to compensate certified trauma centers for practicing at the highest national standards for trauma care. Monies from the Disproportionate Share Hospital (DSH) program can be used as a match to money in the trauma care fund once the state CMS revision is approved and hospitals submit adequate documentation for payment. This would be a 50/50 match.

Prepared by: Rynniva Moss
 Division: Senator Coghill's Office
 Approved by: Senate Finance Committee

Phone 465-3719
 Date/Time 3/9/10 2:42 PM
 Date _____



**Alaska Native
Tribal Health Consortium**

20108

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

POSITION: Support

ANTHC supports SB 168 and SB 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 SB 168 and SB 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 25%.

Thank you for your consideration.