

Alcohol Screening and Interventions in Trauma Centers

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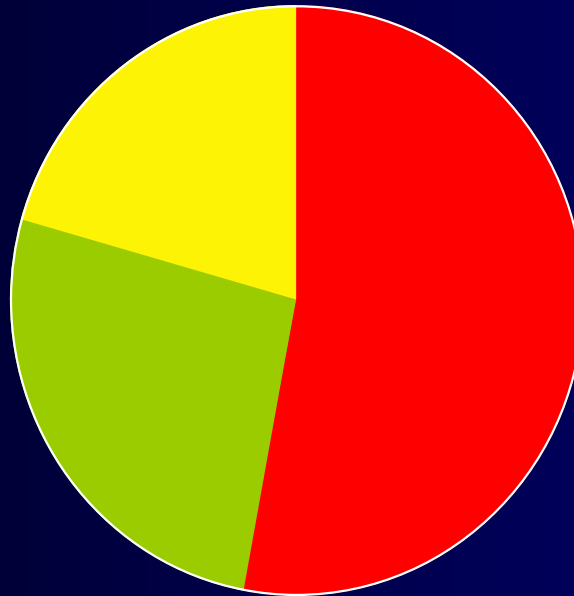
Trauma Mortality

Years of potential life lost by cause of death

Heart Disease and Stroke

1,400,000

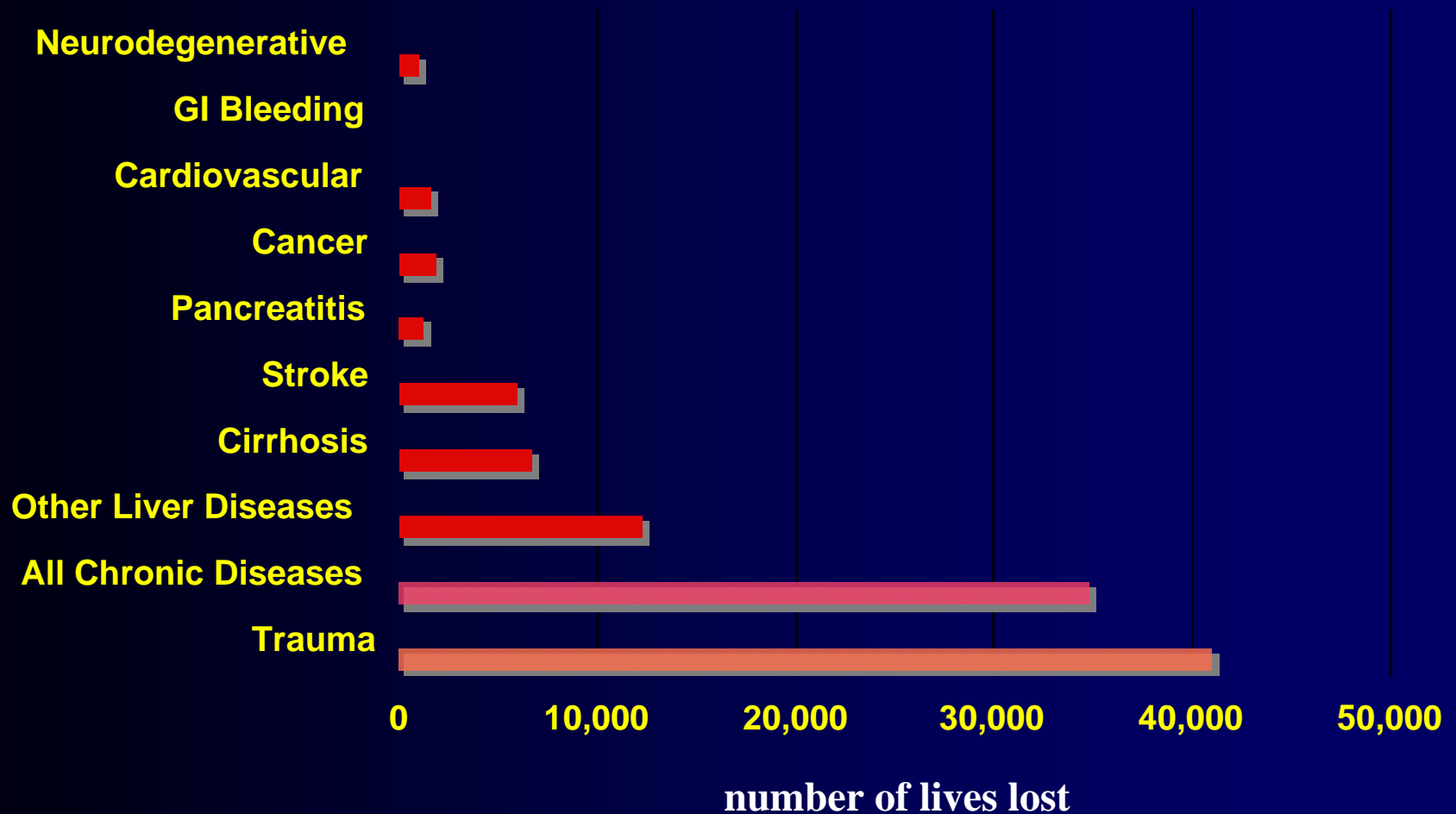
Cancer
1,800,000



Trauma
3,600,000

Data Source: NCHS Vital Statistics System

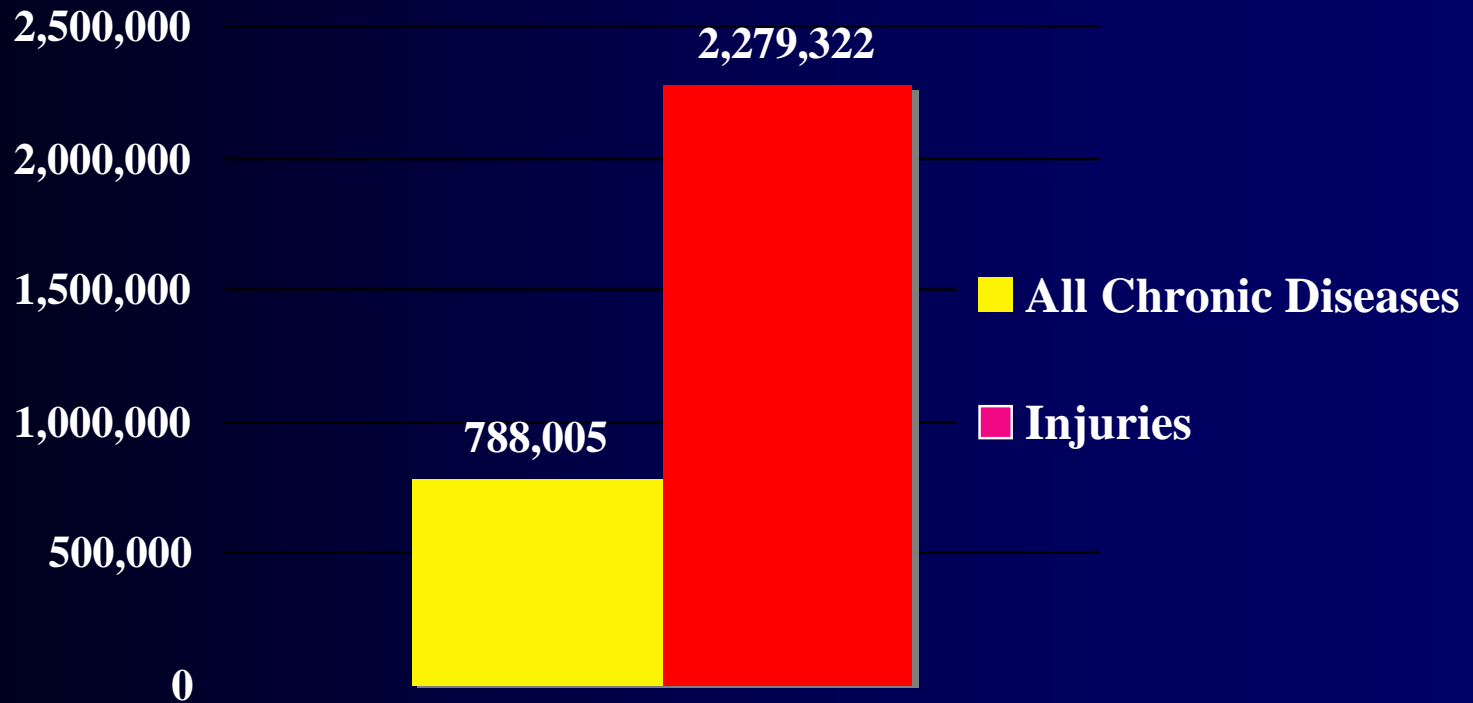
Alcohol-Related Deaths



(CDC - MMWR, 2004)

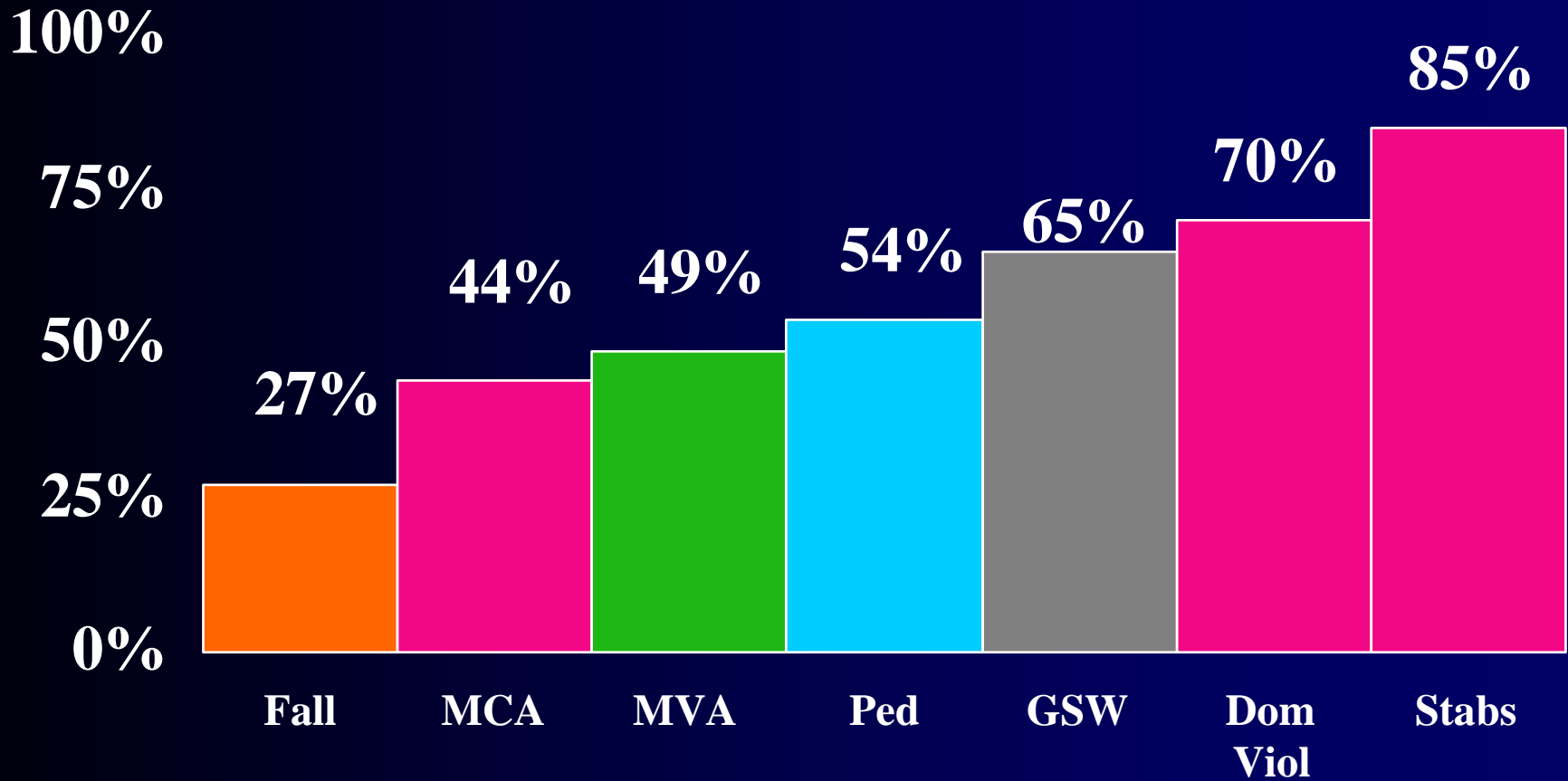
Years of Potential Life Lost - YPLL's

Alcohol - Related Diseases



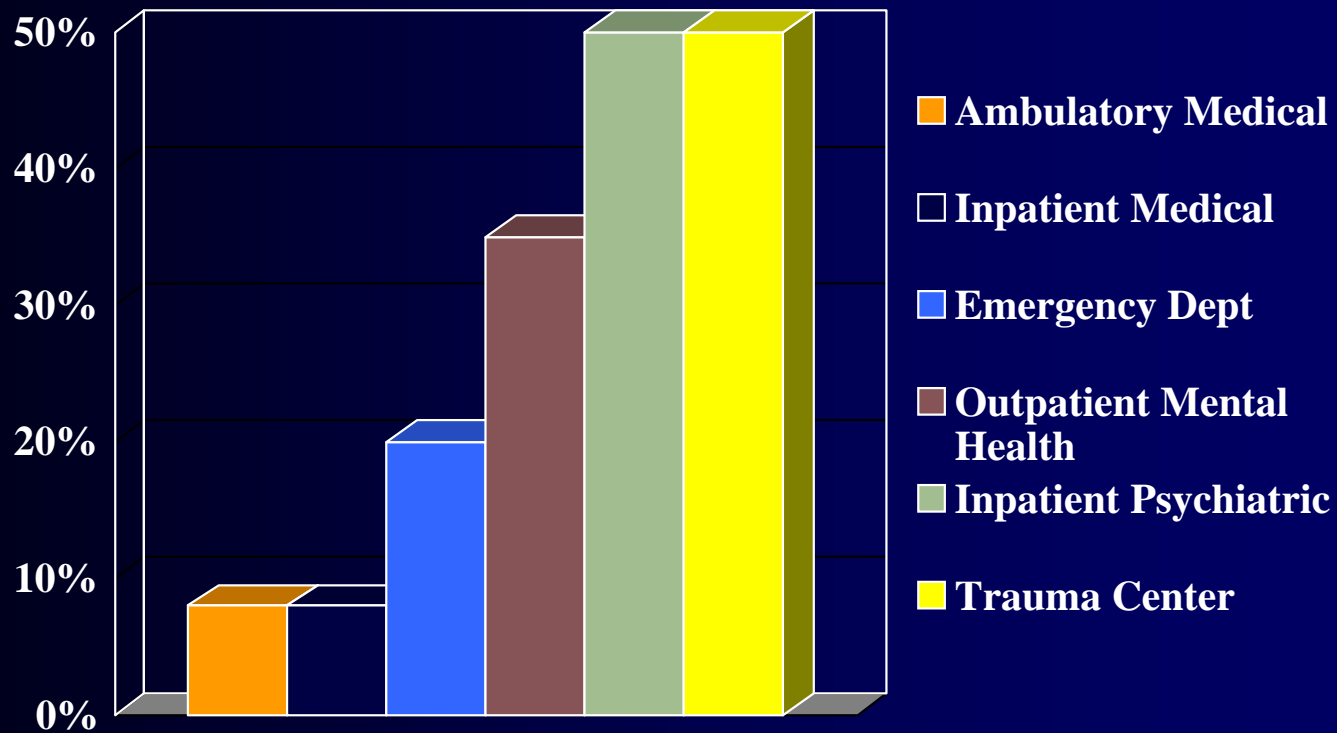
(CDC - MMWR, 2004)

Alcohol and Trauma



(Gentilello, Am J Surg 1988)

Positive Alcohol Screens



Major Injury as a Unique Opportunity to Initiate Treatment in the Alcoholic

Larry M. Gentilello, MD, Pat Duggan, MS, CAC, Dean Drummond, Katy, Texas, Alan Tonnesen, MD, Houston, Texas,
Eugene E. Degner, MD, Katy, Texas, Ronald P. Fischer, MD, PhD, R. Lawrence Reed II, MD, Houston, Texas

(Gentilello, Am J Surgery, 1988)

Trauma Center Intervention Study

patients identified

13% of families declined

87% of families agreed

interventions performed

100% transferred directly to treatment facility

Trauma Recidivism

- **5 year follow-up of 246 patients**
 - **40% readmission rate**
 - **20% mortality rate**
 - **77% of deaths due to continuing substance abuse**

(Sims, et al, J Trauma)

**RESOURCES
FOR
OPTIMAL CARE
OF THE
INJURED
PATIENT:
1993**



**COMMITTEE ON TRAUMA
AMERICAN COLLEGE OF SURGEONS**

**RESOURCES
FOR
OPTIMAL CARE
OF THE
INJURED
PATIENT:
1999**

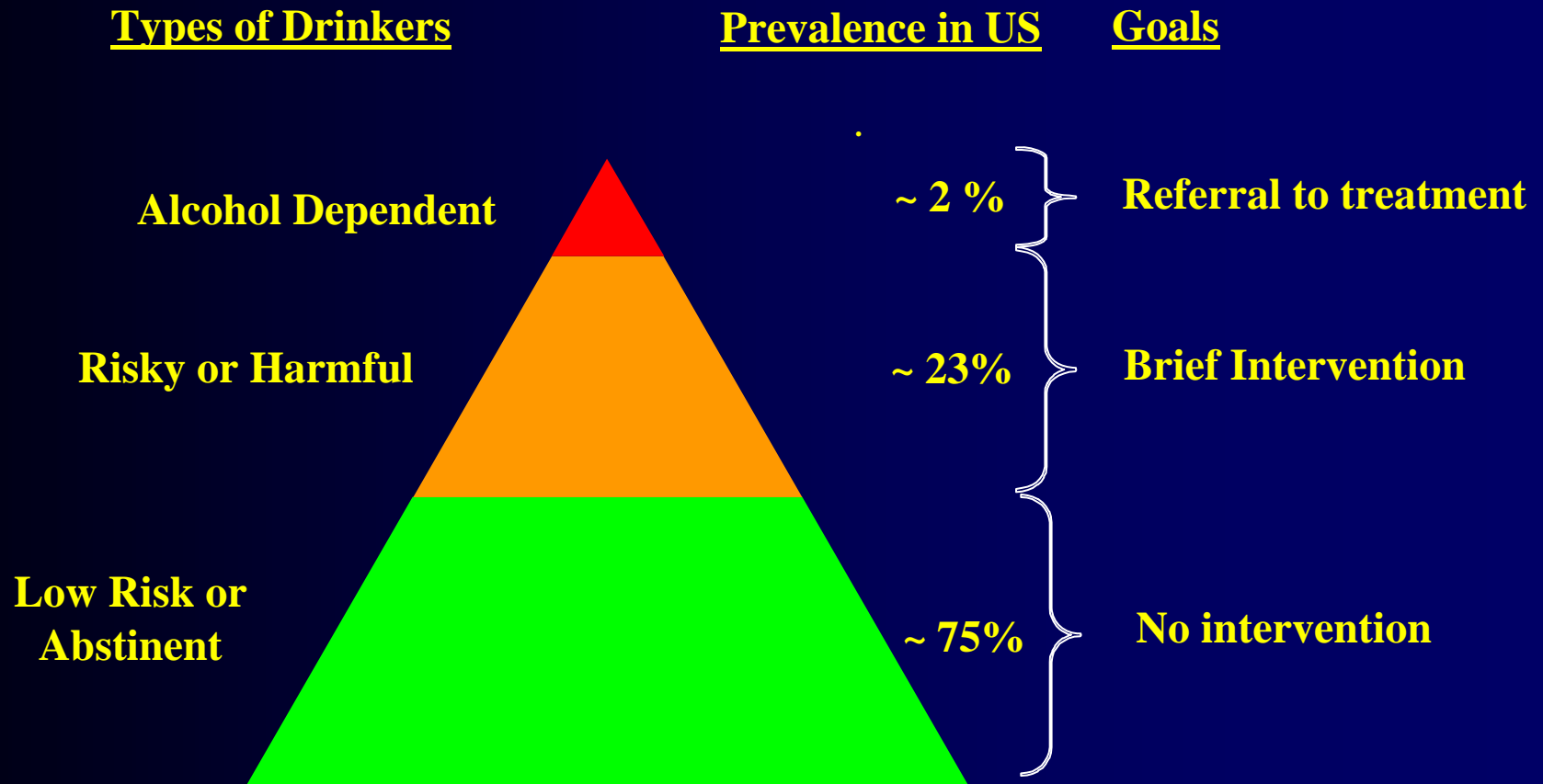


**COMMITTEE ON TRAUMA
AMERICAN COLLEGE OF SURGEONS**

Severity of Alcohol Problems



Drinking Pyramid



Hypothesis

Alcohol interventions as a routine component of trauma care will reduce subsequent alcohol intake, and decrease the rate of trauma recidivism

Detrimental Effects of Alcohol

“Wine is a bad thing.

It makes you argue with your wife.

It makes you quarrel with your neighbor.

It makes you shoot at your landlord.

It makes you miss him.”

(trauma patient)

Alcohol Interventions in a Trauma Center

- **Study design**
 - **Harborview Medical Center, Seattle**
 - **October 1994 to November 1997**
 - **NIH sponsored RCT**
 - **patients screened with BAC and sMAST**
 - **consent for follow-up and use of records only**
 - **randomize screen positive patients**
 - **30 minute intervention plus follow-up letter**
 - **standard trauma care**



Patient Enrollment

eligible trauma patients

3,358

screened

2,524

screened negative

1,371 (54%)

screened positive

1,153 (46%)

randomized

762 (66%)

control

396

intervention

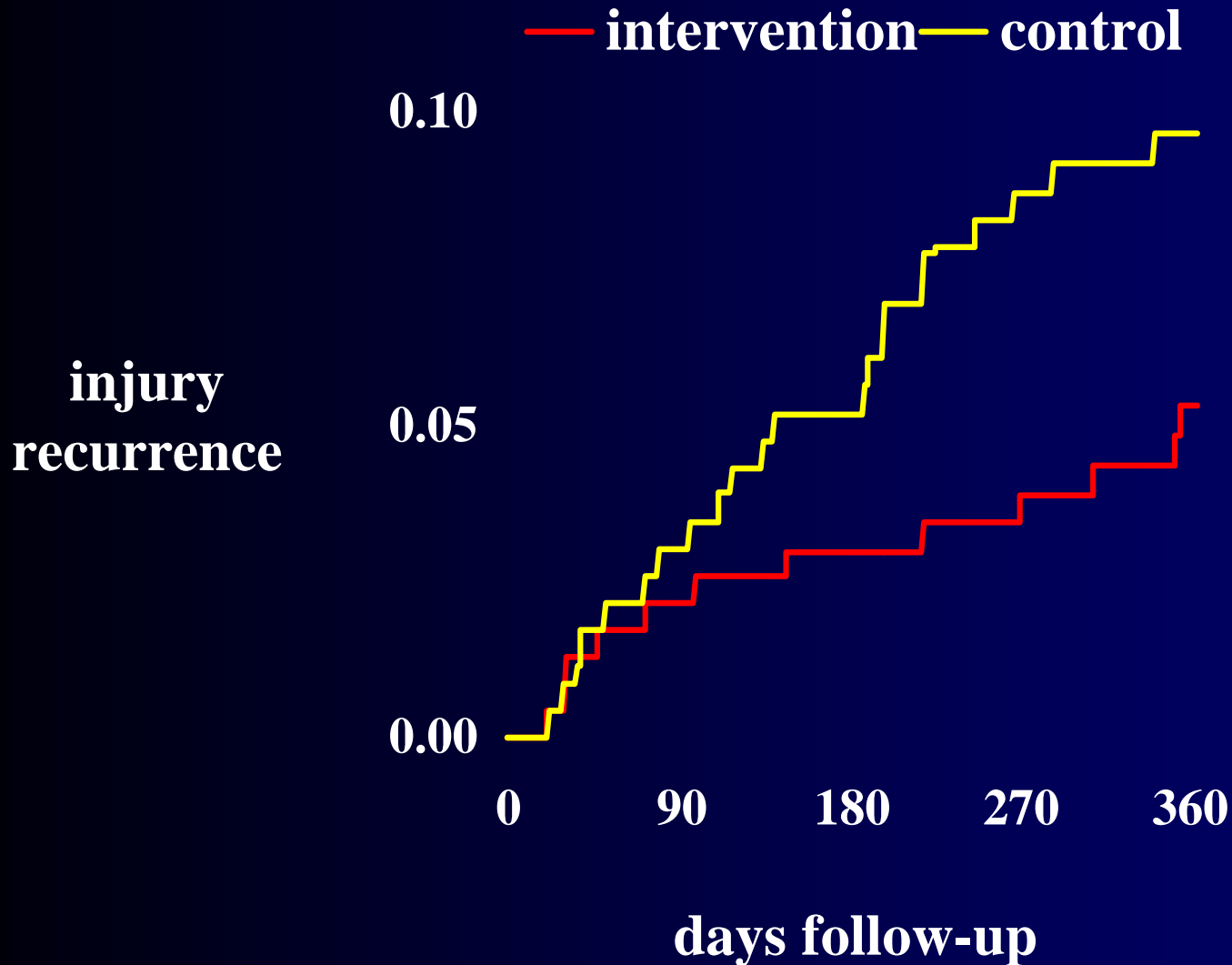
366

received intervention	304
d/c prior to intervention	56
refused intervention	6

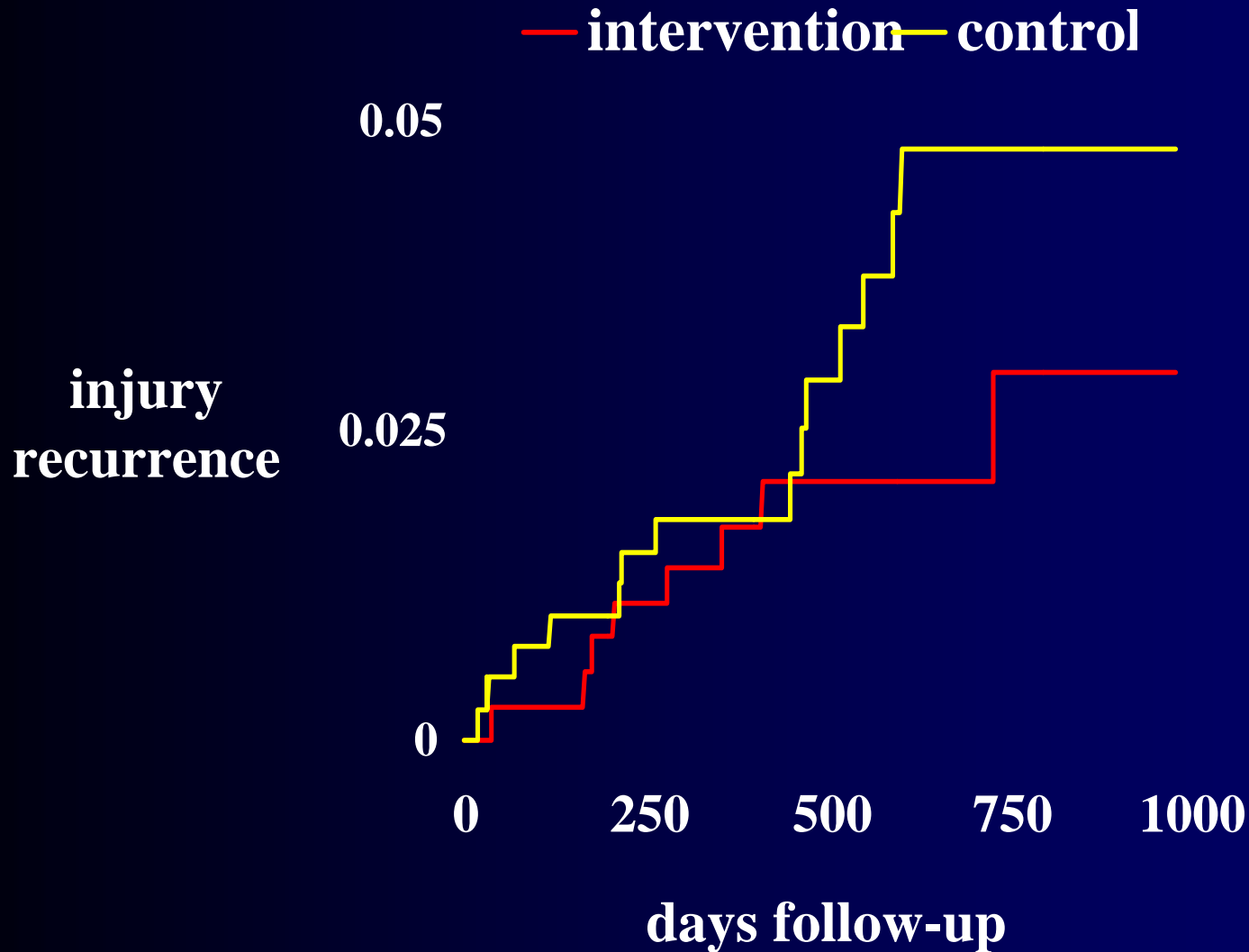
Baseline Characteristics

	intervention	control
Age (years)	35.4	36.8
male	82	82
married	15%	14%
high school or less	53%	51%
employed	52%	48%
drug use	47%	53%
BAC (mean)	153 mg%	151 mg%
sMAST score >8	20%	15%

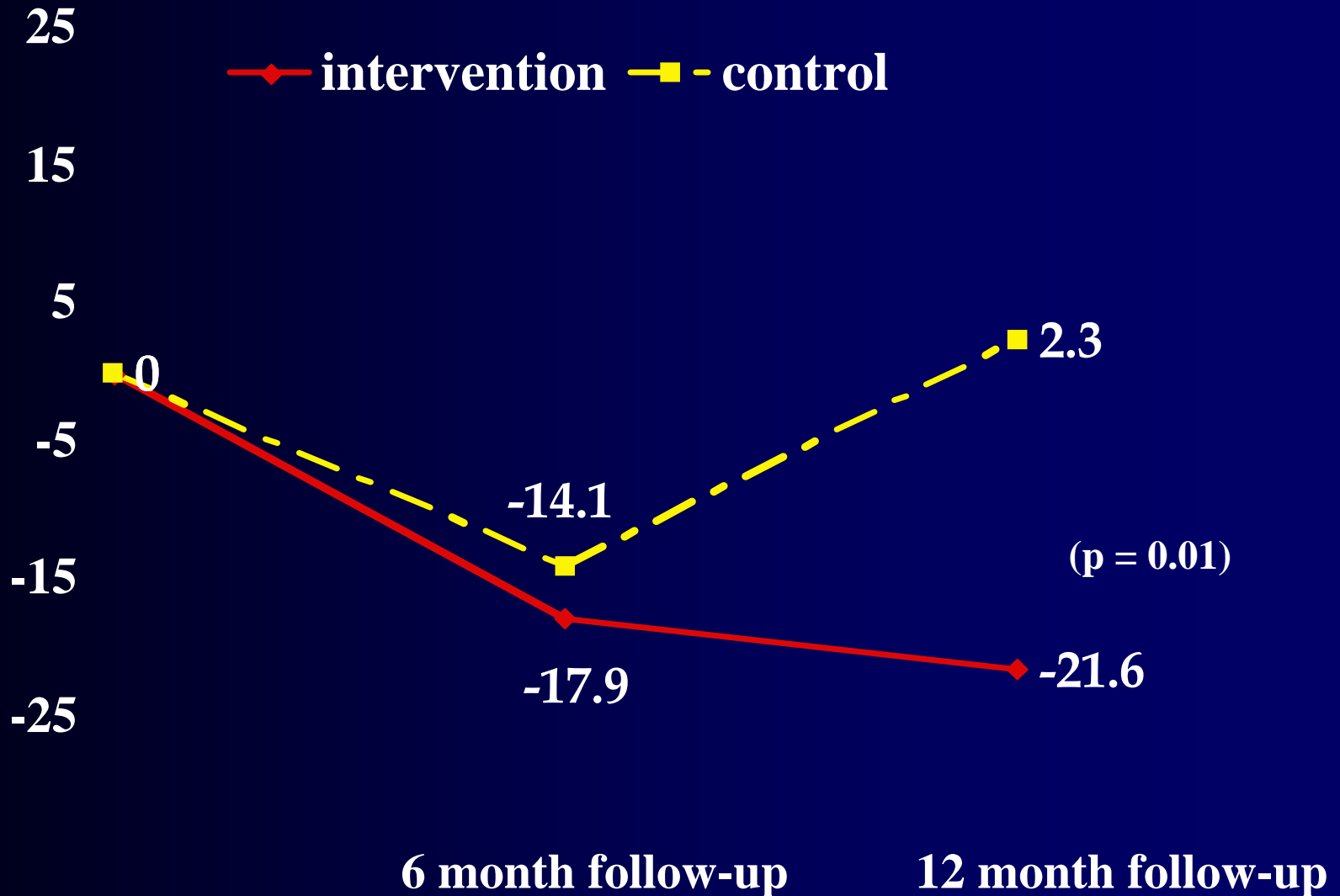
Trauma Recidivism - HMC



Trauma Recidivism - Statewide



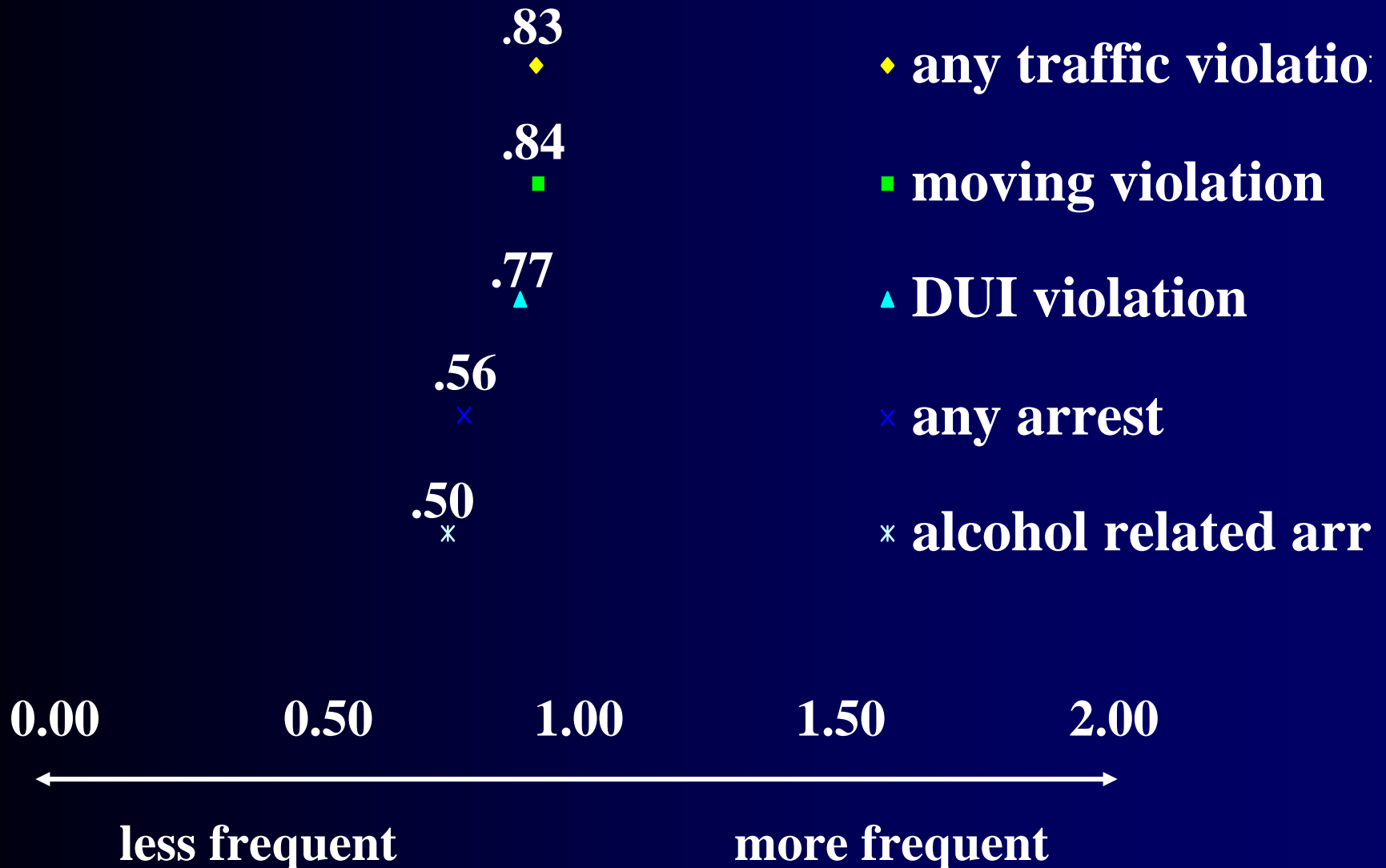
Changes in Alcohol Intake



Changes in Alcohol Use at One Year

	Intervention	Control	p
sMAST 3-8	- 22	+ 2	0.01
Single/div/wid	- 22	- 3	0.01
Married	- 25	- 21	0.81
Unemployed	- 26	- 1	0.03
Employed	- 18	- 13	0.51
Prior ETOH Rx	- 32	- 12.5	0.15
No Prior ETOH Rx	- 16	+ 16	< 0.01

Other Outcomes



Alcohol Interventions for Trauma Patients Treated in Emergency Departments and Hospitals

A Cost Benefit Analysis

Larry M. Gentilello, MD,* Beth E. Ebel, MD, MPH,†|| Thomas M. Wickizer, MPH, PhD,‡
David S. Salkever, PhD,§ and Frederick P. Rivara, MD, MPH†||

Objective: To determine if brief alcohol interventions in trauma centers reduce health care costs.

Summary Background Data: Alcohol-use disorders are the leading cause of injury. Brief interventions in trauma patients reduce subsequent alcohol intake and injury recidivism but have not yet been widely implemented.

Methods: This was a cost-benefit analysis. The study population consisted of injured patients treated in an emergency department or admitted to a hospital. The analysis was restricted to direct injury-related medical costs only so that it would be most meaningful to hospitals, insurers, and government agencies responsible for health care costs. Underlying assumptions used to arrive at future benefits, including costs, injury rates, and intervention effectiveness, were derived from published nationwide databases, epidemiologic, and clinical trial data. Model parameters were examined with 1-way sensitivity analyses, and the cost-benefit ratio was calculated. Monte Carlo analysis was used to determine the strategy-selection confidence intervals.

Results: An estimated 27% of all injured adult patients are candidates for a brief alcohol intervention. The net cost savings of the intervention was \$89 per patient screened, or \$330 for each patient offered an intervention. The benefit in reduced health expenditures resulted in savings of \$3.81 for every \$1.00 spent on screening and intervention. This finding was robust to various assumptions regard-

ing probability of accepting an intervention, cost of screening and intervention, and risk of injury recidivism. Monte Carlo simulations found that offering a brief intervention would save health care costs in 91.5% of simulated runs. If interventions were routinely offered to eligible injured adult patients nationwide, the potential net savings could approach \$1.82 billion annually.

Conclusions: Screening and brief intervention for alcohol problems in trauma patients is cost-effective and should be routinely implemented.

(*Ann Surg* 2005;241: 541–550)

Alcohol intoxication is the leading risk factor for injury.^{1–3} As a result, it offers the most promising and obvious target for injury-prevention programs. Brief alcohol interventions in trauma patients have been shown to reduce subsequent alcohol intake and injury recidivism.^{4–8} Given accumulating evidence to support their use, a variety of expert and consensus group panels have concluded that the scientific basis for their routine provision in hospitals and emergency departments has been established, and it is time to move towards national implementation.^{7,9–16}





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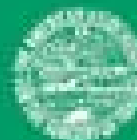


**Alcohol and Other Drug Problems
Among Hospitalized Trauma Patients:**

**Controlling Complications, Mortality,
and Trauma Recidivism**

Conference Proceedings, Arlington, Virginia

American Association for the Surgery of Trauma
Eastern Association for the Surgery of Trauma
Trauma Association of Canada/L'Association
Canadienne de Traumatologie
Western Trauma Association



www.jtrauma.com

Trauma Center Requirements

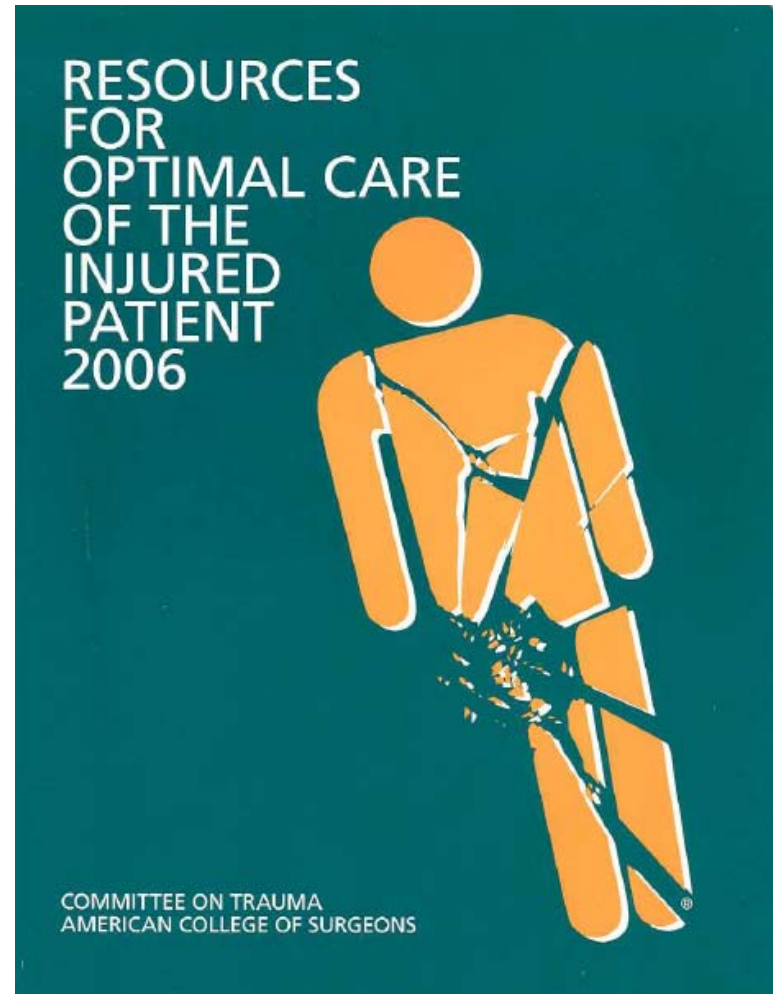
- Physical therapy
- Occupational therapy
- Vocational therapy
- Speech therapy
- Spinal chord therapy
- Nutritional therapy
- Play therapy
- *Alcohol therapy?*

Trauma Center Designation

Chapter 18- Prevention

The trauma center must have a mechanism to identify patients who are problem drinkers.

The trauma center must have a mechanism to provide an intervention for patients identified as problem drinkers.



Denver, Colorado: April 12, 2007
Denver Health Medical Center Rita Bass Auditorium

Tentative upcoming sessions:

Dallas, Texas: May 2007
Date and location to be determined

Chicago, Illinois: June 5, 2007
Location to be determined

Washington, D.C.: June 2007
Date and location to be determined

Boston, Massachusetts: June or July 2007
Date and location to be determined

San Diego, California: July 2007
Date and location to be determined

Philadelphia, Pennsylvania: August 2007
Date and Location to be determined

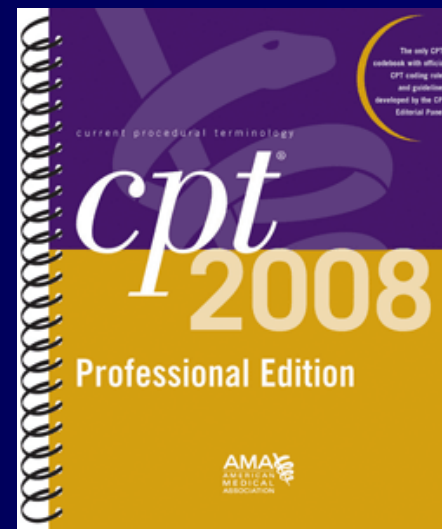
Atlanta, Georgia: September 2007
Date and location to be determined

Las Vegas, Nevada: September 2007
American Association for the Surgery of Trauma Annual Meeting

2008 CPT

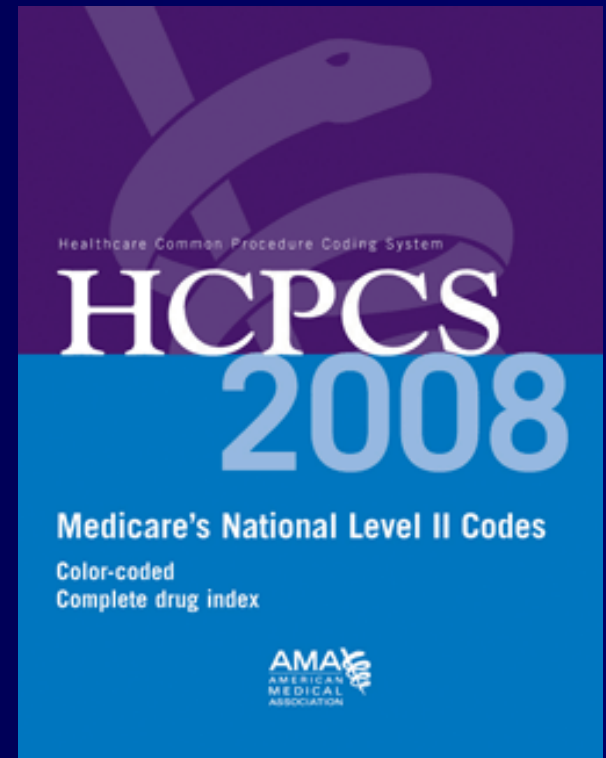
Common Procedure Terminology

- **New billing codes published in 2008 CPT Manual**
 - **99408**
 - **Alcohol and/or substance use structured screening (eg, AUDIT, DAST), and brief intervention (SBI) services; 15 to 30 minutes**
 - **99409**
 - **greater than 30 minutes**
- **Separate or added service**
- **Majority of major commercial health plans agree to pay in 2008**



New CMS Codes for SBI

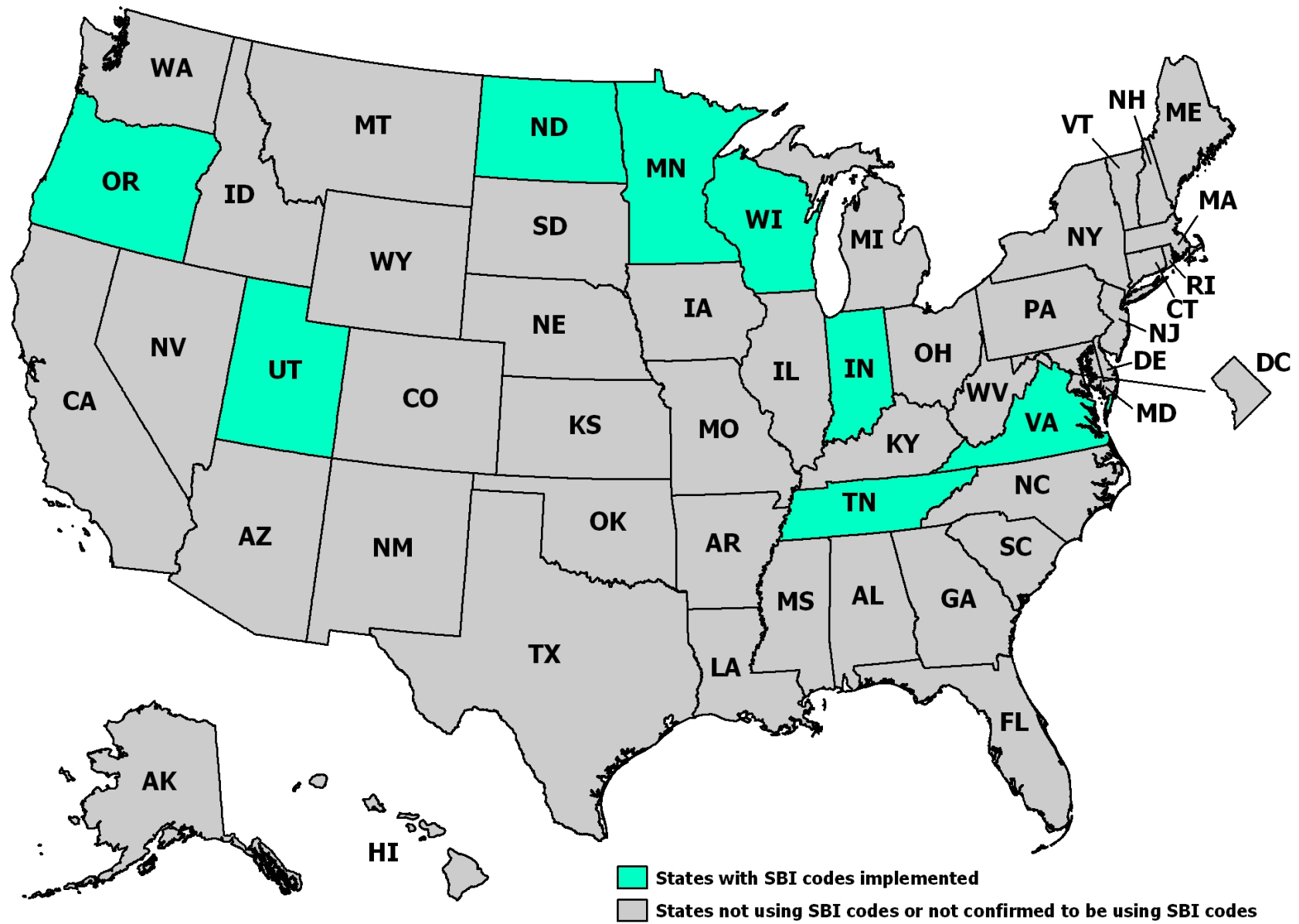
- **New codes Medicaid codes**
 - **H0049 Screening**
 - **H0050 Brief Intervention**
- **New Medicare codes**
 - **G0396 SBI > 15 minutes**
 - **G0397 SBI > 30 minutes**
 - **Pays provider and clinic/hospital**



Reimbursement for SBI

Payer	Code	Description	Fee Schedule
Commercial Insurance	CPT 99408	Alcohol and/or drug use structured screening and brief intervention services; 15-30 minutes	\$33.41
	CPT 99409	Alcohol and/or drug use structured screening and brief intervention services; greater than 30 minutes	\$65.51
Medicare	G 0396	Alcohol and/or drug use structured screening and brief intervention services; 15-30 minutes	\$29.42
	G 0397	Alcohol and/or drug use structured screening and brief intervention services; greater than 30 minutes	\$57.69
Medicaid	H 0049	Alcohol and/or drug screening	\$24
	H 0050	Alcohol and/or drug service, brief intervention, per 15 minutes	\$48.00

States that Have Implemented Screening and Brief Intervention Reimbursement Codes For Medicaid



States with SBI codes implemented
States not using SBI codes or not confirmed to be using SBI codes

Source: SAMHSA, ONDCP - April, 2008

Joint Commission Undertakes Development of Standards for SBI

To further advance the expansion of the continuum of healthcare to include SBI, the Joint Commission on Accreditation of Healthcare Organizations (Joint Commission) has decided to undertake the development of standards for screening and brief intervention for alcohol and other drugs. The Joint Commission standards are generally developed with input from healthcare professionals, providers, measurement experts, consumers, government agencies and employers. As such, because of your expertise on SBI, you are being asked to collaborate with the Joint Commission in the development of standards and quality improvement for SBI.

Summary

- **Injuries are the leading cause of death in your patients**
- **the scientific basis for screening and intervention in trauma centers is well established**
- **Trauma surgeons are the first specialty to require SBI**
- **billing codes are currently available**