

# The Evolution of American College of Surgeons Alcohol SBI Mandates

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Funded by NIAAA R01 01602

# Overview

- American College of Surgeons has mandated alcohol SBI
- DO-SBIS study In the wake of the mandate
  - ~~m~~ Screening & intervention
  - BAC laboratory testing dominates screening
- Consistent with population impact  
implementation science conceptual framework

# U.S. Trauma Centers



# Background: American College of Surgeons “Make it Happen” Implementation Science Framework (Greenhalgh et al 2004)

- College tightly regulates centers
- Mandates linked to verification site visits performed by the college
- Verification linked to trauma center accreditation and funding
- Example: Patient Protection & Affordable Care Act

# Patient Protection & Affordable Care Act: Trauma Centers

## An Act

Entitled The Patient Protection and Affordable Care Act.

H. R. 3590—404

### SEC. 3505. TRAUMA CARE CENTERS AND SERVICE AVAILABILITY.

#### (a) TRAUMA CARE CENTERS.—

(1) GRANTS FOR TRAUMA CARE CENTERS.—Section 1241 of the Public Health Service Act (42 U.S.C. 300d–41) is amended by striking subsections (a) and (b) and inserting the following:

.....

“(5) DESIGNATION.—The Secretary may not award a grant to a trauma center unless such trauma center is verified by the American College of Surgeons or designated by an equivalent State or local agency.

.....

“(b) TRAUMA CARE REGISTRY.—The Secretary may require the trauma center receiving a grant under section 1241(a) to provide data to a national and centralized registry of trauma cases, in accordance with guidelines developed by the American College of Surgeons, and as the Secretary may otherwise require.”.

# Patient Protection & Affordable Care Act Funding Linked to Verification

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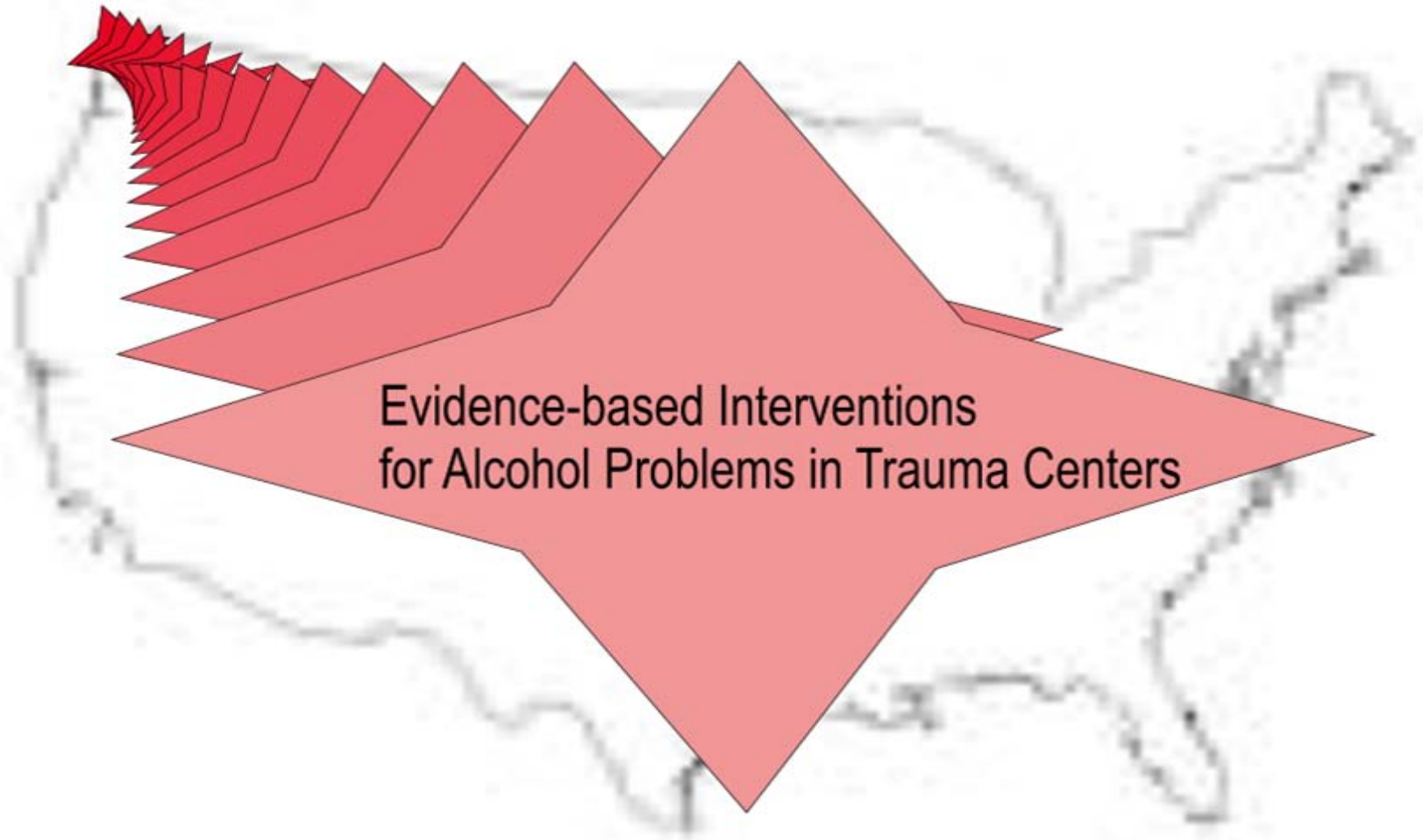
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## Verification Site Visit Deficiency Criteria

“The trauma center does not have a mechanism to identify patients who are problem drinkers.”

“The trauma center does not have the capability to provide intervention or referral for patients identified as problem drinkers.”

# Disseminating Organizational Screening & Brief Interventions (DO-SBIS)





# DO-SBIS Phases I & II

- Phase I nationwide survey
  - Survey 1 Pre-mandate 2006-07  
(N = 204 >70% response)
  - Survey 2 Post-mandate 2008-09  
(N = 202 >70% response)
  - Survey 3 Ongoing
- Phase II Trauma Center Cluster RCT - Ongoing
  - 20 trauma center sites randomized
  - Optimal SBI training vs. “mandate as usual”
  - 875 alcohol SBI patients recruited
  - 76% six month & 70% 12 month follow-up to date

# DO-SBIS Nationwide Surveys: Comparing Pre- & Post- Mandate Alcohol SBI Practice

## Institution routinely performs:

	Pre-Mandate	Post-Mandate	P-value
Lab Test	72%	68%	ns
Questionnaire Screen	40%	57%	<0.001

# DO-SBIS Nationwide Surveys: Comparing Pre- & Post- Mandate Alcohol SBI Practice

## Percent of Injured Patients at Each Trauma Center Receiving:

	Pre-Mandate	Post-Mandate	P-value
Lab Test	56%	63%	ns
Questionnaire Screen	41%	64%	<0.01

# DO-SBIS Nationwide Surveys: Comparing Pre- & Post- Mandate Alcohol Intervention

## Activities When Patient Screens Positive:

	Pre-Mandate	Post-Mandate
Formal Consult	19%	47%
Informal Discussion	77%	50%
Nothing	4%	3%

*P* < 0.01

# Implementation Science Perspectives on Pre- & Post-Mandate Alcohol SBI

- Alcohol SBI Population Impact =  
Reach X Treatment Effect
- Laboratory testing at trauma  
centers may be associated with  
greater SBI “Reach”

# Summary

- Trauma centers highly regulated
  - “Make it happen” implementation framework
- American College of Surgeons has mandated alcohol SBI
- DO-SBIS study documents:
  - ~~re~~screening & intervention post-mandate
  - BAC laboratory test majority of screening
- Reliance on laboratory test consistent with population impact conceptual framework



# Alcohol and Drug Co-morbidity Among Survivors of Physical Injuries Receiving Mandated Screening and Brief Intervention at a Level I Trauma Center

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Funded by NIAAA & NIMH R01 Grants



# Overview

- Real world Harborview level I trauma center study of mandated alcohol SBI
  - Alcohol & drugs highly co-morbid
  - Drug co-morbidity “A fact of life” for mandated SBI
  - Population-based automated screening feasible
- Next steps? American College of Surgeons clinical practice guidelines for drug co-morbidities

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## Prevention Chapter 18

“Alcohol is such a significant associated factor and contributor to injury that it is vital that trauma centers have a mechanism to identify patients who are problem drinkers.”

“In addition, level I centers must have the capability to provide an intervention for patients identified as problem drinkers.”

# Soderstrom et al., JAMA 1997

## Psychoactive Substance Use Disorders Among Seriously Injured Trauma Center Patients

Carl A. Soderstrom, MD; Gordon S. Smith, MD, MPH; Patricia C. Dischinger, PhD; David R. McDuff, MD; J. Richard Hebel, PhD; David A. Gorelick, MD, PhD; Timothy J. Kerns, MS; Shiu M. Ho, MA; Kathleen M. Read, MSW

**Objective.**—To assess the prevalence of psychoactive substance use disorders (PSUDs) among a large, unselected group of seriously injured trauma center patients, using a standardized diagnostic interview and criteria.

“ALCOHOL and its problems have been around for as long as history has been recorded.”<sup>1</sup> One of those major prob-

# Soderstrom et al JAMA 1997

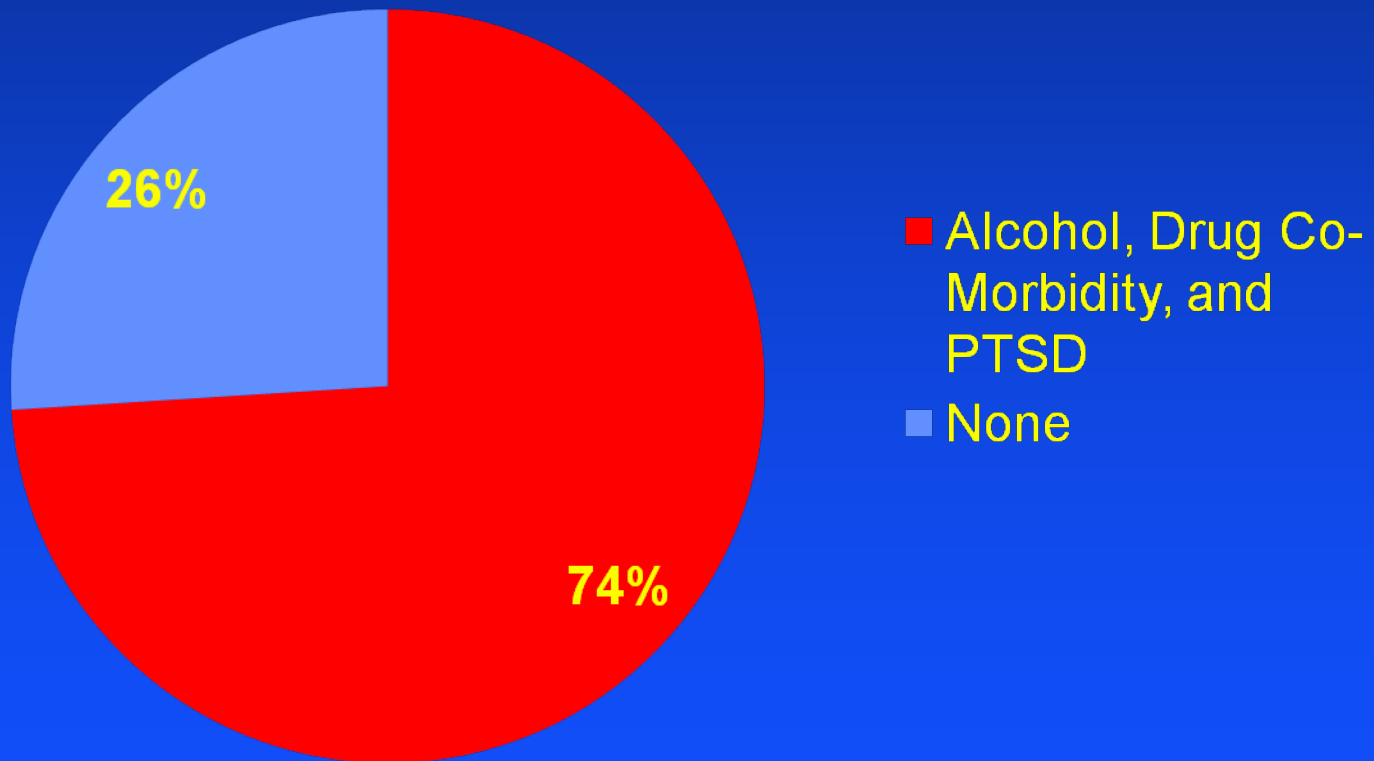
- 54% Lifetime Alcohol and/or Drug Abuse/Dependence
- 28% Lifetime Drug Dependence
  - 16% Stimulants
  - 15% MJ
  - 14% Opiates

# How do Co-morbid Drugs of Abuse Factor into Mandated Alcohol SBI ? A Real World Investigation

# Harborview Clinical Epidemiologic Study of Alcohol SBI & Drug Co-Morbidity

- Study occurs after alcohol mandate
- Random sample of 878 injured trauma center inpatients
- Alcohol BAC laboratory screen
- Urn tox & single item drug screen
  - Opiates
  - Stimulants
  - Marijuana
- PTSD also assessed

# Frequency of Alcohol, Drug Co-Morbidity, and PTSD in Injured Trauma Patients (N=878)

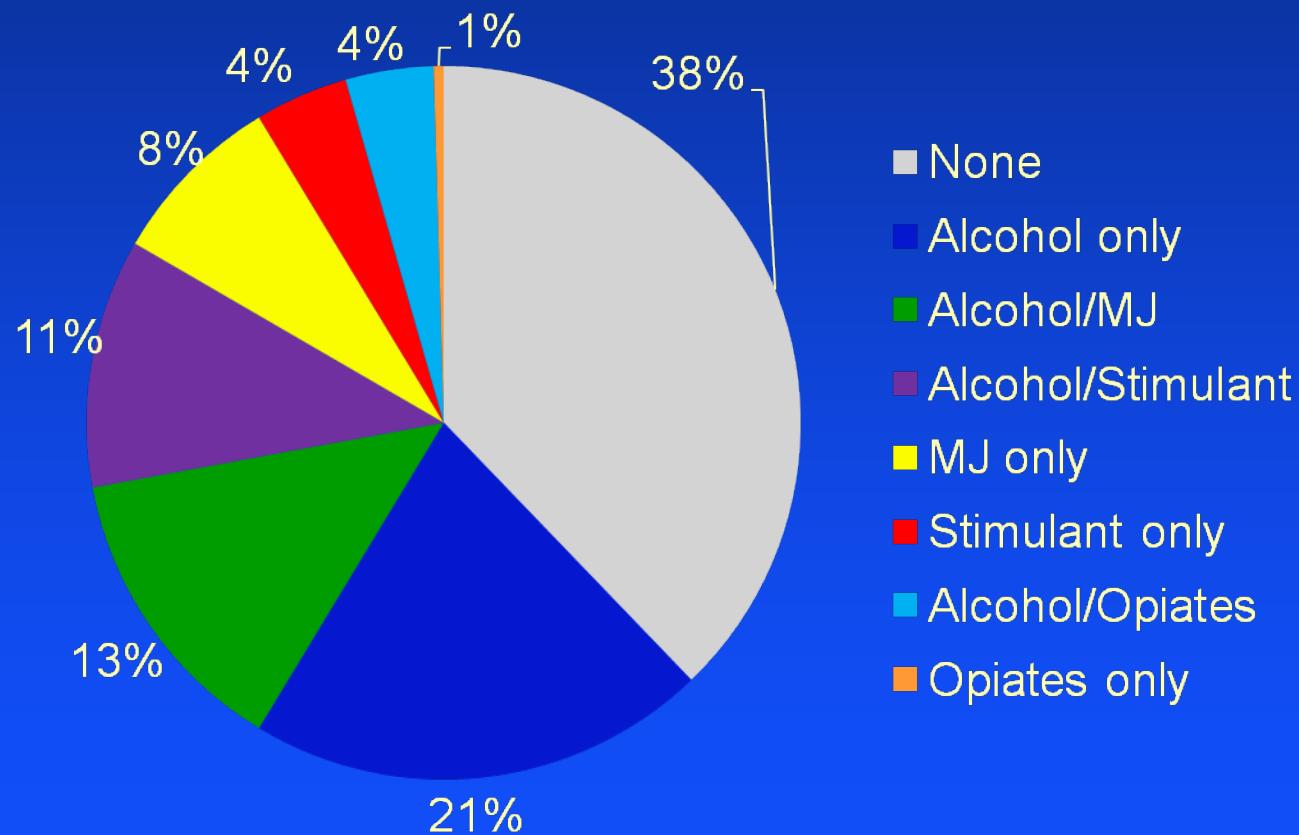


# Harborview Addiction Intervention Service Mandated Alcohol SBI

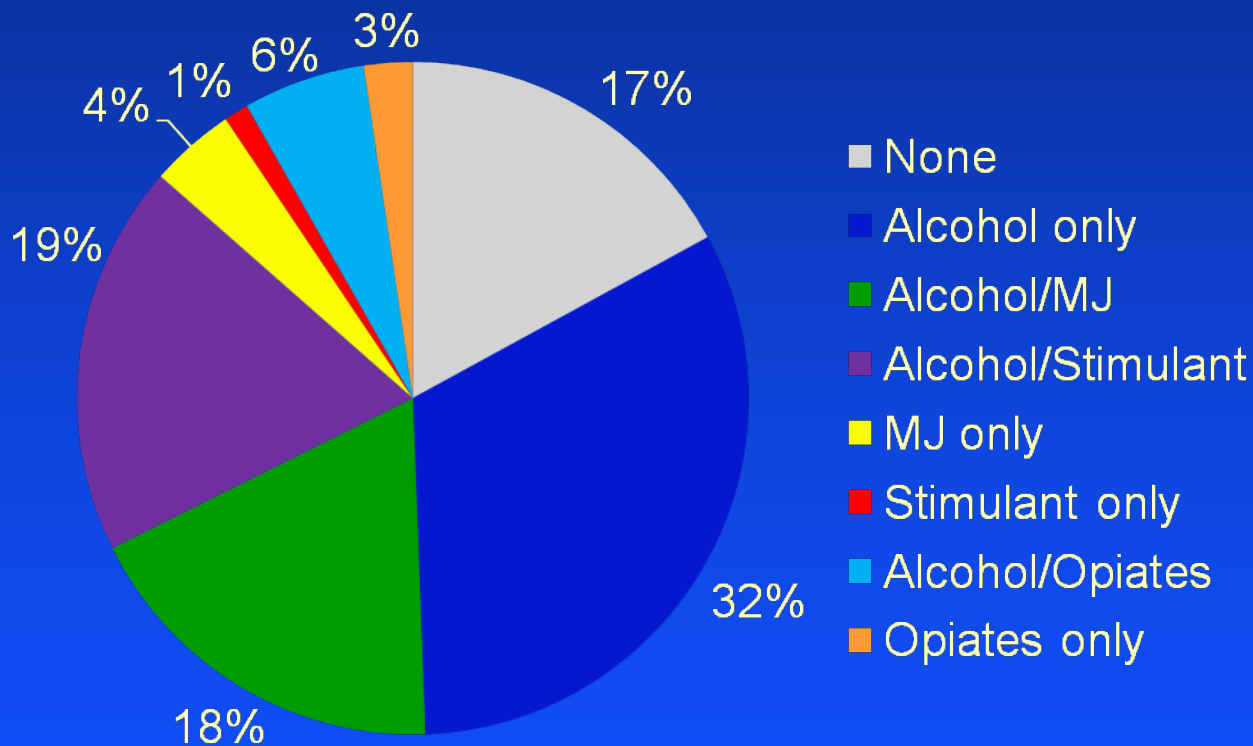
- Service begun in 1999
- Chris Dunn PhD full time
- Population-based automated screen
  - BAC for all hospitalized patients
  - Alcohol & drug ICD-9 codes
- Bedside brief MI for screen positives



# Harborview Alcohol & Drug Co-Morbidity (N = 878)



# Harborview Addiction Intervention Service Alcohol & Drug Co-Morbidity (N =166)



# Predicting Mandated SBI: BAC + (N =878, RR = Adjusted Relative Risk)

	<b>BAC +</b>	<b><u>RR</u></b>	<b><u>95% CI</u></b>
SBI No	19%	-----	-----
SBI Yes	71%	4.99,	3.56, 6.99

# Predicting Mandated SBI: Substance Related ICD-9+ (N =878: RR = Adjusted Relative Risk)

	<b>ICD-9+</b>	<b><u>RR</u></b>	<b><u>95% CI</u></b>
SBI No	31%	-----	-----
SBI Yes	69%	1.88,	1.37, 2.59

# Integrating Trauma Center Policy & Practice: May 2011 American College of Surgeons Summit

- What to do in the absence of RCT data on drug SBI?
- Drug co-morbidity a “Fact of life” for mandated alcohol SBI
- Best practice recommendation May 2011 ACS/COT Policy Summit:

# Preliminary Drug SBI Guideline

Epidemiologic data suggests high rates of problematic drug use among trauma patients that screen positive for alcohol use problems. Best practices include implementing screening procedures that capture drug use co-morbidity and acute brief interventions and subsequent appropriate treatment referral. The incorporation of routine screening and trauma center based intervention for drugs of abuse is an area that could benefit from the ongoing integration of emerging data and evolving expert opinion.

# Disseminating Organizational Screening & Brief Interventions (DO-SBIS)

