

Substance use-related brief interventions with emergency department patients reduce mental health co-morbidities

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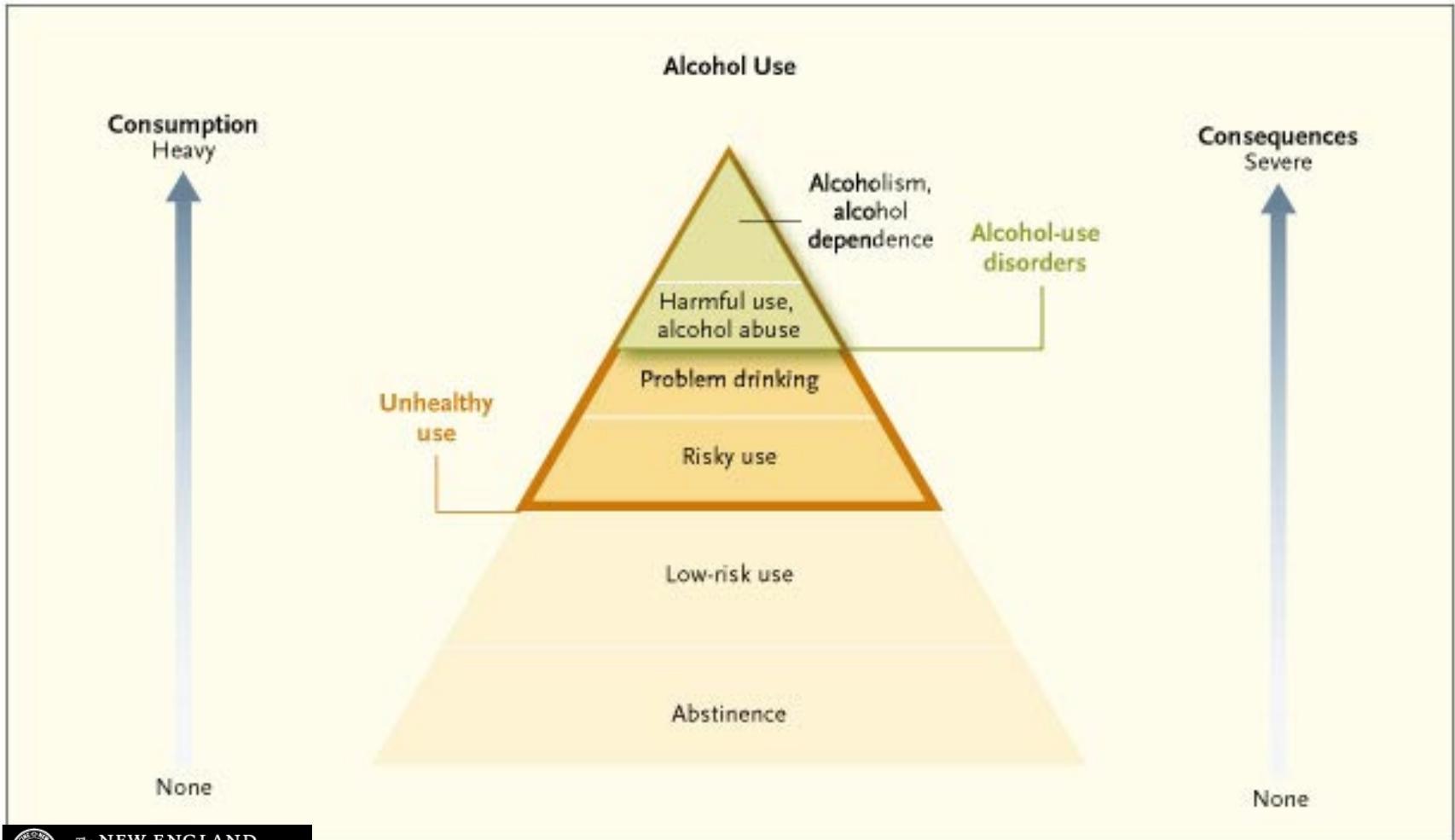
Efforts to improve access to Behavioral Health

- Mental Health and Addiction Parity Act of 2008
 - prevents health insurance plans that provide mental health or substance use disorder benefits from imposing benefit limitations that are less favorable than medical/surgical benefits.
- Affordable Care Act – 2010
 - Makes mental health and substance use disorder an Essential Health Benefit for non-grandfathered insurance plans
 - Emphasizes preventive services (alcohol screening)
 - Incentives for integrated care (e.g. PCMH)

Funding Agencies Respond

- Substance Abuse and Mental Health Services Administration
 - 4 rounds of screening and brief intervention services grants – 2003, 2008, 2011, 2013
 - 3 rounds of training grants for medical professionals – 2008, 2013, 2015
- National Institute on Drug Abuse
 - Request for applications for Clinical Trials Network
 - “Evaluate treatment interventions for the management of a broader spectrum of SUD in general medical settings” – RFA-DA-15-008

Unhealthy Alcohol (and other drug) Use



What is Screening?

- Universal
- Brief
 - Ask permission
- Separates everyone into two categories
 - Higher risk
 - Lower risk



“Do you sometimes drink beer, wine or other alcoholic beverages?”

“Yes”

“How many times in the past year have you had 4 or more drinks in a day?”

“Oh, about once a week or so.”

What is Brief Intervention?

- 10-15 mins, empathic
- Feedback
 - Ask permission
 - Ask what patient thinks of it
- Decisional Balance
- Goal setting
 - Negotiate
 - Menu of options
 - Support self-efficacy
- Follow-up



“You are drinking more than is safe for your health.”

“What do you think? Are you willing to consider making changes?”



Example of an intervention

BNI Example

Is this an evidence-based
practice?

ALCOHOL BI VS. NO BI

(among primary care patients who screen + for risky use)

- ≥ 22 original RCTs, 8 systematic reviews
 - Lower proportion of drinkers of risky amounts (n=2784)
 - 57% vs. 69% at 1 year
 - Lower consumption (n=5639)
 - by 15% (38 grams per week)
- Decreased hospital utilization (≥ 2 RCTs)
- Cost-effective (spend \$166, save \$546 medical)
- 4 RCTs (n=1640), BI decreased mortality

Kaner et al. Drug and Alcohol Review 2009;28:301–23

Beich et al. BMJ 2003;327:536

Bertholet et al. Arch Intern Med. 2005;165:986

Kristenson H, et al. Alcohol Clin Exp Res 1983;7:203

Fleming MF et al. Alcohol Clin Exp Res. 2002;26(1):36-43.

Cuijpers et al. Addiction 2004;99: 839–845

Emergency Departments?

- MAIN RESULT: Mixed
 - 2 systematic reviews = most studies find no impact on drinking
 - Nilssen et al, injured patients
 - 6/11 studies—no difference in drinking
 - Mixed effects on other outcomes
 - Havard et al, injured and non-injured patients
 - 11 studies (n=1174)—no difference in drinking
 - 3 studies (n=785)—decreased injuries (OR 0.59)
 - Two later RCTs
 - 2008: risky use or alcohol+injury, n=500, no effect
 - 2012: risky use, n=899, BI reduced drinking, driving & drinking

Nilssen P et al. J Subst Abuse Treat. 2008; 35:184-201

Havard A et al. Addiction 2008; 103:368-76

D'Onofrio G et al. Ann Emerg Med. 2008; 51(6):742-750

D'Onofrio G et al. Ann Emerg Med 2012

Georgia is recipient of 2008 Grant

- State services grants
- Initiative of Substance Abuse and Mental Health Services Administration (SAMHSA)
 - Cooperative agreements with states (4 cohorts, 20+ projects to date)
 - Purpose: to implement screening and brief intervention for unhealthy alcohol and/or drug use in medical settings
 - Demonstration projects intended to show effectiveness and sustain beyond grant period

Georgia BASICS

- Overview
 - Routine screening for risky drinking, substance use
 - 10-15 minute intervention using motivational interviewing techniques
 - Availability of alternatives incl. additional therapy, referral to treatment
- Settings
 - Grady Health System (Atlanta)
 - Medical Center of Central Georgia (Macon)



BI = Brief Intervention
BT = Brief Therapy
RT = Referral to Treatment

Nurse

**Patient
Enters ED**

**3 Question
Prescreen:
25% Positive**

Health Educators

**60% of positive
prescreens
receive ASSIST
Full Screen**

**32%
Screening
Feedback**

**54% Lower Risk
BI**

**7%
Moderate
Risk
BI + BT**

**7% High
Risk
BI+ RT**



10% Sample enrolled For 6 month Follow Up

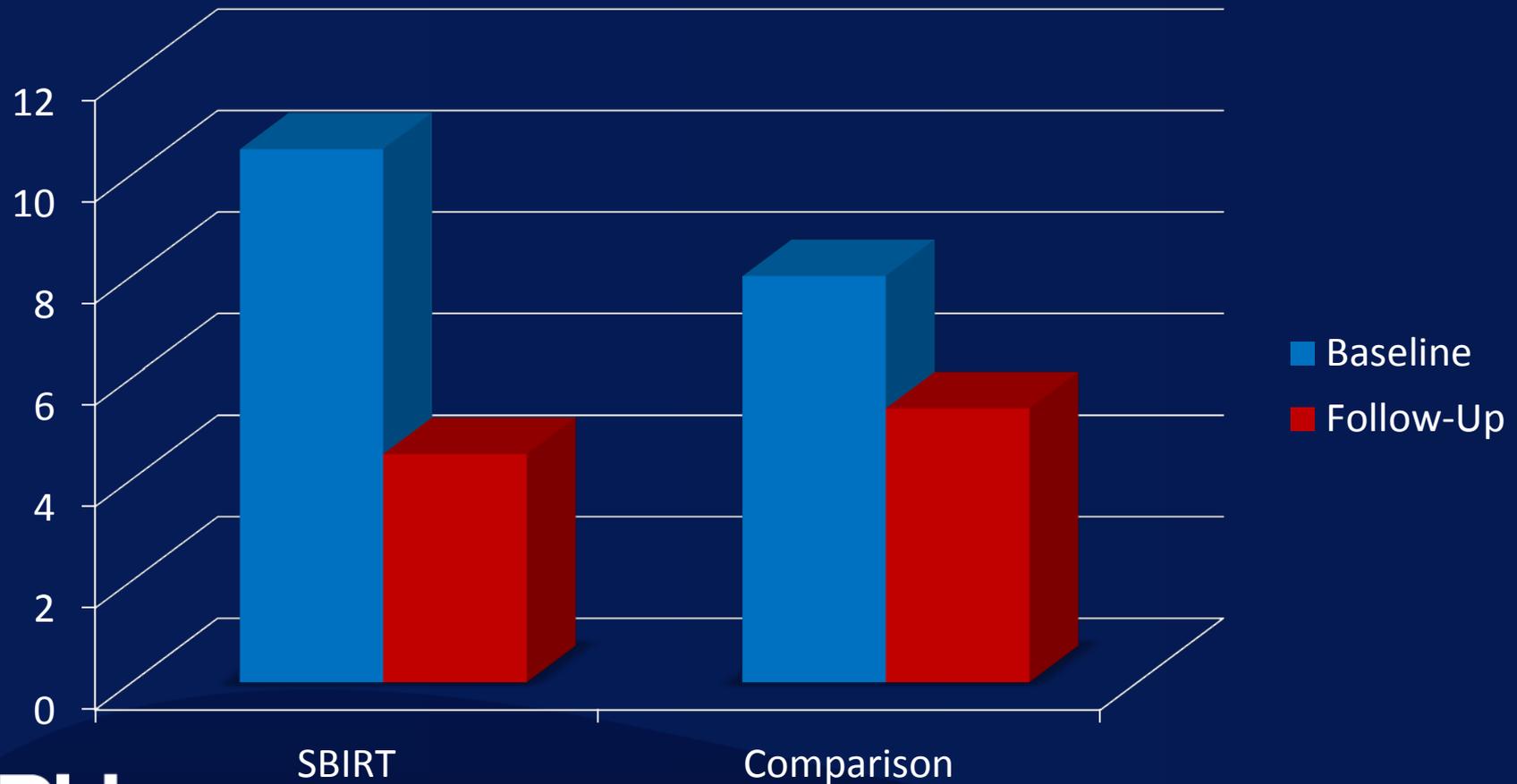
Georgia BASICS: Services Provided

| | Services Provided | Enrolled in Study (Tx sample) |
|--------------------------|-------------------|-------------------------------|
| Screening/Feedback | 154,429 | --- |
| Brief Intervention (BI) | 21,193 | 775 |
| BI + Brief Therapy (BT) | 2,790 | 167 |
| BI + Referral to Tx (RT) | 3,176 | 226 |
| Total | 181,588 | 1,170 |

* Note: Pts. enrolled in study via random selection from those receiving services.

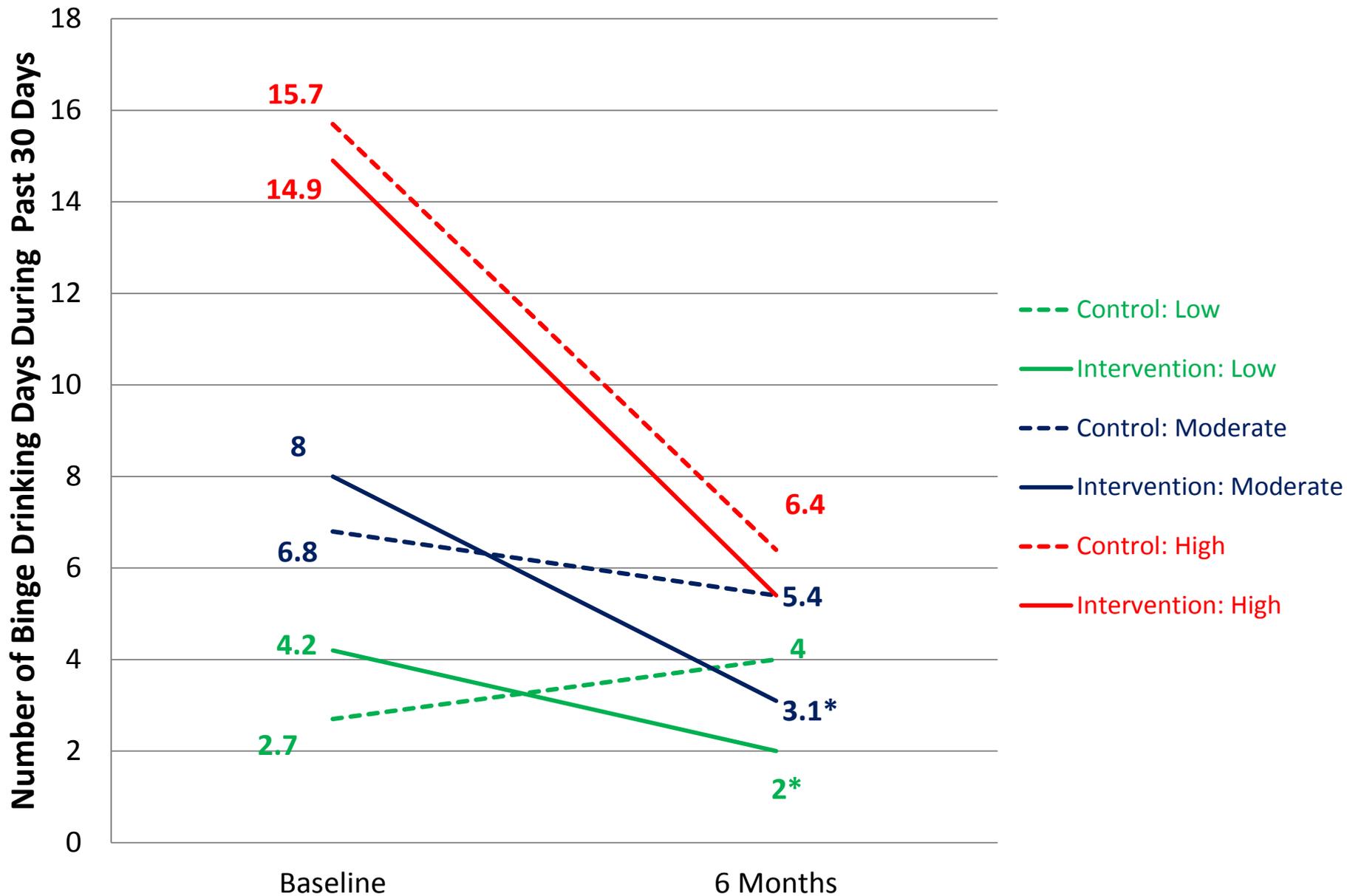
Days of Alcohol Use

Brief Intervention vs. Comparisons





Change in Binge Drinking Days by ASSIST Risk Level



Could brief intervention impact other outcomes?

- Mental Health
- Physical Health
- Sexual risk-taking
- Healthcare Utilization
 - Emergency Department visits
 - Inpatient admissions
- Employment
- Criminal Justice Involvement

Research Question

- Does SBI focused on reducing alcohol or drug use impact patients' mental health status at six month follow-up?

Background

- Mental health co-morbidities often accompany unhealthy alcohol and drug use
- Particularly high prevalence of co-morbidity among persons seeking treatment in emergency departments
- Few studies have examined the impact of SBI on patient's mental health

Regier et al. JAMA. 1990

Jane-Llopis and Matytsina. Drug & Alc. Rev. 2006

Curran et al. Ann. of Em. Med. 2003

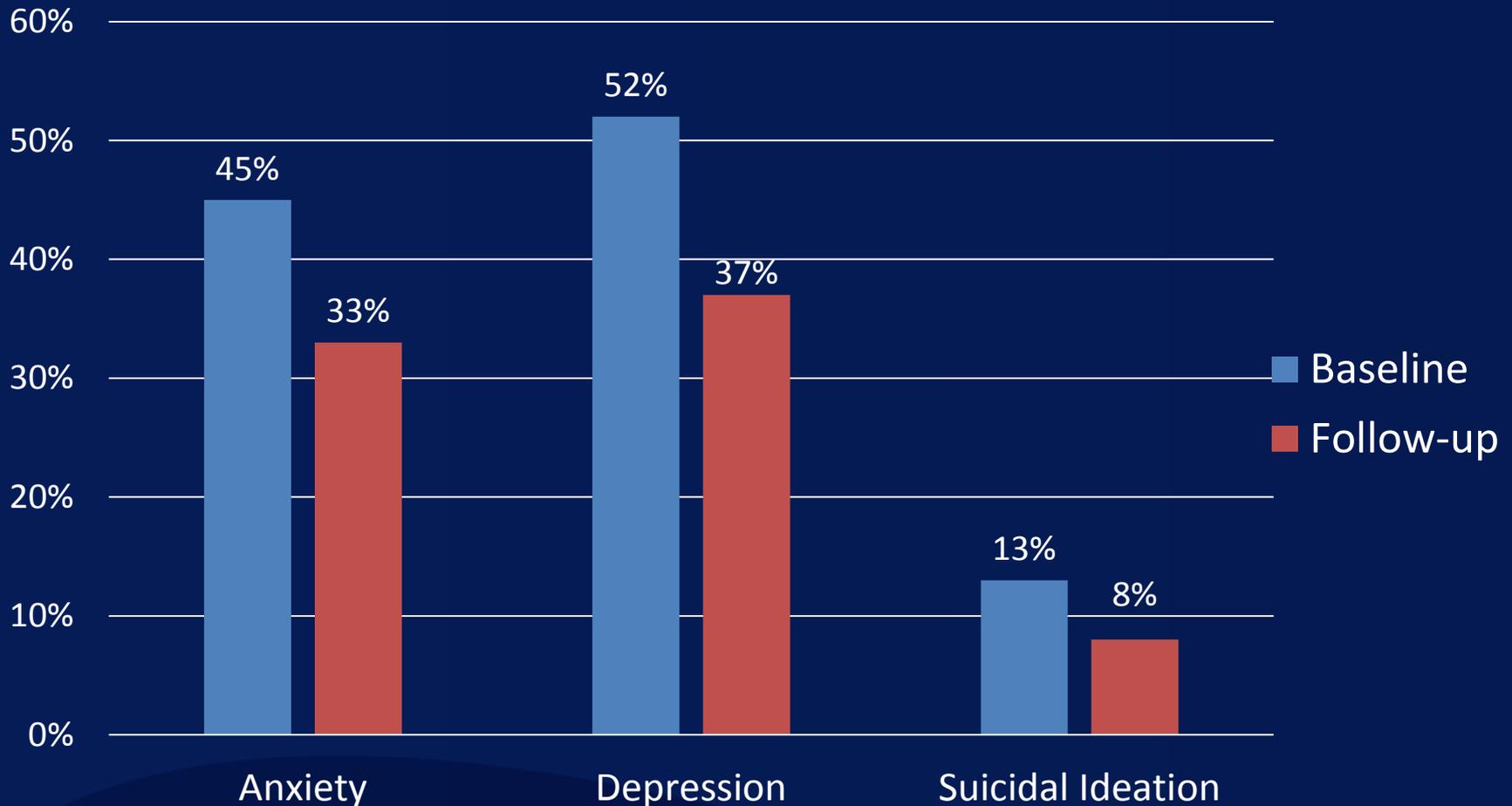
Methods

- 2 Urban Emergency Departments in Georgia
- Randomly sampled patients receiving SBI for at-risk alcohol or drug use (N=1170)
- Follow-up survey conducted by telephone 6 months post ED Visit (N=698)
- Analyses conducted using paired sample t-tests

Single-item Measures

- SAMHSA outcomes measures = In the past 30 days, NOT due to your use of alcohol or drugs, how many days have you
 - Experienced serious anxiety or tension
 - Experienced serious depression
- Global Assessment of Individual Needs – Short Screener (GAIN-SS)
 - “In the past 6 months have you had significant problems with thinking about ending your life or committing suicide?”

Percentage of patients experiencing symptoms in past 30 days



Validated Multi-item Measures

- Subscales from GAIN-SS (Yes/No responses)
 - More Yes responses = worse
 - Internalizing Disorders (5 items)
 - During the past 6 months, have you had significant problems with feeling trapped, lonely, sad, blue, depressed or hopeless about the future.
 - Externalizing Disorders (5 items)
 - “During the past 6 months, did you do the following things 2 or more times”
 - Lie or con to get things you wanted or to avoid having to do something
 - Been a bully or threatened other people
- Mental Health Subscale from SF-12
 - Weighted score – higher score = better mental health

Changes in global mental health measures

| | Baseline | Follow-up | p-value |
|-----------------------|----------|-----------|---------|
| SF12 Mental Health | 44.5561 | 47.6247 | <.001 |
| GAIN-SS Internalizing | 2.1526 | 1.5959 | <.001 |
| GAIN-SS Externalizing | 0.9706 | 0.6853 | <.001 |

Conclusion

Six months after receiving SBI for alcohol and drug use in an ED, several measures of participants' mental health showed significant improvement

Implications

Widespread implementation of SBI in Georgia's EDs has the potential to impact a broad array of public health concerns including reductions in alcohol use and improvements in mental health

Questions?

GAIN-SS Internalizing Disorder

- During the past 6 months, have you had significant problems . . .
 - with feeling very trapped, lonely, sad, blue, depressed or hopeless about the future?
 - with sleep trouble, such as bad dreams, sleeping restlessly or falling asleep during the day?
 - with feeling very anxious, nervous, tense, scared, panicked or like something bad was going to happen?
 - when something reminded you of the past, you became very distressed and upset?
 - with thinking about ending your life or committing suicide?

GAIN-SS Externalizing Disorder

- During the past 6 months, did you do the following things **two or more times**?
 - lie or con to get things you wanted or to avoid having to do something?
 - have a hard time paying attention at school, work or home?
 - have a hard time listening to instructions at school, work or home?
 - been a bully or threatened other people?
 - start fights with other people?