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This presentation is part of the Community Rounds Workshop Series

These sessions are provided monthly thanks to the University of Vermont Center on Rural Addiction, the Vermont Center on Behavior and Health, and a grant from the Health Services and Resources Administration.

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SBIRT for Unhealthy Alcohol Use: What Is It and Why Use It?

Gail Rose, PhD

Assistant Professor of Psychiatry, University of Vermont, Burlington, VT

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Outline

- Alcohol use in primary care
- Brief interventions defined
- Efficacy and Effectiveness
- SBIRT for other substance misuse
- Implications for practice

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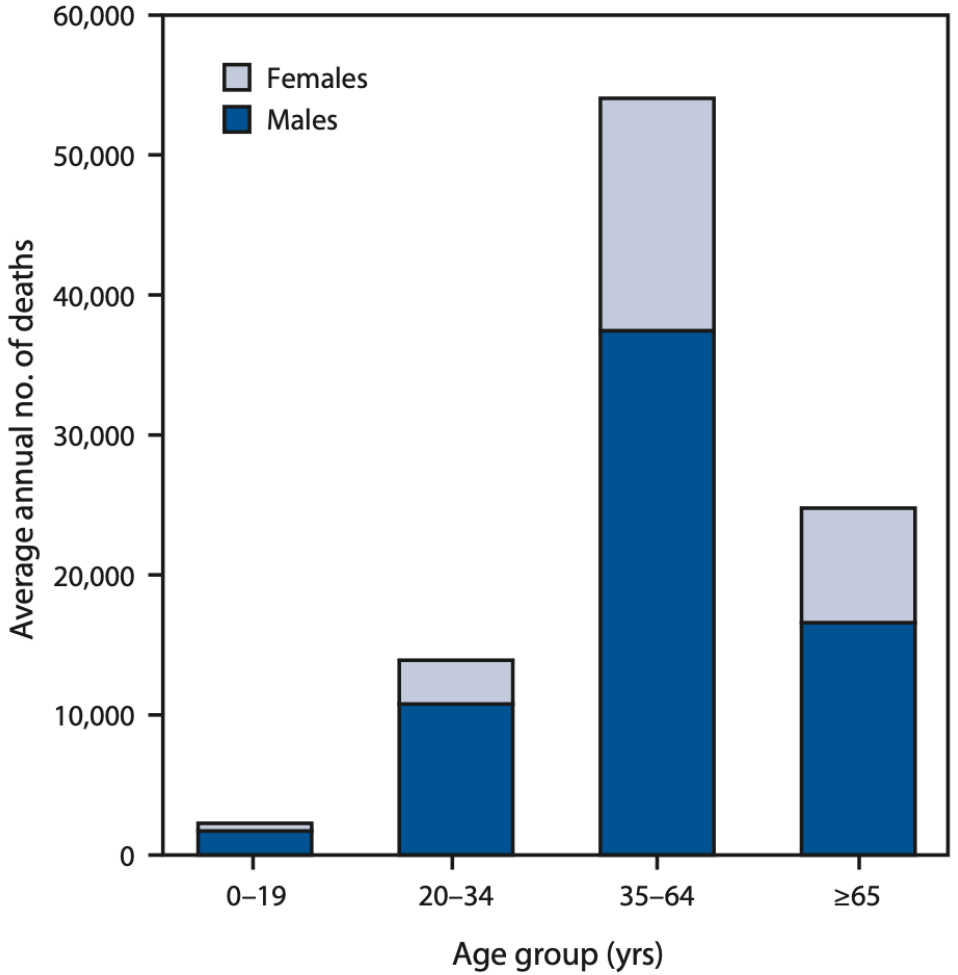
Excessive drinking is a leading cause of preventable death

FIGURE. Average annual number of deaths attributable to excessive alcohol use,* by sex and age group — United States, 2011–2015



Acute 45%

Chronic 55%

* In the Alcohol-Related Disease Impact application (https://www.cdc.gov/ARDI), deaths attributable to excessive alcohol use include deaths from 1) conditions that are 100% alcohol-attributable, 2) deaths caused by acute conditions that involved binge drinking, and 3) deaths caused by chronic conditions that involved medium (>1 to ≤2 drinks of alcohol [women] or >2 to ≤4 drinks [men]) or high (>2 drinks of alcohol [women] or >4 drinks [men]) levels of average daily alcohol consumption.

Figure reprinted from from *Morbidity and Mortality Weekly Report*, Centers for Disease Control and Prevention, July 31, 2020.

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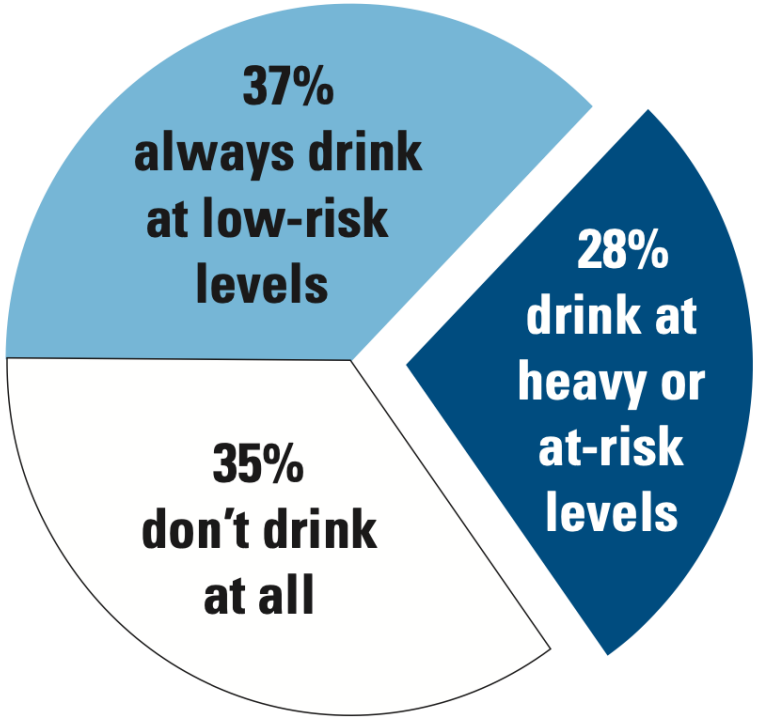
Prevalence of unhealthy drinking in Primary Care

Alcohol use by adults in the United States*

7 in 10 adults always drink at low-risk levels

or

do not drink at all



3 in 10 adults drink at levels that put them at risk for alcoholism, liver disease, and other problems

*Although the minimum legal drinking age in the U.S. is 21, this survey included people aged 18 or older.

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Terminology

Problem drinker

Light Drinker

Hazardous Drinker

Teetotaler

Risky drinker

Social drinker

Alcoholic

Binge Drinker

Alcohol Dependent

Closet drinker

Heavy Drinker

Occasional drinker

SENSIBLE DRINKER

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Spectrum of Alcohol Use

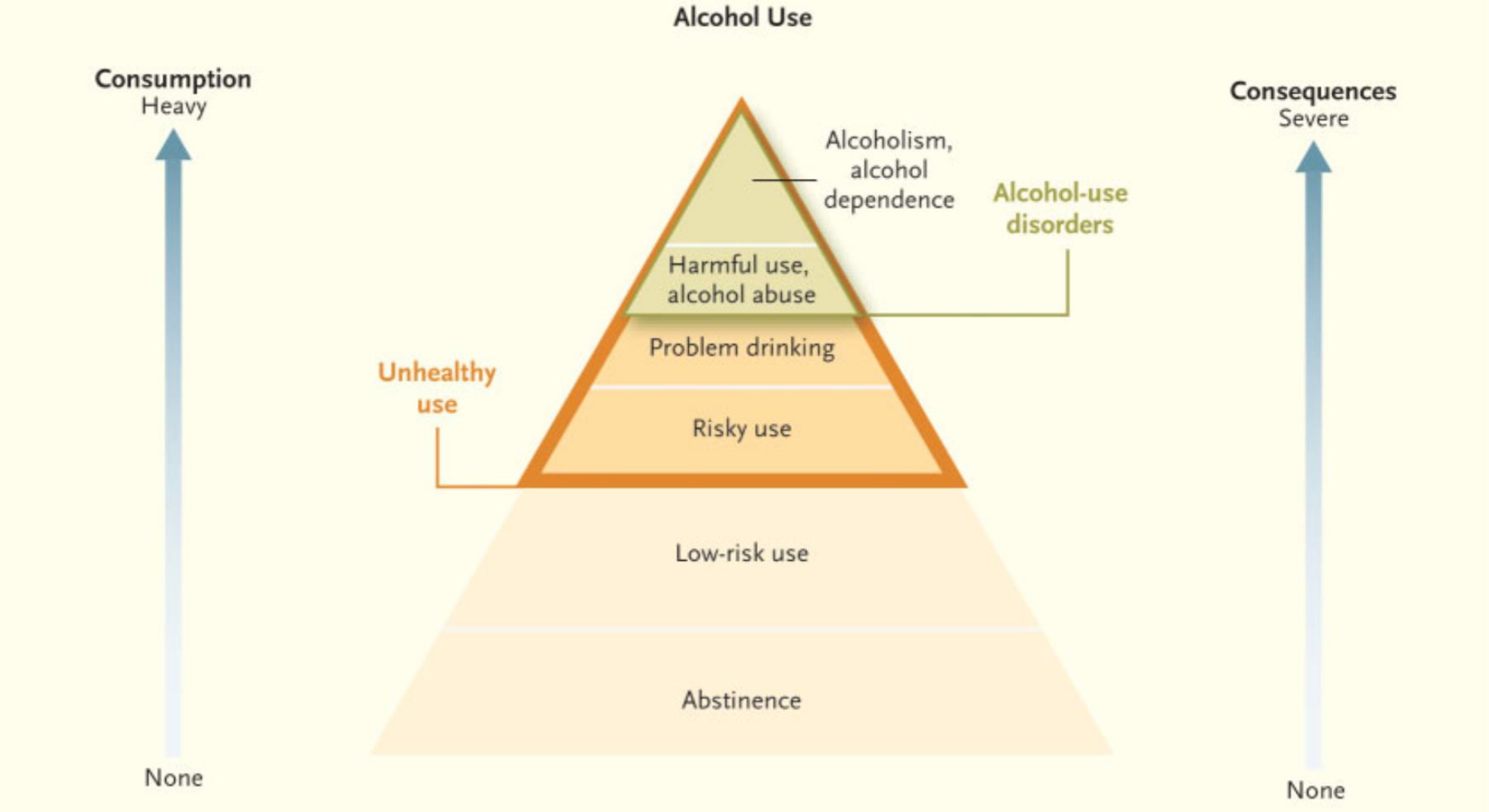

Figure reprinted from *Unhealthy Alcohol Use*, R Saitz, New England Journal of Medicine 2005.

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Rational for Brief Intervention/SBIRT

- Secondary prevention. Focusing only on treatment of AUD misses many who may progress from risky use to more severe problems.

- Majority of people with AUD do not seek treatment. Moving identification of risk to primary care may engage more people.

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Screening, Brief Intervention, and Referral to Treatment (SBIRT)

Definition: "SBIRT is a comprehensive, integrated, public health approach to the delivery of early intervention and treatment services for persons with substance use disorders, as well as those who are at risk of developing these disorders." ~ SAMHSA

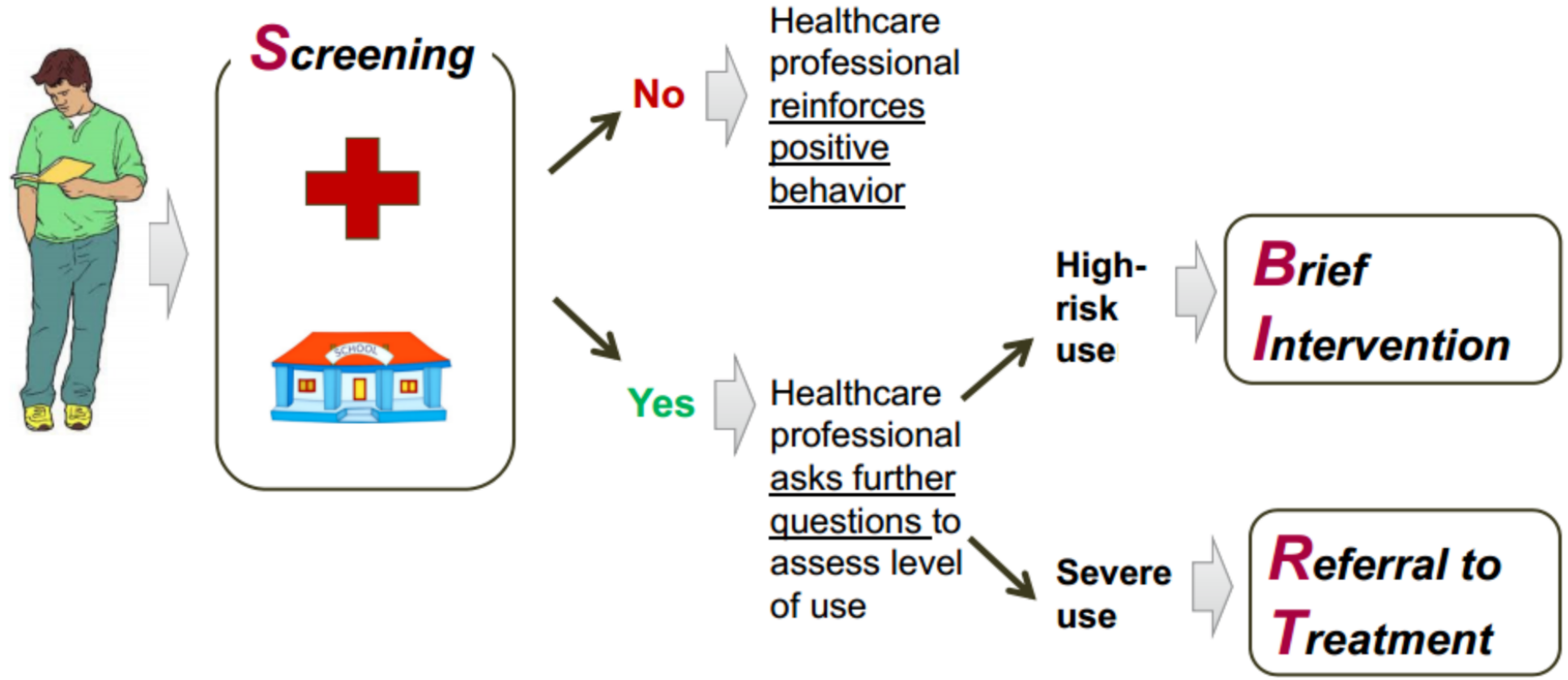

Image accessible at https://www.communitycatalyst.org/resources/publications/body/SBIRT-image.png

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If Screening Is Positive

Brief **I**ntervention

- Feedback on screening results
- Assessment of readiness
- Advice/ motivation for behavior change
- Repeat PC visit

Referral to **T**reatment

- Specialty SUD treatment

Brief **T**reatment

- No AUD or decline specialty treatment
- Need more support than BI
- Typically 2-12 sessions, 30-90 minutes

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Two Early Studies Triggered Decades of Research

Kristenson et al (1983): SBI vs controls at 24-60 months follow-up:

- decreased consumption
- fewer consequences
- decreased mortality

BUT: middle aged men only

WHO study (1996). 10 countries. simple advice vs brief counseling vs interview only. 9-month outcomes:

- Males
  - Both interventions decreased avg drinks and drinking intensity
  - Avg reduction of 17%, or 1 standard drink/ week
  - simple advice no different from brief counseling
- Females
  - All groups decreased av drinks

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Does it work?

- **Efficacy:** How an intervention performs under ideal and controlled conditions

- **Effectiveness**: how an intervention performs in real-world conditions

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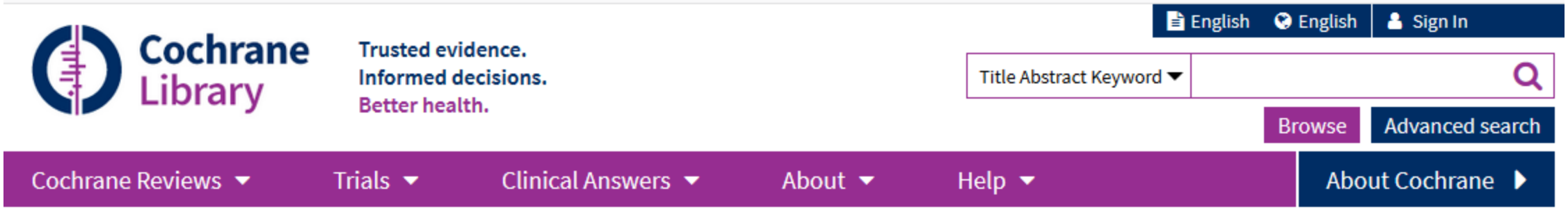
Evidence for Efficacy



- Systematic reviews of randomized trials
- Internationally recognized as the highest standard in evidence-based health care
- Provide a summary of the quality of the evidence supporting that intervention
- Provide unbiased information so clinicians can make difficult choices without having to read every study
- www.cochranelibrary.org

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RCTs BI vs Control

Cochrane review 2018 “moderate-quality evidence” across 34 trials. BI participants consumed less than controls @ 1 year (mean difference -1.4 drinks/week)

Cochrane Library
Trusted evidence.
Informed decisions.
Better health.

Cochrane Database of Systematic Reviews

[Intervention Review]

Effectiveness of brief alcohol interventions in primary care populations

Eileen FS Kaner[1], Fiona R Beyer[1], Colin Muirhead[1], Fiona Campbell[2], Elizabeth D Pienaar[3], Nicolas Bertholet[4], Jean B Daeppen[4], John B Saunders[5], Bernard Burnand[6]

[1]Institute of Health and Society, Newcastle University, Newcastle upon Tyne, UK. [2]School of Health and Related Research, The University of Sheffield, Sheffield, UK. [3]Cochrane South Africa, South African Medical Research Council, Cape Town, South Africa. [4]Alcohol Treatment Center, Department of Community Medicine and Health, Lausanne University Hospital, Lausanne, Switzerland. [5]Department of Psychiatry, Royal Brisbane and Women's Hospital, University of Queensland/Royal Brisbane Hospital, Australia. [6]Cochrane Switzerland, Institute of Social and Preventive Medicine, Lausanne University Hospital, Lausanne, Switzerland

Contact address: Eileen FS Kaner, Institute of Health and Society, Newcastle University, Richardson Road, Newcastle upon Tyne, NE2 4AX, UK. e.f.s.kaner@newcastle.ac.uk.

Editorial group: Cochrane Drugs and Alcohol Group
Publication status and date: Edited (no change to conclusions), published in Issue 6, 2018.

Citation: Kaner EFS, Beyer FR, Muirhead C, Campbell F, Pienaar ED, Bertholet N, Daeppen JB, Saunders JB, Burnand B. Effectiveness of brief alcohol interventions in primary care populations. *Cochrane Database of Systematic Reviews* 2018, Issue 2. Art. No.: CD004148. DOI: 10.1002/14651858.CD004148.pub4.

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Over 25 years of research, the effects of BI on drinking quantity have gotten smaller

Figure 5. Meta-regression of quantity of drinking at 12 months on year of publication of trial.

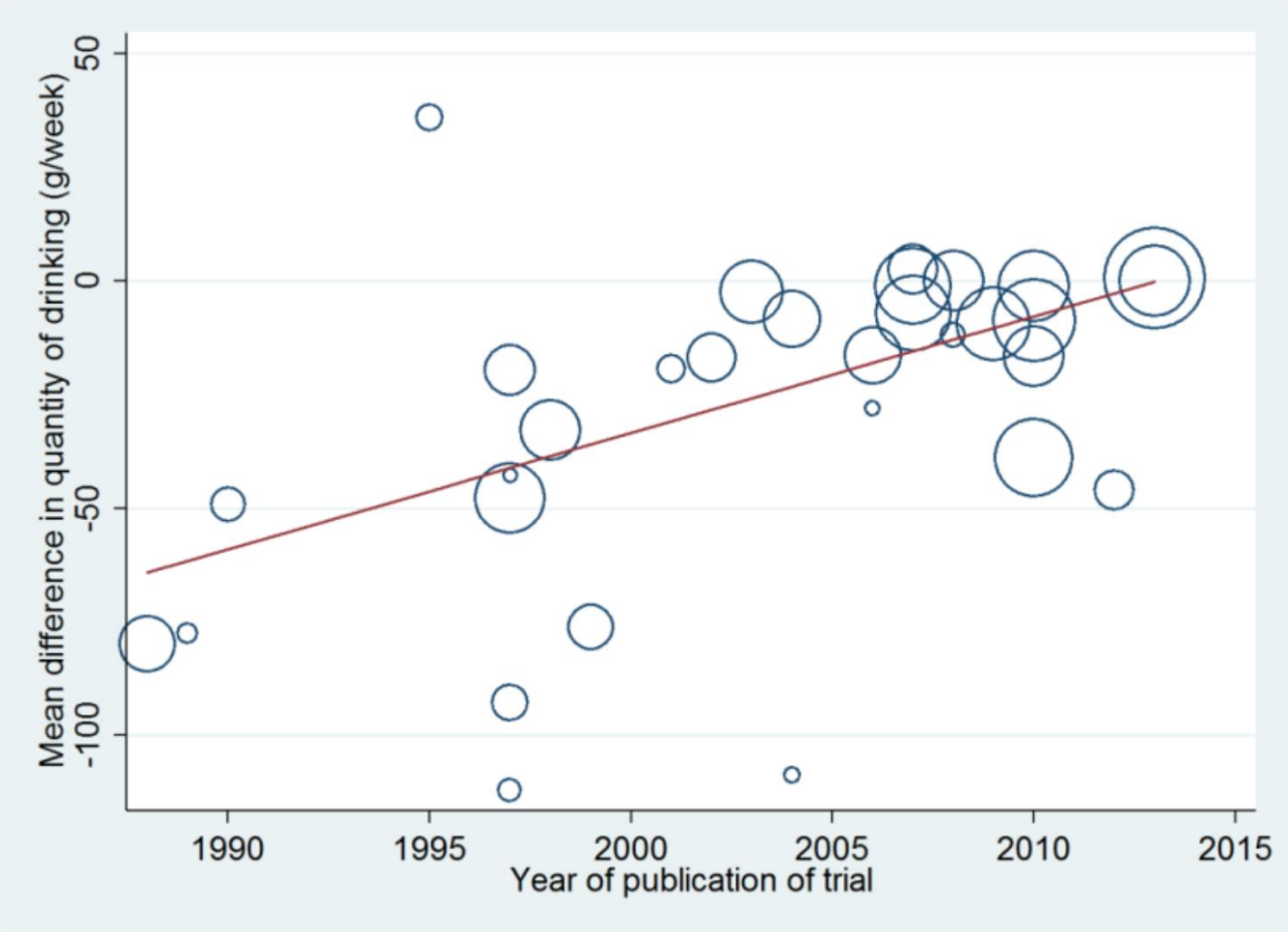

Figure reprinted from from *Effectiveness of brief alcohol interventions in primary care populations (Review),* EFS Kaner et al., Cochrane Database of Systematic Reviews, 2018

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Heavier drinkers at baseline show greater change in consumption at 12 months

Figure 7. Meta-regression of quantity of drinking at 12 months on baseline consumption.

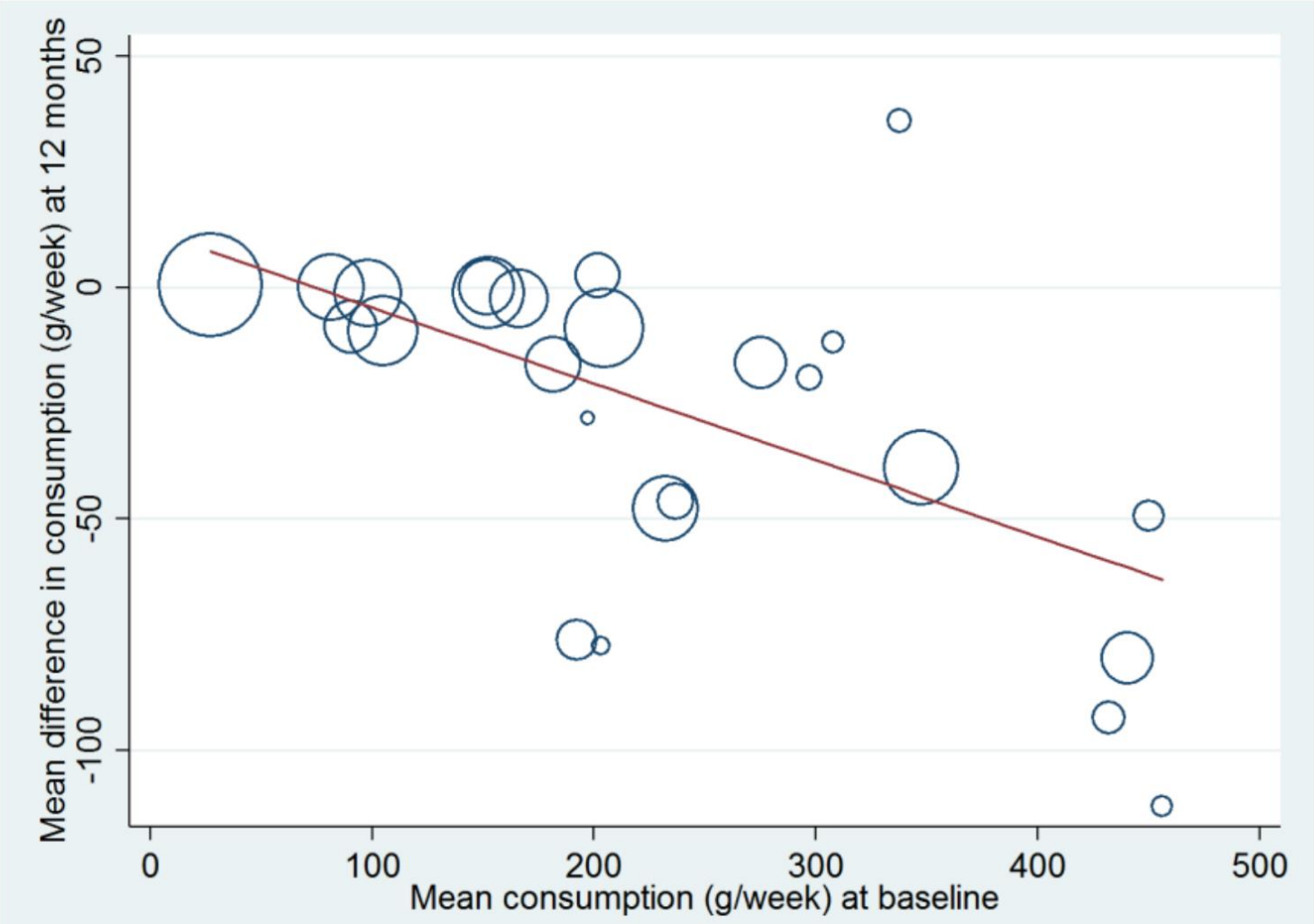

Figure reprinted from from *Effectiveness of brief alcohol interventions in primary care populations (Review),* EFS Kaner et al., Cochrane Database of Systematic Reviews, 2018

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Consumption outcomes similar for extended and brief interventions

Figure 8. Meta-regression of quantity of drinking at 12 months on treatment exposure (mean duration of intervention for the participants in the trial), for trials comparing brief intervention with control.

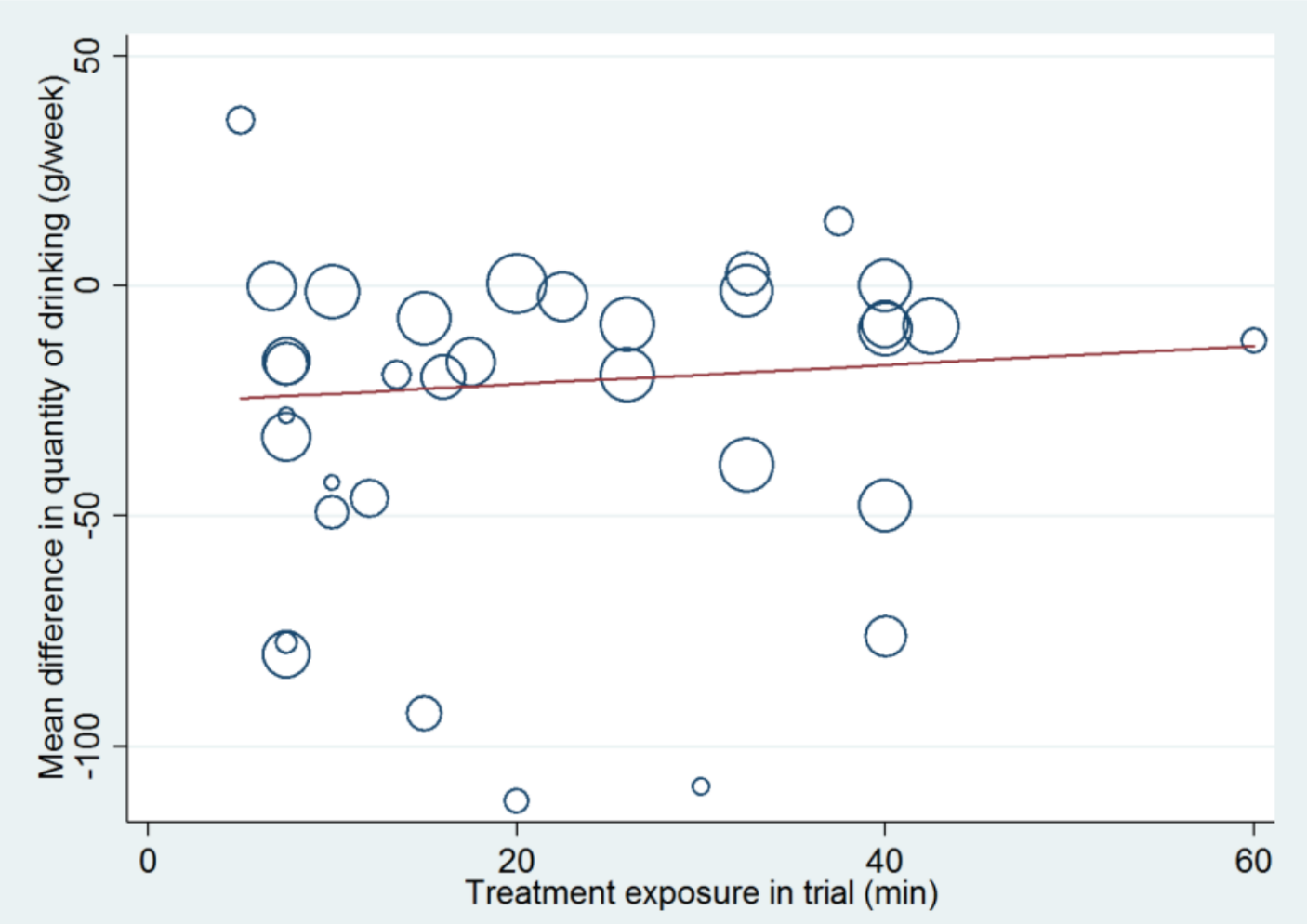

Figure reprinted from from *Effectiveness of brief alcohol interventions in primary care populations (Review),* EFS Kaner et al., Cochrane Database of Systematic Reviews, 2018

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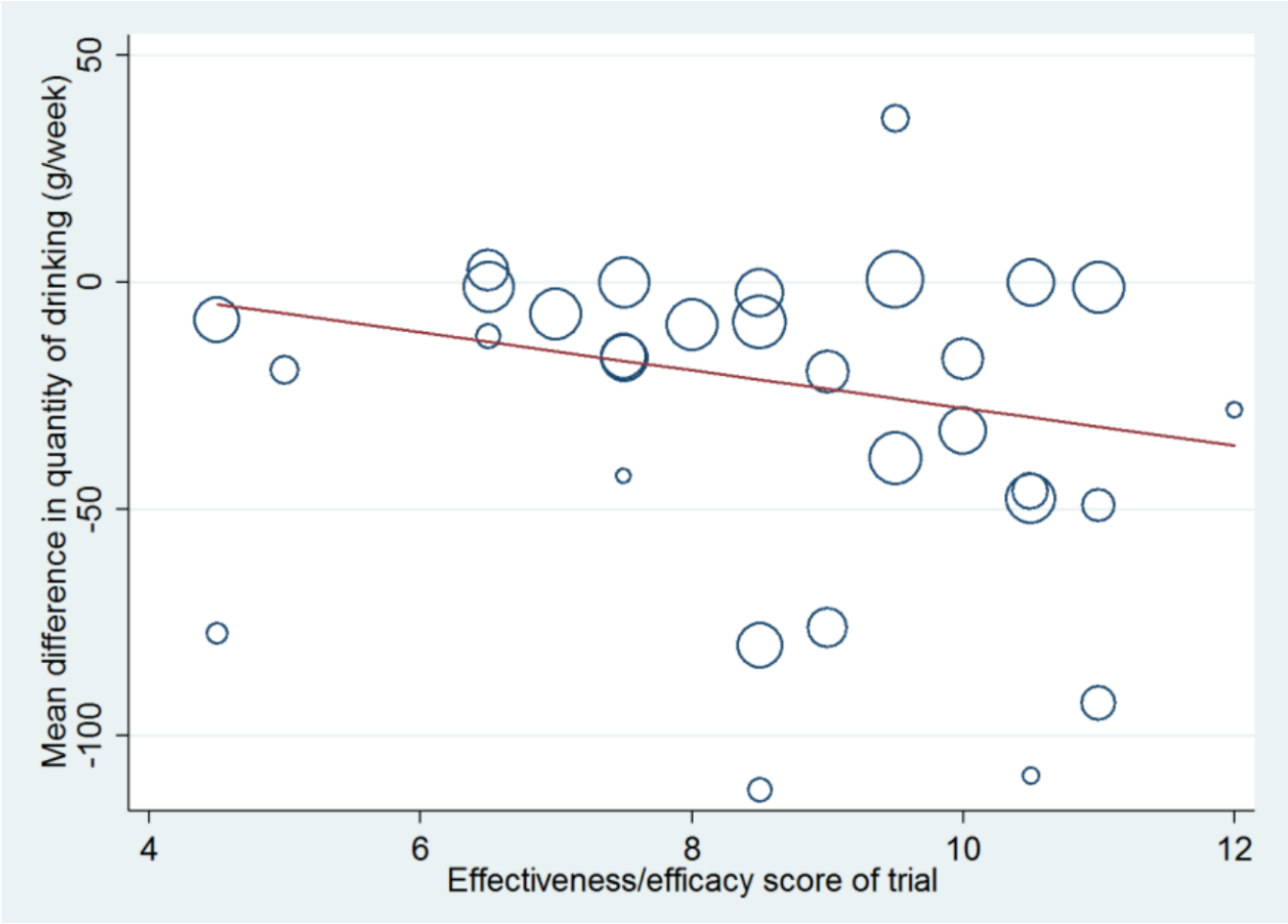
Effectiveness: how an intervention performs in real-world conditions

Figure 9. Meta-regression of quantity of drinking at 12 months on effectiveness/efficacy score of trial. Lower scores indicate greater efficacy.



Efficacy trials see smaller change in drinking compared with effectiveness trials.

Figure reprinted from from *Effectiveness of brief alcohol interventions in primary care populations (Review),* EFS Kaner et al., Cochrane Database of Systematic Reviews, 2018

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Summary of Cochrane Review

- RCTs show that BI can reduce harmful and hazardous alcohol consumption in men and women
- Short, advice-based interventions may be as effective as extended, counseling-based interventions
- People who drink more heavily show greater change in consumption

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SAMHSA National SBIRT Demonstration Program

SAMHSA
Substance Abuse and Mental Health Services Administration

- Since 2003, nearly 50 5-year grants
- Aim: to increase integration of substance use services into the mainstream medical sector.
  - Expand continuum of care for SUD services
  - Reduce AOD use
  - Reduce health care utilization
  - Promote sustained integration of behavioral health and primary care

Learn more about SAMHSA & SBIRT at https://www.samhsa.gov/sbirt

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SBIRT Grantees

- Settings: primary care practices, community clinics, emergency departments. Residency training sites.
- Variability of settings, practice characteristics, implementation strategies
- Pragmatic: flexibility in implementation process

SBIRT projects are NOT clinical trials or controlled experiments

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SBIRT quasi-experimental outcome evaluation

- Aldridge et al 2017
  - N=17,575 patients from 11 multi-site programs
  - Pre-post changes were statistically significant
    - Heavy drinking declined by 43%
    - Illicit drug use declined by 76%
    - BT no more effective than BI for alcohol use
    - BT reduced frequency of illicit drug use more than BI
    - BI was more cost-effective than BT
  - Magnitude of change similar to previous RCTs

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SBIRT in Rural Areas

- Implementation in rural New Mexico FQHCs
  - 12% screened positive
  - Assurance of confidentiality critical in small towns

- Outcomes
  - Significant pre/post reductions in frequency of alcohol use, drug use, and alcohol intoxication at 6 months
  - Alcohol outcomes for BT and RT were larger than BI, but not drug outcomes
  - Number sessions associated with reduced frequency of alcohol use

- Conclusions
  - Successful SBIRT is possible in a rural setting with low volume of patients
  - Confidentiality must be assured

Gonzales 2012 and Gryczynski 2011

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Does SBIRT Work? Answer:

- The overall body of evidence shows moderate evidence that SBI/SBIRT is efficacious for decreasing alcohol consumption
- However, results are heterogeneous; negative studies exist particularly in more recent years
- The practice has demonstrated positive outcomes in rural areas

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National Guidelines

17 national and international treatment guidelines recommended screening and brief interventions (including USPSTF, WHO, CDC, NIAAA) (Zhang et al., 2017 Systematic review)

USPSTF, 2018 – screen for unhealthy alcohol use in primary care settings in adults 18 years or older. Provide persons engaged in risky or hazardous drinking with brief behavioral counseling interventions to reduce unhealthy alcohol use.

- Grade B recommendation

U.S. Preventive Services TASK FORCE

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Prevalence of SBI/ SBIRT in PC

(Gail to fill in: rates of screening, intervention; efforts to promote)

(Gail to fill in: barriers to use of SBI/SBIRT in PC)

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Facilitators to implementation of SBIRT

Adoption:

- Committed leaders
- Intra- and inter-organizational communication/ collaboration
- Provider buy-in and model acceptance
- Contextual factors *[?specify]*
- Quality assurance
- Grant requirements
- Use of substance use specialists rather than medical generalists to deliver services

Sustainability:

- Program champions
- Availability of funding
- Systemic change
- Effective management of SBIRT provider challenges

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Barriers to successful implementation

- Poor provider training,
- Lack of alcohol screening tools, and
- Lack of referral treatment options (rural area)

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Conclusion

Many implementation challenges can be addressed by

- Adequate start-up phase
  - focus on comprehensive education and training

- Development of
  - intra- and inter-organizational communication and collaboration;
  - opinion leader support
  - practitioner and host site buy-in

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SBIRT for Other Drugs

SBIRT demonstration studies show substantial reductions in drug use (Gryczynski 2011; Madras+2008)

Randomized efficacy trials with control groups show no effect of SBI on drug use (Roy-Byrne et al. 2014; Saitz et al. 2014)

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Exceptions

STIR variation: efficacy for bup initiation at initial visit

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Conclusion

- SBIRT for drug use is not a recommended universal preventive service in primary care because of lack of evidence of efficacy.
- However, USPSTF recommends screening *when services for accurate diagnosis, effective treatment, and appropriate care can be offered or referred.*

Recommendation Summary

Population	Recommendation	Grade
Adults 18 years or older, including pregnant women	The USPSTF recommends screening for unhealthy alcohol use in primary care settings in adults 18 years or older, including pregnant women, and providing persons engaged in risky or hazardous drinking with brief behavioral counseling interventions to reduce unhealthy alcohol use.	B
Adolescents aged 12 to 17 years	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening and brief behavioral counseling interventions for alcohol use in primary care settings in adolescents aged 12 to 17 years. See the Clinical Considerations section for suggestions for practice regarding the I statement.	I

Summary figure accessible from USPSTF TaskForce

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Adolescents

- USPSTF 2018 – the current evidence is insufficient to assess the balance of benefits and harms of SBI in adolescents aged 12 to 17 years.
- Adolescent perspectives, rural setting (Gordon et al 2010)
  - Adolescents worried that MDs would not maintain confidentiality
  - Suggested computer-based methods to screen for alcohol use among adolescents could facilitate PCP engagement
- 2018 study (Padwa): Adolescents may not prefer text or social media to be incorporated into their BIs
- YSBIRT literature

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mHealth - Applications for Self-Directed Treatment

Examples

- IVR-SBI
- A-CHESS
- Reid Hester's site
- NIAAA Rethinking Drinking
- Satterfield ED work
- Lisa Marsch?
- Brent Moore?

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Alcohol Apps in General to Support Change in Drinking Behavior

- There are many (there's a ref for this). Hard to keep up with, esp for providers. Many features that are consistent with SBIRT and CBT (self-monitoring; rehearsal of coping skills). Some have social component or coaches.
- "Stickyness" of an app matters. [Carolo+ 2020 JAMA Network Open]. The stickiest *non-treatment* app for alcohol support during the period of Nov 2019-May 2020 is Daybreak. Features include peer community, personal improvement activities, anonymity. Notably, not the therapeutic features that many other apps have. Developed in conjunction with mental health professionals and evaluated by researchers. Results show pre/post changes in consumption. ~$9/month USD.

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mHealth to Support BI in Healthcare Settings

- Recent study SBIRT-specific: Low-intensity ED-based computerized SBIRT vs screening only yielded increased treatment initiation but not treatment engagement or completion. No reduction in risky alcohol use at 3-months. [*Yin 2020*]
- [study by that researcher from San Francisco??]

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Resources for Training and More Information

Foundations of SBIRT. Free, 1.5-hour self paced course with 1.5 CE available.
https://healtheknowledge.org/course/index.php?categoryid=50

SBIRT for Health and Behavioral Health Professionals. Free, 3.5-hour self paced course, with 3.5 CE's available
https://healtheknowledge.org/course/index.php?categoryid=50

Screening, Brief Intervention, and Referral to Treatment (SBIRT) for Substance Use Disorders in Primary Care Settings. Free training, with target audience of primary care physicians, nurse practitioners, heath care teams. Interprofessional Continuing Education credit, *AMA PRA Category 1 Credits™*, and Nursing Contact Hours https://pcssnow.org/education-training/training-courses/screening-brief-interventions-referrals-treatment-use-sbirt-practice/

Improving Adolescent Health: Facilitating Change For Excellence In SBIRT https://www.ysbirt.org/wp-content/uploads/2020/03/032720_NCBH_SBIRT_ChangePackage_Final_v6.pdf

Vermont SBIRT Outcomes and Lessons Special Focus on Suicide Risk Screening: Opportunities and Challenges
http://vtspc.org/wp-content/uploads/2018/06/Turner_SBIRT-Suicide-Risk-Lessons-LearnedV3.pdf

Alcohol Screening and Brief Intervention for Youth: A Practitioners Guide
https://www.niaaa.nih.gov/sites/default/files/youth-guide.pdf

A ReThink of the Way We Drink *https://www.youtube.com/watch?v=tbKbq2IytC4*

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Thank you for participating in this Community Rounds Workshop Series

Our next session will be held on September 2, 2020 from 12-1pm:
Treatment of Stimulant Use Disorders*, *Rick Rawson, PhD

For additional information visit:
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Vermont Center on Behavior and Health: http://www.med.uvm.edu/behaviorandhealth/

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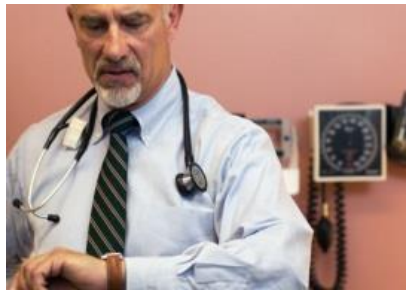
Screening & Brief Intervention

- Efficacious? **YES!**
- Effective delivery? **MAYBE?**
- Barriers
  - time
  - training
  - discomfort and avoidance
    - →Infrequent follow up on patient disclosures
    - →Provide vague, tentative advice



- How can we get BI to those who need it?

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Medications for Alcohol Use Disorder

- Naltrexone – blocks mu-opioid receptors. reduces pleasure and cravings
- Campral/ acamprosate – modulates glutamate neurotransmission. may reduce withdrawal symptoms and prevent relapse
- Antabuse/ disulfiram – inhibits production of acetaldehyde. interferes with body's ability to absorb alcohol
- Topamax (off label) - may reduce withdrawal symptoms and prevent relapse.