

SBIRT

**TRANSLATIONAL RESEARCH
PAR EXCELLENCE**

**OR POETRY THAT IS LOST IN
TRANSLATION?**

TRIP: TRANSLATING RESEARCH INTO PRACTICE

- Applying what we have learned from research
- Making scientific knowledge accessible and relevant to practitioners
- Improving the health of the population in a community by broad dissemination of effective medical and health promotion technologies

T1 – Bench to Bedside

- Basic science research leads to new clinical investigation
- Examples:
 - Biomarkers for alcohol and drug screening;
 - Opioid antagonists to dampen alcohol craving or block opiate effects

T2 – Bedside to Community

- Clinical investigation leads to improved medical practice and enhanced population health
- Examples: Research on
 - SBI training,
 - Program implementation
 - Cost effectiveness

Why is TRIP important?

- Scientific evidence can influence practitioners
- Scientific evidence can influence policymakers to allocate resources and change policies
- Research can improve practice
- Research can facilitate training and guide implementation

WHO PROGRAM

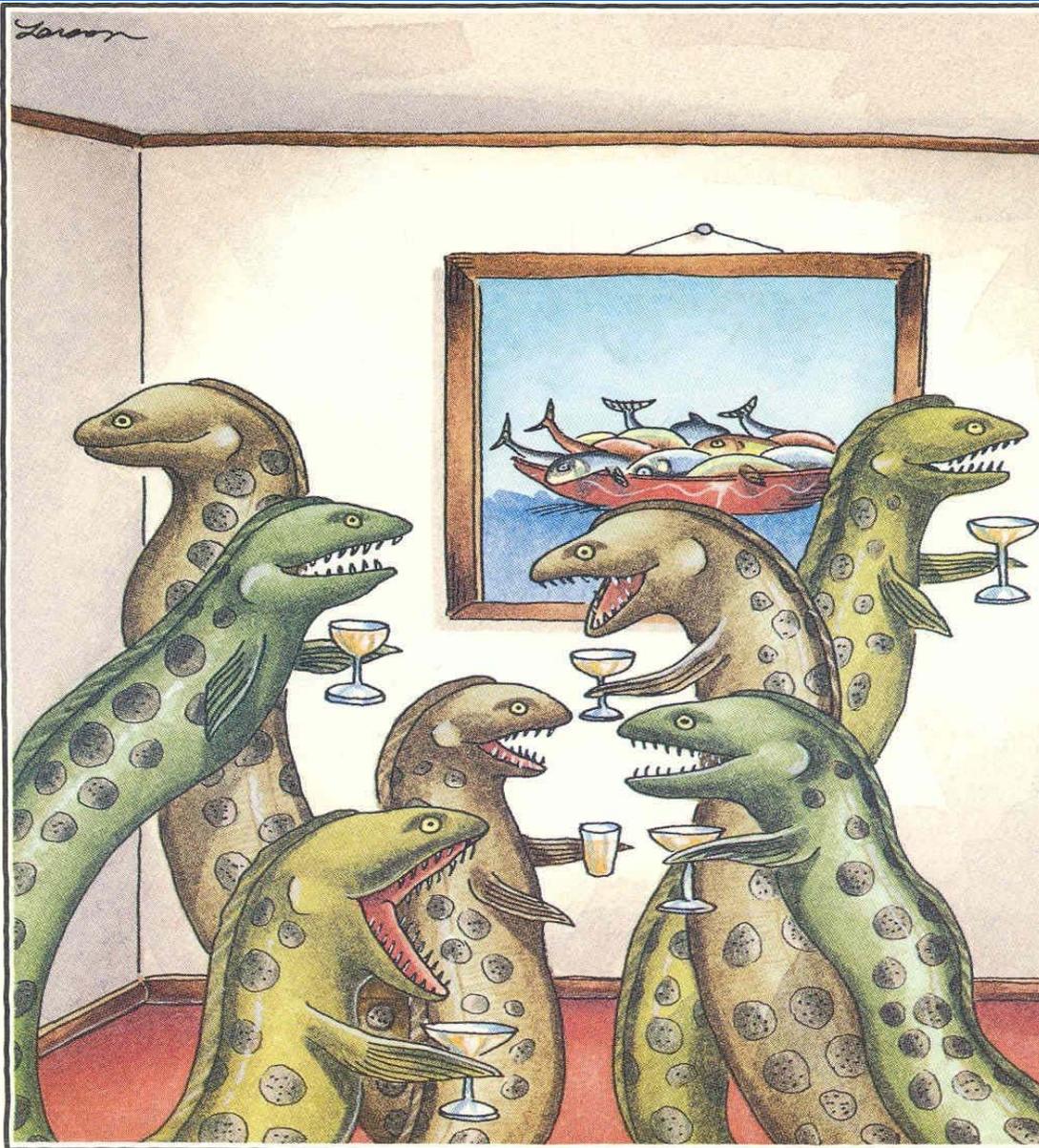
Management of Substance Abuse in Primary Health Care: An example of TRIP

- Phase I (1982-1989)
 - Development of AUDIT
 - International Feasibility and Reliability Study
 - Phase II (1985-1996)
 - Cross-national Clinical Trial of Brief Intervention for alcohol
 - Development of the ASSIST
 - Phase III (1997-...)
 - International collaborative research on implementation of Brief Interventions Linked to the AUDIT
- Phase IV (2003-)
- Development and evaluation of national plans for SBIR training and program implementation within healthcare systems in both developing and developed countries.

What is Screening, Brief Intervention and Referral (SBIRT)?

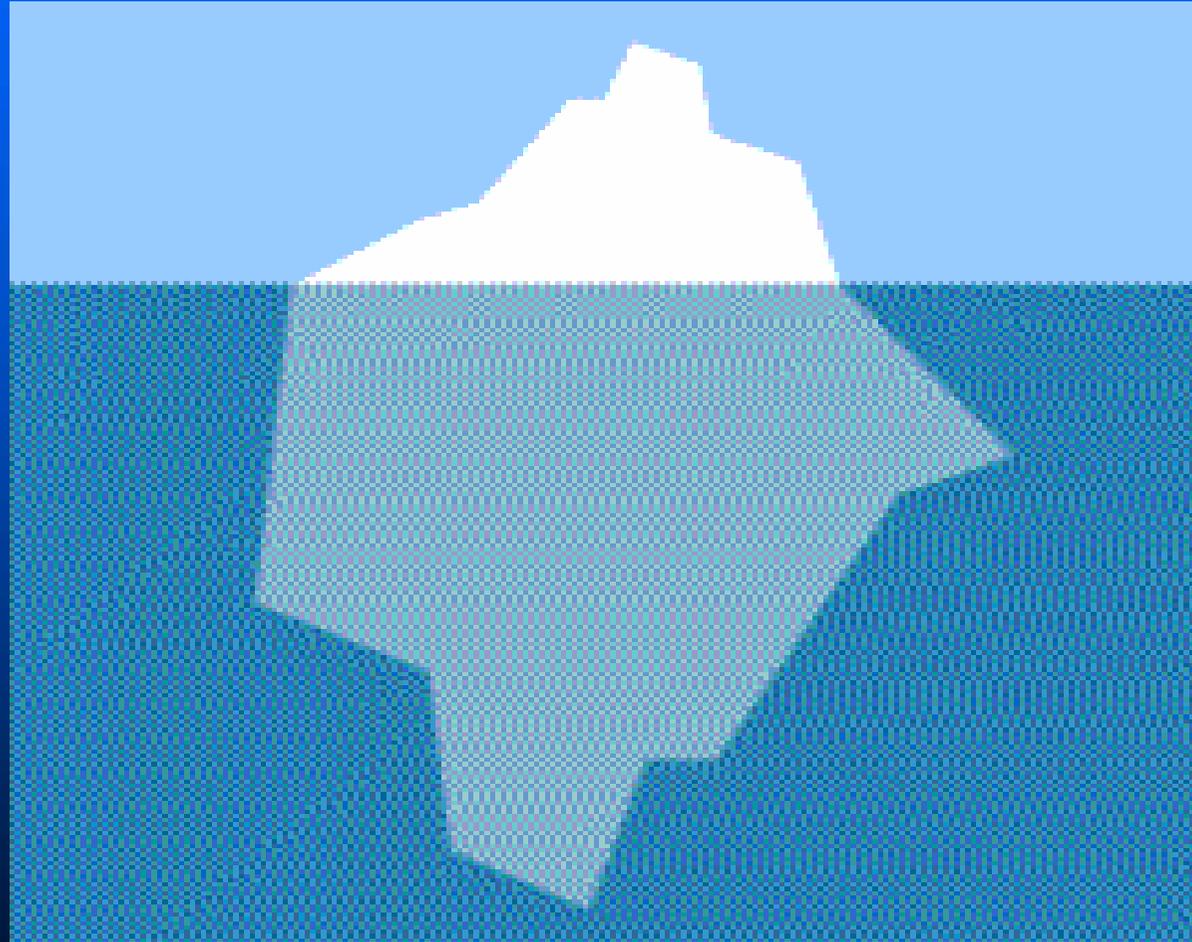
- **S**creening to find:
 - at-risk drinkers
 - possible alcohol dependence
- **B**rief **I**ntervention
 - Early detection
 - Time limited
 - Low cost, easy to use
- Referral of more serious cases to further diagnostic assessment specialized care





Social morays

Remember the Titanic!



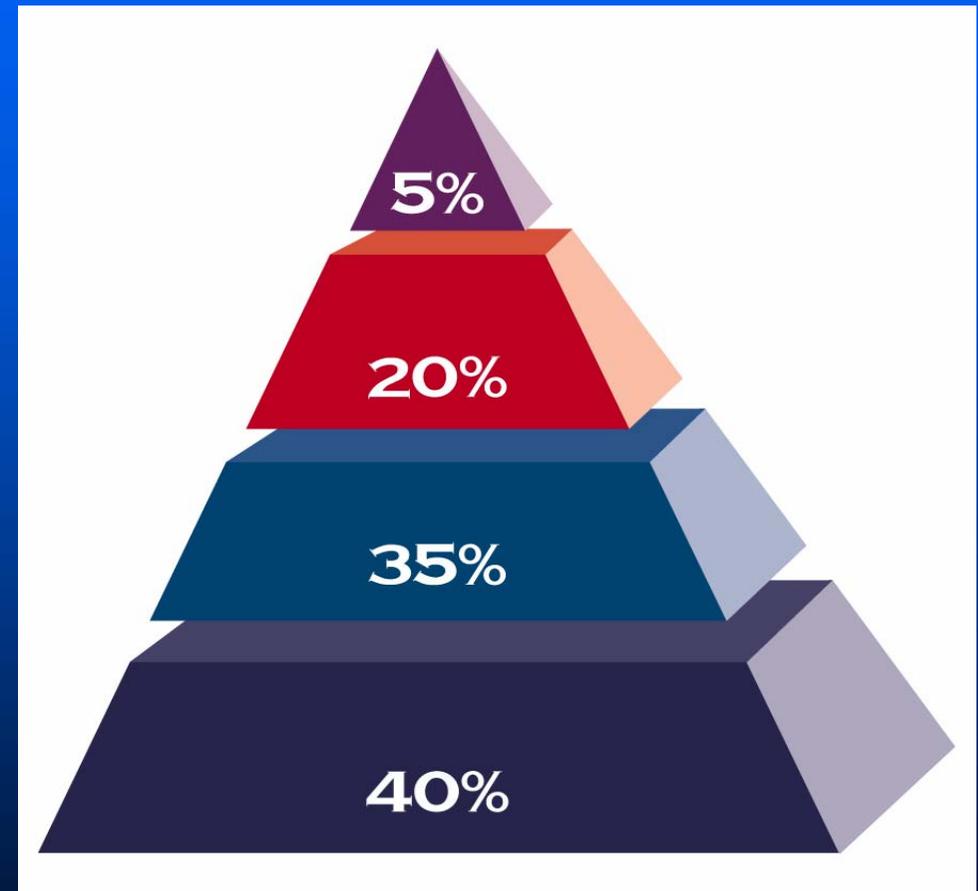
The Drinkers' Pyramid

Dependent Drinkers

Risky Drinkers

Low Risk Drinkers

Abstainers



SBIRT and the 5 A's

Screening

Brief Intervention

Referral to Diagnostic

Evaluation and Treatment

Assess

Advise,

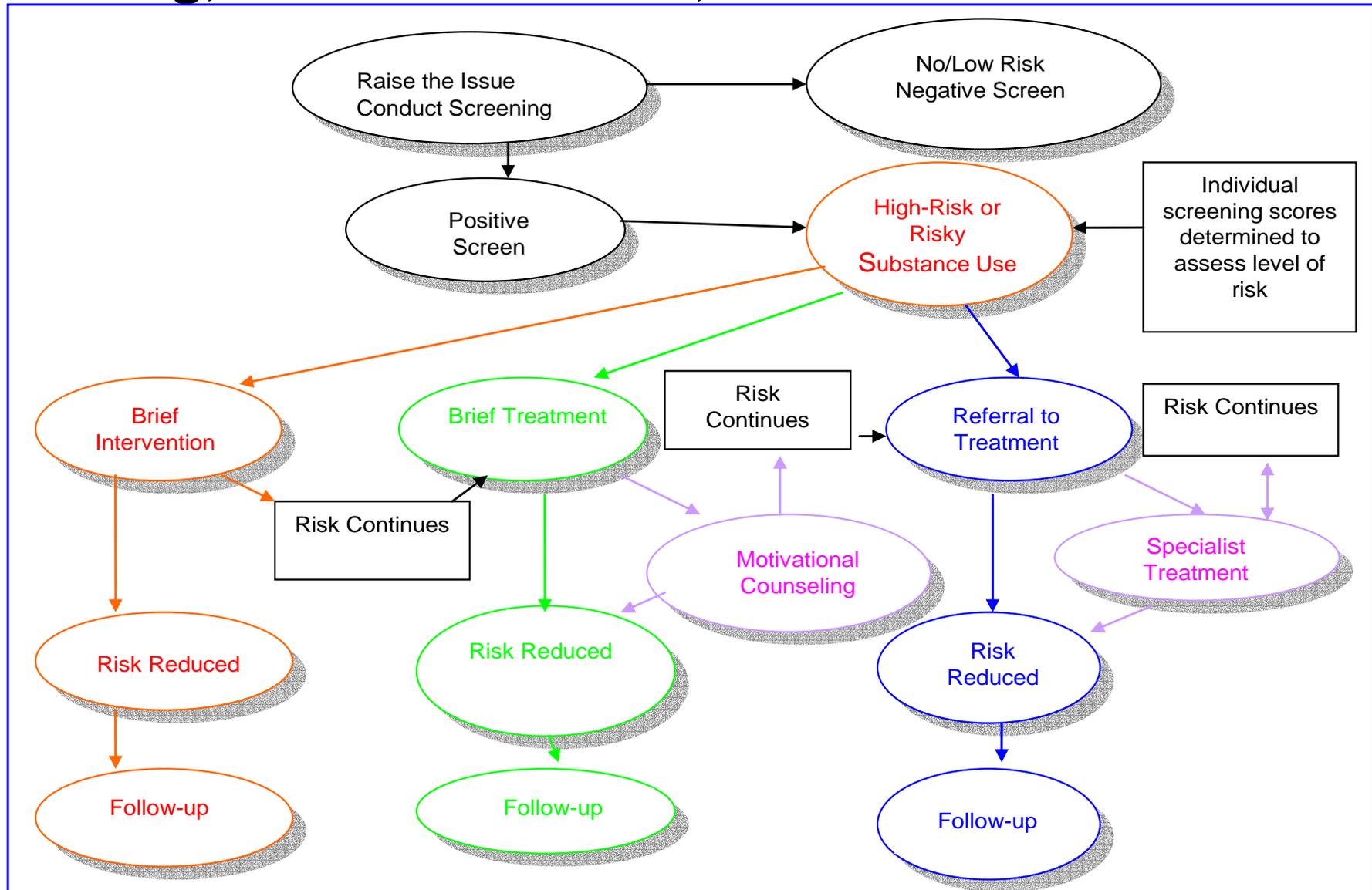
Agree,

Assist

Arrange

Conceptual Overview of SBIRT

Screening, Brief Intervention, and Referral to Treatment



What is the TRIP research base for SBIRT?

- Since 1980, several hundred empirical studies on screening, brief intervention, referral and integration of SBIRT into health care settings
- Over 25 screening tests developed and validated
- Scores of randomized controlled trials of brief intervention in a wide range of countries
- 15+ integrative literature reviews
- A growing literature on provider training, SBI implementation, and new applications

An Abundance of Screening Tests

- MAST, BMAST, SMAST, SSAST, DAST
- CAGE, CAGE-AID
- AUDIT, AUDIT-C
- FAST, LAST, TWEAK, T-ACE, CUGE, REPS, MSI-X, CRAFFT, RAFFT, DUSI, SASSI, POSIT, AAIS, SWAG, Trauma Scale, LAST
- GGT, MCV, CDT

SCREENING: What have we learned?

- Self-report tests are reliable and valid under most clinical conditions
- Response bias can be predicted, detected and minimized
- Biological tests are expensive, cumbersome, insensitive, difficult to interpret, but remain useful in employment and medical settings
- Use of screening tests depends on provider and patient characteristics
- A clever acronym may help dissemination and uptake as much as scientific evidence

Screening: Is more TRIP research needed?

- There is a distinct Anglo-American dominance
- How to overcome barriers to use of screening
- How to determine the best place to screen – needs assessment
- How to increase the rate of screening
- How to combine alcohol, drug and tobacco screening with screening for other behavioral risk factors
- How to tailor screening to fit the needs of a population and of a health care system

Brief Intervention

- *Definition:* Time-limited (5 minutes to 5 brief sessions) behavioral counseling; targets a specific health behavior (e.g. at-risk drinking or drug use)
- *Goals:*
 - a) reduce alcohol/drug consumption
 - b) facilitate treatment engagement, if needed
- Relies on use of screening data

Key Elements of SBI Emerging from Clinical Trials

- Present screening results
 - Identify risks and discuss consequences
 - Provide medical advice
 - Solicit patient commitment
 - Identify goals
 - Give advice and encouragement
-
- **Additional staff/system supports needed for screening/assessment**
 - **Provider training varies (one hour to one day)**

Summary of Brief Intervention Evidence from clinical trials with at-risk drinkers

- **Participants reduced average number of drinks/week by 13% to 34% compared to controls**
- **Proportion of participants in intervention condition drinking at moderate or safe levels was 10% to 19% greater than controls**

(from Whitlock, et al, 2004 and individual studies)

Health and Related Outcomes (cont.)

■ Quality of life measures

- Improved quality of life related to alcohol problems for those who decreased consumption by 20% or more (Maisto et al.1)

■ Long-term health outcomes

- Fewer hospital days at 48 months by intervention group (429 vs. 664 days; $p < .05$) (Fleming, et al, 2002)
- Significantly greater reductions in alcohol use by intervention group over 48 months (Fleming, et al, 2002)

Health and Related Outcomes (cont.)

■ Long-term health outcomes

– Brief, single contact BI had no long-term effect (10 years) on morbidity, mortality, or consumption (Wutzke, et al, 2002)

– **Malmo Screening and Intervention Study**

» Men who participated had significantly lower total mortality (24/100,000 person years) than controls (30/100,000; $p < .02$), and significantly reduced alcohol-related mortality after 3 and 21 years (Berghlund, et al, 2000)

Results Across Reviews/Meta-Analyses of Alcohol Studies

- ↓ Brief Interventions (BI) can reduce alcohol use for at least 12 months among younger and older adults
- Approach is acceptable to younger and older adults
- Results mixed on longer-term utilization and reduction of alcohol-related harm
- Cost-effectiveness has been demonstrated in several countries

Evidence for BI with other substances

- Significant literature for smoking cessation
- MTP Research Group et al. (2004) – cannabis (USA)
- Copeland et al. (2001) cannabis (Australia)
- Heather et al. (2004) benzos (UK)
- McCambridge and Strang (2004) cigarettes and cannabis (UK)
- Berstein et al (2005) cocaine and heroine (US)

Practical Issues

Q. Does it make a difference if the intervener is the personal physician, nurse, counselor, health educator?

A. Probably not

Q. What is the appropriate length/complexity of interventions?

A. Keep it short and simple, with follow-up visits if necessary.

Practical Issues

- ❖ **Effectiveness of SBI with special populations** (e.g. adolescents, older adults, pregnant women, alcohol/drug dependent persons), alcoholics, drug addicts?
- ❖ **Covariate effects** (e.g. nicotine dependence, anxiety, depression) ?
- ❖ **Can interventions be combined or sequenced?**
- **Stepped care strategies** for patients who do not respond to initial BI: e.g. brief therapies, case management

Do we know enough about SBI implementation?

- Good theory but weak in practice (Roche and Freeman, 2004)
- Barriers to implementation: lack of time, diagnostic skills, negative attitudes, and perceptions of role incompatibility (Modesto-Lowe and Boormazian, 2000)

Do we know enough about implementation?

- Gomel et al (1998) compared 3 strategies to market and train primary care physicians. Tele-marketing was more cost-effective than academic detailing and direct mail in promoting uptake of an SBI package
- Kaner et al (2003) compared written guidelines with outreach training and training plus telephone-based support in promoting BI by nurses in PHC. Cost effectiveness was similar per patient, so written guidelines were considered best to promote SBI
- Saitz et al (2003) RTC showed that screening can prompt physicians to increase discussions and provide advice

Factors influencing success/failure: Cutting Back Study (JSA, 2005)

■ Predisposing Factors

- Stable patient membership
- Organizational stability

■ Enabling Factors

- Provider lack of time
- Competing organizational priorities
- Influential leadership
- Staff involvement in planning
- Technical assistance

■ Reinforcing Factors

- Organizational Support

SBIRT Training programs: Are they available and effective?

- McRee et al (2002) Training package for PHC plus training tapes
- Roche et al (1997) compared two educational programs to train medical students; interactive training was no more effective than traditional didactic lectures in developing knowledge and skills.
- Saitz et al. (200) telephone survey of physicians, nurses etc after a CME course; most reported course had positive effect on clinical practice
- Wilk and Jensen (2002) use of standardized patients to train residents to use SBI; after training more residents conducted screening and BI
- Todd (2002) resource kit for ED-based SBI
- Adams et al (1998) 2.5 hr. training doubled rate of alcohol interventions in high-risk PHC patients

Time for A Public Health Approach?

- Brief interventions are effective with smokers and risky drinkers, and there is some evidence that they work well with marijuana users
- SBIRT poised for next step in dissemination
 - two decades clinical research, program development
 - effective screening tests available
 - training programs developed
- SBIRT risk reduction information, journals, materials exist in diverse formats
- There is general agreement on the need to “broaden the base” of treatment, i.e., expand treatment and early intervention services to less severe cases and populations at risk

What have we learned?

Some flawed assumptions

- Professional training improves outcomes
- Severity determines outcomes
- Skills training improves outcomes
- Motivational readiness improves outcomes
- Science shapes practice

Integration of SBIRT into PHC: Conceptual Issues

- ❖ **Conflicting paradigms: health promotion vs curative medicine**
- ❖ **Focus on health vs focus on disease**
- ❖ **Low technology vs high technology**
- ❖ **Population health as a goal: reduced morbidity and mortality VS acute care demands to deal with presenting problems**

Integration into PHC: Structural Issues

- ❖ Solo practice vs clinic-based care
- ❖ Fee-for-service vs private insurance vs universal, free or affordable health care
- ❖ Substance-specific vs behavioral risk factors
- ❖ Shared care vs dedicated health educator responsible for SBIRT
- ❖ Adaptation to patient demographics
- ❖ Adaptation to substance use patterns

Integration into PHC and other settings: Transfer Issues

- ❖ Training providers of primary health care
- ❖ Organizational factors: resources, competition, administrative support
- ❖ Logistical issues: time, stigma, staff motivation; alternative delivery models
- ❖ System dynamics
- ❖ Social marketing direct to patient
- ❖ Reaching the Tipping Point: Stickiness, Mavens, Salespeople

Social Marketing and the Tipping Point

- Contagiousness of practice behavior
- Small causes can have big effects
- Change is dramatic rather than gradual
- The Tipping Point is the moment when a critical mass is achieved and change accelerates
- Examples from SBIRT: AUDIT Screening Test; Motivational Interviewing, Stages of Change

Marketing Success Stories

- Depend on the influence of a few select carriers
- The Stickiness factor causes ideas and behavior to catch on in a contagious way
- Context has enormous power

CONTRASTING MODELS

■ TRADITIONAL

- Acute care
- Treat disorder
- Accountable for individual patients
- Fill treatment slots
- Separate programs
- Case management

■ PUBLIC HEALTH

- Continuum of care
- Health promotion/disease prevention
- Accountable for defined populations
- Provide care at most appropriate level
- Integrated delivery systems

Population Health Care Management

- Defined by geographic boundaries as well as age, sex and other characteristics
- Allocation of resources to preventive, curative, restorative and rehabilitative services
- Design interventions and monitor services for entire population
- Organize providers into networks
- Shift utilization to lower cost settings or most appropriate level of care

Conclusions

- Implementation models are currently inadequate to achieve adequate population reach
- Screening is the linchpin of SBI
- Carve out models may work better in some settings
- Fit the program to the population, rather than the population to the program
- Evaluate population impact
- Combine alcohol SBI with other risk factors

The Diffusion of Innovations to Prevent Disease, Disability and Death: An Historical Perspective

- Longitude – 75+ years
- Scurvy – 50 years
- SBIR – 25 years

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