

## Screening, Brief Intervention, Referral and Treatment: Prevention Services that Improve Health and Save Money

**Overview.** Use of alcohol and other drugs is a leading cause of injury and use of health care services, including ER and hospital admissions (D’onfrio et al., 2006). Moreover, many people with alcohol and drug problems first present in medical settings, before seeking substance abuse treatment (Gentilello, 2005). Missouri is one of several states implementing Screening, Brief Intervention, Referral and Treatment (SBIRT) services in medical settings. This evidence-based prevention and early intervention program screens and identifies anyone at-risk for substance use related problems before they become dependent. Implementing Screening and Brief Intervention (SBI) services is cost effective, with investment in SBI services offset by money saved due to reduced injury. Empirical support for cost-effectiveness has been obtained in various settings using a variety of methodologies.

- ❖ **Benefit vs. Cost for patients screened in health clinics:** A *randomized trial in family physician health clinics* compared problem drinkers assigned to receive brief intervention on alcohol’s effects and strategies to reduce consumption (experimental group) vs. “usual care” (control group).
  - The **total average cost per patient** of brief intervention (inclusive of patient costs + clinic costs) was \$205.00.
  - The **total average benefit per patient** (based on savings in ER and hospital use, and in costs due to crime and auto accidents, for intervention vs. control patients) was \$1,151.
  - **Benefit-cost ratio** = “...5.6 to 1, or \$56,263 benefit for every \$10,000 (across patients) invested”.
  - Longer-term follow-up over a **48-month follow-up period** indicated continued cost savings and reduced drinking for brief intervention patients.

(Sources: Fleming et al., 2000; 2002).

- ❖ **Benefit vs. Cost for disabled Medicaid patients screened in ER:** Using a *quasi-experimental* design, the Washington State Department of Social and Health services compared costs for working-age/disabled Medicaid patients receiving a screening and Brief Intervention (SBI) for problem drinking in ER settings, vs. an ER patient sample statistically matched on geographic, demographic and substance use variables but not receiving SBI.
  - Analyzing costs before and after an “index” ER visit, **average Medicaid cost savings** for patients receiving SBI compared to patients not receiving SBI ranged from \$185 to \$192 per member per month (pmpm)
  - Most savings for SBI participants were associated with **decreased Emergency Department admissions into inpatient services**, relative to comparison patients.

(Source: Estee et al., 2007).

- ❖ **Review/statistical model across randomized-trial studies:** Gentilello and colleagues conducted a cost-benefit analysis for alcohol Brief Interventions (BI's) based on results from several **randomized trials**, focusing on injury-related medical costs for patients injured and treated in an ER or admitted to a hospital.
  - **Net cost savings** estimated for the intervention = “\$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” (p. 541).

*(Source: Gentilello et al., 2005).*

- ❖ **Some conclusions**
  - Methods and metrics vary, but substantial savings are consistently reported, particularly savings associated with reduced injury-related ER visits and inpatient admissions via the ER.
  - Some cost increases are also reported; use of outpatient services, which may be associated with increased use of preventive care, may increase for SBIRT patients. Such increases tend to be offset by reduced injury.
  - Cost savings are only part of the story. Less re-injury and fewer ER visits indicate **better patient care**.
  - “A variety of federal, expert, and consensus group panels conclude that ***the scientific basis for recommending routine screening and intervention in trauma centers has already been established and that it is time to move beyond clinical trials and toward national implementation***” (Gentilello, 2005, p. S19).

#### References Cited

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