

## Reducing Medical Costs with the SBIRT Program

### Examples of Reductions

- A Monte Carlo simulation with 1,000 trial runs showed that the net present value of SBIRT (absenteeism and presenteeism cost-reductions versus screening costs) was \$771 per employee and the benefit-cost ratio was 4.4:1 over a four-year analysis period.<sup>1</sup>
- A 30-month study of SBIRT in nine emergency departments (EDs) for disabled Medicaid patients (N=1,557 intervention and 1,557 control) reported an estimated reduction in Medicaid costs of \$366 per member per month (PMPM) (P = 0.05) for all patients and \$542 PMPM for patients who received a brief intervention only and had no chemical dependency treatment in the year before or the year after the ED visit.<sup>2</sup>
- A 12-month study with 17 primary care practices (n=382 control and n=392 intervention) found that brief physician advice for problem drinking resulted in cost-savings of \$523 per patient from reduced utilization of EDs and hospital (MCO cost) and \$1,151 per patient from reduced ED utilization, hospital utilization, crime, and motor vehicle accidents (total economic costs). The benefit-cost ratio was 3.2:1 for the MCO and 5.6:1 when the total economic cost was considered with a net-benefit of \$947 per intervention patient.<sup>3</sup>
- A 48-month study of brief physician advice for problem drinkers in primary care (n=382 in control and 392 in intervention) with two physician visits and two nurse follow-up phone calls found 20% fewer ED visits (302 vs. 376) and 37% fewer days of hospitalization (420 vs. 664) in the intervention group compared to the control group. In addition, subjects from the usual care group experienced 55% more crashes with nonfatal injuries (31 vs. 20) and incurred 46% more arrests (41 vs. 28). Reductions in ER and hospital utilization resulted in net-savings of \$546 per patient, with a benefit-cost ratio of 4.3:1. From the societal perspective, the benefit cost ratio was 39:1, with a net benefit of \$7,780 per patient.<sup>4</sup>
- A review of literature between 1992 and 2004 found that primary care screening and brief interventions for alcohol misuse are one of the most effective and cost-effective preventive services. The authors reported a cost-effectiveness ratio of \$1,755 per quality-adjusted life years saved from the health system perspective (excluding patient time costs and non-medical cost offsets).<sup>5</sup>
- A study of brief interventions for problem drinkers in an ED and hospital found that the net cost-savings from direct injury-related medical costs was \$89 per patient screened and \$330 per patient who was offered a brief intervention. Due to reduced health expenditures, the benefit cost ratio was 3.81:1.<sup>6</sup>

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<sup>1</sup> Quanbeck A, Lang K, Enami K, Brown RL. A Cost-Benefit Analysis of Wisconsin's Screening, Brief Intervention, and Referral to Treatment Program: Adding the Employer's Perspective. *Wisconsin Medical Journal*. 2010;109(1):9-14.

<sup>2</sup> Estee S, Wickizer T, He L, Shah MF, Mancuso D. Evaluation of the Washington state screening, brief intervention, and referral to treatment project: cost outcomes for Medicaid patients screened in hospital emergency departments. *Med Care*. 2010;48(1):18-24.

<sup>3</sup> Fleming MF, Mundt MP, French MT, et al. Benefit-cost analysis of brief physician advice with problem drinkers in primary care settings. *Med Care*. 2000;38(1):7-18.

<sup>4</sup> Fleming MF, Mundt MP, French MT, Manwell LB, Stauffacher EA, Barry KL. Brief physician advice for problem drinkers: long-term efficacy and benefit-cost analysis. *Alcohol Clin Exp Res*. 2002;26(1):36-43.

<sup>5</sup> Solberg L, Maciosek MV, Edwards NM. Primary Care Intervention to Reduce Alcohol Misuse Ranking Its Health Impact and Cost Effectiveness. *American Journal of Preventative Medicine*. 2008;34(2):143-152.

<sup>6</sup> Gentilello LM, Ebel BE, Wickizer TM, Salkever DS, Rivara FP, Federick P. Alcohol interventions for trauma patients treated in emergency departments and hospitals a cost benefit analysis. *Annals of Surgery*. 2005;241(4):541-550.

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