

Appendix Four – Evidence for the effectiveness of brief intervention in primary care

We reviewed the randomised controlled trials that have tested the efficacy of brief intervention in reducing alcohol consumption in heavy drinkers, and conducted a meta-analysis on 9 controlled clinical trials that met our inclusion criteria. We required the studies to have used random sampling, random assignment, to have used a recognisable form of brief intervention, and to have reported results in a manner which allowed us to include their results in the meta-analysis. We excluded studies with non-random sampling and assignment, use of treatments other than or in addition to brief intervention, where there was inadequate reporting of results or inappropriate statistical analyses.

We identified 9 randomised controlled trials that tested the efficacy of brief intervention in reducing alcohol consumption in adult heavy drinkers

(WHO (1996), Wallace et al (1998), Anderson & Scott (1992), Scott & Anderson (1991), Babor & Grant (1992), Heather et al (1987), Antti-Poika et al (1988), Chick et al (1985), Richmond et al (1995).

Heavy drinkers were generally defined as individuals who consumed more than 20 to 35 drinks per week, but did not include individuals with severe alcohol dependence. Brief interventions typically involved up to four 10-15 minute sessions and involved motivational counselling and education. Seven of these trials involved outpatient or primary care samples and follow-up periods ranged from 6 to 12 months. We calculated individual odds ratios for the 9

studies and combined them using a Mantel-Haenszel pooled odds ratio meta-analysis. The pooled odds ratio for the 9 studies was 1.86 (95% confidence interval 1.62 to 2.14).

Figure 1 provides a graphical description of the results of the meta-analysis. The pooled and individual odds ratios are indicated by the thin vertical lines. Confidence intervals are indicated by the rectangles surrounding each line. Sample size for each study is indicated by the relative size of each diamond. The results suggest heavy drinkers who receive brief intervention are almost twice as likely to reduce their alcohol consumption compared to heavy drinkers who receive no intervention. This result compares well with an earlier meta-analysis, (Wilk et al, 1997) which reported an odds ratio of 1.91 (95% CI 1.61 to 2.27) for brief intervention relative to no intervention in reducing alcohol consumption.

We calculated a pooled 'Numbers Needed To Treat' (NNT) estimate of the efficacy of brief intervention in reducing alcohol consumption in heavy drinkers using results from the 9 trials described above. NNT is an index of treatment efficacy expressed in terms of the number of patients that must be treated by a given intervention before one will improve. The pooled NNT was 7 (95% CI 6 to 9) suggesting 7 heavy drinkers must be treated with a brief intervention before 1 heavy drinker will reduce their alcohol consumption.

Figure 5. Odds Ratio Plot

