education can reduce less accepted forms of drug use.

In California pupils refused entry to high schools (many use drugs) attend 'continuation' schools. 21 such schools were randomly

assigned to one of two programmes or to act as controls. Main-

stream drug education was likely to be ignored by these high risk youngsters so a nine-lesson, three-week curriculum was devel-

oped which first motivated them to attend to later content. One

programme added 'school-as-community' activities to the lessons; no added value was noted, so results are presented for classroomonly schools versus controls. Questionnaire responses before lessons started were compared

with those collected over a year later. From a roll of 3800 pupils, full data was available from 1074, over 90% aged 16-18, under half living with both parents. Those lost to the study after baseline measures were similar to those retained, but the characteristics of the rest (roughly 2200) are unknown. The lessons were accepted, attended, and achieved at least a short-term gain in knowledge. At the follow up changes in cannabis or tobacco use over the past month did not differ from controls. Growth in alcohol use was slowed down, but only among those already drinking heavily. Cuts in "hard" drug use (cocaine, heroin, stimulants, hallucinogens, etc) were more clear cut; intervention pupils used nearly half as often as controls, a trend seen after both programmes and in most com-

In context This is one of several studies (including another of high risk youth **▼** Secondary sources **①**) to have found that drug education reduces less accepted forms of drug use, including heavy drinking, but not those common within the youth culture. The impact on drinking was clouded by its puzzling absence in 'school-as-community' schools, but the impact on 'hard' drug use (in this sample, sufficiently common to be visible) was convincing, subject to three caveats. High attrition raises questions over generalisability to other pupils, especially those at normal schools, and over whether any school-based activities can reach children most at risk. Most follow ups were completed by phone (many subjects had left school), though this is unlikely to account for differences between intervention and control schools. Lessons were taught by project health educators trained by the project manager; regular teachers cannot be expected to teach to the same standard. That the supplementary activities had no (perhaps even negative) impact may be partly due to their being organised on a voluntary basis by school staff and also poorly attended. In turn this may reflect the lack of appeal of drug-free parties, organised sport, and job training to disaffected youngsters concerned to maintain cred-

parisons, whatever the starting level of use.

ibility with peers in a tough environment.

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Practice implications Working against the grain of youth culture, educational interventions struggle to reverse drug use already widely practised and accepted, but can intercept more deviant forms of drug use, which also tend to be the more immediately damaging. Gaining these benefits where they are most needed - among high risk youth - requires considerable investment in a curriculum tailored to their social environment (peer and perhaps parental support for drug use), emotional needs (stigma, depression, poorly controlled anger, stress), and the role of drugtaking in this nexus. Schools with a high level of serious drug abuse may consider the investment justified. The curricula in this study and in another spotlighted by US authorities (Secondary sources (1) could form the starting point for a UK version. Main sources Sussman S., et al. "One-year outcomes of Project Towards No Drug Abuse." Preventive Medicine: 1998, 27, p. 632-642. Copies: apply ISDD.

Secondary sources 1) Thompson E.A, et al. "Enhancing outcomes in an indicated drug prevention program for high-risk youth." Journal of Drug Education: 1997, 27(1), p. 19–41. Copies: apply ISDD ② US National Institute on Drug Abuse. Drug abuse prevention for at-risk individuals. US National Institutes of Health, 1997.

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Nuggets 1.13, 2.15

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Findings A US study of at-risk teenagers confirms that drug

2.14 Deviant drug use susceptible to education