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▶ An evaluation of a heroin overdose prevention and education campaign.

Horyniak D., Higgs P., Lewis J. et al.

Drug and Alcohol Review: 2010, 29, p. 5–11.

Request reprint using your default e-mail program or write to Dr Horyniak at danielle@burnet.edu.au

Faced with rapidly increasing heroin overdose deaths, the Australian state of Victoria mounted a media campaign targeted at drug users via treatment and needle exchange services. The results illuminate the limitations of such campaigns as much as their plus points.

Summary Steep rises in fatal and non-fatal heroin overdoses in the Australian state of Victoria in the early 2000s prompted the state to implement a campaign to reverse the trends by raising awareness of drugtaking practices associated with overdose and strategies for reducing these risks.

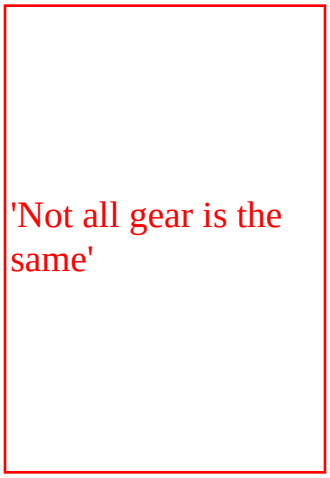
'Using alone?'

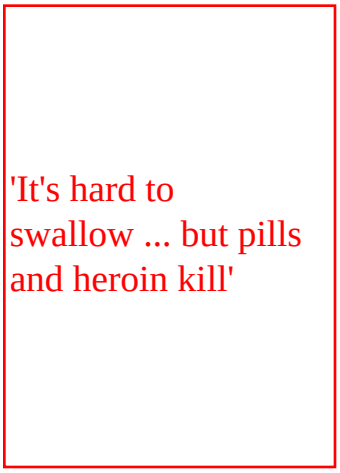
'If you've had a break, halve your hit'

Focus groups of injectors helped develop five key campaign messages (▶ *illustrations*) intended to:

- remind injectors that after a time using little or no heroin, tolerance decreases: 'If you've had a break, halve your hit';
- encourage injectors to let their friends know when and where they will be injecting:

'Using alone?';
• raise awareness of the risks of mixing opiates with other drugs, particularly benzodiazepines: 'It's hard to swallow ... but pills and heroin kill';
• suggest injectors discuss the quality and purity of the drug with their dealer before injecting: 'Not all gear is the same';
• encourage injectors to go for treatment: 'Treatment can open doors'.

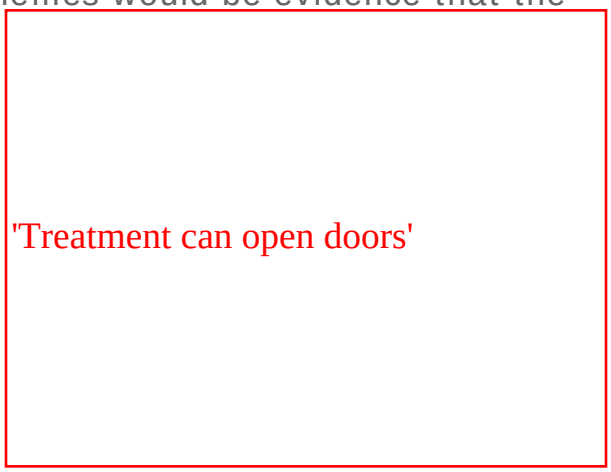




The first four messages were implemented over consecutive fortnights and the final one for a week. Each was communicated to injectors via campaign packages consisting of posters, stickers and wallet cards distributed to all needle and syringe programmes and specialist alcohol and drug services from November 2005 to April 2006.

Main findings

Late in 2006 the state commissioned the independent evaluation documented in the featured report. This drew on the responses of needle exchange users at five metropolitan services who were asked to list risk factors for overdose and protective strategies at the beginning of the campaign (855 were asked) and then for a fortnight after the introduction of each campaign message (numbers fell from 656 to 146 over these phases). More mentions of campaign-related themes would be evidence that the messages had got through. But of 14 messages, just three were significantly more likely to be mentioned after than before the campaign: low tolerance as a risk factor, and the risk reduction strategies of halving the dose when tolerance is low, and asking the dealer about purity. Four other messages were significantly *less* likely to be mentioned after than before the campaign, and the remainder were not significantly more or less likely to be cited.



How these findings came about was explored a year after the campaign ended through in-depth interviews with 16 injectors who had attended exchanges and nine key staff who had worked with injectors during the campaign. Most injectors could recall the key campaign messages, but to many these ideas were already familiar, a point reinforced by staff in relation to tolerance and unknown purity. However, these were among the few messages awareness of which had in fact increased. Injectors felt the campaign was particularly relevant for new injectors

or those who had taken a break from drug use, but also that advice to 'Halve your hit' and 'Phone a friend' were unrealistic. Staff were concerned that the 'Using alone?' message would be interpreted as advice to always inject in company, and be rejected due to reluctance to share drugs. They also felt the treatment message was too vague. However, their primary concern was about the timing of the campaign. Delays meant it came out as heroin purity had fallen, rendering some of the messages less relevant. Injectors and key staff felt stickers were the most useful resource. Staff often placed them on and inside bags of needles and syringes before distribution, and injectors found it useful to have an immediate reminder of the messages while preparing their drugs.

The authors' conclusions

There was no consistent pattern of increased awareness of campaign messages. Delay in the rollout of campaign materials led to a mismatch between the messages and current drug market circumstances. Furthermore, even when awareness had been raised, this had not necessarily led to behaviour change. In a recent study of non-fatal heroin overdose survivors, participants reporting knowledge of the 'Don't mix drugs' message were almost three times as likely to have used alcohol and almost twice as likely to have used benzodiazepines within 12 hours before their overdose compared to those who did not report this knowledge.

Nevertheless, the campaign materials were considered of high quality and capable of reuse if the overdose issue re-emerged. At the time of the evaluation (over 12 months after the campaign), many services still had posters displayed and many stickers remained available at some agencies.

Despite the lack of consistent evidence of effectiveness from surveys of exchange attenders, interviews with injectors and staff revealed that the campaign had provided opportunities to initiate discussion about the risk factors associated with heroin overdose. Drug users expressed positive responses to the campaign's messages and their presentation, even when not necessarily relevant to them personally. Reponses to the campaign materials were particularly positive when appraised on their intrinsic merits, rather than within the context of the campaign itself.

While overdose education is a key component of harm reduction, future campaigns must include messages which are capable of being translated into behaviour change. These messages should be restricted to things which are known to be effective, such as opioid substitution therapies. Campaigns should also be designed and implemented in a manner that is sufficiently flexible to cope with changes in the illicit drug market which could influence the reception of key messages.

FINDINGS As with many media campaigns, the value of the featured campaign seems to have been largely in the opportunity it presented to discuss and reinforce its messages and overdose prevention generally. This turns the spotlight on the use treatment and needle exchange staff are able to make of such campaigns, and the degree to which in the lead up to their release they have been prepared to take advantage of the opportunities they present.

Such campaigns are not uncommon in Britain but have not been formally evaluated. The emphasis has been more on individualised risk assessment, anti-overdose training for drug users and staff (sometimes featuring the opiate overdose-reversing drug naloxone),

and on improved service provision, including substitute prescribing. Commenting on the recent decline in deaths related to drug misuse in England, the National Treatment Agency for Substance Misuse highlighted a corresponding reversal in the heroin epidemic that began in the 1980s, signposted by relatively few presentations for opiate misuse treatment among the under 25s and a decline in presentations for heroin use generally, especially where the heroin epidemic first took hold. Specifically anti-overdose initiatives are unlikely to account for these trends. In Scotland too the emphasis is on greater access to addiction treatment and other services rather than social marketing campaigns of the kind evaluated in the featured study. Across the UK there is cautious optimism that a receding heroin epidemic coupled with more treatment and in particular more opiate prescribing treatment has helped reverse the upward trend in overdose deaths. Details below.

In recent years satisfaction in the UK at meeting addiction treatment targets has been tempered by concern about rising drug-related deaths, though in the last two years the rise has halted or reversed. In England and Wales drug poisoning deaths totalled 2747 in 2010, of which 1784 were linked to drug misuse and 791 to heroin/morphine, in all three cases slight reductions from the peaks of 2008. Scotland in 2010 recorded 485 drug-related deaths, of which 312 were considered to have been caused by drug abuse and 254 involved heroin/morphine. These were all appreciable downturns from the peak figures of respectively 574 (in 2008), 380 (in 2009) and 324 (in 2008). However, analyses of trends revealed by averaging annual fluctuations, smoothing out atypical peaks and troughs, suggested that it was too soon to be confident that long-term upward trends had reversed. Deaths for which the underlying cause was registered as drug abuse had risen from an average of 189 a year in 1996–2000 to 328 in 2006–2010. A more detailed analysis highlighted the fact that 60% of cases had been in contact with drug treatment services, nearly 40% in the past six months, suggesting there had been chances to intervene which for these patients had been insufficient to avoid death.

Across the UK there is concern that methadone – prescribed partly in order to save lives at risk from untreated heroin addiction – is itself implicated in many deaths: in 2010 in Scotland, just over a third of drug-related deaths, and in England and Wales, about a fifth of drug misuse deaths. In both cases until the stabilisation or (in England and Wales) fall registered in this latest year, the numbers had markedly increased, but not because methadone services had become less safe. In fact, the reverse has happened; as supervised consumption has become the norm, the death rate per million doses has plummeted. Instead it seems that the expansion in methadone treatment is the main cause, and this will itself have saved many lives. Nobody has credibly worked out the balance sheet (difficult to do since it is impossible to count deaths which have *not* happened due to treatment) but the World Health Organization was convinced enough of methadone's public health credentials to place it on the international list of essential medicines.

Only time will tell whether 2009 and 2010 will prove a turning point in drug deaths in the UK. Looking back, the UK's long-term increase in deaths related to drug misuse presents an uncomfortable contrast with falls in some other comparable European nations.

Click here for an introduction to overdose prevention and one-click access to all relevant Findings analyses.

Thanks for their comments on this entry in draft to Danielle Horyniak of Macfarlane Burnet Institute for Medical Research and Public Health in Melbourne, Australia. Commentators bear no responsibility for the text including the interpretations and any remaining errors.

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