The impact and effectiveness of mandatory drug testing in prisons

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Mandatory drug testing in prisons in England and Wales is intended to monitor drug-taking in custody, to deter prisoners from misusing drugs and to identify individuals in need of treatment. A large survey of prisoners was carried out in 2001–2002 by the Office for National Statistics and other data was also analysed to examine the impact of the mandatory drug testing programme.

Key points

- About 16% of prisoners reported using drugs in the week before interview. Cannabis and opiates (usually heroin) were the drugs most commonly used.

- Drug use, as measured by monthly random tests in prisons, was found to correlate with prisoners' self-reported drug use. The relationship was stronger for cannabis than opiates.

- Mandatory drug testing results generally underestimate the level of drug misuse as reported by prisoners, but the current numbers of random tests are sufficient to track annual changes in drug use in prisons. The results for individual prisons are less reliable.

- Because of the different detection periods of the drugs, random test results for opiates tend to reflect frequency of use, whilst results for cannabis relate more closely to numbers of users.

- At the time of the survey, the use of cannabis in prison had declined while heroin use had remained fairly steady since random testing was introduced.

- In the survey, 1% of all prisoners had stopped using cannabis and started using heroin since beginning their sentence (though they might have used other drugs in addition to cannabis prior to custody), but fear of detection by random testing was only one factor affecting this behaviour.

- 0.7% of prisoners had initiated or resumed heroin use, having used no illicit drugs in the year prior to custody (although new users considered themselves unlikely to use heroin after prison).

- 66% of prisoners reported using drugs in the month before coming into prison compared with 25% while in custody.

- Procedures for referrals to treatment following a positive random test were under-utilised.

A programme of mandatory drug testing (MDT) based on urine analysis was implemented in all prisons in England and Wales in March 1996. Tests undertaken are:

- random testing of a proportion of prisoners in each prison each month
- where there is suspicion of possession or use

- part of a frequent testing programme of prisoners already known to have a history of drug use
- part of normal risk assessment, for example in considering temporary release
- on reception to some prisons.

The views expressed in these findings are those of the authors, not necessarily those of the Home Office (nor do they reflect Government policy).
The Prison Service commissioned the research reported here to determine how effectively the programme was achieving its aims. Previous research into MDT did not examine random testing fully as a measure of drug use. Also, it did not resolve the concern that, because cannabis may be detected for ten days or more, prisoners may change to drugs with a shorter period of detection – heroin in particular.

Over 2,000 prisoners were interviewed in 2001–2002 by the Office for National Statistics. Prison staff contributed their views, and data from a 1997 survey was examined (Singleton et al., 1998). Some MDT data was analysed.

**Self-reported drug use**

**Use before custody**

In the survey, 70% of prisoners reported using drugs in the year before prison, and 93% of these (66% overall) reported using drugs in the month before prison. Cannabis was the most common drug, used by 51% of the sample in the month before prison, while 29% had used heroin and 23% crack cocaine. Use of more than one drug was common: of those who said they had used opiates in the year before prison, over 90% had used at least one other drug.

**Use in custody**

39% of prisoners said they had used drugs at least once whilst in their current prison, 25% had used in the past month and 16% in the past week. Drug use in the past week was more common in training prisons and local or remand prisons. Only 1% of prisoners said they had injected in their current prison, and there was no evidence that MDT encouraged injecting drug use.

Cannabis and opiates were the drugs most often used. Almost a third of prisoners reported cannabis use and 21% opiate use in their current prison, while 9% and 10% respectively reported using these drugs in the past week.

More prisoners reported using cannabis than opiates in the past month in local prisons, open prisons and young offender institutions. In young offender institutions there was little use of opiates. In training prisons, cannabis and opiates were reported about equally. In women’s prisons and high security prisons the use of both drugs, particularly cannabis, was lower than average (Figure 1).

**Prisoners’ experience of the MDT programme**

In the survey, 67% of prisoners said they had participated in some variant of the MDT programme. This was mainly random testing (59% of MDT participants) or testing on suspicion (21%). Only 3% of those who had been selected for testing said they had refused a test in the current prison and a similar proportion had tried to cheat. Almost a quarter of all prisoners had tested positive at some time (9% in their current prison). A higher proportion had at some time tested positive for cannabis (18%) than for opiates (12%), but in the current prison 5% had tested positive for each drug.

**Does random testing indicate the pattern of drug misuse in prisons?**

Prisoners’ self-reported drug use in the 1997 and 2001 surveys was compared with random MDT results, taking into account prison factors, such as size and type. For the earlier survey there was a correlation between self-reported use and the percentage testing positive for drugs (the positivity rate) for each prison. However, the estimates explained less than a quarter of the variation in the MDT positivity rates. For cannabis, self-reported use was the factor most strongly associated with random MDT positivity rates, whilst opiate positivity rates were more strongly associated with prison factors, in particular prison type, than with levels of self-reported use. The 2001 survey analysis also indicated that the overall correspondence between self-reported use and positivity rates was lower for opiates than for cannabis.

**Random MDT results as a measure of drug use**

Analyses were carried out to see how random testing results related to self-reported cannabis and opiate use in the past month in individual prisoners. There was considerable discrepancy between the observed and expected rates, though the values were closer for cannabis than for opiates. This suggests that such models are unsuitable for estimating rates of use in individual prisons.

Random MDT results were generally less than the equivalent self-reported monthly levels of drug use. This is because the window of detection is shorter than a month and because the level of detection is deliberately set to avoid false positive results. Nevertheless, random MDT positivity rates were found to be a good measure for tracking changes in drug use nationally or by prison area.

Theoretical analyses taking into account detection periods and likely patterns of use suggest that opiate positivity rates will tend to parallel the number of episodes of use, whereas cannabis positivity rates will tend to indicate the number of users and be less sensitive to frequency of use.

**Testing levels needed**

Currently the positivity rate is a good indication of the annual national level of drug use: a change between years
as low as half a percentage point can be reliably detected. For administrative purposes, prisons are grouped into 15 geographical or functional areas. For these areas, precision is lower but changes of at least one percentage point in annual positivity rates should be detectable. For individual establishments, the numbers on which rates are based are small and only changes over five percentage points could be detected reliably. A few large prisons collect about 75 tests per month; for these, changes as low as two percentage points could be detected. In the current MDT programme, 10% of prisoners in most prisons are tested each month (5% in larger prisons). This means that the sample size varies widely between prisons. Alternative testing schemes could be tailored to examine particular patterns of change. For example, if establishment estimates were the key concern, testing the same number of people in each prison could improve local estimates slightly without increasing the overall number of tests.

How does MDT affect prisoners’ use of drugs?

Many factors, other than MDT, are linked with prisoners’ use of drugs, such as peer pressure, changes in treatment, boredom, availability of drugs, repeated imprisonment and the inappropriateness of stimulants in a custodial setting. The relationship is complex, and it is difficult to link changes to particular causes. However, since testing began in 1996 the proportion of prisoners testing positive for cannabis has declined, while opiate rates up to the end of 2001 remained relatively unchanged. The decline contrasts with fairly steady rates of drug use in the general population but with an increase in heroin and crack cocaine coupled with stable cannabis rates for offenders outside prison.

The survey showed a marked drop in the proportion of prisoners reporting using drugs in prison compared with the immediate pre-prison period (Figure 2). Less than half of those using drugs in the month before prison said they used drugs in prison in the month before interview. The reduction was slightly less for opiates than for cannabis.

The most common reason given by prisoners for stopping use of drugs in prison was that they did not need them. Prisoners who had used drugs in the previous week said they needed them or wanted the effect (65%) or that they were easily available (57%). So while drug measures including MDT influenced prisoners’ drug use, major factors also included habit, addiction and availability.

Most prisoners said they were unlikely to use cannabis or opiates in prison in the future - 77% said they were ‘extremely unlikely’ to use heroin and 61% cannabis in their current prison. Conversely, 13% said they were ‘likely’ or ‘extremely likely’ to use heroin and 22% cannabis.

Looking at all those interviewed, fewer prisoners felt they were likely to use heroin after release than in the current prison. In contrast, more prisoners thought they were likely to use cannabis after leaving prison. However, actual behaviour may be very different from these assessments of likelihood of use. ‘Use before custody’ was the main factor associated with a perceived likelihood of using drugs after release. Thus, while being in prison tends to reduce drug use, it would appear the change is largely temporary.

Prisoners with a history of drug use who were worried about the punishments for testing positive tended to say they would be unlikely to use drugs in prison in future. The effect was larger for cannabis than for heroin. This suggests that for some MDT is a direct deterrent, particularly of cannabis. The use of opiates before prison was associated with a higher perceived likelihood of use of both cannabis and heroin in the future in prison, as was dependence on stimulants. This confirms the influence of habit and addiction on drug use in prison.

It is often suggested that random testing encourages prisoners to start using heroin rather than say, cannabis, as it is detectable for a shorter time, but only 1% of all prisoners were identified who said they had changed from cannabis to heroin (though they might have also used other drugs as well as cannabis before the change). It is difficult to isolate the influence of MDT on such a small group. A larger group (5% of all prisoners) had used heroin in their current prison but not in the month before custody (though 90% of these had used other drugs before prison, including nearly two-thirds who had used stimulants). This group gave ease of availability and need as the main reasons for taking up heroin. However, 16% of them said that the fact that heroin was less easily detected was a factor.

The study examined whether prison might lead non-users into starting drug use. Only 0.7% of prisoners said they had used no drugs in the year before custody and had started or resumed use of heroin in custody. New users of heroin, however, considered themselves unlikely to use heroin after prison. Those who had used cannabis in the month before imprisonment but not in the current prison (25% of all prisoners) most commonly said they changed because of fear of getting caught. This further confirms that availability, need and the chance of detection can all affect prisoners’ use of drugs.

What happens to prisoners who refuse or fail random drug tests?

The most common punishments reported by prisoners who refused to be tested or who tested positive were days added to the sentence, loss of privileges and loss of earnings.
Despite the inherent differences between self-reported survey positivity rates. The changes in national rates of drug use as measured by MDT broadly reflect changes in the types and level of drugs used, as measured by self-reported use in surveys in 1997 and 2001. Random MDT results can usefully track change in drug use over time at the national and area level. Current drug prevention measures in prisons, of which the MDT programme is a major element, appear to be actively discouraging drug use, particularly of cannabis. The proportion of prisoners saying they used any drug fell from 66% in the month before prison to 25% in custody. A quarter of prisoners had stopped using cannabis in prison (though they might have used other drugs before custody). Only 4% of these (1% of all prisoners) said they were using other drugs instead, mostly opiates. 5% of all prisoners had used heroin in prison but had not used it in the month before prison; however, most of these had been using other drugs before prison.

The level of positive cannabis tests has fallen over time, while levels of positive tests for opiates have remained largely unchanged (though a decline has been evident since the research was conducted). This reflects the intractable nature of heroin addiction, though heroin use has probably increased among offenders outside prison. The overall conclusion is that MDT, along with other strategies, has substantially reduced cannabis use within prisons but has had little effect on the use of heroin. Prisoners know that heroin is less easily detected than cannabis. Also, current use of heroin is more clearly influenced by previous and persistent use, and users are less likely to be deterred by the possibility of detection and sanctions. It should be recognised that some prisoners with a high level of dependence before coming to prison are likely to be impervious to any kind of sanction. At the same time, MDT can act as a useful deterrent to others.

The research highlights many positive aspects of MDT but also indicates possibilities for improvement. Ongoing work is already tackling many of these issues and the research will continue to inform policy.

**Methodological note**

A survey of prisoners aged 16 and over from a sample representative of all prisons in England and Wales was carried out between September 2001 and January 2002. Randomly selected prisoners within 11 groups of prisons were interviewed – giving a total sample size of 2,270. The data was weighted to make the results nationally representative. Some prisoners gave oral fluid and hair samples for testing, the results of which went some way to validating the self-reported use of drugs. In addition, prison staff were interviewed, and drug use data from a 1997 survey of psychiatric morbidity in prisons in England and Wales was analysed (Singleton et al., 1998), as was official MDT data.

**Reference**


For a more detailed report see The Impact of Mandatory Drug Testing in Prisons by Nicola Singleton, Elizabeth Pendry, Tracy Simpson, Eileen Goddard, Michael Farrell, John Marsden and Colin Taylor (2005). It is available as an Online Report No. 03/05 on the Home Office website http://www.homeoffice.gov.uk/rdss/