Home Office

BUILDING A SAFE, JUST AND TOLERANT SOCIETY

The results of the first two years of the NEW-ADAM programme

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Home Office Online Report 19/04

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Foreword

This report summarises the results from the first two years of the NEW-ADAM programme of interviewing and drug testing those arrested by the police in 16 custody suites in England and Wales. NEW-ADAM has proven itself to be a vital tool for policy makers, researchers and practitioners in the development of new initiatives such as arrest referral and drug testing.

Whilst NEW-ADAM provides reasonably reliable information for the 16 areas covered, the full national picture may be more complicated. Recently therefore, the Home Office commissioned feasibility work to assess how nationally representative figures might be achieved, and also to update the questionnaire and examine the utility of different drug testing methods, such as oral fluids rather than urine.

This work has now been completed and has been fed into the revised Arrestee Survey programme, which the Home Office launched in September 2003. This survey will provide enhanced information for monitoring the effectiveness of the drugs strategy and for understanding the complex links between drugs and crime.

For an overview of the NEW-ADAM research programme and current developments in the approach to monitoring drug-related crime within the Home Office, please see the RDS website.

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Summary

This report provides a summary of the results of the first two years of the NEW-ADAM (New English and Welsh Arrestee Drug Abuse Monitoring) programme. The NEW-ADAM programme involves interviewing and collecting urine specimens from current arrestees held in police custody suites in 16 locations in England and Wales.[1] In the first year, eight sites were visited and in the second year a further eight sites were visited. In the third year, the first eight sites were revisited.

The surveys provide information on the characteristics, drug use and offending behaviour of suspects currently held in police custody suites. Approximately 11,000 arrestees passed through the 16 custody suites during the first two years of the programme. Forty-three per cent of these arrestees were deemed ineligible for interview. The largest groups deemed ineligible were juveniles (aged under 17) and those held for drink driving or drunkenness offences only. The 3,091 achieved interviews represented 50 per cent of all eligible arrestees and 85 per cent of all eligible arrestees approached for interview. The main reason for not approaching an arrestee for interview was the absence of a time gap long enough to complete the interview, as arrestees must be processed and released to PACE guidelines. Of those interviewed, 2,933 (95%) provided a urine sample. A breakdown of the reasons for ineligibility, non-response, non-interview and non-specimen is provided in Appendix D.

Drug misuse among arrestees

Urinalysis is a scientific procedure that can determine recent drug use, in most cases in the last few days. In the current surveys, urinalysis was used to test urine specimens provided by arrestees for the presence of any of six illicit drug groups: cannabis, opiates (including heroin), cocaine (including crack), benzodiazepines, amphetamines and methadone. The analysis was also used to test for the presence of alcohol. However, as alcohol is metabolised more rapidly in the body, the test was capable of identifying only very recent use.

Of the 2,933 arrestees who provided a urine specimen, 69 per cent tested positive for one or more illicit drug types and 36 per cent tested positive for two or more such substances. Equivalent figures for opiates and cocaine were 31 per cent and 22 per cent respectively, with 38 per cent testing positive for either or both substances. The probability of testing positive for opiates and/or cocaine was highest among females, arrestees aged 20 to 29, white arrestees, and those who had been arrested under suspicion of committing a property offence.

In addition to the urine specimen, arrestees were interviewed about their drug use over various periods of time. Eighty per cent of arrestees reported having used at least one illicit drug in the last 12 months and 62 per cent reported having used more than one such substance in the same period. Fifty-seven per cent of arrestees reported having used a Class A drug in the last 12 months and 48 per cent said that they had used heroin and/or cocaine and/or crack (henceforth HCC). Cannabis was the most commonly consumed illicit drug, with 70 per cent of arrestees reporting use of this drug in the last 12 months. More than half of all interviewed arrestees were high-rate users of one or more illicit drugs (i.e. they said that they had used an illicit drug on 15 or more days in the last 30 days). Cannabis, alcohol and heroin were the drugs most likely to be used by arrestees at a high rate.

[1] When interpreting the findings presented in this report, it is important to acknowledge: (a) that the population from which the sample was drawn is not a natural population, but one generated out of a combination of factors including offender behaviour and arrest decisions, (b) that the sampling method used does not provide a nationally representative sample of arrestees, (c) that differences between the groups of interviewed and non-interviewed arrestees may have implications for the results, and (d) that questioning individuals about sensitive issues such as illicit drug use and offending behaviour may result in either under-reporting or over-reporting. These limitations are discussed further in the main body of the report.

Drugs and crime

In addition to questions on drug use, arrestees were asked about their offending behaviour in relation to certain types of acquisitive crime, including: theft, burglary, shoplifting, fraud, handling stolen goods and drug supply offences.[2] Just over half of all interviewed arrestees reported committing one or more acquisitive crimes in the last 12 months. The proportion increased to 75 per cent among arrestees who said that they had used HCC in the last 12 months. The mean number of offences in the last 12 months among offenders who said that they had used HCC was nearly six times higher than for offenders who said that they had not used illicit drugs (442 compared with 79).[3]

Arrestees were also asked about the amount of illegal income that they had generated in the last 12 months. Approximately half of all interviewed arrestees reported having generated some illegal income in the last 12 months. The most commonly reported source of illegal income was property crime (66% of those reporting illegal income). Drug-using arrestees reported significantly higher levels of illegal income than non-drug using arrestees. Arrestees who said that they had used heroin *and* cocaine *and* crack in the last 12 months reported a mean annual illegal income of more than £24,000. This was four times greater than the mean reported by arrestees who said that they had not used illicit drugs (£5,763). When asked about the connection between their drug use and offending, 60 per cent of arrestees who reported using one or more illicit drugs and committing one or more acquisitive crimes in the last 12 months thought that there was a connection between their drug use and offending behaviour. The proportion rose to 74 per cent among arrestees who had said that they had used HCC in the last 12 months.

Drug misusing repeat offenders

One of the key aims of the Government's anti-drugs strategy is to protect communities from drug-related criminal behaviour by reducing the level of drug misusing repeat offenders (DMROs). DMROs as defined here, are those arrestees who reported using heroin and/or cocaine and/or crack, on average, at least once a week in the last 30 days[4] AND who reported committing, on average, two or more income-generating offences per month over the last 12 months.[5] The measure of repeat offending is based on self-reported information provided by arrestees covering the 12 months prior to the interview. It is not based on recorded convictions, which were not collected as part of the research

The proportion of DMROs varied across the 16 survey sites, from a low of five per cent to a high of 31 per cent. Overall, 18 per cent of arrestees interviewed in the first two years of the NEW-ADAM programme were DMROs. A large minority of this group of DMROs had used heroin *and* cocaine *and* crack in the last 12 months (38%). By contrast, one per cent of this group had used only crack in the same period. DMROs earned significantly less legal income in the last 12 months than other arrestees, but they generated significantly more illegal income.

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[2] Arrestees were also asked whether they had committed prostitution-related offences. However, as questions relating to prostitution were not included in the first survey (Sunderland), the offending data presented in this report excludes prostitution-related offences.

[3] When interpreting the offending rates presented in this report, it is important to acknowledge that a small proportion of arrestees was responsible for a large proportion of the total number of crimes reported. This means that the offending rate and offending characteristics of a small proportion of arrestees may have had a disproportionate influence on the overall nature of the results obtained.

[4] The phrase, '… at least once a week in the last 30 days' means that the arrestee reported using heroin and/or cocaine and/or crack on five or more days out of the last 30 days.

[5] Arrestees were asked how many offences they had committed 'ever' and 'in the last 12 months', but they were not asked how many they had committed 'in the last 30 days'. The '12 month' data has therefore been used to calculate the monthly offending rate. Thus, the phrase, '… on average, two or more income-generating offences in the last 30 days' means that the arrestee reported 24 or more offences in the last 12 months.

1. Introduction

NEW-ADAM objectives

The main aim of the NEW-ADAM programme is to provide authoritative research on the nature and extent of drug use among arrestees, focusing in particular on the links between drug use and offending behaviour, indicators of repeat offending, and other factors relevant to the Government's drugs strategy. The research programme was originally devised before the commencement of the Government's drug strategy, with developmental work being undertaken during 1996-1998. This report summarises the results from the first two years of the NEW-ADAM programme which was carried out during 1999-2001.

Methods

The NEW-ADAM programme is based on surveys of arrestees currently held for official processing, typically in relation to a suspected offence, in police custody suites in England and Wales. The research methods are similar to those used in the Arrestee Drug Abuse Monitoring (ADAM) programme in the United States and in other International Arrestee Drug Abuse Monitoring (I-ADAM) programmes. The main methods of data collection are structured face-to-face interviews and collection of urine specimens.

Sampling

The NEW-ADAM programme uses a system of two-stage sampling. In the first stage, 16 sites were selected based on a method of 'purposive' sampling of custody suites with a sufficiently high throughput of arrestees.[6] In the second stage, approximately 210 arrestees were interviewed in each site. Arrestees were selected for interview over a 24-hour period for seven days a week over the survey period (approximately 30 days). An attempt was made to interview all arrestees who were deemed eligible to be approached for interview. This excluded arrestees who had been re-arrested and previously interviewed during the study period. Hence, the survey was one of arrestees and not arrest events.

In order to obtain a sufficient number of interviews over the time available, it was necessary to aim for a 100 per cent sample of those considered eligible for interview. Forty-three per cent of arrestees passing through the 16 custody suites were deemed ineligible. The largest groups deemed ineligible were juveniles (aged under 17) and those held for drink driving or drunkenness offences only. Other arrestees excluded from the survey were: arrestees who were unfit for interview, arrestees who were unable to understand what was said during the interview, arrestees who were unsafe to interview and arrestees who were unsuitable for interview on the grounds of the drug-testing requirements (i.e. they had been in custody for more than 48 hours or they were not at liberty prior to entering the custody suite). The 3,091 achieved interviews represented 50 per cent of all eligible arrestees and 85 per cent of all arrestees who were approached for interview. The main reason for not approaching an arrestee for interview was the absence of a time gap long enough to complete the interview. Of those interviewed, 2,933 (95%) provided urine samples. A breakdown of the reasons for ineligibility, non-response, non-interview and non-specimen is provided in Appendix D.

The subjects included male and female arrestees. In most sites, about 30 consecutive days were needed to reach the target number of 210 study subjects. The decision to use this particular target range was based on a number of factors: it was the recommended target sample size of the ADAM programme in the United States, it was found to be feasible to interview this number of arrestees during a one-month survey period, and it was a sufficient number of cases to conduct basic statistical analysis.

[6] See Appendix C for details.

After being booked into the police custody suite, arrestees were approached by NEW-ADAM researchers and asked if they would be willing to be interviewed about their past drug use and offending behaviour. Arrestees were informed that the interview was part of an independent study conducted by the University of Cambridge and funded by the Home Office. The researchers reassured arrestees that their responses would be treated in strict confidence and would not be shown to, nor discussed with, the police. The researchers also informed the arrestees that at the end of the interview they would be asked to provide a urine specimen. Arrestees were under no obligation to provide a specimen and were interviewed regardless of their willingness to provide a sample. Those arrestees who agreed to be interviewed were asked to sign a form indicating their consent to be interviewed. Those arrestees who agreed to provide a specimen were asked to sign a second form indicating their consent to provide a specimen.

In Table D.6 (Appendix D), the characteristics of interviewed arrestees are compared with the characteristics of non-interviewed arrestees.[7] The figures show that there was no significant difference between the two groups in terms of race: approximately one-fifth of each group was non-white. However, the groups differed significantly in terms of sex, age and type of offence for which the arrestee had been detained. Interviewed arrestees were significantly more likely than non-interviewed arrestees to be male, aged under 25 and to have been arrested under suspicion of having committed a property offence. The differences between the sample and the population in terms of sex, age and offence held may have implications for the results obtained. Attitudes and behaviour (such as drug use and criminal behaviour and the perceived connection between the two) associated with being male, aged under 25 and held under suspicion of a property offence are likely to be over-represented in the results.

Urinalysis

In the first two years of the programme, seven drug types were tested: cannabinoid metabolite, opiates, methadone, cocaine metabolite, amphetamines, benzodiazepines and alcohol. The urinalysis was based on an immunoassay screening test (the Kinetic Interaction of Micro-Particles [KIMS] test).

The cut-off levels used in the current research were generated in collaboration with the Forensic Science Service in order to provide the best balance between over-sensitive and under-sensitive tests. The reason for doing this was to balance the levels of both Type I errors (saying that a test was positive when it was not, i.e. false positives) and Type II errors (saying that the test was negative when it was not, i.e. false negatives). Details of these cut-off levels are presented in Appendix A.

The questionnaire

The questionnaire is divided into two main parts: (1) a core questionnaire (which includes questions comparable with those used in other I-ADAM surveys, such as questions on recent and past drug consumption) and (2) two follow-up questionnaires (versions A and B) containing additional questions on drug use, lifestyle, gun ownership and drug markets. All interviewees completed the core questionnaire. The interviewees were then randomly allocated to complete either version A or version B of the follow-up questionnaire. Follow-up questionnaire A covers questions relating to guns and other weapons and follow-up questionnaire B covers questions relating to drug purchases and drug markets.

The main schedule is divided into sections covering the principal topic areas of research, including: self-reported drug use (ever, in the last 12 months, in the last 30 days, and in the last three days), injecting drugs and sharing needles, dependency on drugs and alcohol, drugs and crime, legal and illegal sources of income, amount spent on drugs, and treatment needs. The questions are mainly structured with pre-set response categories, although some are open-ended. The questionnaire comprises more than 200 questions, a large proportion of which have

[7] Comparisons between arrestees in the eligible population and arrestees not in the eligible population, and between arrestees approached for interview and arrestees not approached for interview are also included in Table A4.7.

not been discussed in this report. It is hoped that further analyses will be presented in future publications.

Interpreting the data

When interpreting the data presented in this report, it is important to note that the population from which the sample was drawn is not a natural population, but one generated out of a combination of factors including offender behaviour and police arrest decisions. Hence, the population of arrestees may vary from area to area and over time as a result of, say, changes in police practices or changes in the law. It should also be noted that the sampling method does not provide a nationally representative survey of arrestees. Hence, caution needs to be exercised in extrapolating the results beyond the specific sites and the specific times investigated.

Confidence intervals

The sample means generated from the results of the NEW-ADAM surveys provide estimates of the population means from which they are derived. These estimates are subject to sampling error. One method of summarising the likely error of a population estimate is through confidence intervals. Confidence intervals provide a range of values within which the mean of a population is likely to fall. These are usually accompanied by a statement about confidence levels or the level of probability that the population mean falls within the confidence intervals presented. These are typically expressed at the level of 90 per cent, 95 per cent or 99 per cent confidence.

Confidence intervals have been calculated in the current report for the results of all 16 sites combined for the urinalysis only (see Appendix B). These calculations are based on the assumption of random sampling at each stage. However, as the first stage was based on purposive rather than random sampling, some caution is needed in interpreting the findings. The results show that the estimates obtained for cannabis, methadone, amphetamines, benzodiazepines and alcohol had confidence intervals of no more than ± 3.0 percentage points. The estimates for opiates and cocaine and related combinations, however, had slightly larger confidence intervals (as much as ± 5.8 percentage points). Hence, the results of the urinalysis should be interpreted to take into account this possible variation. Generally speaking, the results of the self-report data should generate slightly narrower confidence intervals as a result of the larger sample sizes involved.

Report outline

Chapter Two of this report looks at drug misuse among arrestees and explores the results of the urinalysis and the self-report drug inventory. Chapter Three explores offending behaviour and the relationship between drugs and crime. Chapter Four examines the characteristics of drug-misusing, repeat offenders. Chapter Five is the conclusion.

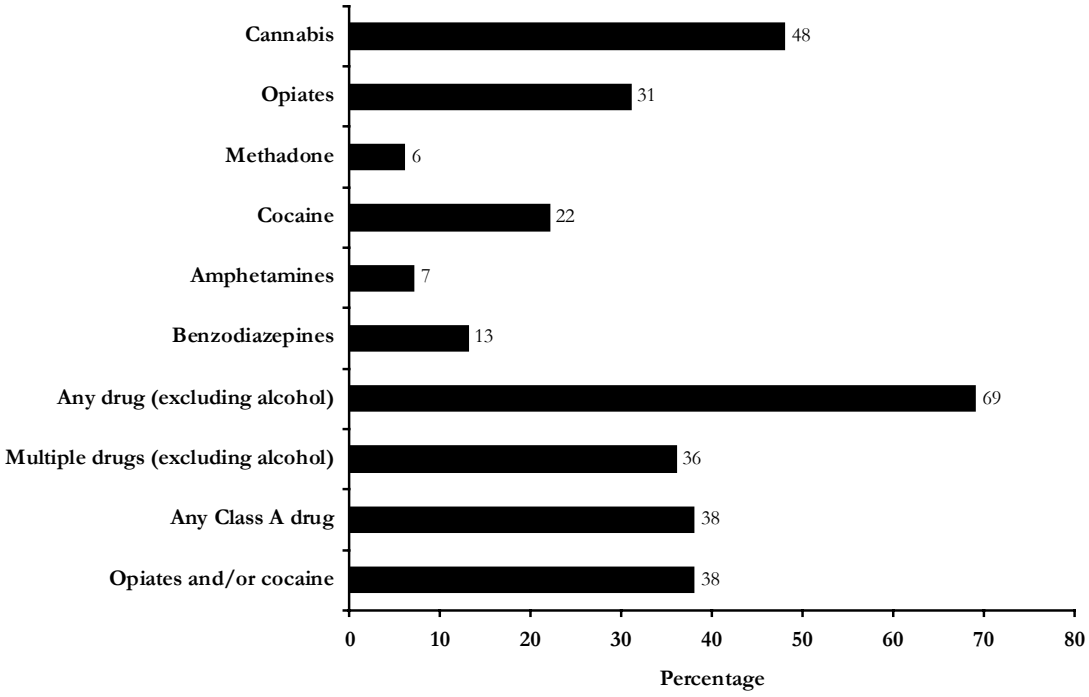
2. Drug misuse among arrestees

Drug tests among arrestees

Urinalysis is a scientific procedure that can determine recent drug use (in most cases in the last few days). In the current research, urinalysis tests were conducted on six drug groups: cannabis, opiates (including heroin), cocaine (including crack), benzodiazepines, amphetamines and methadone. Urinalysis was also used to test for the presence of alcohol, but as this is metabolised more rapidly in the body, the test was capable of identifying only very recent alcohol use.

Figure 2.1 shows the proportion of arrestees who tested positive for six drug types and four combinations of illicit drug types. Overall, 69 per cent of arrestees tested positive for one or more of six illicit drug types, and 36 per cent tested positive for two or more illicit substances. Evidence of cannabis use was detected in the urine of nearly half of those tested. Equivalent figures for opiates and cocaine were 31 per cent and 22 per cent respectively, with 38 per cent of arrestees testing positive for opiates and/or cocaine.

Figure 2.1 **Percentage of positive tests, among arrestees providing urine specimens (n=2,933)**



Notes: 'Any drug' refers to one or more of six illicit drug types. 'Multiple drugs' refers to two or more of six illicit drug types. 'Class A drugs' refers to opiates and/or cocaine and/or methadone.

Figure 2.2 focuses on the group of 1,108 arrestees who tested positive for opiates and/or cocaine. The chart shows that the majority of arrestees in this group tested positive for opiates. Indeed, 38 per cent tested positive for opiates *and* cocaine and 42 per cent tested positive for opiates only. By contrast, less than one-fifth of arrestees in this group tested positive for cocaine alone.

Figure 2.2 Percentage of positive tests for opiates and cocaine among arrestees testing positive for one or more of these drug types (n=1,108)

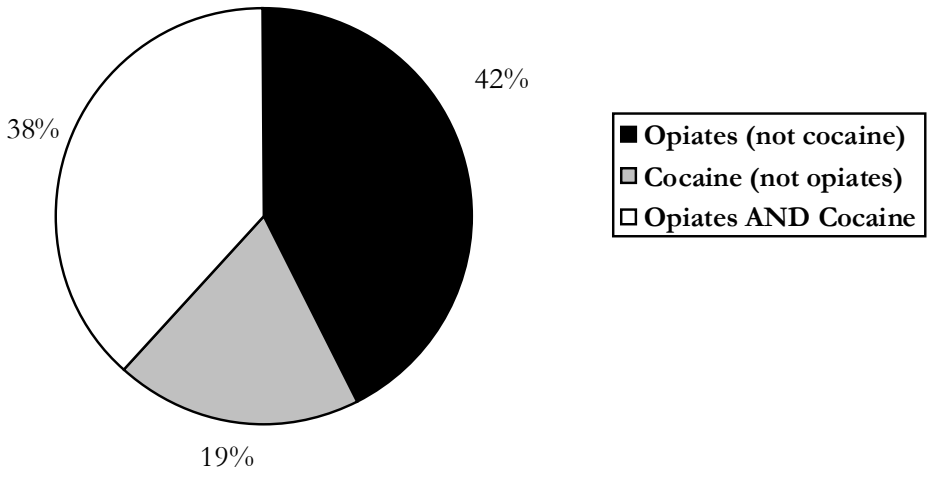


Table 2.1(a) and (b) provides a breakdown of the urinalysis results by sex, age group, ethnic group and type of offences for which the arrestee was detained. The table shows that male arrestees were significantly more likely than female arrestees to test positive for cannabis and alcohol. Female arrestees, in contrast, were significantly more likely than males to test positive for opiates, methadone, cocaine, amphetamines and benzodiazepines. Female arrestees were also significantly more likely than males to test positive for multiple drug types, any Class A drug, and opiates and/or cocaine. It is possible that the higher proportion of positive tests among female arrestees for most drug types may, in part, reflect differences in offending patterns and likelihood of arrest.

Significant differences in the proportions testing positive were also found among the four different age groups (17–19, 20–24, 25–29, 30+). A larger proportion of arrestees in the 25 to 29 age group than in the other age groups tested positive for opiates, methadone, cocaine, benzodiazepines, any drug, multiple drugs, any Class A drug and opiates and/or cocaine. The largest proportion of arrestees testing positive for cannabis was aged 17 to 24. The prevalence of testing positive for alcohol was highest amongst the 30 or older age group.

There were also differences among white and non-white arrestees, with a significantly higher proportion of white arrestees testing positive for opiates, methadone, amphetamines, benzodiazepines, alcohol, multiple drugs, any Class A drug, and opiates and/or cocaine. Non-white arrestees, in contrast, were significantly more likely than white arrestees to test positive for cocaine.

Over-all, arrestees who were female, aged 25 to 29, white, and arrested under suspicion of committing property offences were significantly more likely than their counterparts to test positive for opiates and/or cocaine, any Class A drug and multiple drug types.

Significant differences in drugs detected were also found among arrestees detained for different types of offence. Arrestees detained under suspicion of committing shoplifting were most likely to have used opiates and or cocaine/crack prior to arrest with over two-thirds (67%) testing positive. Other than those arrested for shoplifting, detainees arrested for handling stolen goods and burglary were most likely to test positive for opiates, and detainees arrested for robbery and drug offences were most likely to test positive for cocaine/crack.

Table2.1(a) Percentage of arrestees testing positive for opiates, cocaine/Crack , and HCC by reason for arrest.

Reason of arrest	Opiates	Cocaine/ crack	HCC	Number of arrestees
Handling stolen goods	34%	20%	37%	35
Shoplifting	63%	32%	67%	468
Burglary	38%	26%	47%	193
Robbery	17%	30%	35%	60
Theft from person	25%	33%	42%	12
Theft of a motor vehicle	15%	15%	24%	143
Theft from motor vehicle	29%	19%	36%	31
Deception/fraud	23%	18%	28%	100
Drugs supply	24%	29%	39%	59
Drugs possession	25%	28%	42%	231

Table 2.1(b) Percentage of positive tests, among arrestees providing urine specimens ***(Row percentages)***

	n	Cannabis	Opiates	Methadone	Cocaine	Amphet-amines	Benzodiaz-epines	Alcohol	Any drug (excl. alcohol)	Multiple drugs (excl. alcohol)	Any Class A drug [1]	Opiates and/or cocaine
Sex												
Males	2,526	50%	28%	6%	20%	7%	12%	24%	68%	35%	36%	36%
Females	407	36%	44%	10%	32%	11%	21%	14%	71%	46%	50%	49%
Sig. of difference		***	***	**	***	*	***	***	ns	***	***	***
Age Group												
17–19	693	55%	16%	1%	13%	5%	5%	19%	65%	22%	22%	22%
20–24	755	55%	34%	6%	22%	7%	13%	24%	77%	38%	42%	42%
25–29	531	50%	46%	9%	31%	9%	20%	18%	77%	52%	55%	54%
30+	954	37%	29%	8%	22%	9%	16%	26%	60%	36%	38%	37%
Sig. of difference		***	***	***	***	**	***	***	***	***	***	***
Ethnic Group												
White	2,400	48%	33%	7%	21%	9%	15%	25%	69%	38%	39%	39%
Non-white	533	52%	21%	3%	27%	2%	6%	13%	69%	28%	33%	33%
Sig. of difference		ns	***	**	**	***	***	***	ns	***	*	*
Total (n)	**2,933**	**1,413**	**895**	**180**	**638**	**215**	**389**	**660**	**2,015**	**1,063**	**1,123**	**1,109**
Offence [2]												
Property	1,165	51%	43%	9%	25%	7%	18%	14%	77%	46%	49%	49%
All other offences	1,213	46%	15%	2%	16%	8%	8%	35%	58%	24%	24%	24%
Sig. of difference		*	***	***	***	ns	***	***	***	***	***	***
Person	517	39%	11%	1%	13%	5%	7%	37%	50%	17%	18%	18%
All other offences	1,861	51%	34%	7%	23%	8%	15%	21%	72%	40%	42%	41%
Sig. of difference		***	***	***	***	*	***	***	***	***	***	***
Total (n)	**2,378**	**1,145**	**679**	**129**	**491**	**174**	**304**	**588**	**1,600**	**829**	**867**	**855**

Notes: Chi square test * p<0.05, ** p<0.01, *** p<0.001, ns = not significant. [1] Class A drugs refer to opiates, methadone and cocaine . [2] 'Offence' refers to the type of offence for which the respondent was arrested and includes only those arrestees who provided a specimen and who were arrested under suspicion of committing an offence (n=2,378). Not all arrestees who provided a specimen were detained under suspicion of committing an offence. Other reasons for custody include: warrant (failure to attend) = 265; warrant (other) = 158; answering bail = 6; breach of conditions = 88; Section 25 = 15; other = 22; unknown = 1. 'Person' refers to offences against the person (e.g. murder, robbery, assault). 'Property' refers to acquisitive property offences (e.g. burglary, theft, handling).

Self-reported drug use

In addition to the urinalysis, arrestees were interviewed about their drug use over various periods of time (ever, in the last 12 months, in the last 30 days, and in the last three days). These interview questions supplement the results of the urinalysis in a number of ways:

i) the questions are put both to arrestees who had provided a urine specimen and to those who had not,
ii) the questions cover a broader range of drug types than are covered by the urinalysis (21 in total),
iii) the questions cover a wide range of issues including the method of administration (specifically whether injected), rate of use, age of onset, and dependency, and
iv) unlike the urinalysis, the interview questions permit a distinction to be made between use of cocaine powder and crack cocaine and between use of heroin and other opiates.

Comparisons between the results of the urinalysis and self-reported drug use

Table 2.2 compares the results of the urinalysis with the results of the self-report drug inventory. There is generally good correspondence between self-reported drug use over the last three days and the urinalysis results in relation to the negative test results. In other words, there is little evidence of over-reporting drug use (i.e. reporting use of a drug in the last three days, but testing negative for the drug). In relation to most drug types, the proportion of arrestees over-reporting their drug use was no more than one or two percentage points. Indeed, only one per cent of arrestees over-reported opiate use and only two per cent over-reported cocaine use. The greatest disparities were found in relation to alcohol use. This is almost certainly a result of the fact that alcohol is metabolised rapidly in the body (approximately at a rate of one unit of alcohol per hour) and only very recent and/or heavy use of this drug is likely to be detected by urinalysis.

The correspondence between self-reported drug use and the urinalysis results is less strong in relation to the positive test results. For most drug types the proportion of arrestees under-reporting their drug use (i.e. reporting 'no' use of a drug in the last three days, but testing positive for that drug) was slightly higher than the proportion of arrestees over-reporting their drug use. Indeed, six per cent of arrestees under-reported heroin use (compared with 1% over-reporting), eight per cent under-reported cocaine use (compared with 2% over-reporting) and ten per cent under-reported cannabis use (compared with 9% over-reporting).

Table 2.2 Percentage of arrestees reporting drug use in the last three days, among arrestees providing urine specimens

(Percentages of total n for each 2x2 combination)

	Negative for drug	Positive for drug	Total (n)
Not used cannabis in last 3 days	1,266 (43%)	287 (10%)	1,553
Used cannabis in last 3 days	252 (9%)	1,128 (38%)	1,380
Total (n)	1,518	1,415	2,933 (100%)
Not used heroin[1] in last 3 days	2,016 (69%)	188 (6%)	2,204
Used heroin in last 3 days	22 (1%)	707 (24%)	729
Total (n)	2,038	895	2,933 (100%)
Not used methadone in last 3 days	2,694 (92%)	57 (2%)	2,751
Used methadone in last 3 days	59 (2%)	123 (4%)	182
Total (n)	2,753	180	2,933 (100%)
Not used cocaine/crack in last 3 days	2,226 (76%)	224 (8%)	2,450
Used cocaine/crack in last 3 days	69 (2%)	414 (14%)	483
Total (n)	2,295	638	2,933 (100%)
Not used amphetamines in last 3 days	2,660 (91%)	106 (4%)	2,766
Used amphetamines in last 3 days	57 (2%)	110 (4%)	167
Total (n)	2,717	216	2,933 (100%)
Not used benzodiazepines in last 3 days[1]	2,439 (83%)	174 (6%)	2,613
Used benzodiazepines in last 3 days	106 (4%)	214 (7%)	320
Total (n)	2,545	388	2,933 (100%)
Not used alcohol in last 3 days	1,214 (41%)	24 (1%)	1,238
Used alcohol in last 3 days	1,059 (36%)	636 (22%)	1,695
Total (n)	2,273	660	2,933 (100%)

Notes: [1] Benzodiazepines includes Temazepam, Diazepam and other tranquillisers.

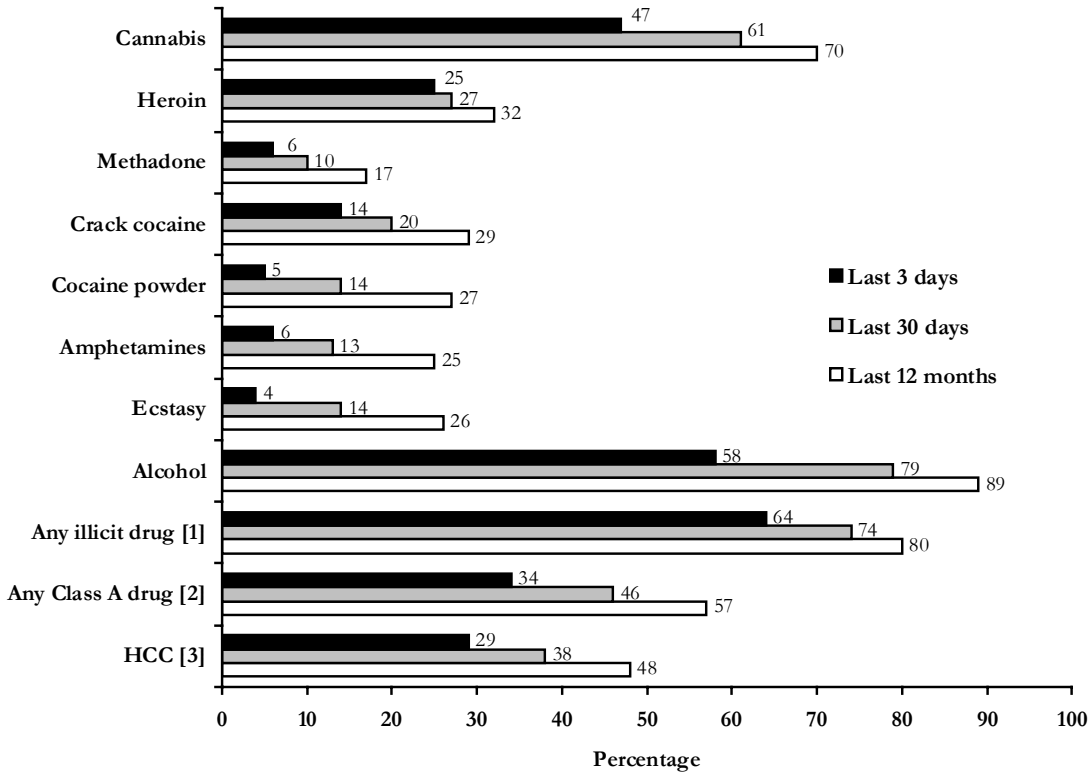
Prevalence of drug use over various periods of time

The proportions of arrestees reporting use of each of eight drug types during three specific time periods (last 12 months, last 30 days and last three days) are shown in Figure 2.3.[2] The figures show that alcohol was the most commonly consumed drug in each of the time periods. Cannabis was the most commonly consumed illicit drug, with 70 per cent of interviewed arrestees reporting use of this drug in the last 12 months and nearly half reporting use in the last three days. The prevalence of reported heroin use was also high, with nearly one-third of interviewed arrestees reporting use of this drug in the last 12 months and one-quarter reporting heroin use in the last three days. Of note is the difference in the prevalence of reported cocaine powder and crack cocaine use. While the prevalence of cocaine use and crack use is similar over the last 12 months and last 30 days, the prevalence of crack use is almost three times the prevalence of cocaine use over the last three days.

[1] It should be noted that the test for opiates detects both heroin and other opiates (such as codeine, opium and morphine). As heroin is the only opiate that arrestees are questioned about in the self-report drug inventory, this comparison focuses on heroin. This could explain some of the differences between opiate test results and heroin use (i.e. it is not purely a matter of under-reporting).

[2] See Table E.1 in Appendix E for more detailed information on the frequencies and proportions of arrestees reporting use of 21 drug types during the last 12 months, last 30 days and last three days.

Figure 2.3 Self-reported drug use over the last 12 months, last 30 days and last 3 days, among all interviewed arrestees (n=3,091)



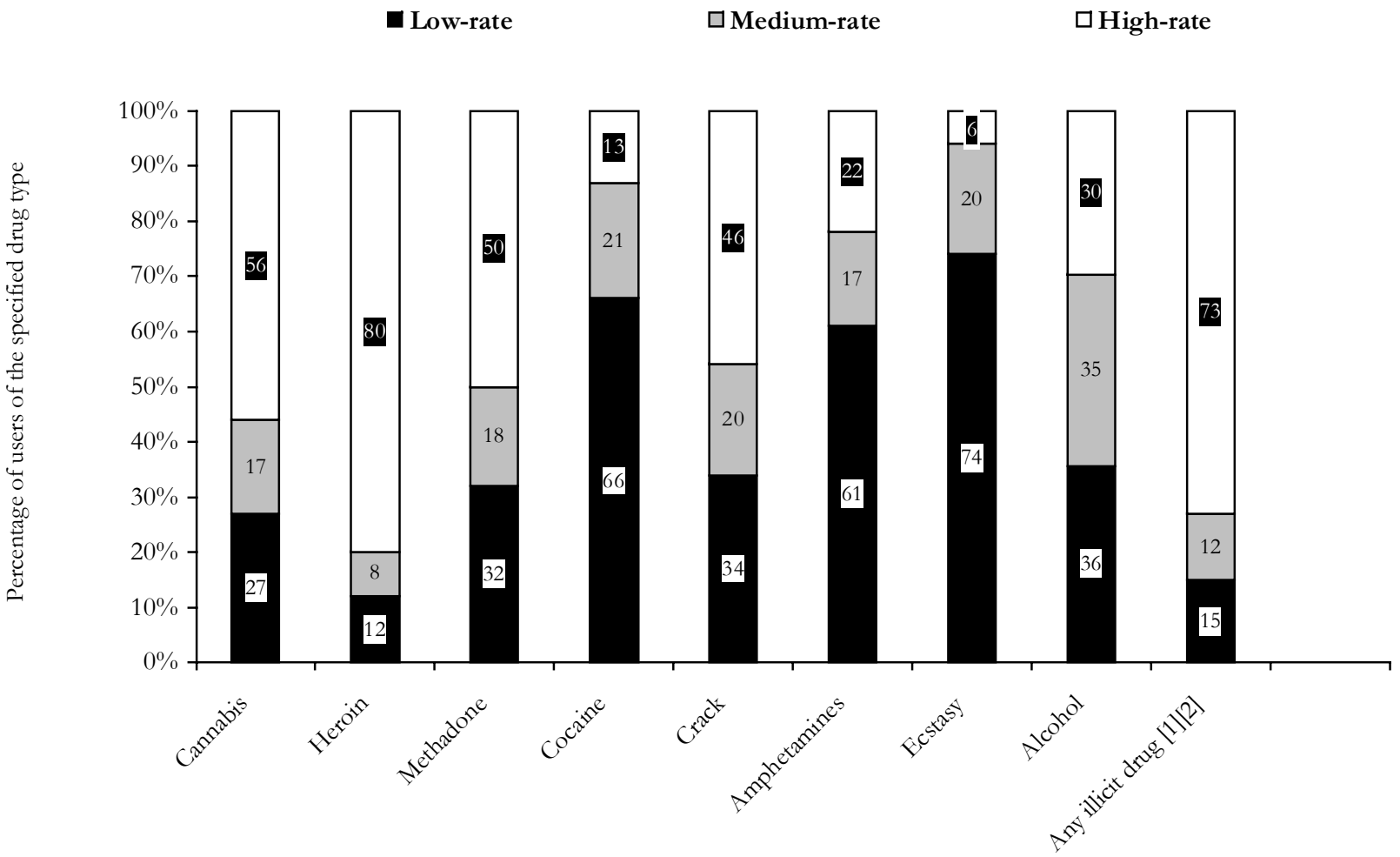
Notes: [1] Any illicit drug refers to use of one or more of 19 illicit drug types and excludes tobacco and alcohol. [2] Class A drugs include heroin, cocaine, crack, methadone, ecstasy, diconal, LSD and magic mushrooms. [3] HCC refers to heroin and/or cocaine and/or crack.

Rate of drug use

Figure 2.4 displays the rate at which arrestees reported having used selected drug types over the last 30 days. The graph compares the proportion of high-rate users, medium-rate users and low-rate users. The division of use rates into three groups is to some extent arbitrary. The term 'high-rate' is defined here to mean that the drug was used 15 days or more in the last 30 days, 'medium-rate' use is defined as meaning that the drug was used between five and 14 days in the last 30 days, and 'low-rate' use is defined as meaning that the drug was used between one and four days in the last 30 days. However, there is some logic to the categorisation. High-rate users are defined as those who, on average, have the same or greater number of drug-using days per month than non-drug-using days (suggesting substantial involvement in drug use). Low-rate users are defined as those who, on average consume drugs less than once a week (suggesting occasional rather than compulsive use).

The figures show that more than half of all arrestees interviewed were high-rate users of at least one illicit drug type. Nearly three-quarters of arrestees who said that they had used one or more illicit drugs in the last 30 days were high-rate users and more than three-quarters of heroin users were high-rate users. Fifty-six per cent of cannabis users were high-rate users, and just under half of crack users were high-rate users. By contrast, 13 per cent of arrestees who said that they had used cocaine in the last 30 days were high-rate users.

Figure 2.4 Rate of drug use in the last 30 days for selected drug types, among users of each drug type in the last 30 days



Notes: [1] Any illicit drug refers to use of one or more of 19 illicit drug types and excludes tobacco and alcohol. [2] In cases where arrestees said that they had used more than one illicit drug type in the last 30 days, figures relating to the type of drug used most frequently were used in this analysis.

Problem drug users

Arrestees who said that they had used one or more illicit drugs in their lifetime were asked whether they had ever or recently been dependent on those drugs. Arrestees were asked 'Have you recently felt that you needed [the drug] or felt bad or ill when you did not have [the drug]?". Problem drug users are defined here as arrestees who reported being recently dependent on one or more illicit drug types. By this definition, 35 per cent of all interviewed arrestees were problem drug users. Of the 1,076 arrestees who were problem drug users, the majority (68%) were dependent on only one drug type. However, one-fifth of problem drug users were dependent on two drug types and one-tenth were dependent on three or more drug types. The drug most frequently associated with current dependency was heroin (62% of problem drug users reported current dependency on heroin). By contrast, 27 per cent of problem drug users reported current dependency on cannabis, 15 per cent reported current dependency on crack, and three per cent reported current dependency on cocaine (multiple responses were possible).

Table 2.3 looks at the characteristics of problem drug users and compares these with the characteristics of 'non-problem' drug users and non-drug users. The table shows significant differences between the three groups of arrestees on each of the variables analysed. Problem drug users were more likely than non-problem users and non-drug users to be female, aged 20 to 29, white, to have left school before the age of 17, and to have been in receipt of social security benefits in the last 12 months. Furthermore, problem drug users reported generating less legal income and more illegal income than non-problem users and non-users. Indeed, problem drug users reported a mean annual illegal income that was 16 times higher than the mean illegal income reported by non-drug users (£15,936 compared with £976).

Table 2.3 Characteristics of problem drug users, non-problem drug users and non-drug users, among all interviewed arrestees

(Column percentages)

	Problem drug users [1]	Non-problem drug users [2]	Non-drug users [3]	All arrestees
Sex				
Male	872 (81%)	1,277 (91%)	510 (84%)	2,659 (86%)
Female	204 (19%)	128 (9%)	100 (16%)	432 (14%)
Sig. of difference			***	
Age group				
17–19	181 (17%)	420 (30%)	121 (20%)	722 (23%)
20–24	314 (29%)	394 (28%)	97 (16%)	805 (26%)
25–29	254 (24%)	230 (16%)	80 (13%)	564 (18%)
30+	327 (30%)	361 (26%)	312 (51%)	1000 (32%)
Sig. of difference			***	
Ethnic group				
White	923 (86%)	1,123 (80%)	483 (79%)	2,529 (82%)
Non-white	153 (14%)	282 (20%)	127 (21%)	562 (18%)
Sig. of difference			***	
Age left full-time education [4]				
16 or under	933 (88%)	1,069 (77%)	430 (72%)	2,432 (80%)
17 or over	124 (12%)	316 (23%)	171 (28%)	611 (20%)
Sig. of difference			***	
On social security				
Yes	829 (77%)	736 (52%)	243 (40%)	1,808 (58%)
No	247 (23%)	669 (48%)	367 (60%)	1,283 (42%)
Sig. of difference			***	
Legal income [5]				
Mean (last 12 months)	£3,533	£6,301	£9,101	£5,889
Sig. of difference			***	
Illegal income [6]				
Mean (last 12 months)	£15,936	£4,792	£976	£7,901
Sig. of difference			***	
Total (n)	1,076 (100%)	1,405 (100%)	610 (100%)	3,091 (100%)

Notes: Chi square test. *** p<0.001. [1] Problem drug users are arrestees who reported being recently dependent on one or more illicit drug type. [2] Non-problem drug users are arrestees who said that they had used one or more illicit drugs in the last 12 months but reported that they had not been recently dependent on any of those drugs. [3] Non-drug users are arrestees who said that they had not used any illicit drugs in the last 12 months. [4] 48 missing cases. [5] 92 missing cases. [6] 24 missing cases.

Key points

The results of the urinalysis and self-report drug inventory show that the majority of arrestees had used at least one illicit drug in the last few days. Indeed, more than two-thirds of arrestees who provided a specimen tested positive for one or more illicit drugs and nearly two-thirds of all interviewed arrestees reported illicit drug use in the last three days. Cannabis and heroin were the drugs most frequently used in the last three days, with nearly half of all arrestees reporting cannabis use and one-quarter reporting heroin use. The results of the self-report drug inventory revealed that more than one-third of all interviewed arrestees were problem drug users (i.e. they reported being recently dependent on one or more illicit drug types). Among those arrestees who reported recent drug dependency, 61 per cent said that they were dependent on heroin.

- More than two-thirds of arrestees tested positive for an illicit drug and more than one-third tested positive for opiates and/or cocaine.
- Eighty per cent of arrestees reported having used an illicit drug in the last 12 months and 64 per cent said that they had used an illicit drug in the last three days.
- Nearly half of all arrestees interviewed said that they had used HCC in the last 12 months. More than one-quarter said that they had used HCC in the last three days.
- More than half of all interviewed arrestees said that they had used an illicit drug on 15 days or more in the last 30 days.
- Problem drug users were more likely than non-problem drug users and non-drug users to be female, aged 20 to 29, white, to have left school before the age of 17, and to have been in receipt of social security benefits in the last 12 months. They also generated the most illegal income and the least legal income of the three groups.

3. Drugs and crime

Self-reported offending

The Government's drugs strategy is based on evidence that drugs and crime are connected and that communities can be made safer places more generally if drug use and its associated problems could be reduced. The current research can identify whether there is a statistical link between levels of drug use and levels of acquisitive crime. It can also provide detailed information on the nature and extent of the association between different types of drug use and different types of criminal behaviour. However, the research is not suited as a method of determining a causal connection between drug use and crime. The main reason for this is that a key component of causality is temporal order, which cannot be determined effectively from a cross-sectional study such as this. Nevertheless, it is possible to ask arrestees about whether they think that there is a causal link between their drug use and crime. In combination, the two kinds of information can help provide a useful picture of the nature of the connection between drugs and crime among the current samples of arrestees.

Arrestees interviewed as part of the NEW-ADAM programme were asked about their offending behaviour prior to the current arrest in relation to certain types of acquisitive crimes, including vehicle crime, burglary, shoplifting, robbery, fraud, handling stolen goods and drug supply offences. Just over half (54%) of all interviewed arrestees reported committing one or more acquisitive crimes in the last 12 months. This proportion increased to three-fifths (63%) among arrestees who said that they had used one or more illicit drugs in the last 12 months, and to three-quarters (75%) among arrestees who had said that they had used HCC in the last 12 months. Of the 1,655 arrestees who reported committing an offence in the last 12 months, more than half said that they had committed shoplifting or handling offences (58% and 52% respectively) and more than one-quarter said that they had committed drug supply offences (28%). By contrast, less than one-tenth of arrestees reported committing robbery or theft from a person (6% and 5% respectively).

Offending and drug use

The relationship between self-reported offending and drug use is explored in Table 3.1. Over half of detainees reporting committing an acquisitive crime (other than theft of a motor vehicle) tested positive for heroin and/or cocaine/crack indicating a strong link between drug use and acquisitive crime.

This relationship between drug use and acquisitive crime is further supported by data from Arrest Referral monitoring interviews. In the first year of Arrest Referral[1], 85% (n=9197) of screened individuals arrested for shoplifting and 57% (n=1609) arrested for vehicle crime reported HCC use in the last 30 days. A further 69% (n=271) of screened individuals arrested for handling stolen goods had also used HCC in the last 30 days (28 used cocaine, 87 used crack and 257 used heroin).

Similarly, in the second year[2], 85% (n=7859) of screened individuals arrested for shoplifting, 57% (n=1364) of those arrested for vehicle crime, and 68% (n=188) of the screened individuals arrested for handling stolen goods reported using HCC in the past 30 days.

[1] October 2000 to September 2001
[2] October 2001 to September 2002

3.1 Proportion of arrestees testing positive for drugs by self-reported offending in last 12 months.

Reported offence	Opiates %	Cocaine/ Crack %	HCC %	Number of arrestees
Handling stolen goods	43%	27%	50%	832
Shoplifting	61%	34%	66%	913
Burglary	49%	29%	57%	306
Robbery	50%	38%	60%	94
Theft from the person	63%	46%	69%	90
Theft of motor vehicle	32%	23%	38%	243
Theft from motor vehicle	47%	28%	54%	286
Fraud	49%	29%	55%	338
Drugs supply	42%	29%	54%	445

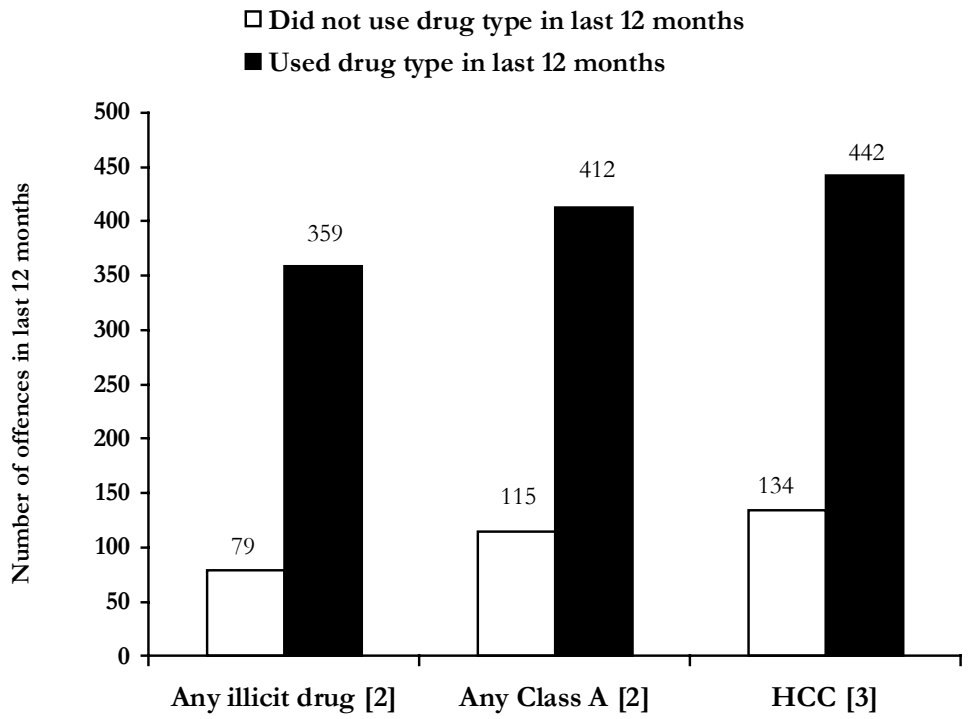
Level of offending

Figure 3.1 shows the mean number of offences reported by arrestees who said that they had offended in the last 12 months. The chart shows that the mean number of acquisitive offences committed in the last 12 months varied according to the type of drug used. Arrestees reporting no illicit drug use in the last 12 months reported an average of 79 (median of 3) acquisitive crimes over the same period. Drug use in general, and especially use of HCC, was associated with higher levels of offending. Users of any illicit drug reported a mean of 359 (median of 60) offences in the last 12 months. This increased to 412 (median of 100) among users of Class A drugs and to 442 (median of 110) among arrestees who had used HCC. The mean number of offences reported by HCC users was nearly six times higher than for non-drug users (442 compared with 79).

The rate of offending was highest among arrestees reporting drug supply offences. Arrestees who said that they had committed drug supply offences in the last 12 months reported committing a mean of 454 (median of 60) such offences during that period. The rate of shoplifting was also high with a mean of 211 (median of 48) such offences being reported by arrestees who had shoplifted in the last 12 months.

When interpreting the offending rates presented in Figure 3.1, it is important to note that a small number of offenders were responsible for committing a large proportion of the total number of crimes reported. Indeed, four arrestees reported committing more than 85,000 offences between them in the last 12 months. This small group of arrestees comprised less than one per cent of all arrestees who said that they had offended in the last 12 months, yet they were responsible for more than 15 per cent of the total crimes reported. Hence, they may have had a disproportionate influence on the nature of the results obtained.

Figure 3.1 **Mean number of self-reported offences in the last 12 months by type of drug used, among arrestees who reported committing one or more income-generating offence in the last 12 months (n=1,655) [1]**

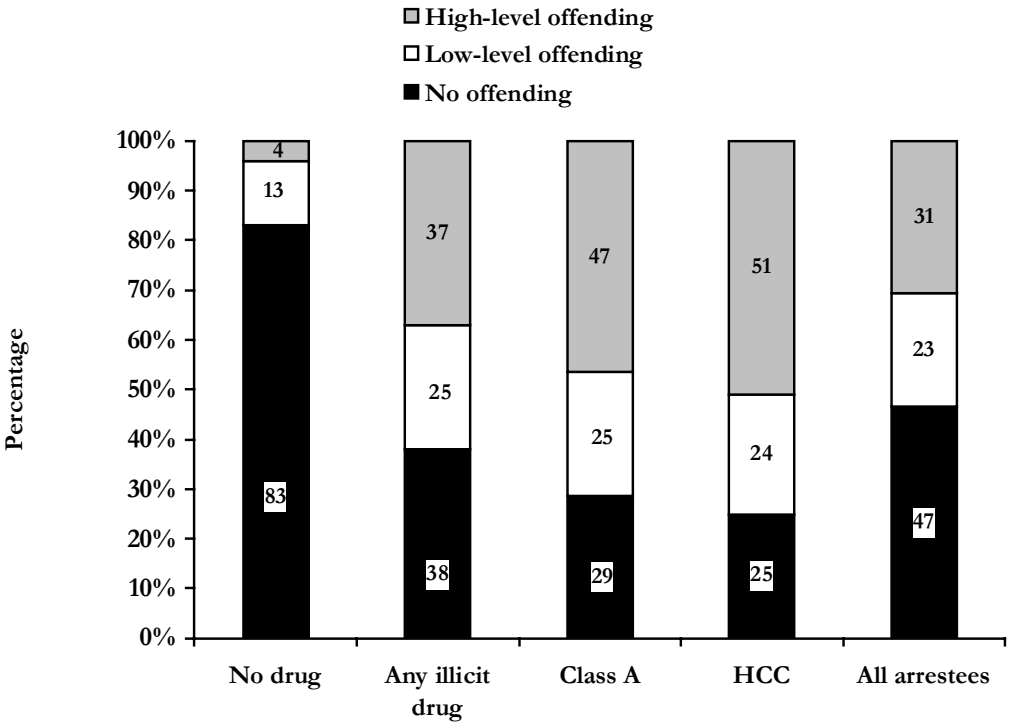


Notes: [1] Includes arrestees who reported committing one or more acquisitive crimes in the last 12 months, n=1,655 (minus six missing cases). [2] Any illicit drug refers to one or more of 19 illicit drug types. [3] Class A drugs include: heroin, cocaine, crack, methadone, ecstasy, diconal, LSD and magic mushrooms. [4] HCC refers to heroin and/or cocaine and/or crack.

Figure 3.2 presents the relationship between offending and drug use in a different way. It shows levels of self-reported offending in the last 12 months among different groups of arrestees. High-level offending is defined here as 24 or more offences in the last 12 months. Low-level offending is defined as less than 24 offences in the last 12 months. Non-offenders are those arrestees who said that they had not committed any income-generating crimes in the last 12 months.[3] Around half of both Class A drug users and HCC users were high-level offenders, compared with 37 per cent of drug users more generally. This compares with just four per cent of arrestees who reported that they had not used any illicit drug in the last 12 months and with 31 per cent of all interviewed arrestees.

[3] This measure of non-offending is based on the self-report data only and does not include the suspected offence(s) for which arrestees were being held in custody. Arrestees were not asked to report on the suspected offence(s) for which they were currently being held. Details of the arrest, including the type of offence and the date and time of arrest, were extracted from the police custody records.

Figure 3.2 Level of self-reported offending in the last 12 months by type of drug used, among all interviewed arrestees (n=3,091) [1]



Notes: [1] Includes all interviewed arrestees, n=3,091 (minus seven missing cases). High-level offending = offended 24 or more times in the last 12 months. Low level offending = offended less than 24 times in the last 12 months. No offending = none in the last 12 months. No drug, n=611; Any illicit drug, n=2,473; Class A, n=1,757; HCC, n=1,481; All arrestees, n=3,084.

It should be noted that one-quarter of HCC users reported that they had not offended in the last 12 months (see Figure 3.2). Comparisons of HCC offenders and HCC non-offenders revealed that:

- HCC offenders were significantly younger than HCC non-offenders (25.8 years compared with 27.6 years)
- HCC offenders reported earning significantly less legal income than HCC non-offenders (£3,744 compared with £6,380)
- HCC offenders were significantly more likely than HCC non-offenders to say that they were currently dependent on heroin or crack
- HCC offenders were significantly more likely than HCC non-offenders to report having injected heroin, crack or cocaine in the last 12 months.

Previous contact with the Criminal Justice System

All arrestees interviewed in the NEW-ADAM programme were asked about any previous contact with the Criminal Justice System. In particular, they were asked about any prior terms of imprisonment and any previous arrests. Table 3.2 presents the prevalence of prior imprisonment and previous arrests in the last 12 months among the different sexes, age groups and ethnic

groups. The table also displays the prevalence of previous arrests and prior imprisonment among different types of drug user.

The figures show that arrestees who were male and white were significantly more likely than their counterparts to say that they had been to prison in the last 12 months. A significant difference was also found among the different age groups. Arrestees aged 17 to 19 were the least likely to report serving time in prison in the last 12 months, while arrestees aged 25 to 29 were the most likely. With regard to previous arrests in the last 12 months, no significant gender differences were identified. White arrestees, however, were significantly more likely than non-white arrestees to have been arrested in the last 12 months. Significant age differences were also found, with arrestees aged 25 to 29 being most likely to report previous arrests in the last 12 months.

The prevalence of prior contact with the Criminal Justice System also varied among different types of drug user. Arrestees who said that they had used one or more illicit drugs in the last 12 months were significantly more likely than non-drug users to say that they had been previously arrested or imprisoned in the last 12 months. Similarly, arrestees who reported HCC use in the last 12 months were significantly more likely than non-HCC users to report previous arrests and prior imprisonment in the last 12 months. Of note is the higher prevalence of contact with the Criminal Justice System among HCC users than among users of any illicit drug.

Table 3.2 Percentage of previous arrests and prior imprisonment in the last 12 months by sex, age, ethnic group and type of drug use, among all interviewed arrestees

(Row percentages)

	Prior imprisonment in the last 12 months		Previous arrests in the last 12 months		Total
	Yes	No	Yes	No	
Sex					
Male	662 (25%)	1,997 (75%)	1,506 (57%)	1,153 (43%)	2,659 (100%)
Female	70 (16%)	361 (84%)	228 (53%)	203 (47%)	431 (100%)
Sig. of difference		***		ns	
Age group					
17–19	140 (19%)	582 (81%)	427 (59%)	295 (41%)	722 (100%)
20–24	213 (27%)	591 (74%)	467 (58%)	337 (42%)	804 (100%)
25–29	164 (29%)	400 (71%)	348 (62%)	216 (38%)	564 (100%)
30+	215 (22%)	785 (79%)	492 (49%)	508 (51%)	1,000 (100%)
Sig. of difference		***		***	
Ethnic group					
White	638 (25%)	1,890 (75%)	1,477 (59%	1,051 (42%)	2,528 (100%)
Non-white	94 (17%)	468 (83%)	257 (46%)	305 (54%)	562 (100%)
Sig. of difference		***		***	
Any illicit drug in the last 12 months [1]					
Yes	700 (28%)	1,778 (72%)	1,561 (63%)	917 (37%)	2,478 (100%)
No	32 (5%)	580 (95%)	173 (28%)	439 (72%)	612 (100%)
Sig. of difference		***		***	
HCC in the last 12 months [2]					
Yes	553 (37%)	931 (63%)	1,051 (71%)	433 (29%)	1,484 (100%)
No	179 (11%)	1,427 (89%)	683 (43%)	923 (57%)	1,606 (100%)
Sig. of difference		***		***	
Total	732 (24%)	2,358 (76%)	1,734 (56%)	1,356 (44%)	3,090 (100%)

Notes: Chi square test. *** p<0.001, ns = not significant. Includes all interviewed arrestees, n=3,091 (minus one missing case). [1] Any illicit drug refers to one or more of 19 types of illicit drug and excludes tobacco and alcohol. [2] HCC refers to heroin and/or cocaine and/or crack.

Illegal income

Illegal income can be acquired in a number of ways. In addition to income-generating property crime (theft, burglary, robbery, handling and fraud/deception), illegal income can be generated from undeclared earnings whilst fraudulently claiming benefits, drug dealing, prostitution-related offences and begging. Nearly half (49%) of those interviewed reported that they had generated some illegal income in the last 12 months. Among this group, the most commonly reported source of income was property crime (66% of those reporting illegal income), followed by undeclared earnings while claiming social security benefits (27%) and drug dealing (25%).

Table 3.3 explores the amount of illegal income generated in the last 12 months among different types of drug user. The table focuses on those arrestees who had generated some illegal income in the last 12 months. The figures show that drug-using arrestees reported higher levels of illegal income than non-drug using arrestees. Non-drug users reported a mean annual illegal income of less than £6,000 (median of £1,500). By contrast, users of drugs other than heroin, crack or cocaine ('other' drug users) reported a mean illegal income of more than £8,000 (median of £1,500). The highest level of mean illegal income was reported by users of heroin *and* cocaine *and* crack who reported generating more than £24,000 (median of £12,490) in the last 12 months. This group was responsible for generating 31 per cent of the total illegal income, but comprised 20 per cent of arrestees reporting some illegal income and 10 per cent of all arrestees.

Table 3.3 Illegal income in the last 12 months by type of drug used, among arrestees reporting some illegal income

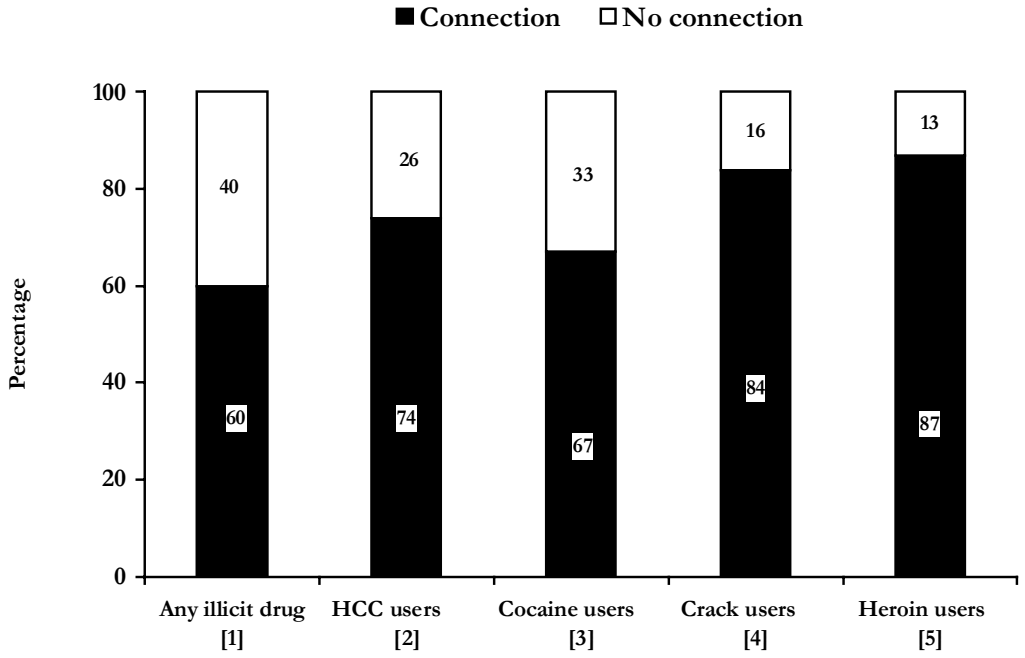
	Mean	Median	Sum	% of total illegal income	No. of arrestees reporting illegal income	% of arrestees reporting illegal income	% of all arrestees (n=3,091)
Type of drug use in the last 12 months							
No drugs	£5,763	£1,500	£593,544	2%	103	7%	3%
Other drugs	£8,290	£1,500	£3,058,831	13%	369	24%	12%
Cocaine only	£18,615	£3,000	£3,034,263	13%	163	11%	5%
Crack only	£21,660	£4,100	£1,039,691	4%	48	3%	2%
Cocaine and crack	£15,894	£5,750	£890,055	4%	56	4%	2%
Heroin only	£12,301	£5,760	£1,439,185	6%	117	8%	4%
Heroin and cocaine	£11,781	£4,580	£565,511	2%	48	3%	2%
Heroin and crack	£19,961	£9,750	£6,068,255	25%	304	20%	10%
Heroin and cocaine and crack	£24,338	£12,490	£7,544,740	31%	310	20%	10%
All arrestees reporting some illegal income	£15,964	£5,000	£24,234,075	100%	1,518	100%	49%

Perceived links between drugs and crime

Figure 3.3 looks at the perceived link between drug use and crime among arrestees who reported committing one or more acquisitive crimes and using one or more illicit drugs in the last 12 months. Sixty per cent of arrestees who reported using an illicit drug and committing an acquisitive crime in the last 12 months thought that there was a connection between their drug

use and offending behaviour. This proportion increased to 67 per cent among arrestees who said that they had used cocaine, to 84 per cent among arrestees who said that they had used crack and to 87 per cent among arrestees who said that they had used heroin.

Figure 3.3 **Perceived connection between drug use and crime by type of drug used in the last 12 months, among arrestees who reported using the drug and committing an acquisitive crime in the last 12 months**



Notes: [1] Any illicit drug refers to use of one or more of 19 illicit drug types and excludes tobacco and alcohol, n=1,548 (minus 37 missing cases). [2] HCC refers to heroin and/or cocaine and/or crack, n=1,110 (minus 10 missing cases). [3] n=608 (minus 4 missing cases). [4] n= 754 (minus 7 missing cases). [5] n=818 (minus 6 missing cases).

Key points

The results of the self-report offending inventory show that more than half of all interviewed arrestees had committed at least one acquisitive crime in the last 12 months. Both the prevalence and incidence of offending were higher among arrestees who said that they had used drugs than among arrestees who said that they had not. Arrestees who said that they had used HCC reported the highest prevalence and incidence rates. Indeed, half of all HCC users were high-level offenders (i.e. they said that they had offended at least twice a month on average in the last year). By contrast, only four per cent of non-drug users were high-level offenders. The amount of illegal income generated in the last 12 months was also higher among drug users than non-drug users. Arrestees who reported using heroin *and* cocaine *and* crack generated a mean of more than £24,000 in the last 12 months compared with a mean of less than £6,000 among non-drug users.

- More than half of all interviewed arrestees reported having committed one or more acquisitive crimes in the last 12 months. This proportion increased to 75 per cent among arrestees who said that they had used HCC.

- The mean number of offences committed by HCC users was nearly six times higher than for non-drug users (442 compared with 79).

- Nearly half of all interviewed arrestees reported that they had generated some illegal income in the last 12 months. The most commonly reported source of illegal income was property crime (66% of those reporting illegal income). Drug-using arrestees reported significantly higher levels of illegal income than non-drug using arrestees.

- Sixty per cent of arrestees who reported using an illicit drug and committing an acquisitive crime in the last 12 months thought that there was a connection between their drug use and offending behaviour. This proportion increased to 84 per cent among arrestees who had used crack in the last 12 months and to 87 per cent among arrestees who had used heroin.

4. Drug misusing repeat offenders

The drugs strategy

In 2002, the current Government published its updated strategy for tackling drug misuse, which builds on and adapts the 10-year strategy adopted in 1998 (Home Office, 2002). The publication identified four main elements of the strategy, one of which concerned protecting communities from drug-related, antisocial and criminal behaviour.

In order to achieve the objective of reducing drug-related crime through enabling a greater number of drug-misusing offenders to treatment through all stages of the criminal justice system, a number of strategies have been implemented by the Government. Arrest Referral Schemes are now operating in all police forces in England and Wales. These schemes involve specialist workers seeing drug misusing offenders in police custody suites in order to provide information and, where appropriate, referral to treatment or other means of assistance. Drug Treatment and Testing Orders (DTTOs) were introduced as a new community sentence under the Crime and Disorder Act, 1998. Drug testing at charge, which was introduced by the Criminal Justice and Court Services Act 2000, is also now well established in 30 high crime areas across England and Wales. There has also been an expansion in prison-based treatment including detoxification programmes and prescribing methadone to dependent inmates. In addition, there are a number of ways in which probation and related court orders are used to provide treatment to drug-misusing offenders, including aftercare provision.

One of the key target groups in the Government's drug strategy are persistent offenders that use heroin and crack cocaine, otherwise known as drug misusing repeat offenders. The NEW-ADAM programme provides an opportunity to attempt to define (and hence identify) DMROs. In this case, the group is confined to current arrestees. Other studies may define DMROs using different samples.

Given the prolific nature of offending among arrestees using heroin and/or cocaine and/or crack, DMROs have been defined as arrestees using some or all of those substances, on average, at least once a week (i.e. on five or more days out of the last 30 days). The measure of repeat offending has been based on self-reported information provided by arrestees covering the 12 months prior to the interview, rather than on recorded convictions. Repeat offending has been defined here as committing, on average, two or more income-generating offences per month (i.e. 24 offences in the last 12 months).[4]

Prevalence of Drug-misusing, repeat offenders (DMROs)

The proportion of arrestees who were DMROs varied across the 16 sites, from a low of five per cent to a high of 31 per cent. Overall, 18 per cent of arrestees interviewed in the first two years (July 1999/April 2001) of the NEW-ADAM programme could be classified as DMROs

Socio-demographic characteristics of drug misusing, repeat offenders

Table 4.1 looks at the characteristics of DMROs and compares them with the characteristics of all other arrestees. The table shows significant differences between DMROs and 'other' arrestees on each of the variables analysed. DMROs were significantly more likely than 'other' arrestees to be female, aged 20 to 29, white, to have left school before the age of 17, and to have been in receipt of social security benefits in the last 12 months. DMROs earned significantly less legal income in

[4] Arrestees were asked how many offences they had committed 'ever' and 'in the last 12 months' but they were not asked how many they had committed 'in the last 30 days'. The '12 month' data has therefore been used to calculate the monthly figure.

the last 12 months than 'other' arrestees. By contrast, DMROs generated significantly more illegal income in the last 12 months than 'other' arrestees.

Table 4.1 Characteristics of DMROs and other arrestees, among all interviewed arrestees

(Column percentages)

	DMROs [1]	Other arrestees	All [2]
Sex			
Male	460 (82%)	2,197 (87%)	2,657 (86%)
Female	98 (18%)	333 (13%)	431 (14%)
Sig. of difference		**	
Age group			
17–19	87 (16%)	635 (25%)	722 (23%)
20–24	157 (28%)	647 (26%)	804 (26%)
25–29	144 (26%)	420 (17%)	564 (18%)
30+	170 (31%)	828 (33%)	998 (32%)
Sig. of difference		***	
Ethnic group			
White	489 (88%)	2,037 (81%)	2,526 (82%)
Non-white	69 (12%)	493 (19%)	562 (18%)
Sig. of difference		***	
On social security			
Yes	480 (86%)	1,326 (52%)	1,806 (58%)
No	78 (14%)	1,204 (48%)	1,282 (42%)
Sig. of difference		***	
Age left full-time education [3]			
16 or under	503 (91%)	1,927 (77%)	2,430 (80%)
17 or over	47 (9%)	564 (23%)	611 (20%)
Sig. of difference		***	
Legal income [4]			
Mean (last 12 months)	£2,915	£6,554	£5,890
Sig. of difference		***	
Illegal income [5]			
Mean (last 12 months)	£24,890	£4,171	£7,901
Sig. of difference		***	
Total	558 (100%)	2,530 (100%)	3,088 (100%)

Notes: Chi square test or ANOVA test. ** p<0.01, *** p<0.001. [1] DMROs are defined as arrestees who have used heroin and/or cocaine and/or crack at least once a week, on average, in the last 30 days AND who have committed, on average, two or more income-generating offences per month over the last 12 months. [2] As a result of missing data it has not been possible to determine whether three arrestees were DMROs. These three cases have been excluded from this analysis, n=3,088. [3] 47 missing cases. [4] 90 missing cases. [5] 22 missing cases.

Drug use

Table 4.2 presents the proportions of DMROs among different types of drug user. Overall, 18 per cent of arrestees interviewed in the first two years of the NEW-ADAM programme were DMROs. Less than one-fifth of arrestees who reported using cocaine *and* crack or only crack in the last 12 months and less than one-tenth of arrestees who reported using only cocaine could be classified as DMROs. By contrast, nearly two-thirds of arrestees who had used heroin *and* cocaine *and* crack could be classified in this way.

Table 4.2 Percentage of different types of drug user classified as either DMROs or other arrestees, among all interviewed arrestees

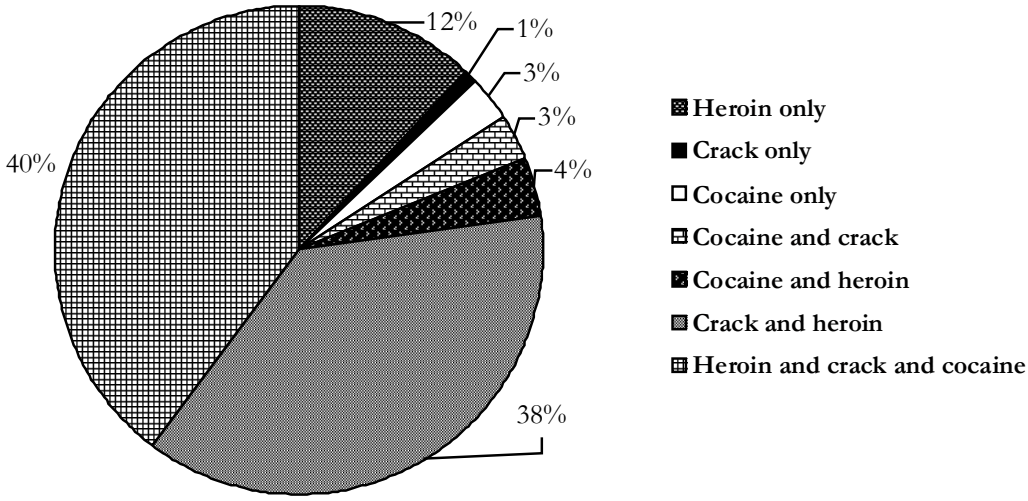
(Row percentages)

	Drug-misusing repeat offender	Other arrestees	All [1]
Type of drug used			
No drugs	-	612 (100%)	612 (100%)
Other drugs	-	994 (100%)	994 (100%)
Cocaine only	18 (6%)	306 (94%)	324 (100%)
Crack only	8 (10%)	72 (90%)	80 (100%)
Cocaine and crack	16 (18%)	71 (82%)	87 (100%)
Heroin only	65 (34%)	124 (66%)	189 (100%)
Cocaine and heroin	20 (29%)	48 (71%)	68 (100%)
Crack and heroin	209 (55%)	170 (45%)	379 (100%)
Heroin and crack and cocaine	222 (62%)	133 (38%)	355 (100%)
Total	558 (18%)	2,530 (82%)	3,088 (100%)

Notes: '-' by definition non-HCC users cannot be DMROs. [1] As a result of missing data it has not been possible to determine whether three arrestees were DMROs. These three cases have been excluded from this analysis, n=3,088.

Figure 4.1 looks at the drug-using behaviour of DMROs in a slightly different way. It shows the type of drugs that this group of arrestees had used in the last 12 months. The figure shows that 40 per cent of DMROs had used heroin *and* cocaine *and* crack in the last 12 months and 38 per cent had used heroin *and* crack (but not cocaine). By contrast, three per cent of DMROs had used only cocaine in the last 12 months and one per cent had used only crack.

Figure 4.1 Type of drugs used in the last 12 months by DMROs (n=558)



Treatment history

Table 4.3 shows the history of treatment for drug misuse among DMROs, drug-using offenders and drug-using non-offenders. The figures show that DMROs were more likely than other drug-using offenders and drug-using non-offenders to report having received treatment for drug misuse at some point in their lives (63% compared with 24% and 15%, respectively). DMROs were also more likely than other arrestees to report that they were currently receiving drug treatment. Of the 466 DMROs *not* currently receiving drug treatment, the majority (80%) reported a current unmet need for treatment (i.e. they wanted treatment, but were not currently receiving it). By contrast, one-fifth of drug-using offenders and one-tenth of drug-using non-offenders reported a current unmet need for treatment. The difference between the three groups was statistically significant.

Table 4.3 Percentage of DMROs, drug-using offenders and drug-using non-offenders reporting ever having or currently receiving treatment for drug misuse, among arrestees who reported using an illicit drug in the last 12 months

(Column percentages)

	Drug-misusing Repeat offenders	Drug-misusing offenders	Drug-misusing non-offenders	All drug-using arrestees
Ever received drug treatment				
Yes	349 (63%)	238 (24%)	140 (15%)	727 (30%)
No	209 (37%)	744 (76%)	787 (85%)	1,740 (71%)
Sig. of difference		***		
Currently receiving drug treatment				
Yes	92 (16%)	75 (8%)	38 (4%)	205 (8%)
No	466 (84%)	907 (92%)	889 (96%)	2,262 (92%)
Sig. of difference		***		
Total [1]	**558 (100%)**	**982 (100%)**	**927 (100%)**	**2,467 (100%)**
Current unmet demand for drug treatment				
Yes	369 (80%)	200 (23%)	108 (12%)	677 (31%)
No	93 (20%)	683 (77%)	759 (88%)	1,535 (69%)
Sig. of difference		***		
Total [2]	**462 (100%)**	**883 (100%)**	**867 (100%)**	**2,212 (100%)**

Notes: Chi square test. *** p<0.001. [1] Includes arrestees who reported using one or more of 19 illicit drug types in the last 12 months, n=2,479 (minus 12 missing cases). [2] Includes arrestees who reported having used one or more of 19 illicit drug types in the last 12 months and who said that they were not currently receiving treatment, n=2,262 (minus 50 missing cases).

Offending behaviour

Table 4.4 explores the type of suspected offences for which DMROs and other arrestees were currently held.[5] DMROs were significantly more likely than other arrestees to have been arrested under suspicion of committing property (theft) offences (80% of DMROs compared with 42% of other arrestees). By contrast, DMROs were significantly less likely than other arrestees to have been arrested for offences against the person, property (damage) offences, drug offences and disorder offences. The two groups did not differ significantly in terms of the proportions arrested for alcohol or miscellaneous offences.

[5] Arrestees were not asked to report on the type of offence(s) for which they were currently being held. Details of the arrest, including the type of offence and the date and time of arrest, were extracted from the police custody records.

Table 4.4 Percentage of DMROs and other arrestees, arrested under suspicion of selected offence types

(Column percentages)

	Drug-misusing repeat offenders	Other arrestees	All	Sig. of difference
Suspected offence type [1][2]				
Property (theft)	345 (80%)	876 (42%)	1,221 (49%)	***
Person	29 (7%)	514 (25%)	543 (22%)	***
Property (damage)	9 (2%)	166 (8%)	175 (7%)	***
Drug	36 (8%)	281 (14%)	317 (13%)	**
Alcohol	2 (1%)	40 (2%)	42 (2%)	ns
Disorder	6 (1%)	151 (7%)	157 (6%)	***
Miscellaneous	14 (3%)	103 (5%)	117 (5%)	ns
Total [3]	434 (100%)	2,076 (100%)	2,510 (100%)	

Notes: Chi square test. ** p<0.01, *** p<0.001, ns = not significant. [1] Includes arrestees who were detained under suspicion of committing an offence, n=2,512 (minus two missing cases). [2] Not all arrestees were detained under suspicion of committing an offence. Other reasons for custody include: warrant (failure to attend) n=275; warrant (other) n=162; answering bail n=6; breach of conditions n=97; Section 25 n=16; other n=22; unknown n=1. [3] The proportions add up to more than 100% because arrestees may have been arrested for more than one type of offence.

Table 4.5 shows that DMROs were significantly more likely than other arrestees to report having committed each of ten income-generating offences in the last 12 months. More than 80 per cent of DMROs reported that they had shoplifted in the last 12 months, compared with 19 per cent of other arrestees. Handling offences were also more prevalent among DMROs, with 59 per cent of arrestees in this group reporting having committed this offence type in the last 12 months, compared with 21 per cent of other arrestees. By contrast, less than one-tenth of DMROs reported committing robbery or theft from a person in the last 12 months, though this was still four times the level among other arrestees.

Table 4.5 Percentage of DMROs and other arrestees who reported committing income-generating offences in the last 12 months, among all interviewed arrestees

(Column percentages)

	Drug-misusing, repeat offenders	Other arrestees	All [1]	Sig. of difference
Type of crime				
Theft of a motor vehicle	75 (13%)	177 (7%)	252 (8%)	***
Theft from a motor vehicle	129 (23%)	167 (7%)	296 (10%)	***
Shoplifting	466 (84%)	486 (19%)	952 (31%)	***
Burglary in a dwelling	83 (15%)	83 (3%)	166 (5%)	***
Burglary in a non-dwelling	86 (15%)	116 (5%)	202 (7%)	***
Robbery	42 (8%)	55 (2%)	97 (3%)	***
Theft from a person	45 (8%)	45 (2%)	90 (3%)	***
Fraud/deception	156 (28%)	194 (8%)	350 (11%)	***
Handling	327 (59%)	539 (21%)	866 (28%)	***
Drug supply offences	202 (36%)	261 (10%)	463 (15%)	***

Any offence	558 (100%)	1,095 (43%)	1,653 (54%)	***
Total [2]	558 (100%)	2,530 (100%)	3,088 (100%)	

Notes: Chi square test. *** p<0.001. [1] As a result of missing data it has not been possible to determine whether three arrestees were DMROs. These three cases have been excluded from this analysis, n=3,088. [2] The proportions add up to more than 100% because arrestees may have committed more than one type of offence.

While DMROs comprised approximately one-third of all offenders in the last 12 months, they were responsible for committing more than two-thirds of the total number of offences reported (see Table 4.6). Between them, DMROs reported committing a total of nearly 400,000 offences in the last 12 months. On average, this was more than 700 offences per offender. By contrast, 'other' offenders reported committing less than 200,000 offences in the last 12 months, which, on average, was 157 offences per offender.

Table 4.6 Rate of acquisitive offending in the last 12 months reported by DMROs and other offenders, among arrestees who reported committing one or more income-generating offences in the last 12 months

	Mean no. of offences	Total no. of offences	% total no. of offences	No. of arrestees [1]	% of all offenders	% of all interviewed arrestees (n=3,091)
Drug-misusing repeat offenders	701	391,312	70%	558	34%	18%
Other offenders	157	171,056	30%	1,091	66%	35%
Sig. of difference	***					
Total	341	562,368	100%	1,649	100%	53%

Notes: ANOVA test. *** p< 0.001. [1] Includes arrestees who reported committing one or more acquisitive crimes in the last 12 months, n=1,655 (minus six missing cases).

With regard to individual offence types, DMROs reported committing shoplifting, handling, theft from a person and drug supply offences at a significantly higher rate than other offenders. Among arrestees who had shoplifted in the last 12 months, DMROs reported an average of 353 shoplifting offences, a figure approximately five times greater than the average reported by other offenders. Among arrestees who had committed theft of, or from, a vehicle, burglary from a dwelling or non-dwelling, and fraud there were no significant differences in the mean number of offences reported by DMROs and other offenders.

Table 4.7 shows the level of contact with the Criminal Justice System in the last 12 months among DMROs and other arrestees. In comparison with other arrestees, DMROs were significantly more likely to report having been arrested in the last 12 months (excluding the current arrest). Among those previously arrested, DMROs reported significantly more arrests than other arrestees. Indeed, DMROs were arrested, on average, six times in the last 12 months compared with an average of four times for other arrestees. DMROs were also significantly more likely than other arrestees to have served time in prison in the last 12 months. There was no significant difference between the two groups, however, in terms of the amount of time (i.e. number of months) that the arrestees who had been to prison had spent there.

Table 4.7 Percentage of DMROs and other arrestees reporting prior contact with the Criminal Justice System, among all interviewed arrestees

(Column percentages)

	Drug-misusing, repeat offenders	Other arrestees	All [1]
Prior arrests in the last 12 months			
Yes	483 (87%)	1,249 (49%)	1,732 (56%)
No	75 (13%)	1,281 (51%)	1,356 (44%)
Sig. of difference		***	
Previous imprisonment in the last 12 months			
Yes	271 (49%)	461 (18%)	732 (24%)
No	287 (51%)	2,069 (82%)	2,356 (76%)
Sig. of difference		***	
Total	558 (100%)	2,530 (100%)	3,088 (100%)
Mean number of arrests in the last 12 months			
Mean	6.2	4.0	4.6
Total (n) [2]	482	1,244	1,726
Sig. of difference		***	
Mean number of months in prison in last 12 months			
Mean	4.0	4.5	4.3
Total (n) [3]	270	458	728
Sig. of difference		ns	

Notes: Chi square test. *** p<0.001, ns = not significant. [1] As a result of missing data it has not been possible to determine whether three arrestees were DMROs. These three cases have been excluded from this analysis, n=3,088. [2] Includes arrestees who reported that they had been previously arrested in the last 12 months, n=1,732 (minus 8 missing cases). [3] Includes those arrestees who reported that they had been to prison in the last 12 months, n=732 (minus 4 missing cases).

Table 4.8 looks at the proportion of drug users (in the last 12 months) who thought there was a connection between their drug use and offending. The majority (95%) of DMROs reported a connection between their drug use and offending behaviour. By contrast, less than one-half of 'other' arrestees (who stated they had used drugs and offended in the last 12 months) reported such a link between their drug use and offending behaviour. The difference between the two groups was statistically significant. Of those DMROs who thought that there was a connection between their drug use and offending, almost all (95%) said that the connection was a result of a need for money to buy drugs.

Table 4.8 Percentage of DMROs and other arrestees reporting a connection between their drug use and offending behaviour, among arrestees who reported using illicit drugs and committing acquisitive crimes in the last 12 months

(Column percentages)

	Drug-misusing, repeat offenders	Other arrestees	All [1]
Drugs and crime connected	526 (95%)	383 (40%)	909 (60%)
Drugs and crime 'not' connected	30 (5%)	570 (60%)	600 (40%)
Sig. of difference		***	
Total	556 (100%)	953 (100%)	1,509 (100%)

Notes: Chi square test. *** p<0.001. [1] Includes arrestees who reported using one or more illicit drugs and committing one or more acquisitive crimes in the last 12 months, n=1,548 (minus 39 missing cases).

Key points

Eighteen per cent of arrestees interviewed in the first two years of the NEW-ADAM programme were DMROs. The proportion varied across the 16 survey sites, from a low of five per cent to a high of 31 per cent. The majority of DMROs had used heroin *and* crack in the last 12 months (78%). DMROs were significantly more likely than drug-using offenders and drug-using non-offenders to have ever received treatment for their drug use. They were also more likely to report a current unmet need for treatment. DMROs were significantly more likely than other arrestees to report having committed each of ten types of acquisitive crimes in the last 12 months. They were also significantly more likely than other arrestees to have been previously arrested and to have served a term of imprisonment in the last 12 months.

- Eighteen per cent of arrestees interviewed in the first two years of the NEW-ADAM programme were DMROs. The proportion varied across the 16 survey sites, from a low of five per cent to a high of 31 per cent.

- The majority (80%) of DMROs who were not currently receiving treatment for drug misuse reported a current unmet need for treatment.

- Ninety-five per cent of DMROs reported a connection between their drug use and offending behaviour. By contrast, less than half of 'other' arrestees (who reported using drugs and offending) reported such a connection.

5. Concluding remarks

This is the first full report of the NEW-ADAM programme. It presents results of the first two years of the programme and covers findings based on interviews with arrestees in 16 custody suites in police force areas in England and Wales. The NEW-ADAM programme was formally established in July 1999 as a means to monitor drug-related crime. The surveys provide information on the characteristics, drug use and offending behaviour of suspects currently held in police custody suites.

The report has exposed the high levels of illicit drug use among arrestees. In particular, it has shown high proportions of arrestees testing positive for Class A drugs such as heroin, crack and cocaine. It has also revealed high rates of drug use and a large proportion of arrestees reporting dependency on illicit drugs.

In addition, the report has shown high levels of offending among arrestees, particularly among users of heroin and/or crack and/or cocaine. Indeed, nearly one-fifth of arrestees reported using HCC on five or more days out of the last 30 days AND committing two or more acquisitive crimes per month over the last 12 months (i.e. they were drug-misusing, repeat offenders). The finding that a large proportion of DMROs had a current unmet need for treatment has important implications for treatment strategies and provision) However, considerable progress has been made since this survey was undertaken, in establishing drug interventions at key stages in the criminal justice system. These interventions have created opportunities to engage drug misusing repeat offenders who have an unmet need for treatment.

It should be noted that the current report provides only data on arrestees over the 16 NEW-ADAM sites. It is not possible to comment on trends in drug use or crime from this data. Hence, the report cannot comment on the effectiveness of the Government's various strategies aimed at reducing drug-related crime. However, it has been possible to look at regional trends in a further report that compares the results of particular sites over time.

This further report from the NEW-ADAM programme compares the results of the third year of surveys with those of the first year of surveys conducted in the same locations. Unlike the current report, which aggregates the results of the first 16 sites, the trend report will provides an opportunity to examine trends in drug use and crime across eight specific locations over a three-year period.

For an overview of the NEW-ADAM research programme and current developments in the approach to monitoring drug-related crime within the Home Office, please see the RDS website.

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Appendix A: Urinalysis cut-off levels

Table A.1 Cut-off levels used to determine whether a urine specimen tested positive or negative for selected drug types

Drug type	Cut-off levels (ngs/ml or mgs/100 ml)
Alcohol	10
Amphetamines	500
Benzodiazepines	100
Cannabis	50
Cocaine	150
Methadone	300
Opiates	300

Notes: Cut-off levels are expressed in nanograms per millilitre, with the exception of alcohol, which is expressed as milligrams per 100 millilitres.

Appendix B: Confidence intervals

The sample means generated from the results of the NEW-ADAM surveys provide estimates of the population means from which they are derived. These estimates are subject to sampling error. One method of summarising the likely error of an estimate is through confidence intervals. Confidence intervals provide a range of values within which the mean of a population is likely to fall. These are usually accompanied by a statement about confidence levels or the level of probability that the population mean falls within the confidence intervals presented. These are typically expressed at the level of 90 per cent, 95 per cent, or 99 per cent certainty.

For simple random samples, the formula for calculating confidence intervals is relatively uncomplicated and (according to Moser and Kalton) can be worked out "on the back of an envelope" (Moser and Kalton 1971, p 200). For two-stage samples, such as the NEW-ADAM sample, a more complex formula must be used. This more complex formula (see below) has two components: sampling variation across primary sampling units resulting from the first stage of the sampling and variation within the primary sampling units resulting from the second stage of the sampling.

Table B.1 presents the confidence intervals for this complex sampling design for the results of the urinalysis. The table also presents the 'design effect' (the ratio of the estimated sampling variance for a more complex design, such as a two-stage sample, to that for a simple random sample of the same size), the between-site variance as a proportion of the total variance, and the weighted mean. The confidence intervals are widest in relation to opiates and cocaine, and smallest in relation to benzodiazepines and methadone.

Table B.1 Approximate levels of sampling error for the urinalysis results

% positive	Mean (weighted)	Between-site component as % of total variance	Design effect	90% confidence interval
Cannabis	48.5%	80.2%	1.9	± 2.9
Opiates	29.6%	94.7%	3.6	± 5.0
Methadone	5.7%	91.2%	2.8	± 2.0
Cocaine	21.1%	97.0%	4.7	± 5.8
Amphetamines	7.7%	93.8%	3.3	± 2.7
Benzodiazepines	13.4%	77.1%	1.8	± 1.8
Alcohol	22.2%	87.7%	2.4	± 3.0
Any drug	68.6%	87.4%	2.4	± 3.4
Multiple drugs	35.6%	91.6%	2.9	± 4.2
Class A drug	37.2%	95.2%	3.8	± 5.5
Opiates and/or cocaine	36.7%	95.1%	3.7	± 5.5

Formula for the sampling variance of an estimated mean calculated from a two-stage sample:

$$V(\hat{\mu}) = \frac{1}{n}\left[\frac{1}{n}\sum_{i=1}^{n} w_i(\bar{y}_i - \bar{y}_0)^2 + \frac{1}{n}\sum_{i=1}^{n} w_i(1-f_{2i})\frac{s_i^2}{m_i}\right]$$

n = number of primary sampling units (psus)

M_i = total number in each psu

M_o = total population in all psus $M_o = \sum M_i$

m = size of random samples (m_i … m_n) drawn from the n sampled psus

Y = observed variable

$\bar{y}_i$ = sample mean $y_i = \bar{} \sum Y_{ij}/m_i$

π_i = population frequency of unit $\pi_i = M_i/M_o$

w_i= weight $w_i = \pi_i/\sum(\pi_i/n)$

$\bar{y}_o$ = weighted sample mean for all psus $y_o = \sum w_i y_i$ –

f_{2i} = sampling fraction in each psu $f_{2i} = m_i/M_i$

s_i^2= variance $s_i^2 = \sum(y_{ij} - \bar{y}_i)^2/(m_i - 1)$

Appendix C: Survey details

The survey of arrestees was based on a process of two-stage sampling. At the first stage, 16 custody suites were selected using purposive sampling. All police forces were first contacted by letter from the Home Office requesting information on their willingness to take part in the research and the annual throughput of arrestees. Forty-two of the 43 forces in England and Wales were contacted (excluding the City of London Police on the grounds that they were very unusual in terms of residential and non-residential population). Seventeen forces had throughputs high enough to conduct the research (it was determined from the developmental stage research that a practicable throughput of arrestees was around 600 arrestees per month). Thirteen of these forces were selected on the grounds of their willingness to participate in the research, geographic spread and throughput of arrestees. The 13 forces were visited to confirm that they were suitable for conducting the research. All 16 sites visited were eventually selected. One force (MPD) had four suitable sites and 12 forces had one suitable site (resulting in 13 forces and 16 sites in total).

Table C.1 describes the sites surveyed in the NEW-ADAM programme and shows the dates that each survey was started and completed. The first survey was conducted in Sunderland in July 1999. The last survey was conducted in Brixton in March 2001.

Table C.1 NEW-ADAM programme survey sites

Year 1	Location	Description	Date started	Date completed
1	Sunderland	City centre custody suite	09/07/99	06/08/99
2	Norwich	City centre custody suite	13/08/99	11/09/99
3	Newport	City centre custody suite	22/09/99	24/10/99
4	Southampton	City centre custody suite	06/11/99	09/12/99
5	Wolverhampton	City centre custody suite	08/01/00	03/02/00
6	Bournemouth	City centre custody suite	11/02/00	11/03/00
7	London (Hammersmith)	Borough custody suite	16/03/00	15/04/00
8	London (Bethnal Green)	Borough custody suite	15/03/00	11/04/00

Year 2	Force		Date started	Date completed
1	Middlesbrough	City centre custody suite	15/05/00	10/06/00
2	Leeds	City centre bridewell	23/06/00	18/07/00
3	Liverpool	Force custody unit	25/08/00	24/09/00
4	Plymouth	City centre custody suite	04/10/00	25/10/00
5	Bolton	City centre custody suite	16/11/00	13/12/00
6	Nottingham	City centre bridewell	09/01/01	29/01/01
7	London (Colindale)	Borough custody suite	12/02/01	14/03/01
8	London (Brixton)	Borough custody suite	13/03/01	11/04/01

Appendix D: Sample details

Table D.1 Within-site sampling and response rates for the eligible population, among all arrestees

Site	Total arrestees	No. within eligible population [1]	No. approached for interview [2]	No. successful interviews [3]	No. urine specimens [4]	No. interview refusals [5]	No. specimen refusals [6]
Sunderland	652	341 (52%)	214 (63%)	182 (85%)	169 (93%)	23 (11%)	0 (0%)
Norwich	739	465 (63%)	246 (53%)	205 (83%)	200 (98%)	32 (13%)	2 (1%)
Newport	1,049	532 (51%)	240 (45%)	202 (84%)	194 (96%)	30 (13%)	1 (1%)
Southampton	1,027	468 (46%)	246 (53%)	200 (81%)	182 (91%)	39 (16%)	5 (3%)
Wolverhampton	636	369 (58%)	251 (68%)	201 (80%)	196 (98%)	42 (17%)	0 (0%)
Bournemouth	650	382 (59%)	237 (62%)	200 (84%)	191 (96%)	33 (14%)	0 (0%)
Bethnal Green	626	342 (55%)	244 (71%)	200 (82%)	187 (94%)	37 (15%)	4 (2%)
Hammersmith	515	233 (45%)	154 (66%)	120 (78%)	115 (96%)	18 (12%)	0 (0%)
Middlesbrough	690	416 (60%)	255 (61%)	200 (78%)	185 (93%)	42 (16%)	4 (2%)
Leeds	758	470 (62%)	226 (48%)	210 (93%)	204 (97%)	12 (5%)	0 (0%)
Liverpool	636	336 (53%)	229 (68%)	210 (92%)	199 (95%)	15 (7%)	0 (0%)
Plymouth	502	289 (58%)	233 (81%)	209 (90%)	205 (98%)	20 (9%)	0 (0%)
Bolton	529	343 (65%)	236 (69%)	211 (89%)	196 (93%)	20 (8%)	2 (1%)
Nottingham	634	473 (75%)	218 (46%)	210 (96%)	198 (94%)	7 (3%)	0 (0%)
Colindale	621	328 (53%)	207 (63%)	177 (86%)	169 (96%)	27 (13%)	1 (1%)
Brixton	582	343 (59%)	184 (54%)	154 (84%)	143 (93%)	23 (13%)	0 (0%)
ALL	10,846	6,130 (57%)	3,620 (59%)	3,091 (85%)	2,933 (95%)	420 (12%)	19 (1%)

Notes: [1] Arrestees excluded from the eligible population were those who were unfit due to alcohol or drug intoxication, mentally disordered, a child/juvenile, required an interpreter, potentially violent, in custody for more than 48 hours, not suitable at the discretion of the custody staff, detained for drink driving or drunkenness offences only, not at liberty prior to entering the custody suite, unfit due to health or physical condition, previously interviewed during the survey period. The percentage figure in parenthesis is the proportion of all arrestees. [2] The figure represents the number of arrestees who were asked to consent to an interview. The percentage figure in parenthesis is the proportion of arrestees within the eligible population only. [3] The percentage figure in parenthesis is the number of interviews as a proportion of the number approached for interview. [4] The percentage figure in parenthesis is the

number of urine samples obtained as a proportion of the number of interviews. [5] The figure represents the number of arrestees who were approached for interview but who were not interviewed because of a direct refusal. Other unsuccessful attempts at interview are not included in this figure. The percentage figure in parenthesis is the number of refusals as a proportion of the number approached for interview. [6] The figure represents the number of arrestees who were interviewed but refused to provide a urine specimen. Other reasons for failure (e.g. arrestees who are physically unable to provide a specimen) are not included in this figure. The percentage in parenthesis is the number of specimen refusals as a proportion of the number of completed interviews.

Table D.2 Reasons for excluding arrestees from the eligible population, among all arrestees

Site	Total arrestees	No. within eligible population [1]	No. excluded from eligible population	Juvenile (under 17)	Arrested for alcohol offences only	Previously interviewed	Unfit for interview [2]	Other	Missing
Sunderland	652	341 (52%)	311 (48%)	127 (41%)	33 (11%)	12 (4%)	67 (22%)	67 (22%)	5 (2%)
Norwich	739	465 (63%)	274 (37%)	105 (38%)	27 (10%)	23 (8%)	54 (20%)	53 (19%)	12 (4%)
Newport	1,049	532 (51%)	517 (49%)	150 (29%)	91 (18%)	40 (8%)	90 (17%)	108 (21%)	38 (7%)
Southampton	1,027	468 (46%)	559 (54%)	188 (34%)	81 (15%)	16 (3%)	64 (11%)	166 (30%)	44 (8%)
Wolverhampton	636	369 (58%)	267 (42%)	90 (34%)	29 (11%)	25 (9%)	32 (12%)	75 (28%)	16 (6%)
Bournemouth	650	382 (59%)	268 (41%)	74 (28%)	62 (23%)	24 (9%)	41 (15%)	60 (22%)	7 (3%)
Bethnal Green	626	342 (55%)	284 (45%)	76 (27%)	82 (29%)	4 (1%)	35 (12%)	86 (30%)	1 (<1%)
Hammersmith	515	233 (45%)	282 (55%)	71 (25%)	117 (42%)	3 (1%)	22 (8%)	60 (21%)	9 (3%)
Middlesbrough	690	416 (60%)	274 (40%)	116 (42%)	58 (21%)	31 (11%)	20 (7%)	39 (14%)	10 (4%)
Leeds	758	470 (62%)	288 (38%)	66 (23%)	88 (31%)	9 (3%)	57 (20%)	66 (23%)	2 (1%)
Liverpool	636	336 (53%)	300 (47%)	79 (26%)	75 (25%)	11 (4%)	68 (23%)	66 (22%)	1 (<1%)
Plymouth	502	289 (58%)	213 (42%)	71 (33%)	65 (31%)	16 (8%)	15 (7%)	45 (21%)	1 (1%)
Bolton	529	343 (65%)	186 (35%)	61 (33%)	48 (26%)	17 (9%)	22 (12%)	37 (20%)	1 (1%)
Nottingham	634	473 (75%)	161 (25%)	52 (32%)	29 (18%)	23 (14%)	11 (7%)	42 (26%)	4 (3%)
Colindale	621	328 (53%)	293 (47%)	96 (33%)	60 (21%)	8 (3%)	39 (13%)	86 (29%)	4 (1%)
Brixton	582	343 (59%)	239 (41%)	57 (24%)	60 (25%)	7 (3%)	13 (5%)	101 (42%)	1 (<1%)
ALL	10,846	6,130 (57%)	4,716 (44%)	1,479 (31%)	1,005 (21%)	269 (6%)	650 (14%)	1,157 (25%)	156 (3%)

Notes: Multiple responses possible. [1] See notes to Table D.1. [2] 'Unfit' includes arrestees who were unfit due to: alcohol or drug intoxication, ill-health or physical condition.

Table D.3 Reasons for not approaching arrestees for interview, among all arrestees in the eligible population

Site	No. within eligible population [1]	No. approached for interview	No. not approached for interview	No custody staff available	Non-contact between researcher and arrestee	No time gap long enough	Other	Missing
Sunderland	341	214 (63%)	127 (37%)	4 (3%)	16 (13%)	69 (54%)	29 (23%)	9 (7%)
Norwich	465	246 (53%)	219 (47%)	1 (1%)	21 (10%)	171 (78%)	24 (11%)	2 (1%)
Newport	532	240 (45%)	292 (55%)	6 (2%)	11 (4%)	269 (92%)	6 (2%)	0 (0%)
Southampton	468	246 (53%)	222 (47%)	4 (2%)	51 (23%)	140 (63%)	18 (8%)	9 (4%)
Wolverhampton	369	251 (68%)	118 (32%)	19 (16%)	34 (29%)	59 (50%)	6 (5%)	0 (0%)
Bournemouth	382	237 (62%)	145 (38%)	1 (1%)	32 (22%)	107 (74%)	5 (3%)	0 (0%)
Bethnal Green	342	244 (71%)	98 (29%)	9 (9%)	32 (33%)	55 (56%)	2 (2%)	0 (0%)
Hammersmith	233	154 (66%)	79 (34%)	2 (3%)	7 (9%)	51 (65%)	11 (14%)	8 (10%)
Middlesbrough	416	255 (61%)	161 (39%)	14 (9%)	19 (12%)	122 (76%)	5 (3%)	1 (1%)
Leeds	470	226 (48%)	244 (52%)	2 (1%)	33 (14%)	205 (84%)	4 (2%)	0 (0%)
Liverpool	336	229 (68%)	107 (32%)	4 (4%)	20 (19%)	81 (76%)	2 (2%)	0 (0%)
Plymouth	289	233 (81%)	56 (19%)	0 (0%)	10 (18%)	43 (77%)	3 (5%)	0 (0%)
Bolton	343	236 (69%)	107 (31%)	0 (0%)	29 (27%)	74 (69%)	4 (4%)	0 (0%)
Nottingham	473	218 (46%)	255 (54%)	2 (1%)	102 (40%)	150 (59%)	1 (<1%)	0 (0%)
Colindale	328	207 (63%)	121 (37%)	6 (5%)	33 (27%)	79 (65%)	3 (3%)	0 (0%)
Brixton	343	184 (54%)	159 (46%)	6 (4%)	58 (37%)	66 (42%)	29 (18%)	0 (0%)
ALL	6,130	3,620 (59%)	2,510 (41%)	80 (3%)	508 (20%)	1,741 (69%)	152 (6%)	29 (1%)

Notes: [1] See notes to Table D.1.

Table D.4 Reasons for not interviewing arrestees, among all arrestees approached for interview

Site	No. approached for interview	No. interviewed	No. not interviewed	Detainee refused	Other reason	Missing
Sunderland	214	182 (85%)	32 (15%)	23 (72%)	4 (13%)	5 (16%)
Norwich	246	205 (83%)	41 (17%)	32 (78%)	5 (12%)	4 (10%)
Newport	240	202 (84%)	38 (16%)	30 (79%)	6 (16%)	2 (5%)
Southampton	246	200 (84%)	46 (19%)	39 (85%)	5 (11%)	2 (4%)
Wolverhampton	251	201 (80%)	50 (20%)	42 (84%)	8 (16%)	0 (0%)
Bournemouth	237	200 (84%)	37 (16%)	33 (89%)	3 (8%)	1 (3%)
Bethnal Green	244	200 (82%)	44 (18%)	37 (84%)	7 (16%)	0 (0%)
Hammersmith	154	120 (78%)	34 (22%)	18 (53%)	13 (38%)	3 (9%)
Middlesbrough	255	200 (78%)	55 (22%)	42 (76%)	12 (22%)	1 (2%)
Leeds	226	210 (93%)	16 (7%)	12 (75%)	4 (25%)	0 (0%)
Liverpool	229	210 (92%)	19 (8%)	15 (79%)	4 (21%)	0 (0%)
Plymouth	233	209 (90%)	24 (10%)	20 (83%)	4 (17%)	0 (0%)
Bolton	236	211 (89%)	25 (11%)	20 (80%)	5 (20%)	0 (0%)
Nottingham	218	210 (96%)	8 (4%)	7 (88%)	0 (0%)	1 (13%)
Colindale	207	177 (86%)	30 (15%)	27 (90%)	3 (10%)	0 (0%)
Brixton	184	154 (84%)	30 (16%)	23 (77%)	6 (20%)	1 (17%)
ALL	3,620	3,091 (85%)	529 (15%)	420 (79%)	89 (17%)	20 (4%)

Table D.5 Reasons for not collecting a urine specimen, among all interviewed arrestees

Site	No. interviewed	No. providing urine specimen	No. not providing urine specimen	Agreed, but unsuccessful	Refused	Other reason	Missing
Sunderland	182	169 (93%)	13 (7%)	5 (38%)	0 (0%)	4 (31%)	4 (31%)
Norwich	205	200 (98%)	5 (2%)	2 (40%)	2 (40%)	1 (20%)	0 (0%)
Newport	202	194 (96%)	8 (4%)	3 (38%)	1 (13%)	3 (38%)	1 (13%)
Southampton	200	182 (91%)	18 (9%)	12 (67%)	5 (28%)	0 (0%)	1 (6%)
Wolverhampton	201	196 (98%)	5 (3%)	1 (20%)	0 (0%)	0 (0%)	4 (80%)
Bournemouth	200	191 (96%)	9 (5%)	2 (22%)	0 (0%)	0 (0%)	7 (78%)
Bethnal Green	200	187 (94%)	13 (7%)	8 (62%)	4 (31%)	1 (8%)	0 (0%)
Hammersmith	120	115 (96%)	5 (4%)	3 (60%)	0 (0%)	2 (40%)	0 (0%)
Middlesbrough	200	185 (93%)	15 (8%)	10 (67%)	4 (27%)	1 (7%)	0 (0%)
Leeds	210	204 (97%)	6 (3%)	6 (100%)	0 (0%)	0 (0%)	0 (0%)
Liverpool	210	199 (95%)	11 (5%)	5 (45%)	0 (0%)	0 (0%)	6 (55%)
Plymouth	209	205 (98%)	4 (2%)	2 (50%)	0 (0%)	2 (50%)	0 (0%)
Bolton	211	196 (93%)	15 (7%)	13 (87%)	2 (13%)	0 (0%)	0 (0%)
Nottingham	210	198 (94%)	12 (6%)	3 (25%)	0 (0%)	0 (0%)	9 (75%)
Colindale	177	169 (96%)	8 (5%)	4 (50%)	1 (13%)	2 (26%)	1 (13%)
Brixton	154	143 (93%)	11 (7%)	9 (82%)	0 (0%)	2 (18%)	0 (0%)
ALL	3,091	2,933 (95%)	158 (5%)	88 (56%)	19 (12%)	18 (11%)	33 (21%)

Table D.6 Characteristics of arrestees, among arrestees in the eligible population

(column percentages)

Site	No. in eligible population	No. not in eligible population	No. approached	No. not approached	No. interviewed	No. not interviewed
Sex						
Male	5,066 (83%)	4,006 (85%)	3,085 (85%)	1,981 (79%)	2,659 (86%)	426 (81%)
Female	1,063 (17%)	699 (15%)	535 (15%)	528 (21%)	432 (14%)	103 (20%)
Sig. of difference		**		***		**
Age Group						
Under 17	0 (0%)	1,465 (32%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
17–19	1,324 (22%)	469 (10%)	819 (23%)	505 (20%)	722 (23%)	97 (18%)
20–24	1,544 (25%)	658 (14%)	916 (25%)	628 (25%)	805 (26%)	111 (21%)
25–29	1,123 (18%)	540 (12%)	674 (19%)	449 (18%)	564 (18%)	110 (21%)
30+	2,132 (35%)	1,469 (32%)	1,210 (33%)	922 (37%)	1,000 (32%)	210 (40%)
Sig. of difference		***		*		***
Ethnic Group						
White	4,984 (82%)	3,896 (84%)	2,942 (81%)	2,042 (82%)	2,529 (82%)	413 (79%)
Non-white	1,113 (18%)	754 (16%)	675 (19%)	438 (18%)	562 (18%)	113 (22%)
Sig. of difference		**		ns		ns
Offence arrested for						
Property (theft) offence	2,224 (36%)	1,239 (26%)	1,398 (39%)	826 (33%)	1,219 (39%)	179 (34%)
Not property offence	3,906 (64%)	3,477 (74%)	2,222 (61%)	1,684 (67%)	1,872 (61%)	350 (66%)
Sig. of difference		***		***		*
TOTAL	6,130	4,716	3,620	2,510	3,091	529

Notes: Chi square test. * p<0.05, ** p<0.01, *** p<0.001, ns = not significant.. [1] 'No. approached' refers to the number of 'eligible' arrestees (n=6,130) who were approached for interview. [2] 'No. interviewed' refers to the number of approached arrestees (n=3,620). Some missing cases.

Appendix E: Additional tables

Table E.1 Percentage of arrestees reporting drug use in the last 12 months, in the last 30 days and in the last three days, among all interviewed arrestees

(Percentage of total arrestees)

	In last 12 months	In last 30 days	In last 3 days
Amphetamines	764 (25%)	389 (13%)	178 (6%)
Cannabis	2,174 (70%)	1,896 (61%)	1,443 (47%)
Cocaine	836 (27%)	419 (14%)	147 (5%)
Crack	904 (29%)	629 (20%)	420 (14%)
Ecstasy	804 (26%)	419 (14%)	131 (4%)
Heroin	994 (32%)	846 (27%)	762 (25%)
LSD	219 (7%)	61 (2%)	20 (1%)
Magic mushrooms	201 (7%)	45 (2%)	6 (<1%)
Methadone	524 (17%)	314 (10%)	193 (6%)
Steroids	40 (1%)	15 (1%)	7 (<1%)
Temazepam	635 (21%)	344 (11%)	153 (5%)
Diazepam	708 (23%)	452 (15%)	251 (8%)
Other tranquillisers	258 (8%)	138 (5%)	64 (2%)
Barbiturates	91 (3%)	41 (1%)	20 (1%)
Diconal	66 (2%)	19 (1%)	7 (<1%)
DF118s	635 (21%)	325 (11%)	154 (5%)
Temgesic	128 (4%)	30 (1%)	11 (<1%)
Amyl nitrite	264 (9%)	90 (3%)	20 (1%)
Solvents	69 (2%)	27 (1%)	11 (<1%)
Tobacco	2,726 (88%)	2,681 (87%)	2,641 (85%)
Alcohol	2,757 (89%)	2,436 (79%)	1,782 (58%)
Any illicit drug [1]	2,479 (80%)	2,271 (74%)	1,966 (64%)
Multiple drugs [1][2]	1,902 (62%)	1,520 (49%)	1,019 (33%)
Any Class A drug [3]	1,761 (57%)	1,414 (46%)	1,041 (34%)
HCC [4]	1,485 (48%)	1,158 (38%)	907 (29%)

Notes: [1] 'Any illicit drug' refers to use of any of 19 illicit drug types and excludes tobacco and alcohol. [2] 'Multiple drugs' means two or more illicit drug types (excluding tobacco and alcohol) [3] 'Any Class A drug' includes: heroin, cocaine, crack, methadone, ecstasy, diconal, LSD and magic mushrooms. [4] 'HCC' refers to heroin and/or cocaine and/or crack.

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