'Effective treatment is available for people who have a powder-cocaine problem – seven in ten of those who come into treatment either stop using or reduce their use substantially within six months'

POWDER COCAINE: HOW THE TREATMENT SYSTEM IS RESPONDING TO A GROWING PROBLEM

EFFECTIVE TREATMENT CHANGING LIVES
www.nta.nhs.uk

NHS
National Treatment Agency
for Substance Misuse

Contents

The National Treatment Agency for Substance Misuse (NTA) is a special health authority within the NHS, established by government in 2001 to improve the availability, capacity and effectiveness of treatment for drug misuse in England.

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Powder cocaine: how the treatment system is responding to a growing problem

Effective treatment is available for people who have a powder-cocaine problem – seven in ten of those who come into treatment either stop using or reduce their use substantially within six months...

Powder cocaine use among the general population has risen significantly during the past 15 years. According to the latest British Crime Survey, around one in ten adults have tried cocaine at some point in their lives (though only 3% in the past year).

Most people who try powder cocaine will not go on to develop an addiction to the substance (this is also true for other illicit drugs). However, the number of individuals accessing treatment for a problem with powder cocaine has risen in recent years (particularly among the 18-24 age group). Most of these people receive effective abstinence-based treatment in the community.

Unlike heroin, there is no substitute medication for powder cocaine. Instead, treatment consists of psychosocial techniques, such as cognitive behavioural therapy, which help users to understand and then to change their behaviour. Most powder cocaine users start treatment with a specialist drug treatment service, based in the community, within a week of being referred (on average, it takes just over five days). Powder cocaine users usually refer themselves to treatment, but they also come via the criminal justice system, GPs and other health services, and are sometimes referred by friends and family.

So while powder cocaine use has increased dramatically in recent years, the treatment system has responded and ensures that relevant services are open and available to all who need them.

In 2008-09 12,354 people were in treatment for a powder cocaine problem; 8,491 of those entered during that year. Of the 8,479 who left treatment in that year, 63% had beaten their dependency. These figures come from the National Drug Treatment Monitoring System (NDTMS), which tracks the movement of people in and out of England's drug treatment system. An additional monitoring tool, called the Treatment Outcomes Profile (TOP), provides a more detailed examination of an individual's progress from the start of their treatment to its conclusion.

Using TOP data, this bulletin looks at a study that tracked the progress of people accessing services for powder cocaine over a period of six months. It contains results on more than 3,000 individuals, making it the single largest review of powder cocaine treatment undertaken so far.

The key results of the powder cocaine study

Within six months of entering treatment, 61% of those in the study had abstained from using cocaine for at least 28 days. A further 11% had significantly cut down their use

People entering treatment for cocaine problems also reduced their use of other drugs, such as cannabis, alcohol and amphetamines

Those who cut or stopped their powder cocaine use reported telling improvements in their physical and psychological health and overall quality of life

Heroin is most often used by vulnerable people; but the individuals who access treatment for powder cocaine come from a much broader range of social backgrounds

‘Powder cocaine is an addictive drug, which can lead to compulsive use’

The problem of powder cocaine

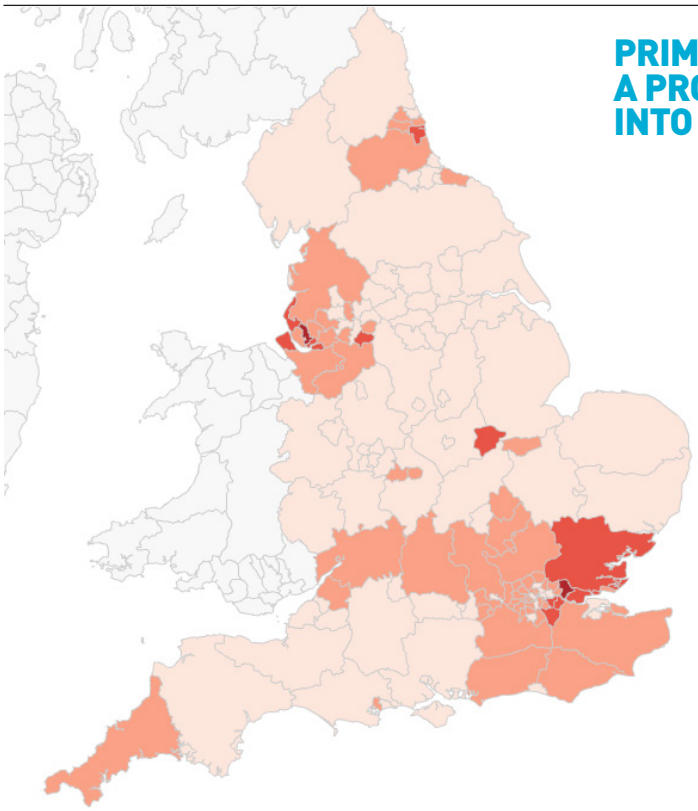
Powder cocaine is a powerful psychostimulant that is usually snorted but sometimes injected; a free-base form of cocaine, known as crack cocaine, is usually smoked but is considered a separate and potentially much more harmful drug. Because of the substantial differences in the patterns of use between the two drugs and the profile of users, this bulletin focuses solely on powder cocaine[1].

Powder cocaine is an addictive drug, which can lead to compulsive use. It is also associated with a range of health and social harms. Although relatively few cocaine users become physically dependent, psychological dependence can be deep-seated and difficult to treat.

Individuals often use powder cocaine in combination with alcohol. This produces a pharmacologically active metabolite of cocaine and alcohol called cocaethylene, which is thought to enhance the effects of cocaine and lessen the impact of the ‘crash’ following a binge. This pattern of use may also increase the damage to the heart that either cocaine or alcohol alone can cause, and increase the likelihood of violent behaviour.

Once established, this combined use of the drugs can be difficult to give up. People who access treatment in England tend to have a problem with more than one drug, so this is an important area of focus in developing and evaluating effective treatment responses.

In recent years the reported use of powder cocaine among 16-59 year olds in England and Wales has risen. Around one in ten now say they have used powder cocaine at some point in their lives. The lifetime prevalence rose from 3% in 1996 to 9.2% (close to three million people) in 2008-09. This pattern is repeated for the number of people who say they have used the drug in the last year (0.6% in 1996 to 3.0% in 2008-09) and in the past month (0.2% to 1.5%).



PRIMARY POWDER COCAINE USERS AS A PROPORTION OF ALL USERS COMING INTO TREATMENT IN ENGLAND 2008-09

- 0.0-9.0%
- 9.1-19.0%
- 19.1-28.0% — BEXLEY, BROMLEY, ESSEX, GREENWICH, HALTON, RUTLAND, SEFTON, STOCKPORT, SUNDERLAND, THURROCK, WIRRAL
- 28.1-34.0% — HAVERING, KNOWSLEY

‘In recent years the reported use of powder cocaine among 16-59 year olds in England and Wales has risen’

Access to treatment

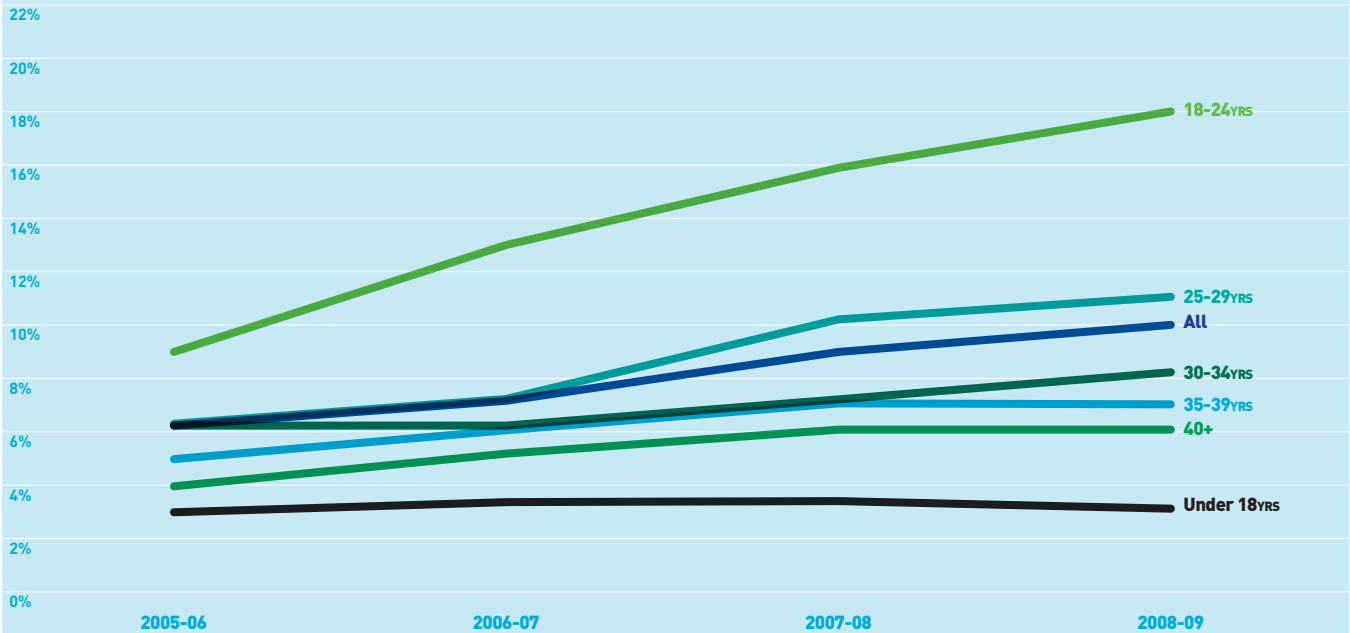
The number of people accessing structured drug treatment in England for powder cocaine problems has risen in recent years. Since 2005-06 the proportion of adults accessing treatment for powder cocaine has increased by 4% – taking the total proportion to 10% in 2008-09. The increase has been most marked among 18-24 year olds (though there was a small fall in the number of primary cocaine presentations among the under 18s).

There is considerable regional and local variability in the demand for cocaine treatment. The heat map opposite shows the proportion of users aged 16 and over who are accessing treatment for powder cocaine problems out of the overall number of new presentations (between April 2008 and March 2009). The highest prevalence is seen in London, the south east, the east, and the north west. There is also a lot of demand for treatment in the north east and west Midlands.

National Institute for Health and Clinical Excellence (NICE) guidelines say that psychosocial interventions, typically delivered in a community setting, should be the main treatment for people with a powder cocaine problem. As well as being treated in the community, most users will also recover in the community and not need to use hospital or residential services, even if they require intensive attention. In a very small number of cases, when an individual does not respond to treatment in the community, residential rehabilitation may be required.

Other NTA data has revealed that young people under 18 years old have moved away from opiates and crack in recent years, but require more treatment for powder cocaine. In light of this (and given that the Treatment Outcomes Profile has been validated for those aged 16 and above, and the British Crime Survey provides trends on increased prevalence in 16-59 year olds), our analysis includes those who are 16 and above.

POWDER COCAINE USERS BY AGE, AS A PROPORTION OF ALL INDIVIDUALS COMING INTO CONTACT WITH TREATMENT SERVICES 2005-09 (SEE TABLE 1, P12)



DATA SOURCE: NDTMS. NDTMS FIGURES FOR THE ADULT POPULATION AND YOUNG PEOPLE ARE NORMALLY KEPT SEPARATE. BUT THEY HAVE BEEN AGGREGATED FOR THE PURPOSES OF THIS BULLETIN

Analysis of the data

A profile of users in treatment

This study concentrates on the effectiveness of psychosocial interventions, provided in the community, for people who access treatment with a powder cocaine problem.

For full details on the study method and design, see the appendix on page 11.

The study excludes users who also have a problem with an opioid (commonly heroin) and/or crack cocaine. In the majority of these cases, powder cocaine will not be the primary reason they have sought treatment (their powder cocaine use is addressed holistically during treatment). A recent paper in *The Lancet* set out the effectiveness of community treatment interventions for opioids and crack cocaine[2].

People who access treatment for powder cocaine in England differ in profile from those who access treatment for other drugs. The following compares those characteristics:

1. Age

Users of all ages access treatment for powder cocaine problems, but over a third of presentations for the drug came from the 18-24 age group. In the older age groups there were proportionately fewer presentations for powder cocaine than generally seen for other drugs.

2. Referrals to treatment

Substantial proportions (44%) of powder cocaine users refer themselves directly to treatment. Compared to the rest of the treatment population, they are also more likely to be referred by a family member or friend.

A high number of referrals come from the Drug Interventions Programme (DIP – this identifies Class A drug using offenders as they go through the criminal justice system and attempts to get them into treatment and out of crime). Other criminal justice routes, such as probation and prison, provide much lower proportions of powder cocaine users compared to users of other drugs. This indicates that powder cocaine users who come into treatment via the criminal justice system do so on arrest rather than after a custodial sentence.

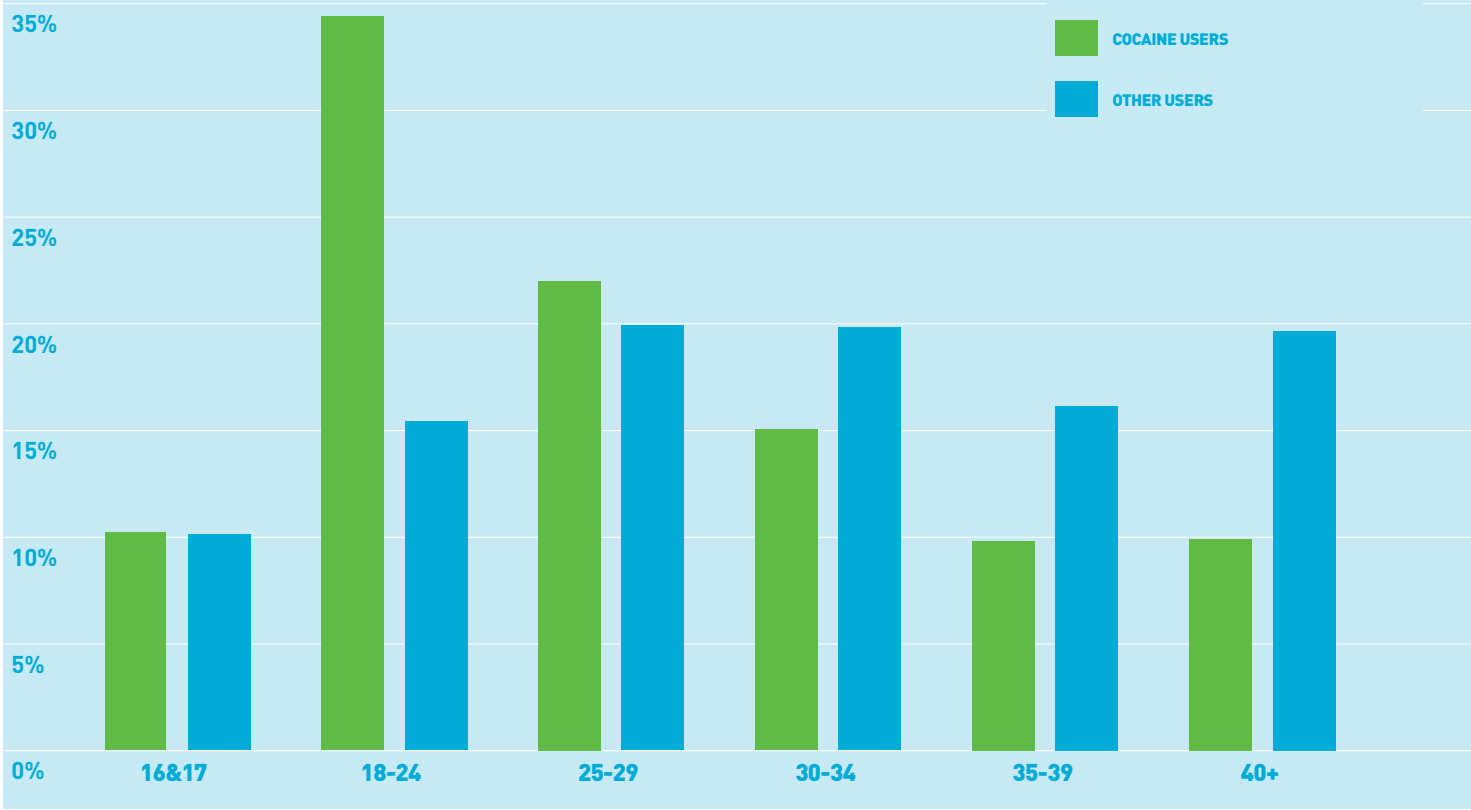
3. Employment, education and housing

Compared to other drug users, powder cocaine users are more likely to be in paid employment (46% against 17%) and in the education system. Powder cocaine users are also less likely to have an acute housing problem (12% against 21%).

4. Gender and ethnicity

An individual coming into treatment for powder cocaine is marginally less likely to be a woman. On the other hand, men are slightly more likely to seek treatment for powder cocaine than other drugs. They are also more likely to be white.

AGE PROFILE OF POWDER COCAINE USERS COMPARED TO OTHER DRUG USERS COMING INTO TREATMENT 2008-09 (SEE TABLE 2, P12)



What do these differences mean?

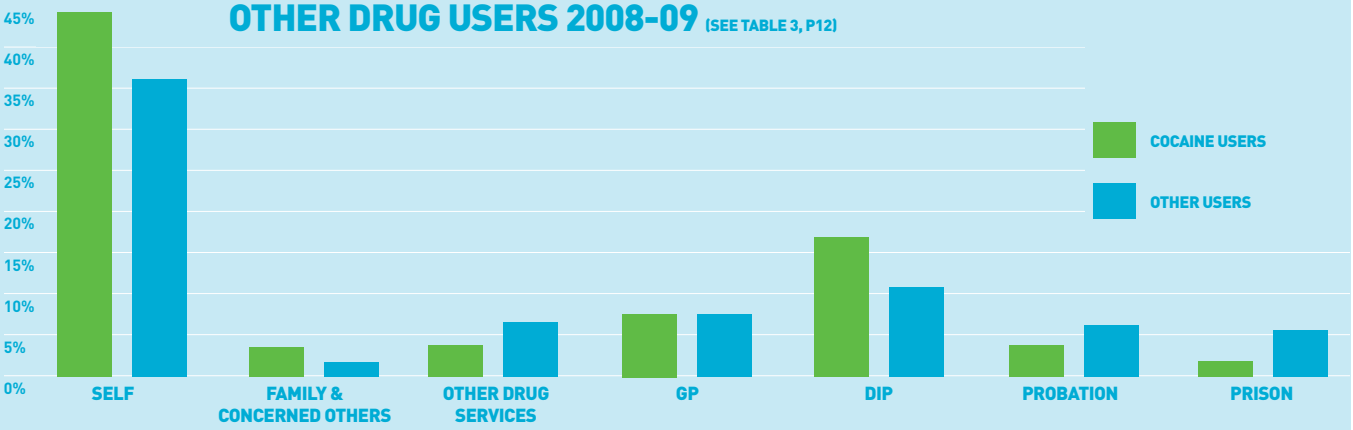
These profile differences have important implications for the success of treatment. They suggest that powder cocaine users may access treatment with greater personal and social resources; these users also tend to use the drug less frequently than heroin users, who are the predominant group accessing treatment.

There are also other differences. Treatment presentations for powder cocaine use indicate a pattern of dependency characterised by binges several times a month. This is distinctly different from people addicted to heroin, for example, who typically use the drug on a daily basis.

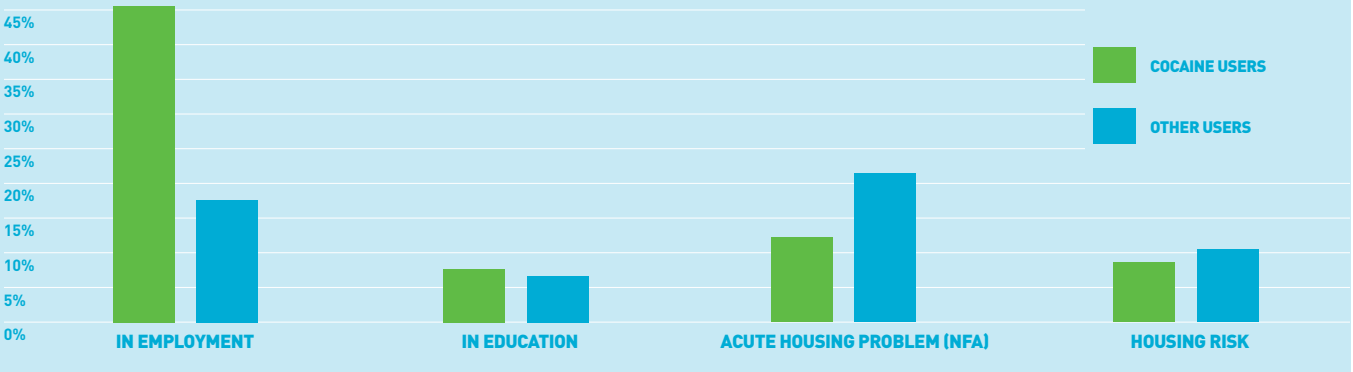
Additionally, more powder cocaine users are in paid employment and education, and have stable housing. Personal and social resources are important factors in overcoming substance-related problems and maintaining behavioural change over the long term. This is referred to as 'recovery capital'.

'44% of powder cocaine users refer themselves directly to treatment'

REFERRAL SOURCE OF POWDER COCAINE USERS COMPARED TO OTHER DRUG USERS 2008-09 (SEE TABLE 3, P12)



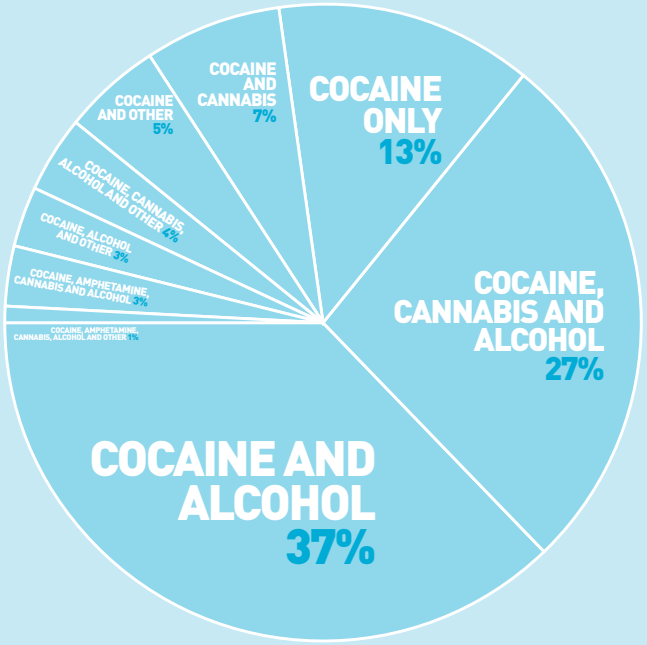
EMPLOYMENT, EDUCATION, AND HOUSING STATUS OF POWDER COCAINE USERS COMING INTO TREATMENT 2008-09 (SEE TABLE 3, P12)



The results of the study

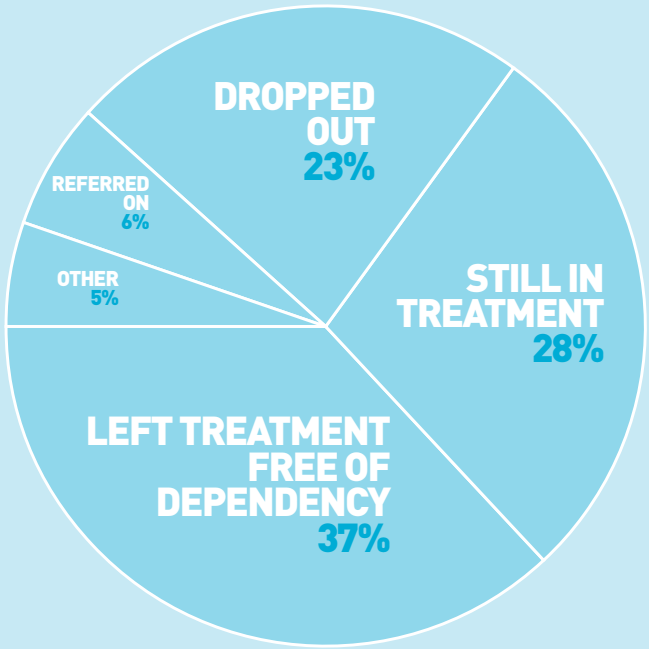
Overall, 738 treatment providers from all 149 drug action team (DAT) partnerships produced data on 5,511 powder cocaine users who met the inclusion criteria. Of these, nearly 70% presented with an additional problematic drug (commonly alcohol, cannabis or amphetamine, or a combination). Those discharged from treatment by six months totalled 3,965. Of those, the majority (51%) completed treatment successfully. This compares to the national average in 2008-09 of 41% (for full details, see 'Study design' in the appendix).

REPORTED DRUG USE AT START OF TREATMENT (SEE TABLE 4, P12)



DATA SOURCE: TREATMENT OUTCOMES PROFILE
USERS=5,511

STATUS AFTER SIX MONTHS IN TREATMENT (SEE TABLE 5, P12)



DATA SOURCE: NDTMS DISCHARGE CODES
USERS=5,511

1. Behaviour

Our analysis shows that the system is well positioned to help the increasing number of powder cocaine users who are seeking treatment for a problem.

Of the total 5,511 users eligible for inclusion in the analysis, 3,137 had a Treatment Outcomes Profile completed at the start of their treatment and at the follow-up review, within six months. Of these, 2% were lost as 'NA' (ie, the client either could not recall or declined to answer).

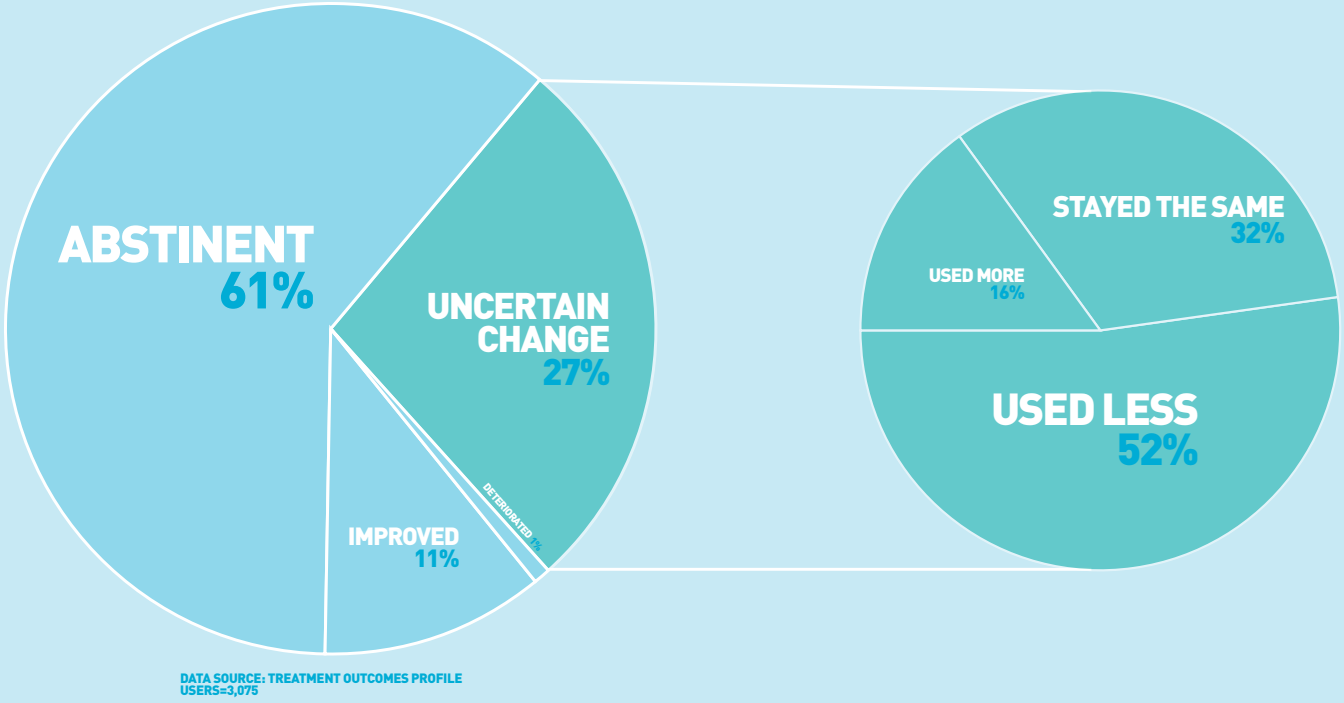
So 3,075 clients were included in the final analysis. Among these, there was a substantial reduction in the number of days of reported powder cocaine use, from 9.9 in the month before starting treatment to 2.6 days in the month preceding review. This is a reduction of nearly 74% between the start of treatment and the six-month review. There was also a significant reduction in the number of days that other substances were used. The frequency of use of amphetamine, cannabis, alcohol and other drugs fell by around 81%, 43%, 42% and 75% respectively (table 7, p12).

Applying a further methodology (reliable change index[3]) shows exactly the sort of improvements users made during treatment. Using this methodology, change was categorised as abstinent, reliably improved, unchanged, or reliably deteriorated.

In the 28 days prior to the 26-week follow-up review, 61% (1,864) of users were no longer using powder cocaine. A further 11% (333) had reliably improved (ie, they had cut their cocaine use by at least eight days per month).

‘In the 28 days prior to the review, 61% of users were no longer using the substance’

CHANGES IN COCAINE USE AFTER SIX MONTHS (SEE TABLE 6, P12)



DATA SOURCE: TREATMENT OUTCOMES PROFILE
USERS=3,075

Although a significant majority of the group had made substantial progress, 1.4% (44) had deteriorated.

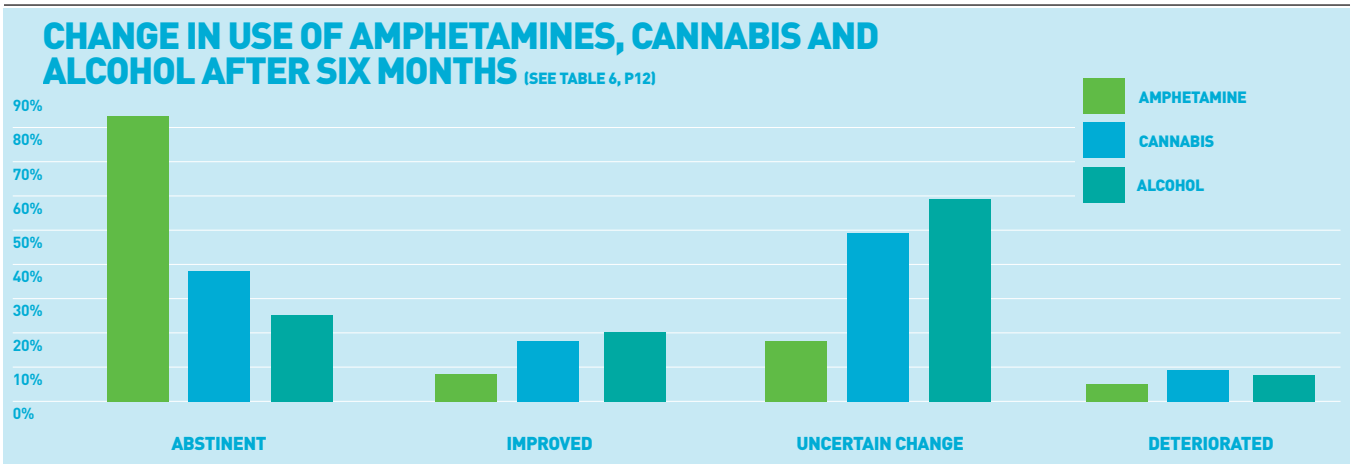
This does not mean that those classified with ‘uncertain change’ did not change their cocaine consumption. Of the 27% (834) who did not cross the reliable change boundary, 52% (437) showed some sign of improvement, while 16% (134) showed a degree of deterioration.

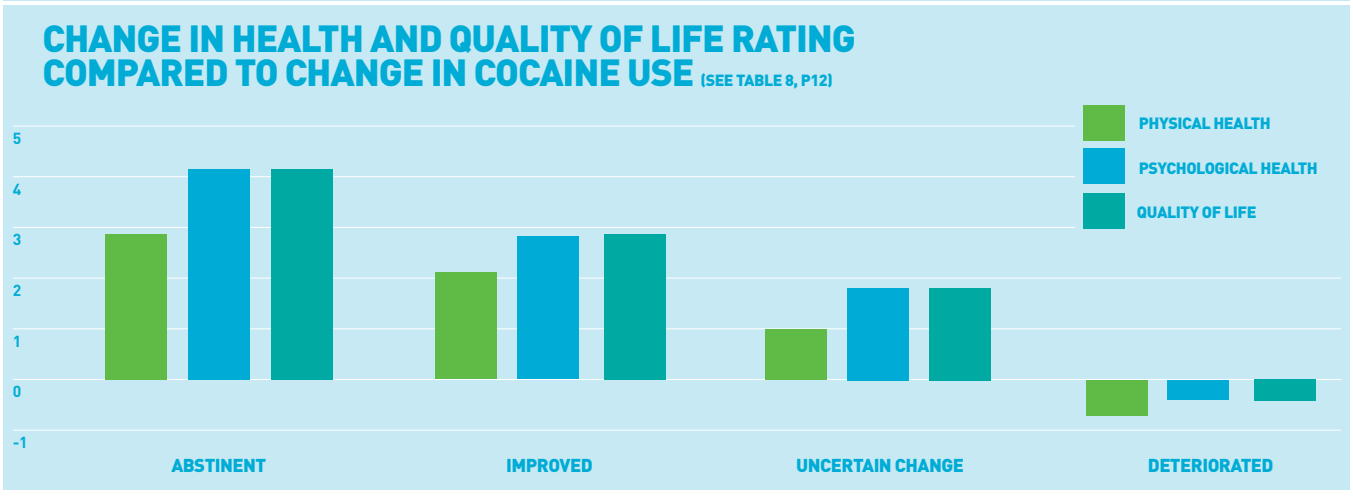
This reliable change methodology was also applied to alcohol, cannabis and amphetamine use. There was a reduction in use with all illegal drugs, with 80% of amphetamine use having ceased at the time of review. Alcohol showed the least change in use.

2. Health

Changes in drug use were compared with reported changes in health. This shows that gains in health and quality of life are associated with the degree of change in cocaine use – those who became abstinent made the greatest gains, followed by those who reliably improved. The greatest gains were seen in psychological health and quality of life. Those whose cocaine use increased showed worsening health and quality of life.

‘Over 71% of powder cocaine users who come into treatment stop using or reduce their use substantially within six months’





What the results tell us

The drug treatment system in England is helping significant numbers of individuals with a powder cocaine problem to stop taking the drug and work towards recovery. Although more people are using the drug, and numbers seeking help have increased in recent years, publicly funded treatment services are in a good position to meet this need.

Over 71% of powder cocaine users who come into treatment stop using or reduce their use substantially within six months. Planned exits – that is, leaving treatment free of dependence on cocaine and other drugs – account for over half of all discharges.

Reduction in the frequency of powder cocaine use is associated with increases in physical health, psychological health and quality of life. Individuals who become abstinent show the greatest gains in health and quality of life. Many of those with uncertain change still benefit from treatment, as their health and quality of life is significantly improved. Concurrent use of other substances, such as amphetamine, cannabis, alcohol or other drugs, also changes – for all substances, substantial reductions are made.

For the minority who did not show any tangible response to treatment in the first six months, the NTA will use the evidence generated by the analysis to work with local clinicians, user groups and commissioners to learn further lessons of where improvements can be made.

The NTA will continue to be ambitious for every drug user who needs treatment; we will persist in our efforts to ensure they make a full recovery from dependency; and we will sustain our promotion of a treatment system that can meet current demand and remain flexible enough to respond to all emerging trends. ■

Appendix

1. Method

The NTA completed this analysis using data from the National Drug Treatment Monitoring System (NDTMS). NDTMS collects information on everybody who accesses publicly funded drug treatment in England, in order to monitor and improve the effectiveness of that treatment.

In 2007 the Treatment Outcomes Profile (TOP) was included in the NDTMS dataset to provide a measure of behavioural change during the course of a treatment journey. The TOP consists of 20 questions that are grouped into four different domains. These are substance use, injecting risk behaviour, crime, and health and social functioning. TOP data is reported for all clients accessing structured treatment at three points: at the start of treatment, periodically in 26-week cycles of review, and at treatment exit.

Using this information we have explored the effectiveness of the system in England for treating powder cocaine users. We have primarily assessed change in terms of frequency of cocaine use and subsequent changes in health functioning for clients receiving community psychosocial interventions. Additionally we have looked at changes in the use of other drugs such as amphetamine, alcohol, cannabis and others.

2. Study design

The analysis included clients aged 16 and above, accessing structured psychosocial interventions between April 2008 and March 2009 for powder cocaine addiction. To be included, clients must have had a TOP completed at the start of treatment and be either new to treatment or 90 days had passed since their previous treatment journey. This is to ensure that any previous exposure to drug treatment did not impact on the effects of the latest intervention. Clients entering treatment for an opioid or crack cocaine problem were excluded from the analysis for the reasons previously stated. Psychosocial treatments included Structured Psychosocial Interventions, Structured Day Programmes, Young Person Interventions, and Other Structured Interventions, as defined by NDTMS[4].

The effectiveness of psychosocial treatments for powder cocaine was assessed by comparing baseline TOP assessment with the first six month TOP review period (up to 182 days into treatment). Where more than a single review was completed per individual by this time, the latest set of information was used. Discharge reasons are categorised as Planned, Dropped Out, Still in Treatment, Referred On and Other. Clients discharged from treatment over this period were not readmitted to treatment during the study time frame.

Change in powder cocaine use between the 28 days preceding the start of treatment and the 28 days preceding review was the main indicator of treatment effectiveness. Further indices include change in amphetamine, cannabis, alcohol and other drug use together with ratings of physical health, psychological health and quality of life.

3. Statistical analysis

Paired samples T-Tests were utilised to determine change in frequency of drug use. To further differentiate changes between start and review, Jacobson and Truax's (1991) Reliable Change Index was utilised to determine proportions of individuals who became abstinent, reliably improved, reliably deteriorated and remained unchanged. Repeated measures ANCOVA was applied to determine change in physical health, psychological health or quality of life between start of treatment and review, allowing the covariates of time taken to review baseline cocaine use and baseline health (or quality of life) to be incorporated.

4. References

[1]Opioid and crack cocaine users have not been reported in the current analysis.

[2]Marsden, et al, 2009.

[3]Jacobson and Truax's reliable change index – this assesses whether a recorded difference on a scaled measure reliably exceeds measurement error.

[4]NDTMS business definitions for adult drug treatment providers: Overview of Core Data Set for managers of drug treatment agencies. Version 6.1.1; updated 16 February 2009. Available at www.nta.nhs.uk/areas/ndtms/core_data_set_page.aspx

Tables

1. AGE OF COCAINE USERS IN TREATMENT

	Under 18	18-24	25-29	30-34	35-39	40+
2005-06 n (%)	453 (2.7)	1,586 (9)	1,193 (6)	1,029 (6)	718 (5)	562 (4)
2006-07	655 (3.2)	2,096 (12)	1,385 (6)	1,107 (6)	801 (5)	712 (5)
2007-08	806 (3.4)	2,691 (16)	1,834 (10)	1,301 (7)	927 (7)	834 (6)
2008-09	745 (3.1)	3,005 (18)	2,106 (11)	1,438 (8)	987 (7)	986 (6)

2. AGE PROFILE OF COCAINE USERS IN STUDY

	16-17	18-24	25-29	30-34	35-39	40+	All
COCAINE (n)	562	1,881	1,196	825	512	535	5,511
(%)	10.20	34.13	21.70	14.97	9.29	9.71	100.00
OTHER DRUGS (n)	7,033	10,736	14,013	13,626	11,441	13,698	70,547
(%)	9.97	15.22	19.86	19.31	16.22	19.42	100.00

3. DEMOGRAPHIC CHARACTERISTICS OF POWDER COCAINE USERS IN THE STUDY

	Group [n=5,511]	Non-group [n=70,547]
AGE (mean)	27.2	31.2
GENDER (%)		
Female	21.4	26
Male	78.6	74
ETHNIC GROUP (%)		
White	90.3	82.3
Mixed race	2.8	3.2
Asian	2.2	4.3
Black	2.6	4.6
Other	0.9	2.2
Missing	1.3	3.4
REFERRAL SOURCE (%)		
Self	44.4	36
Family & other	3.1	0.9
Needle exchange	0.3	0.6
Community drug service	3.6	6.4
GP	7.6	7.5
A&E	0.3	0.3
General hospital	0.2	0.5
Psychiatry services	1.2	1.0
Social services	1.1	1.2
DIP	16.9	11.3
DRR	1.1	1.5
Probation	3.9	5.7
Prison	0.8	5.2
Other	15.7	22
TREATMENT OUTCOMES PROFILE (%)		
Paid employment	46.0	17.2
Education	7.3	6.4
Acute housing problem	12.4	21.0
Housing risk	8.2	10.3
TREATMENT OUTCOMES PROFILE (mean)		
Physical health	12.3	11.8
Psychological health	10.3	10.6
Quality of life	10.8	10.7

4. REPORTED DRUG USE AT START OF STUDY

	Frequency	Percentage
COCAINE AND ALCOHOL	2,036	36.9
COCAINE, CANNABIS AND ALCOHOL	1,493	27.10
COCAINE ALONE	719	13.00
COCAINE AND CANNABIS	392	7.10
COCAINE, CANNABIS, ALCOHOL AND OTHER	212	3.80
COCAINE, ALCOHOL AND OTHER	161	2.90
COCAINE, AMPHETAMINE, CANNABIS AND ALCOHOL	156	2.80
COCAINE, AMPHETAMINE, CANNABIS, ALCOHOL AND OTHER	82	1.50
ALL OTHER COMBINATIONS	260	5.00
TOTAL	5,511	100.00

5. STATUS AFTER SIX MONTHS IN STUDY

	Frequency	Percentage
LEFT TREATMENT FREE OF DEPENDENCY	2,028	36.80
STILL IN TREATMENT	1,546	28.05
DROPPED OUT	1,291	23.43
REFERRED ON	351	6.37
OTHER	295	5.35
TOTAL	5,511	100.00

6. RELIABLE CHANGE INDEX

	Abstinent [n] (% of cohort)	Reliably improved	Unchanged	Reliably deteriorated
POWDER COCAINE	1,864 (60.6)	333 (10.8)	834 (27.1)	44 (1.4)
AMPHETAMINE	210 (80.8)	11 (4.2)	36 (13.8)	3 (1.2)
CANNABIS	494 (36.2)	204 (14.9)	624 (45.7)	44 (3.2)
ALCOHOL	549 (23.1)	406 (17.1)	1,363 (57.3)	62 (2.6)

7. CHANGES IN FREQUENCY OF DRUG USE

	Clients [n] (% of cohort)	Baseline	Review	Difference (95% CI)
POWDER COCAINE	3,075 (98.0)	9.87 (8.06)	2.59 (5.25)	7.28 (7.00 – 7.57)
AMPHETAMINE	260 (8.3)	8.44 (8.30)	1.62 (5.12)	6.83 (5.87 – 7.79)
CANNABIS	1,366 (43.5)	19.94 (9.77)	11.43 (11.82)	8.51 (7.90 – 9.12)
ALCOHOL	2,380 (75.9)	13.72 (8.71)	8.02 (8.05)	5.70 (5.36 – 6.05)
OTHER DRUG	323 (10.3)	8.42 (8.54)	2.15 (5.66)	6.27 (5.33 – 7.21)

8. CHANGE IN HEALTH AND QUALITY OF LIFE RATING

	Abstinent	Improved	Unchanged	Deteriorated
PHYSICAL HEALTH	2.89	2.08	1.03	-0.69
PSYCHOLOGICAL HEALTH	4.12	2.81	1.82	-0.42
QUALITY OF LIFE	4.12	2.80	1.79	-0.35

The regional tables related to the heat map on page 4 can be found at www.nta.nhs.uk/areas/facts_and_figures/default.aspx