

Treatment Outcomes for DIP Clients in Merseyside (September 2010 - June 2011)

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1.0 INTRODUCTION

The 2010/11 British Crime Survey (BCS) estimated that 3.3% of adults aged between 16 and 59 years old in England and Wales have used a Class A drug in the last year (Smith & Flatley, 2011). The main drugs used by this age group were cocaine (any) (2.2%), ecstasy (1.4%) and opiates (0.2%). A recent report commissioned by the NTA estimated that in 2009/10 there were 306,150 opiate and crack users (OCU's) in England and around 50,343 in the North West region, just over 16% of the national figure (Hay et al, 2011).

Structured Drug Treatment

The National Treatment Agency (NTA) was set up by the government in 2001 to increase the availability, capacity and effectiveness of drug treatment in England. Models of Care (2002, 2006 update) set out to provide national guidance on the commissioning and provision of this drug treatment for adults including the division of treatment into four tiers. This approach has been reviewed to complement the most recent Drugs Strategy (Home Office, 2010a) and as a result the Building Recovery in Communities (BRIC) framework has been developed (NTA, 2011a).

Of the four tiers of drug treatment, tiers 3 (structured community-based drug treatment services) and 4 (residential and inpatient services for drug and alcohol misusers) are collectively referred to as structured drug treatment. According to NTA guidelines, structured drug treatment follows a client's assessment and is delivered in accordance with a care plan, outlining clear goals that are reviewed regularly. These treatments may run concurrently or in a sequential order (NDTMS, 2010). Data on structured drug treatment are collected from all drug treatment agencies in England via the National Drug Treatment Monitoring System (NDTMS) and it is this data that is the focus of this report.

There is much international research available to support the effectiveness of treatment accessed by drug misusing clients. The Australian Treatment Outcomes Study (ATOS) interviewed clients one year after receiving opiate treatment. It found notable reductions in drug use, criminality, psychopathology and injecting behaviour (Teesson et al, 2005). In the United States, the Drug Abuse Treatment Outcomes Studies (DATOS) reported reductions in the number of weekly heroin and cocaine users, as well as a reduction in illegal activity among those who accessed outpatient methadone treatment. In addition, among those who accessed long-term residential treatment; a reduction in numbers of weekly cocaine users, those who drank alcohol at problematic levels, those who were unemployed and those who were involved in illegal activity were also reported (Franey et al, 2002).

In the UK, the largest study on drug treatment outcomes, the National Treatment Outcome Research Study (NTORS) highlighted that clients who had a five year follow up interview reported an increase in abstinence from illicit drugs and a decrease in the frequency of their drug use and crime as well as improvements in their health (Gossop et al, 2001). More recently in England, findings from the Drug Treatment Outcomes Research Study (DTORS) demonstrated reductions in the harmful behaviours associated with problem drug use (injecting, sharing injecting equipment, overdose risk, and poly-substance use) and offending as well as improvements in social functioning (Jones et al, 2009)

TOP

The NTA have also developed the Treatment Outcome Profile (TOP) and since 2007 this has been incorporated into the drug treatment system in England. This is a one page, 20 item measure, that focuses on substance use, injecting risk behaviour and crime as well as health and social functioning. It is completed when a client starts treatment, at regular treatment review stages and when a client exits treatment. This measurement tool has been psychometrically evaluated and has appropriate levels of reliability and validity with a completion rate target set by the NTA (NTA, 2011b).

Drug Intervention Programme

The Drug Interventions Programme (DIP) is an initiative set up by the Home Office in 2003 with an overarching aim to break the cycle of drug misuse and crime and as a result reduce acquisitive crime in communities within England and Wales. The most recent drug strategy, Reducing Demand, Restricting Supply, Building Recovery: Supporting people to live a drug free life, embraces the concept of DIP in assisting with the strategy's aims to support drug using offenders and encourage them to access treatment and recovery whilst in contact with the criminal justice system (CJS) (Home Office, 2010a). DIP represents an important engagement opportunity as many of the clients assessed under the programme can be some of the most difficult to reach problematic drug users (Home Office, 2010b). DIP itself is a multi agency initiative incorporating the police, the Crown Prosecution Service, probation, the Prison service and drug treatment agencies who collaborate to direct Class A drug misusing offenders towards treatment. These treatments and services represent a holistic support system and include harm reduction interventions and overdose management as well as other more generic services relating to housing, health, independent living, managing finances, developing new social support networks and rebuilding relationships with families (Home Office, 2009). Although DIP's traditional focus was on directing opiate and crack misusers into treatment, DIP has also been able to be used as a tool to direct powder cocaine misusers towards suitable stimulant treatments. The DTORS report (Jones et al, 2009) highlighted that the CJS is a valid route through which clients can receive drug treatment and achieve positive outcomes; between 1996 and 2006 there was an increase in the number of referrals for structured treatment via the CJS. It also indicated that of the 35% of treatment seekers who were referred from the CJS, 17% came from the DIP route. Furthermore the data indicated that CJS referrals were more likely to start a treatment modality compared to non-CJS referrals and both groups demonstrated similar levels of retention once engaged in treatment with few differences in outcomes for the two groups.

Factors Associated with Treatment Outcomes

It is well documented that there are many factors associated with positive and negative treatment outcomes for clients who engage in treatment for their drug use. The NTA recognises that the best way of measuring treatment outcomes is by studying the length of time clients have been retained in treatment. Teesson et al (2005) and Gossop et al (1999, 2001) highlight how the length of time a client spends in treatment can have a positive impact on their treatment outcome. Due to this, the NTA has set a retention target for clients to remain in treatment - 75% of clients to remain in treatment

for 12 weeks or more. A report by Beynon et al (2008) which focused a cohort in the North West of England highlights that of those who were in treatment, 74.8% were retained in treatment for 12 weeks or more. However the report also warns that in the UK factors that may influence a client to remain in treatment are poorly understood due to lack of research.

The NTA is aware that client retention in treatment can be challenging and may result in unplanned discharges and as a result have put in place guidelines to encourage a higher rate of planned outcomes (NTA, 2009). Levels of planned and unplanned discharges are scrutinised by the NTA with treatment reports filtered down to local level regularly. An NDTMS report that focused on the North West of England indicated that of clients who had a discharge reason recorded in 2009/10, 41% had a planned discharge (NTA, 2011c).

A study by Hser et al (2004) reported that being older, male and being involved in the criminal justice system were positively linked with either longer treatment retention or treatment completion. In contrast to this Beynon et al (2006) indicated that gender and age group were not significantly related to whether clients dropped out of treatment or were discharged drug free from treatment in Cheshire and Merseyside. In general younger clients were more likely to drop out of treatment and clients were significantly more likely to drop out of treatment if they had been referred via the criminal justice system compared to other referral routes.

Becker and Duffy (2002) commented that female problematic drug users have some specific issues which contribute to poor outcomes:

- Pregnancy and child care
- Sex working – “Women engaging in sex-for-money or sex-for-drugs exchanges are likely to be at greater risks of both negative health and social consequences”
- Sexual health needs, including unwanted pregnancy and sexually transmitted infections
- Past experience of sexual and physical abuse
- Mental health needs

More recently, a report by the NTA (2010) highlighted that females were proportionally well represented in treatment, were more inclined to seek treatment, were better at engaging in treatment and tended to have better outcomes from treatment than men. The report indicated that within the previous four years the number of women who successfully completed their treatment drug free had doubled and the number of women who were reported as having dropped out of treatment had almost halved. Although drug treatment still seems to be a male dominated environment, the services on offer to women do tend to reflect their complex requirements.

Bates and Duffy (2009) reported that of the clients who were assessed for DIP in Merseyside, those who had committed Misuse of Drugs Act (MDA) offences were more likely to have completed their treatment. This was in contrast to clients who had committed theft and burglary offences who were less likely to have completed their treatment episode. The authors suggest this may reflect that

contrasting nature of the drug use of those clients committing MDA offences (powder cocaine users) and those committing acquisitive crime (opiate and crack users (OCU)).

Beynon et al (2008) highlighted that opiate use was not significantly associated with treatment outcomes, with alcohol being the only substance in the study that was significantly associated with outcomes. Bates and Duffy (2009) highlighted that DIP clients in Merseyside whose main drug was powder cocaine were more likely to complete their treatment compared to their opiate using counterparts and heroin using clients were generally engaged in treatment for a longer period of time compared to a low level cocaine user.

Bates and Duffy (2009) also reported that DIP clients who were in more settled accommodation were only slightly more likely to complete their treatment compared to those in temporary accommodation. However Jones et al (2009) highlighted that problems with accommodation are one of the main potential triggers for relapse for treatment seekers. Another finding from Bates and Duffy (2009) indicated that unemployment was linked to negative outcomes as the DIP clients from the study who were unemployed were less likely to complete their treatment plan compared to those who were employed.

The aim of this report is to investigate treatment outcomes for DIP clients, specifically those who were referred to structured drug treatment as part of their DIP care plan. The report examines the relationship between treatment outcomes, time in treatment and a selection of client characteristics. By highlighting groups of clients for whom treatment outcomes are less positive, treatment providers will gain insight into client groups in need of greater attention or more robust engagement procedures to ensure they remain in contact with treatment resulting in the most successful treatment outcomes possible.

2.0 METHODOLOGY

Data used for this report included clients referred to structured drug treatment (tier 3 and/or 4 only) on DIR forms (section 9.4) and Activity forms (sections 3.5, 5.3 and 6.4) between 1st September and 31st December 2010. Where clients had more than one referral recorded, only the earliest referral was included in the analysis. Data were removed for clients resident outside Merseyside. Each of the five Merseyside areas (Knowsley DAT, Liverpool DAAT, Sefton DAT, St Helens DAT and Wirral DAAT) were analysed separately.

The NDTMS data set included clients engaged in structured drug treatment between 1st September 2010 and 30th June 2011 in order to provide 6 months of treatment data post DIP referral.

Comparison of Characteristics of clients engaging in treatment and those not

DIP referral data were matched to NDTMS data by client attributor (initials, date of birth and gender). Referrals with a triage date recorded on NDTMS within 28 days of the referral date from DIP were considered to have engaged in structured treatment (this complies with the Home Office business rules for DIP performance monitoring). This produced two groups – clients who engaged in structured drug treatment and clients who did not. The characteristics of these groups were compared (age, gender, offending, drug use, injecting status, accommodation and employment). Statistical testing was undertaken to determine associations between referral outcomes and client characteristics (Chi Square tests) and differences between referral outcomes groups (unrelated t-tests). Data for this analysis were taken from DIR and Activity forms but limitations existed as not all information for each of the categories was available from the Activity forms. Due to this a complete set of data from the two groups were not available when comparing offending, drug use, injecting status, accommodation or employment.

Comparison of characteristics of clients with a successful and unsuccessful treatment exit

Clients engaging in structured drug treatment were placed in three groups – those active, those with a successful exit and those with an unsuccessful exit from structured treatment recorded within NDTMS from 1st September up to and including the 30th of June 2011. This report focuses on treatment outcomes, as such only clients with a successful or unsuccessful treatment exit recorded within NDTMS are used for analysis. Un-related t-tests, Mann Whitney tests and Chi Square tests for association were used to determine relationships between client characteristics upon entry to structured treatment, treatment outcomes and length of time retained in treatment. Client characteristics investigated included:

- Age
- Gender
- Offending
- Drug use
- Injecting status
- Accommodation
- Employment

A treatment journey is defined as “the operational definition of a journey is that episodes are considered as linked elements of an ongoing treatment journey if they are concurrent, or if 21 days or less elapses between discharge from one episode and starting the next. If a period of more than 21 days elapses after discharge from a treatment episode, then the next episode is considered to be the start of a new treatment journey” (NDTMS, 2010).

In order to analyse the characteristics the data was re-coded as follows:

| Characteristics | Re-code Groups | Source |
|---|--|------------|
| Outcome | <p>Successful Exit: Treatment complete – drug free Treatment complete – occasional user</p> <p>Unsuccessful Exit: Incomplete – dropped out Incomplete – treatment withdrawn by provider Incomplete – retained in custody Incomplete – treatment commencement declined by the client Incomplete – client died Transferred – in custody (lack of prison data currently available to confirm attendance) Transferred – not in custody (No record of client engaging at another agency within the appropriate NTA timeframe of 21 days)</p> | NDTMS |
| Offending | <p>Acquisitive Offences: begging, burglary, going equipped, fraud, handling, possession with intent to supply, robbery, shoplifting, soliciting, supply, theft, theft – car</p> <p>Non-Acquisitive Offences: breach, criminal damage, domestic violence, firearms/weapons, motoring offences, possession, public order, warrant, wounding/assault</p> | DIR forms* |
| Drug Use (The main substance the client initially presented with on their first treatment episode) | <p>OCU**: drug 1, 2, or 3 is heroin, methadone, opiates or crack</p> <p>Non OCU: drug 1, 2, or 3 is benzodiazepine, amphetamine, cocaine (excluding crack) hallucinogens, ecstasy, cannabis, solvents and barbiturates.</p> | NDTMS |

| | | |
|------------------|--|-------|
| Injecting status | <p>Currently injecting: injected within the previous 28 days</p> <p>Not currently injecting: previously injected, never injected</p> | NDTMS |
| Accommodation | <p>Settled: local authority (LA)/registered social landlord (RSL) rented, private rented, approved premises, supported housing/hostel, traveller, own property, settled with friends/family</p> <p>Non-settled: sleep on streets, use night shelter, sleep on different friends floor each night, staying with friends/family as a short term guest, night winter shelter, direct access short stay hostel, short term B&B or other hotel, squatting</p> | NDTMS |
| Employment | <p>Employed: regular employment</p> <p>Unemployed: pupil/student, economically inactive, unemployed</p> | NDTMS |

**Clients who had their referral to structured drug treatment recorded on an Activity form did not have offence information available for analysis and therefore a reduced set was used for this section of the analysis.*

***An individual is considered an OCU if they have stated opiates (heroin, methadone) and/or crack cocaine as their main, secondary or third drug at any episode during their latest treatment journey.*

Note: Episodes where alcohol is cited as the primary substance have been excluded from this report so will not be included in OCU figures irrespective of having opiates and/or crack cocaine as their second or third drug.

Examination of TOP data and impact of treatment exit on outcomes

Treatment Outcome Profile (TOP) data for clients engaging in structured treatment were analysed to investigate change during a client's treatment journey in substance use, health and social functioning, accommodation status and education/employment status. TOP data on the following were used for analysis:

- the number of days drugs and alcohol were used in the previous four weeks
- ratings of clients' psychological health status using a 21 measure scale (0=poor and 20=Good)
- ratings of clients' physical health status from a 21 measure scale (0=poor and 20=Good)
- ratings of clients' overall quality of life from a 21 measure scale (0=poor and 20=Good)
- number of paid work days and/or the number of days attended college or school each week
- an indication of an acute housing problem and being at risk of eviction

In instances where treatment exit TOP data weren't available (more likely for clients with unsuccessful discharge reasons) the last review TOP in their treatment journey was used. This TOP data is referred to as 'last TOP' throughout the rest of the report. Analysis was carried out to determine overall changes on the measures outlined above (related t-tests) and also to examine differences in the magnitude of changes between clients with a successful or unsuccessful exit from treatment (un-related t-tests).

Statistically significant values are marked (*) and reported under each table where applicable. In cases where this isn't recorded the findings were not statistically significant.

3.0 Knowsley

3.1 Knowsley - Summary

- Of the 139 DIP referrals reported for Knowsley residents between 1st September and 31st December 2010, 88.5% engaged in structured drug treatment. This much larger number of clients in the group who engaged makes conclusions based on comparisons between the two groups difficult to draw.
- Whilst clients who engaged in structured drug treatment had a younger mean age than those who did not, this difference was not statistically significant.
- There were no significant associations between treatment engagement and gender, offence type, drug use type, injecting status, accommodation status or employment status.
- Of the 123 Knowsley residents who engaged in treatment, 91.1% had exited treatment by the 30th June 2011. For clients with a successful exit, the highest proportion (84.9%) had 'treatment complete – occasional user' as their exit reason. 'Transferred not in custody' (36.8%) and 'incomplete – dropped out' (31.6%) were the most common unsuccessful treatment exit reasons.
- Clients with a successful treatment exit were significantly younger than those with an unsuccessful treatment exit.
- There were significant associations between exit types (successful/unsuccessful) and offending group, drug use type, injecting status, accommodation status and employment status. Clients with a successful exit were more likely than those with an unsuccessful exit to be non-acquisitive offenders, not be OCU, not be currently injecting and were more likely to be employed and in stable accommodation.
- A Spearman correlation on clients' age and the length of time they were in treatment showed no significant relationship ($r_s = -0.075$, $N = 112$).
- There were no significant differences in length of time in treatment when compared across gender, offence type, drug use type, injecting status, accommodation status or employment status.
- Clients with a successful treatment exit spent a significantly shorter period of time in treatment than those with an unsuccessful treatment exit.
- All Knowsley residents who engaged in treatment had a start TOP completed and 96.4% of these had an exit or last TOP completed.
- There was a significant reduction between the first and last TOP in the number of days on which alcohol was consumed in the previous 4 weeks. No significant changes were reported for any other substances, self-reported health (psychological health, physical health and overall quality of life) or days in paid work or education. Very low numbers of clients reported having an accommodation problem at their first and last TOP.
- There were no significant differences between clients with a successful treatment exit and those with an unsuccessful treatment exit in terms of changes in numbers of days on which substances were consumed; self-reported health (psychological health, physical health and overall quality of life) or days in education or employment.

3.2 Data Tables

Treatment Engagement

Table K1: Treatment Engagement of Knowsley Residents after Referral

| Number of DIP Referrals | Number of DIP referrals that engaged | Number of DIP referrals that didn't engage |
|-------------------------|--------------------------------------|--|
| 139 | 123 (88.5%) | 16 (11.5%) |

A Comparison of clients who engaged in treatment and those who didn't

Table K2: Knowsley Residents - Engagement Status - Age

| Group | Mean Age | t-test Value |
|---------------------------------|----------|--------------|
| Engaged in Treatment (n=123) | 31.8 | -1.625 |
| Not Engaged in Treatment (n=16) | 35.8 | |

Table K3: Knowsley Residents - Engagement Status – Group Characteristics

| Groups | Engaged in Treatment | Not Engaged in Treatment | Chi-Square Value |
|---------------------------------|----------------------|--------------------------|------------------|
| Male (n=118) | 106 (89.8%) | 12 (10.2%) | 1.380 |
| Female (n=21) | 17 (81.0%) | 4 (19.0%) | |
| Acquisitive Offences (n=32) | 30 (93.8%) | 2 (6.3%) | 0.005 |
| Non-Acquisitive Offences (n=51) | 48 (94.1%) | 3 (5.9%) | |
| OCU (n=16) | 15 (93.8%) | 3 (6.3%) | 0.003 |
| Non-OCU (n=68) | 64 (94.1%) | 4 (5.9%) | |
| Currently Injecting (n=1) | 1 (100.0%) | | 0.064 |
| Not Currently Injecting (n=83) | 78 (94.0%) | 5 (6.0%) | |
| Settled Accommodation (n=75) | 70 (93.3%) | 5 (6.7%) | 0.568 |
| Non-Settled Accommodation (n=8) | 8 (100%) | | |
| Employed (n=25) | 23 (92.0%) | 2 (8.0%) | 0.208 |
| Unemployed (n=56) | 53 (93.8%) | 5 (6.2%) | |

Treatment Exits

Table K4: Knowsley Residents - Treatment Status

| Area | Active | Successful Exit | Unsuccessful Exit |
|------------------|-----------|-----------------|-------------------|
| Knowsley (n=123) | 11 (8.9%) | 93 (75.6%) | 19 (15.4%) |

Table K5: Knowsley Residents – Treatment Exit Reasons

| Treatment Exit Reasons | Number |
|--|------------|
| Successful Exits (n=93): | |
| Treatment Complete | |
| Treatment Complete Drug Free | 14 (15.1%) |
| Treatment Complete – occasional user | 79 (84.9%) |
| Unsuccessful Exits (n=19): | |
| Incomplete – Client died | |
| Incomplete – Dropped Out | 6 (31.6%) |
| Incomplete – Retained in Custody | |
| Incomplete – Treatment commencement declined by client | 3 (15.8%) |
| Incomplete – Treatment withdrawn by provider | |
| Transferred in Custody | 3 (15.8%) |
| Transferred not in Custody | 7 (36.8%) |

Table K6: Knowsley Residents - Treatment Exit Status - Age

| Age | Mean Age | t-test Value |
|--------------------------|----------|--------------|
| Successful Exit (n=93) | 30.4 | -2.647** |
| Unsuccessful Exit (n=19) | 36.3 | |

** P<0.01

Table K7: Knowsley Residents - Treatment Exit Status – Group Characteristics

| Groups | Successful Exit | Unsuccessful Exit | Chi-Square Value |
|---------------------------------|-----------------|-------------------|------------------|
| Male (n= 96) | 80 (83.3%) | 16 (16.7%) | 0.042 |
| Female (n= 16) | 13 (81.3%) | 3 (18.8%) | |
| Acquisitive Offences (n=30) | 20 (66.7%) | 10 (33.3%) | 10.881** |
| Non-Acquisitive Offences (n=44) | 42 (95.5%) | 2 (4.5%) | |
| OCU (n=21) | 11 (52.4%) | 10 (47.6%) | 17.242*** |
| Non-OCU (n=91) | 82 (90.1%) | 9 (9.9%) | |
| Currently Injecting (n=1) | | 1 (100.0%) | 4.675* |
| Not Currently Injecting (n=106) | 88 (83.0%) | 18 (17.0%) | |
| Settled Accommodation (n=104) | 90 (86.5%) | 14 (13.5%) | 15.534*** |
| Non-Settled Accommodation (n=7) | 2 (28.6%) | 5 (71.4%) | |
| Employed (n=35) | 33 (94.3%) | 2 (5.7%) | 5.438* |
| Unemployed (n=61) | 46 (75.4%) | 15 (24.6%) | |

* P<0.05; **P<0.01; *** P<0.001

Length of Time in Treatment

Table K8: Knowsley Residents – Length of Time in Treatment – Group Characteristics

| Groups | Median days in Treatment | Z Value |
|---------------------------------|--------------------------|---------|
| Male (n=96) | 49.00 | -1.090 |
| Female (n=16) | 50.50 | |
| Acquisitive Offences (n=30) | 43.00 | -1.118 |
| Non-Acquisitive Offences (n=44) | 54.50 | |
| OCU (n=21) | 54.00 | -1.040 |
| Non-OCU (n=91) | 48.00 | |
| Currently Injecting (n=1) | 111.00 | -1.587 |
| Not Currently Injecting (n=106) | 49.00 | |
| Settled Accommodation (n=104) | 48.50 | -0.540 |
| Non-Settled Accommodation (n=7) | 49.00 | |
| Employed (n=35) | 49.00 | -0.072 |
| Unemployed (n=61) | 48.00 | |

Treatment Exits v Time in Treatment

Table K9: Knowsley Residents - Treatment Exits by Time in Treatment

| | Mean days in treatment | t-test Value |
|---------------------------|------------------------|--------------|
| Successful Exits (n=93) | 53.3 | -2.394* |
| Unsuccessful Exits (n=19) | 72.2 | |

*P<0.05

TOP Findings

Table K10: Knowsley Residents – TOP Completion

| Number of DIP referrals that engaged | Number of clients who engaged and completed a first TOP | Number of clients who engaged and completed a last TOP |
|--------------------------------------|---|--|
| 112 | 112 (100%) | 108 (96.4%) |

TOP Outcomes

Table K11: Knowsley Residents - TOP Outcomes – Substance Use

| Substance Use | Mean Start TOP Value (no. of days) | Mean Last TOP Value (no. of days) | t-test Value |
|---------------------|---------------------------------------|--------------------------------------|--------------|
| Alcohol (n=103) | 5.2 | 4.7 | 2.064* |
| Opiates (n=97) | 2.3 | 1.9 | 0.582 |
| Crack (n=98) | 1.4 | 1.4 | 0.030 |
| Cocaine (n=106) | 1.9 | 1.5 | 1.483 |
| Amphetamines (n=96) | 0.1 | 0.2 | -1.000 |
| Cannabis (n=99) | 5.2 | 4.2 | 1.433 |
| Other (n=78) | 0.0 | 5.2 | -1.000 |

*P<0.05

Table K12: Knowsley Residents - TOP Outcomes – Health and Social Functioning

| Health and Social Functioning | Mean Start TOP Value (Self-rating scale 1-20) | Mean Last TOP Value (Self-rating scale 1-20) | t-test Value |
|---------------------------------|--|---|--------------|
| Psychological Health (n=108) | 15.2 | 15.9 | -1.951 |
| Physical Health (n=108) | 16.6 | 16.7 | -0.161 |
| Overall Quality of Life (n=108) | 16.8 | 17.2 | -1.700 |

Table K13: Knowsley Residents - TOP Outcomes – Education/Employment

| Education/Employment | Mean Start TOP Value (no. of days) | Mean Last TOP Value (no. of days) | t-test Value |
|--------------------------------|---------------------------------------|--------------------------------------|--------------|
| Days in Paid Work (n=108) | 6.7 | 6.1 | 1.013 |
| Days in College/School (n=108) | 0.5 | 0.2 | 0.828 |

Table K14: Knowsley Residents - TOP Outcomes – Accommodation

| Accommodation | First TOP (no. of clients) | Last TOP (no. of clients) |
|-----------------------------|-------------------------------|------------------------------|
| Acute Housing Problem - Yes | 4 | 2 |
| At Risk of Eviction - Yes | 3 | 3 |

Comparison of TOP Outcomes for clients with a Successful and Unsuccessful Treatment Exit

Table K15: Knowsley Residents - TOP Outcomes by Treatment Exit – Substance Use

| Substance Use | Mean Difference Successful Exit | Mean Difference Unsuccessful Exit | t-test Value |
|----------------------|--|--|---------------------|
| | (no. of days) | (no. of days) | |
| Alcohol (n=103) | -0.7 | 0.3 | -1.420 |
| Opiates (n=97) | -0.2 | -2.1 | 1.225 |
| Crack (n=98) | 0.2 | -1.1 | 1.382 |
| Cocaine (n=106) | -0.6 | 0.5 | -1.464 |
| Amphetamines (n=96) | 0.1 | 0.0 | 0.445 |
| Cannabis (n=99) | -1.5 | 1.8 | -1.931 |
| Other (n=78) | 0.4 | 0.0 | 0.465 |

Table K16: Knowsley Residents - TOP Outcomes by Treatment Exit – Health and Social Functioning

| Health and Social Functioning | Mean Difference Successful Exit | Mean Difference Unsuccessful Exit | t-test Value |
|--|--|--|---------------------|
| | (Self-rating scale 1-20) | (Self-rating scale 1-20) | |
| Psychological Health (n=108) | 0.6 | 0.7 | -0.062 |
| Physical Health (n=108) | -0.1 | 0.8 | -0.965 |
| Overall Quality of Life (n=108) | 0.4 | 0.9 | -0.664 |

Table K17: Knowsley Residents - TOP Outcomes by Treatment Exit – Education/Employment

| Education/Employment | Mean Difference Successful Exit | Mean Difference Unsuccessful Exit | t-test Value |
|--------------------------------|--|--|---------------------|
| | (no. of days) | (no. of days) | |
| Days in Paid Work (n=108) | -0.7 | 0.0 | -0.436 |
| Days in College/School (n=108) | -0.3 | 0.0 | -0.357 |

4.0 Liverpool

4.1 Liverpool - Summary

- Of the 191 DIP referrals reported for Liverpool residents between 1st September and 31st December 2010, 64.9% engaged in structured drug treatment.
- Clients who engaged in structured drug treatment had an older mean age than those who didn't and this difference was statistically significant.
- There were no significant associations between treatment engagement and gender, offence type, drug use type, injecting status, accommodation status or employment status.
- Of the 124 Liverpool residents who engaged in treatment, 63.7% had exited treatment by the 30th June 2011. For clients with a successful exit, the highest proportion (65.6%) had 'treatment complete – occasional user' as their exit reason. 'Incomplete-dropped out' (44.7%) and 'transferred in custody' (40.4%) were the most common unsuccessful exit reasons.
- Clients with a successful exit were significantly younger than those with an unsuccessful exit.
- There were significant associations between exit type (successful/unsuccessful) and offending group and drug use. Clients with a successful exit were more likely than those with an unsuccessful exit to be non-acquisitive offenders and non-OCU.
- A Spearman correlation on clients' age and the length of time they were in treatment a significant relationship ($r_s = -0.284$, $N=79$, $P < 0.05$). Older clients spent less time in treatment than younger clients.
- There were no significant differences in length of time in treatment when compared across gender, offence type, drug use type, injecting status, accommodation status or employment status.
- Whilst clients with a successful treatment exit spent a slightly shorter period of time in treatment than those with an unsuccessful treatment exit, this difference was not statistically significant.
- Of the Liverpool residents who engaged in treatment, 53.2% had a start TOP completed and 72.7% of these had a last TOP completed.
- There were no significant changes between the first and last TOP in the number of days on which any substances were used, in the client's health (psychological, physical, overall quality of life) or in relation to education and employment status. Very low numbers of clients reported having an accommodation problem at their first and last TOP.
- There was a significant difference between clients with a successful exit and those with an unsuccessful exit in terms of changes in the clients self-reported psychological health. Clients who had a successful exit were more likely to report an improvement in their psychological health compared to those who had an unsuccessful exit.

4.2 Data Analysis

Treatment Engagement

Table L1: Treatment Engagement of Liverpool Residents after Referral

| Number of DIP Referrals | Number of DIP referrals that engaged | Number of DIP referrals that didn't engage |
|-------------------------|--------------------------------------|--|
| 191 | 124 (64.9%) | 67 (35.1%) |

A Comparison of clients who engaged in treatment and those who didn't

Table L2: Liverpool Residents - Engagement Status - Age

| Group | Mean Age | t-test Value |
|---------------------------------|----------|--------------|
| Engaged in Treatment (n=124) | 36.1 | 20.99* |
| Not Engaged in Treatment (n=67) | 33.5 | |

* P<0.05

Table L3: Liverpool Residents - Engagement Status – Group Characteristics

| Groups | Engaged in Treatment | Not Engaged in Treatment | Chi-Square Value |
|---------------------------------|----------------------|--------------------------|------------------|
| Male (n=158) | 103 (65.2%) | 55 (34.8%) | 0.029 |
| Female (n=33) | 21 (63.6%) | 12 (36.4%) | |
| Acquisitive Offences (n=46) | 33 (71.7%) | 13 (28.3%) | 1.945 |
| Non-Acquisitive Offences (n=45) | 26 (57.8%) | 19 (42.2%) | |
| OCU (n=48) | 34 (70.8%) | 14 (29.2%) | 0.962 |
| Non-OCU (n=41) | 25 (61.0%) | 16 (39.0%) | |
| Currently Injecting (n=9) | 5 (55.6%) | 4 (44.4%) | 0.445 |
| Not Currently Injecting (n=84) | 56 (66.7%) | 28 (33.3%) | |
| Settled Accommodation (n=85) | 58 (68.2%) | 27 (31.8%) | 3.060 |
| Non-Settled Accommodation (n=8) | 3 (37.5%) | 5 (62.5%) | |
| Employed (n=16) | 10 (62.5%) | 6 (37.5%) | 0.102 |
| Unemployed (n=75) | 50 (66.7%) | 25 (33.3%) | |

Treatment Exits

Table L4: Liverpool Residents - Treatment Status

| Area | Active | Successful Exit | Unsuccessful Exit |
|-------------------|------------|-----------------|-------------------|
| Liverpool (n=124) | 45 (36.3%) | 32 (25.8%) | 47 (37.9%) |

Table L5: Liverpool Residents – Treatment Exit Reasons

| Treatment Exit Reasons | Number |
|--|------------|
| Successful Exits (n=32): | |
| Treatment Complete | 1 (3.1%) |
| Treatment Complete Drug Free | 10 (31.3%) |
| Treatment Complete – occasional user | 21 (65.6%) |
| Unsuccessful Exits (n=47): | |
| Incomplete – Client died | |
| Incomplete – Dropped Out | 21 (44.7%) |
| Incomplete – Retained in Custody | 1 (2.1%) |
| Incomplete – Treatment commencement declined by client | |
| Incomplete – Treatment withdrawn by provider | 1 (2.1%) |
| Transferred in Custody | 19 (40.4%) |
| Transferred not in Custody | 5 (10.6%) |

Table L6: Liverpool Residents - Treatment Exit Status - Age

| Age | Mean Age | t-test Value |
|--------------------------|----------|--------------|
| Successful Exit (n=32) | 31.3 | -3.354*** |
| Unsuccessful Exit (n=47) | 37.9 | |

*** P<0.001

Table L7: Liverpool Residents - Treatment Exit Status – Group Characteristics

| Groups | Successful Exits | Unsuccessful Exits | Chi-Square Value |
|---------------------------------|------------------|--------------------|------------------|
| Male (n=66) | 29 (43.9%) | 37 (56.1%) | 1.962 |
| Female (n=13) | 3 (23.1%) | 10 (76.9%) | |
| Acquisitive Offences (n=19) | 8 (42.1%) | 11 (57.9%) | 6.234* |
| Non-Acquisitive Offences (n=24) | 19 (79.2%) | 5 (20.8%) | |
| OCU (n=49) | 8 (16.3%) | 41 (83.7%) | 30.178*** |
| Non-OCU (n=29) | 23 (79.3%) | 6 (20.7%) | |
| Currently Injecting (n=3) | | 3 (100.0%) | 2.183 |
| Not Currently Injecting (n=70) | 30 (42.9%) | 40 (57.1%) | |
| Settled Accommodation (n=69) | 29 (42.0%) | 40 (58.0%) | 1.304 |
| Non-Settled Accommodation (n=9) | 2 (22.2%) | 7 (77.8%) | |
| Employed (n=4) | 3 (75.0%) | 1 (25.0%) | 3.552 |
| Unemployed (n=45) | 13 (28.9%) | 32 (71.1%) | |

* P<0.05; *** P<0.001

Length of Time in Treatment

Table L8: Liverpool Residents – Length of Time in Treatment – Group Characteristics

| Groups | Median days in Treatment | Z Value |
|---------------------------------|--------------------------|---------|
| Male (n=66) | 56.00 | -1.263 |
| Female (n=13) | 42.00 | |
| Acquisitive Offences (n=19) | 56.00 | -0.184 |
| Non-Acquisitive Offences (n=24) | 53.00 | |
| OCU (n=49) | 64.00 | -0.951 |
| Non-OCU (n=29) | 54.00 | |
| Currently Injecting (n=3) | 26.00 | -1.733 |
| Not Currently Injecting (n=70) | 55.00 | |
| Settled Accommodation (n=69) | 55.00 | -0.063 |
| Non-Settled Accommodation (n=9) | 42.00 | |
| Employed (n=4) | 69.00 | -0.898 |
| Unemployed (n=45) | 58.00 | |

Treatment Exits v Time in Treatment

Table L9: Liverpool Residents - Treatment Exits by Time in Treatment

| | Mean days in treatment | t-test Value |
|---------------------------|------------------------|--------------|
| Successful Exits (n=32) | 70.1 | -0.244 |
| Unsuccessful Exits (n=47) | 73.3 | |

TOP Findings

Table L10: Liverpool Residents – TOP Completion

| Number of DIP referrals that engaged | Number of clients who engaged and completed a first TOP | Number of clients who engaged and completed a last TOP |
|--------------------------------------|---|--|
| 124 | 66 (53.2%) | 48 (72.7%) |

TOP Outcomes

Table L11: Liverpool Residents - TOP Outcomes– Substance Use

| Substance Use | Mean Start TOP Value (no. of days) | Mean Last TOP Value (no. of days) | t-test Value |
|---------------------|---------------------------------------|--------------------------------------|--------------|
| Alcohol (n=48) | 1.2 | 2.8 | -1.206 |
| Opiates (n=47) | 6.1 | 4.1 | 1.119 |
| Crack (n=46) | 3.2 | 3.2 | -0.055 |
| Cocaine (n=48) | 0.7 | 0.7 | 0.000 |
| Amphetamines (n=46) | 0.0 | 0.0 | 0.000 |
| Cannabis (n=47) | 1.0 | 2.1 | -1.357 |
| Other (n=45) | 1.2 | 0.3 | 1.000 |

Table L12: Liverpool Residents - TOP Outcomes – Health and Social Functioning

| Health and Social Functioning | Mean Start TOP Value (Self-rating scale 1-20) | Mean Last TOP Value (Self-rating scale 1-20) | t-test Value |
|--------------------------------|--|---|--------------|
| Psychological Health (n=48) | 14.5 | 15.4 | -1.658 |
| Physical Health (n=48) | 14.7 | 15.8 | -1.276 |
| Overall Quality of Life (n=47) | 14.5 | 15.8 | -1.983 |

Table L13: Liverpool Residents - TOP Outcomes – Education/Employment

| Education/Employment | Mean Start TOP Value (no. of days) | Mean Last TOP Value (no. of days) | t-test Value |
|-------------------------------|---------------------------------------|--------------------------------------|--------------|
| Days in Paid Work (n=45) | 2.9 | 2.4 | 0.466 |
| Days in College/School (n=45) | 0.4 | 1.2 | -1.386 |

Table L14: Liverpool Residents - TOP Outcomes – Accommodation

| Accommodation | First TOP (no of clients) | Last TOP (no of clients) |
|-----------------------------|------------------------------|-----------------------------|
| Acute Housing Problem - Yes | 4 | 1 |
| At Risk of Eviction - Yes | 3 | 0 |

Comparison of TOP Outcomes for clients with a Successful or Unsuccessful Treatment Exit

Table L15: Liverpool Residents - TOP Outcomes by Treatment Exit – Substance Use

| Substance Use | Mean Difference Successful Exit | Mean Difference Unsuccessful Exit | t-test Value |
|----------------------|--|--|---------------------|
| | (no. of days) | (no. of days) | |
| Alcohol (n=48) | -0.7 | 3.6 | -1.664 |
| Opiates n=47) | -3.3 | -0.7 | -0.766 |
| Crack (n=46) | 0.1 | 0.0 | 0.057 |
| Cocaine (n=48) | -0.1 | 0.1 | -0.301 |
| Amphetamines (n=46) | 0.0 | 0.0 | n/a |
| Cannabis (n=47) | 0.1 | 2.2 | -1.185 |
| Other (n=45) | 0.0 | -1.8 | 0.978 |

Table L16: Liverpool Residents - TOP Outcomes by Treatment Exit – Health and Social Functioning

| Health and Social Functioning | Mean Difference Successful Exit | Mean Difference Unsuccessful Exit | t-test Value |
|--------------------------------------|--|--|-------------------------|
| | (Self-rating scale 1-20) | (Self-rating scale 1-20) | |
| Psychological Health (n=48) | 2.2 | -0.2 | 2.081* |
| Physical Health (n=48) | 1.5 | 0.7 | 0.442 |
| Overall Quality of Life (n=47) | 2.0 | 0.6 | 1.073 |

* P<0.05

Table L17: Liverpool Residents - TOP Outcomes by Treatment Exit – Education/Employment

| Education/Employment | Mean Difference Successful Exit | Mean Difference Unsuccessful Exit | t-test Value |
|-------------------------------|--|--|---------------------|
| | (no. of days) | (no. of days) | |
| Days in Paid Work (n=45) | -1.1 | 0.0 | -0.494 |
| Days in College/School (n=45) | 1.5 | 0.0 | 1.503 |

5.0 Sefton

5.1 Sefton - Summary

- Of the 143 DIP referrals reported for Sefton residents between 1st September and 31st December 2010, 90.9% engaged in structured drug treatment. This much larger number of clients in the group who engaged makes conclusions based on comparisons between the two groups difficult to draw.
- Whilst clients who engaged in structured drug treatment had a younger mean age than those who did not, this difference was not statistically significant.
- There was a significant association between treatment engagement and drug use type with a higher proportion of non-OCU engaging in treatment compared to OCU. No significant associations were reported for any other characteristic.
- Of the 130 Sefton residents who engaged in treatment, 85.4% had exited treatment by the 30th June 2011. For clients with a successful treatment exit, the highest proportion (73.1%) had 'treatment complete – drug free' as their exit reason. 'Transferred not in custody' (42.4%) and 'transferred in custody' (33.3%) were the most common unsuccessful exit reasons.
- Clients with a successful treatment exit were significantly younger than those with an unsuccessful exit.
- There were significant associations between treatment exit types (successful/unsuccessful) and offending group, drug use type, injecting status, accommodation and employment status. Clients with a successful treatment exit were more likely than those with an unsuccessful treatment exit to be non-acquisitive offenders, non-OCU, not currently be injecting, be in settled accommodation and be employed.
- A Spearman correlation on clients' age and the length of time they were in treatment showed no significant relationship ($r_s=0.186$, $N=111$).
- There were significant differences in length of time in treatment when compared across gender, offence type, drug use type and employment status. Clients who were male, acquisitive offenders, OCU and who were unemployed stayed in treatment for longer.
- Clients with a successful treatment exit spent a significantly shorter period of time in treatment than those with an unsuccessful treatment exit.
- Of the Sefton residents who engaged in treatment, 73.1% had a start TOP completed and 91.6% of these had a last TOP completed.
- There was a significant reduction between the first and last TOP in the number of days on which alcohol and cocaine were consumed in the previous 4 weeks. No significant changes were reported for any other substances. Significant improvements were reported in clients' health (psychological, physical and overall quality of life). Days in paid work or education did not change significantly between first and last TOP. Very low numbers of clients reported having an accommodation problem at their first and last TOP.
- There were significant differences between clients with a successful treatment exit and those with an unsuccessful treatment exit in terms of changes in number of days on which substances were consumed (alcohol, opiates, crack, cannabis and 'other' drugs) and in self-reported health (psychological and physical health). Clients with a successful exit decreased the number of days on which they used alcohol, cocaine and cannabis whilst those who had an unsuccessful exit increased the number of days they used these substances. In addition whilst clients with a successful exit showed no change in their consumption of opiates and crack, those with an unsuccessful exit saw increases in the number of days on which they used these substances. Clients with a successful exit recorded an improvement in their psychological and physical health whilst those with an unsuccessful exit reported deterioration in their psychological and physical health.

5.2 Data Analysis

Treatment Engagement

Table S1: Treatment Engagement of Sefton Residents after Referral

| Number of DIP Referrals | Number of DIP referrals that engaged | Number of DIP referrals that didn't engage |
|-------------------------|--------------------------------------|--|
| 143 | 130 (90.9%) | 13 (9.1%) |

A Comparison of clients who engaged in treatment and those who didn't

Table S2: Sefton Residents - Engagement Status - Age

| Group | Mean Age | t-test Value |
|---------------------------------|----------|--------------|
| Engaged in Treatment (n=130) | 31.4 | -1.711 |
| Not Engaged in Treatment (n=13) | 35.5 | |

Table S3: Sefton Residents - Engagement Status – Group Comparisons

| Groups | Engaged in Treatment | Not Engaged in Treatment | Chi-Square Value |
|---------------------------------|----------------------|--------------------------|------------------|
| Male (n=113) | 103 (91.2%) | 10 (8.8%) | 0.038 |
| Female (n=30) | 27 (90.0%) | 3 (10.0%) | |
| Acquisitive Offences (n=46) | 41 (89.1%) | 5 (10.9%) | 0.001 |
| Non-Acquisitive Offences (n=54) | 48 (88.9%) | 6 (11.1%) | |
| OCU (n=34) | 27 (79.4%) | 7 (20.6%) | 4.838* |
| Non-OCU (n=66) | 62 (93.9%) | 4 (6.1%) | |
| Currently Injecting (n=3) | 3 (100.0%) | | 0.382 |
| Not Currently Injecting (n=97) | 86 (88.7%) | 11 (11.3%) | |
| Settled Accommodation (n=92) | 81 (88.0%) | 11 (12.0%) | 1.075 |
| Non-Settled Accommodation (n=8) | 8 (100.0%) | | |
| Employed (n=36) | 34 (94.4%) | 2 (5.6%) | 1.978 |
| Unemployed (n=60) | 51 (85.0%) | 9 (15.0%) | |

*P<0.05

Treatment Discharges

Table S4: Sefton Residents - Treatment Status

| Area | Active | Successful Exit | Unsuccessful Exit |
|----------------|------------|-----------------|-------------------|
| Sefton (n=130) | 19 (14.6%) | 78 (60.0%) | 33 (25.4%) |

Table S5: Sefton Residents – Treatment Exit Reasons

| Treatment Exit Reasons | Number |
|--|------------|
| Successful Exits (n=78): | |
| Treatment Complete | 1 (1.3%) |
| Treatment Complete Drug Free | 57 (73.1%) |
| Treatment Complete – occasional user | 20 (25.6%) |
| Unsuccessful Exits (n=33): | |
| Incomplete – Client died | 1 (3.0%) |
| Incomplete – Dropped Out | 6 (18.2%) |
| Incomplete – Retained in Custody | 1 (3.0%) |
| Incomplete – Treatment commencement declined by client | |
| Incomplete – Treatment withdrawn by provider | |
| Transferred in Custody | 11 (33.3%) |
| Transferred not in Custody | 14 (42.4%) |

Table S6: Sefton Residents - Treatment Exit Status - Age

| Age | Mean Age | t-test Value |
|---------------------------|----------|--------------|
| Successful Exits (n=78) | 29.6 | -3.881*** |
| Unsuccessful Exits (n=33) | 35.7 | |

*** P<0.001

Table S7: Sefton Residents - Treatment Exit Status – Group Characteristics

| Groups | Successful Exits | Unsuccessful Exits | Chi-Square Value |
|---------------------------------|------------------|--------------------|------------------|
| Male (n= 89) | 66 (74.2%) | 23 (25.8%) | 3.248 |
| Female (n=22) | 12 (54.5%) | 10 (45.5%) | |
| Acquisitive Offences (n=39) | 21 (53.8%) | 18 (46.2%) | 16.476*** |
| Non-Acquisitive Offences (n=43) | 40 (93.0%) | 3 (7.0%) | |
| OCU (n=36) | 5 (13.9%) | 31 (86.1%) | 81.072*** |
| Non-OCU (n=75) | 73 (97.3%) | 2 (2.7%) | |
| Currently Injecting (n=5) | 1 (20.0%) | 4 (80.0%) | 6.334* |
| Not Currently Injecting (n=106) | 77 (72.6%) | 29 (27.4%) | |
| Settled Accommodation (n=102) | 77 (75.5%) | 25 (24.5%) | 14.269*** |
| Non-Settled Accommodation (n=8) | 1 (12.5%) | 7 (87.5%) | |
| Employed (n=48) | 48 (100.0%) | | 35.508*** |
| Unemployed (n=59) | 28 (47.5%) | 31 (52.5%) | |

* P<0.05; *** P<0.001

Length of Time in Treatment

Table S8: Sefton Residents – Length of Time in Treatment – Group Characteristics

| Groups | Median days in Treatment | Z Value |
|---------------------------------|--------------------------|-----------|
| Male (n=89) | 29.00 | -1.972* |
| Female (n=22) | 21.50 | |
| Acquisitive Offences (n=39) | 30.00 | -3.819*** |
| Non-Acquisitive Offences (n=43) | 17.00 | |
| OCU (n=36) | 49.50 | -3.974*** |
| Non-OCU (n=75) | 25.00 | |
| Currently Injecting (n=5) | 57.00 | -1.785 |
| Not Currently Injecting (n=106) | 27.00 | |
| Settled Accommodation (n=102) | 26.50 | -1.549 |
| Non-Settled Accommodation (n=8) | 60.50 | |
| Employed (n=48) | 22.00 | -3.566*** |
| Unemployed (n=59) | 30.00 | |

*P<0.05; ***P<0.001

Treatment Discharges v Time in Treatment

Table S9: Sefton Residents - Treatment Exits by Time in Treatment

| | Mean days in treatment | t-test Value |
|---------------------------|------------------------|--------------|
| Successful Exits (n=78) | 31.6 | -5.306*** |
| Unsuccessful Exits (n=33) | 80.9 | |

***P<0.001

TOP Findings

Table S10: Sefton Residents – TOP Completion

| Number of DIP referrals that engaged | Number of clients who engaged and completed a first TOP | Number of clients who engaged and completed a last TOP |
|--------------------------------------|---|--|
| 130 | 95 (73.1%) | 87 (91.6%) |

TOP Outcomes

Table S11: Sefton Residents - TOP Outcomes – Substance Use

| Substance Use | Mean Start TOP Value (no. of days) | Mean Last TOP Value (no. of days) | t-test Value |
|---------------------|---------------------------------------|--------------------------------------|--------------|
| Alcohol (n=86) | 5.2 | 3.4 | 2.904* |
| Opiates (n=86) | 1.2 | 1.8 | -0.988 |
| Crack (n=86) | 0.3 | 0.9 | -1.549 |
| Cocaine (n=86) | 2.6 | 0.3 | 4.566*** |
| Amphetamines (n=86) | <0.1 | 0.1 | -0.985 |
| Cannabis (n=86) | 2.8 | 2.2 | 0.736 |
| Other (n=86) | <0.1 | 0.1 | -0.867 |

*P<0.05; ***P<0.001

Table S12: Sefton Residents - TOP Outcomes – Health and Social Functioning

| Health and Social Functioning | Mean Start TOP Value (Self-rating scale 1-20) | Mean Last TOP Value (Self-rating scale 1-20) | t-test Value |
|--------------------------------|--|---|--------------|
| Psychological Health (n=86) | 13.3 | 15.4 | -4.960*** |
| Physical Health (n=86) | 15.0 | 15.7 | -2.009* |
| Overall Quality of Life (n=86) | 14.9 | 16.4 | -4.792*** |

*P<0.05; ***P<0.001

Table S13: Sefton Residents - TOP Outcomes – Education/Employment

| Education/Employment | Mean Start TOP Value (no. of days) | Mean Last TOP Value (no. of days) | t-test Value |
|-------------------------------|---------------------------------------|--------------------------------------|--------------|
| Days in Paid Work (n=85) | 11.3 | 10.5 | 1.060 |
| Days in College/School (n=85) | 0.2 | 0.5 | -1.000 |

Table S14: Sefton Residents - TOP Outcomes – Accommodation

| Accommodation | First TOP (no of clients) | Last TOP (no of clients) |
|-----------------------------|------------------------------|-----------------------------|
| Acute Housing Problem - Yes | 3 | 3 |
| At Risk of Eviction - Yes | 0 | 2 |

Comparison of TOP Outcomes for clients with a Successful and Unsuccessful Treatment Exit

Table S15: Sefton Residents - TOP Outcomes by Treatment Exits – Substance Use

| Substance Use | Mean Difference Successful Exits | Mean Difference Unsuccessful Exits | t-test Value |
|---------------------|-------------------------------------|---------------------------------------|--------------|
| | (no. of days) | (no. of days) | |
| Alcohol (n=86) | -2.3 | 1.2 | -2.070* |
| Opiates (n=86) | 0.0 | 3.8 | -2.405* |
| Crack (n=86) | 0.0 | 4.2 | -3.978*** |
| Cocaine (n=86) | -2.3 | -1.9 | -0.291 |
| Amphetamines (n=86) | 0.1 | 0.0 | 0.413 |
| Cannabis (n=86) | -1.5 | 4.5 | -2.913** |
| Other (n=86) | 0.0 | 0.6 | -2.174* |

*P<0.05; **P<0.01; ***P<0.001

Table S16: Sefton Residents - TOP Outcomes by Treatment Exits – Health and Social Functioning

| Health and Social Functioning | Mean Difference Successful Exits | Mean Difference Unsuccessful Exits | t-test Value |
|--------------------------------|-------------------------------------|---------------------------------------|-----------------|
| | (Self-rating scale 1-20) | (Self-rating scale 1-20) | |
| Psychological Health (n=86) | 2.5 | -0.8 | 2.218* |
| Physical Health (n=86) | 1.4 | -3.1 | 5.353*** |
| Overall Quality of Life (n=86) | 1.7 | 0.6 | 1.202 |

*P<0.05; ***P<0.001

Table S17: Sefton Residents - TOP Outcomes by Treatment Exits – Education/Employment

| Education/Employment | Mean Difference Successful Exits | Mean Difference Unsuccessful Exits | t-test Value |
|-------------------------------|-------------------------------------|---------------------------------------|--------------|
| | (no. of days) | (no. of days) | |
| Days in Paid Work (n=85) | -0.9 | 0.0 | -0.428 |
| Days in College/School (n=85) | 0.3 | 0.0 | 0.403 |

6.0 St Helens

6.1 St Helens - Summary

- Of the 80 DIP referrals reported for St Helens residents between 1st September and 31st December 2010, 85.0% engaged in structured drug treatment. This much larger number of clients in the group who engaged makes conclusions based on comparisons between the two groups difficult to draw.
- There were no significant differences between the age of clients who engaged in structured drug treatment and the age of those who didn't.
- There was a significant association between treatment engagement and drug use type with a much higher proportion of OCU's engaging in treatment compared to non-OCU. No significant associations were reported for any other characteristic.
- Of the 68 St Helens residents who engaged in treatment, 55.9% had exited treatment by the 30th June 2011. As the number of clients with a successful treatment exit was quite low (6) it limits the conclusions that can be drawn from these findings. For clients with a successful exit, the highest proportion (83.3%) reported 'treatment complete – drug free' as their exit reason. 'Transferred not in custody' (46.9%) was the most common unsuccessful exit reason.
- Whilst clients with a successful treatment exit were older than those with an unsuccessful exit, this difference was not statistically significant
- There were significant associations between exit type (successful/unsuccessful) and offending group and drug use. Clients with a successful exit were more likely than those with an unsuccessful exit to be non-acquisitive offenders and non-OCU.
- A Spearman correlation on clients' age and the length of time they were in treatment showed no significant relationship ($r_s=0.137$, $N=38$).
- There were no significant differences in length of time in treatment when compared across gender, offence type, drug use type, injecting status, accommodation status or employment status.
- Clients with a successful treatment exit spent a significantly longer period of time in treatment than those with an unsuccessful treatment exit.
- Of the St Helens residents who engaged in treatment, 46.3% had a start TOP completed and 43.2% of these had a last TOP completed.
- There was a significant reduction between the first and last TOP in the number of days on which opiates were consumed in the previous 4 weeks. No significant changes were reported for any other substances. Significant improvements were reported in the client's overall quality of life. Days in paid work did not change significantly between first and last TOP. Very low numbers of clients reported having an accommodation problem at their first and last TOP.
- There were no significant differences between clients with a successful exit and those with an unsuccessful exit in terms of changes in numbers of days on which substances were consumed; self-reported health (psychological health, physical health and overall quality of life) or days in education or employment.

6.2 Data Analysis

Treatment Engagement

Table St1: Treatment Engagement of St Helens Residents after Referral

| Number of DIP Referrals | Number of DIP referrals that engaged | Number of DIP referrals that didn't engage |
|-------------------------|--------------------------------------|--|
| 80 | 68 (85.0%) | 12 (15.0%) |

A Comparison of clients who engaged in treatment and those who didn't

Table St2: St Helens Residents - Engaged Status - Age

| Group | Mean Age | t-test Value |
|---------------------------------|----------|--------------|
| Engaged in Treatment (n=68) | 35.4 | 0.358 |
| Not Engaged in Treatment (n=12) | 34.6 | |

Table St3: St Helens Residents - Engaged Status – Group Characteristics

| Groups | Engaged in Treatment | Not Engaged in Treatment | Chi-Square Value |
|----------------------------------|----------------------|--------------------------|------------------|
| Male (n=62) | 52 (83.9%) | 10 (16.1%) | 0.275 |
| Female (n=18) | 16 (88.9%) | 2 (11.1%) | |
| Acquisitive Offences (n=33) | 29 (87.9%) | 4 (12.1%) | 0.088 |
| Non-Acquisitive Offences (n=13) | 11 (84.6%) | 2 (15.4%) | |
| OCU (n=37) | 35 (94.6%) | 2 (5.4%) | 6.860** |
| Non-OCU (n=8) | 5 (62.5%) | 3 (37.5%) | |
| Currently Injecting (n=3) | 3 (100.0%) | | 0.481 |
| Not Currently Injecting (n=43) | 37 (86.0%) | 6 (14.0%) | |
| Settled Accommodation (n=35) | 31 (88.6%) | 4 (11.4%) | 0.337 |
| Non-Settled Accommodation (n=11) | 9 (81.8%) | 2 (18.2%) | |
| Employed (n=2) | 2 (100.0%) | | 0.350 |
| Unemployed (n=40) | 34 (85.0%) | 6 (15.0%) | |

**P<0.01

Treatment Exits

Table St4: St Helens Residents - Treatment Status

| Area | Active | Successful Exit | Unsuccessful Exit |
|------------------|------------|-----------------|-------------------|
| St Helens (n=68) | 30 (44.1%) | 6 (8.8%) | 32 (47.1%) |

Table St5: St Helens Residents – Treatment Exit Reasons

| Treatment Exit Reason | Number |
|--|------------|
| Successful Exits (n=6): | |
| Treatment Complete | 1 (16.7%) |
| Treatment Complete Drug Free | 5 (83.3%) |
| Treatment Complete – occasional user | |
| Unsuccessful Exits (n=32): | |
| Incomplete – Client died | 2 (6.3%) |
| Incomplete – Dropped Out | 7 (21.9%) |
| Incomplete – Retained in Custody | |
| Incomplete – Treatment commencement declined by client | |
| Incomplete – Treatment withdrawn by provider | |
| Transferred in Custody | 8 (25.0%) |
| Transferred not in Custody | 15 (46.9%) |

Table St6: St Helens Residents - Treatment Exit Status - Age

| Age | Mean Age | t-test Value |
|--------------------------|----------|--------------|
| Successful Exit (n=6) | 38.7 | 1.192 |
| Unsuccessful Exit (n=32) | 34.8 | |

Table St7: St Helens Residents - Treatment Exit Status – Group Characteristics

| Groups | Successful Exits | Unsuccessful Exits | Chi-Square Value |
|----------------------------------|------------------|--------------------|------------------|
| Male (n=29) | 6 (20.7%) | 23 (79.3%) | 2.211 |
| Female (n=9) | | 9 (100.0%) | |
| Acquisitive Offences (n=19) | 1 (5.3%) | 18 (94.7%) | 5.554* |
| Non-Acquisitive Offences (n=7) | 3 (42.9%) | 4 (57.1%) | |
| OCU (n=34) | 4 (11.8%) | 30 (88.2%) | 3.935* |
| Non-OCU (n=4) | 2 (50.0%) | 2 (50.0%) | |
| Currently Injecting (n=5) | 1 (20.0%) | 4 (80.0%) | 0.077 |
| Not Currently Injecting (n=33) | 5 (15.2%) | 28 (84.8%) | |
| Settled Accommodation (n=28) | 3 (10.7%) | 25 (89.3%) | 20.61 |
| Non-Settled Accommodation (n=10) | 3 (30.0%) | 7 (70.0%) | |
| Employed (n=2) | 1 (50.0%) | 1 (50.0%) | 1.858 |
| Unemployed (n=36) | 5 (13.9%) | 31 (86.1%) | |

* P<0.05

Length of Time in Treatment

Table St8: St Helens Residents – Length of Time in Treatment – Group Characteristics

| Groups | Median days in Treatment | Z Value |
|----------------------------------|--------------------------|---------|
| Male (n=29) | 55.00 | -1.305 |
| Female (n=9) | 29.00 | |
| Acquisitive Offences (n=19) | 36.00 | -1.590 |
| Non-Acquisitive Offences (n=7) | 117.00 | |
| OCU (n=34) | 45.00 | -1.237 |
| Non-OCU (n=4) | 86.00 | |
| Currently Injecting (n=5) | 47.00 | -0.281 |
| Not Currently Injecting (n=33) | 52.00 | |
| Settled Accommodation (n=28) | 46.00 | -0.812 |
| Non-Settled Accommodation (n=10) | 71.00 | |
| Employed (n=2) | 116.00 | 0.000 |
| Unemployed (n=36) | 49.50 | |

Treatment Exits v Time in Treatment

Table St9: St Helens Residents - Treatment Exits by Time in Treatment

| | Mean days in treatment | t-test Value |
|---------------------------|------------------------|--------------|
| Successful Exits (n=6) | 129.2 | 2.579* |
| Unsuccessful Exits (n=32) | 62.8 | |

*P<0.05

TOP Findings

Table St10: St Helens Residents – TOP Completion

| Number of DIP referrals that engaged | Number of clients who engaged and completed a first TOP | Number of clients who engaged and completed a last TOP |
|--------------------------------------|---|--|
| 80 | 37 (46.3%) | 16 (43.2%) |

TOP Outcomes

Table St11: St Helens Residents - TOP Outcomes – Substance Use

| Substance Use | Mean Start TOP Value (no. of days) | Mean Last TOP Value (no. of days) | t-test Value |
|---------------------|---------------------------------------|--------------------------------------|--------------|
| Alcohol (n=16) | 8.6 | 7.8 | 0.290 |
| Opiates (n=16) | 16.2 | 6.4 | 2.911* |
| Crack (n=16) | 2.9 | 1.0 | 2.087 |
| Cocaine (n=16) | 0.3 | 0.3 | -0.169 |
| Amphetamines (n=16) | 0.0 | 0.0 | n/a |
| Cannabis (n=16) | 1.3 | 2.0 | -0.694 |
| Other (n=16) | 5.3 | 1.8 | 1.000 |

*P<0.05

Table St12: St Helens Residents - TOP Outcomes – Health and Social Functioning

| Health and Social Functioning | Mean Start TOP Value (Self-rating scale 1-20) | Mean Last TOP Value (Self-rating scale 1-20) | t-test Value |
|--------------------------------|--|---|--------------|
| Psychological Health (n=15) | 10.9 | 13.0 | -1.389 |
| Physical Health(n=16) | 12.2 | 13.8 | -1.354 |
| Overall Quality of Life (n=16) | 10.6 | 12.6 | -2.519* |

*P<0.05

Table St13: St Helens Residents - TOP Outcomes – Education/Employment

| Education/Employment | Mean Start TOP Value (no. of days) | Mean Last TOP Value (no. of days) | t-test Value |
|-------------------------------|---------------------------------------|--------------------------------------|--------------|
| Days in Paid Work (n=14) | 2.9 | 1.4 | 1.000 |
| Days in College/School (n=14) | 0.0 | 0.0 | n/a |

Table St14: St Helens Residents - TOP Outcomes – Accommodation

| Accommodation | First TOP (no of clients) | Last TOP (no of clients) |
|-----------------------------|------------------------------|-----------------------------|
| Acute Housing Problem - Yes | 2 | 3 |
| At Risk of Eviction - Yes | 1 | 2 |

Comparison of TOP Outcomes for Clients with a Successful or Unsuccessful Treatment Exit

Table St15: St Helens Residents - TOP Outcomes by Treatment Exit – Substance Use

| Substance Use | Mean Difference Successful Exit | Mean Difference Unsuccessful Exit | t-test Value |
|----------------------|--|--|---------------------|
| | (no. of days) | (no. of days) | |
| Alcohol (n=16) | -6.2 | 1.5 | -1.207 |
| Opiates (n=16) | -10.4 | -9.5 | -0.126 |
| Crack (n=16) | -2.4 | -1.7 | -0.326 |
| Cocaine (n=16) | -0.8 | 0.5 | -1.659 |
| Amphetamines (n=16) | 0.0 | 0.0 | n/a |
| Cannabis (n=16) | -0.2 | 1.1 | -0.591 |
| Other (n=16) | -5.6 | -2.5 | -0.393 |

Table St16: St Helens Residents - TOP Outcomes by Treatment Exit – Health and Social Functioning

| Health and Social Functioning | Mean Difference Successful Exit | Mean Difference Unsuccessful Exit | t-test Value |
|--------------------------------------|--|--|-------------------------|
| | (Self-rating scale 1-20) | (Self-rating scale 1-20) | |
| Psychological Health (n=15) | 2.0 | 2.1 | -0.026 |
| Physical Health (n=16) | 1.0 | 1.9 | -0.341 |
| Overall Quality of Life (n=16) | 3.6 | 1.4 | 1.294 |

Table St17: St Helens Residents - TOP Outcomes by Treatment Exit – Education/Education

| Education/Employment | Mean Difference Successful Exit | Mean Difference Unsuccessful Exit | t-test Value |
|-------------------------------|--|--|---------------------|
| | (no. of days) | (no. of days) | |
| Days in Paid Work (n=14) | 0.0 | -2.0 | 0.617 |
| Days in College/School (n=14) | 0.0 | 0.0 | n/a |

7.0 Wirral

7.1 Wirral - Summary

- Of the 61 DIP referrals reported for Wirral residents between 1st September and 31st December 2010, 73.8% engaged in structured drug treatment.
- Whilst clients who engaged in structured drug treatment had a younger mean age than those who did not, this difference was not statistically significant.
- There were no significant associations between treatment engagement and gender, offence type, drug use type, injecting status, accommodation status or employment status.
- Of the 45 Wirral residents who engaged in treatment, 62.2% had exited treatment by the 30th June 2011. For clients with a successful treatment exit, the highest proportion (52.9%) reported 'treatment complete – drug free' as their exit reason. 'Transferred in custody' (63.6%) was the most common unsuccessful treatment exit reason.
- Whilst clients with a successful exit were younger than those with an unsuccessful exit, this difference was not statistically significant.
- There were no significant associations between treatment exit status (successful/unsuccessful) and gender, offence type, drug use type, injecting status, accommodation status or employment status.
- A Spearman correlation on clients' age and the length of time they were in treatment showed no significant relationship ($r_s=0.081$, $N=28$).
- There were no significant differences in length of time in treatment when compared across gender, offence type, drug use type, injecting status, accommodation status or employment status.
- Whilst clients with a successful treatment exit spent a longer period of time in treatment than those with an unsuccessful treatment exit, this difference was not statistically significant.
- Of the Wirral residents who engaged in treatment, 60.0% had a start TOP completed and 63.0% of these had a last TOP completed.
- There were no significant changes between the first and last TOP in the number of days on which any substances were used. Significant improvements were reported in the clients' health (psychological and physical). Days in paid work or education did not change significantly between first and last TOP. Very low numbers of clients reported having an accommodation problem at their first and last TOP.
- There were significant differences between clients with a successful treatment exit and those with an unsuccessful treatment exit in terms of changes in number of days on which substances were consumed (opiates and 'other' drugs). Clients with a successful exit had little change in the number of days they used opiates and 'other' drugs whilst those who had an unsuccessful exit increased the number of days on which they used opiates but decreased the number of days they used 'other' drugs.

7.2 Data Analysis

Treatment Engagements

Table W1: Treatment Engagement of Wirral Residents after Referral

| Number of DIP Referrals | Number of DIP referrals that engaged | Number of DIP referrals that didn't engage |
|-------------------------|--------------------------------------|--|
| 61 | 45 (73.8%) | 16 (26.2%) |

A Comparison of clients who engaged in treatment and those who didn't

Table W2: Wirral Residents - Engagement Status - Age

| Group | Mean Age | t-test Value |
|---------------------------------|----------|--------------|
| Engaged in Treatment (n=45) | 34.8 | -1.607 |
| Not Engaged in Treatment (n=16) | 38.9 | |

Table W3: Wirral Residents - Engagement Status – Group Characteristics

| Groups | Engaged in Treatment | Not Engaged in Treatment | Chi-Square Value |
|---------------------------------|----------------------|--------------------------|------------------|
| Male (n=48) | 35 (72.9%) | 13 (27.1%) | 0.085 |
| Female (n=13) | 10 (76.9%) | 3 (23.1%) | |
| Acquisitive Offences (n=1) | 1 (100.0%) | | 1.333 |
| Non-Acquisitive Offences (n=3) | 1 (33.3%) | 2 (66.7%) | |
| OCU (n=0) | | | |
| Non-OCU (n=4) | 2 (50.0%) | 2 (50.0%) | |
| Currently Injecting (n=0) | | | |
| Not Currently Injecting (n=4) | 2 (50.0%) | 2 (50.0%) | |
| Settled Accommodation (n=3) | 2 (66.7%) | 1 (33.3%) | 1.333 |
| Non-Settled Accommodation (n=1) | | 1 (100.0%) | |
| Employed (n=1) | | 1 (100.0%) | 1.333 |
| Unemployed (n=3) | 2 (66.7%) | 1 (33.3%) | |

Treatment Exits

Table W4: Wirral Residents - Treatment Status

| Area | Active | Successful Exit | Unsuccessful Exit |
|---------------|------------|-----------------|-------------------|
| Wirral (n=45) | 17 (37.8%) | 17 (37.8%) | 11 (24.4%) |

Table W5: Wirral Residents – Treatment Exit Reasons

| Treatment Exit Reason | Number |
|--|-----------|
| Successful Exits (n=17): | |
| Treatment Complete | |
| Treatment Complete Drug Free | 9 (52.9%) |
| Treatment Complete – occasional user | 8 (47.1%) |
| Unsuccessful Exits (n=11): | |
| Incomplete – Client died | |
| Incomplete – Dropped Out | 2 (18.2%) |
| Incomplete – Retained in Custody | |
| Incomplete – Treatment commencement declined by client | |
| Incomplete – Treatment withdrawn by provider | |
| Transferred in Custody | 7 (63.6%) |
| Transferred not in Custody | 2 (18.2%) |

Table W6: Wirral Residents - Treatment Exit Status - Age

| Group | Mean Age | t-test Value |
|---------------------------|----------|--------------|
| Successful Exits (n=17) | 32.7 | -0.822 |
| Unsuccessful Exits (n=11) | 35.8 | |

Table W7: Wirral Residents - Treatment Exit Status – Group Characteristics

| Groups | Successful Exits | Unsuccessful Exits | Chi-Square Value |
|---------------------------------|------------------|--------------------|------------------|
| Male (n=24) | 15 (62.5%) | 9 (37.5%) | 0.225 |
| Female (n=4) | 2 (50.0%) | 2 (50.0%) | |
| Acquisitive Offences (n=1) | | 1 (100.0%) | 2.000 |
| Non-Acquisitive Offences (n=1) | 1 (100.0%) | | |
| OCU (n=14) | 7 (50.0%) | 7 (50.0%) | 1.348 |
| Non-OCU (n=14) | 10 (71.4%) | 4 (28.6%) | |
| Currently Injecting (n=2) | 1 (50.0%) | 1 (50.0%) | 0.104 |
| Not Currently Injecting (n=26) | 16 (61.5%) | 10 (38.5%) | |
| Settled Accommodation (n=23) | 15 (65.2%) | 8 (34.8%) | 0.338 |
| Non-Settled Accommodation (n=4) | 2 (50.0%) | 2 (50.0%) | |
| Employed (n=2) | 2 (100.0%) | | 0.958 |
| Unemployed (n=21) | 14 (66.7%) | 7 (33.3%) | |

Length of Time in Treatment

Table W8: Wirral Residents – Length of Time in Treatment – Group Characteristics

| Groups | Median days in Treatment | Z Value |
|---------------------------------|--------------------------|---------|
| Male (n=24) | 78.50 | -1.182 |
| Female (n=4) | 52.50 | |
| Acquisitive Offences (n=1) | 41.00 | -1.000 |
| Non-Acquisitive Offences (n=1) | 69.00 | |
| OCU (n=14) | 78.50 | 0.942 |
| Non-OCU (n=14) | 53.00 | |
| Currently Injecting (n=2) | 125.50 | -1.160 |
| Not Currently Injecting (n=26) | 55.50 | |
| Settled Accommodation (n=23) | 57.00 | -1.229 |
| Non-Settled Accommodation (n=4) | 135.50 | |
| Employed (n=2) | 118.50 | -1.310 |
| Unemployed (n=21) | 57.00 | |

Treatment Exits v Time in Treatment

Table W9: Wirral Residents - Treatment Exits by Time in Treatment

| | Mean days in treatment | t-test Value |
|---------------------------|------------------------|--------------|
| Successful Exits (n=17) | 86.5 | 0.378 |
| Unsuccessful Exits (n=11) | 77.7 | |

TOP Findings

Table W10: Wirral Residents – TOP Completion

| Number of DIP referrals that engaged | Number of clients who engaged and completed a first TOP | Number of clients who engaged and completed a last TOP |
|--------------------------------------|---|--|
| 45 | 27 (60.0%) | 17 (63.0%) |

TOP Outcomes

Table W11: Wirral Residents - TOP Outcomes – Substance Use

| Substance Use | Mean Start TOP Value (no. of days) | Mean Last TOP Value (no. of days) | t-test Value |
|--------------------|---------------------------------------|--------------------------------------|--------------|
| Alcohol (n=17) | 5.8 | 3.7 | 1.450 |
| Opiates (n=17) | 0.0 | 0.2 | -1.000 |
| Crack (n=17) | 0.0 | 0.0 | n/a |
| Cocaine (n=17) | 1.5 | 0.1 | 1.150 |
| Amphetamines(n=17) | 0.7 | 0.0 | 1.461 |
| Cannabis (n=17) | 10.6 | 9.1 | 1.985 |
| Other (n=17) | 3.3 | 2.5 | 0.852 |

Table W12: Wirral Residents - TOP Outcomes – Health and Social Functioning

| Health and Social Functioning | Mean Start TOP Value (Self-rating scale 1-20) | Mean Last TOP Value (Self-rating scale 1-20) | t-test Value |
|--------------------------------|--|---|--------------|
| Psychological Health (n=17) | 14.2 | 16.1 | -2.537* |
| Physical Health(n=15) | 13.7 | 15.9 | -2.750* |
| Overall Quality of Life (n=16) | 12.7 | 14.4 | -1.553 |

*P<0.05

Table W13: Wirral Residents - TOP Outcomes – Education/Employment

| Education/Employment | Mean Start TOP Value (no. of days) | Mean Last TOP Value (no. of days) | t-test Value |
|------------------------------|---------------------------------------|--------------------------------------|--------------|
| Days in Paid Work (n=2) | 20.0 | 20.0 | n/a |
| Days in College/School (n=0) | | | |

Table W14: Wirral Residents - TOP Outcomes – Accommodation

| Accommodation | First TOP (no of clients) | Last TOP (no of clients) |
|-----------------------------|------------------------------|-----------------------------|
| Acute Housing Problem - Yes | 1 | 1 |
| At Risk of Eviction - Yes | 1 | 0 |

Comparison of TOP Outcomes for Clients with a Successful and Unsuccessful Treatment Exit

Table W15: Wirral Residents - TOP Outcomes by Treatment Exit – Substance Use

| Substance Use | Mean Difference Successful Exits | Mean Difference Unsuccessful Exits | t-test Value |
|----------------------|---|---|---------------------|
| | (no. of days) | (no. of days) | |
| Alcohol (n=17) | -2.9 | 3.5 | -1.453 |
| Opiates (n=17) | 0.0 | 1.5 | -3.638** |
| Crack (n=17) | 0.0 | 0.0 | n/a |
| Cocaine (n=17) | -1.5 | -0.5 | -0.263 |
| Amphetamines (n=17) | -0.8 | 0.0 | -0.521 |
| Cannabis (n=17) | -1.8 | 0.0 | -0.714 |
| Other (n=17) | 0.1 | -7.5 | 3.643** |

**P<0.01

Table W16: Wirral Residents - TOP Outcomes by Treatment Exit – Health and Social Functioning

| Health and Social Functioning | Mean Difference Successful Exits | Mean Difference Unsuccessful Exits | t-test Value |
|--------------------------------------|---|---|---------------------|
| | (Self-rating scale 1-20) | (Self-rating scale 1-20) | |
| Psychological Health (n=17) | 1.9 | 1.5 | 0.159 |
| Physical Health (n=15) | 1.8 | 5.0 | -1.422 |
| Overall Quality of Life (n=16) | 1.2 | 5.0 | -1.166 |

Table W17: Wirral Residents - TOP Outcomes by Treatment Exit – Education/Education

| Education/Employment | Mean Difference Successful Exits | Mean Difference Unsuccessful Exits | t-test Value |
|------------------------------|---|---|---------------------|
| | (no. of days) | (no. of days) | |
| Days in Paid Work (n=2) | 0.0 | n/a | n/a |
| Days in College/School (n=0) | | | |

8.0 Discussion and Conclusion

The aim of this report is to investigate treatment outcomes for DIP clients, specifically those referred to structured drug treatment as part of their DIP care plan. The report examines the relationship between treatment outcomes, time in treatment and a selection of client characteristics. The following section summarises key points from the analysis along with resulting recommendations.

DIP referrals to treatment

Rates of attendance in structured drug treatment after a DIP referral varied substantially across areas. Engagement was highest in Sefton (90.9%) and Knowsley (88.5%) and lowest in Liverpool (64.9%). In areas where very low proportions of clients did not attend treatment analyses examining differences in characteristics between clients who engaged and those who did not, lacked robustness due to large differences in the numbers in groups being compared. Lower levels of engagement in certain areas may suggest either issues with ensuring engagement in treatment within the approved time frame (28 days) or that the recording of the client's attendance at treatment wasn't adequate at the time the data for this report was produced.

Recommendation

Repeating this analysis for a larger group of clients drawn from a longer time period would help make the non-engaged group more numerous and as a result would help make the comparisons more robust.

Recommendation

As data used in this report is historical, areas with lower rates of engagement should ascertain whether this continues to be the case and if so determine whether clients' actual rate of non-attendance at treatment continues to be high or if inadequate recording of treatment attendances continues to be an issue.

Recommendation

Should a client not attend for their initial treatment appointment post DIP referral, attempts should be made to contact the client and discuss any issues or misconceptions they may have about their treatment plan and encourage them to re-engage.

Comparing the characteristics of clients who did and didn't engage in treatment

There were no significant differences in most cases when the characteristics of clients who engaged in treatment and those who didn't were compared. This suggests there may be another factor influencing levels of engagement, which is beyond the scope of this report. The exceptions were in Sefton and St Helens, although different patterns were seen in these two areas. In Sefton non-OCU were more likely than OCU to engage in structured treatment after a referral whilst in St Helens this pattern was reversed. This suggests that St Helens focused more on OCU clients than on non-OCU

with services appealing more to this group of clients although non-OCU clients also get referred through DIP.

Treatment Exits

Rates of treatment exits by the 30th June 2011 varied across areas, the lowest rate was in St Helens (59.9%) and highest in Sefton (91.1%). The lower number of treatment exits in St Helens may be as a result of the higher proportion of OCU clients in their treatment engaged group who are likely to require a longer time in treatment compared to non-OCU clients. Some areas recorded a greater proportion of successful treatment exits than unsuccessful treatment exits - the highest was from Knowsley (83.0% successful). The exceptions to this trend were St Helens and Liverpool who had a much greater proportion of unsuccessful treatment exits (84.2% and 59.9% of all exits respectively).

Knowsley and Liverpool had a much higher proportion of clients who exited treatment 'treatment complete - occasional user' than any other area. Knowsley also had a very low proportion of clients who exited treatment as 'treatment complete – drug free'. This is in contrast to clients from Sefton and St Helens who had a higher proportion exited as 'treatment complete – drug free' compared to other areas. This may reflect different recording practices in these areas or a variation in the times at which clients are discharged – when completely abstinent or not. It is also worth considering that OCU clients cannot be exited from treatment as 'treatment complete – occasional user'. Therefore areas with higher proportions of OCU may have lower proportions of this treatment exit type. This was particularly evident in St Helens where there were a higher proportion of OCU clients and also a higher proportion of treatment exits 'treatment complete – drug free'.

Reasons for unsuccessful treatment exits varied between areas with Liverpool and Knowsley having higher proportions of clients 'dropped out' and Wirral having higher proportion of clients 'transferred – in custody' compared to other areas. It is unclear whether this variation in unsuccessful treatment exits is indicative of very different outcomes for DIP clients in each area or reflects differing understanding and application of NDTMS discharge codes and a variation in the extent to which providers are able to monitor their clients activity i.e. Wirral know when clients are entering prison and are therefore able to make appropriate referrals. It is worth considering that treatment exits 'transferred in custody' may not necessarily represent a negative treatment exit as NDTMS data is currently unavailable from prisons to match to but the correct referral procedure may have been recorded. Many areas indicated a large proportion of clients who were exited from treatment as 'transferred not in custody'. This suggests either a problem with the recording of clients' attendance at the other agency within the appropriate time frame or that some inappropriate referrals may have been recorded as clients may have actually been referred to receive Tier 2 treatment. In addition to this clients may have been legitimately referred to a D(A)AT outside of Merseyside and as a result their attendance at treatment would be outside the scope of this report. Clients may have also been referred through a route not captured by NDTMS such as a general practice for prescribing but not receive any structured support.

Recommendations

Drug treatment agencies should ensure that staff have a clear understanding of NDTMS discharge definitions particularly when transferring to other agencies. An audit of discharge reasons should highlight any inaccuracies helping to ensure that accurate discharge data is recorded. Data sharing and/or referrals between agencies may also need to be improved to ensure data (client initials, date of birth, gender) are recorded correctly on NDTMS compliant systems.

Recommendations

When examining treatment discharges (especially when comparing across areas) commissioners should be aware of the impact that decisions about who is deemed to be receiving structured drug treatment and differing use of discharge definitions may have on recorded treatment outcome 'performance'.

Comparing the characteristics of clients with a successful and unsuccessful treatment exit

Associations between client characteristics and treatment exit reasons generally varied between areas. However, some commonalities emerged. Across most areas clients with a successful treatment exit were more likely than those with an unsuccessful treatment exit to be younger, non-acquisitive offenders and non-OCU. In addition in Knowsley and Sefton clients with a positive discharge were more likely to be in settled accommodation and be employed. These characteristics match those identified for a typical powder cocaine using DIP client (Howarth and Duffy, 2010). Findings suggest that OCU clients were more likely to have an unsuccessful treatment exit than their powder cocaine using counterparts. Wirral demonstrated a different pattern to all other areas as there were no significant differences in the characteristics of clients in the successful and unsuccessful treatment exit groups.

Recommendations

Whilst rates of successful treatment exits for powder cocaine using DIP clients are encouraging it is potentially of concern that this may mask much less effective intervention with OCU clients, those that are most likely to re-offend and who have a much greater risk of negative health consequences. Further investigation is required to examine in detail treatment outcomes for OCU clients and consideration given to the effectiveness of current DIP provision for this group including resource allocation.

Client characteristics and length of time in treatment

In most areas length of time in treatment did not vary significantly across client characteristics. The only exception was Sefton where males, acquisitive offenders, OCU and unemployed clients spent significantly longer in treatment. Findings reflect differing outcomes for OCU and non-OCU. Although OCU spent longer in treatment they were more likely to have a negative outcome which was in

contrast to non-OCU who spent less time in treatment and were more likely to have a positive outcome.

Time in treatment and treatment exits

In Knowsley, Sefton and St Helens there was a significant interaction between length of time in treatment and treatment exits. However, this pattern was not consistent. In Knowsley and Sefton clients with an unsuccessful treatment exit spent longer in treatment than those with a successful treatment exit whilst in St Helens this pattern was reversed. Findings for Knowsley and Sefton contradict previous research (Teesson et al, 2005; Gossop et al, 2001, 1999) which highlighted that spending longer in treatment is associated with successful outcomes. This is likely to be related to the high prevalence of non-OCU in the treatment engaged groups in Knowsley and Sefton whilst the reports findings focused primarily on OCU clients and as such correlate more with findings from St Helens where the OCU group was much larger.

Recommendations

Services should be aware that the interaction between length of time in treatment and successful outcome is not necessarily straightforward. Clients' characteristics, in particular drug use, are likely to influence the optimum engagement period.

TOP completion

Findings around treatment outcomes in this report are limited to some degree by levels of TOP completion. Areas varied substantially in the degree to which a start TOP was completed for this cohort. This may not reflect poor monitoring practice by areas as it may be that varying proportions of clients were already receiving treatment at the point that they were referred by DIP. The agency already engaged with may have retained responsibility for TOP completion and so there would not be a start TOP on which to base findings. Further data loss occurred due to the occasional lack of a second TOP record to assign as the 'last TOP'.

Recommendations

Treatment agencies need to ensure that TOP records are completed in a timely manner during the clients' treatment journey in order to obtain an accurate overview of the clients' treatment outcomes.

TOP scores

According to TOP records the extent to which treatment had a positive impact on DIP clients varied substantially between areas although in many areas the impact was relatively minimal (in Liverpool there were no significant improvements on any measures). Sefton was the exception to this where significant reductions were seen in the number of day's alcohol (also seen in Knowsley) and cocaine were used. Again this is reflective of the success in Sefton with non-OCU clients. This greater success with non-OCU clients can be understood in terms of recovery enablers. Best et al (2011) puts

forward the idea that if a client has three recovery enablers they are more likely to complete their treatment with a successful outcome. Enablers include abstinence from heroin/crack, stability of housing and engagement in activities e.g. employment. As previously highlighted, DIP clients who use cocaine tend not to use heroin/crack, are in settled accommodation and are employed which puts them in a better position to complete their treatment and have a successful outcome. Indeed, clients in Sefton also reported significant improvements in psychological health and overall quality of life suggesting that they were making good progress in their recovery. The greater focus on OCU clients in St Helens is reflected in a significant reduction in the number of days opiates were used among DIP clients there, alongside improvements in ratings of overall quality of life. Whilst Wirral clients did not report any reductions in substance use, there were significant improvements in psychological and physical well being possibly indicating a greater level of stability among clients.

Recommendations

All DIP service providers and commissioners need to consider the extent to which DIP in its current format is having a positive impact on client outcomes and for which clients. Areas of improvement differ across areas which may suggest the opportunity to share best practice e.g. Sefton's approach to tackling cocaine use, St Helens' approach with opiate use. Ongoing monitoring of treatment outcomes and larger scale analysis such as that produced for this report are required to confirm emerging trends.

TOP scores and treatment outcomes

Sefton and Wirral were the only areas in Merseyside that reported significant differences between clients with a successful treatment exit and those with an unsuccessful treatment exit in terms of changes in the number of days on which substances were consumed. In Sefton residents who had a successful exit had significantly more positive outcomes in terms of alcohol, opiate, crack, cannabis and 'other' drug consumption than those with an unsuccessful exit. Wirral residents with a successful exit also reported more positive outcomes for opiate consumption but reported less positive outcomes for 'other' drug consumption when compared to clients with an unsuccessful exit. Clients with a successful exit in Liverpool and Sefton saw more positive changes in psychological health with those in Sefton also seeing more positive changes in physical health than their counterparts with an unsuccessful exit.

Recommendations

Wirral should investigate the nature of the drug use recorded as 'other' drugs to determine why clients with an unsuccessful treatment exit saw a greater reduction in use of these drugs than those with a successful treatment exit. This information was not available on NDTMS to include in the report

Conclusion

The aim of this report was to investigate treatment outcomes for DIP clients. It should be noted that for many clients treatment with the DIP team represents only the first stage in their 'journey' and other agencies will play a substantial role in achieving successful or unsuccessful treatment outcomes. In most areas treatment outcomes were better for non-OCU than for OCU. This is perhaps unsurprising given the greater complexity of their needs. However, it does indicate that DIP is less successful in most areas (St Helens being the exception) with what could be considered its core client group. Statistical testing revealed mixed findings in terms of treatment impact on DIP clients. Whilst on most TOP domains improvements were seen for all clients, these were of a relatively small magnitude for most areas and were in many cases not significantly significant. This is the first time an examination of data for DIP clients has been attempted on Merseyside in this way. As such it is an evolving process and improvements will be made to future iterations of the analysis. It will be necessary to complete more detailed investigations into some trends identified in this report.

Report Limitations

There were some limitations with the analysis for this report:

- The data used in the analysis ranged between 1st September 2010 and 30th June 2011. Although this allowed a six month overview of the clients' DIP treatment journey, some data is now over 12 months old and may not reflect current treatment outcomes.
- Data on TOP completion wasn't available for all clients in the analysis and as a result TOP data analysis could only be carried out on a subset of the complete set of clients which reduced the robustness of the TOP findings.
- Some group sizes were very different in the analysis i.e. those who engaged in treatment and those who didn't, those who had a successful or unsuccessful treatment exit etc, which reduced the robustness of the comparisons being made between the groups.
- The time frame for the follow-up period was six months. In some areas the treatment exit rates were much lower at the end of this period. Therefore treatment outcomes could not be assessed for larger proportions of clients. This may particularly have been the case for OCU clients who generally spend longer in treatment compared to non-OCU clients. Future work will seek to extend this time frame in order to ascertain outcomes for all clients.
- Data on TOP relied on clients' reporting face to face to their key worker which may have created a bias due to clients wanting to please their key worker or to show an improvement in their behaviour.
- The timeframes between the first and last TOP completions may have been quite different for each client and as a result the timeframe within which behaviour change or perception of wellbeing altered could be quite different for each client.

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