



CURRENT FUNDING FOR DRUG
TREATMENT SERVICES REWARDS
SHORT TERMISM.
THIS HAS PROFOUND SOCIAL
CONSEQUENCES.

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Technical Appendices can be found at:

<http://www.socialfinance.org.uk/resources/social-finance/enabling-recovery>

THE WAY DRUG TREATMENT IS PAID
FOR NEEDS TO CHANGE TO MORE
CLOSELY ALIGN FINANCIAL INCENTIVES
WITH THE OUTCOMES THAT MATTER
FOR THOSE SUFFERING FROM
ADDICTION AND FOR SOCIETY.



PURPOSE

This report presents our hypothesis on how a Social Impact Bond (SIB)¹ could help improve outcomes for those suffering from drug and alcohol addiction. Social Finance worked with Dr Samantha Gross and Professor John Strang from the National Addiction Centre to understand how recovery from addiction could be measured as part of a social investment contract. This report sets out ways of measuring successful recovery from substance addiction. Each measure of success needs to reflect the end goal of sustained recovery over the long term.

A Social Impact Bond is a contract in which government commits to pay investors if there is an improvement in social outcomes (such as a reduction in offending rates). Investors receive returns if, and only if, these social outcomes are achieved. Investors' money is used to pay for a range of services to help people recover from their addiction. If outcomes are improved and more people recover, investors receive payments from government.

For success to be paid for, it must first be defined and measured. This report offers thoughts on what those measures of success should be. It aims to provide the starting point for a discussion of potential outcome metrics to structure an investment proposition.

¹ The SIB model is explained in detail in the Technical Appendices to this report. These can be found on the Social Finance website: <http://www.socialfinance.org.uk/resources/social-finance/driving-recovery>

1 Scope of the report

The primary task of this report is to set out metrics that could be used to measure recovery from addiction as part of a Social Impact Bond contract. The report does not consider the payment that should be made for each metric or the relative weighting (importance) of these metrics. The report does not contain analysis of the cost savings to local and central government departments. The pricing and broad government cost savings are important pieces of analysis and are currently being carried out by Social Finance.

2 Addiction in the UK and the role of Social Investment

Addiction to alcohol and drugs harms individuals, their families and the wider community. It has a long-lasting impact on people's health with more than a million alcohol-related hospital admissions every year in England alone.² Substance misuse negatively impacts parenting and relationships causing families to break up and children to be taken into care. It is estimated that 34% of children in care are not at home due to a parent's substance misuse.³ Addiction can take a strong hold of the user who may turn to petty crime to fund their habit; approximately 55% of UK crime is drug-related.⁴ A heroin habit can cost £100 a day⁵ and makes it almost impossible to hold down work. As a result, an estimated 80% of opiate and crack users currently claim state benefits.⁶

The social costs to the users' families and communities are large and growing.⁷ Drug addiction is also a significant cost to the taxpayer. Government spends approximately £1.1 billion a year on drug treatment⁸ alongside money that goes to fight drug-related crime and provide employment and housing benefits.

WHAT HAPPENS NOW?

The way treatment has traditionally been funded encourages a service that makes interaction between service users and service providers into a transaction. For example, key national performance indicators have previously focused on numbers completing twelve weeks of treatment, numbers exiting treatment as planned and waiting times for those seeking treatment. According to one frontline worker, "we get paid on statistics but they're the wrong ones...people are sent all over the place just to fill programmes and classes. We can't let someone go after 8

2 NHS, *Statistics on Alcohol: England*, (2011)

3 Home Office, *Hidden Harms*, (2006)

4 Prison Reform Trust, *Bromley Prison Briefing*, (2010)

5 <http://www.talktofrank.com/drugs.aspx?id=186>

6 Population estimates of problematic drug users in England who access DWP benefits: A feasibility study, (2008)

7 The National Audit Office estimates the cost of drug use to central and local government of drug use to be £1.2 billion with an additional £14.1 billion in social costs (NAO, *Tackling Problem Drug Use*, 2010).

8 UK Focal Point Report (2011)

weeks [of treatment] if they're doing fine because the target is 12 weeks. It's a system set up for workers not for clients."⁹

Funding for outputs encourages services to focus on the delivery of short term rather than longer term progress. Recent changes to this system have sought to refocus performance evaluation on numbers exiting treatment in a planned way and not returning to treatment or the criminal justice system within 12 months.¹⁰ Whilst this is a positive step, it may not fully capture the social and personal benefits of sustained recovery.

The majority of government funding for drug and alcohol treatment has focused on core services that help to tackle addiction with less money being spent on programmes supporting recovery beyond exiting core treatment.¹¹ These services might include caseworker support to help rebuild a life free from addiction and find stable housing and employment.¹² There are fewer resources currently committed to these longer term services and limited financial incentives to provide this support as the majority of national performance indicators focus on performance in core treatment, rather than recovery in the years following completion. Investment in longer term recovery services is needed to reduce the social costs of addiction.

Currently, the way drug treatment services are funded does not provide the right incentives for service providers to focus on this longer term change. This has profound social consequences. We believe that the way drug treatment is paid for needs to change: we need to align financial incentives with the outcomes that matter for users and society. The 2010 Drug Strategy¹³ puts recovery at the heart of drug treatment. To this end the Department of Health is trialling payment for outcomes with eight Payment by Results (PbR) pilots launched in March 2012. There is already a government commitment to change how services are funded. We believe that social investment can be used to pay for new services that will help more people recover and help lead existing services to increase their focus on long term sustainable recovery from addiction.

9 Social Finance conducted over 50 structured interviews with service users and service providers in 2011. This view represents the understanding of the treatment system from front line workers and is not reflective of how the treatment system is supposed to function.

10 Department of Health, Final Outcomes Definitions, (2011).

11 For these purposes, 'core services' include interventions that specifically focus on addiction treatment such as: psycho social, medical and prescribing treatments; as well as some harm reduction provisions.

12 25% increase in real terms (accounting for inflation) from £512M in 2005 to £731M in 2010. Sources: UK Focal Point Report 2005, UK Focal Point Report 2010

13 Home Office, *Reducing demand, restricting supply, building recovery: supporting people to live a drug-free life* (2010)

WHAT COULD THE SOLUTION LOOK LIKE?

William White described recovery in the following terms:¹⁴

Recovery involves three critical elements: sobriety (abstinence from alcohol; substances and unprescribed substances); improvement in global health (physical, emotional, relational and ontological – life meaning and purpose) and; citizenship (positive participation in and contribution to communal life).

The UK Drug Policy Commission (UKDPC) provides another definition of recovery as:^{15,16}

Voluntarily-sustained control over substance use which maximises health and wellbeing and participation in the rights, roles and responsibilities of society.

Both definitions emphasise the participation in – and contribution to – society. In short, recovery is about getting your life back on track. Recovery is hard and each success story is unique. There are excellent programmes that give people a positive support network, guidance and help to rebuild family relationships, many of them funded on a small scale.¹⁷ This individual support has the potential to yield huge social benefits, but there are not sufficient resources to fund it on a wider scale.

It is estimated that more than half of those who develop a chronic addiction recover within their lifetime.¹⁸ Many providers know that their services work to support people in achieving and maintaining recovery. Social investors are looking to fund a range of services to help more people achieve sustained recovery.

We propose to do this by measuring not just treatment progress but *life* progress; and measuring this recovery for two years, **alongside treatment progress**.¹⁹ Currently, when a person completes treatment for their addiction their case is closed. Any future relapse is likely to take

14 White, W. (2009). Peer-based addiction recovery support: History, theory, practice, and scientific evaluation. Chicago, IL: Great Lakes Addiction Technology Transfer Centre and Philadelphia Department of Behavioural Health and Mental Retardation Services, p.16.

15 UKDPC Consensus Group, 2007, p. 6

16 UKDPC also emphasise the idea of recovery as a process.

17 Moving Parents and Children Together, Templeton & Boon, Mental Health Research and Development Unit, Bath University (2008); Results of evaluation of RAPt drug treatment programme, Martin, Player & Liriano, Home Office Research Study 267 (2003).

18 Dennis & Scott (2007), "Managing Addiction as a Chronic Condition", *Addiction Science & Clinical Practice*.

19 Based on a range of sources, it is felt that two years following entry into treatment is an appropriate length of time to assess progress.

place without supervision. By measuring progress (and relapse) after treatment, we hope to provide the support needed for more people to sustain a long term recovery from their addiction.

HOW WOULD A SOCIAL IMPACT BOND SUPPORT THIS?

Social Impact Bonds (SIB) could provide extra funding for these new services to supplement, rather than replace, existing budgets. In so doing, social investment could fund the scaling of the most effective services, helping to increase the number of people who recover earlier in life. If structured well, social investment could catalyse an improvement in recovery outcomes, by providing new funding and aligning financial rewards with the social goals of treatment. The social outcomes proposed in this report have been selected to reflect positive steps on the journey to recovery. By focusing on recovery, a SIB contract could send a strong message that this group is worth investing in for the future. By building on best practice, filling service gaps and fostering innovation, SIBs can encourage an approach to service delivery that is focused on sustainable social results. The funding mechanism means financial rewards are gained only if better social outcomes are achieved. Furthermore, the funding is long term, encouraging forward planning and a learning approach to management.

WHO BENEFITS?

Service users benefit from improved outcomes. The SIB will fill the current gaps in provision and create a more coherent, joined-up service that gives service users the best possible chance of achieving recovery from substance addiction.

Commissioners could benefit in two ways: the chance to save money (as a result of improved behaviour from those helped to recover from addiction) and the chance to test new services and only pay if they are successful. More users leaving treatment successfully free from dependence – and remaining free from dependence – will reduce treatment costs for local authorities. Central government departments also benefit through reduced crime (Ministry of Justice) and reduced benefit claims (Department for Work and Pensions) amongst other savings. The performance of such services can be hugely variable and there is significant implementation risk when testing new delivery


models. Under a SIB, government can transfer this risk to investors who will lose their money if the services fail to deliver positive outcomes.

Service providers benefit because the risk is transferred to investors. Under a SIB, a significant proportion of payment is for outcomes rather than outputs – the contracting party bears the risk that outcomes are achieved. Risk capital is needed to fund the delivery of recovery services at scale to transfer the risk from both government and voluntary and community sector (VCS) providers. SIBs also allow smaller providers to take part in Payment by Results²⁰ (PbR) contracts because there is not the same strain on an organisation's cash reserves. Under PbR there is a lag time between the costs expended on providing the service and getting paid for the results. This time lag can preclude small providers from competing for PbR contracts because they simply don't have enough money in the bank to fund their services before getting paid for them. In a SIB, investors take the strain on their funds, sheltering service providers from this problem.

Investors will get the chance to use their money to improve society. There is significant interest in funding programmes that have a tangible impact on some of the most chaotic, and most forgotten, members of society but very few opportunities to do so.

Finally, **society** as a whole benefits for a host of reasons. Less crime means fewer victims of crime. The rehabilitation of drug-using offenders means that they no longer have a costly habit to fund. Alongside this, education, training and employment programmes funded through a SIB mean that service users can move towards a productive new life that is free from benefits and contributes positively to society.

²⁰ Payment by results is a commissioning structure in which providers receive payment for providing services if and only if they achieve specified outcomes agreed before the start of service delivery.



GOVERNMENT SPENDS APPROXIMATELY £1.1 BN A YEAR ON DRUG TREATMENT ALONGSIDE MONEY THAT GOES TO FIGHT DRUG-RELATED CRIME AND PROVIDE EMPLOYMENT AND HOUSING BENEFITS.

3 What to measure

Socially motivated investors want to enable more people to permanently beat their addiction. Therefore, it is crucial to understand what long term recovery looks like. There are many aspects to recovery but we have focused on five which we consider to be central.

Desired Outcome	What is happening today?
Reduced use of problem drugs and/or dependent drinking	<p>Approximately 25% of adults in England misuse alcohol, with 3.6% being classed as dependent on alcohol.^{21,22} The prevalence of drug dependence has been estimated at around 3%²³ (with around 1% of the population dependent on heroin or crack cocaine at any time).</p> <p>In 2010/11, 43%²⁴ of drug misusers were discharged from treatment drug free from addiction – a proportion in line with findings from the two national drug treatment trials. However, a significant portion of those relapse and return to treatment.²⁵</p>
Reduced criminal behaviour	<p>55% of offenders link their offending to their drug problem.²⁶</p> <p>73% of Opiate and Crack Users (OCUs) are likely to have committed a crime in the past year.²⁷</p>
Involvement in education, training or employment	<p>80% of OCUs may be claiming state benefits.²⁸</p> <p>Those not in education, employment or training (NEETs) are more likely to use drugs and to abuse alcohol: 71% of NEETs report using drugs compared with 47% of their peers.²⁹</p>

21 Drummond C *et al.* (2004) ANARP Alcohol Needs Assessment Research Project. Department of Health. Gateway Ref 5650.

22 NHS/ONS, *Statistics on Alcohol: England, 2011*, (May 2011)

23 *Adult Psychiatric Morbidity Survey in England 2007*, (January 2009)

24 Statistics from the National Drug Treatment Monitoring System (NDTMS) 1 April 2010– 31 March 2011 (October 2011)

25 In the case of one Drug & Alcohol Action Team that has worked with Social Finance, approximately a third of OCUs leaving treatment in a planned way return to treatment within one year

26 Prison Reform Trust, *Bromley Briefings Prison Factfile*, (Dec 2010)

27 Drug Treatment Outcome Research Study (DTORS), 2009

28 Population estimates of problematic drug users in England who access DWP benefits: A feasibility study (DWP Working Paper 2008)

29 New Philanthropy Capital, *Getting Back on Track*, (October 2009). Note: statistic relates to young people not all adults.

Desired Outcome	What is happening today?
Improved health and well-being (including better family relationships)	<p>43% of drug users reported lifetime contact with mental health services; 23% had previously been diagnosed with a mental health condition.³⁰</p> <p>There were 44,585 hospital admissions for drug-related mental health and behavioural disorders in 2009/10 (a rate of 86 per 100,000 population).³¹ In 2009/10, there were over one million alcohol-related admissions to hospital (an increase of 12% from 2008/09).³²</p> <p>62% of all children subject to care proceedings and 40% of children on the child protection register involved parental substance misuse.³³</p>
Stable housing	<p>Drug users are seven times more likely to be homeless than the rest of the UK population.³⁴</p> <p>Two in three homeless people cite drug or alcohol problems as the reason for first becoming homeless.³⁵</p>

METRICS

In order to underpin a contract that can be used to raise social investment, the metrics need to be the simplest way to reliably measure recovery. There are many facets to successful recovery and we believe that a combination of metrics is necessary to measure success and capture progress towards long-term recovery from addiction. Our research and analysis has led us to propose four outcome metrics.

In addition to these metrics, there are a number of desirable outcomes that represent crucial elements on the path to recovery. Without these, it would be difficult to achieve the ultimate outcomes detailed above. Such measures (e.g. achievement of stable housing) would be measured as key performance indicators to ensure progress was being made towards the desired outcomes.³⁶

30 Drug Treatment Outcomes research Study (DTORS), 2009

31 NHS/ONS, Statistics on Drug Misuse: England, 2010, (Jan 2011)

32 NHS/ONS, Statistics on Alcohol: England, 2011, (May 2011)

33 Hidden Harm, Home Office, 2006

34 Homeless Link, Survey of Needs and Provision (SNAP) 2010, (March 2010)

35 Crisis, Home and Dry?, (2002)

36 Further details on these metrics considered but not included within our proposed outcomes metrics are included below on page 32.

Desired Outcome	Metric
Reduced use of problem drugs and/or dependent drinking through to abstinence	Reduction through to abstinence ³⁷ in use of primary substance(s) of dependency (could include prescribed medications). Percentage of cohort abstinent from primary substance(s) of dependency (could include prescribed medications).
Reduced criminal behaviour	Reduction in the number of times members of the cohort were convicted of a crime.
Involvement in education, training or employment	Number of cohort achieving employment/ employment readiness measured through sustained voluntary or part time work.

There are concerns that, without the incentive to work with the most chaotic people, providers will focus on the “easy option” and leave people on substitute medications for an extended time frame without prioritising continued progress. The proposed measurement approach has been developed from a perspective that recovery entails more than the cessation of consumption and a combination of metrics is needed to reflect progress. The weighting between these metrics will be critical to ensure each of them is an appropriate incentive.

ALCOHOL

It should be noted that there are significant challenges around the measurement of alcohol use and the valuation of the outcomes in terms of cost to government. We firmly believe that achieving recovery for those suffering from alcohol dependence is of equal importance as achieving recovery from other drugs and the report is written in that spirit, having noted the issues around measurement and valuation.

³⁷ Throughout this report ‘abstinence’ is used to mean abstinent from the problem drug(s) for which the individual is seeking help, at presentation or as revised through treatment – not necessarily from all drugs and alcohol.

4 Development of the proposed outcome metrics

The metrics given below are the simplest way to reliably measure success. We have assessed the practicality of using these metrics in terms of:

- **Data source** – a robust data source that accurately measures the behaviour of service users
- **Data collection process** – feasible data collection that is not invasive
- **Independent verification** – measures that can be independently verified
- **Ease of measurement** – measures that are accurate and reflect genuine change
- **Precedent** – measures that have an evidence base of being effective

LEVELS OF MEASUREMENT

The metrics discussed in detail below will affect the individual, cohort and community.

The positives and negatives of each measurement method, alongside the way we propose to measure each of our metrics are shown overleaf.

Our aim is to encourage working with all cases, particularly those with the greatest needs. Within the context of recovery, paying for the success of each **individual** helps focus service providers on working towards the long term recovery of that person. By measuring against an individual's own behaviour at the start of treatment, we would reward incremental progress that represents distance travelled. We propose to measure the Substance Misuse Metric on this basis as it best captures the chaotic nature of addiction and the benefits of progress along the road to achieving abstinence.

Cohort measures look at the performance of the overall group and can be used to improve the average performance of all people being measured. With regards to criminal activity, a cohort measure will look at the number of convictions committed by the entire cohort of people and would focus on a reduction in the volume of crime that they committed. A cohort measure in this instance would target those with

Level of Measurement	Benefits	Drawbacks	Proposed Metrics
Individual	Measures success against an individual's baseline (performance at start of treatment) – represents distance travelled and rewards progress	Time-consuming and costly to measure everything on an individual basis Potentially intrusive for service users	Substance Misuse
Cohort	Measures performance of entire group and therefore creates incentive to have largest impact on the group as a whole (i.e. by working with the most chaotic individuals)	May mean that some of the less chaotic individuals are not focused on appropriately	Abstinence Offending Employment
Community	Encourages working to address overall problem in area, not just those within cohort Encourages outreach to find new people within the area to help	Difficult to guarantee attribution – results are influenced by external factors, many of which are likely to be outside the control of those delivering services	None of our proposed metrics would be measured in this way

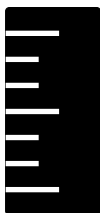
the highest volume of offences – the less crime they commit, the greater the reduction in the overall average offending behaviour across the whole group of people. We propose to measure Abstinence, Offending and Employment on this basis to ensure a focus on the greatest reduction across an entire cohort of people.

One potential drawback of cohort measures is that they may mean that some of the less chaotic individuals are not focused on appropriately. We have sought to address this drawback for each of our proposed metrics. The danger of leaving out chaotic individuals who are unlikely to achieve abstinence quickly is removed by the Substance Misuse Metric which rewards individual progress of reduced drug use against a personal baseline. The Offending Metric is measured on a frequency basis which removes the incentive to ignore chaotic cases since these will be the greatest causes of reconvictions. The Employment Metric stands as an end goal of recovery and has the interim measure of employment readiness to prevent focusing only on those closest to employment.

Measuring the performance of all those living in a community widens the focus beyond the identified members of the target population. This can be used to create an incentive to look at drug users who are not yet identified and try to engage others who might need services but are not currently receiving them. This form of measurement would encourage continual improvement to identify and work with new people not currently accessing services. While this is a laudable aim, it is important to reward services for good outcomes that can be attributed to their work. Measuring an entire community might fail to do that, as there are many external factors that could lead to a change in outcomes that was beyond the control of these services. We will now discuss the operation of each of the four proposed outcome metrics in more detail.

SUBSTANCE MISUSE METRIC

We propose measuring the reduction in the frequency of drug use of the individual's primary substance(s) of dependency in the 28 days before measurement. Payment will be tied to progress against the individual's baseline, with the ultimate goal being abstinence. Measuring progress encourages working with someone over the long term, reinforcing good clinical practice by rewarding movement towards the ultimate goal for each client, while also recognising that recovering from addiction is a process that takes time.



Metric: Reduction through to abstinence in use of primary substance(s) of dependency (could include prescribed medications)

Timing of measurement: Biological test and self-report at start of treatment and at 3, 6, 12, 18 and 24 months

Baseline: Compared to the individual's frequency of drug use taken at start of treatment

The percentage reduction that constitutes success is outside the scope of this report. Our current hypothesis is that a payment would be allocated at an individual level within a tiered structure as follows:

- 1 **“Getting better”** – evidence of a statistically reliable reduction in frequency of use relative to the individual's baseline level of use at treatment entry.
- 2 **“Even better”** – evidence of a statistically reliable reduction in frequency of use from the last measurement appointment.

The final stage is measured as part of the Abstinence Metric:

- 3 **“Abstinent”** – meaning the achievement of a verified self report of zero use of primary substance(s) of dependency. Our proposal is that this is covered by the Abstinence Metric on a cohort level rather than the Substance Misuse Metric. One reason for favouring the cohort measurement is that it incentivises working with the entire cohort to achieve the best overall result. In this instance cohort measurement also has a practical advantage: it can be calculated using a representative sample whereas the individual measurement requires following up all abstinent individuals (who may prefer to leave their drug taking past behind them). In clinical trials, follow-up rates rarely reach above 75%;³⁸ if a 75% follow up rate is achieved the individual measure would lead to a reduction in payment of up to 25% based on the potentially abstinent individuals who have moved on and are not followed up.

Each client will be measured at an assessment appointment at which an individual will identify the number of days in which they used drugs and/or alcohol in the last 28 days. These will then be verified by biological testing.

³⁸ See “Participation and Measurement” on page 37.

As an example, each assessment appointment could trigger zero rewards (no improvement from baseline), one reward (improvement relative to the baseline), two rewards (improvement relative to the baseline and improvement relative the previous assessment of usage), or three rewards (above improvements in addition to the contribution towards the Abstinence Metric).

Payments 1 and 2 (described above) aim to incentivise continuing improvement. It is recognised that a treatment journey is not linear, but an ongoing process. It is important to offer incentives to work with people who are committed to reducing their substance use. The relative weighting of the rewards is outside the scope of this report but would be designed to encourage a reduction in usage through to abstinence.

Reliability scores would be calculated using the Reliable Change Index.³⁹ The Reliable Change Index has been found to be the optimal statistical technique in drug treatment trials to ensure the level of change assessed is not a result of regression to the mean, or more generally, due to statistical tendencies when working with large sample sizes.⁴⁰ In this way, both government and investors can be confident that the improvements reported are not over-estimated. The level of tariff for these reductions would be worked out after constructing a baseline during the six month data collection phase proposed in this report. To make this payment mechanism more capital efficient (i.e. rewards received as soon as outcomes can be verified), payments should be made once test results have been collected.

The primary drug(s) may be defined both by the service user and clinical assessment at intake, and would be open to revision throughout treatment. The primary substance of dependency could include prescribed methadone as some substance misusers will present with methadone as their primary problem substance. Those with a diagnosis of dependence on multiple substances and who wish for assistance with these drugs at intake could be included for multiple measures.

39 Jacobson N. S., Truax P. Clinical significance: a statistical approach to defining meaningful change in psychotherapy research. *J Consult Clin Psychol* 1991; 59: 12-19.

40 Marsden *et al* (2010) How to best measure change in evaluations of treatment for substance use disorders. *Addiction*, 106, 294-302.

DATA SOURCE

Self reports are already embedded within clinical practice through the Treatment Outcomes Profile (TOP). Data would be collected through self-report questionnaires TOP, with at minimum, reports of abstinence verified by biological tests (random or routine testing being integrated into clinical care, if feasible).

The TOP is a clinical assessment tool which is authorised for treatment planning and review and is already integrated into the treatment system. It includes a measure of both quantity and frequency of drug use over the preceding month. The TOP is carried out in one-to-one interviews between the service user and a keyworker. For more information on the TOP please see the Technical Appendices to this report. It should be noted that changes in quantity of use do not lend themselves to as robust a statistical assessment as frequency of use. This is because there are no fixed limits to the range of numbers which can be recorded. Frequency in terms of number of days in which substance use occurred can be fixed to the preceding month; whereas number of units consumed would show exceptionally high variability. Variations in the types of units which can be reported such as pills, grams or lines add further variability. Despite this, it is recommended that this data be recorded since a reduction in quantity of drugs used is an important improvement that should be monitored as part of good clinical practice and can inform wider evaluation.

We propose taking a biological test sample *for all clients* and then testing self-reports of abstinence. An alternative mechanism is to conduct a sub-trial of biological screens to find the percentage of positive tests for those still in treatment. The tests need to be randomised or, alternatively, routinely implemented during service visits, to reduce the opportunity for gaming the system. Gaming can occur by organising tests on days/times when the individual is less likely to test positive or warning the client of the test date in advance. This alternative has not been recommended as the best method because it would be unfeasible to conduct a random screening schedule after an individual has left treatment.



THE RECOMMENDED
METRICS AIM TO CAPTURE
SIMPLY AND RELIABLY
WHAT IT MEANS TO
ACHIEVE RECOVERY.

DATA COLLECTION PROCESS

TOP data is collected at a national level in England as part of service level contracts and recorded on the National Drug Treatment Monitoring System (NDTMS). Treatment providers are familiar with collecting and using this data. Self-reported information alone would not provide sufficient confidence as both service users' inaccurate reports and service providers' leading questioning has the *potential* to affect the accuracy of the data. There is an increased risk of inaccurate self-report when payment is attached to this data. We cannot presume that historic accuracy would be a predictor of future data quality if the data is being used for a different purpose.

Biological testing

Biological testing requires the consent of the individual and monitoring the full cohort for two years post treatment which may not be possible. Substance misuse treatment trials document a loss of participation over time and we would expect some level of drop-out. It may be possible to increase service users' continued participation in the measurement programme through the provision of an incentive or reward for participation.⁴¹ This is commonly carried out in drug treatment trials and the use of small incentives has been found to be relatively innocuous in research.⁴²

Biological testing is often used to evaluate the validity of self-reported drug use, and drug treatment trials have shown excellent rates of concordance – the threat of having a self-report validated by another test that is perceived to be more reliable produces self-reports with good levels of accuracy.⁴³ The biological test would act as an audit of these reports, confirming their validity and thereby payments associated with them. The biological tests could be carried out through independent assessment or by treatment providers.

It is important to make sure that clients are tested in the context of a treatment process and it would be inappropriate to expect recovery services to conduct these tests. SIB testing requires consent of

41 It would be important to communicate that a positive test would not hold negative consequences for the individual and would be used to help bring the individual back into treatment should that be required.

42 Grant R & Sugarman J (2004) *Journal of Medicine and Philosophy*, 29(6): 717-738, (2004)

43 National Treatment Outcome Research Study (NTORS) data

individuals, particularly because the test is not used for a clinical or diagnostic reason. If individuals refused to give consent then it would be prudent to assume there has been no improvement on this metric. A biological audit of a self-report is not a watertight metric but is the best available method to test for substance use.

Biological testing mechanisms should be used with caution to ensure that they are ethical and acceptable for clients:

- * **Ethical** – a non-clinical test that is used to trigger payment of social investors must survive ethical scrutiny to demonstrate that it is not exploitative. This payment mechanism is the basis of a SIB contract to bring additional investment to fund recovery services which will ultimately benefit the people being tested. Since individuals can opt out of testing, we believe that there are no ethical reasons to prevent biological testing being used for these purposes.
- * **Acceptable for clients** – biological testing requires a sample of, for example, urine, saliva, breath or blood from participants and will necessitate a testing procedure that may be seen as more invasive than completing a TOP alone. In order to mitigate this, we would require consent from all participants. No payment can be claimed on the Substance Misuse or Abstinence Metrics for individuals that withhold consent from biological testing (since their self report will be unverifiable). To maximise participation we will seek a biological testing method that is acceptable to clients and consider the use of incentives to encourage continued participation.⁴⁴

The advantages and disadvantages of potential biological measures are included in the Technical Appendices to this report. Urine, breath and blood tests are the most widely used and evidenced. Urine tests are easy to obtain and analyse, cheap to administer and not invasive, as are breathalyser tests for alcohol, with the additional drawback that they only provide a measure of current blood alcohol content. Blood tests are more invasive and require special training from the individual administering the test although they have less scope for adulteration compared to urine testing and may be able to paint a broader picture of alcohol use than a breathalyser. All are commonly used in clinical trials and have been validated. Urine and breath tests are the two favoured

⁴⁴ These issues will be explored during the 6 month data collection phase described on page 39.

biological measures in the SIB context since they are considered the most reliable and least invasive.⁴⁵

Saliva testing is a promising testing method gaining in popularity due to its less invasive nature. However it is not as well researched as other biological measures. We propose that saliva and urine be used during a six month data collection phase to test clients' reaction to the different methods – saliva testing being easier to administer – and to test the validity and reliability of saliva testing. The six month data collection period would determine which method has the best operational results as well as the best measurement results.

In addition, we recommend that sample collection be carried out routinely for all clients at the proposed times but that samples should only be tested if the client self-reports abstinence. If the client reports recent drug use, sending the sample for testing would be unnecessary and costly as a test would only confirm recent usage (and not the total number of days used nor amount consumed) and would therefore provide no additional information. Maintaining an expectation that all clients take the test would be best practice and avoid the need for a tester to “accuse” an individual should a test be required.

Whilst the principle for measuring alcohol use is the same, it should be noted that the only measure deemed appropriate for verification in the context of a SIB is breath testing. This has the significant drawback of being easily gamed through avoiding consumption in the period immediately prior to the breath test. Whilst this measure can be gamed, it will still provide additional comfort to investors as it adds an extra layer of testing above the quantity/frequency section of the TOP questionnaire, albeit potentially less robust than blood testing for associated indicators such as carbohydrate-deficient transferrin (CDT).⁴⁶

Urine drug screens and, in some circumstances, breathalyser and blood testing in association with primary alcohol use may be carried out as a matter of course while service users are receiving treatment. However, it is more difficult to implement the use of biological screening when service users leave treatment.

45 For further details on the relative reliability of different biological testing methods please refer to Appendix 6a.

46 A potential addition could be to use a standardised screen for severity of dependence, such as one for alcohol dependence specifically, such as the SADQ, or Leeds Dependency Questionnaire (LDQ) for drugs and alcohol (See Appendix 6b for a review of measurement tools).

For considerations about participation in follow-up measurement more generally, please see the Technical Appendices to this report.

INDEPENDENT VERIFICATION

It may be possible to manipulate the test results to show an artificially low level of drug use; for example, biological tests can only record substance use within a specific time period, thus the individual may theoretically abstain from use in the days prior to testing. A full list of time periods for each substance is provided in the Technical Appendices to this report. However, this is not deemed a significant risk and could be mitigated through random testing and/or by considering any missed testing appointment as a positive test.

To minimise the risk of gaming, the questionnaire and biological tests could be carried out by an independent entity that is separate from the treatment provider. However, if this is not feasible, or deemed not required, service users could theoretically complete their TOP questionnaires by themselves to ensure questions are not asked in a leading way – whether consciously or subconsciously. As the TOP was not designed or validated for self-completion however, this is not the preferred scenario. Furthermore, we recommend that advice is sought from the processing laboratory on chain of custody requirements and guidelines for sample collection in order to minimise the risk of collecting impure samples. Random screening of urine samples within the lab could alternatively – or, in addition – be carried out to test for sample adulteration as a gentler option.

EASE OF MEASUREMENT

The baseline would be constructed using the individuals data from a self-report and individual data taken at the start of treatment. This could be further verified from an intake clinical interview which will establish the frequency of use.

This report has been written to evaluate the simplest payment mechanism that reliably captures success. As such, the cost of measurement has been considered as a matter of secondary importance.

PRECEDENT

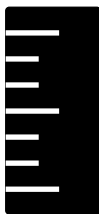
The TOP is well-established, having been used in NDTMS for a number of years. Generally, a number of tools containing frequency questions are available and widely utilised in research and clinical practice. Biological indicators have been used in both national trials to verify self-report data. With regards to alcohol, quantity-frequency measures were taken in both National Treatment Outcome Research Study (NTORS) and Drugs Treatment Outcome Research Study (DTORS) trials⁴⁷ and are routinely utilised in treatment and research.

CONCLUSION

A combination of self-reported data and biological testing will create a robust, practical metric. Biological testing is recommended, at least initially to ensure the accuracy of the self-report of abstinence in the context of potential gaming, despite being more invasive and costly.

ABSTINENCE METRIC

We propose measuring the percentage of the target population who achieve abstinence from their primary drug(s) of dependency. The aim is to incentivise the goal of abstinence, while recognising that recovery takes time and there may be a number of relapses.



Metric Percentage of cohort abstinent from primary substance(s) of dependency (could include prescribed medications)

Timing of measurement Biological test and self-report at start of treatment and at 3, 6, 12, 18 and 24 months

Baseline Compared to historical baseline for a group with similar usage / treatment history

⁴⁷ For principal comparisons of alcohol use one must look to the UKATT Alcohol treatment trial. This trial used Form 90 to calculate alcohol consumption through analysis of drinks per drinking day and days abstinent alongside measures for dependence (the Leeds Dependence Questionnaire and Alcohol Problems Questionnaire).

DATA SOURCE

This metric can be collected using self-reported data verified by biological testing as in the Substance Misuse metric above.

DATA COLLECTION PROCESS

The individual achievements will be considered in aggregate to understand the percentage of the cohort that has achieved abstinence. Cohort measurement is more practical considering that abstinence is a long term goal and follow-up is more difficult as individuals move further away from treatment.

INDEPENDENT VERIFICATION

The data source, data collection and independent verification for this measure would be the same as for the substance misuse measure above and thus the same operational considerations apply. Biological audits are particularly important for testing for abstinence as they capture recent substance misuse to a robust degree.

EASE OF MEASUREMENT

Biological tests measure the presence or absence of a target substance within the system of the user. Therefore, abstinence can be easily and confidently measured for the time period that the substance stays within the system of the user. However, for many substances, these windows are relatively short and so the test cannot accurately measure abstinence for a period of months. The self-report element is important as a supplement because it also measures frequency. This is clearly important because abstinence is only achieved when the frequency is zero.

PRECEDENT

As above, the TOP and particularly the frequency questions contained within are well-established. Studies using the TOP measure reduction through to abstinence.

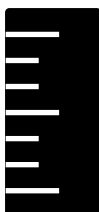
CONCLUSION

It is necessary to include an Abstinence Metric to ensure investors are focused on the ultimate goal of recovery as freedom from dependency.

OFFENDING METRIC

We propose measuring the reduction in the total number of reconviction events achieved by the cohort in the two years post treatment intake.⁴⁸ If a binary measure (such as the number who reoffend) was used, it would not incentivise service providers to work with the most chaotic individuals. If an individual has committed multiple offences in the period prior to entering a SIB programme, it is extremely unlikely that this offending would reduce to zero. However, it is likely that progress would be made towards the end goal of a total cessation of offending – and this should be rewarded.

By using a frequency of conviction measure, each reconviction event avoided generates a success payment. Therefore, reducing the number of offences of a particular chaotic individual from ten to five generates five outcome payments and incentivises providers to work with those who need help most. This will incentivise service providers to work with users to beat their addiction (the cause of criminal behaviour) and break the cycle of reoffending. The average proven reoffending rate of drug-using offenders is 57% in the 12 months following identification within a Home Office study.⁴⁹



Metric: Reduction in reconviction events

Timing of measurement: Measured for two years from the start of treatment⁴⁹

Baseline: Police National Computer (PNC) comparison cohort, or potentially, aggregated Offender Group Reconviction Scale (OGRS) scores⁵⁰

48 Measuring offending behaviour over 1 year is standard practice, as is the case in the Peterborough SIB. However since the rationale of this SIB is that the intervention has longer lasting effects, we propose measuring over 2 years. This takes into account the nature of individuals re-entering the treatment system multiple times – the incentive to continue to work to reduce reoffending should remain over the full 2 year measurement period (as with the other metrics).

49 Home Office, Drug-misusing offenders: results from the 2009 cohort for England and Wales, (2011). The average number of convictions for those identified through both a positive drug test and by a CARAT team for further intervention on release from prison was 5.59 over 12 months.

50 Only offences committed after entering treatment are considered, offences committed before treatment for which the individual is subsequently convicted during the measurement period are discounted.

51 OGRS scores have not been validated in a substance misuse context

DATA SOURCE

The Police National Computer (PNC) records all reported crimes in the UK.⁵² Reconviction events are the events when an offender is convicted of offence(s) in court. This data is recorded on the PNC after the court conviction.

In this instance, measuring the number of reconviction events (a frequency of offending measure) is considered preferable to measuring whether or not a service users offends in a given time period (a binary measure of offending). A frequency metric incentivises working with the most prolific offenders who commit the majority of crime.

DATA COLLECTION PROCESS

PNC data on reconvictions is already collected as standard and no extra data needs to be collected at source. A time period of two years would require two one-year data drawdowns as the PNC data is collected annually by the Ministry of Justice (MoJ).

INDEPENDENT VERIFICATION

This data can be verified by an independent third party, as it is for the SIB in Peterborough.

EASE OF MEASUREMENT

The PNC data provides number of reconviction events for the cohort.

PRECEDENT

The SIB in Peterborough is a good precedent as it uses the same measure; this demonstrates that both government and investors believe that this metric accurately captures success in this area.

CONCLUSION

Reduction in reconviction events is an existing SIB metric and should be included to incentivise reduction in crime alongside reduction in drug use.

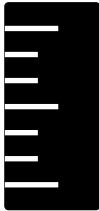
⁵² Crimes committed outside the UK are not included in the data. In the SIB in Peterborough a matched cohort is used so that overall levels of migration are accounted for.

“WE GET PAID ON STATISTICS BUT THEY’RE THE WRONG ONES... PEOPLE ARE SENT ALL OVER THE PLACE JUST TO FILL PROGRAMMES AND CLASSES. WE CAN’T LET SOMEONE GO AFTER 8 WEEKS [OF TREATMENT] IF THEY’RE DOING FINE BECAUSE THE TARGET IS 12 WEEKS. IT’S A SYSTEM SET UP FOR WORKERS NOT FOR CLIENTS.”

Interviewee

EMPLOYMENT METRIC

We propose a metric that provides a reward for achieving full time employment as well as promoting employment readiness through a smaller incentive payment. The reason for this is that employment readiness could be a more realistic goal for many of the cohort but the ultimate goal should remain full time employment. The metric is intended to capture distance travelled on the way towards full time employment, creating the right incentive structure to promote employment for the group and ensuring that all members of the cohort are targeted, as all could achieve employment-readiness, if not actual employment.



Metric: Number of cohort achieving employment / employment-readiness measured through sustained voluntary or part time work

Timing of measurement: Measured for two years from start of treatment⁵³

Baseline: Measured against an individual's personal performance

This metric would mirror the outcome measurement being carried out by the Work Programme run by the Department of Work and Pensions. The Work Programme involves working with all those claiming Job Seekers' Allowance and Incapacity Benefits, including a significant number with a substance addiction. An individual in treatment or recovery is eligible for Work Programme support – and the provider can claim an additional payment of approximately £2,000 on top of existing success payments – if the individual identifies himself or herself at the Job Centre as someone who has had treatment for a substance addiction, at which point they are categorised as a disadvantaged individual. Such an admission may be difficult, particularly as former substance users often face stigma from employers due to their past even though they may be in recovery.⁵⁴

The second part of the proposed metric will reward employment readiness which is a significant step towards full time employment which we recognise will be difficult for many of those in the SIB

⁵³ For further details please see Appendix 8.

⁵⁴ In fact, there is a growing acceptance that going through the challenge of successfully fighting an addiction provides many of the skills that employers seek.

cohort to achieve within a two year timeframe. The best measure for employment readiness is sustained part time or voluntary work rather than the completion of training courses (which is an output rather than an outcome). This metric would pay for achievement of sustained part time or voluntary work. Whilst there could be value in separating part time work from voluntary work to create a more subtle metric there is no objective data source for part time employment. Therefore we do not recommend separating part time work from the employment readiness measure.

DATA SOURCE

The Work Programme uses HMRC tax collection information to verify records submitted by individual service providers that determine outcomes payments. A similar process could be implemented for a recovery SIB. The data is analysed in conjunction with a DWP information system that monitors current benefit claimants to generate outcome payments. DWP is able to perform in-house analysis that checks the employment benefit status of names submitted to ensure that all newly employed individuals have moved off employment benefits. Such a report would comply with data restrictions and provide a good level of confidence that an employment outcome had been achieved.

It should be noted that HMRC data does not cover self-employed and some low earners and therefore is not a full record for all those in employment. It may be useful in assessing changes in employment patterns of cohorts but should not be used to track individuals' employment patterns. Furthermore, HMRC data held by DWP does not contain complete or reliable earnings information or details of hours worked. This metric is therefore restricted by the available data.

For the employment readiness measure the data source would be a self-report of the individual checked by phone call from an independent assessor to the employer (this could be a random sample if the number of checks required is prohibitively large). This does not involve any verification from DWP.

DATA COLLECTION PROCESS

The data collection process for the full time employment measure would be carried out by the DWP and HMRC analytical teams and would be based on benefit payments made and wage payments received

respectively. The collection of employment readiness would be through self-report and could be collected at the same time as the Substance Misuse Metric is assessed.

INDEPENDENT VERIFICATION

Employment data would be verified by DWP and could be further independently verified by an independent assessor. An independent assessor would be needed to audit the self-reports of voluntary work completion.

EASE OF MEASUREMENT

This process has been set up as part of the Work Programme. It should be noted that the employment measure is intended as an end goal and it is not expected that a high proportion of service users will achieve this within the framework of a SIB. Yet it is appropriate to incentivise the journey towards employment in order to drive education, training, interview preparation and voluntary work so that service users (and service providers) focus on the end goal of finding sustained employment.

PRECEDENT

This system is set up as part of the Work Programme and builds on previous welfare-to-work programmes such as the New Deal and Flexible New Deal.

CONCLUSION

The full time employment measure is relatively easy to track based on the binary nature of employment (a client either is or is not in work), and payments are earned based on sustained employment. The employment readiness measure is less robust but necessary to capture the distance travelled by service users on the pathway to employment. The metric should be possible to implement in practice as this exercise is already being carried out on a large scale as part of the Work Programme. In this instance, the matching of NDTMS and HMRC records would need to be considered to aid the measurement of this metric.

OTHER METRICS WORTHY OF CONSIDERATION

The following metrics are recognised as crucial elements in a person's long-term recovery from addiction. However, these metrics are difficult to objectively measure – and pay for – based on an independently verifiable data set. We would propose that progress against these metrics be measured as Key Performance Indicators and if performance against them falls, it would flag an issue with the quality of service provided. This will help to ensure the SIB service has the best possible chance of attaining long-term positive outcomes for the people who use it.

WELL-BEING METRIC

There is a potential risk that investors could “succeed” on the four metrics given above but that service users' well-being would be worse. We would recommend that a well-being metric be measured using a self-report questionnaire. This metric has not been analysed in detail as part of this report but we would suggest it covers a number of indicators, including: injecting behaviour; general and mental health; and social well-being (e.g. existence of support structures that benefit recovery, such as friends and family members who do not use drugs or alcohol).

STABLE HOUSING METRIC

We considered measuring the improvement in housing status achieved by each individual within the target population in the two years post treatment. However we do not feel that it can be measured in an objective way. Improvements in a person's housing situation are not always straightforward (e.g. maintaining a tenancy, living with a relative or friend who does not do drugs).

A good measure of stable accommodation could be the percentage of the target population claiming housing benefit. Receipt of housing benefit generally indicates a degree of permanence in housing, and usually represents an improvement above homelessness. However, individuals can come off housing benefit for positive reasons, they could have gained employment and become ineligible for housing benefit. Consequently, it will be assumed that someone in employment and not receiving housing benefit is still in stable accommodation. In short, many different housing options can be equally conducive to recovery, but hard to measure.

However, housing is a crucial aspect of supporting an individual's recovery, obtaining and remaining in stable accommodation represents a significant milestone. Maintaining a tenancy is not an easy task for some members of this client group and should therefore be recognised as success for those who achieve it.

ADDITIONAL METRICS CONSIDERED BUT NOT INCLUDED IN PROPOSED SIB PAYMENT MECHANISM

As part of this research, other measures were reviewed to understand whether they would be suitable to be included in a SIB contract as an outcome metric. A list of measures considered but ultimately excluded as contract metrics is detailed below. Our ambition is to develop the simplest payment mechanism that provides an incentive to achieve sustainable recovery for those with substance addiction. We only added metrics to the payment mechanism if we felt that they reflected a change not already captured.

RELAPSE RATE METRIC⁵⁵

A separate relapse rate metric could be developed using the existing National Drug Treatment Monitoring System (NDTMS) variable tracking discharge reason; however this would only capture a relapse in which someone actually discharges from treatment. As such, this metric would not capture relapses post-treatment, nor would it capture those occurrences where the individual does not discharge, but remains within the treatment system.

Furthermore, the proposed reduction in frequency of use through to abstinence already incentivises sustainable recovery as any lapse or relapse would be shown through an increase in number of days used. The addition of a relapse rate measure as defined by discharge reason would create no new incentive, as the incentive to reduce substance misuse to nil is already captured.

Another difficulty is the measurement of relapse. If measured by looking at those returning to treatment, there would be an incentive to ensure that service users do not seek the treatment they need. Re-presentation after lapse or relapse is a positive outcome, and should be viewed accordingly.

⁵⁵ Relapse rates are important in modelling population flow as there is a high chance that individuals leaving treatment, particularly OCU's, subsequently return to treatment.

There is value however in including a separate relapse rate measure, or rather an assessment of discharge reasons, both at the individual and cohort level. While this should not form part of the core SIB contract, monitoring this information is important in assuring quality of care. It should help identify when things have not gone well, whether trends are emerging, and in turn identify aspects of service provision which could be improved accordingly.

HEALTH SERVICE USE METRIC

If an individual has reduced the frequency of substance use, obtained employment and reduced their criminal activity, it is likely that they will have reduced the number of times they are admitted to hospital as a result of their use and that their health symptoms would have improved. Conversely, it may also mean that their visits to general health services, such as a GP or a dentist, have increased as they seek to look after their own general health. However, robust baseline information on healthcare service use post drug treatment could not be identified.

It therefore is recommended that the number of drug-related health presentations of the target population is measured to understand their behaviour in more detail, but not as a payment metric. In designing a payment metric, additional measures should not be included unless they add something to the overall package. It is felt that a health services use metric is covered sufficiently well by the other metrics.

One way of measuring health is through hospital episode statistics (HES), which are collected as standard. It is then possible to evaluate how many hospital episode admissions were recorded with a drug-related diagnosis in a given period. (see the Technical Appendices to this report for a discussion of the HES and diagnosis categories).⁵⁶ The data is then collated and it is possible to ascertain the number of drug-related admissions in a given period. (An alternative would be a self-report measurement or standardised assessment of health symptoms).

HES data is collected as part of a national database and has been validated. There are no significant difficulties in collecting this data, and the data itself is audited at the national level. A decision will need

⁵⁶ It should be noted that HES data relies on diagnosis categories and not all drug related presentations will get coded as such. In turn, not all presentations by this client group will be drug related.

to be taken on whether such data are to be sought on a cohort level (individually matched) or a community level, where the data is not matched and will reflect all relevant presentations at a hospital or region. While the latter is easily accessible, the former is subject to ethical considerations and approvals from relevant organisations.

CHILDREN IN CARE METRIC

It is felt that the major elements of recovery are captured by the proposed outcome metrics. Children being taken into care as a result of drug-using parents is a behaviour that the SIB aims to tackle but this would likely be monitored alongside the outcome metrics.

This is a hugely complex area of measurement that requires a significant amount of resource to pinpoint the impact in such a way that it could form part of a SIB contract. For example, simply measuring whether a child was in care or not creates perverse incentives – if this is a metric with a success payment attached – as service providers may be tempted to keep children out of care when it might be the best available option for that child.

However, to measure the effect of the intervention in the simplest terms possible, it is recommended that the SIB tracks the progress of the target population and identifies whether there is a change in the number of children in care during the SIB intervention period, but that this is not tied to the payment metric.

OVERALL DRUG USE IN COMMUNITY METRIC

As part of this investigation, a number of ways to measure overall drug use in a target area were discussed. One way considered involved measuring the content of drugs in the waste water system.⁵⁷ This approach arose from studies to document the impact that prescription medications and their residues may have on the environment in the 1990s and evaluating the related effectiveness of wastewater treatment systems. In 2001, Daughton⁵⁸ put forward that these methods can measure the level of illicit drug consumption in a community. Teams across several countries in Europe and beyond have been exploring

⁵⁷ An emerging area of research loosely termed “sewage epidemiology”.

⁵⁸ Daughton CG. In: Daughton CG, Jones-Lepp TL, editors. Pharmaceuticals and personal care products in the environment, scientific and regulatory issues. Washington: American Chemical Society; 2001. p. 348–64.

the technology and techniques to measure levels of drug consumption through the sampling of wastewater.

As this is such a new area of research, there are outstanding questions of both a technical and ethical nature. As processes become more standardised and issues in quantification are worked out, it certainly poses an interesting addition to standard methods for measuring drug consumption across a community.

HEPATITIS B VACCINATION METRIC

Measuring the percentage of the cohort who have received a Hepatitis B Vaccination is an important way to mitigate future health problems for individuals who have experienced substance addiction and would certainly be monitored as part of a SIB intervention.

However, in a SIB context, this represents a process measure – the output of the work of service providers. It does not in itself represent successful recovery defined above. As a result, it is not recommended for inclusion in the SIB contract but would be measured as part of the overall evaluation.

5 Payment Mechanism

A payment mechanism is the system by which success is judged and paid for. This includes:

- The metrics that constitute success;
- The level of payments (“tariffs”) that will be paid if successful; and
- The timing of payments.

THE TARIFFS TO BE PAID IF SUCCESSFUL

This research study did not specifically cover setting a tariff for each outcome metric. However, we believe that any tariff should be paid on a staggered basis to reflect positive changes during a treatment journey. This would:

- Encourage a long term perspective on cases
- Provide a more capital efficient model (a model that returns investors’ money earlier, allowing this money to be recycled and reducing the up-front commitment)
- Discourage “parking” in treatment services of individuals by rewarding continual progress
- Reflect the increased difficulty of working with the most chaotic service users who are the highest cost to the state
- We would encourage a weighting between the metrics that reward success and do not simply reflect relative cost savings to government. This will help to incentivise *progress for the service provider, not just savings to government*. In the long run, positive progress for the service provider will benefit all parties

Good quality identification and triage would be an important part of setting differentiated tariffs. This will ensure that the difficulty of the case – and consequent tariff – is accurately identified. We considered various definitions of what makes a case more difficult but there is not currently sufficient information on which to make robust differentiation between clients. This is a complex problem and we recommend that it is worked out during an initial data collection phase.

TIMING OF PAYMENTS

Payments are structured to reflect the emphasis of treatment during the journey to recovery:

- At treatment entry, it is likely that a person will be heavily using drugs or alcohol. Initial treatment activities will focus primarily on a reduction of this use while preparing an individual to begin a life free from addiction (e.g. suitable accommodation). This aims to reflect current treatment progress.
- The National Treatment Outcome Research Study (NTORS)⁵⁹ showed that there is a significant reduction in use in the first year following treatment entry. After that, the degree of reduction in use decreased. This reduction is likely to happen relatively soon – and it should be paid for when it does occur.
- The “recovery” metrics (measuring abstinence, offending and employment) will likely be achieved as the treatment journey progresses. Given that way that these are measured (and verified), it will take longer to recognise whether success has been achieved and a payment is due.
- It is worth noting that these outcomes often reflect the largest gains for society but take longer to achieve – exactly the reason why we believe that social investment can be helpful. It will fund the up-front costs incurred by service providers for doing this work and allow them to concentrate on achieving success. They will not have to worry about incurring costs now for revenues that are dependent on future successes – and all the uncertainty that this creates – as it will be social investors whose money is at risk.

It is important that payments are made for successes that can reasonably be expected to be achieved. It would be difficult to pay a drug treatment provider only if their clients eventually got a job. Social investors aim to fund a range of services that help with different aspects of recovery and it is fair to judge (and pay for) their success on this basis. It remains more difficult to pay individual providers for a wide range of long-term outcomes. This could mean that such outcomes, those that we believe truly benefit society, remain more difficult to achieve. We believe that social investment could enable this to happen.

59 Gossop, Stewart, Marsden, *NTORS, 5 years on*, (2001)

6 Next steps

This is the first time that an exercise has been carried out to understand whether recovery from substance misuse can be measured and used to form the basis of a social investment contract. Our hypothesis represents initial thoughts but the development of such a contractual payment mechanism is an iterative process. We intend to test this hypothesis in practice and we expect our thinking to evolve as a result.

Having conducted a review of the outcomes metrics that form the basis of the contract, the operational model and the local environment would need to be investigated to assess the feasibility of a SIB in a specific circumstance.⁶⁰ The next phase of the SIB implementation is to consider questions relating to practical application of the SIB.


DATA COLLECTION PHASE

We propose collecting the data that would be required to baseline our metrics over a six month period in order to get an accurate picture of the current outcomes. The purpose of this data collection phase would be:

- To provide a baseline for the Substance Misuse Metric by measuring the frequency of use at start of treatment and at three and six months
- To provide a baseline for the Abstinence Metric at start of treatment and at three and six months
- To determine the practical problems of matching NDTMS data to PNC data to test the operational feasibility of the Offending Metric
- To test the correlation between self-reports of employment status with the proposed data sets
- To test the popularity and accuracy of saliva and urine as biological testing methods

Providing a baseline for the Substance Use and Abstinence Metrics would improve confidence in attribution following SIB implementation. Further, the data collection phase would guard against two possible dangers that would inflate the severity of addiction: first, that individuals are likely to have reached a peak in terms of

⁶⁰ Operational considerations are outside the scope of this report.



THE METRICS ARE
DESIGNED TO REFLECT
AREAS WHERE SOCIAL
IMPACT CAN BE ACHIEVED

consumption immediately preceding treatment; and second, that the worker conducting the TOP might overstate the level of consumption. It is established that individuals present for treatment at times of crisis and so accurately capturing the frequency of usage in the 28 days prior to that first contact is important. If a TOP form is not completed immediately at the start of treatment then this can affect the baseline.

We propose measuring the above data for all individuals in the locality, testing the biological methods described below for effectiveness and accuracy. Following SIB implementation, ideal scientific method would require a control group in the same locality to conduct a randomised control trial. In the SIB setting, it is unethical to withhold services to a needy group on a random basis and is likely to be overly costly to collect data for a comparison group.⁶¹

61 There is potential to measure outcomes for a comparison group from a neighbouring region (at least with the in treatment database measures) for research purposes.

7 Conclusions

Drug and alcohol misuse results in harm to users, their families and their communities. A treatment system focused on outcomes that matter for users and society has the potential to dramatically reduce this harm and promote lasting recovery.

Drug treatment services are currently funded in a way that does not provide the right incentives for service providers. This has profound social consequences. We believe that the way drug treatment is paid for needs to change to more closely align financial incentives with the outcomes that matter for users and society.

The SIB model aims to align financial incentives with social benefit. We have proposed four metrics that could form the basis of a SIB contract, committing Government to pay for improved social outcomes. The metrics create reward for recovery, helping people permanently move off drugs and forward with their lives. The metrics are designed to drive the right behaviour and reflect the areas where social impact can be achieved.

The recommended metrics are a compromise between measuring all aspects of recovery for completeness and measuring a minimal amount for simplicity. We started by looking at all aspects of recovery but emerged with a model that retains only metrics that can be objectively measured through a robust data source. We propose four metrics that constitute the simplest way to measure recovery from addiction and capture the majority of the social benefit:

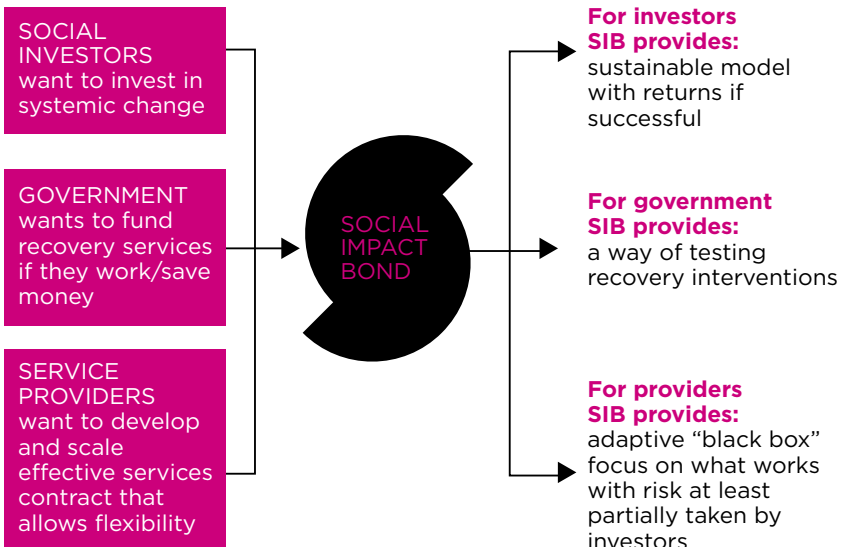
Desired Outcome	Metric
Reduced use of problem drugs and/or dependent drinking through to abstinence	Reduction through to abstinence ¹ in use of primary substance(s) of dependency (could include prescribed medications). Percentage of cohort abstinent from primary substance(s) of dependency (could include prescribed medications).
Reduced criminal behaviour	Reduction in the number of times members of the cohort were convicted of a crime.
Involvement in education, training or employment	Number of cohort achieving employment/employment readiness measured through sustained voluntary or part time work.

These metrics are deliberately focused on long-term treatment goals for those seeking help to beat addiction. It is hoped that paying for these outcomes would encourage a focus on an individual's journey through treatment and on towards re-integration in society. There are many other aspects of recovery that we would propose to measure, but these would be used as performance indicators and would use to inform service delivery to improve standards and spot weaknesses.

A Social Impact Bond to fund recovery services has the potential to transform recovery outcomes. Successful outcomes drive social impact whilst government benefits from cost savings. A recovery SIB would offer the opportunity to test a multi-outcome model which would be a significant development in the recovery from addiction.

This report represents our early thinking and is intended to provoke debate on how to catalyse recovery from addiction. It is not the finished answer but is the starting point of a longer discussion.

Our hypothesis is that it is possible to create a contract that is sufficiently robust for government, attractive for investors and acceptable for service providers who are given sufficient space to build recovery. We believe that this reports shows that such a contract is possible.



The next phase of work would be to move towards practical application from theoretical discussion. We have already identified issues relating to the practical application of a SIB and there are more that would be discovered with more detailed investigation. For example, we recognise the difficulty of setting the baseline to represent current performance and would propose a data collection phase of six months prior to implementation of SIB services. We intend to test our hypothesis in practice and expect our thinking to evolve as a result.



AUTHORS

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Sam is a Senior Researcher in the Addictions for the South London and Maudsley NHS Foundation Trust and the National Addiction Centre. She jointly serves as Addictions Advisor to The Pilgrim Trust and The JP Getty Jr Charitable Trust, assisting with their grant-making in the voluntary sector. Samantha's research interests include the strategic organisation and delivery of treatment services, including quality assurance, the health of health professionals and support for substance misuse in the workplace. Sam has co-authored reports commissioned by a number of governmental and healthcare organisations including the Department of Health, Department of Transport and the National Clinical Assessment Service, amongst others. She has an MSc in the Clinical & Public Health Aspects of Addiction and a PhD in Psychiatry (Addictions) from King's College London.

PROFESSOR JOHN STRANG

John is the Director of the National Addiction Centre (Institute of Psychiatry, King's College London) where he leads its multidisciplinary research activities including treatment studies, investigations of non-treatment samples, studies of overdose risk and analyses of public policy. He is also Academic Director of the Addictions Division of the South London and Maudsley NHS Foundation Trust, Head of the Addictions Clinical Academic group of King's Health Partners and a member of the EMCDDA Scientific Committee, specifically responsible for methodological issues. He has worked in the addictions field for over 30 years, in statutory and non-statutory settings, as trainee and trainer, as clinician as well as researcher, and in policy formation as well as practitioner capacity.

1 Dr. Gross is the primary academic contributor to this report

SOCIAL FINANCE

The Social Finance team worked with Professor Strang and Dr Gross to decide which outcome metrics were appropriate to include in a SIB contract and whether they would drive the right incentives to achieve recovery from substance addiction.

Emily Bolton

Emily is a Director at Social Finance having joined the team in November 2008. She leads Social Finance's work to create SIBs to reduce crime and offending. She is also leading the development of SIBs to improve recovery from drug and alcohol addiction. Emily led the development of the first Social Impact Bond in Peterborough. Prior to joining Social Finance, Emily worked for REDE, a venture philanthropy fund in San Francisco, and as a strategy consultant. Emily has a BA from Cambridge University and an MBA from Berkeley where she was a Haas Merit Scholar.

Peter Sebastian

Peter is an Associate Director at Social Finance and joined the team in September 2010. His work focuses on the application of SIB models in the substance misuse and employment sectors. Previously, Peter spent six years working in auditing and consulting roles at KPMG, most recently focussing on commercial due diligence and strategy consulting projects. Peter is a Chartered Accountant and has a BA from the University of York and an MA from Brown University in the United States.

Harry Hoare

Harry joined Social Finance in January 2011 as an Analyst. He works on SIB development in the fields of substance misuse treatment and criminal justice. Harry previously worked at the politics think-tank Demos conducting research in the Capabilities Project and the Families and Societies Project. Harry holds an MPhil in Political Theory and BA in Politics, Philosophy and Economics from Oriel College, Oxford. During his time at Oxford, he founded a business offering summer school courses and taught Political Theory at the University.

DECLARATION OF INTERESTS

John Strang and the National Addiction Centre

John Strang heads a university Addictions Department and also works within an NHS addictions treatment centre. He has historically and currently had working links with various third sector organisations providing both community and residential services, with a range of personal and institutional associations, including individually being on management committees, jointly providing interventions, and arranging institutional links for collaborative provision of services. John Strang also chaired the pan-UK working group preparing the 2007 Orange Guidelines for the UK Department of Health, providing guidance on management and treatment of drug dependence and misuse and the NICE CG51 Guideline on Psychosocial elements of treatment, and currently chairs the NTA Expert Group on medications and recovery.

John Strang has provided consultancy advice to various pharmaceutical companies which produce or are considering development of new products in the addiction treatment field; John Strang and John Strang's institution have received support and funding from the Department of Health (England) and National Treatment Agency (England) and from industry; and John Strang has close associations with the charity Action on Addiction and has received institutional support from this charity and from the John Paul Getty Jnr Charitable Trust and the Pilgrim Trust. The latter two Trusts currently fund the post held by Samantha Gross.

The work of the report and its final form are the work of the authors, and none of the above organisations or companies had any contribution to the conception, the funding, the design or the conduct of producing the report.

The South London and Maudsley NHS Foundation Trust & King's College London received small grant support from Social Finance for working with them and preparing this report.

ACKNOWLEDGEMENTS

We would like to thank Dr Kim Wolff, Reader in Addiction Science at King's College London for reviewing the information presented on biological indicators.

In addition, we would like to acknowledge the input of those who read drafts of the report and contributed towards the thinking:

Nick Barton, Action on Addiction

Colin Bradbury, South West London NHS Trust

Alan Hopley, Addaction

Roger Howard, UK Drug Policy Commission

Dr John Marsden, King's College London

Noreen Oliver, Burton Addiction Centre

Dr Marcus Roberts, DrugScope

Nicola Singleton, UK Drug Policy Commission

Mike Trace, Rehabilitation for Addicted Prisoners Trust (RAPt)

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TO SOLVE THEM NEED
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