

Advisory Council on the Misuse of Drugs

# How can opioid substitution therapy (and drug treatment and recovery systems) be optimised to maximise recovery outcomes for service users?

October 2015

## ACMD Advisory Council on the Misuse of Drugs

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Rt. Hon. Mike Penning MP Minister for Policing, Crime and Criminal Justice Home Office 2 Marsham Street London SW1P 4DF

23 October 2015

Dear Minister,

# RE: How can Opioid Substitution Therapy (and drug treatment and recovery systems) be optimised to maximise recovery outcomes for service users?

In November 2014, the Advisory Council on the Misuse of Drugs (ACMD) published its first report in response to a commission from the Inter-Ministerial Group on Drugs. This commission was exploring the question of whether or not people in treatment are maintained on opioid substitution therapy for longer than is necessary or desirable.

I am pleased to enclose the second and concluding report of this commission from the ACMD's Recovery Committee, which examines the question:

• How can continuing opioid substitution therapy be optimised in order to maximise outcomes for service users?

This report also reflects the Recovery Committee's considerations on additional questions posed by Government:

- How can low expectations of achieving recovery outcomes be tackled?
- How can psychosocial and recovery support be improved?
- How can misuse and diversion of OST prescriptions including 'illicit heroin use on top of prescriptions' be addressed? <sup>a</sup>

<sup>&</sup>lt;sup>a</sup> The ACMD is currently undertaking a separate inquiry on the diversion and illicit supply of medicines

- Whether a mandatory review of treatment is required if OST is 'not working'?
- Is it possible to identify which heroin users in treatment are more likely to achieve recovery outcomes?
- How could resources be prioritised to achieve more recovery outcomes (particularly overcoming dependence), employment and social reintegration?

In this report, we have reviewed the evidence available; provided detailed conclusions reached based on the evidence; and have detailed bespoke recommendations for Government, Local Authority Commissioners and Drug treatment services and staff.

Yours sincerely,

Professor Les Iversen (ACMD Chair)

Anothe Ade-loos

Annette Dale-Perera (Co-Chair of the Recovery Committee)

Richard Phillips (Co-Chair of the Recovery Committee)

CC: Rt Hon Theresa May MP, Home Secretary Rt Hon Jeremy Hunt MP, Secretary of State for Health Jane Ellison MP, Parliamentary Under Secretary of State for Public Health

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## 1. INTRODUCTION

#### 1.1. The commission

The Inter-ministerial Group (IMG) on Drugs posed questions to the Advisory Council on the Misuse of Drugs (ACMD) Recovery Committee (RC) following ongoing concerns about the perceived limited progress of heroin users in OST towards achieving recovery outcomes especially overcoming dependence on opioids. The following questions were posed:

"Consider the available evidence on whether or not people in treatment are maintained on opioid substitution therapy for longer than is necessary or desirable. Does the evidence support the case for time limiting opioid substitution therapy? If so what would a suitable time period be and what would be the risks and benefits? If not, how can opioid substitution therapy be optimised to maximise outcomes for service users?"

The ACMD has answered these questions in two parts. The first answer pertaining to whether evidence supports the case for time limiting OST was published in November 2014.<sup>1</sup> The overall conclusion of this report was that the evidence strongly suggested that time limiting OST:

- would result in the majority relapsing into heroin use;
- may have significant unintended consequences including increasing:
  - o drug driven crime;
  - o heroin overdose deaths; and,
  - $\circ$  the spread of some blood-borne viruses (including hepatitis and HIV); and,
- may not be able to be implemented due to medico-legal challenges.

This report noted that OST was a helpful platform for heroin users towards recovery but, without psychosocial and recovery interventions, limited recovery outcomes were likely. The ACMD also stated that it wholly supported the national drug strategy push to achieve more recovery outcomes and improve the quality of drug treatment.

This report seeks to answer the second part of the IMG questions: "How can OST be optimised to maximise outcomes for service users?" In addition, the Department for Work and Pensions Minister requested that the ACMD RC considers a number of issues including:

- how to tackle low expectations of achieving recovery outcomes;
- how to improve psychosocial and recovery support;
- how to address misuse and diversion of OST prescriptions including 'illicit heroin use on top of prescriptions'; and,
- whether a mandatory review of treatment is required if OST is 'not working'.

Furthermore, following a presentation of initial findings to the IMG in February 2015, the ACMD RC was also asked to:

- look at whether it was possible to identify which heroin users in treatment were more likely to achieve recovery outcomes; and,
- advise on how resources could be prioritised to achieve more recovery outcomes (particularly overcoming dependence), employment and social reintegration.

## **1.2.** How the Advisory Council on the Misuse of Drugs Recovery Committee has gathered evidence to answer this question

In order to answer the questions posed, ACMD RC has undertaken further literature reviews, and heard and received evidence on this topic, including evidence from:

- drug treatment commissioners and providers;
- Public Health England;
- the Centre for Social Justice;
- the University of Manchester;
- the University of Sheffield; and
- 'experts by experience' including a national survey of service user representatives in England.

## 2. ANSWERING THE QUESTIONS

## 2.1. Drug strategy recovery aspirations versus evidence on recovery outcomes for heroin users

In England the drug strategy in 2010, 'Building recovery in communities' recognised the investment made in drug treatment over the previous decade and the health gains accrued. However, it also expressed a need to create systems that had more ambition to enable those with alcohol and drug dependence to overcome dependence, become abstinent and achieve other recovery outcomes. As previously stated, the Advisory Council on the Misuse of Drugs (ACMD) Recovery Committee (RC) wholly supports the aspirations outlined in the drug strategy and wishes to provide evidence-based advice on how to enable more people to be able to overcome substance dependence and achieve a range of recovery outcomes.

The ACMD RC's second report *What recovery outcomes does the evidence tell us we can expect*<sup>2</sup> found that population studies suggested that most people do overcome a period of substance dependence in their lifetime but some groups have a greater probability of overcoming dependence and attaining other recovery outcomes. Evidence was outlined that suggested that those with heroin dependence had poorer outcomes than other groups and that heroin dependence was associated with significant levels of mortality and morbidity. The report concluded that whilst there was reason for optimism about recovery from dependence, optimism needed to be tempered with reality.

Evidence shows that those with heroin dependence had a greater likelihood of having life problems prior to dependence than those with dependence on alcohol or other drugs. A heroin-using lifestyle was associated with significant collateral damage including high rates of premature death; for survivors, physical and mental health problems, criminal records, unemployment, poor housing, damaged relationships were likely. Therefore recovery is a highly ambitious goal for those with heroin dependence. It is asking individuals not only to overcome dependence but also to achieve positive outcomes in health, social and economic functioning that some have never previously had – all while also trying to manage the consequences of significant collateral damage.

This report recommended that a long-term or 'extensive' approach is required that supports the process of a radical shift in lifestyle with the UK population of ageing heroin users being provided support across a range of outcome domains for a number of years. This may include drug treatment, but also mutual aid and wider social, cultural and economic support to enable the recovery journeys of individuals. It recognised that extended access to drug treatment, healthcare and support may be required for those with severe dependence to manage their lives and minimise the potential collateral damage of active heroin dependence on themselves and others.

#### 2.2. What enables recovery outcomes in different domains to be achieved?

According to UK clinical guidelines opioid substitution therapy (OST) is designed to:

reduce or prevent withdrawals that typically lead to further use of illicit heroin;

- provide an opportunity to stabilise drug intake and lifestyle while breaking with illicit drug use and associated unhealthy risky behaviours (including injecting);
- promote a process of change in drug taking and risk behaviours; and,
- help to maintain contact and offer an opportunity for therapeutic work with a patient or client.

There is international consensus, and a strong evidence base, supporting the effectiveness of OST to reduce and stop heroin use, reduce drug injecting and related blood-borne viruses and reduce drug-driven crime. UK guidelines acknowledge that there is a hierarchy of goals of drug treatment from reducing drug-related problems to abstinence, and that treatment goals should depend on the motivation and circumstances of each individual. These guidelines recognise that some people may be able to commit to a determined effort to become abstinent while others may be unable or unwilling to do so, but may be able to make changes such as reducing risk behaviours. OST is a platform to overcome heroin dependency and achieve recovery. However, it is critical to recognise that the provision of OST medication in itself will not enable an individual to achieve a full range of recovery outcomes.

ACMD wish to point out that recovery-orientated opioid substitution drug treatment can help heroin users quit heroin use, achieve a range of positive recovery outcomes and protect against drug-related death and crime while in treatment. However, it is not the only part of a journey for those who overcome opioid dependence and abstinence pathways and long-term recovery support are also required.



Figure 1: Recovery domains

Figure 1 shows the full range of recovery domains that may require interventions or resources during the process of recovery. OST medication alone is only designed to impact on a limited number of recovery domains including drug use, reducing drug driven crime, and preventing health issues including the spread of blood-borne viruses.

Services users on OST can achieve medication-assisted recovery (MAR) involving cessation of heroin use, improved health and well-being and being a participating member of society with the correct support. However, overcoming opioid dependence normally requires the service user to follow an 'abstinence pathway' after MAR, including detoxification and ongoing recovery support. Evidence suggests that the journey from MAR to an abstinence pathway and sustained recovery is risky in that it often results in lapse or relapse.<sup>3</sup> Those with recovery assets and ongoing support are more likely to achieve sustained recovery<sup>4</sup> and so helping service users to build assets should be a core goal of MAR.

#### 2.3. Optimising outcomes for heroin users: key factors driving outcomes

Evidence indicates that there are a number of key factors that drive variations in outcomes for those with heroin dependence. These can be divided into several areas:

- the quality and effectiveness of the local treatment and recovery service including management and staff competence (see section 3);
- the local treatment and recovery system, including the commissioning of the system (see section 5);
- wider local community services and assets to support wider recovery outcomes and reintegration, including employment opportunities and reducing stigma and discrimination (see section 6);
- national frameworks, guidelines, enabling bodies and levers to maximise recovery outcomes (see section 7); and
- Service user factors the heroin dependent population themselves (see section 8).

Each of these areas will be looked at in turn.

## 3. THE QUALITY AND EFFECTIVENESS OF THE LOCAL TREATMENT AND RECOVERY SERVICE INCLUDING MANAGEMENT AND STAFF COMPETENCE

There is strong evidence from multiple studies that the quality and characteristics of treatment and its management can have as much impact on service user outcomes as the service user characteristics themselves and indeed may account for the more variance.<sup>5,6,7,8</sup> Good quality, evidence-based drug treatment can help service users achieve recovery outcomes. Poor quality treatment may not deliver outcomes and may have a negative impact on recovery outcomes. This section looks sequentially at: opioid substitution therapy (OST) treatment; local treatment and recovery systems; and the wider local system of health, social care and welfare.

#### 3.1. Opioid substitution therapy

### **3.1.1. Opioid substitution therapy service users rating of the quality of drug** treatment and recovery services in England

The service user survey undertaken for this report provided an insight into the current quality of OST in England – with respondents from around 116 out of 152 local authority areas – many of whom were local service user representatives of 'recovery champions' involved in local commissioning or provision.

Service users were asked to rate the quality of the local treatment and recovery system for those on OST. Results were as follows for the whole sample (current OST user results in brackets). It is striking that those service users currently in OST rated the quality of OST worse than other service user representatives on the following items: recovery care planning; choice of medication; dose of medication; regular review; psychosocial support; access to mutual aid; healthcare and help to volunteer or get a job. Mental health treatment and help with housing were rated as 'poor or bad' by over half and almost half of all respondents respectively.

	Poor or bad	Neutral	Good or very	Mean
	(1-3)	(4)	good (5-6)	
Staff delivery of recovery-optimistic care	25% (25%)	12% (20%)	64% (55%)	4.8 (4.5)
Assessment	21% (25%)	11% 16%)	70% (59%)	5 (4.6)
Recovery care planning	27% (37%)	15% (19%)	58% (44%)	4.8 (4.2)
Regular review	31% (40%)	18% (19%)	52% (42%)	4.5 (4)
OST medication	26% (37%)	11% (17%)	64% (46%)	4.9 (4.1)
OST dose	26% (26%)	11% (10%)	63% (62%)	4.9 (4.9)
OST supervised consumption	20% (22%)	18% (25%)	62% (64%	4.9 (4.6)

Staff challenge 'use on top'	30% (19%)	14% (17%)	56% (64%)	4.5 (4.7)
Psychosocial support	31% (41%)	13% (10%)	55% (49%)	4.6 (4.1)
Access to mutual aid	14% (22%)	8% (8%)	78% (69%)	5.4 (4.8)
Healthcare for drug-related problems	21% (28%)	10% (13%)	69% (59%)	5 (4.7)
Mental health treatment	51% (54%)	13% (12%)	37% (34%)	3.8 (3.7)
Help with housing	43% (46%)	15% (18%)	38% (36%	3.9 (3.7)
Help to volunteer or get a job	25% (36%)	15% (13%)	59% (51%)	4.8 (4.1)

Services users were asked to comment on what they thought were the three most important things that could optimise recovery outcomes for those in OST. Responses fell into three groups:

- the quality of key worker and psychosocial interventions: "more encouragement to complete treatment", "rapport, rather than just discussing methadone", "need to be seen more than once a month", "continuity of key worker", " keyworkers better educated to the needs of the clients", "more mutual aid that welcomes those on OST", "more peer support" and "more access to mental health treatment"
- the types of OST medication: "more subutex", "more pathways to abstinence" and "more detox and rehab places"
- better access to wider recovery support to help those in OST build assets in relation to education, housing, employment, social and economic needs and community re-integration.

There were also many comments that those in OST felt stigmatised and scapegoated – and this was felt to hinder recovery.

#### 3.1.2. OST: evidence-based practice

There is strong evidence that several key components of OST are critical to OST treatment outcomes of stopping injecting and spread of blood-borne viruses, cessation of heroin use, and cessation of crime.

#### 3.1.3. Dose

There is evidence that receiving an optimal dose of the substitute opioid medication is critical to outcomes. A correct dose is achieved following a titration period (methadone optimal dose is usually between 60 and 120mg and for buprenorphine between 12 and 16mg, and up to 32mg).<sup>9</sup> There is good evidence that high doses of methadone and buprenorphine result in less opiate use<sup>10</sup> and in a reduction in risk behaviours. <sup>11,18</sup> There is also evidence that individuals on higher doses are more likely to achieve abstinence successfully with time.<sup>12</sup> Evidence also suggests that there is substantial variation in how individual heroin users metabolise OST for a range of reasons including genetic ones.<sup>13</sup> Methadone clearance and therefore optimal dose is increased substantially by some medications including those commonly to treat TB, HIV and epilepsy.<sup>14</sup> Some medical conditions such as liver and renal failure may also affect methadone clearance. Therefore dose titration needs to be an individualised process and the effective dose may be variable.<sup>13</sup>

However, there is evidence from surveys that under-dosing may be a common problem in England.<sup>15</sup> The following obstacles to optimal dose prescribing have been found:

- Prescriber reluctance including moral and political reasons
- Fear of diversion<sup>16</sup>
- Service user reluctance based on fears that they will never be able to 'come off' drugs and that
  withdrawals from OST medication will be more difficult. Patients also commonly fear side effects including
  'real' effects such as sweating and tooth damage from methadone. However, other fears such as
  'methadone getting into bones', are not 'real'. Other patients have personal objectives that may be at
  odds with recovery, such as a desire to take a low dose and continue to 'use on top'

- 'Slow reduction regimes' requested by the service user or recommended by the prescriber that may be, in practice, be long-term 'under dosing' leading to illicit heroin use on top.
- Low (sub-optimal) dose OST is associated with more criminality, more use on top and more drug-related deaths.<sup>17</sup>

The ACMD wishes to state that service users should receive opioid substitution medication doses in line with UK clinical guidelines, and sub-optimal opioid prescribing is unlikely to help service users stop illicit heroin use and is associated with poorer outcomes. The ACMD is concerned that there also needs to be clear community and in-patient detoxification regimes and pathways, including psychosocial support, when the service users are ready and able to come off OST.

#### 3.1.4. OST medication type

There is evidence that, as with any other medication, not everyone will respond effectively to every OST drug (e.g. methadone). NICE<sup>18</sup> found that methadone and buprenorphine were equally effective, variable dose methadone had higher rates of patient retention than variable dose buprenorphine. Emerging service user survey evidence indicates that buprenorphine and/or buprenorphine/naloxone may be associated with reduced rates of continued heroin use 'on top'.<sup>19</sup> Injectable OST has also been found to be effective for those who have repeatedly failed at oral OST medication.<sup>20</sup> There is some evidence that slow release oral morphine is more effective for some patients.<sup>21</sup>

## ACMD wishes to restate that choice of OST medication is therefore required in every service to optimise outcomes in OST.

#### 3.1.5. Supervised consumption

Evidence shows that supervised consumption of methadone or buprenorphine can ensure that patients take the dose prescribed. This reduces diversion and can prevent overdose.<sup>22</sup> Although supervised consumption can create initial structure, it can also be restricting and prevent a patient from engaging in recovery activities such as paid work, and its impact on treatment effectiveness is not clear.<sup>23,24</sup> However, UK guidelines are clear that 'take home' doses should only be given if patients are stable and not using illicit drugs or excessive alcohol, or are suspected of diverting medication, or if there are concerns about risk to children.<sup>9</sup>

ACMD re-iterates that the provision of 'take home' doses should be explicitly contingent on cessation of 'heroin use on top' as evidenced by regular drug testing or other means and that continued 'use on top' should result in a review and optimisation of OST.

#### 3.1.6. Recovery keywork, care planning and review

NICE guidelines recommend that individuals in OST receive 'key working', where a therapeutic alliance can be established and in the context of the service user having an individual care plan with goals.<sup>25</sup> Furthermore, there is evidence from large-scale national service user surveys that having a recovery care plan that has been recently reviewed, and 'feeling respected' by staff are two factors strongly associated with self-reported positive recovery outcomes.<sup>26</sup>

There is research evidence that the use of cognitive mapping techniques is associated with building positive therapeutic relationships and service users' involvement in their recovery planning. There is evidence that cognitive mapping that utilises both deficit and asset mapping is associated with improved retention and service user outcomes.<sup>6,7,27</sup>

There is evidence that the motivational ability of staff is more important than the initial motivation of service users.<sup>28,29</sup>

Recent evidence-based guidelines on recovery-orientated drug treatment advocate that to maximise recovery outcomes, care plans should be regularly reviewed in motivational reviews involving service users.<sup>30</sup>

The ACMD wishes to re-iterate that OST staff should ensure every service user has a recovery care plan with goals that has been co-produced with the service user. Service users should receive regular recovery reviews, with updated plans modified to meet changing needs.

### 3.2. Psychosocial interventions

#### 3.2.1. 'Dose' of intervention: How much is enough?

There is evidence from multiple studies that the greater the 'therapeutic dose' of treatment and recovery interventions, the greater the improvements in recovery outcomes. The therapeutic dose effect is related to the quality and range of services within a drug 'programme', for example, counselling, medical care, employment assistance, family therapy, housing.<sup>31</sup>

Recent research suggests that OST plus supervised consumption, drug tests three times a week, and crisis intervention can be as effective in terms of reducing substance use, crime and the risk of blood-borne disease, as OST with more psychosocial interventions regardless of whether the patient was under criminal justice supervision. However, OST with counselling appeared to enable more service users to leave OST.<sup>32</sup>

There is evidence that heroin users in OST outcomes are progressively better with more psychosocial interventions. McLellan *et al* compared methadone alone with no other services (MMS) with the standard methadone service (SMS), i.e. methadone plus counselling, and enhanced methadone services (EMS) with counselling, on-site medical/ psychiatric access, family therapy and employment help. Outcomes including the cessation of heroin use and less use of emergency rooms were greater with more psychosocial input.<sup>33</sup> A follow-up study on cost-effectiveness showed that the intermediate service with counselling was the most cost-effective.<sup>34</sup> Some studies of cocaine and crack use amongst those in OST found that they may require intensive psychosocial treatments that target the considerable problems faced by inner-city opioid-addicted individuals.<sup>35</sup>

However, there is some evidence from the UK that heroin users in OST do not get enough psychosocial interventions to maximise behaviour change and receive recovery support. Best *et al.* found that on average those in OST received only 20 minutes of psychosocial support per fortnight.<sup>36</sup>

Furthermore, the ACMD RC heard evidence that some people on OST – particularly those in primary or 'shared care' services are thought to receive very little psychosocial support and had little exposure to visible recovery or mutual aid.

The service user survey conducted by the ACMD RC for this report indicated that many service users do not have access to the psychosocial interventions they required. This survey found that only 22% said that people on OST get enough psychosocial and recovery support with 64% saying they did not get enough support and 14% saying they did not know whether they got enough support.

The ACMD recognises that there is a lack of evidence on what intensity or dose of psychosocial interventions is required by different groups of heroin users in England, by whom and at what stage of the recovery process. It recommends that more research is required in this area. However, the ACMD remains concerned at the emerging evidence of poor 'doses' of psychosocial interventions.

## 3.2.2. Types of psychosocial interventions

There is strong evidence for the use of contingency management in reducing cocaine or crack and heroin use among those in OST.<sup>25,37</sup> There is also striking evidence that treatment of opioid-using professionals, such as doctors, has better outcomes and features:

- OST medication;
- rigorous on-going monitoring and random drug testing; and,
- psychosocial support.<sup>38</sup>

These interventions can result in cessation of heroin use. However, to deliver these 'powerful' techniques, random drug testing with immediate – contingent – rewards are required. There is little evidence that contingency management has been implemented in the UK despite being advised in NICE and UK clinical guidelines.

There is research evidence that family therapy and behavioural couples therapy (BCT) can improve outcomes for heroin users and these approaches are recommended by NICE<sup>25</sup> and UK clinical guidelines.<sup>9</sup> Again the ACMD RC found no evidence that these approaches have been widely implemented.

There is research evidence that service user involvement in mutual aid (particularly 12-step approaches)<sup>39</sup> is associated with a higher chance of achieving abstinence and other recovery outcomes<sup>40</sup> and is recommended by NICE and UK Clinical Guidelines.<sup>9,25</sup> ACMD received evidence of widespread growth of mutual aid in England – which was encouraging. However, access to some types of mutual aid for those in OST may be limited, which may hinder achievement of outcomes amongst those in OST.

There is mixed evidence about the impact of other types of talking therapies and techniques used in conjunction with OST. UK Clinical Guidelines recommend use of a range of techniques.<sup>99</sup> Some studies found no difference between those in OST receiving extra CBT focusing on their cocaine use, in terms of the reduction in cocaine use.<sup>41</sup> NICE guidelines recommend cognitive behavioural therapy is not used for the treatment of addiction for those on OST but should be used for the treatment of co-morbid depression or anxiety.<sup>25</sup>

There is some evidence from qualitative studies on the benefit of psychosocial support in OST. The Dutch study by de Maeyer *et al.* says: "A number of participants mentioned methadone's limited impact on achieving a meaningful life, stating that they experienced methadone purely as a substitute for their heroin use. They cited the importance of psychosocial counselling, alongside their pharmacological methadone treatment, to support them in achieving a meaningful life."<sup>42</sup> There is also evidence that those in OST for long periods of time, who have psychological distress, without being able to change their living situation, experience low levels of quality of life; having at least one good friend and a structured daily activity had a significant, positive impact on quality of life.<sup>43</sup>

There is very strong evidence that provision of psychosocial treatment, alone, doubles patients' risk of a fatal overdose, compared to enrolment in OST. Psychosocial treatment is best provided as an additional, not an alternative, component of the treatment response.<sup>44</sup>

The ACMD wishes to re-iterate that evidence-based psychosocial interventions should be provided systematically to service users in OST, based on need. It is concerned about the lack of implementation of techniques with the 'best evidence' (contingency management including drug testing, BCT and family therapy) and recommends that this situation should be rectified. The ACMD welcomes the spread of mutual aid and recommends facilitated access and more access for those in medication-assisted recovery. It also notes the important role of CBT to treat mental health problems in this group. Together with cessation of illicit heroin use (ideally within six months), a critical focus in OST appears to require helping people to build positive relationships and establish 'meaningful daily activity' and reintegrate into the community.

#### 3.3. Staff attitude and competence

There is evidence that staff themselves have a significant impact on service user outcomes. The following staff characteristics have been found to be associated with better outcomes for heroin users or those on OST:

- Staff (methadone counsellors) who were more active, diligent and helped patients to anticipate problems and find solutions.<sup>45</sup>
- Staff with the ability to form warm, supportive relationships with patients.<sup>46</sup>
- Methadone maintenance programme staff who were active and experienced, and who gave more frequent counselling sessions, had fewer patients who were illicitly using crack and heroin.<sup>41</sup>

- Several studies have found that those patients who reported 'good relationships' with their doctors had more positive addiction outcomes<sup>47</sup> and greater cessation of illicit heroin use within six months.<sup>48</sup>
- There is evidence that the motivational ability of staff has a greater impact on initial client motivation than the initial motivation of service users <sup>28,29</sup>
- There is a lack of UK evidence on what staff team qualifications and backgrounds are required to maximise recovery outcomes. The ACMD RC notes that the following professions would normally be required to deliver evidence-based recovery-orientated OST:
  - o medical and nursing staff focused on complex addiction needs, health and prescribing;
  - psychologists to deliver BCT and family therapy, oversee contingency management and deliver CBT for mental health problems;
  - experts by experience to deliver mutual aid;
  - key workers (with Drug & Alcohol National Occupational Standards (DANOS) or equivalent competence in substance misuse).
- However, it is interesting to note that some key deficits in the system are the psychologist-led interventions reflecting a lack of qualified psychologists in drug treatment services.

## 4. MANAGEMENT AND CULTURE OF OPIOID SUBSTITUTION THERAPY TREATMENT AND RECOVERY SERVICES IN ENGLAND

There is good evidence that the quality, management and culture of drug treatment providers has a large impact on service users outcomes – and is perhaps a greater influence on recovery outcomes than presenting characteristics of OST service users themselves.

There is research evidence that 'well managed' services achieve better outcomes. Evidence from the US<sup>49</sup> and UK<sup>27</sup> shows that measures of organisational 'readiness for change' are a better predictor of outcomes than patients' self-evaluation of their readiness for treatment.

National guidance advocates implementation of recovery orientated drug treatment<sup>30</sup> including a review of local services and steps to modify and change services to ensure a change in culture to a 'recovery orientation'. The ACMD RC could not find evidence on whether this guidance has been implemented and what the impact was. The ACMD RC heard evidence from Public Health England (PHE) that it had provided seminars to encourage the adoption of 'recovery-oriented drug treatment' (RODT) including data on local systems and services and evidence-based problem solving advice. However, the uptake of these seminars was voluntary and subsequent action and impact on local systems is unknown.

The ACMD RC heard anecdotal evidence on variable local approaches and cultures – with some services not adopting a 'recovery approach', others trying to adopt a recovery approach and some commissioners reprocuring services in order to push for a 'culture change'. However it was difficult to get evidence beyond anecdotes on these trends and their impact and there was a lack of an agreed measure of 'recovery culture' and culture change.

From the 'heard' evidence the ACMD RC had some concerns about whether there was a 'default' to automatic OST for heroin users presenting to treatment – without a proper choice of abstinence pathways earlier in treatment journeys. The group discussed the difficult choices and decisions between OST pathways that help heroin users to stabilise and reduce risk of harms (including overdose death and crime) and abstinence pathways of detoxification and recovery support which are associated with higher risk or relapse, overdose and subsequent return to drugs and crime.

The group was concerned about whether there were both adequate encouragement and supported pathways to abstinence for those on OST, and whether those on OST were presented these as options on a regular basis – recognising that this is normally a higher risk pathway. The ACMD recommends further exploration of this area.

There is evidence from the ACMD RC OST service users' survey about service expectations and staff competence in recovery-orientated treatment.

In the survey service users were asked what outcomes they thought that local services expected them to achieve. The results were as follows for the whole sample (current OST users in brackets). Around threequarters (or more) of the whole sample thought that they were expected to:

- stop using on top (76%)
- stop injecting (74%)
- stop drug-driven crime (78%)
- come off OST in the future (78%)
- work towards being abstinent from drugs (78%)
- improve their physical health (80%)
- improve their mental health (75%)
- have good relationships with family/friends (72%).

Just over half (54%) thought that they were expected to train or volunteer and a similar proportion (56%) felt that they were expected to find work or come off benefits.

## 5. LOCALLY COMMISSIONED TREATMENT AND RECOVERY SYSTEM INCLUDING OPIOID SUBSTITUTION THERAPY

Drug treatment and recovery systems (including opioid substitution therapy (OST)) are delivered in 152 localauthority based systems in England.

Evidence suggests that there is considerable variation in drug treatment and the quality of OST in England. These variations may have many causes including:

- different approaches to commissioning including the frequency of re-procurement;
- financial resources in the local system;
- local commitment and support for recovery and those in the process of recovery;
- the quality of treatment including the quality and skills of staff;
- the culture of the local treatment system;
- the different populations of services users;
- the availability of mutual aid in the locality;
- heroin users' access to other services (mental health, housing, social care, education and employment, etc.); and,
- the level of influence or 'co-production' that service users have.

The ACMD RC was given presentations of management data from Public Health England (PHE) that indicated there is a considerable variation in local areas and services on: the numbers in OST, the population groups in OST, and the impact of service user behaviour and outcomes.

The last national review of OST in England was conducted in 2005-6 and showed considerable variation in the quality of OST in the areas of:

- commissioning of prescribing services;
- assessment and care plans;
- prescribing practice;
- safety; and,
- staff competencies.<sup>50</sup>

Significant work was subsequently undertaken by national and local bodies to improve OST but the ACMD notes there has not been another 'improvement review' that can benchmark practice and act as a platform to drive up quality in line with evidence.

The ACMD RC looked for evidence that there was a balance between medication-assisted recovery pathways and abstinence pathways for those with heroin dependence in local areas. There was a lack of evidence on this topic though other authors had commented on this<sup>51</sup> and it may require exploration.

The service user representatives' survey conducted for this paper indicated that there was a limited choice of treatment and recovery pathways for heroin users in 2015.

- Half (50%) of all respondents (55% of the group who were currently in OST) said there was not enough choice of treatment pathways in their local area;
- 54% (56% of those in OST) reported not enough pathways to in-patient detoxification plus aftercare, and 46% (39% of the group who were currently in OST) said there was not enough access to community detoxification; and
- 55% (52% of those in OST) said there was not enough access to residential rehabilitation for heroin users.

On a more positive note:

- 80% (although only 63% of the group currently in OST) said that there was access to mutual aid;
- 81% (75% of those currently in OST) said there is enough access to OST with methadone; and,
- 74% (68% of those in OST) said there was enough access to OST with buprenorphine.

In terms of the impact of commissioning on recovery outcomes, the ACMD RC will publish a 'part 1' report on 'The impact of trends in commissioning and austerity on recovery outcomes' in late 2015. Early findings from this report are that there is significant 'churn' in drug treatment in England due to frequent re-procurement of local services (every three to five years). Evidence from a survey of commissioners and surveys of providers<sup>52</sup> indicate this frequency of re-procurement appears to have a destabilising impact and negative impact on local service user recovery outcomes (for up to two years) – just one year before some re-procure again. Other negative impacts are noted on:

- staff morale and retention due to staff frequently TUPE'd<sup>b</sup> between providers;
- increasing purchase of 'cheaper models' with less qualified, less expensive staff; and,
- provider management resources and focus taken up by tendering when this energy could be focused on quality.

While some local areas are re-procuring with explicit aims to improve local services or implement more 'recovery-orientated models', this is set in the context of reducing finances over the next three years and a

<sup>&</sup>lt;sup>b</sup> The Transfer of Undertakings (Protection of Employment) Regulations 2006 (SI 2006/246) is known as TUPE and is the UK's implementation of the European Union Business Transfers Directive.

sharp 'in year' (2015/16) drop in resources – all from a platform of frequent reductions over the previous four to five years.

## 6. WIDER LOCAL SYSTEMS

#### 6.1. Mental health

There is consistent evidence of a higher prevalence of mental health problems including depression, anxiety, trauma and personality disorder amongst heroin users and those on OST (especially among women on OST) compared with the general population.<sup>53</sup> Furthermore, there is evidence that those with 'mental health problems' are less likely to achieve abstinence and more likely to relapse 'in treatment' and relapse on release from prison.<sup>54</sup> The ACMD RC also received evidence from service users and service providers that access to mental health interventions was difficult for some of those on OST as local protocols required them to be drug-free. Service users reported that untreated mental health issues were a major barrier to achieving recovery outcomes including employment and trying to 'come off' OST.

The ACMD is concerned that the lack of access to mental health treatment may be a barrier to service users coming off OST medication and achieving recovery outcomes – as a level of well-being may be critical to enable people to acquire assets such as employment and new positive relationships.

### 6.2. Physical health

The ACMD RC heard evidence of relatively high levels of physical health co-morbidity and disability among those on OST – particularly older service users and including chronic obstructive pulmonary disease (COPD) (smoking related), hepatitis C and deep vein thrombosis.

Addressing (if possible) these health needs may be required before those on OST could be expected to achieve other recovery outcomes such as employment. As examples, implementation of smoking cessation may reduce COPD and the new treatment regimens for hepatitis C could result in the vast majority becoming free of the hepatitis C virus.

A focus on addressing physical health needs is of increasing importance to the UK ageing cohort on OST. The ACMD RC heard some evidence of the implementation of the 'give ways to well-being model' in drug services in England<sup>55</sup> which it thought was 'good practice'.

#### 6.3. Education, training and employment

Building recovery capital in relation to education, training and employment is a challenging area for those in OST. National monitoring data<sup>68</sup> consistently indicate that those on OST have lower levels of education and employment than the general population.<sup>56</sup> There is evidence that employment outcomes amongst those on OST (and those with complex needs) are amongst the most resistant to change, not least as they are compounded by service users having ill health, disability, criminal records and poor qualifications and work history. A review of evidence on vocational training for drug users found that this approach was common, although there are examples of successful programmes in the EU, many have limited or no effects and it is difficult to draw conclusions about overall effectiveness. Evidence from England indicates that the 'work programme' has had poor success rates with those in drug treatment.<sup>57</sup> Other evidence indicates that stigma and prejudice amongst employers can also mitigate against those on OST or previously on OST gaining work.<sup>56,58</sup> There is research evidence of the positive impact of volunteering on well-being<sup>55</sup> and emerging examples of positive impacts for those in OST or previously on OST, in terms of providing meaningful activity and improving self-esteem.<sup>59,60</sup>

#### 6.4. Housing

There is evidence that stable housing that supports recovery is beneficial to help drug users achieve a range of recovery outcomes.<sup>61,62,63</sup> Furthermore, "floating support services" are effective at helping some substance misusers sustain housing.<sup>61</sup> The service users' survey reported relatively high dissatisfaction with the help that they got with housing; 43 per cent said that it was "poor" or "bad". From the evidence heard by the ACMD RC, housing that supports recovery is problematic – particularly in some parts of the country including London.

### 7. NATIONAL FRAMEWORKS, GUIDELINES, ENABLING BODIES AND LEVERS TO MAXIMISE RECOVERY OUTCOMES – GUIDANCE AND DELIVERY ASSURANCE

The Advisory Council on the Misuse of Drugs (ACMD) Recovery Committee (RC) heard evidence from Public Health England (PHE) and others concerning the following:

- Extensive, high quality guidance has been developed to encourage recovery-orientated drug treatment.<sup>30,64,65</sup>
- The PHE Recovery Diagnostic Toolkit (RDT), which provided localities with nationally benchmarked patient and performance profiles and evidence-based guidance on how to achieve recovery outcomes. PHE staff also provided local seminars to commissioners and providers on request.
- A range of regular 'management information' reports based on National Drug Treatment Monitoring System (NDTMS) data, which 'benchmarked' local areas and services against similar systems to be used to performance manage local systems by commissioners and providers.

The ACMD RC thought that the guidance documents provided were excellent and of high quality, and evidence-based. It heard mixed feedback on the PHE data reports; some commissioners and providers found them excellent but others found them complex and difficult either to interpret or to pull out priority areas. ACMD RC did not think that there had been consistent use of guidance, the Recovery Diagnostic Toolkit or PHE management information to improve the quality of OST.

The 'change in culture' with the move from the role of 'delivery assurance' of the National Treatment Agency to a more 'hands off' informative approach of PHE was noted, with mixed views by the ACMD RC members and those who gave evidence. Comments by those who presented evidence included a 'lack of levers' between national and local levels, and an unhelpful and increasing 'reality gap' between PHE and what was happening 'on the ground in treatment services'.

#### 8. SERVICE USER FACTORS

There is evidence that the population of heroin users in England is reducing<sup>66</sup> and that this is due both to fewer people developing heroin dependence than in previous years<sup>66</sup> and to those with heroin dependence overcoming that dependence and achieving recovery outcomes.<sup>67</sup> A welcome 'tipping point' appears to have been achieved.

There is evidence that an increasing proportion of those with heroin or opioid dependence in England are over the age of 35 years.<sup>66</sup> Older people account for an increasing proportion of the dwindling number of those with heroin dependence who present for drug treatment each year.<sup>68</sup> This excludes those who receive drug treatment in prison – as they are not counted in these statistics. Additionally, both sources suggest that the number of young users (aged below 30) has declined over the past decade.

This ageing effect reflects the rise, and subsequent fall, in young people initiating heroin use that was evident during the heroin 'epidemics' of the 1980s and 1990s.<sup>69</sup> Those young people who started to use 20 to 30 years ago, who are now in their 40s or 50s, account for the bulk of the current heroin-dependent population in England.

There is evidence that those with heroin dependence in the UK have more complex needs than heroin users in other European countries including:

- higher rates of 'use on top' of opioid substitution therapy (OST) prescriptions;
- more use of crack cocaine; and,
- higher rates of unemployment.<sup>19</sup>

There is evidence that many older heroin users have poor physical health and their risk of premature death, from a range of causes, is much higher than that in the general population.<sup>70</sup>

There is also evidence from experts by experience, witness and qualitative studies that there is a range of motivating factors<sup>71</sup> that prompt those with heroin dependence to seek OST or drug treatment:

- some seek treatment as they want to overcome dependence and change their lives;
- for some treatment is 'coerced' by family or by a referral to a drug service if they have been caught offending;
- others seek OST so that they have a back stop or safety net to prevent withdrawals in case their heroin supply runs out;
- others want a break from a heroin-dependent lifestyle but do not intend to give up heroin completely.

## 8.1. Evidence that people with heroin dependence are more likely to achieve recovery outcomes

There is evidence from multiple outcome studies that different broad groups of heroin users in treatment achieve different outcomes, in terms of process indicators (for example, retention at three months or treatment completion) and behavioural outcomes (for example, cessation of injecting and/or illicit heroin use). Evidence sources include: international studies such as Drug Abuse Treatment Outcome Study (DATOS)<sup>72</sup>; UK studies: the National Treatment Outcomes Research Study (NTORS)<sup>8</sup> and the Drug Treatment Outcomes Research Study (DTORS)<sup>73</sup>; and Public Health England (previously National Treatment Agency) data on drug treatment, restricted management data and published data. The 'headlines' from these studies indicate the following:

- There is evidence that those who use heroin plus crack cocaine at the beginning of drug treatment have worse outcomes than heroin-only users.<sup>74</sup>
- There is conflicting evidence on whether men or women have better outcomes from heroin dependence. There is evidence that female heroin users have more complex needs than men and are less likely to have positive outcomes.<sup>75</sup> However, there is also evidence from the UK that women heroin users are more likely to successfully complete treatment than men.<sup>76</sup>
- In 2013 in England a quarter (25%) of those in OST had been receiving OST for 5 years or more as part of an ageing cohort. This trend is also evident across Europe with the majority of those in drug treatment in the EU comprising heroin users in OST who are over 40 years old.<sup>77</sup>
- There is evidence that heroin users from professional career backgrounds (for example, doctors) who receive OST, detoxification and intensive monitoring (including random drug testing) achieve and sustain high rates of abstinence.<sup>78</sup> These individuals often have significant assets (education, profession, relationships, etc.).

- There is evidence that recent cohorts of those with heroin dependence who were new to drug treatment and OST (treatment naïve patients) in England were more likely to complete treatment having overcome heroin dependence and be abstinent than previous cohorts.<sup>79</sup>
- Those in OST in England who stopped illicit heroin 'on top' during treatment were more likely to overcome heroin dependence, become abstinent and complete treatment successfully particularly if use of heroin 'on top' is within six months of starting OST.<sup>79</sup>
- There is evidence that the more complex patients, and those with previous experience of OST, were often in OST treatment for much longer periods. Furthermore, those who have been in OST for over four years, or those with long drug using and treatment careers, are the most likely to remain in OST and not achieve abstinence or complete treatment. Not surprisingly evidence shows that the most complex opioid dependent clients have the poorest rates of treatment completion, being far less likely to complete treatment within a year than the lowest complexity drug using group.<sup>79</sup>
- There is evidence that a minority (25%) of OST patients in publicly funded treatment in England possess high recovery strengths.<sup>80</sup>
- Evidence from Best *et al*,<sup>81</sup> found that stable, high functioning OST clients were nearly four times as likely to complete drug treatment having achieved abstinence. Based on a sample of 780 OST clients in the West Midlands of England, this analysis focused on four patient dimensions:
  - o not engaged in meaningful activity, ongoing use of heroin and/or crack (38% of the sample);
  - o abstinent from heroin and crack but no engagement in meaningful activities (36%);
  - o engaged in meaningful activity but ongoing use of heroin and/or crack (13%); and,
  - o abstinent from heroin and crack and engaged in meaningful activity (14%).

These dimensions were predictive of patients' physical and psychological health and quality of life. However, meaningful activity was more strongly related to better health and quality of life than abstinence, which had a much more limited effect. It is notable that a minority of patients (27%) were involved in meaningful activity.

#### 8.2. 'Segmenting' the heroin-dependent population

There are many examples in health where patient populations are grouped in terms of their probable recovery pathways and then matched to a type of treatment. Examples of 'patient placement criteria' to match individual need to the optimal treatment intervention are common in health, for example, the treatment of types of cancer, and in health insurance models.

There have been similar attempts to devise 'patient placement criteria' or 'treatment matching' in drug and alcohol treatment. Some studies have failed to find treatment matching effects in patient outcomes.<sup>82,83</sup> There is evidence that the severity of patient need is related to both the length and type of treatment required.<sup>6,7,84</sup> Evidence supports the effectiveness and efficiency of reserving more intensive services for those with the most severe problems (for example, more depressed clients showed significantly better outcomes in treatment including high structure behavioural counselling).<sup>85</sup>

The Advisory Council on the Misuse of Drugs (ACMD) Recovery Committee (RC) heard evidence from Public Health England (PHE) of work being undertaken since 2011, to establish patient placement criteria in England. An expert group considered three dimensions: addiction severity; health and social problem complexity; and recovery strengths and then developed a 14-item assessment tool for use by clinicians, Addiction Dimensions for Assessment and Personalised Treatment (ADAPT).<sup>80</sup> When applied to National Drug Treatment Monitoring System (NDTMS) data, three segments or classes of patients emerged:

- class 1 (25%) relatively low severity, low complexity and high strengths;
- class 2 (47%) moderate severity, complexity and strengths; and,
- class 3 (28%) high severity, high complexity and low strengths.

For class 3, follow up at around 15 months into treatment suggested poorer drug use outcomes and poorer social, occupational, and psychological outcomes than for the other two classes, illustrating clearly that different outcomes may be expected for different broad patient sub-groups.

The Inter-ministerial Group on Drugs asked ACMD to advise on where it should place resources to ensure that it got maximum outcomes for limited resources. There is ongoing work in England on 'segmenting' OST populations according to key dimensions indicative of need and predictive of outcome, to be able to direct different appropriate treatment packages to different groups and ensure the more efficient use of resources.

The ACMD RC is aware that PHE and Professor John Strang caution about patient segmentation and placement criteria, with Professor Strang's report stating that: "According to the research, the international track record and clinical experience, not everyone who comes into treatment will overcome their dependence. We know from the same sources that it is not possible or ethical to predict which individuals will eventually overcome their dependence. This is why we are obliged to create a treatment system that makes every effort to provide the right package of support to maximise every individual's chances of recovery."<sup>30</sup>

The ACMD RC found no evidence that it is possible to distinguish the **individual** service users who will achieve recovery outcomes and those who will not, beyond broad groupings of service users where it may be possible to attribute 'probabilities'. It heard clinicians and 'experts by experience' caution against 'writing anyone off' in terms of their ability to achieve recovery outcomes, together with examples of people making transformational changes in their 50s and 60s. From the evidence it has heard so far, it is the view of the ACMD that 'patient placement criteria' is still 'work in progress' and there is not as yet enough evidence that ADAPT can be used to 'place patients' in UK substance misuse pathways beyond broad groups. The ACMD will return to this question at the end of this report.

However, the following broad themes may possibly be drawn out:

- Patient placement criteria requires evidence-based treatment pathways to be defined and implemented for the patient group. To maximise recovery outcomes we therefore need to define and implement evidence-based recovery pathways, which include: drug treatment; health and well-being interventions; and community re-integration.
- There should be more optimism that those with heroin dependence who are new to treatment (particularly those with high strengths and lower complexity) can achieve recovery from opioid dependence. Research indicates that intensive evidence-based, recovery-orientated OST followed by detoxification and at least six months recovery support, would provide the best outcomes. Key milestones appear to be the cessation of illicit heroin use within six months, treating outstanding needs (including mental health needs) and building recovery assets (especially supportive relationships and meaningful activity).
- Heroin users on OST with severe addiction and complex needs may have longer treatment and recovery
  journeys and in particular may require access to mental health treatment and physical health treatments
  as untreated issues are a clear barrier to progress. Similarly housing that supports recovery may be critical
  to success.
- Those who are stable and in OST should be regarded as being in medication-assisted recovery and
  afforded the same access to healthcare, mutual aid, volunteering and work opportunities as those who
  are abstinent. Stigma and discrimination against those in medication-assisted recovery, including lack of
  access to recovery and re-integration interventions, may be contributing to this group not being able to
  achieve more recovery outcomes.

### 9. CONCLUSIONS

#### Outcomes are difficult to achieve but all can achieve some

Research is consistent that overcoming heroin dependence is difficult: optimism that service users will achieve recovery outcomes is needed, but so are realistic expectations given the high rates of mortality, morbidity, criminal records and pre-cursor social and health disadvantages in this population group, which mitigate against recovery. Some people will achieve freedom from opioid dependency and some people may achieve medication-assisted recovery. However, all can be helped to achieve some recovery outcomes and so a sense of hope for all should be retained. Importantly people in medication-assisted recovery should not be discriminated against as this is likely to limit the recovery outcomes they can achieve.

#### Return on investment - quality opioid substitution therapy is cost-effective

The Inter-ministerial Group (IMG) on Drugs asked where Government should invest to get the best return on investment. There is strong evidence that **high quality** drug treatment for heroin users is cost-effective and the impact of locally commissioned services are as, or more, important to service user outcomes as the service users themselves. The return on investment from good quality OST is better than from poor quality OST. The Advisory Council on the Misuse of Drugs (ACMD) therefore recommends that there should be a strong focus on retaining investment in drug treatment and improving the quality of opioid substitution therapy (OST).

#### Local recovery-orientated drug treatment systems are required

The ACMD think the question of whether there is enough access to visible and accessible community and residential abstinence pathways with extensive recovery support for those seeking freedom from opioid dependence requires further exploration.

The ACMD RC has also heard evidence of local system 'cultures' regarding attempts at opioid abstinence:

- some systems appear to be 'risk averse to attempting abstinence' for fear of relapse and harm to service users;
- some operate 'slow reductions' which risk being poor quality, low dose opioid substitution therapy;
- some encourage abstinence attempts once a service user has built sufficient assets; and,
- some may encourage abstinence attempts 'too early' resulting in relapse.

More work is required on this area.

## The Inter-Ministerial Group (IMG) on Drugs asked the ACMD RC for specific advice on how to optimise OST and on particular aspects of the quality of OST.

#### Does the system have low expectations of heroin users in OST?

ACMD heard evidence that 'hope and optimism' for recovery outcomes has improved and at least threequarters of services users surveyed reported service expectations of recovery and abstinence. However, this appears to be variable among staff and services and complicated by different ideas about 'what works' or what is 'best for service users'.

#### How can we improve aspects of opioid substitution therapy?

The ACMD has serious concerns about whether service users get enough of a 'therapeutic dose' of quality clinical and psychosocial interventions, particularly in the context of shrinking local resources.

ACMD is concerned that some services do not appear to be providing adequate doses of opioid substitution medication, or enough monitoring of 'use on top' using drug testing, or enough use of supervised consumption.

It is positive that 'key working' appears to be widespread – and often involves evidence-based 'mapping techniques'. However, we lack current evidence on the frequency of keywork, the quality of therapeutic relationships, the competency of keywork staff or frequency of recovery reviews.

ACMD was very concerned that the interventions with strongest evidence-base: contingency management (CM), behavioural couples' therapy (BCT) and family therapy (FT) do not appear to have been widely implemented.

CM is a very powerful tool but requires investment in drug testing, rigorous use of testing and tight project management. It is seen as 'controversial' by some as 'rewarding drug users'. Nonetheless, research indicates that it is one of the most powerful tools to stop illicit heroin use. The ACMD notes that rigorous ongoing monitoring including random drug testing are features of drug treatment with better outcomes, for example, in programmes for doctors.

BCT and FT are also powerful but not widely implemented, perhaps because they require highly qualified and costly staff (psychologists and family therapists).

Access to mutual aid appears to be more widespread and growing which was positive but there was mixed evidence on the levels of facilitated access to mutual aid among different treatment providers

#### Addressing 'use on top'

Heroin users rarely stop using immediately when in OST, but those who stop within six months of starting treatment are much more likely to complete treatment drug-free. The ACMD supports the view of national guidelines that ongoing 'use on top' signals that OST is 'not working' or is providing partial benefit and that the individual's treatment should be reviewed and then optimised. There are clear guidelines that evidence-based optimisation strategies include:

- the correct medication at the correct dose;
- regular random drug testing and monitoring with contingencies;
- increased supervised consumption; and,
- increased psychosocial interventions.

The ACMD RC was concerned by anecdotes that the use of drug testing is becoming less frequent due to cuts in resources, despite evidence on the cost-effectiveness of its use in contingency management programmes.

In line with national guidelines<sup>9</sup> the ACMD wholly agrees that the diversion of OST prescriptions is not acceptable and should be sanctioned in line with national guidelines.

#### **Recovery reviews**

The ACMD supports national guidelines on recovery care plan reviews. There is good evidence that regular review, within the context of case management and with feedback on progress, improves outcomes. In England there is clear guidance that service users should receive regular reviews and that if OST is 'not working' there should be a review and treatment should be optimised.

#### Improving other recovery outcomes: a systems approach is required

Many recovery outcomes for drug users are dependent on input from wider health and social welfare providers and the wider society. This includes: mental healthcare; physical healthcare; housing; education and training; employment; and social integration. Whilst drug treatment commissioners and providers can provide bridges to these areas, they are not directly responsible and local strategic links are therefore critical. There is evidence that drug users including those in medication-assisted recovery may be stigmatised by mainstream providers – which can mitigate against achievement of recovery outcomes, for example, in employment. Every

effort should be made to discourage stigma and discrimination of those in recovery and to enable wider needs to be met and recovery assets to be built.

The ACMD is particularly concerned that access to evidence-based health treatment for both mental health problems and now treatable hepatitis C, appears to be variable. This is of great concern as ongoing physical and mental health problems are a barrier to success in OST and to achieving recovery outcomes including well-being and employment.

The ACMD is also concerned about the lack of progress on enabling those in medication-assisted recovery and those in recovery to achieve employability. It thinks that more effort should be made in this area including: vocational training; volunteering; and supported work placements and targeted employment schemes, which include tackling stigma amongst employers.

#### Why national evidence-based and recovery-orientated guidelines have limited implementation

The evidence in this report raises the wider question of why there is variable quality of OST and drug treatment systems and why evidence-based guidelines have variable and sometimes poor implementation.

The ACMD is gathering emerging evidence on the impact of commissioning on drug treatment. The ACMD has early evidence of the negative impacts of frequent re-procurement on local drug treatment systems and service users' outcomes. It is very concerned that this 'churn' in the system, together with significant cuts in resources, is mitigating against stability in drug treatment systems, hampering quality and the implementation of evidence-based interventions (especially if they are deemed 'expensive') and may result in negative impacts on recovery outcomes. Furthermore, localism and the lack of 'levers' by bodies such as Public Health England and the Local Government Association may hinder government efforts to positively influence local systems.

#### Which categories of service users on opioid substitution therapy are most likely to improve?

The IMG asked which categories of service users are more likely to improve. The ACMD concluded that there is not enough evidence to indicate which categories of service users are more likely to achieve recovery outcomes beyond very broad statements of likelihood about groups based on complexity. More work is required on this topic.

The ACMD RC wants to state strongly that everyone with heroin dependency should have access to high quality, recovery-orientated OST plus abstinence pathways. Recent evidence indicates that those in OST have much lower rates of overdose death than those out of treatment. Good quality drug treatment is cost-effective and England has an excellent ratio of treatment penetration – which it is important not to lose. The ACMD heard examples of those with heroin dependence achieving both abstinent and medication-assisted recovery outcomes at all ages and at all levels of complexity of problems. However, despite the limited evidence available, the ACMD can draw a few conclusions:

- In England, a significant proportion of those new to drug treatment appear to be able to complete drug
  treatment and not return particularly if they stop using heroin within six months of starting OST. This is a
  positive trend and important for a number of reasons. It indicates that the individuals in this group of
  heroin users are not becoming entrenched. Furthermore, if there was another heroin epidemic, recoveryorientated drug treatment may be able to help people to overcome heroin dependency much quicker
  than in previous decades. This group should be a key focus.
- Heroin users who pose a significant risk to themselves or others including: offenders committing drugdriven crime; heroin-using parents with 'safeguarding concerns'; those with complex needs including mental health issues; and heroin injectors at risk of overdose death should be actively targeted and strongly encouraged into evidence-based OST and abstinence pathways. The ACMD notes that recoveryorientated drug treatment pathways may be required to span prison and community services to prevent drop out, with fast access to OST to prevent relapse and overdose death.

 Those in the cohort of people in OST for more than 5 years (10-15% of those in England), who are stable and older should be positively regarded as in 'medication-assisted recovery'. Being in medication-assisted recovery should not hinder access to healthcare interventions (as required), peer-led recovery interventions and social integration, including volunteering or employment, and this group should not be discriminated against because they are in OST. While some of this group may have disabilities or serious health issues which mitigate against achieving some recovery outcomes, all should continue to be offered help to achieve maximum outcomes. Consideration of OST via primary care in a 'long-term condition' model should be made.

Patient placement criteria are normally used to place patients in evidence-based pathways. Given the evidence that commissioned services have as much or more impact on service user outcomes as the service users themselves, the ACMD thinks that it may be a better use of resources to ensure heroin users actually receive evidence-based treatment and recovery interventions to increase likelihood of success.

### **10. RECOMMENDATIONS**

In light of these conclusions, the Advisory Council on the Misuse of Drugs (ACMD) would like to make six recommendations.

- 1. Government and local areas should protect the investment in recovery-orientated drug treatment and recovery systems, and prevent disinvestment.
- 2. Local areas should strive for a culture of stability and quality improvement in drug treatment. The 'churn' in services and staff through frequent re-procurement is impacting on the quality of OST, particularly if local budgets are reduced. We urge local authorities not to engage in costly and disruptive re-procurement if systems are recovery-orientated and achieving adequate outcomes.
- 3. Government should implement a national quality improvement programme for recovery-orientated OST and ensure implementation of evidence-based practice.
- 4. Local areas should ensure all local drug treatment and recovery systems have enough community and residential abstinence pathways and ongoing recovery support.
- 5. Discrimination and stigmatising of those in medication assisted recovery should be tackled at all levels: nationally; among local health services; among employers; and in local communities.
- 6. Further research should be undertaken to build the UK research evidence on recovery-orientated treatment and interventions for heroin users.

These recommendations are translated into detailed recommendations for **specific audiences** below.

#### National

- The ACMD recommends that the Government implements improved performance management and monitoring of local recovery-orientated drug treatment systems and resources being spent. It urges the Government to develop strategies to maintain local authority and NHS investment including:
  - opioid substitution therapy (OST);
  - o community and residential abstinence pathways; and,
  - o pathways for heroin users in prison.
- The ACMD recommends that the Government commissions a national programme of quality improvement in recovery-orientated drug treatment (RODT) for those with heroin dependence within the refresh of the national drug strategy in 2015-16. This should include:
  - a clear articulation of the expected content of evidence-based RODT pathways similar to those required within other areas of health to match patient placement criteria;
  - $\circ$  the development of clear national standards for RODT, OST and abstinence pathways;
  - the implementation of a thematic inspection or review of the implementation of RODT in line with standards including: the Care Quality Commission (CQC); the National Institute for Health and Care Excellence (NICE); Public Health England (PHE); the Local Government Association (LGA); service users; providers; and commissioners.
- The ACMD recommends that PHE reviews, with target audiences, its management and monitoring data, with a view to producing information that is more accessible and practical for local commissioners and services.
- The ACMD recommends that the Government commissions a demand-modelling exercise to model the OST population groups, to predict expected outcomes and mortality over the next 15-20 years, and to enable a longer-term view of recovery outcomes.

- The ACMD recommends that the Government monitors the impact of trends in commissioning on the quality of OST, treatment penetration and recovery outcomes.
- The ACMD recommends that the Government helps to build a UK evidence-base on drug treatment by contributing to the commissioning of national and European recovery-orientated drug treatment research studies. This should include:
  - good practice studies;
  - o quality standards that are based on evidence-based treatment;
  - o measures of aspiration for service users and staff; and,
  - assessments of community engagement.

#### Local authority commissioners

- The ACMD recommends that local commissioners try to maintain a culture of stability and quality improvement in local drug treatment systems. It urges them not to engage in costly re-procurement of local systems if they are achieving adequate outcomes and are deemed recovery-orientated.
- The ACMD requests greater transparency and the annual publication of local data on drug treatment including:
  - o investment in OST as a necessary part of recovery-orientated drug treatment for heroin users;
  - o performance against RODT quality standards; and,
  - local system key indicators (penetration rates, outcome data, balance between OST and abstinence pathways).
- The ACMD recommends that balanced systems of OST plus abstinence pathways and ongoing recovery support are commissioned for those with heroin dependence based on the needs of local populations and should include a 'segmented' and 'phased and layered' approach that takes into account the different needs of groups.
- The ACMD recommends that local commissioners procure evidence-based interventions including:
  - adequate therapeutic 'dose';
  - contingency management with sufficient drug testing;
  - o behavioural couples therapy (BCT); and,
  - o family therapy (FT).
- The ACMD recommends that local commissioners ensure strategic links with and clear pathways for those on OST to local physical and mental health services, housing, training and employment providers, for both those in medication-assisted recovery (MAR) and those in abstinence pathways.
- The ACMD encourages local authorities to adopt a partnership approach to RODT service improvement where local commissioners, service providers and service users collaborate together to improve practice.
- The ACMD encourages commissioners to include local recovery asset mapping in local joint strategic needs assessments and encourages asset building for heroin users in RODT using mainstream assets, for example, sports facilities and volunteering.

#### Drug treatment services and staff

- The ACMD recommends that the managers/clinical leads in all OST services review their services against national guidelines, implement a 'phased and layered approach' in OST and ensure the implementation of evidence-based interventions.
- The ACMD recommends that particular attention is paid to:
  - o adequate medication and therapeutic dose to achieve best benefit;
  - o drug testing and contingency management to identify treatment adherence and address 'use of top';

- BCT and FT;
- o facilitated access to mutual aid; and,
- o asset-building interventions to encourage health, well-being and meaningful activity.
- Managers/clinical leads should also ensure that service users in OST receive adequate 'doses' of recovery key work and regular reviews, and that the treatment of those who are 'using on top' or who are not benefiting from treatment is further optimised.
- Drug services should provide or have agreed access to mental health services for those in OST including treatment for anxiety and depression.
- Drug services should ensure that they help service users address deficits and build recovery capital in wider recovery domains including:
  - access to housing which supports recovery;
  - training, volunteering and employment; and,
  - o mental and physical health for both those in MAR and those in abstinence pathways.
- Drug services should ensure that teams have an adequate staff complement and the competence to provide evidence-based RODT interventions including:
  - o managers;
  - medical and nursing staff;
  - psychologists and family therapists;
  - o competent key workers; and
  - experts by experience.
- The ACMD recommends services engage in a partnership approach where commissioners, experts by experience, and service providers ensure leadership of a recovery approach to drug treatment in line with guidelines.

#### References

<sup>1</sup> Advisory Council on the Misuse of Drugs (2014): *Time limiting Opioid Substitution Therapy*. London: Home Office

<sup>2</sup> Advisory Council on the Misuse of Drugs (2013): *What recovery outcomes does the evidence tell us we can expect?* London: Home Office

<sup>3</sup> Dennis, M. and Scott, K. (2007) 'Managing Addiction as a Chronic Condition', *Addiction, Science and Clinical Practice*, 2007 December, 4 (1), pp 45–55.

<sup>4</sup> Granfield, R. and Cloud, W. (1999) *Coming clean: Overcoming addiction without treatment.* New York: New York University Press.

<sup>5</sup> Magura, S., Nwakeze, P., Kang, S. and Demsky, S. (1999) 'Program quality effects on patient outcomes during methadone maintenance: A study of 17 clinics.' *Substance Use & Misuse* 34(9), pp 1299-1324.

<sup>6</sup> Simpson, D., Joe, G. and Rowan-Szal, G, (1997) 'Drug abuse treatment retention and process effects on follow-up outcomes', *Drug & Alcohol Dependence*, 1997 September 25;47 (3), pp 227-35.

<sup>7</sup> Joe, G., Simpson, D., Broome, K. (1999) 'Retention and patient engagement models for different treatment modalities in DATOS. *Drug & Alcohol Dependence*, 1999 December 1;57(2), pp 113-25.

<sup>8</sup> Gossop, M., Marsden, J. and Stewart, D. (2001) *NTORS: National Treatment Outcomes Recovery After Five Years: Changes in substance use, health and criminal behaviour during the five years after intake*. National Addiction Centre 2001

<sup>9</sup> Department of Health (England) and the devolved administrations (2007) *Drug Misuse and Dependence: UK Guidelines on Clinical Management*. London: Department of Health (England), the Scottish Government, Welsh Assembly Government and Northern Ireland Executive

<sup>10</sup> Hartel, D., Schoenbaum, E., Selwyn, P., Kline, J., Davenny, K., Klein, R. and Friedland, G. (1995) 'Heroin use during methadone maintenance treatment: the importance of methadone dose and cocaine use', *Journal of Public Health* January 1995: Vol. 85, No. 1, pp 83-88.

<sup>11</sup> Gorzelańczyk, E., Fareed, A., Walecki, P., Feit, J. and Kunc, M. (2014) 'Risk Behavior in Opioid-Dependent Individuals After the Administration of a Therapeutic Dose of Methadone', (2014) *American Journal on Addictions.* 2014 November-December; 23(6), pp 608-12

<sup>12</sup> Strain, E., Bigelow, G. and Liebson, I. (1999) 'Moderate - vs high dose methadone in the treatment of opioid dependence: a randomized trial. *Journal of the American Medical Association* 1999; 281: pp 1000-5

<sup>13</sup> Eap, C., Buclin, T. and Baumann, P. (2002) 'Interindividual Variability of the Clinical Pharmacokinetics of Methadone: Implications for the Treatment of Opioid Dependence', *Clinical Pharmacokinetics* 2002; 41 (14), pp 1153-1193

<sup>14</sup> Ferrari, A, Rosario Coccia, CP., Bertolini, A. and Sternieri, E. (2004) 'Methadone-metabolism, pharmacokinetics and interactions', *Pharmacological Research* 50 (2004), pp 551–559

<sup>15</sup> Strang, J., Sheridan, J. and Barber, N. (1995) 'Prescribing injectable and oral methadone to opiate addicts: results from the 1995 national postal survey of community pharmacies in England and Wales', *BMJ* 1996;313, pp 270-272

<sup>16</sup> Duffy, P. and Baldwin, H. (2012) 'The Nature of Methadone Diversion in England: A Merseyside case study', *Harm Reduction Journal* 2012 9:3.

<sup>17</sup> Faggiano, F., Vigna-Taglianti, F., Versino, E. and Lemma, P. 'Methadone maintenance at different dosages for opioid dependence', *Cochrane Database Syst Rev.* 2003;(3):CD002208

<sup>18</sup> NICE (2007) *Technology Appraisal 114 – Methadone and buprenorphine for the management of opioid dependence.* London: NICE

<sup>19</sup> Stoever, H., Dale-Perera, A. and Goulao, J. (2012) 'Quality of care provided to patients receiving Opioid Maintenance Treatment in Europe: Results from the EQUATOR analysis', *Heroin Addiction and Related Clinical Problems* 2012 Vol 14, pp 23-38

<sup>20</sup> Strang, J., Metrebian, N., Lintzeris, N. and Potts, L. (2010) 'Supervised injectable heroin or injectable methadone versus optimised oral methadone as treatment for chronic heroin addicts in England after persistent failure in orthodox treatment (RIOTT): a randomised trial', *Lancet* 375, pp 1885-95

<sup>21</sup> Ferri, M., Minozzi, S., Bo, A. and Amato, L. (2013) 'Slow-release oral morphine as maintenance therapy for opioid dependence' *Cochrane Database Syst Rev.* 2013 Jun 5;6:CD009879

<sup>22</sup> Strang, J., Hall, W., Hickman, M. and Bird, S. (2010) 'Impact of supervision of methadone consumption on deaths related to methadone overdose (1993-2008): analyses using OD4 index in England and Scotland', *BMJ* 2010;341:c4851

<sup>23</sup> Holland, R., Matheson, C., Anthony, G. (2012) 'A pilot randomised controlled trial of brief versus twice weekly versus standard supervised consumption in patients on opiate maintenance treatment', *Drug and Alcohol Review*: 2012, 31(4), pp 483–491.

<sup>24</sup> http://findings.org.uk/count/downloads/download.php?file=Holland\_R\_2.txt (1 of 6)

<sup>25</sup> NICE (2007) *NICE Clinical guideline 51: Drug misuse – psychosocial interventions.* London: NICE

<sup>26</sup> Gordon, D., Burn, D., Campbell, A., and Baker, O. (2007) *The 2007 user satisfaction survey of Tier 2 and 3 service users in England* London: National Treatment Agency for Substance Misuse

<sup>27</sup> Best, D., Day, E., Morgan, B., Oza, T., Copello, A. and Gossop, M. (2009) 'What treatment means in practice: An analysis of the therapeutic activity provided in criminal justice drug treatment services in Birmingham, England', *Addiction Research and Theory*, **17** (6), pp 678-687

<sup>28</sup> Fiorentine, R., Nakashima, J. and Anglin, M.D. (1999) 'Client engagement with drug treatment', *Journal of Substance Abuse Treatment*, 17(3), pp 199–206

<sup>29</sup> Fiorentine, R. and Hillhouse, M. (1999) 'Drug treatment effectiveness and client-counselor empathy: exploring the effects of gender and ethnic congruency', *Journal of Drug Issues* 1999 29(1), pp 59-74

<sup>30</sup> National Treatment Agency for Substance Misuse (2012) *Medications in recovery: re-orientating drug dependence treatment* 

<sup>31</sup> Gossop, M. (2006) *Treating drug misuse problems: evidence of effectiveness*. National Treatment Agency for Substance Misuse

<sup>32</sup> Schwartz, R., Kelly, S., O' Grady, K., Gandhi, D. and Jaffe, J. (2012). 'Randomized trial of standard methadone treatment compared to initiating methadone without counseling: 12 - month findings', *Addiction*, 2012, Vol.107(5), pp 943-952

<sup>33</sup> McLellan, A., Arndt, I., Metzger, D., Woody, G. and O'Brien, C.(1993) 'The effects of psychosocial services in substance abuse treatment', *Journal of Addictions Nursing* 5(2), pp 38-47

<sup>34</sup> Kraft, M., Rothbard, A., Hadley, T., McLellan, A. and Asch D (1997) 'Are supplementary services provided during methadone maintenance really cost-effective?', *American Journal of Psychiatry* 154(9), pp 1214-1219

<sup>35</sup> Avants, S. K., Margolin, A. and Kosten, T. R. (1994) 'Cocaine abuse in methadone maintenance programs: integrating pharmacotherapy with psychosocial interventions', *Journal of psychoactive drugs* 26(2), pp 137-146

<sup>36</sup> Best, D., Day, E., Morgan, B., Oza, T., Copello, A. and Gossop, M. (2009) 'What treatment means in practice: An analysis of the therapeutic activity provided in criminal justice drug treatment services in Birmingham, England', Addiction Research and Theory, 17 (6), pp 678-687

<sup>37</sup> Griffith, J., Rowan-Szal, G., Roark, R. and Simpson, D (2000) 'Contingency management in outpatient methadone treatment: a metaanalysis. *Drug and Alcohol Dependence* 2000', 58, pp 55-66

<sup>38</sup> DuPont, R., McLellan, A., Carr, G., Gendel, M., and Skipper G. (2009) 'How are addicted physicians treated? A national survey of Physician Health Programs' *Journal of Substance Abuse Treatment* 2009; 37, pp 1-7

<sup>39</sup> William, L. and White, W. L. (2009) 'Peer-based Addiction Recovery Support History, Theory, Practice, and Scientific Evaluation', Philadelphia: Great Lakes Addiction Technology Transfer Center Philadelphia Department of Behavioral Health and Mental Retardation Services

<sup>40</sup> Amato, L., Minozzi, S., Davoli, M. and Vecchi, S. (2011) 'Psychosocial combined with agonist maintenance treatments versus agonist maintenance treatments alone for treatment of opioid dependence', *Cochrane Database of Systematic Reviews* 2011 Oct 5;(10):CD004147

<sup>41</sup> Magura, S., Rosenblum, A., Fong, C., Villano, C., and Richman, B. (2002) 'Treating cocaine-using methadone patients: predictors of outcomes in a psychosocial clinical trial', *Substance use & misuse* 37(14), pp 1927-1955

<sup>42</sup> De Maeyer, J., Vanderplasschen, W., Camfield, L., Vanheule, S., Sabbe, B., and Broekaert, E. (2011) 'A good quality of life under the influence of methadone: A qualitative study among opiate-dependent individuals', *International Journal of Nursing Studies* 48(10), pp 1244-1257

<sup>43</sup> De Maeyer, J., Vanderplasschen, W., Lammertyn, J., van Nieuwenhuizen, C., Sabbe, B. and Broekaert E (2011a) 'Current quality of life and its determinants among opiate-dependent individuals five years after starting methadone treatment', *Quality of life research* 20(1), pp 139-150.

<sup>44</sup> Pierce, M., Bird, S., Hickman, M., Marden, J., Dunn, G., Jones, A. and Millar, T. (2015) 'Impact of treatment for opioid dependence on fatal drug-related poisoning: a national cohort study in England', In press, *Addiction* DOI: 10.1111/add.13193

<sup>45</sup> McLellan, A., Woody, G., Luborsky, L., and Goehl, L. (1988) 'Is the Counselor an "Active Ingredient" in Substance Abuse Rehabilitation?: An Examination of Treatment Success among Four Counselors' *Journal of Nervous and Mental Disease* 176, pp 423-430

<sup>46</sup> Luborsky, L., McLellan, T., Woody, G., O'Brien, C. and Auerbach, A. (1985) 'Therapist success and its determinants', *Archives of General Psychiatry* 42(6), pp 602-611

<sup>47</sup> Kim, T., Samet, J., Cheng, D., Winter, M., Safran, D. and Saitz, R. (2007) 'Primary care and addiction severity: a prospective cohort study', *Health Service Research* April 42 Vol 4, pp 755-772

<sup>48</sup> Lions, C., Carrieri, M., Michel, L., Mora M,. Marcellin, F., Morel, A., Spire, B., Roux, P. and Methaville Study Group (2013) 'Predictors of non-prescribed opioid use after one year of methadone treatment: attributablerisk approach', *Drug and alcohol dependence* Vol 135, pp 1-8

<sup>49</sup> Simpson, D. (2004) 'A Conceptual Framework for Drug Treatment Process and Outcome', *J Subst Abuse Treat* 2004 Sep;27(2), pp 99-121

<sup>50</sup> *Improving services for substance misuse: a joint review*. Healthcare Commission and National Treatment Agency 2006.

<sup>51</sup> Ambitious for Recovery (2014) Centre for Social Justice

<sup>52</sup> State of the Sector 2014-15. DrugScope 2015

<sup>53</sup> Weaver, T., Stimson, G., Tyrer, P., Barnes, T. and Renton, A. (2004) 'What are the implications for clinical management and service development of prevalent co-morbidity in UK mental health and substance misuse treatment populations?', *Drugs: Education, Prevention and Policy* Vol. 11, No. 4, 2004, pp 329–348

<sup>54</sup> Breedvelt, J., Dean, L., Jones, G., Cole, C. and Moyes, H. (2014) 'Predicting recidivism for offenders in UK substance dependence treatment: do mental health symptoms matter?', *Journal of Criminal Psychology*, Vol. 4 Iss 2 pp 102 - 115

<sup>55</sup> Five Ways to Wellbeing, New Economics Foundation

<sup>56</sup> Social reintegration and employment: evidence and interventions for drug users in treatment. EMCDDA, Lisbon, October 2012

<sup>57</sup> Bauld, L., Hay, G., McKell, J. and Carroll, C. (2010) *Problem drug users' experiences of employment and the benefit system* London: Department for Work and Pensions

<sup>58</sup> UK Drug Policy Commission (UKDPC) *Working towards recovery, Getting problem drug users into jobs*. December 2008

<sup>59</sup> Build on Belief Service User Impact and Evaluation Report 2014 Tim Sampey and Aidan Gray

<sup>60</sup> Fiorentine, R. (1999) 'After drug treatment: are 12-step programs effective in maintaining abstinence?'; *American Journal of Drug and Alcohol Abuse* 1999 Feb;25(1), pp 93-116

<sup>61</sup> Role of Housing in Drugs Recovery (2012) Chartered Institute of Housing

<sup>62</sup> Milby, J., Schumacher, J., Wallace, D., Vuchinich, R., Mennemeyer, S. and Kertesz, S. (2010) 'Effects of Sustained Abstinence Among Treated Substance-Abusing Homeless Persons on Housing and Employment', *American Journal of Public Health* 2010 May; 100(5), pp 913–918

<sup>63</sup> Keys to Change: The Role of Local Authority Housing in the Care and Rehabilitation of Single Drug and Alcohol Users in Lambeth. Deborah Rutter. DPI Paper 18, Home Office, 1999

<sup>64</sup> Medications in recovery: best practice in reviewing treatment Supplementary advice from the Recovery Orientated Drug Treatment Expert Group (2013), Public Health England

<sup>65</sup> Substance Misuse Skills Consortium's *Skills Hub*: <u>http://www.skillsconsortium.org.uk/skillshub.aspx</u>

<sup>66</sup> Hay, G., dos Santos, A.R., Worsley, J. (2013) Estimates of the Prevalence of Opiate Use and/or Crack Cocaine Use, 2011/12: Sweep 8 report. Liverpool John Moores University

<sup>67</sup> Public Health England (2014) Drug Treatment in England 2013-14. London: Public Health England

<sup>68</sup> Public Health England (2014) Adult Drug Statistics from the National Drug Treatment Monitoring System (NDTMS) 1 April 2013–31 March 2014. London: Public Health England

<sup>69</sup> Millar, T., Gemmell, I., Hay, G., Heller, R.F., Donmall, M. (2006) 'How well do trends in incidence of heroin use reflect hypothesised trends in prevalence of problem drug use in the North West of England?' *Addiction Research & Theory*, 14, pp 537-549

<sup>70</sup> Pierce M., Bird S., Hickman M., Millar T. (2015) 'National record linkage study of mortality for a large cohort of opioid users ascertained by drug treatment or criminal justice sources in England, 2005–2009' *Drug & Alcohol Dependence*, 146, pp 17-23

<sup>71</sup> Simpson, D., Joe, G. and Broome, K. (1998) 'Effects of readiness for drug abuse treatment on client retention and assessment of process', *Addiction* 1998 Aug;93(8) pp 1177-90

<sup>72</sup> Simpson, D., Joe, G. and Broome, K. (2002) Drug Abuse Treatment Outcome Study (DATOS)

<sup>73</sup> Jones, A., Donmall, M., Millar, T., Moody, A., Weston, S., Anderson, T., Gittins, M., Abeywardana, V. and D'Souza, J. (2009) The Drug Treatment Outcomes Research Study (DTORS): Final outcomes report 3rd Edition. London: Home Office 2009

<sup>74</sup> Farrell M., Marsden J., Eastwood B., Bradbury C., Dale-Perera A. (2009) 'Effectiveness of community treatments for heroin and crack cocaine addiction in England: a prospective, in-treatment cohort study', *Lancet* 2009 Vol 374, pp 1262-1270

<sup>75</sup> National Treatment Agency for Substance Misuse (2005) *Women in drug treatment services* London: National Treatment Agency for Substance Misuse

<sup>76</sup> National Treatment Agency for Substance Misuse (2010) *Women in drug treatment: what the latest figures reveal* London: National Treatment Agency for Substance Misuse

<sup>77</sup> European Monitoring Centre for Drugs and Drug Addiction (2015) *European Drug Report: Trends and Developments (2015)* Lisbon: European Monitoring Centre for Drugs and Drug Addiction

<sup>78</sup> McLellan, A., Skipper, G., Campbell, M. and DuPont, R. (2008) 'Five year outcomes in a cohort study of physicians treated for substance use disorders in the United States', *BMJ* 2008;337:a2038

<sup>79</sup> Public Health England (2015) Data from the Recovery Diagnostic Tool (RDT) – unpublished and presented to the Recovery Committee on 2 April 2015

<sup>80</sup> Marsden, J., Eastwood, B., Ali, R., Burkinshaw, P., Chohan, G., Copello, A., Burn, D., Kelleher, M., Mitcheson, L., Taylor, S., Wilson, N., Whiteley, C. and Day E (2014) 'Development of the Addiction Dimensions for Assessment and Personalised Treatment (ADAPT)', *Drug and Alcohol Dependence*, Vol 139, pp 121-131

<sup>81</sup> Best, D., Savic, M., Beckwith, M., Honor, S., Karpusheff, J. and Lubman D (2013) 'The role of abstinence and activity in the quality of life of drug users engaged in treatment', *Journal of Substance Abuse Treatment* 45 (2013), pp 273–279

<sup>82</sup> McKay, J., Cacciola, J., McLellan, AT., Alterman, A. and Wirtz, P. (1997) 'An Initial Evaluation of the Psychosocial Dimensions of the American Society of Addiction Medicine Criteria for Inpatient versus Intensive Outpatient Substance Abuse Rehabilitation', *Journal of Studies on Alcohol* 58, pp 239-52

<sup>83</sup> Klein, C., di Mensa, S., Arfken, C. and Schuster, C.R. (2002) 'Interaction effects of treatment setting and client characteristics on retention and completion', *Journal of Psychoactive Drugs*. 2002; 34, pp 39–50

<sup>84</sup> Hoffman, J. and Moolchan, E. (1994) 'The phases-of-treatment model for methadone maintenance: implementation and evaluation', *Journal of Psychoactive Drugs* 1994 Apr-Jun; 26(2), pp 181-97.

<sup>85</sup> Gottheil, E., Thornton, C. and Weinstein, S. (2002) 'Effectiveness of high versus low structure individual counseling for substance abuse', *American Journal on Addictions*, 11, pp 279-290.