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Health Needs Assessment of Short Sentence Prisoners

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Executive Summary

1. Background

- 1.1 East Midlands CSIP Office commissioned a health needs assessment of prisoners serving short sentences in East Midlands' prisons. Nationally, this group constitute 17% of all those in prison and 60% will have 10 or more previous convictions.
- 1.2 Prisoners serving short sentences suffer multiple social disadvantages they are likely to: have truanted from school; half are unemployed and possess no formal qualifications; 15% were homeless or in temporary accommodation; nearly all used illegal drugs in the 12 months prior to a sentence and 40% were problem drinkers.
- 1.3 Those serving short sentences are a diverse group encompassing gender, age and ethnicity. They are likely to have a series of needs on release (especially for accommodation) but unless they are under 21 are highly unlikely to be released to the supervision of probation services. The chances of re-offending are high (61% of men and 56% of women).
- 1.4 The chances of participating in prison-based education and rehabilitation schemes are diminished because of the nature of the short sentence.
- 1.5 One important national study aside (Stewart, 2008) the health needs of this group have not been focused on.

2. Methodology

- 2.1 Four prisons in the East Midlands hold short-sentenced prisoners; HMP Leicester, HMP Lincoln, HMP Nottingham and HMP Foston Hall (a women's prison). A target sample of 209 was aimed for with healthcare managers distributing the assessment schedules.
- 2.2 We used the ASHNO set of schedules that has been previously reported in other HNAs undertaken in the East Midlands (Brooker et al, 2008). These questionnaires assessed: overall health status [physical and mental health] (SF36); extent of drug and alcohol problems (CAGE and UNCOPE); access and barriers to health services in prison and the frequency with which these were accessed.
- 2.3 Ethical approval was obtained from the University Ethics committee and each respondent consented to take part.

3. Results

Response

- 3.1 The response rate was disappointing when compared with other previous HNAs in the East Midlands: Probation achieved a 91% response; Secure Children's homes (86%) our sample of short sentenced prisoners achieved 35% (n=73).
- 3.2 The poorest response was from Foston Hall where just 9 prisoners were identified (16% of the target) the male prisons varied from 36% (Nottingham) to 47% at HMP Leicester. Healthcare managers agreed that identifying short-sentenced prisoners was problematic.

Sample characteristics

- 3.3 The average age of the sample was 32, predominantly white, with a history of numerous convictions with nearly a third aged under 16 at the time of the first conviction.

Health Assessment

- 3.4 The physical and mental health of our sample, as measured by the SF 36, was significantly worse than for the general population.
- 3.5 Prisoners serving short sentences were five times more likely than the general population to be at risk of problem drinking and more at risk of having a drug problem than even a sample of offenders on probation (38% versus 52%). Drug or alcohol abuse was cited by prisoners themselves as one of their greatest health problems.
- 3.6 Those serving short sentences exhibited other risky health behaviours. They were four times more likely to smoke than the general population (21% versus 83%) and 25% had been assessed for a sexually transmitted disease a figure twice that of offenders on probation.
- 3.7 One-third had been seen by specialist mental health services mostly for depression. Only one case of a psychosis was elicited. Over and above reports of formal diagnoses of depression we can estimate, using the SF 36, that approximately one-third (36%) were at risk of being depressed. The greatest problem cited by SS prisoners was their mental health followed by substance misuse.

Service Use

- 3.8 One-third of SS prisoners had problems accessing services the most common services where there were difficulties were: the dentist, the GP and mental health services. Consequently the largest comment made about health service improvement was in terms of access. In one prison there were 58 prisoners on the dentist's waiting list.
- 3.9 It was clear from the staff focus groups that a wide variety of health services were offered with specific regular clinics offered: well-man; older adult; asthma and smoking cessation.
- 3.10 Staff agreed that one current weakness of healthcare available was the lack of primary care mental health care services. This was specifically true for counselling services where one healthcare manager commented that this therapy would often not be started for a short-sentenced prisoner because they might not be inside for all the sessions.

4. Discussion

- 4.1 The identification of those serving short sentences by healthcare staff is not easy. Staff might know how long a prisoner had left to service but not the length of the whole sentence. This impacted upon the sample achieved which was much lower than was desirable.
- 4.2 The ASHNO health assessment schedule was used allowing a comparison of health across three offender samples in the East Midlands: short-sentenced prisoners, children in secure settings, and those serving probation.
- 4.3 The literature shows that those serving short sentences are likely to be disadvantaged in a variety of ways. This assessment shows, for example, that primary care counselling is likely to be considered inappropriate for those serving short sentences.
- 4.4 As far as we are aware apart from the study by Stewart(2008) for the Ministry of Justice this is the only reported assessment of the health needs of short-sentenced prisoners.
- 4.5 In common with other groups of offenders, those serving short sentences engage in a wide range of risky health behaviour including: substance misuse (both drugs and alcohol); sexual health and smoking.

- 4.6 The incidence of mental health problems is high but little psychosis was observed this might be due to the inaccuracy of self-report and the fact that there were too few women in the sample. There was little evidence that a stepped approach to the treatment of alcohol problems was in place as recommended by the NTA. In addition the lack of primary care mental health services was noticeable.
- 4.7 It is clear that more detailed assessment is required of the following groups: all women serving short sentences; those with a likely serious mental illness and those experiencing alcohol problems.
- 4.8 In the light of the particular issues that confront prisoners serving short sentences, the length of sentence a prisoners is serving, should be taken into account at reception assessment and subsequent triage.
- 4.9 There is a high demand for dental services and long waiting lists.

1. Background

The University of Lincoln were commissioned by the former East Midlands Care Services Improvement Partnership office (EM CSIP) to undertake a health needs assessment of prisoners serving 12 months or less in the East Midlands prison estate; HMP Lincoln, HMP Nottingham, HMP Foston Hall and HMP Leicester.

Prison sentences of 12 months or less are commonly known as 'Short Sentences'. In the wake of the Halliday Report (2001) and the introduction of the Criminal Justice Act 2003 there has been considerable discussion about the effectiveness of short sentences. Such sentences are normally given for offences such as theft and handling. Short sentence prisoners are likely to have previous convictions, 58% of short sentence prisoners have 10 or more previous convictions (House of Commons 2008) alongside high rates of reoffending. Women are also more likely to receive a short sentence and the problems this can cause to families have been debated especially in the Corston Report (Home Office, 2007). Many argue that they are inappropriate for many of those offenders who receive them, (particularly for those with mental health problems) but also that they are ineffective for those persistent, minor offenders.

Those serving short sentences are a diverse group spanning gender, age and ethnicity. They make up 17% of the prison population in England, or nearly one in five. Short sentence prisoners represent the majority (65%) of prison discharges every year (Social Exclusion Unit, 2002). All short sentence prisoners are released half way through their sentences often with high resettlement needs (HMIP 2001) but only those under 21 years of age are supervised on license by probation services after their release. Offenders over the age of 21 can request further supervision but often a lack of resources may prevent such facilities from being offered. Short sentence prisoners are also more at risk of being transferred to other prisons and often have high alcohol and substance misuse problems (HMIP 2001).

Often this group are unable to take part in health, education and rehabilitation programmes that would ordinarily be offered to offenders who are serving longer sentences (Taylor et al, 2002). Those with short custodial sentences are also highly likely to re-offend. The Social Exclusion Unit (2002) suggest that 61% of males who were given short sentences reoffended within two years of release compared to 56% of those whose original sentence was between 12 months and four years, the figures for female re-offending are much more worrying with 56% of females re-offending if their original sentence was less than 12 months compared to the 35% of women whose original sentences were between 12 months and four years.

The issues for short sentenced prisoners are clear: release from prison without the formal support of the probation service; high resettlement needs; high rates of re-offending and the difficulties in engaging with programmes in prison. There have been, however, a number of projects and schemes set up, particularly by the voluntary sector to try to fill this gap and meet the needs of this population. In recent

years there have been a number of government pathfinder projects which targeted the resettlement needs of short sentenced prisoners including accommodation and drugs however alcohol health needs are rarely addressed. There has been also a joint Prison Service and National Probation Directorate pilot for drug hostels that was aimed at released short sentence prisoners with drug offending histories. Revolving Doors, a national charity, have a Link Worker Scheme that works with remand and short sentence prisoners with mental health problems.

1.1 Literature Review

There has been increasing awareness of the health needs of offenders in recent years. A number of studies have sought to explore the health status and needs of the prison population; these have included studies addressing specific groups such as young offenders (Lader et al, 2000; Farrant, 2001), older people (Fazel et al, 2004), women (Douglas and Plugge, 2006, Plugge and Fitzpatrick, 2005; Plugge et al, 2006) and minority ethnic groups (Prison Reform Trust, 2005). Harris et al (2006) have produced a systematic overview of all of these areas of research with the exception of offenders on probation; however Brooker et al (2008) undertook a health needs assessment of offenders on probation caseloads.

Significant research exploring the health of offenders has demonstrated that they are far more likely than the rest of the population to have psychiatric disorders (Singleton et al, 1998). In their sample of various sections of the prison population Singleton et al (1998) revealed that 90% of prisoners had at least one mental disorder, this figure includes alcohol abuse and drug dependency. Singleton et al (1998) go on to suggest that 64% of male prisoners and 50% of female prisoners meet the diagnostic criteria for having a personality disorder. Over 70% of offenders have more than one mental health condition (Social Exclusion Unit, 2002). The findings regarding mental health needs in prisons is not confined to England, other studies in Australia (Herrman et al, 1991), and Canada (Bland et al, 1998) have revealed similar health needs in their prison populations. Singleton et al (1998) found that 72% of male sentenced prisoners and 70% of female sentence prisoners suffer from two or more mental disorders. 66% of male prisoners and 55% of females have used drugs in the year prior to imprisonment compared to national figures of 13% of men and 8% of women. Hazardous drinking also has a higher prominence in offenders with 63% of males and 39% of female prisoners reporting excessive use in the year prior to imprisonment compared to national average figures of 38% of men and 15% of women in the general population.

Brooker et al (2008) used the SF36-V2 health status measure (Ware, 2000; Jenkinson et al, 1996) to explore the physical and mental health needs of offenders on probation. This study found that offenders in the community had significantly worse health than the general population, female offenders particularly so. Over 40% of this sample was at risk of alcohol abuse or dependence and over a quarter had had formal contact with mental health services. They also found that this group were frequent users of Accident and Emergency/ NHS walk in services.

Issues related to physical health are also more prominent when compared to national population figures in offenders who have received custodial sentences. Bridgwood and Malbon (1995) have shown that 46% of male prisoners aged 18-49 have some form of long-standing illness or disability compared to the national figures for the same age group of 29%. Both male and female offenders are more likely to have HIV or hepatitis (DOH, 2000).

These findings are especially concerning for short sentence prisoners who may remain unsupported within the justice system. Despite a growing body of research that explores offender health within prisons there is a shortage of literature which exclusively explores the health profiles of short-sentence prisoners, those who receive a sentence of 12 months or less. This may be due, in part, to their transient nature through the system. Their inclusion in national surveys relies on an element of luck that such offenders will be represented in the populations measured. It should be noted that 16% of males and 21% of women included in the Singleton et al (1998) study were short sentence prisoners. The authors suggest that for some of these prisoners only partial data were collected during the study, e.g. only the lay assessment of psychiatric health, due to prisoners being released before the end of the study. Young offenders (those under the age of 21 years) are more likely to be given short custodial sentences (Lader et al, 2000). This study explored the characteristic of young offenders; their analyses reveal that 24% of male and 23% of female young offenders are serving short sentences of less than 12 months.

However there is one important national survey that has examined the profile of newly sentenced prisoners including aspects of their health (Stewart, 2008). Stewart and his colleagues surveyed a representative group of 1,457 prisoners in 49 prisons across England and Wales. Pre-conviction this group has experienced much social disadvantage: half had been unemployed; 58% had truanted from school; just under half possessed no qualifications; and 15% had either been homeless or living in temporary accommodation. The majority had used illegal drugs in the 12 months before custody and 40% were also heavy drinkers. The study also looked at physical and mental health problems. 25% reported a long-standing physical health problem with musculo-skeletal and respiratory problems being the most common. However, over two thirds of the short-sentenced sample rated their health as 'good' or 'very good'. Mental health problems, however, were more prevalent especially for women. For example, it was estimated 18% of women compared to 9% of men were likely to be suffering from a psychosis. Serious depression affected about 40% of the sample and in the year before prison 8% had made a suicide attempt and 6% had self-harmed. Again depression, suicide attempts and self harm were all more common in women than men. In this study prisoners were asked to rate their needs overall. It is striking that finding employment, getting qualifications and work-related skills training were all rated as more important needs than any others including those related to aspects of health.

There are many tools that can be used to measure the health of offenders / prisoners a brief overview of these is discussed here. Singleton et al (1998) used two part evaluation of health by conducting lay interviews followed by a clinical interview for a selection of the original prison population survey group. A number of different clinical and non-clinical measures were used in their data collection, these included clinical tests for psychiatric conditions of personality disorder (SCID-II) and the schedules for Clinical Assessment in Neuropsychiatry and non-clinical tests which investigated neurotic disorder (CIS-R), self-harm (five questions which explore behaviours), the Alcohol Use Disorder Identification Test (AUDIT) on which a score of 8 or above indicates a likely hazardous alcohol use and participant self report for medical conditions which were then coding according to the International Classification of Diseases (ICD, World Health Organisation).

The prison health care assessment used methods recommended in the Toolkit for health care needs assessment (Marshall et al, 2000). These methods included drawing conclusion regarding offenders' health conditions by systematically analysing data routinely collected in the prison environment usually from case notes. This could include information on long term conditions such as diabetes, and asthma and short-term conditions such as infections or self-harm and mental health conditions including sleep disorders, neurotic disorders and drug dependence. This information could then be used to plan appropriate services to the population within each individual prison.

In 2006 an assessment conducted by Douglas and Plugge for the Youth Justice Board addressed the recommendations made in the Toolkit for health care needs assessment (Marshall et al, 2000) by using a combination of measures to explore the health of women in young offenders institutes. Douglas and Plugge (2006) used a self-report questionnaire based study which consisted of the Short Form 36 Health survey (SF-36, Jenkinson et al, 1996) (a 36 item questionnaire that collects information from eight health dimensions; physical functioning, role limitations due to physical problems, role limitations due to emotional problems, social functioning, mental health, energy and vitality, pain and general health perception), the General Health Questionnaire 12 (GHQ12 - which assesses minor psychiatric morbidity), and a number of questions drawn from other surveys that explored exercise, smoking habits, alcohol consumption, substance misuse and sexual behaviour. This combination of a number of different domains from different questionnaires enabled a thorough assessment of all the dimensions of the offenders health needs.

The SF-36 V2 (Ware, 2000; Jenkinson et al, 1996) is a generic health measure tool which has been used for health-related research around the world (Ware, 2002). The survey can be used to monitor the health of a specific population over time has been well validated and demonstrates a high level of test retest reliability and construct validity (Brazier et al, 1992; Shiely et al, 1996). SF-36 is well tested both with offenders (Brooker et al, 2008, Douglas and Plugge, 2006, Plugge et al, 2006; Plugge and Fitzpatrick, 2005) and the general population making it a tool that supports comparison across population parameters. SF-36 has been used with offender populations in the UK (Brooker et al, 2008, Douglas and Plugge, 2006,

Plugge et al, 2006; Plugge and Fitzpatrick, 2005), the United States of America (Hagedorn and Willenbring, 2003) and in Australia (Freeman, 2003).

Brooker et al (2008) continued the work towards a comprehensive tool that could explore the many dimensions of offenders' health needs by developing a Structured Health Needs Assessment Tool (ASHNO – Assessment of the Health Needs of Offenders). The ASHNO (Brooker et al, 2008) is a questionnaire designed to be completed by offenders, it uses a combination of the SF-36 (Jenkinson et al, 1996), CAGE (Ewing, 1984) (a four question tool that screen for alcohol problems), UNCOPE (Hoffmann, 2007) (a six item tool that is used to screen for substance abuse or dependence) as well as additional questions relating to smoking, sexual health, mental health and an access to healthcare survey which is designed to elicit responses on the frequency of health service use. The wide range of questions enable a thorough assessment of all aspects of health related information to be assessed, thus providing a comprehensive picture of the offenders' health.

1.2 Prison Profiles

Foston Hall

Foston Hall is a Closed Female Prison, situated in a hunting estate in Derbyshire. It was originally built in 1864. During its history Foston Hall has been a detention centre, an immigration centre and a satellite of Sudbury Prison after which time it was closed. The prison reopened in 1997 following refurbishment as a female establishment. Foston Hall has a Certified Normal Accommodation (CNA) of 283 spread over seven wings; it can accommodate 187 convicted prisoners, 80 remand prisoners and 16 juvenile prisoners. The prison also has a health centre with three inpatient beds and provision for gaining qualifications in the gardens, the gym, the textile and craft workshop and the kitchens. As of the 31st of January 2007 the operational capacity of the prison was 290 (HM Prison Service).

Leicester

Leicester is a "Victorian" prison with an adult male population and is situated in a commercial and residential district of Leicester about half a mile from the city centre. The building itself has an appearance of a strong medieval fortress, the oldest part is the Gatehouse which was built in 1825, further construction took place in 1874 which filled the bulk of the space within the secure perimeter. In 1990 the final construction took place which facilitated a new visits and administration block. The main living accommodation is a long rectangular cell block with four landings, full integral sanitation and cell electricity. As of the 12th of December 2007 the operational capacity of the prison was at 392 (HM Prison Service).

Lincoln

Lincoln prison was opened in 1972 as a local prison holding remand and convicted prisoners. It is a category B prison which holds adult male remand and convicted prisoners and unsentenced young adult prisoners. The prison serves the courts of Lincolnshire, Nottinghamshire and East Riding. There are a total of 436 cells spread across five residential wings (An induction unit and detoxification wing, a convicted wing, an unconvicted wing, a vulnerable prisoner wing and a short duration wing). As of 13th August 2008 the prison held 738. The prison has a type 3 healthcare system provided by the Lincolnshire Teaching Primary Care Trust, there are random mandatory drug tests and a regime that includes the educational course, offending behaviour courses and numerous community links (HM Prison Service).

Nottingham

HMP Nottingham opened in 1890 as a city gaol but served as a closed training establishment for adult males between 1912 and 1997. In 1997 it became a category B local prison and serves the courts of Nottinghamshire and Derbyshire. The accommodation is cellular and on the 5th of August 2008 there was an operational capacity of 549. There are normal reception arrangements for a local prison and prisoners are accepted direct from courts within its catchment area (HM Prison Service).

Aims and Objectives

1. To examine the health care needs of the short-sentenced prison population.
2. To compare the SF36 health profiles of short-sentenced prisoners with offenders in the community and with the general population
3. To assess the extent to which the healthcare needs of short sentenced prisoners are being addressed and to suggest, if necessary, how access services might be improved.

2. Method

2.1 Sample

The total prison population in the East Midlands is 1765 (October 2008), of which 361 are serving sentences of 12 months or less.

The sample comprised of all females (n=55) and 50% of the males (n=154) from a total male population of 306.

Deliberation was required on the power of the statistical tests being proposed, especially concerning the detection of moderate differences ($d = 3$ or 4 in the PCS and MCS summary measures) between mean values when large variation (standard deviation of 12 or 15) is present in the data. Consequently, all the statistical tests have attained a priori power of 80% or higher (Hair et al, 2006), the probability that a significant difference will be found if it actually exists. Estimates of the variability have to come from a previous publication e.g. Brooker et al's (2008) study of offenders on probation.

Lenth's Power applet (<http://www.stat.uiowa.edu/~rlenth/Power/index.html>) provided power values for sample size (n), difference to be detected (d) and level of significance to be achieved (alpha); it is a highly accurate planning tool.

2.2 Data Collection

The healthcare manager in each establishment agreed to distribute the questionnaire to the relevant quotas for the sample. The questionnaire included:

1. SF-36 (mental and physical health)
2. CAGE (assesses drinking problems)
3. UNCOPE
4. Further questions to explore this sample's access to health services; what services they were involved with prior to custody and in prison, the frequency of which they accessed services, barriers they might face in gaining access (See appendix 1).

The research team also conducted focus groups with qualified healthcare workers (n=3) in each establishment using a semi-structured interview guide. The aim of these interviews was to obtain qualitative information on the health problems experienced by this group and their outstanding health needs.

¹A well validated, 36 item measure of mental and physical health status

²A 4-question screen for alcohol abuse or dependence in which a score of 2 or more positive answers indicates a risk of abuse or dependence

³A 6-question screen for substance abuse in which a score of 2 or more positive answers indicates a risk of abuse

2.3 Analysis

Offender questionnaires' data were entered into SPSS v14 for statistical analysis and SF36 scores will be calculated for each of the 8 dimensions and the two component summaries according to the developers' manual (Jenkinson et al, 1996, Ware et al 2000).

Parametric methods

One-tailed, independent samples t-tests were used as it was hypothesized, in advance of the data collection, that short-sentence prisoners would experience worse health than the general population. Independent (two-sample) t-tests are suitable for such studies (e.g. Plugge & Fitzpatrick) as the Oxford Healthy Lifestyle study gives sample size, mean and standard deviation for the relevant general population group.

Reported P-values of less than 0.05 were considered to be statistically significant. Confidence intervals at the 95% level illustrated the variability in the mean estimates obtained from the sample data.

The 8 SF-36 dimensions typically exhibit highly skewed data distributions (Walters, 2004) however t-tests are considered to be robust in comparison to non-parametric tests and there is 'no need to worry about the distribution of the outcome'. Walters also notes analysis of mean values rather than median values employs data from all prisoners when assessing the total cost or benefit of the health needs.

Ethical Issues

Prior ethical approval was obtained from the University and the governors of each prison involved as prisoners are a vulnerable group. Due to the nature of this project confidentiality was adhered to at all times. Participants were invited to take part via prison healthcare staff and were informed of the purpose of the research. They were provided with an information sheet about the project and a consent form to sign (See appendix 2). All written materials were assessed by the Flesch readability test in order to accommodate the problems that prisoners sometimes have with literacy.

3. Results

3.1 Response

The sample response rate is given in Table 1 below.

Table 1: Response rate by prison

	Target Sample	Remand	≤12 months	>12 months	Not Stated	Total
HMP Foston Hall	55	0	9 (16%)	1	1	11
HMP Leicester	30	5	14 (47%)	3	9	31
HMP Lincoln	77	8	33 (43%)	15	7	63
HMP Nottingham	47	1	17 (36%)	10	1	29
Total	209	14	73 (35%)	29	18	134

The samples achieved by prison varied from 16% at Foston Hall to 47% at HMP Leicester. Overall data were obtained from 73 short sentenced prisoners about one-third of the numbers that had been targeted.

3.2 Socio-demographic characteristics

Short sentenced prisoners were aged 32 on average, largely white but of mixed ethnicity, the length of current sentence was 6 months of which two months had been served. This group had numerous custodial sentences (mean = 6.5) and had, on average been 22 at the time of the first conviction.

Table 2: The socio-demographic characteristics of Short Sentence Prisoners

Demographics		Short Sentence Prisoners n=73
Age	mean (sd)	32 (10.36)
	range	21-63
Ethnicity	White British	89%
	Black/Black British	1%
	Asian/Asian British	3%
	Mixed Ethnic Group	4%
	Other	1%
	Do not wish to state	1%

Table 3: The offending history of short-sentenced prisoners

Conviction History		Short Sentence Prisoners n=73
Length of current sentence (months)	mean (sd)	5.7 (3.29)
	range	<1 - 12 months
Length of time in prison (months)	mean (sd)	2.2 (2.46)
	range	<1 - 13 months
Age at 1st conviction	mean (sd)	21.8 (10.87)
	range	10-60 years
No of previous custodial sentences	mean (sd)	6.5 (14.08)
	range	0-100

A highly significant correlation was observed between a prisoners age and age at first conviction ($p \leq 0.05$), 28.8% of the sample were under 16 when they were first convicted. There is also a significant correlation between age at first conviction and the length of current sentence (see Correlation matrix below in Table 4).

Table 4: Relationship between offending variables and drug and alcohol problem scores

		Age	Length of current sentence (months)	Age at first conviction	No of previous custodial sentences
How long have you been in prison (months)	Pearson Correlation	.373(**)	.190	-.014	.036
	Sig. (2-tailed)	.002	.130	.918	.793
	N	64	65	56	55
Age at first conviction	Pearson Correlation	.436(**)	.286(*)	1	-.264
	Sig. (2-tailed)	.000	.025		.052
	N	60	61	61	55
CAGE Score for Alcohol	Pearson Correlation	.049	.119	-.089	.268(*)
	Sig. (2-tailed)	.684	.318	.497	.038
	N	71	72	60	60
DrugsScore	Pearson Correlation	-.100	-.053	-.420(**)	.280(*)
	Sig. (2-tailed)	.408	.662	.001	.032
	N	70	71	59	59

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

3.3 Alcohol, Drugs and Smoking

The risk of alcohol abuse is measured by the 4-question CAGE if a score of 2 or more is obtained there is a clear risk of alcohol abuse or dependence. Similarly UNCOPE is a 6-question screening tool for substance abuse and again a score of 2 or more indicates a risk of substance abuse. Tables 4 and 5 below show the likely prevalence of alcohol and substance misuse problems in this sample.

Table 5: Risk of Alcohol Abuse in short-sentenced prisoners compared with other groups

	Short Sentence Prisoners	Offenders on Probation ⁴	General Population ⁵
	n=72	n=179	n=3169
Risk of alcohol abuse/dependence	44.4%	44.1%	8%

The figures are much higher for both offender groups when compared to the general population.

Table 6: Risk of Substance Misuse in short-sentenced prisoners compared to probation clients

	Short Sentence Prisoners	Offenders on Probation
	n=71	n=179
Risk of substance abuse	52.1%	38.5%

Here short sentence prisoners have a higher rate of risk of substance when compared to probationers.

⁴Brooker et al (2008)

⁵Ely et al (1999)

Table 7 below shows that the number of previous custodial sentences significantly correlates with both CAGE score for alcohol abuse/dependence ($r=0.268$, $p\leq 0.05$) and the UNCOPE score for drug abuse ($r=0.280$, $p\leq 0.05$). Age at first conviction is also highly significantly correlated with the UNCOPE score for substance abuse ($r=-0.420$, $p\leq 0.01$), so the younger prisoners were when they were first convicted, the more likely they are to be at risk of substance abuse.

Table 7: Relationship between offending history and risk of alcohol or substance misuse

		Age at first conviction	No of previous custodial sentences
CAGE Score for Alcohol	Pearson Correlation	-.089	.268(*)
	Sig. (2-tailed)	.497	.038
	N	60	60
DrugsScore	Pearson Correlation	-.420(**)	.280(*)
	Sig. (2-tailed)	.001	.032
	N	59	59

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

3.4 Smoking and sexual health

The proportion of prisoners that smoke (83.3%) is identical to the proportion of offenders on probation (83.1%) as previously described by Brooker et al (2008) (83.1%). However, in contrast, this is the complete opposite for the general population where only 21% smoke.

Table 8: Proportion of short-sentenced prisoners that smoke compared to probation clients and the general population.

	Short Sentence Prisoners	Offenders on Probation ⁶	General Population ⁷
	n=72	n=183	n=15687
Smoke	83.3%	83.1%	21%

A greater proportion of prisoners than offenders on probation had been treated for an STI or had been diagnosed with hepatitis B (see Table 9 below). Prisoners were also more likely to have been vaccinated against hepatitis A and/or B than offenders on probation and more likely to have a sexual health problem currently. Similar proportions of prisoners and offenders on probation could recall that they had been seen formally by a mental health service.

⁶ Brooker et al (2008)

⁷ Robinson and Lader (2007)

3.5 Mental Health

Of the 30.1% of prisoners that had been seen formally by a mental health service, 59.1% (n=13) were aware that they had been given a diagnosis.

Table 9: Sexual and Mental Health

	Short Sentence Prisoners n=73	Offenders on Probation n=183
Treated for an STI	25.0%	13.1%
Diagnosed with Hepatitis B	4.1%	1.0%
Diagnosed with Hepatitis C	1.4%	3.3%
Diagnosed with HIV/Aids	1.4%	-
Vaccinated against: Hepatitis A	5.5%	2.2%
Hepatitis B	21.9%	12.0%
Hep A and B	16.4%	12.6%
Might have a sexual health problem now?	12.3%	0.6%
Been seen formally by a mental health service	30.1%	27.3%

Table 10 shows that the most common diagnosis, if formally seen by a mental health service was depression.

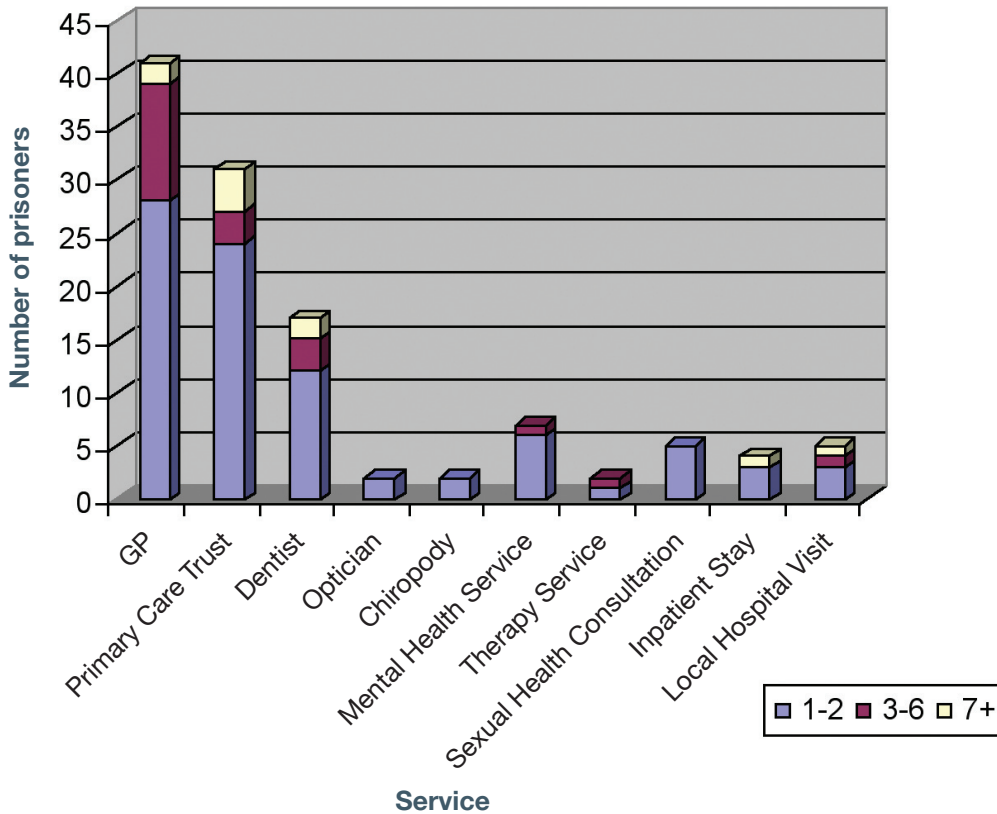
Table 10: Reported diagnosis if formally seen by a mental health service

Reported Diagnosis	Number
Depression	6
Depression and anxiety	1
Depression and personality disorder	1
Personality disorder	1
Borderline personality disorder	1
Bipolar disorder	1
Post-traumatic stress disorder	1
Panic attacks	1

3.6 Service Access

The Figure above shows that the service most frequently accessed by short-sentenced prisoners is the GP with over half of them seeing a GP in the previous two months. Just under half (43%) accessed a primary care nurse at least once in the last 8 weeks and 23% accessed dental services in a similar period. One on ten had accessed specialist mental health services and 6% have had a prison inpatient stay.

Figure 1: Access to Services



3.7 Difficulty in accessing services

One in three of (33%) of all short sentenced prisoners reported that they experienced problems in accessing services whilst one in five stated that they had no problems.

In rank order the services where access was problematic were: dentist (n=8), the GP (n=5) and the mental health service (n=3) The comments received from SS prisoners indicate that waiting times are one of the key issues:

“I’ve been waiting 4 months to see the dentist.”

“I saw an RMN and a GP about my mental health. A full assessment was ordered by the GP before he would give me my meds and I’m still waiting 4 weeks later for the assessment to be done.”

“I’ve been waiting over a month just for a reply to an application to see the dentist.”

3.8 Greatest health problem

71% (n=52) of prisoners answered the question about their greatest health problems, 2 of whom said they had none. The main problems experienced included:

- 20.5% (n=15) mental health
- 11.0% (n=8) Drug or alcohol related problems
- 11.0% (n=8) Musculoskeletal
- 5.5% (n=4) Dental

Other problems experienced by individual prisoners included diabetes, cholesterol, DVT, tinnitus and STI issues.

3.9 How prison healthcare services could be improved

This question was answered by 27.4% (n=20) of short sentence prisoners, although 5.5% (n=4) answered none or don't know and 5.5% (n=4) said that prison healthcare service were good:

“General healthcare is good enough...”

“It's a good healthcare centre...staff are great and very helpful.”

The main way that short sentence prisoners think that healthcare services should improve is in relation to access to services, particularly in terms of easiness access, faster responses to applications and shorter waiting times this was commented on by 14 short sentence prisoners.

“Easier access to mental health and make it quicker waiting to see them.”

“It should be easier to see a dentist.”

“It should be easier to access a GP.”

“You should be able to see someone on the day you need them or a nurse to come see you for a minute just to make a few notes so that they know who to treat first.”

A number of prisoners (n=6) also commented on staffing issues such as the need for more staff.

“I understand they might be busy but that's not my fault they need more staff.”

“They need to get more staff in e.g. dentist, optician, doctors.”

Issues about continuation between community and prison were also commented on, particularly in relation to medication.

“I know inmates at times find it hard to have their prescriptions carried on in here that they had outside of the jail.”

“Give me the same medication was being prescribed by my own GP.”

Other responses focussed not just on healthcare services but also health in the prison in general including the regime, nutrition and hygiene.

“A choice of association period or exercise yard during the day.”

“More exercise, more therapeutic systems, more relaxation sessions, yoga, in-cell exercise, vitamins.”

“Change the actual pillow instead of just the pillowcase every so often – hygiene is just as important as health.”

3.10 The SF36 Questionnaire

In comparison with the health status of the general population, all offending populations (short sentence prisoners, offenders on probation and children in secure settings) have a significantly worse physical component score at the 0.01 level. Short sentence prisoners and offenders on probation also have a significantly worse mental component summary than the general population.

Table 11: Differences in health status between the general population and three offending populations

Dimensions	General Population n=73	Short Sentence Prisoners n=183	Offenders on Probation	Children in Secure Settings n=67
	Mean (SD)	Mean (95%CI)	Mean (95%CI)	Mean (95%CI)
Physical Component Summary	50.00	43.83**	46.95**	40.95**
	(10.00)	(40.69-46.97)	(45.04-48.88)	(37.85-44.05)
Mental Component Summary	50.00	43.37**	46.75**	47.99
	(10.00)	(39.75-47.00)	(44.91-48.60)	(45.06-50.93)
Proportion with 80% chance of suffering a depressive disorder	-	35.6%	31.1%	36%

**p ≤ 0.01

Table 12 below shows the differences between men and women. Men's physical and mental health is worse than men in the general population but the scores for women do not show such differences. The difference in the mental health score for women serving short sentences on women on probation is marked.

Table 12: SF36 Component scores by gender for short-sentenced and type of offender

Dimensions	Men (n= 64)			Women (n=9)		
	Short Sentence Prisoners mean (SD)	Probation Sample mean (SD)	General Population mean (SD)	Short Sentence Prisoners mean (SD)	Probation Sample mean (SD)	General Population mean (SD)
Physical Component Summary	44.08** (12.76)	47.74 (12.23)	51.09 (9.48)	41.32 (13.66)	42.50 (15.85)	49.10 (10.31)
Mental Component Summary	42.14** (14.78)	47.98 (12.13)	51.2 (9.25)	55.74 (6.63)	39.82 (12.36)	48.94 (10.46)

* $p \leq 0.05$ ** $p \leq 0.01$ (denotes whether or not the scores for short-sentenced prisoners are significantly different from the general population)

Across the 8 SF36 dimensions, Table 13 shows the differences between offending populations and the general population. Short sentence prisoners have significantly worse health than the general population across all dimensions except energy and vitality and pain. Offenders on probations have significantly worse health than the general population across half the dimensions including both of the role limitation dimensions, social function and general health perception.

Table 13: A Comparison SF-36 Dimension Scores: the General Population versus three offender samples

Dimensions	General Population	Short Sentence Prisoners n=73	Offenders on Probation n=183	Children in Secure Settings n=67
	Mean (SD)	Mean (SD) (95%CI)	Mean (SD) (95%CI)	Mean (SD)
Physical Function	87.99 (19.65)	76.13** (68.68-83.57)	84.56 (80.92-88.20)	70.08 (62.03-78.12)
Role Limitation – Physical	87.17 (22.01)	75.26** (68.08-82.44)	80.32** (76.17-84.46)	69.05 (59.96-75.89)
Role Limitation – Emotional	85.75 (21.18)	73.00** (64.98-81.03)	77.09** (72.74-81.44)	67.93 (59.96-75.89)
Social Function	82.77 (23.24)	67.64** (60.90-74.37)	75.07** (70.95-79.18)	70.45 (64.71-76.20)
Mental Health	71.92 (18.15)	58.26** (52.63-63.90)	69.47 (66.28-72.67)	60.30 (55.51-65.09)
Energy and Vitality	58.04 (19.60)	54.51 (49.21-59.81)	58.54 (54.90-62.19)	9.98* (55.85-64.11)
Pain	78.80 (23.01)	60.14 (53.44-66.83)	75.20 (70.88-79.52)	67.81* (63.07-72.55)
General Health Perception	71.06 (20.43)	61.15** (55.59-66.72)	64.10** (60.42-67.77)	70.86** (65.92-75.80)

* p ≤ 0.05
 **p ≤ 0.01

Although the average age of children in secure settings is 15 and short sentence prisoners are 32 it is possible to make tentative comparisons. Short sentence prisoners have significantly worse physical health (PCS) than children in secure settings and subsequently, significantly worse energy and vitality, pain and general health perception.

Age and the offender variables (length of current sentence, length of time in prison, age at first conviction, number of previous custodial sentences) do not have a significant relationship with health status for short sentence prisoners. However the social function dimension is significantly correlated with the UNCOPE score for risk of drug abuse (r= -0.273, p ≤ 0.05).

35.6% of the sample of short sentence prisoners has an 80% risk of suffering from a depressive disorder, as identified by scoring 42 or less on the mental component summary (Ware and Gandek, 1994). This is a similar proportion to the other offending populations.

3.11 Focus Groups with Healthcare Staff

Focus groups were held in 3 of the 4 prisons with 2-3 staff in each focus group, which included heads of service, registered nurses (including mental health), and managers.

The relationship between offending and health

In all three prisons there was a firm belief that offending and health were linked. The specific links cited were most often substance abuse and, in one prison, physical disabilities. The identified link between offending and mental health was variable; some participants thought that prisoners were committing crimes because they were unwell and that:

"...judges are sending mentally unwell people to prison to get assessments."

Other participants thought that prisoners used their health as an excuse for the crimes they had committed, but they also acknowledged triggers such as relationships, unemployment and money problems as contributors.

"They use health as a screen, an excuse for their criminal behaviour."

"They readily blame mental health problems for their criminal behaviour, especially personality disorders. Many have suffered a psychotic episode at the time of offence but it's more about triggers...that contribute."

"Disabilities don't stop them from committing crime. There are those who use their disability to their advantage."

There is also an identifiable link between substance abuse and co-morbidity which impacts on offending behaviour.

"For those with addictions, recidivism is high because they are offending to feed their habit."

Participants also discussed the fact that many prisoners do not access healthcare services in the community because they don't see their health as a priority. Prisoners often view prison as an opportunity to address those needs they have neglected.

"They think they can have a full MOT when they come into prison, when they want it."

Healthcare services available in prison

There is whole range of healthcare services provided in each of the prisons that participated, including GP, nurse and triage, dentistry, optician, mental health, chiropody, sexual health, detoxification and pharmacy. Each prison also runs a wide variety of regular clinics including well man clinics, elderly/older adults clinics, asthma. Participants also discussed smoking cessation groups. One prison commented on the lack of success for a project called 'New Leaf' :

“New Leaf isn’t very successful. Prisoners are signing up to get the patches as supplements. A lot of money has been spent on it and it is logistically difficult...It is misplaced in prison.”

Once prison commented on how they try to continue care from the outside if prisoners come in receiving treatment and another prison expressed how good the support they get from the commissioner is:

“Healthcare is very well equipped. There is a good commissioner whom we can approach and make requests. We’ve had a lot of support.”

The most commonly accessed services

All participants agreed that the most commonly accessed service by prisoners is the dentist and 2 prisons commented on the waiting time (7-10 days) and the size of the waiting lists (58 at time of focus group). One prison acknowledged that they were looking at increasing the number of times the dentist comes and having discussions with the PCT. Two prisons also commented on the high demand for dental care from substance mis-users:

“In the prison it is more structured so they fill their time. With the drugs out of their system they feel the pain of their problems so will get their dental needs seen to.”

Mental health services were also mentioned by all participants although the extent to they type of service differed. Where one prison commented on the lack of primary mental healthcare provision, another prison has seen an increase in referrals to in reach and are developing primary mental healthcare.

Help-seeking behaviour of prisoners

All participants agreed that prisoners do seek help for their health needs.

“Yes! They want access to everything!”

“Once they’re here, yes, the majority do!”

Discussion again was around the fact that many prisoners don't access health services in the community but want to access everything in prison.

“At reception they get a leaflet and they tend to tick every box.”

“They're more likely to (access healthcare) in prison than on the Outside. It's perceived as easier, the responsibility is taken away from them – appointments are made for them, they're escorted to appointments and so on.”

“Many don't have GPs or get referrals made for them on the outside so when they come in they want everything seeing to straight away. Being inside allows them to get free glasses etc.”

Participants also discussed how prisoners seek help for their health problems. One prison described what the reception screening covers, such as the name of the GP, medication and outstanding appointment, and the 2nd screen, which covers things in more detail such as family history and any current worries. A healthcare induction then informs prisoners what is available to them. They explained that appointments are made on the wing. Another prison explained that there are two treatment sessions per day, that wings have treatment rooms and that applications can be submitted to see a GP or nurse. This prison also commented on the reduction in self harm since the introduction of TV's in cells, although healthcare is now seeing more sleep disorders.

Lifestyle Issues

All prisons agreed that prisoners lead chaotic lifestyles on the outside, including drug/alcohol abuse and poor diets. Prison often therefore becomes somewhere they can stabilise, get a roof over their heads and three meals a day as well as access to a gym and healthcare. Medication was the subject of lengthy discussion in two of the prisons in terms of the numbers of young men coming into prison on medication, not always knowing what it is or what it's for. One went so far as to say that they are finding prisoners coming in on inappropriate medication:

“Many GPs on the outside are intimidated by offenders...we find it very difficult to alter their meds when they come in. They will also try and get away with saying they're on a higher dosage when they come in because we don't obtain health records unless there is a specific request but we do contact surgeries to check medication information.”

One prison also discussed the difficulties in medication management when many prisoners don't possess their medication and it needs to be administered daily.

Diet was also discussed. Some participants described how difficult it was to follow a diet in prison due to limitations; others thought that there was a good choice from the kitchen and healthy options on the menu. Another highlighted the fact that their healthcare team worked closely with the kitchen and were able to make special requests if necessary.

Although it seems that prisoners have more access to more healthy lifestyle options in prison than they do on the outside, one participant commented that the responsibility can be taken away from the individual. On the other hand, one prison also discussed the idea that prisoners are a “captive audience” which enable healthcare to do preventative work with them. A further issue highlighted was that in prison the onus is on detoxification and pharmacological interventions when it needs to be more holistic.

Other comments

Further discussion in the focus groups away from the structured interview schedule highlighted the fact that healthcare aren't always aware of a prisoners length of sentence, only how long they have left to serve, which made it difficult for them to answer any questions specifically about short sentence prisoners. However, one prison highlighted how difficult it was to work with short sentence prisoners:

“...things like counselling wouldn't be started if there wasn't time to finish before the end of their sentence.”

Other issues that arose were around release, resettlement and institutionalisation:

“There's a problem of maintaining what we've set up in prison for them... There needs to be something in between prison and re-entry to society... there are similarities with the military but when they come out of the military they gets lots of support that prisoners don't.”

4. Discussion

This Health Needs Assessment, commissioned by East Midlands CSIP office, was undertaken with a target sample of 209 prisoners serving a short sentence in four prisons across the East Midlands. In the event data were collected from 73 prisoners serving a short sentence. The response rate of 35% was disappointing but, despite the goodwill shown by prison healthcare managers, there were problems in finding this group. One major difficulty for this study is that our female target sample at Foston Hall only achieved 16% (n=9). Healthcare staff very rarely know the length of sentence that a prisoner is serving however they are likely to know the length of sentence left to serve. The distribution of the questionnaires was therefore more haphazard than in other offender samples where similar work has taken place in the East Midlands. For example, a target response of probationers (Brooker et al, 2008) achieved 91% whilst a target response of 86% (Brooker et al, 2009) was obtained for the secure children's home estate. The assessments undertaken with short sentence prisoners were similar to the other health needs assessments cited above, i.e. the same health assessment schedules were combined. The clear advantage of using this approach was that it allowed for comparison between offender groups (no such SF-36 data has ever been reported before) and it also allowed us to compare the overall health status of short sentenced prisoners with the general population.

The literature review points to the obvious disadvantages experienced by short sentenced prisoners, i.e. transient nature of prison stay, lack of access to programme support in prison, re-locating to the community and the high risk of re-offending, however the review also makes clear that the health needs of this group are largely unknown although a recent paper by Stewart (2008) is the exception to this general rule. In our health needs assessment short-sentenced prisoners were overwhelmingly men with a mean age of 32 (range 21-63), 89% were white British with the largest other minority groups being those of 'mixed' race (4%) and those of Asian descent (3%). This group had numerous convictions and nearly one-third had been under 16 when first convicted.

The survey provided useful information on the likely health status of those serving short sentences. First in comparison to the general population the physical and mental health of this group is significantly worse than the general population. The only SF 36 individual component scores which are not significantly worse for SS prisoners in comparison to the general population are for 'pain' and 'energy and vitality' the remaining six component scores are worse. These findings have a clear resonance with the large study sampling 1,457 prisoners across 49 prisons in England and Wales, undertaken for the Ministry of Justice (Stewart 2008).

As with our previously reported probation sample, prisoners serving a short sentence were five times more likely than the general population to have the risk of an alcohol problem and a higher proportion of short sentenced prisoners were risk of drug problems compared to even a probation sample (38% versus 52%). Those serving short sentences were more likely to be suffering from either form of substance misuse the younger they were when first convicted.

The likely ill health caused by smoking is strongly accentuated. Those serving short sentences are four times more likely to smoke than the general population (21% versus 83%) and risky behaviour is also emphasised by the figures for sexual health. One in four have been assessed for an STI (double the proportion of those on probation) and a high proportion (12%) think they might still have a problem with their sexual health at the time of interview. The diagnosis of hepatitis B is much higher than those on probation (4% vs 1%).

Nearly a third of the group claim to have been seen formally by specialised mental health services with the most commonly cited problem being depression. There were no reported instances of schizophrenia/psychosis although one person reported suffering from bipolar disorder. This contrasts, however, markedly with the sample achieved by Stewart (2008) as Table 14 below shows. If we were to use the Stewart study estimate of the prevalence of psychosis we would expect to find 7 cases in this sample, however, we found only 1.

Table 14: Proportion of short sentenced prisoners experiencing mental health disorders

	Age (%)		Sentence Length (%)		Gender (%)		All (%)
	Young Offenders	Adults	Less than 1 year	1-4 years	Men	Women	
Likely psychosis	8	10	10	8	9	18	10
<i>Unweighted base (N)</i>	181	1276	1101	356	1322	135	1457
Positive personality disorder screen	53	63	62	61	62	57	61
<i>Unweighted base (N)</i>	178	1270	1093	355	1313	135	1448
Anxiety/depression							
No symptoms	24	17	17	18	19	9	18
1-5 symptoms	46	47	48	43	48	35	47
6-10 symptoms	31	37	34	39	34	56	36
<i>Unweighted base (N)</i>	180	1260	1084	356	1307	133	1440
Suicide attempts							
Year before prison	6	8	8	6	7	19	8
4 weeks before prison	1	3	3	1	2	5	2
Self harm							
Year before prison	5	6	6	5	5	14	5
4 weeks before prison	1	2	2	3	2	8	2
<i>Unweighted base (N)</i>	181	1270	1095	356	1317	134	1451

Two major reasons might explain this difference. First, women have a higher rate of prevalence for psychosis but are under-represented in our sample. Second, we obtained a self-report from prisoners whereas in the Stewart study there were sufficient resources for face-to-face interviews which would allow the researcher to probe the subjects in the interview situation. We used the SF36 to calculate an estimate of the proportion of our sample experiencing a serious depression, i.e. 36%, in the Stewart study this figure is approximately 41%. In both samples a high figure and one where an expert response from primary care mental health in the prison should be forthcoming.

There is good evidence from this assessment that short sentenced prisoners are opportunistic and high user of primary care services and dental services in prison. The most common problems reported by prisoners, in terms of access, are for these very services. Healthcare interviews indicated that short-sentenced prisoners regarded the prison sentence as an opportunity to obtain an 'MOT' as outside of prison their lives inevitably became more chaotic again. SS prisoners are not great users of specialist services with 10% accessing mental health and 6% having a prison in-patient stay. The group that access specialist mental health care in prison are a small subset as 20% reported their greatest difficulty was in accessing mental health care with 11% stating similar problems with drug/alcohol services. Alcohol problems should be addressed by the model alcohol treatment framework based on NTA guidance however the implementation of this model is highly variable. A question for commissioners considering the needs of short-sentenced prisoners is how is this stepped model of care for alcohol treatment put into place for this group?

Only 11 (17%) of the overall sample felt that healthcare might be improved and cited areas in which improvements might be made. Most of these suggestions revolved around waiting times, access, continuity of care and general nutrition and hygiene. The waiting times in one prison for a dentist were confirmed by the healthcare staff who stated that there was a waiting list of 58 at the time of the interviews. Healthcare staff also commented that prisoners without a serious mental illness suffered as the primary care mental health services were non-existent. Even where counselling might be offered it is not given to short-sentenced prisoners 'if there wasn't time to finish it before the end of their sentence'.

Conclusion

The group of prisoners serving short sentences suffer serious disadvantages both inside and outside the walls of the prison. The nature of their sentence can mean that they do not benefit from either vocational training or healthcare in the way they should. Although Stewart (2008) found that two-thirds of short sentence prisoners rate their health as either 'good' or 'very good' there are clear areas where healthcare is not currently sufficient. Waiting times for dental care and the primary care treatment of depression are worryingly high and sometimes counselling is denied altogether. Drug treatment services, although focusing exclusively on detoxification, are in place but alcohol treatment services are seemingly non-existent.

References

- Bland, R. C., Newman, S. C., Thompson, A. H., and Dyck, R. J. (1998). Psychiatric disorders in the population and in prisoners, *International Journal of Law and Psychiatry*, 21: 3, 273-279.
- Brazier J.E., Harper, R., Jones, N. M. B., O’Cathain, A., Thomas, K. J., Usherwood, T., and Westlake, L. (1992). Validating the SF-36: a new outcome measure for primary care. *British Medical Journal*, 305, 160-164.
- Bridgwood, A., and Malbon, G. (1995). *Survey of the physical health of prisoners 1994*. HMSO.
- Brooker, C., Syson-Nibbs, L., Barrett, P and Fox, C., (2009). *Community-managed offender’s access to healthcare services: report of a pilot study*. Probation Journal, Vol (56) 1, 45-59
- Douglas, N., and Plugge, E. (2006). *A health needs assessment for young women in young offender institutions*. Youth Justice Board / University of Oxford.
- Ely, M., Hardy, R., Longford, N.T. and Wadsworth, M.E.J. (1999) Gender Differences in the Relationship between Alcohol Consumption and Drink Problems are Largely Accounted for by Body Water, *Alcohol and Alcoholism* Vol. 34, No. 6, pp. 894-902.
- Ewing, E. M. (1984). Detecting alcoholism: the CAGE Questionnaire. *Journal of the American Medical Association*, 252, 1905-1907.
- Farrant, F. (2001) *Troubled inside: responding to the mental health needs of young people in prison*. Prison Reform Trust, London.
- Fazel, S., Hope, T., O’Donnell, I., and Jacoby, R. (2004). Unmet treatment needs of older prisoners: a primary care survey. *Age and Aging*, 33: 4, 396-398.
- Freeman, K. (2003). Health and well-being outcomes for drug dependent offenders on the NSW Drug Programme. *Drug and Alcohol Review*, 22, 409-416.
- Hagedorn, H., and Willenbring. (2003). Psychiatric illness among drug court probationers. *The American Journal of Drug and Alcohol Abuse*, 29, 40, 776-788.
- Hair et al (2006), *Multivariate Data Analysis* (6th ed.), Pearson Prentice Hall
- Halliday, J., French, C. and Goodwin, C. (2001), *Making Punishments Work: Report of a Review of the Sentencing Framework for England and Wales*, London: Home Office.

Harris, F., Hek, G., and Condon, L. (2006). Health needs of prisoners in England and Wales: the implications from prison healthcare of gender, age and ethnicity. *Health and Social Care in the Community*, 15:1, 56-66.

Hermann, H., McGorry, P., Mills, J., and Singh, B. (1991). Hidden severe psychiatric morbidity in sentenced prisoners: an Australian study. *American Journal of Psychiatry*, 148, 236-239.

HMP Online Information service. Accessed via the World Wide Web on 2nd October 2008. <http://www.hmprisonservice.gov.uk/prisoninformation/locateaprison/>

Hoffmann, N. G. (2007) UNCOPE. Retrieved from the World Wide Web 9th October 2008: http://www.evinceassessment.com/UNCOPE_for_web.pdf

Home Office (2003) The Resettlement of Short-Term Prisoners: An Evaluation of Seven Pathfinder Projects. Accessed via the World Wide Web on 23rd October 2009. <http://www.crimereduction.homeoffice.gov.uk/criminaljusticesystem8.htm>

House of Commons (2008) Justice – Fifth Report. Accessed via the World Wide Web on 17th August 2009:
<http://www.publications.parliament.uk/pa/cm200708/cmselect/cmjust/184/18407.htm>

Jenkinson, C., Layte, R., Wright, L & Coulter A (1996) *The UK SF-36 : An Analysis and Interpretation Manual*. University of Oxford. Oxford.

Jenkinson, C., Stewart-Brown, B., Peterson, S. and Paice, C. (1999). Assessment of the SF-36 version 2 in the United Kingdom. *Journal of Epidemiology & Community Health*, 53, 46-50.

Lader, D., Singleton, N., and Meltzer, H. (2000). *Psychiatric Morbidity among Young Offenders in England and Wales*. HMSO.

Lenth's Power applet <http://www.stat.uiowa.edu/~rlenth/Power/index.html>

Marshall, T., Simpson, S., and Stevens, A. (2000). *A toolkit for health care assessment in prisons*. Birmingham: University of Birmingham.

Plugge, E., and Fitzpatrick, R. (2005). Assessing the Health of Women in Prison: A Study from the United Kingdom. *Health Care for Women International*, 26, 62-68.

Plugge, E., Douglas, E., and Fitzpatrick, R. (2006). *The health of women in prison: study findings*. Department of Public Health, Oxford University. Oxford.

Robinson, S. and Lader, D. (2007) General Household Survey 2007: Smoking and among adults, 2007. Office of National Statistics: London

Shiely, J. C., Byliss, M. S., Tsai, C., and Ware. J. E. (1996). *SF-36 Health Survey Annotated bibliography: The First Edition (1988-1995)*. The Health Institute New England Medical Center: Boston, MA.

Singleton, N., Bumpstead, R., O'Brien, M., Lee, A., and Meltzer, H. (2001). *Psychiatric morbidity among adults living in private households, ONS, 2000*. Office for National Statistics: London.

Singleton, N., Meltzer, H., Gatward, R., Coid, J., and Deasy, D. (1998). *Psychiatric morbidity among prisoners in England and Wales*, Office for National Statistics: London.

Stewart, D (2008) The problems and needs of newly sentenced prisoners: results from a national survey
Ministry of Justice Research Series, Crown Copyright

Taylor, M., Barnard, P., and Boyle, J. (2002). *Reducing Prisoner Reoffending*. National Audit Office. Accessed online via the World Wide Web on the 3rd October 2008. http://www.nao.org.uk/publications/nao_reports/01-02/0102548.pdf

Unlinked Anonymous Surveys Steering Group (2000). *Prevalence of HIV and hepatitis infections in the UK 1999*. Department of Health.

Walters, S (2004), Sample size and power estimation for studies with health related quality of life outcomes : a comparison of four methods using the SF-36, Health and Quality of Life Outcomes 2004, 2 :26.

Ware JE, Gandek B, the IQOLA Project Group. The SF-36® Health Survey: development and use in mental health research and the IQOLA Project. *International Journal of Mental Health* 1994; 23(2):49-73.

Ware, J.E., Kosinski, M., Dewey, J.E. (2000) *How to Score Version Two of the SF-36 Health Survey*. Lincoln, RI: Quality Metric Incorporated.

Ware, J. E. (2002). SF-36 Health Survey Update. Accessed on the World Wide Web, 9th October 2008. <http://www.sf-36.org/tools/SF36.shtml>

Appendices

Appendix A Health Questionnaire



Prisoners Serving Short Sentences: Health Needs Assessment



UNIVERSITY OF
LINCOLN

Dear Respondent

We are very grateful that you are willing to consider participating in this survey of health needs for prisoners. The aim of the project is to allow Primary Care Trusts, who commission health care in prisons, to make improvements to healthcare generally.

All your information is anonymous and confidential and no names need to be given. First, you should read the information about the project on the next page and then sign the form showing you are willing to complete the questionnaire.

When you have finished this can you please hand it back the healthcare manager or a member of the healthcare team.

With many thanks again for your help.

Yours sincerely

Professor Charlie Brooker

Criminal Justice and Healthcare Group
University of Lincoln

Information and Consent Form

Information

This project is funded by East Midlands Care Services Improvement Partnership. The aim is to examine the health care needs of a probation population and examine the extent to which they are addressing their healthcare needs and accessing services. The project has been given ethical approval by the University of Lincoln.

Results of this will be printed in publications produced by staff at the University of Lincoln, but all individuals involved will remain anonymous.

Consent Form

I agree to take part in the above research project. I have had the project explained to me, and I have read the information sheet. I understand that agreeing to take part means that I am willing to:

- To complete the attached questionnaire, if possible, with a healthcare worker present.

The information from the interviews will be held and processed for the following purpose(s):

- To inform any publications produced by staff from the University of Lincoln on the subject of the health needs of a prisoners serving short sentences.

I understand that any information I provide is confidential, and that no information that could lead to the identification of any individual will be disclosed in any reports on the project, or to any other party. No identifiable personal data will be published.

I understand that my participation is voluntary, that I can choose not to participate in part or all of the project, and that I can withdraw at any stage of the project without being penalised or disadvantaged in any way.

Name: _____ (please print)

Signature: _____

Date: _____

Health Needs Assessment Tool – ASHNO

To be self completed by the prisoner with a healthcare worker if possible:

Age Gender: Male Female

Ethnic Origin:

White Mixed ethnic group Black/Black British
 Chinese Asian/Asian British Any other ethnic group

Length of current sentence: months

How long have you been in prison? months

Age at first conviction: years

No. of previous custodial sentences:

Overall Health

The following questions ask for your views about your health and how you feel about **life in general**. If you are unsure about how to answer any question, try and think about **your overall health** and give the best answer you can. Do not spend too much time answering, as your immediate response is likely to be the most accurate.

1. In general, would you say your health is:

Excellent Very good Good Fair Poor (please tick **one** box)

2. Compared to 3 months ago, how would you rate your health in general now?

Much better than 3 months ago Somewhat better than 3 months ago
 About the same Somewhat worse than 3 months ago
 Much worse than 3 months ago (please tick **one** box)

3. The following questions are about activities you might do during a typical day.

Does your health limit you in these activities? If so, how much?

(please tick **one** box on each line)

	Yes, limited alot	Yes, limited a little	No, not limited at all
a) Vigorous activities , such as running, lifting heavy objects, participating in strenuous sports	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Moderate activities , such as moving a table, pushing a vacuum	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- c) Lifting or carrying groceries
- d) Climbing **several** flights of stairs
- e) Climbing **one** flight of stairs
- f) Bending, kneeling or stooping
- g) Walking **more than a mile**
- h) Walking **half a mile**
- i) Walking **100 yards**
- g) Bathing and dressing yourself

4. During the past 2 weeks, how much time have you had any of the following problems with your work or other regular daily activities as a result of your physical health? (please tick **one** box on each line)

- | | Alot of the time | Most of the time | Some of the time | A little of the time | None of the time |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| a) Cut down on the amount of time you spent on work or other activities | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Accomplished less than you would like | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Were limited in the kind of work or other activities | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Had difficulty performing the work or activities (eg it took more effort) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

5. During the past 2 weeks, how much time have you had any of the following problems with your work or other regular daily activities as a result of your emotional problems (such as feeling depressed or anxious)? (please tick **one** box on each line)

- | | Alot of the time | Most of the time | Some of the time | A little of the time | None of the time |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| a) Cut down on the amount of time you spent on work or other activities | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Accomplished less than you would like | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Didn't do work or other activities as carefully as usual | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

6. During the past 2 weeks, to what extent have your physical health or emotional problems interfered with your normal social activities with family, neighbours or groups? (please tick **one** box)

None Slightly Moderately Quite a bit Extremely (please tick **one** box)

7. How much bodily pain have you had in the past 2 weeks? (please tick **one** box)

None Very mild Mild Moderate Severe Very severe

8. During the past 2 weeks, how much did pain interfere with your normal work (including both outside the home and housework)?

None Slightly Moderately Quite a bit Extremely

9. These questions are about how you feel and how things have been with you during the past 2 weeks. For each question please give one answer that comes closest to the way you have been feeling.

(please tick **one** box on each line)

	Alot of the time	Most of the time	Some of the time	A little of the time	None of the time
a) Did you feel full of life?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have you been a very nervous person?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have you felt so down in the dumps that nothing would cheer you up?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Have you felt calm and peaceful?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Did you have a lot of energy?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Have you felt down- hearted and low?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Did you feel worn out?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) Have you been a happy person?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i) Did you feel tired?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10. During the past 2 weeks, how much of the time has your physical health or emotional problems interfered with your social activities (like visiting friends etc)

All of the time Most of the time
 Some of the time A little of the time
 None of the time

(please tick **one** box)

11. How TRUE or FALSE is each of the following statements for you?

(please tick **one** box on each line)

	Definatly true	Mostly true	Not sure	Mostly false	Definatly false
a) I seem to get ill more easily than other people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) I am as healthy as anybody I know	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) I expect my health to get worse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) My health is excellent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Sexual Health

1. Have you ever been treated for a sexually transmitted disease (STI)? Yes No
2. Have you ever been diagnosed with:
Hepatitis A Hepatitis Hepatitis C HIV or AIDS
3. Have you ever been vaccinated against: Hepatitis A Hepatitis B
4. Might you have a sexual health problem now? Yes No

Smoking

1. Do you smoke cigarettes or tobacco? Yes No
2. How much do you smoke a day? _____

Alcohol

1. Have you ever felt you should cut down on your drinking? Yes No
2. Have people annoyed you by criticising your drinking? Yes No
3. Have you ever felt bad or guilty about your drinking? Yes No
4. Have you ever had a drink first thing in the morning to steady your nerves or to get rid of a hangover? Yes No

Drugs

1. Have you spent more time using drugs than you meant to? Yes No
2. Have you neglected some of your usual responsibilities because of using drugs? Yes No
3. Have you felt you wanted or needed to cut down on your drug use in the last year? Yes No
4. Has your family, or a friend, or anyone else ever told you they objected to your drug use? Yes No
5. Have you found yourself thinking a lot about using drugs? Yes No
6. Have you ever used drugs to relieve emotional discomfort, such as sadness, anger or boredom? Yes No

Mental Health

1. Have you ever been seen formally by a mental health service?

2. Did they give you a diagnosis?

3. If so, what was it? _____

Services

The following questions ask you about the health services that you have used.

1. Have you used any of the following prison health services in the past 8 weeks for your own health?

For each service that you have used, please tick **one** box to show the number of times you have used the service. (If you have not used the service, please leave the line blank.)

The number of times I have used the service is:

	1-2 times	3-6 times	7 or more
a) General Practitioner (GP)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Primary care nurse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Dentist	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Optician	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Chiropody Service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Mental Health Service (In-reach)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Therapy service e.g. physiotherapist, occupational therapist, speech therapist	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) Sexual Health Consultation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i) Inpatient stay in prison healthcare	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please state what this was for _____

j) Local Hospital Visit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------	--------------------------	--------------------------	--------------------------

Please state what this was for _____

2. Have you had any difficulty in accessing/ registering with any of these services?
(Please explain)

Further comments

What aspect of your health is your greatest problem? (Please describe)

To meet your current health needs, in what way should prison health services be improved?

Thank you for your time in completing this questionnaire

Appendix B

Focus Group Schedule for Healthcare Managers

Interview Schedule Healthcare Managers

Do you think there is a relationship between offending and health?

What kind of health services do prisoners most commonly access?

There is a lot of emphasis on the public to adopt healthy lifestyles. What types of lifestyle issues do prisoners have to deal with (diet, exercise, smoking, sexual health, alcohol, housing)?

In your experience do prisoners seek help for all the health problems that they have?

What services are available to these prisoners?

Is there anything else you wish to add?

Appendix C

Consent Form for Prisoners

Information

This project is funded by East Midlands Care Services Improvement Partnership. The aim is to examine the health care needs of prisoners serving sentences of 12 months or less and look at how they are addressing their health care needs and accessing services.

Results of this will be printed in reports produced by staff from the University of Lincoln. Anyone who takes part will remain anonymous.

Consent Form

I agree to take part in the project. I have had the project explained to me, and I have read the information sheet. I understand that agreeing to take part means that I am willing to:

- Complete a questionnaire

The information from the questionnaires will be held and used for the following purpose:

- To inform any reports produced by staff from the University of Lincoln on the health needs of short sentence prisoners.

I understand that:

- the information I provide is confidential
- no information that could identify me will be disclosed in any reports on the project, or to any other party.
- it will not be possible to identify me from the data published.
- taking part is voluntary
- I can choose not to take part in some or all of the project
- I can withdraw at any stage of the project without being punished or disadvantaged in any way.

Name (please print) _____

Signed _____

Date _____

Appendix D

Consent Form for Healthcare Managers

Health Needs Assessment of Short Sentence Prisoners in the East Midlands

Information

This health needs assessment is part of a wider project being undertaken by the East Midlands Care Services Improvement Partnership (CSIP) regarding the commissioning of services in the prison environment in the East Midlands; HMP Foston Hall (Derbyshire), HMP Leicester, HMP Lincoln, HMP Nottingham.

The aim of the health needs assessment is to examine the physical and mental health needs of short sentence prisoners in order to identify needs and any gaps and make recommendations to the commissioners of services.

Consent Form

I agree to take part in the above research project. I have had the project explained to me, and I have read the information sheet. I understand that agreeing to take part means that I am willing to:

- To be interviewed by a researcher

The information from the interviews will be held and processed for the following purpose(s):

- To inform any publications produced by staff from the University of Lincoln on the subject of the health needs of short sentence prisoners
- To inform the wider project being undertaken by East Midlands CSIP

I understand that any information I provide is confidential, and that no information that could lead to the identification of any individual will be disclosed in any reports on the project, or to any other party. No identifiable personal data will be published.

I understand that my participation is voluntary, that I can choose not to participate in part or all of the project, and that I can withdraw at any stage of the project without being penalised or disadvantaged in any way.

Name (please print) _____

Signed _____

Date _____