Estimating the prevalence of disability amongst prisoners: results from the Surveying Prisoner Crime Reduction (SPCR) survey

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This Research Summary estimates the proportion of newly sentenced prisoners in prisons in England and Wales who are disabled using screened answers to survey questions about perceived disability, physical health, and anxiety and depression. It also provides an overview of the problems and needs of disabled prisoners as a group, compared to non-disabled prisoners. Data for this report come from Surveying Prisoner Crime Reduction (SPCR), a longitudinal cohort study of 1,435 adult prisoners sentenced to between one month and four years in prison in 2005 and 2006.

Key points:

- An estimate of 36% of the SPCR prisoner sample was considered to have a disability when survey answers about disability and health, including mental health, were screened. This figure was made up of 18% with anxiety and depression, 11% with some form of physical disability, and 8% with both (figures do not add up to 36% because of rounding). This compares with approximately 34% of the same sample when asked whether they thought they had a disability, and 19% of the general population.

- A greater proportion of female prisoners (55%) were considered disabled than male prisoners (34%), as a result of being overrepresented in the anxiety and depression group.

- Disabled and non-disabled prisoners exhibited a number of differences. For example, disabled prisoners were more likely to report: having used drugs and needing treatment and support for a drug or alcohol problem; having experienced abuse or observed violence as a child; being homeless before custody; and needing help to find a job for when released. However, they were no more likely to be reconvicted in the first and second year after release than non-disabled prisoners.

- The large minority of the prison population likely to be disabled has implications for prison(er) policies, including prisoner and ex-prisoner employment and other programmes. It is important to examine how disability is classified and identified in prisons, to ensure that programmes are being effectively targeted and delivered.
Background

In 2010 the Ministry of Justice (MoJ) reported that 34% of SPCR prisoners stated that they had a long-standing limiting illness or infirmity of any kind (MoJ, 2010a). Fifteen percent of the sample reported having been on Incapacity Benefit (for those whose illness or disability meant they were incapable of work)\(^1\) in the year before custody.\(^2\) A HM Inspectorate of Prisons thematic report in 2009 provided an estimate of 15% of prisoners having a disability, based on the answer to the survey question “Do you consider yourself to have a disability?” (HM Inspectorate of Prisons, 2009). This report demonstrated that disability is underreported in prison management information systems: the prison recording system showed that only 5% of prisoners had a disability, based on a question about disability posed on reception to prison.

Management information\(^3\) held by the Ministry of Justice for June 2011 suggest that 12% of prisoners were recorded as having a disability.\(^4\) However, 61% of disability information was unrecorded. Excluding these unrecorded cases suggests that approximately 30% of prisoners were disabled.

A valid and reliable estimate of the prevalence of disability amongst prisoners is needed because:

- There is large variation in the current estimates (5% on the prison database to 34% of SPCR prisoners self-reporting disability)
- All previous estimates were based on prisoners being asked whether they had a disability, meaning that prisoners who were not disabled according to the legal definition of disability (e.g. because they were addicted to drugs) might have included themselves, and prisoners who did not realise they were disabled (“hidden disabilities” – e.g. mental health conditions) might not have included themselves
- Public bodies including the MoJ acquired specific duties with regard to disability and other protected characteristics under the Equalities Act (2010)
- The MoJ’s ‘Breaking the Cycle’ Green Paper (MoJ, 2010b) screening equality impact assessment was not able to collect information on the impact of new policy proposals on disabled offenders (MoJ, 2010b).

Deriving consistent and accurate estimates of the prevalence of disability amongst the prison population (or any population) is difficult. Section 1(2) of the Disability Discrimination Act 1995 (DDA) defined someone as disabled if “he or she has a physical or mental impairment which has a substantial and long-term adverse effect on her or his ability to carry out normal day-to-day activities”. Long-term is considered to be a condition which has lasted 12 months or more, or is considered likely to last 12 months or more. The Equalities Act 2010 has updated the DDA but retains the definitions of disability in the DDA (Howe, 2009/10). Within this broad definition, problems arise during assessment in a research setting of the impact of any impairment, and of how long the condition may have lasted/may last. Instead, researchers rely on self-assessment (asking participants if they think they are disabled), or self-report screening (e.g. asking if they have a condition that makes it difficult for them to carry out normal day-to-day activities), or both. Neither approach works perfectly, and no estimate will be complete. However, organisations need working estimates of the prevalence of disability in order to ensure that disabled people’s needs are met and that there is a pragmatic approach to monitoring of protected characteristics under equalities legislation.

The estimate calculated in this paper is considered to be a working estimate which takes into account the legal definitions where possible (e.g. regarding exclusions and inclusions), but does not claim to be legally comprehensive and exhaustive. This is a similar approach to other estimates of disability in the prison population and general population.

Learning difficulties have not been included in the estimate produced here.\(^5\)

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\(^1\) From 31 Jan 2011 those incapable of work were required to claim Employment and Support Allowance (ESA) instead.

\(^2\) Take-up of Incapacity Benefit in quarter ending February 2005 for the (general) working age population was approx. 4–5%: Department for Work and Pensions: http://statistics.dwp.gov.uk

\(^3\) From Prison-NOMIS (National Offender Management Information System)


\(^5\) SPCR respondents were not specifically asked about learning difficulties. However, approximately 5% of those who stated that they had a disability stated that they had learning difficulties. More information on this issue can be found at http://www.prisonreformtrust.org.uk/Publications/PublicationsCategories/Learningdisabilities
Aim
The aim of this analysis was to calculate a working estimate of the prevalence of disability amongst prisoners, and to explore whether disabled prisoners’ needs differed from non-disabled prisoners’ needs.

Approach
The analysis was based on Sample 1, Wave 1 of Surveying Prisoner Crime Reduction6 (SPCR) data. SPCR is a large, general purpose longitudinal cohort study of adult (aged 18 years and older) prisoners, consisting of interviews on reception to prison (Wave 1), prior to release (Wave 2) and post release (Waves 3 and 4). The prisoners were sentenced in 2005 and 2006 to between one month and four years, and served their sentences in England and Wales. Sample 1 is representative of prison receptions with these sentence lengths,7 and was used for this analysis as it provides a picture of most prisoners entering prison.8 Prisoners were asked about previous contact with the criminal justice system; accommodation and relationships; physical and mental health; employment; qualifications; attitudes; and drug and alcohol use. Details of the sample methodology and questionnaires are published in the technical reports.9

This research screened prisoners using questions on disability and physical health, and answers to a validated mental health scale, although it cannot be considered to have detected the full range of mental health problems in the sample.

As well as estimating the prevalence of disability amongst prisoners, this report outlines differences between prisoners classified in this study as disabled, and non-disabled prisoners. Differences significant at p<0.01 are presented.

Survey participants were matched to the Police National Computer (PNC), allowing reconviction10 in the one and two years after release from custody to be investigated. Of the 1,435 prisoners in Sample 1, only 1,331 prisoners could be matched to the PNC, for the one-year reconviction analysis, and 1,330 prisoners for the two-year reconviction analysis.11 Analysis of the reconviction sub-samples showed that they were not significantly different from Sample 1 in terms of key variables.12 Measuring true reoffending (the amount of crime committed after release from prison) is difficult, as only a proportion of crime is detected, sanctioned, and recorded. The PNC records reconviction (in court), and this paper only reports whether an offender was reconvicted or not (yes/no measure) for a recordable offence committed in the year or the two years after release from custody.13

Results

Classification of disability
Levels of disability (physical health and anxiety and depression only) were estimated using answers to a number of questions in the survey and were not based on formal diagnoses. Reference was made to the Equalities Act 2010 and the Disability Discrimination Act 1995 when deciding which categories of prisoners to include and exclude. For example, disabilities associated with drug or alcohol addiction were specifically excluded, whilst HIV/AIDS were included. A detailed explanation of inclusions and exclusions follows.

6 Some of the results in this paper were published in the Compendium of reoffending statistics and analysis, MoJ Statistics Bulletin, November, 2010. This report provides more detail and additional findings.
7 A second sample, Sample 2, is representative of longer-term (18 months to two years) sentenced prison receptions.
8 More than 90% of prisoners entering prison in 2006 were sentenced to four years or less – Offender management caseload statistics (annual), available at: http://www.justice.gov.uk/publications/statistics-and-data/prisons-and-probation/omcs-annual.htm
9 Published alongside this report.
10 This paper reports reconviction (excluding cautions) similarly to the Compendium of reoffending statistics and analysis (MoJ, 2010a).
11 The Police National Computer (PNC) is constantly updated, meaning that samples can change over time.
12 Age, gender, sentence length, etc.
13 Offence must have been committed in the 12 months after release from custody; conviction in court for this offence may have occurred up to 6 months after the 12 months. Cautions and other out-of-court disposals were excluded.
Physical disabilities among SPCR sample

Prisoners were considered to have a physical disability if, in response to a question about long-standing illness or disability, they reported that they suffered from at least one of the following:

- Difficulty in seeing
- Difficulty in hearing
- Learning difficulties
- Epilepsy
- Cancer
- HIV/AIDS
- Neurological disorder

These conditions were accepted unconditionally in reference to the Disability Discrimination Act.14

They were also considered to have a physical disability if they reported that they suffered from at least one of the following:

- Problem with arms, legs, hands, feet, back or neck (including arthritis or rheumatism)
- Skin conditions, allergies
- Chest, breathing problem, asthma, bronchitis
- Heart, blood pressure or blood circulation problems
- Stomach, liver, kidney or digestive problems
- Diabetes

and responded to a separate question that their physical health was “poor” or “very poor” in general. Those who reported that their physical health was “fair”, “good” or “very good” in general (and reported having one of the above conditions) were not included.

In line with the definition of disability in the Equality Act 2010, 15 prisoners were not considered to have a disability if, in response to the question about long-standing illness or disability, they reported that they suffered from problems associated with drug or alcohol addiction.

Mental health issues among SPCR sample

Prisoners are known to experience poor mental health. The 1997 Psychiatric Morbidity Survey (Singleton et al., 1998) reported that 40% of sentenced male prisoners and 63% of sentenced female prisoners suffered from a neurotic disorder. Psychiatric morbidity affects the majority of prisoners overall when substance misuse is included (Singleton et al., 1998). In 2010, the MoJ reported that 17% of the SPCR sample reported having treatment or counselling for a mental health or emotional problem in the year before custody. One-fifth (20%) of the sample reported needing help with a mental health or emotional problem at the time of interview (MoJ, 2010a).

One aim of the current study was to make an estimate of the number of prisoners in the SPCR sample whose mental health problems could be considered a disability. Fifteen percent of the sample reported that they experienced “depression, bad nerves, mental illness, phobia, panics, or other nervous disorder” as a long-standing limiting illness, disability, or infirmity. This self-report, however might exclude those with hidden issues, those who did not wish to disclose mental illness, and those without insight into their condition. For this reason, and to use a method comparable to the detection of physical disability (above), a screening scale was used. The scale only detects anxiety and depression, however. This was considered appropriate because a large proportion of prisoners suffering from poor mental health are anxious and/or depressed (Singleton et al., 1998), and because the aim of the research was not to detect every mental health condition in the sample (this is impossible to achieve, in any case, without formal clinical diagnosis of each consenting prisoner, and is likely to result in a mental health estimate that is too high to be of any practical use). As this analysis aimed to detect mental health issues serious enough to be considered a disability, only those who were considered to be suffering from anxiety and depression were included. A conservative estimate was also needed because:

- prisoners are likely to feel psychologically challenged as a result of their imprisonment (i.e. their mental health issues may be

Of the sample, and according to the above criteria, 258 respondents (18%) were considered to have a physical disability.

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14 Provisions (28/10/2011) to Schedule 1 of the Disability Discrimination Act (1995): 4(1) An impairment is to be taken to affect the ability of the person concerned to carry out normal day-to-day activities only if it affects one of the following: (a) mobility; (b) manual dexterity; (c) physical co-ordination; (d) continence; (e) ability to lift, carry or otherwise move everyday objects; (f) speech, hearing or eyesight; (g) memory or ability to concentrate, learn or understand; or (h) perception of the risk of physical danger. DDA 2005 Chapter 13: 18. Meaning of disability: A person who has cancer, HIV infection, or multiple sclerosis is deemed to have a disability.

15 Regulations (Part 2): Addictions 3.—(1) …addiction to alcohol, nicotine or any other substance is to be treated as not amounting to an impairment for the purposes of the Act.
temporary, and impacted by imprisonment itself or criminal justice proceedings leading to imprisonment) and

- mental health issues associated with addiction are specifically excluded as disabilities under the DDA.

It should be noted therefore that this definition may exclude some individuals with either severe anxiety or severe depression (but not both), who may be considered disabled.\textsuperscript{16}

The Maudsley Addiction Profile (Marsden et al., 1998) was used to indicate if SPCR prisoners suffered from anxiety and depression.\textsuperscript{17} This screening scale was used because it is a recognised and established tool for measuring mental health. However, it may exclude those who may be suffering from psychosis, personality disorder, and other conditions.

The five items used to indicate anxiety asked respondents how often they felt the following:

- ‘feeling tense and keyed up’
- ‘suddenly scared for no reason’
- ‘feeling fearful’
- ‘nervousness or shakiness inside’
- ‘spells of terror or panic’

Respondents’ answers (never, rarely, sometimes, often, always) were scored on a scale of 1–5 (where 1 = never) for each of the five questions, resulting in a total maximum score of 25. Risk of anxiety was then calculated as “yes/no” (with “yes” being a score of 12.5 or more). The five items used to indicate depression asked respondents how often they felt the following:

- ‘feeling hopeless about the future’
- ‘feelings of worthlessness’
- ‘feelings of no interest in things’
- ‘feeling lonely’
- ‘thoughts of ending your life’

Anxiety and depression was indicated when respondents scored at least 12.5 on each item, and anxiety or depression was indicated if they scored at least 12.5 on one item.\textsuperscript{18}

One-quarter (25%) of the sample was estimated to be suffering from anxiety \textit{and} depression, and a further 23% of prisoners were estimated to be suffering anxiety \textit{or} depression (but not both). This means almost half of the sample was identified as suffering anxiety and/or depression compared with 15% of the general population who were estimated to be suffering from different types of anxiety and depression (NHS, 2007).

Only SPCR prisoners considered to be suffering from anxiety \textit{and} depression were included in the estimate of disability.

\textbf{Prevalence of disability among SPCR sample}

A conservative estimate of 36\% of the sample was classified according to the system presented above as having a disability (Table 1) (95\% confidence interval 33–38\%).

This 36\% can be compared to general population estimates ranging from around one in five (19\%) (ONS, 2007) in 2005/06\textsuperscript{19} to one in four (26\%)\textsuperscript{20} (Howe, 2009/10). If those prisoners estimated to be suffering from anxiety or depression are included, the estimate increases to 55\%.

\begin{table}[h]
\centering
\begin{tabular}{lll}
\hline
\textbf{Disability classification} & \textbf{Number of respondents} & \textbf{\%} \\
\hline
No disability & 917 & 64 \\
Physical disability only & 151 & 11 \\
Anxiety and depression only & 255 & 18 \\
Anxiety and depression and physical disability & 107 & 8 \\
Anxiety and depression, and physical disability unknown & 1 & * \\
\hline
Total & 1,431 & 100 \\
\hline
\end{tabular}
\caption{Physical, mental, both/none: disability in the SPCR sample}
\end{table}

Four respondents did not answer the question about long-standing illness or disability, and were not considered at risk of anxiety and depression. They are therefore excluded from the base size. Totals may not add up to 100\% due to rounding.

\* denotes a figure of less than one percent.

\textsuperscript{16} It may also include drug addicted prisoners whose addiction is associated with their anxiety and depression (but not those who volunteered that their addiction was the cause of their disability).

\textsuperscript{17} Anxiety and depression separately are also valid mental health conditions, but were not included in the definition of disability because a conservative estimate was calculated.

\textsuperscript{18} Internal validity of scale tested using Cronbach’s Alpha = 0.92 for the combined scale.

\textsuperscript{19} Family Resources Survey. The Family Resources Survey 2009/10 reported a figure of 14\%, whilst the Annual Population Survey 2009/10 (www.nomisweb.co.uk) reported 19\% of the working age (16–64) general population.

\textsuperscript{20} Life Opportunities Survey.
Women prisoners were overrepresented in the disability sample compared with men (55% as against 34%) (Table 2). This is because a higher proportion reported suffering from anxiety and depression than men. Forty-nine percent of female prisoners were assessed as suffering from anxiety and depression, compared with 23% of men.

**Table 2: SPCR prisoners considered to be suffering anxiety and depression, by gender**

<table>
<thead>
<tr>
<th></th>
<th>No anxiety &amp; depression</th>
<th>Anxiety &amp; depression</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Male</td>
<td>1,004</td>
<td>77</td>
<td>299</td>
</tr>
<tr>
<td>Female</td>
<td>68</td>
<td>52</td>
<td>64</td>
</tr>
<tr>
<td>Total</td>
<td>1,072</td>
<td>75</td>
<td>363</td>
</tr>
</tbody>
</table>

Totals may not add up to 100% because of rounding.

These results are comparable with previous studies which report higher levels of psychiatric morbidity amongst women prisoners compared with men prisoners.

A higher proportion of older prisoners were also classified as disabled. Fifty percent of prisoners aged 40 or over were classified as having a form of disability, compared to 42% of 30–39 year-olds, 32% of 21–29 year-olds, and 18% of 18–20 year-olds.

**Backgrounds and needs of disabled compared with non-disabled prisoners**

There were a number of differences between disabled and non-disabled prisoners, when the two groups were compared.

- **Drug use:** A higher proportion of disabled prisoners compared to non-disabled prisoners stated that they had ever used drugs (84% compared to 79%). Of those, disabled prisoners were more likely to state that they had taken drugs in the month before custody (83% compared to 77%). They were also more likely to report having injected illegal drugs during this time (41% compared to 23%), and having ever overdosed on drugs (36% compared to 22%). A higher proportion of disabled prisoners than non-disabled prisoners stated that getting treatment and support for a drug or alcohol problem will be important in stopping them from reoffending in the future (41% compared to 19%). Addiction problems in themselves were not considered sufficient to qualify for disability status.

- **Childhood background:** Higher proportions of disabled prisoners than non-disabled prisoners reported having experienced any emotional, physical or sexual abuse (42% compared to 22%), and having observed violence in the home (49% compared to 36%), as a child. They were also more likely to have ever been in care (29% compared to 22%).

- **Criminal history:** Prisoners classified as disabled reported a higher average\(^21\) number of arrests in the 12 months before custody than those who were not (three times compared to twice). They were also more likely to report having used force or violence on someone in the four weeks before custody (on average\(^22\) once compared with not at all).

- **Reoffending:** Forty-four percent of disabled prisoners stated that they need help to tackle their offending behaviour, compared to 29% of non-disabled prisoners. They were also more likely to state that they were hoping to get help in prison to stop them reoffending (73% compared to 60%). Despite this, there was no significant difference in reconviction rates in the year after release. No significant differences in reconviction were observed amongst those who were considered disabled and those who were not,\(^23\) amongst those who reported being treated/counselling for a mental health or emotional problem in the year before custody and those who did not. Those considered to be suffering from anxiety and depression were more likely to be reconvicted (59% compared with 50% than those who were not, in the year after release from custody. After two years, there were no differences in reconviction for any of these groups (68% were reconvicted).

- **Personal problems and needs:** A higher proportion of disabled prisoners than non-disabled prisoners stated that they need help with a medical problem (35% compared to 10%) and with a mental health or emotional problem (40% compared to 9%). A higher proportion

\(^{21}\) Median value.
\(^{22}\) Median value.
\(^{23}\) At the p = 0.01 level. At the p = 0.05 level, disabled prisoners were more likely to be reconvicted after one year (56% compared with 50%).
also stated that they need help with a problem concerning family or children (21% compared to 11%), and with finding a place to live for when they are released (46% compared to 32%). Consistent with the latter, disabled prisoners were more likely than non-disabled prisoners to state that they had been homeless before custody (22% compared to 12% of non-disabled prisoners). A higher proportion of disabled prisoners than non-disabled prisoners stated that they had ever self-harmed, and that they had ever attempted suicide (24% compared to 9%, and 40% compared to 15% respectively).

- **Entry into custody**: When asked about their entry into custody, disabled prisoners were more likely to state that they felt extremely alone during their first days in the prison in which they were interviewed (55%) than non-disabled prisoners (36%), and that they felt worried and confused when they arrived (60% compared to 42%).

- **Skills and employment**: Disabled prisoners were less likely than non-disabled prisoners to state that they were in paid work in the four weeks or 12 months before entering custody (21% compared to 37% and 22% compared to 34% respectively). A higher proportion than non-disabled prisoners stated that they were claiming benefits in the 12 months before custody (74% compared to 58%), particularly sickness or incapacity benefit (37% compared to 15%), and income support (39% compared to 23%). They were less likely to have claimed Jobseeker’s allowance (38% compared to 68%). Disabled prisoners were less likely to have any qualifications than those not classified as disabled (47% compared to 56%), and were more likely to state that they need help to improve education and work-related skills (48% compared to 35%), and help finding a job for when they are released (56% compared to 43%).

**Summary**
Survey answers from prisoners sentenced to between one month and four years in 2005 and 2006 to the Surveying Prisoner Crime Reduction (SPCR) survey indicate that around one-third of prisoners are likely to be disabled, which is higher than similar estimates of the general population. This figure was reached twice: when prisoners were asked directly whether they thought they had a disability (34% said yes); and when a number of survey questions about perceived disability, physical health, and anxiety and depression were screened (36% were likely to be disabled).

The disabled prisoners group included both physical and mentally disabled prisoners, and their problems and needs were compared with those of non-disabled prisoners to see if there were any differences. Overall, disabled prisoners reported higher levels of problems and needs concerning drug use, childhood background, criminal history, personal problems, settling into prison, and with skills and employment, but were not more likely to be reconvicted upon release from prison than non-disabled prisoners.

**Implications**
This research summary has provided an overview of the differences in the backgrounds, problems and needs of disabled prisoners compared to non-disabled prisoners.

The estimated large minority (over one-third) of disabled prisoners and their differing problems and needs compared to non-disabled prisoners has implications for prison(er) policies, including prison accommodation, programmes, treatments, and interventions as reasonable adjustments are made to meet the needs of these prisoners.

This estimate of the prevalence of disability among prisoners included a high proportion of prisoners with mental health problems. The methods used to classify disability in this report may not be directly comparable to how disability is identified in prisons, although estimates reached in an operational setting are likely to be based on similar methods (asking prisoners directly if they have a disability, and/or screening them). It is important to examine how disability, and the various types of disability, is classified and identified in prisons, to ensure that appropriate working estimates are made.

Working estimates will ensure that programmes are being effectively targeted and delivered, taking into consideration both mental and physical disabilities, and also to ensure that the National Offender Management Service (NOMS) is meeting its legal requirements under the DDA and Equalities Act.
References


