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Health Needs Assessment of Children in Secure Settings in the East Midlands

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1. Executive Summary

1.1 Aim of the project

The project was commissioned by the former East Midlands CSIP Office on behalf of the relevant PCTs.

- *To examine the physical and mental health status of children in secure settings using structured assessment tools*
- *To identify current healthcare provision*
- *To identify gaps when needs and provision are compared*
- *To provide information to help develop outcomes for children and young people*
- *To contribute to the development of recommendations for commissioners*

1.2 Background

Children in Secure Settings

The number of children in secure accommodation has tripled since 1991 and in January, 2009, stood at 2,635 the majority of whom were in Young Offender Institutions. In the East Midlands there are four such homes: two are smaller homes (Lincolnshire and Nottinghamshire); one is in Foston Hall prison and finally there is a larger Secure Training Centre. In total these settings provide approximately 120 places in total.

The Health of Children and Young People

Adolescent health has become a key national issue over the last ten years as it has become recognised that this is the only age group where mortality rates have not fallen significantly in recent times. There are a range of key health issues which affect younger people which include: sexual health; substance misuse; obesity and diet; eating disorders and self-harm. A recent report by the Royal College of Paediatrics and Child Health noted that younger people experience a range of barriers in accessing appropriate healthcare.

Healthcare Policy for Children in Secure Settings

Healthcare policy has begun to focus seriously on the health needs of vulnerable children. Recent policy documentation emphasise equivalence for vulnerable children in terms of access to healthcare. The YJB is responsible for healthcare standards whilst children are in secure care and have published standards to this effect which are used as the basis of inspection by OFSTED (recent OFSTED inspection reports for the homes in our report are summarised in the full report). The YJB have also

commissioned the development of ASSET, a structured risk assessment tool which includes a pathway for specialist mental health assessment (SQIFA and SIFA). Harrington et al (2005) have suggested that mental health problems are under-reported by ASSET.

The Health of Children in the Secure Estate

A review of the literature suggests that children in secure settings are a vulnerable group with complex and challenging health needs. A preponderance of published studies have examined mental health and substance misuse (see for example, Mooney et al, 2007). Lader and colleagues, with ONS, examined psychiatric morbidity in a national sample of 16-20 year olds. In the year prior to custody, 11% of men had received psychiatric treatment compared to 27% of women comparable figures to mental health treatment needs in the secure setting. Kroll et al, 2002, found that boys, aged 12-17, had high levels of conduct disorder (91%); major depression (22%) and anxiety disorders (17%). Douglas and Plugge (2006) investigated health needs in 17 year old female young offenders and found that 81% were smokers; 33% had been tested for HIV and Hepatitis B; few exercised and diet was poor; 79% reported a chronic health problem; and 71% were classified as having some kind of mental health need.

1.3 Method

Sampling

Initially, it was decided that, due to the small number (n=120) of children in secure settings in the East Midlands it would be possible to assess the whole population. However, due to operational issues at Rainsbrook Secure Training Centre, it was only possible to collect data on approximately half the children held there; therefore the final sample was 80.

Data collection

Data were collected in a number of different ways depending on the unit. Questionnaires and consent forms were sent to units prior to a visit by a member of the research team when ASSET data were collected and interviews/focus groups conducted with staff. Staff in all four units co-ordinated completion of the health questionnaires by the children. ASSET data was collected as planned at the two secure children's homes, face to face interviews were held with three members of staff from Clayfields House and a focus group was held with staff at the Lincolnshire Secure Unit.

Data Collection Instruments

The Short Form Health Survey – SF-36

The SF-36 is a generic, self administered measure of health related quality of life outcomes. It comprises 36 questions across 8 health dimensions; physical function, role limitation due to physical health, energy and vitality, pain general health perception, role limitation due to mental health, social functioning and mental health,. Scores for each dimension are combined to give a metric score of 0-100 with higher scores indicating better health. A physical component summary and mental component summary are derived from the 8 dimension scores (see appendix 1).

ASSET

Data from the YJB assessment records were collected manually from each unit. This included demographic data, care history and conviction history from the core profile and section 6 (substance misuse), section 7 (physical health) and section 8 (emotional and mental health) as well as details of completion of SQIFA and SIFA (the mental health assessments) summary data.

Data Analysis

SF36 survey data and ASSET data were coded and input into SPSS version 14 for statistical analysis and, where possible, matched for further analysis. Statistical methods and techniques used included descriptive statistics, t tests, ANOVA, bivariate correlation (Pearson's) and regression. The five dependent variables (Offending variables) were subjected, in turn, to multiple regression using PCS and MCS (Health variables) as independent variables. P-values less than 0.05 are evidence of a 'significant' regression model being found. R-squared and P-values were noted so as to judge the quality of the fitted models.

Ethical Approval

In consultation with CSIP commissioners, it was decided that NHS Ethical/Governance approval was not required for this health needs assessment. Nonetheless the project was submitted to the University Ethics Committee and a number of ethical safeguards were adopted.

1.4 Results

Responses by Unit

Rainsbrook Secure Training Centre achieved the greatest return rate with 95% SF36 Health Surveys and 100% ASSETs. Overall, 86% of all targeted SF36s and 87% of all ASSETs were achieved.

Sample Profile

The mean age of this sample of children in secure settings in the East Midlands was 15 years. There was a 60/40 [m:f] gender split and 76% were white (table 2). Girls in the sample were slightly older than the boys, with a mean age of 16 compared to 15 (Figure 1).

Seriousness Score and Conviction History

The 'Seriousness of Offence' Score on ASSET is determined by the type of offence and is rated on a scale of 1-8, with 8 being the most serious. The mean score for 'seriousness of offence' for the sample is 5, with a range of 2-8. The boys in the sample had committed slightly more serious offences, such as sexual offences and robbery than the girls, who had committed offences such as violence against the person, burglary and robbery. The mean age at first conviction was 13 and the mean number of previous convictions is 4 (table 3). Nearly two thirds of the sample had no previous custodial sentences, 7% had one and 10% had two or more.

Care History

Over one-third of the sample had either previously been, or were currently, accommodated by voluntary agreement with parents. Over two thirds had never been subject to a care order. Nearly 40% of the sample were currently or had been previously remanded to Local Authority Accommodation.

How representative is the sample?

The sample is broadly representative of all children in secure settings when compared to Mooney et al (2007), Baker et al (2003) and the DCSF (2008) in which the gender split was reported as around 66/34 [m:f], around half had a history of being in care and the mean age of 1st conviction in the Baker et al (2003) sample was 14.

Global Health Status

- Gender does not explain any differences in either physical or mental health status for this sample. However, for both boys and girls, physical health status is significantly worse than mental health status.
- Compared to the general population of children in Sweden (13-19), young people in secure settings in the EM, have significantly worse physical health and significantly better mental health
- Compared to the youngest group of people on probation (18-24), children in secure settings in the EM have significantly worse physical health and there is no difference in mental health.
- Compared to the general population (average age 34 yrs) in the UK, children in secure settings, both boys and girls, have significantly worse physical health and there is no difference between boys and girls for mental health.

ASSET Information

- Three-quarters of the children smoke; nearly 60% use alcohol the same proportion that smoke cannabis and one in four use cocaine.
- 12% have a physical health condition that which significantly affects life functioning, one third risk their health through drug use, unsafe sex, and prostitution.
- There is no correlation between the SF36 (self completion) and physical health as assessed by YOTs workers on ASSET
- Physical health is rated 12 out of 12 items risk of further offending issues on ASSET

ASSET and Mental Health Screening

- The only establishment where we had ASSET and SQIFA data was Rainsbrook (n=39)
- Out of 39 children at Rainsbrook, the SQIFA was completed on 67% (n=26) when ASSET score indicated that 27 children should have it. However, 41% who should have had SQIFA didn't get it (11/27) and 83% (10/12) of those that didn't need it, received it. Altogether, following SQIFA, full MH assessment indicated for 13% (5/39) but we don't know if this was received or not.
- The SQIFA data suggest that mental health problems were not a significant issue for this group with a full MH assessment indicated for 13% the most serious mental health problems were: hallucinations (4 scored 2-4); PTSD (4 scored 2-4) and substance misuse (4 scored 2-4).
- Data from the qualitative interviews highlighted the fact that a child's vulnerability, especially in relation to mental health, was often inadequately assessed prior to reception at a secure establishment.

Mental Health

- The SF36 mental health component score has a reported cut-off score of 42, for 81% specificity in the detection of depressive disorder. In this sample, 36% of our sample scored under 42, thus approximately 25-30 young offenders are suffering from depression.
- Three children in this sample have been given a formal psychiatric diagnosis
- 55% have been referred to, or had contact with, formal mental health services – this group have significantly higher total dynamic 'future risk of offending' scores
- One in five have previously attempted suicide and 41% have deliberately self-harmed.

Relationship between SF36 (health status) and ASSET (offending and risk of offending)

We can find no direct relationship between health status and offending:

1.5 Discussion

The physical health of children in secure settings is significantly worse than for general population comparison groups. A range of health needs are clearly apparent ranging from dentistry to sexual health. It is reassuring that, by and large, universal health care is provided for these children although not necessarily commissioned through PCTs. The managers of the two smaller homes experience problems in providing escorts for children who need healthcare outside the homes. We do not under-estimate how challenging this must be in an emergency.

Physical health is ranked 12th out of 12 future offending risk items in ASSET in this sample, clearly, youth offending team workers do not believe that physical health status contributes much to the likelihood of future offending. Certainly we find little objective relationship between offending history, risk of future offending and overall physical health status.

The mental health of children perhaps gives greater cause for concern. Although serious mental illness is not a major feature of the group (only 3 cases in the whole sample) assessment and intervention across the pathway is far from systematic or well-resourced. This is especially true for depression where close links with local IAPT initiatives would be beneficial.

From the joint health/YJB perspective there are questions about the extent of involvement of PCTs with the performance management of health-related standards in secure children's homes in the context of both ASSET assessments and substance misuse.

Recommendations

1. PCT commissioners, discuss with the YJB, the ways in which health-related standards are jointly addressed and performance-managed.
2. PCT commissioners ensure that regular mental health assessment takes place not just at reception but regularly, such assessment should focus on depression/suicidal ideation and self-harm.
3. PCT commissioners link to the development of local IAPT programmes with a view to expanding the range of relevant interventions that children receive.

2. Background

East Midlands CSIP Office has commissioned a series of health needs assessments from the CJMH group at the University of Lincoln. A previously reported study examined the health needs of offenders on probation (Brooker et al, 2009) and an assessment of the health needs of short-sentenced prisoners will begin in May 2009. This evaluation focuses on the health needs of children in secure settings within the East Midlands SHA patch, i.e. HMP Foston Hall (Derbyshire), Clayfields House (Nottinghamshire), Lincolnshire Secure Unit and Rainsbrook Secure Training Centre (Northamptonshire). There are strong links with this health needs assessment and the evaluation, also commissioned by the DH from the CJMH group, which is examining the impact of the Framework for Commissioning Secure Children's Services across England (Department of Health 2007). This health needs assessment examines the physical and mental health of the children in these four settings named above and looks at staffs' views about the current healthcare provision.

Children in Secure Settings

The number of children in secure settings has tripled since 1991 (Prison Reform Trust, 2008). On the 9th January 2009, there were 2635 children under 18 in custody, that is, 2465 boys and 170 girls. Of these, 277 were held in Secure Children's Homes (SCH), 225 in Secure Training Centres (STC) and 2233 in Young Offender Institutions (YOI). In the East Midlands there are two Secure Children Homes, Clayfields House and Lincolnshire Secure Unit, a Young Offenders Institution, HMP & YOI Foston Hall, and a Secure Training Centre, Rainsbrook. There are approximately 120 children held across the four secure units in the East Midlands (October 2008, data provided by the individual units).

Table 1

Number of children in secure accommodation in the East Midlands by Establishment

Unit	No of Children	Age range
Clayfields House (SCH)	18	13-17
Lincolnshire Secure Unit (SCH)	9	13-16
Toscana Unit (Foston Hall) (YOI)	11	17
Rainsbrook Secure Training Centre (STC)	80	13-17
TOTAL	118	

Around 16% of children in custody are on remand and nearly 2% are serving indeterminate sentences (Prison Reform Trust, 2008). Nearly a third of this population have poor literacy and numeracy skills and nearly a third have been in care (Prison Reform Trust, 2008). There have been reports of high levels of mental health need among children in secure settings and high levels of substance misuse (Mooney et al 2007). Reconviction rates for children in custody are high, 68.6% were reconvicted within a year of release in 2004 (Prison Reform Trust, 2007)

The secure estate in the East Midlands comprises:

- Clayfields House in Nottinghamshire which is a mixed gender unit that holds up to 18 children aged 10-17 in the criminal justice system and those held on welfare grounds.
- The Lincolnshire Secure Unit which is also mixed gender with 9 beds for those held on both criminal justice and welfare grounds.
- The Toscana Unit at HMP and YOI Foston Hall which holds up to 16 girls aged 17-18 on remand and serving a sentence.
- Finally, Rainsbrook which is one of four privately run Secure Training Centres, which holds up to 87 boys and girls aged 12-17 on remand or serving a sentence. Many of the children held in these units are from other counties.

The health of children and young people

Adolescent health, which is broadly those aged 10 to 20, has received increasing attention in the last decade, for two main reasons. First, adolescence is an important period of growth and transition and, second, because this group make up 13-15% of total UK population (RCPCH 2003). This age group is the only age group whose mortality rates did not fall significantly in the latter half of the 20th century. Death in this group is mainly caused by accidents and self harm. Adolescents also have greater health needs than young children/young adults and have very specific needs particularly around mental health problems and chronic illness.

Sexual health is of particular concern due to an increasing prevalence of sexually transmitted infections found among this age group (BMA 2003). On the whole, adolescents do not have the best diets, nor do they exercise enough. They are also drinking more alcohol than their counterparts in Europe and over 20% report using drugs in the previous month. The British Medical Association (2003) state that psychological problems, such as behavioural disorders, eating disorders and self harm may affect around 20% of adolescents. Another study has reported that 1 in 10 children and young people will have a mental disorder (ONS 2000).

A report by the Royal College of Paediatrics and Child Health (2003) identified that young people faced barriers in their use of health services particularly in relation lack of information, confidentiality, privacy and the expertise and continuity of professionals.

The health of children in the secure estate

Children in secure settings are a vulnerable group with complex and specific health needs. A review of the literature shows that there have been a number of well-conducted studies looking at the prevalence of mental health problems of this group of children, but very little focusing on physical health or on their needs.

A systematic review of the policy and research in relation to the health needs of prisoners (Harris et al 2006) highlighted the social exclusion and risky behaviours of young prisoners. It also noted how there was little literature about the physical health needs of young prisoners. MacDonald (2006) has reviewed the health needs of adolescents and young offenders. Screening was identified as a key issue, particularly to improve the recognition of health needs and the subsequent production of care plans. MacDonald recommended that further research was needed in order to develop and implement appropriate services. Mooney et al (2007) also undertook a review of the health of children in secure settings. They noted that there are high levels of mental health need and substance abuse among this group.

One of the key studies that has examined psychiatric morbidity in young offenders was undertaken by Lader et al (2003) for the Office of National Statistics – a sample that aged from 16 to 20 years old. They found that over 80% of the sample smoked, nearly 90% had drunk alcohol in the 12 months prior to custody and over 60% had used drugs in the month prior to custody. Male sentenced young prisoners rated their general health better than their female counterparts and 21% of males sentenced young prisoners reported a long standing illness, disability or infirmity compared to 41% among the females. Differences in mental health treatment were great between male and female young offenders. In the 12 months prior to custody, 11% of male sentenced young prisoners had received mental health treatment compared to 27% of female young offenders which increased to 14% for males and decreased to 22% for females who had received mental health treatment in prison. Prevalence rates for personality disorder among the male sample was 88% and 10% for psychosis (male sentenced young prisoners), which is vastly increased in comparison to the general population. Self harm rates were similar between the male and female samples, 7-11%, but suicidal thoughts and attempts were higher among the females.

Chitsabesan et al (2006) examined the mental health needs of young offenders (age 13-18) in custody and in the community. They found that young offenders have high mental health need, particularly in the community where needs were often unmet. They suggest that needs reduce temporarily whilst in custody and can increase again on release back to the community. 31% of the sample had a mental health need; nearly 20% had had significant depressive symptoms, 10% reported anxiety or post traumatic stress symptom and around 10% reported self harming within the previous month. The children in secure care were followed up 9 months later (Harrington and Bailey 2005) and were found to have an increase in the number of needs, particularly around drugs and alcohol. Mental health need was not significantly different at follow up, 27% showing symptoms of depression, 13% anxiety and 7% self harm.

Another study has examined the mental health needs of boys (age 12-17) in secure care (Kroll et al 2002) and how need changed over time also found high rates of psychiatric morbidity. Prior to admission over 50% misused drugs or alcohol and over

33% were found to be depressed, however there were improvements to substance misuse unsurprisingly after admission. However, for mental health, particularly depression and anxiety, levels remained high and even developed after admission. The most prevalent psychiatric disorders were found to be conduct disorder (91%); major depression (22%) and generalised anxiety disorder (17%), although conduct disorder had completely disappeared after 3 months.

The Douglas and Plugge (2006) health needs assessment of young women in YOIs looked at physical and mental health status of 17 year old female prisoners. This study helped inform health need projections for the development of the Toscana Unit at Foston hall, Derbyshire. As with the Brooker et al (2008) study of offenders on probation, female offenders have even worse mental and physical health status than women in social class V of the general population. 81% of the young women were smokers, 61% were drinking more alcohol than is recommended prior to custody and 82% used drugs. In terms of sexual health, nearly a quarter of the sample had had an STI. A third of the sample had been tested for HIV and hepatitis B, none had tested positive and half had been vaccinated against hepatitis B. Very few exercised and their diet was poor. 79% reported having a longstanding illness or disability, a much higher figure than that reported by Lader et al (2003), which included 47% with depression and 18% with anxiety/panic attacks. 36% of young women had self harmed in the last month and 71% were classified as having some level of psychiatric disturbance.

The wealth of literature that looks at mental health suggests that prevalence of mental health disorder among this group of children is high and often remains unmet. But there is little corresponding research around the physical health of this group. The literature also suggests that the majority are smokers and alcohol consumers and regularly practice in risky behaviours.

Healthcare Policy for Children in Secure Settings

Policy is now focusing more and more, not just on vulnerable children, but specific groups of vulnerable children, including those who offend and those in secure settings. The Every Child Matters outcomes include 'be healthy' both physically and mentally (Department for Education and Skills, 2005). Much of this highlights the importance of ensuring all children regardless of their circumstances have the same access to healthcare as the general population (Healthcare Commission [2008]; Department of Health, [2004], YJB [unknown]). Safeguarding Children (2008) makes reference to 29% of children and young people in custody have identified physical health needs.

The Youth Justice Board are responsible for the prevention of offending by children under 18. They also have the responsibility for ensuring their health needs are addressed whilst they are in the youth justice system. The YJB National Standards include standards for healthcare in secure establishments:

10.48 All young people should receive health care of a similar standard as they would receive in the community.

10.49 All secure establishments must have in place procedures to identify and manage those at risk of self harm and suicide; these should regularly be monitored, reviewed and updated. (YJB, 2004)

National Standard 11, which relates to sentenced young offenders, also highlights the central role of ASSET, a structured assessment tool used by youth offending teams. ASSET is a structured framework to assess issues associated with a young person's offending completed by the Youth Offending Team. The tool is broken down into a number of sections relating to various potential risk factors common among young offenders which help develop a profile. This includes physical health and emotional and mental health (which are the two sections looked at in this study).

In an evaluation of ASSET (Baker et al 2003), 8% of the sample were found to have been assessed as having a physical health condition that significantly affects everyday functioning, a much lower figure than reported in other studies. They also found that 11% put their health at risk through their own behaviour, particularly among female offenders and 4% lacked access to appropriate healthcare. Approximately a third of this sample were assessed as having significant problems with daily function due to coming to terms with past events, their current circumstances and their concerns about the future. However, only 2% were assessed as having a formal mental illness diagnosis and 11% had contact with mental health services.

Female offenders were more likely to be assessed as having emotional and mental health difficulties. A report on the further development of ASSET (Baker et al 2005) notes that emotional and mental health ranked 8th out of 13 as a risk of reoffending. Physical health was least likely to be associated with reoffending. A YJB corporate brochure about health argues that there is a link between health and offending however little research to date has clearly identified the nature of this relationship.

Secure settings rely on ASSET for providing a profile of the young person but often they are incomplete or missing, particularly when it comes to mental health assessments. It has also been established that ASSET under-reports mental health problems (Harrington et al 2005). The mental health screening tool was developed as an addition to ASSET. If a young person scores 2 or more in ASSET section 8, Emotional and Mental Health, then the health professional attached to the YOTs team should also complete the SQIFA, the Screening Questionnaire Interview for Adolescents. However, if the young person scores 3 or 4 on the SQIFA, a full interview, SIFA, should be completed by a trained professional (YJB 2003). This should all be complete prior to a child entering secure care.

Inspection reports

HM Inspector of Prisons has the responsibility for inspecting all prison establishments including Young Offender Institutions. They inspect every establishment at least once every five years and these inspections can be announced or unannounced. They conduct surveys with a sample of the prison population, hold individual interviews and focus groups collect evidence such as documentation and make observations. They also talk to prison staff, visitors and anyone else with an interest in the establishment.

OFSTED are responsible for the inspection of other children's secure units, such as STCs and SCHs, inheriting this responsibility from the Commission for Social Care in April 2007. The inspections are based around the 5 Every Child Matters Outcomes; be healthy, stay safe, enjoy and achieve, make a positive contribution, achieve economic well-being.

The Toscana Unit at Foston Hall was last inspected in April 2008 (HM Chief Inspector of Prisons, 2008) and overall it was a 'very good' report. The provision of healthcare is 'very good' and there is thorough healthcare screening on arrival. A wide range of health services are available and they are able to deliver 'good' primary care and a full range of clinics. There is a female GP, good mental health support and adequate dental services. Healthy food was provided, including healthy snacks. There is good analysis of self harm data – incidents were well monitored and cross referenced with the child protection coordinator. There is also a range of specialist staff to support the young women who self harm, however there was no peer support available. No needs assessment had been conducted by the substance misuse service but there was a range of appropriate interventions. There is no detoxification facility, for which the main recommendation of the whole report was that:

The Youth Justice Board and the Primary Care Trust should work in partnership to ensure that the unit is able to accept, safely accommodate and treat substance dependant young women requiring stabilisation or detoxification, to avoid the necessity to place young women long distances from their home area to access an appropriate service. (HP43)

Rainsbrook Secure Training Centre was fully inspected in December 2007 (OFSTED, 2007) and a follow-up inspection was undertaken in July 2008 (OFSTED 2008a). Health provision was reported as "good" in both inspections. Meals are varied and healthy eating is promoted but not always implemented; salad and vegetables are not always available. A recommendation was made to review the quality and quantity of meal provision. Arrangements for on-site health services are child-centred, embedded in practice and well organised. The healthcare team are experienced in learning disability, mental health and general nursing. Holistic healthcare needs are addressed through visiting health professionals who provide a support service. There is also a visiting GP, optician and dentist plus a sessional psychologist and psychiatrist. Health needs are assessed at admission which includes an initial mental health assessment. A young person's survey was carried out to evaluate health services and there is development around the provision of immunisations.

Clayfields House Secure Unit was last inspected by OFSTED in November 2008 (OFSTED, 2008b). The overall quality rating was good. However this was an unannounced inspection to evaluate progress of previous recommendations and health was not inspected this time. The last time health was inspected was 2004, although there is currently a inspection imminent.

The November 2008 inspection of the Lincolnshire Secure Unit rated the overall quality as good (OFSTED, 2008c). Health provision was also rated as good. A healthy diet is provided and all dietary requirements are met. Health plans are clear and up to date, as well as provide historical information. There are also clear plans for those with specific health and mental health issues. There is access to health professionals and advice is available for alcohol and substance misuse, smoking, relationships, education, bullying and abuse issues. There are “positive links” with the local GP, for three afternoons per week a nurse is available and there is also out of hours provision. No recommendations were made in relation to health.

3. Method

Aims of the Health Needs Assessment

- To examine the physical and mental health status of children in secure settings using structured assessment tools
- To identify current healthcare provision
- To identify gaps when needs and provision are compared
- To provide information to help develop outcomes for children and young people
- To contribute to the development of recommendations for commissioners

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Initially, it was decided that, due to the small number (n=120) of children in secure settings in the East Midlands it would be possible to assess the whole population. However, due to operational issues at Rainsbrook Secure Training Centre, it was only possible to collect data on approximately half the children held there; therefore the final sample was 80.

Data collection

Data were collected in a number of different ways depending on the unit. Questionnaires and consent forms were sent to units prior to a visit by a member of the research team when ASSET data were collected and interviews/focus groups conducted with staff. Staff in all four units co-ordinated completion of the health questionnaires by the children. ASSET data was collected as planned at the two secure children's homes, face to face interviews were held with three members of staff from Clayfields House and a focus group was held with staff at the Lincolnshire Secure Unit.

Due to difficulties in arranging a visit to the Toscana Unit at Foston Hall, a telephone interview was held with the head of health care and ASSET data was collected directly from the Youth Justice Board Headquarters. Data collection at Rainsbrook once negotiated was straightforward and involved two days where data were made available and transcribed. Staff interviews were also conducted.

Unfortunately the completion of SQIFA and SIFA is relatively new and was not available for all children.

Data Collection Instruments

The Short Form Health Survey – SF-36

The SF-36 is a generic, self administered measure of health related quality of life outcomes. It comprises 36 questions across 8 health dimensions; physical function, role limitation due to physical health, energy and vitality, pain general

health perception, role limitation due to mental health, social functioning and mental health and can be used with anyone aged over 14. Scores for each dimension are combined to give a metric score of 0-100 with higher scores indicating better health. A physical component summary and mental component summary are derived from the 8 dimension scores (see appendix 1).

The SF-36 is a well validated, reliable tool (Brazier et al, 1992) used world wide in many different languages. Comparable UK general population data (normative data) is taken from the Third Oxford Healthy Lifestyle Survey (Jenkinson et al, 1999). All children aged 14 years and over in the sample were asked to complete and SF36.

Scoring procedures for the SF36 survey were followed as per the developers user's manual (Ware et al 2008). Estimates of missing data were made according to the manual and input where possible. This resulted in 91% achieved domain scores and 70% achieved component summary scores due to missing gender data.

ASSET

Data from the YJB assessment records were collected manually from each unit. This included demographic data, care history and conviction history from the core profile and section 6 (substance misuse), section 7 (physical health) and section 8 (emotional and mental health) as well as details of completion of SQIFA and SIFA (the mental health assessments) summary data (see appendix 2).

Data Analysis

SF36 survey data and ASSET data were coded and input into SPSS version 14 for statistical analysis and, where possible, matched for further analysis. Statistical methods and techniques used included descriptive statistics, t tests, ANOVA, bivariate correlation (Pearson's) and regression. The five dependent variables (offending variables) were subjected, in turn, to multiple regression using PCS and MCS (Health variables) as independent variables. P-values less than 0.05 are evidence of a 'significant' regression model being found. R-squared and P-values were noted so as to judge the quality of the fitted models.

Interviews and focus groups were conducted with a number of healthcare and unit staff. Interviews, both face to face and by telephone took approximately 30 minutes and focus groups with between two and five staff took between one and two hours. Detailed notes were made during the interviews and focus groups. These qualitative data were analysed thematically across all four establishments using the framework of the interview schedule (see appendix 4).

Ethical Approval

In consultation with CSIP commissioners, it was decided that NHS Ethical/Governance approval was not required for this health needs assessment. Nonetheless the project was submitted to the University Ethics Committee and a number of ethical safeguards were adopted:

- each manager in each of the care settings gave consent for the data collection in their establishment
- each child completing an anonymous SF36 questionnaire signed a separate information and consent form (readability rate 85.1 using Flesch Reading Ease so suitable for this age group) (see appendix 3).

All participants were assured that their details would be anonymous and that no individual would be identified by name. When SF-36 questionnaires were matched with ASSET data, numbers were used instead of names. As care managers and/or healthcare staff administered the questionnaires, there were no ethical concerns regarding contact between the children/young people and the research team.

As normative SF-36 data is only available for children aged 14 years and above, the research team requested that only those 14 or over completed the questionnaire. They were provided with a comprehensive information sheet prior to completion of the questionnaire and were informed that they had the choice of participating and could withdraw at any time. As the aim was to collect data from all children in secure settings in the East Midlands, there were no issues with sampling.

4. Results

Responses by Unit

Rainsbrook Secure Training Centre achieved the greatest return rate with 95% SF36 Health Surveys and 100% ASSETs. Overall, 86% of all targeted SF36s and 87% of all ASSETs were achieved.

Table 1

Response by Unit

	Lincolnshire		Clayfields		Toscana		Rainsbrook		Total	
	Target	Achieved	Target	Achieved	Target	Achieved	Target	Achieved	Target	Achieved
SF36	9	5 (56%)	18	14 (78%)	11	10 (91%)	40	38 (95%)	78	67 (86%)
ASSET	9	7 (78%)	18	15 (83%)	11	6 (55%)	40	40 (100%)	78	68 (87%)
SQIFA		0		0		0		27		27
SIFA		1		0		0		0		1
No of Interviews/ Focus Groups	1	1 (100%)	3	3 (100%)	1	1 (100%)	1	1 (100%)	6	6 (100%)

There were a number of factors that affected the overall targeted response, as follows:

- 4 children were under 14 so could not consent
- 5 eligible children did not consent
- 1 SF36 was so incomplete so could not be included
- There were 4 welfare cases
- There were 2 remand cases (i.e bail profiles not core ASSET profiles)
- Toscana ASSET data was collected directly from the YJB who didn't hold SQIFA/SIFA data.

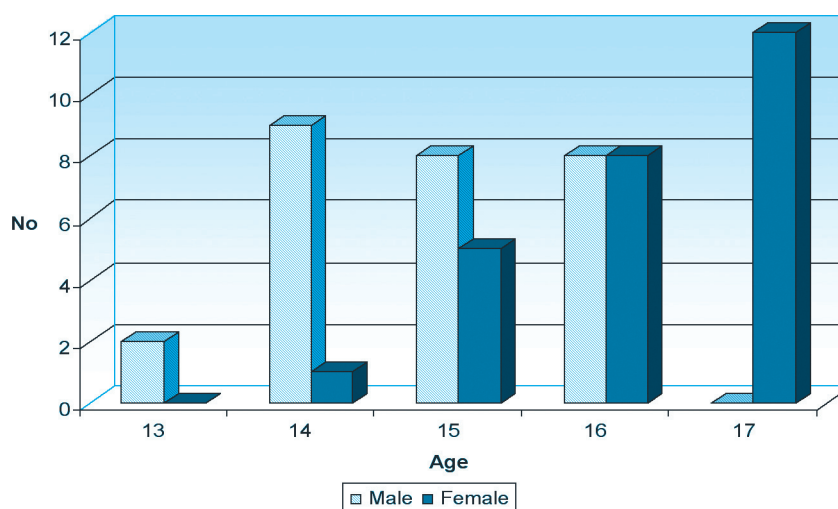
Sample Profile

The mean age of this sample of children in secure settings in the East Midlands was 15 years. There was a 60/40 [m:f] gender split and 76% were white (table 2). Girls in the sample were slightly older than the boys, with a mean age of 16 compared to 15 (figure 1).

Table 2
Demographics by Unit

		Clayfields House SCH (n=15)	Lincolnshire Secure Unit SCH (n=8)	Rainsbrook STC (n=40)	Toscana Unit YOI (n=10)	Total (n=73)
Mean Age		15	14	15	17	15
Gender	Male	60%	88%	60%	0	58%
	Female	40%	12%	40%	100%	42%
Ethnicity	White British	60%	63%	53%	67%	57%
	Other White	7%	25%	20%	33%	19%
	Caribbean	0	0	8%	0	4%
	African	0	0	3%	0	1%
	Black British	7%	0	5%	0	4%
	Other black	7%	12%	5%	0	6%
	Other Asian	0	0	3%	0	1%
	White/Black Caribbean	0	0	3%	0	1%
	Other mixed	7%	0	0	0	1%

Figure 1
Distribution of age by gender



Seriousness Score and Conviction History

The 'Seriousness of Offence' Score on ASSET is determined by the type of offence and is rated on a scale of 1-8, with 8 being the most serious. The mean score for 'seriousness of offence' for the sample is 5, with a range of 2-8. However, this data was missing for around half of the sample. The boys in the sample had committed slightly more serious offences, such as sexual offences and robbery than the girls, who had committed offences such as violence against the person, burglary and robbery.

The conviction history includes details of the age at first conviction, the number of previous convictions and the number of previous custodial sentences. The mean age at first conviction is 13 and the mean number of previous convictions is 4 (table 3). Nearly two thirds of the sample had no previous custodial sentences, 7% had one and 10% had two or more.

Table 3

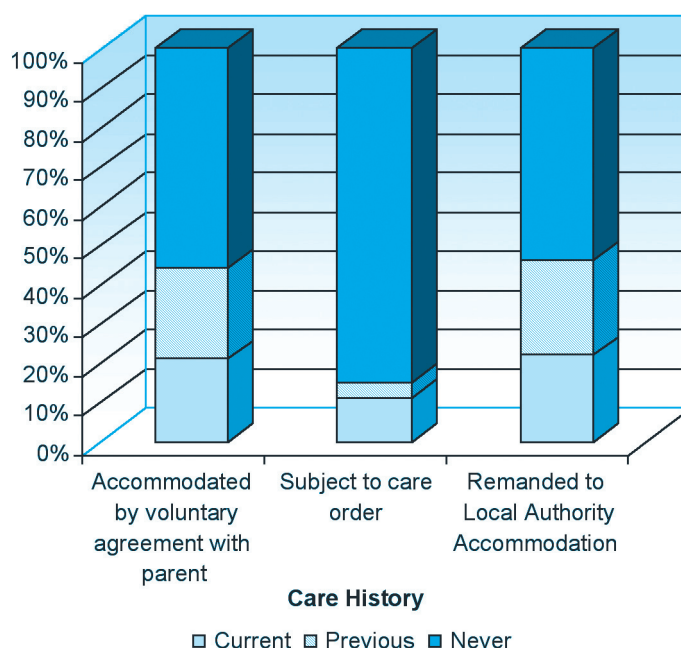
Profile of conviction history

	Boys	Girls	Total
Mean age at 1st conviction (sd)	12.6 (1.55)	14.1 (1.39)	13.3 (1.63)
Mean number of previous convictions (sd)	4.1 (5.03)	3.7 (4.39)	3.9 (4.40)

Over one-third of the sample had either previously been, or were currently, accommodated by voluntary agreement with parents. Over two thirds had never been subject to a care order. Nearly 40% of the sample were currently or had been previously remanded to Local Authority Accommodation.

Figure 2

Care History



How representative is the sample?

The sample is broadly representative of all children in secure settings when compared to Mooney et al (2007), Baker et al (2003) and the DCSF (2008) in which the gender split was reported as around 66/34 [m:f], around half had a history of being in care and the mean age of 1st conviction in the Baker et al (2003) sample was 14. Worsley (2006) found that 23% of children aged 15-18 were from BME groups, greater than the 18% in this sample.

The SF36 Health Status

There are no significant differences in health status between boys and girls in the sample for any of the SF36 dimensions or component summaries (table 4). When looking at the PCS and MCS scores, physical health for both boys and girls in the sample is significantly better than mental health ($p \leq 0.001$). Although not a significant difference, boys have worse mental health (MCS) than girls. General Health is the only domain in which there are significant differences ($p \leq 0.05$) in mean scores across the different ages, with the better 'perception of general health' being among the 15 and 16 year olds. Further tests showed that there are no significant differences in health status among the different ethnic groups (ANOVA shows that between white British, other white and other ethnic groups $F=1.079$, $\text{sig}=0.349$ for PCS and $F=0.822$ $\text{sig}=0.446$).

Table 4
SF36 scores by gender

	Boys mean score (SD) (95% CI) n=27	Girls mean score (SD) (95% CI) n=26	Total mean score (SD) (95% CI) n=67*
Physical Function	65.37 (34.11) (51.88–78.86)	63.60 (32.28) (49.86–77.34)	70.08 (32.72) (62.03–78.12)
Role Limitation-Physical	67.07 (31.40) (54.38–79.75)	58.97 (31.18) (45.48–72.45)	69.05 (31.68) (61.07–77.03)
Bodily Pain	67.31 (19.91) (59.27–75.35)	68.75 (19.63) (60.46–77.04)	67.81 (18.98) (63.07–72.55)
General Health	71.56 (21.43) (63.08–80.03)	66.13 (18.40) (58.70–73.57)	70.86 (20.26) (65.92–75.80)
Energy and Vitality	62.73 (15.84) (56.47–69.00)	56.01 (19.00) (48.34–63.68)	59.98 (16.93) (55.85–64.11)
Social Functioning	67.31 (25.27) (57.10–77.51)	70.67 (22.35) (61.65–79.70)	70.45 (23.37) (64.71–76.20)
Role Limitation - Emotional	66.05 (35.20) (52.13–79.97)	67.67 (32.39) (54.30–81.04)	67.93 (32.40) (59.96–75.89)
Mental Health	63.33 (21.75) (54.73–71.94)	53.46 (17.93) (46.22–60.70)	60.30 (19.64) (55.51–65.09)
PCS	41.19 (11.28) (36.63–45.74)	40.65 (9.86) (36.16–45.14)	40.95 (10.56) (37.85–44.05)
MCS	46.92 (11.11) (42.43–51.41)	49.32 (8.50) (45.45–53.19)	47.99 (10.00) (45.06–50.93)

*Includes those for whom gender was not known

There were no significant differences in overall physical or mental health status that was associated with type of secure setting.

Table 5 below compares our sample of children in secure settings with a sample of the general population obtained from Sweden. The physical health of children in secure settings is significantly worse than the Swedish sample whereas the mental health is significantly better.

Table 5

SF36 Comparison with Swedish General Population Adolescents

	Secure Sample mean (SD) (95% CI)	Swedish Adolescents (age 13-19) ¹ mean
Physical Function	70.08 (32.72) (62.03–78.12)	93.80
Role Limitation-Physical	69.05 (31.68) (61.07–77.03)	85.25
Bodily Pain	67.81 (18.98) (63.07–72.55)	84.05
General Health	70.86 (20.26) (65.92–75.80)	75.20
Energy and Vitality	59.98 (16.93) (55.85–64.11)	58.75
Social Functioning	70.45 (23.37) (64.71–76.20)	84.60
Role Limitation - Emotional	67.93 (32.40) (59.96–75.89)	76.25
Mental Health	60.30 (19.64) (55.51–65.09)	72.30
PCS	40.95 (10.56) (37.85–44.05)	53.45
MCS	47.99 (10.00) (45.06–50.93)	43.60

Table 6 shows that this sample of children, in secure settings, have significantly worse health than offenders in the community aged 18-24 for all but one of the eight SF36 domains ($p \leq 0.01$). They also have significantly worse physical health status (PCS) yet mental health status is very similar to that of the community group.

¹ Swedish normative data for adolescents obtained from a study by Jorngarden et al (2006).

Table 6

Comparison of SF36 for the sample and community offenders aged 18-24

	Sample of children in secure settings mean (SD) (95%CI)	Community offenders aged 18-24 ² mean (SD) (95% CI)
Physical Function	70.08 (32.72) (62.03 – 78.12)	88.66*** (22.19) (81.65 – 95.66)
Role Limitation-Physical	69.05 (31.68) (61.07 – 77.03)	87.19*** (24.76) (79.27 – 95.11)
Bodily Pain	67.81 (18.98) (63.07 – 72.55)	85.91*** (19.41) (79.78 – 92.03)
General Health	70.86 (20.26) (65.92 – 75.80)	72.69 (19.97) (66.47 – 78.91)
Energy and Vitality	59.98 (16.93) (55.85 – 64.11)	66.22** (20.46) (59.76 – 72.68)
Social Functioning	70.45 (23.37) (64.71 – 76.20)	79.17** (26.14) (71.02 – 87.31)
Role Limitation - Emotional	67.93 (32.40) (59.96 – 75.89)	81.87** (24.01) (74.20 – 89.55)
Mental Health	60.30 (19.64) (55.51 – 65.09)	71.71*** (18.88) (65.75 – 77.67)
PCS	40.95 (10.56) (37.85 – 44.05)	50.82*** (9.24) (47.82 – 53.81)
MCS	47.99 (10.00) (45.06 – 50.93)	48.85 (9.00) (45.93 – 51.77)

*p≤0.05 ** p≤0.01 *** p≤0.001

Appendix 5 gives SF36 scores for this sample of children in secure settings compared to the general population. The comparisons with our sample of children and the general population are tentative as we have concerns about this population being much older on average than these children (37 years versus 15 years); clearly the older we become the more our health deteriorates. Despite this caveat, again, the physical health of children is significantly worse although there are no differences in mental health.

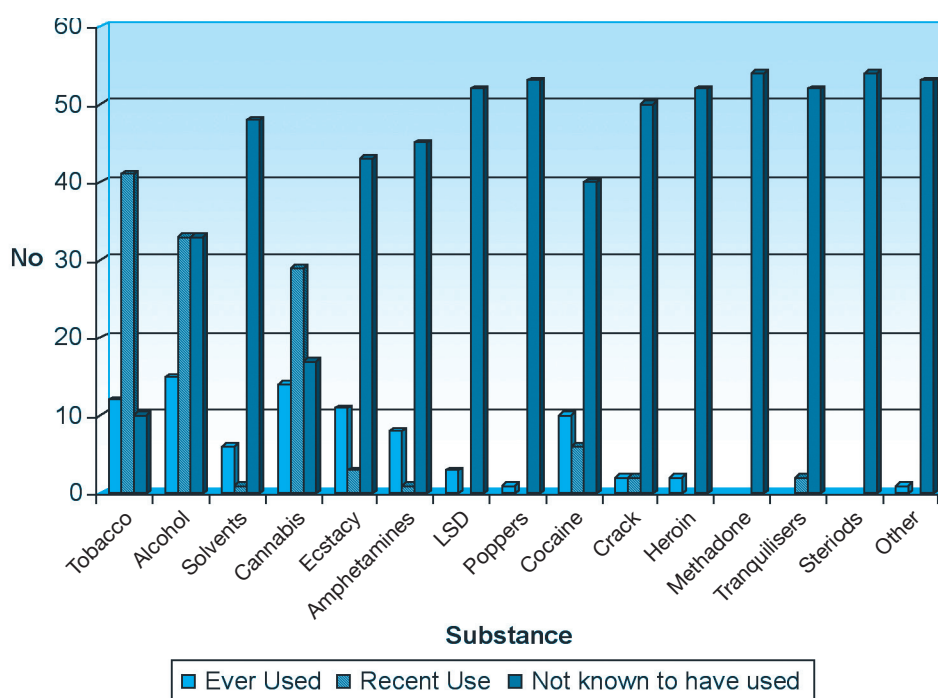
ASSET

Substance Misuse

The main substances known to have been used by the sample of children in secure settings were tobacco (77%), alcohol (59%), cannabis (62%) and cocaine (23%). In Baker's (2003) findings, three-quarters were known to be using tobacco (10% less than our sample), whilst a similar proportion were known to be using alcohol (14% more than our sample) and 46% were known to have used cannabis (26% less than our sample). Ecstasy use by our sample was greater by 15% and cocaine use was greater by 20%.

² Data obtained from Brooker et al (2009)

Figure 3
Substance Misuse



The mean age at first use of tobacco was 11, with a range of 6-15, for alcohol it was 12 with a range of 10-15 and for cannabis it was 13 with a range of 12-14. Cocaine was first used at age 14 and crack at age 16.

A quarter of the sample has a positive attitude to drug misuse regarding it as positive and/or essential to life. Substance use has had a noticeably detrimental affect on education, relationships or daily functioning for a quarter of the sample and there are also other links between substance misuse and offending for around the same proportion of the sample.

Physical Health

Physical health issues for this sample exist, but are not marked and there are 12% with a health condition which significantly affects everyday life functioning. However, it has been noted that a third of the sample have put their health at risk through their behaviour, which includes drug use, unsafe sex, prostitution and so on. 30% have other problems related to physical health such as prescribed medication, binge drinking, obesity, poor diet, smoking, hyperactivity and early or late physical maturation.

Interestingly, there is no significant relationship between the SF36 score, i.e. self assessed physical health of this group of children and physical health (as a risk for further offending) as assessed by the Youth Offending Team.

Mental Health Screening (SQIFA)

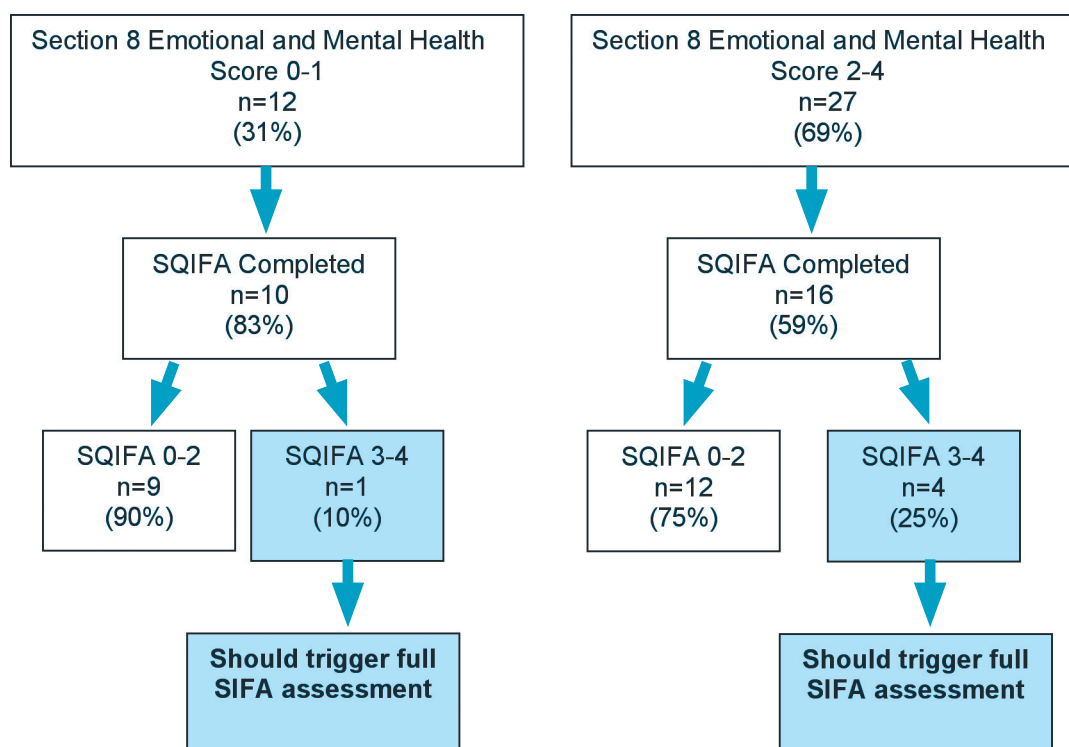
An initial mental health screening (SQIFA) is triggered by scoring 2 or more on ASSET

section 8, Emotional and Mental Health. The full screening interview (SIFA) is carried out if a score of 3 or 4 is reached on the SQIFA.

In this sample 69% scored 2 or more in this section, more than double that of the Baker et al (2003) sample, (which is to be expected as that was a study of youth offending teams in the community). However, 83% of those at Rainsbrook scoring 0-1 in section 8 of ASSET had the initial mental health assessment (SQIFA). For those scoring 2-4 on this section of ASSET, 59% had the initial assessment (SQIFA) (figure 3). In other words, more SQIFAs, proportionally, were undertaken for whose assessment should not trigger SQIFA than for those where it was clearly indicated (83% versus 59%).

Figure 4

Mental Health Screening Pathway at Rainsbrook³



Overall, 13% (5/39) of the sample should trigger the full mental health assessment, SIFA, and 26% (10/39) should be considered for a repeat SQIFA in 4-6 weeks, or if circumstances change.

³Rainsbrook was the only establishment where both ASSET data and SQIFA data was available (n=39)

Table 7 below shows that at initial assessment, very few children in the sample were identified with problems that required further assessment; 4% with potential alcohol and substance misuse problems, 4% with potential depressed mood problems, 4% with potential PTS problems, 4% with potential depressed mood, self harm and PTS problems and 4% with potential hallucination problems. These results, though few, suggest that post traumatic stress, hallucinations and depressed mood are potentially the biggest problems among this group of children.

Table 7

Summary of SQIFA scores

	0	1	2	3	4
Alcohol Misuse	22 (79%)	4 (14%)	1 (4%)	1 (4%)	0
Substance Misuse	20 (71%)	4 (14%)	3 (11%)	1 (4%)	0
Depressed Mood	21 (78%)	4 (15%)	0	1 (4%)	1 (4%)
Deliberate Self Harm	17 (61%)	9 (32%)	0	1 (4%)	1 (4%)
Anxiety Symptoms	21 (78%)	5 (19%)	1 (4%)	0	0
Post Traumatic Stress Problems	22 (82%)	1 (4%)	2 (7%)	2 (7%)	0
Hallucinations, delusions and paranoid beliefs	23 (82%)	1 (4%)	3 (11%)	0	1 (4%)
Hyperactivity	26 (93%)	1 (4%)	0	1 (4%)	0

The five children whose SQIFA should trigger a SIFA are an important, although small, group as they are assessed as those with the most serious mental health problems. They are all aged 16, 3 are female and nearly all are white. They have a median age at first conviction of 14, a median of 3 previous convictions and 3 have never had a custodial sentence. They have all used tobacco and nearly all have used alcohol and cannabis.

Mental Health (ASSET and SF36)

ASSET shows that there are a number of concerns for this sample in relation to their emotional and mental health. Over half the young peoples' daily functioning has been significantly affected by emotions or thoughts resulting from coming to terms with significant past events. Similarly, two-thirds have been affected by emotions resulting from current circumstances.

There have only been three formal diagnoses of mental illness in this sample, however over half has had contact with, or referrals made to, formal specialist mental health services. A quarter has been affected by other emotional or psychological difficulties such as phobias, eating disorders and so on, over one-third have deliberately self harmed and 16% have previously attempted suicide. In addition, the SF36 demonstrates that 36% of the sample overall have an 80% chance of suffering from a depressive disorder (Ware and Gandek, 1994). Boys appear to be more at risk of depression than girls using this cut-off point as Table 8 below demonstrates.

Table 8

Proportion of children at risk of depressive disorder by gender

	Boys	Girls	Total
SF36 Score 42 or below	38%	24%	32%

When those who have had formal contact with psychiatric services are compared with those who have not there are no differences in demographics or conviction history. 65% of those in the secure children's homes, 60% of those in the Toscana Unit and 55% of those in the secure training centre have had contact with, or referrals made to mental health services. However, those with previous formal contact have significantly higher risk scores on the following ASSET items: living arrangements; emotional and mental health; perception of self and others; thinking and behaviour and motivation to change. Therefore they also have significantly higher total risk scores in ASSET (the mean is 28.43, compared to 22.04, $p \leq 0.01$). This is also a significantly higher total risk than the overall sample ($p \leq 0.05$). Further to this, 22% have previously attempted suicide and 41% have deliberately self harmed. There are no differences in self assessed physical and mental health status (SF36) between those who have had contact with mental health services and the rest of the sample. The data concerning mental health has been summarised in the Table 9 below.

In all the establishments, those who score 2 or more on emotional and mental health on ASSET (thus theoretically triggering a fuller mental health assessment) vary from 57-87%. We only have information on whether such assessments actually take place from Rainsbrook where 16/27 (60%) occur. Overall, the proportion of children with a diagnosed mental illness is 8% ($n=3$) but those with contact with formal mental health services vary but average at approximately 50%. The likelihood that children will experience a depressive disorder is high with 32% of the sample in a high risk category (80% will of this total will be clinically depressed). It is clear that mental health is a major issue for this group of children.

Table 9

Mental health summary by Secure Setting

	No scoring 2 or more in ASSET Emotional & Mental Health	No with diagnosed mental illness	No with contact with/referrals to mental health services	No with MCS below 42
Clayfields $n=14-15$	13 (87%)	0	7 (54%)	
Lincolnshire $n=5-7$	4 (57%)	0	6 (86%)	2 (40%)
Toscana $n=6-10$	4 (67%)	0	3 (60%)	2 (33%)
Rainsbrook $n=38-40$	27 (69%)	3 (8%)	21 (55%)	11 (31%)
Total $n=67-68$	48 (72%)	3 (5%)	37 (59%)	15 (32%)

Dynamic Risk Factors

Each section of ASSET is rated out of 4 for the extent to which that factor is associated with the likelihood of re-offending (4= strongly associated).

As shown by table 8, 'thinking and behaviour', 'family and personal relationships', and 'lifestyle' are most likely to be contributing factors to a young person's further offending. Physical Health is least likely to affect further offending and Emotional and Mental Health ranks 6th out of 12. The overall mean total ASSET risk score for this sample is 26.

Table 10

Rank Order of Dynamic Risk Factors

	Mean (sd)
Thinking & Behaviour	3.06 (1.028)
Family & Personal Relationships	2.72 (1.152)
Lifestyle	2.69 (1.305)
Attitudes to offending	2.58 (1.220)
Motivation to change	2.36 (1.322)
Emotional & Mental Health	2.22 (1.301)
Living Arrangements	2.16 (1.274)
Perception of self & others	2.16 (1.188)
Education, Training & Employment	2.15 (1.132)
Substance Use	1.67 (1.429)
Neighbourhood	1.63 (1.312)
Physical Health	0.61 (0.984)
Dynamic Risk Factor - Total	25.87 (9.272)

There are no significant differences in demography, seriousness or conviction history or health status between those who score 0-1 (low risk) for ASSET section 8, Emotional and Mental Health and those who score 2-4 (high risk). However, there are highly significant differences between these two risk groups for emotional and mental health and other dynamic risk factors, including the overall total, particularly Family and Personal Relationships, and Perception of Self and Others ($p \leq 0.001$). These three factors cluster together with high intra-correlation. Thus, the overall 'dynamic risk' score is significantly higher for those where it is indicated by item 8 on ASSET that further mental health assessment is required.

ASSET and SF36 Health Status

This section is based on the 43 ASSET records that were matched with SF36 surveys. The health status of children in secure settings in the East Midlands is not significantly associated with the seriousness of the offence or the conviction history.

Table 11 below shows that there are very few significant correlations between offending variables and health status as measured by the SF36.

- Total risk correlates significantly with the number of previous convictions
- The relationship with physical health and number of previous sentences approaches significance ($p = 0.079$)

Table 11

Correlation matrix of offending variables and PCS and MCS

		Serious- ness Score	No of previous convictions	No of previous custodial sentences	Age at 1st conviction	Dynamic Risk Factor - Total	PCS	MCS
Seriousness Score	Pearson Correlation	1	-0.571	.(a)	0	-0.31	0.442	0.174
	Sig. (2-tailed)		0.108	0	1	0.353	0.201	0.63
	N	11	9	7	8	11	10	10
No of previous convictions	Pearson Correlation	-0.571	1	0.303	-.432(*)	0.235	-0.174	0.134
	Sig. (2-tailed)	0.108		0.086	0.022	0.162	0.342	0.465
	N	9	37	23	28	37	22	22
No of previous custodial sentences	Pearson Correlation	.(a)	0.303	1	-0.02	.436(*)	-0.326	0.251
	Sig. (2-tailed)	0	0.086		0.926	0.011	0.079	0.18
	N	7	33	33	25	33	30	30
Age at 1st conviction	Pearson Correlation	0	-.432(*)	-0.02	1	0.197	-0.108	-0.042
	Sig. (2-tailed)	1	0.022	0.926		0.314	0.607	0.843
	N	8	28	25	28	28	25	25
Dynamic Risk Factor - Total	Pearson Correlation	-0.31	0.235	.436(*)	0.197	1	-0.119	0.112
	Sig. (2-tailed)	0.353	0.162	0.011	0.314		0.497	0.521
	N	11	37	33	28	41	25	25
PCS	Pearson Correlation	0.442	-0.174	-0.326	-0.108	-0.119	1	-0.098
	Sig. (2-tailed)	0.201	0.342	0.079	0.607	0.497		0.569
	N	10	32	30	25	35	36	36
MCS	Pearson Correlation	0.174	0.134	0.251	-0.042	0.112	-0.098	1
	Sig. (2-tailed)	0.63	0.465	0.18	0.843	0.521	0.569	
	N	10	32	30	25	35	36	36

* $p \leq 0.01$

Table 12 shows the mean PCS and MCS scores for those by previous convictions and total dynamic risk factor score. There were no statistically significant differences between any of these groups.

Table 12

Mean PCS and MCS scores by conviction history and overall risk

		PCS		MCS	
		Mean (SD)	Sig	Mean (SD)	Sig
No of Previous Convictions	Low number	41.73 (9.92)	0.332 (ns)	46.82 (9.65)	0.428 (ns)
	High Number	38.00 (11.12)		49.87 (11.56)	
Total Dynamic Risk Factor	Low Risk	42.27 (10.24)	0.384 (ns)	46.58 (11.05)	0.671 (ns)
	High Risk	39.09 (10.78)		48.11 (9.93)	

ns = not significant

Stepwise multiple-regression was used to examine the relationship between independent health variables derived from the SF36 (MCS, PCS) and a series of dependent associated with offending obtained from ASSET. The results are given in Table 13 below.

Table 13

The relationship between physical and mental health in the prediction of offending factors

Dependent Variable	N	R-Sq.	P-value	Intercept	PCS	MCS
Seriousness of Offence	9	0.22	0.417	0.8	0.062	0.035
Number of previous convictions	31	0.05	0.507	4.1	-0.055	0.041
Number of previous custodial sentences	29	0.17	0.086	0.5	-0.023	0.017
Age at 1st conviction	24	0.01	0.859	14.3	-0.016	-0.006
Total Dynamic Risk Factor	34	0.02	0.681	24.5	-0.105	0.100

All 5 models had an R-squared value less than 0.22, and P-values always greater than 0.05. No regression 'model' employs the two health variables usefully as predictors together of any of the five Offending variables.

In 4 of the 5 models, the parameter associated with the PCS variable had a negative sign, but was never significant. Negative correlations between PCS and the Offending variable can be interpreted thus: as the PCS variable increases so the Offending variable decreases. There is a mild but insignificant inverse relationship in existence. A consistent 'association' with the PCS variable has been observed but, statistically, it is non-significant.

Interviews and Focus Groups with Staff

The Link between health status and offending

Generally, the interviewees acknowledged that there was a link between health status and offending although the nature of this relationship was complex. Life stressors for this group of children were readily apparent in terms of the trauma experienced in early life, family rejection, poverty and also through bereavement, i.e. the loss of significant others in early childhood. It's clear that substance misuse has a significant impact as a mediating variable, for example, one respondent at Rainsbrook stated:

'They admit on screening that they were under the influence at the time of the offence and wouldn't have committed it had they not been under the influence. Female drinking and violence is also increasing.....'

The link between drugs and psychosis was commented upon either in terms of direct use or the side-effects when withdrawing. The role of physical health status was also directly related to issues of self-esteem and self-worth where obesity and dental health were given as specific examples. Learning disability, more specifically ADHD, was also cited having a direct link on offending behaviour.

The range of health problems encountered in secure children's settings

Generally, physical health conditions that relate to neglect and poverty are apparent. These relate often to diet (many children put on weight in the establishments), never having had vaccinations nor regular dental appointments. Children might have been living rough so head-lice are not uncommon alongside sexually transmitted diseases. Pregnancy can also be an issue. More than one respondent noted ethnic differences in hygiene and diet with black children being much more aware about diet and hygiene than white counterparts.

Some children have obvious more chronic health and health-related problems amongst those mentioned were: epilepsy; dental problems; serious mental health problems; various learning disabilities (three cases of ADHD were noted in one establishment); asthma; Praeder-Willi syndrome; and attachment disorder.

Mental health needs to be mentioned separately. Respondents noted that some children were received by their unit in a state of active hallucination. Serious mental health problems could lead to deliberate self-harm in the prison unit. All the girls in the Toscana Unit, without a serious mental health problem, experienced either anxiety or depression.

The Rainsbrook Unit noted that children had been sectioned three times in the past twelve months and that better court diversion would lead to more appropriate use of NSCAG beds.

How do the Units meet health needs?

The arrangements for the Prison Unit, Toscana, were formalised through a service level agreement and seemed comprehensive and well resourced. Full-time nursing resources were available for both physical and mental health there was also access to a range of 'ad hoc' services such as dentistry, optician, midwifery, and smoking cessation. The full-time CAMHs nurse is a specialist mental health resource that is augmented by one psychiatrist session a week with additional access to forensic psychology if required. The services accessed most frequently are the nurse drop-in clinics.

At Rainsbrook, the Secure Training Centre, the services again seemed extensive with a healthcare service on site led by a manager which includes a wide range of professional expertise: nursing, GPs, dentistry, opticians, a consultant psychologist and a chiropodist. In addition, a local consultant psychiatrist delivers one three-hour session every week (a service that is described as 'superb' with speedy turnaround and access to beds). A new forensic psychologist begins in April 2009, with three psychology assistants. There is a three-bedded mother and baby unit and STI screening is bought in from Warwickshire PCT. Discussions have begun to develop a formal protocol for the use of the local A&E Department at Walsgrave Hospital.

For the smaller units in Lincolnshire and Nottinghamshire access to health services is 'bought in' rather than delivered on site. In both these units local service access has to be negotiated, for example, primary care needs are generally met by visiting GPs and nurses on a sessional basis. The Lincolnshire Unit obtains regular psychiatric input from the YOTs team CAMHs nurse who liaises with the local forensic psychiatrist if necessary. Lincolnshire has access to a range of services outside the home and describe these services as 'very accommodating' the local GU clinic, for example, will push children from the secure home to the front of the queue, thus minimising waiting times. There is a formal protocol for accessing A&E, where triage takes place over the phone, and an ambulance called if needed. Currently, as part of the YJB contract requirement, discussions are taking place to ensure that medical access can be provided within 48 hours on reception.

The services at Clayfields House are also comprehensive. There is a good basic primary care service with good local access to the GU clinic and local CAMHs assessments from a psychiatrist and a psychologist. A range of drug services are also provided both individual and group work. There are also specific groups run on gender lines: boys obtain education about sexual health whilst girls pregnancy, breast cancer and issues with relationships.

Main problems in accessing health services

The challenges in providing healthcare to children in secure settings can be described along the pathway. Several respondents commented that consistent mental health input was required and that prior to reception at the Unit there were serious questions about whether mental health issues had been picked up. Once children have been assessed and are resident further difficulties are evident in obtaining records from community-based agencies such as dentists. This can be compounded when

children are only resident for short periods. The YOTs teams were also cited as examples of agencies where assessment records were slow in reaching the secure settings.

Once a child is resident in the Unit a variety of different problems arise. In the prison unit, Toscana, these are related to the overall prison regime. For example, there are often time constraints given the intense work regime that is implemented. The dental and optician services are run by the adult section so considerable organisation is needed so that the children do not mix with the adults. Detoxification is a problem for similar reasons. In the secure children's homes often there are questions about providing services to children who are from the East Midlands but not say Nottingham or Lincoln. A number of services are provided outside, for example, the GU Clinics, opticians and dentists, and this requires the services of approved social workers and can be resource intensive. In this context, one respondent from Lincolnshire stated that *'more need could be dealt with if we had the tools to take children out safely, e.g. constraints.'*

There was a general issue about sharing health information, one respondent stated that:

is on a need to know basis. Clinic confidentiality – staff should know what the clinic diagnose so that they can treat/support the child but a decision needs to be made about who needs to know. Mental Health – by gaining consent to divulge things – would be able to look at consent and decide who & when to share. (GP) Nurses have protocols about who can be told.'

There was a concern about 'out-of hours' incidents either of a physical and mental health nature. It was hard obtaining mainstream community-based services for either emergency.

Finally, at the end of the pathway, having tried to assess health issues and align services in the community for release or transfer, staff encountered major stumbling blocks. One respondent stated that:

'Problems of access to services on release regardless of communication with relevant agencies. Community services do engage with resettlement and vice versa and staff (eg Psychology) will go to community reviews'.

It seems clear that to improve access to healthcare services in secure children's homes requires systemic thinking across the pathway and a clear understanding of roles and responsibilities, alongside timely communication, at each stage.

Has healthcare improved? Which quality issues remain?

There was a general feeling that emergency mainstream care of physical health problems was very good, NHS Direct was cited as being especially helpful when a young person drank nail polish.

However, the smaller units made the case for more extensive resources based within the establishments rather than general community-based resources being called in. One such smaller home called for dedicated triage nurse support on site. The smaller homes did commend the mental health provision that came into the homes regularly so the issue relates more to on-going need for expert assessment/care of physical health.

The larger units had divergent views. The Toscana Unit felt that they the health services provided were high class, with only one complaint received since the Unit opened and exit questionnaires regularly scoring highly. A number of concluding points were made by staff at Rainsbrook. Access to STC services and Forensic Psychology were described as recent improvements. However, one respondent mentioned two final issues that needed addressing:

- Better information was needed from the community in terms of ASSET, particularly in terms of vulnerability.
- Late night arrivals don't happen in prisons so why here? 5pm deadline would be good for joint approach work.

Conclusion

The respondents all agreed that there was a complex link between offending and health. Similar health issues presented in all four settings, some of which were linked to gender, but mental health problems was a theme that constantly re-occurred from both anxiety-related disorders through to psychosis.

The range of healthcare services accessed within the settings varied although similar issues confronted the two smaller homes. Both Rainsbrook and the Toscana Unit provided healthcare on site. In the case of the two smaller homes, either services were bought in or staff had to accompany children outside to appointments.

There are a series of challenges to accessing healthcare across the pathway. In the Toscana Unit these relate to the operational issues evident from being part of a larger female prison. Rainsbrook had clearly improved services such as forensic psychology but struggled with the information they received at reception and with agencies where children were released/transferred. The smaller homes cited information-sharing and the resource-intensive nature of outside escort as problematic.

There was an overall feeling that healthcare was improving but that there were still key issues to be resolved.

5. Discussion and Conclusion

In the context of other studies in this field that have examined health needs this sample is broadly representative of children held in secure settings. The only group that do not feature here are young men in YOIs.

The main findings from other health needs assessments that have employed the SF36 are summarised below in Table 14 alongside our own results.

Table 14

Summary SF36 scores

	Children in Secure Settings in the East Midlands n=68 mean (SD) (95%CI)	Young women in YOIs aged 17 ⁴ n=73 mean (95%CI)	Swedish Adolescents aged 16-19 ⁵ n=110 mean (SD)
Physical Function	70.08 (32.72) (62.03–78.12)	73.77 (66.93–80.61)	94.2 (12.8)
Role Limitation-Physical	69.05 (31.68) (61.07–77.03)	62.98 (55.75–70.21)	83.3 (28.6)
Bodily Pain	67.81 (18.98) (63.07–72.55)	60.65 (54.08–67.22)	78.2 (22.6)
General Health	70.86 (20.26) (65.92–75.80)	51.87 (46.57–57.18)	75.0 (21.0)
Energy and Vitality	59.98 (16.93) (55.85–64.11)	47.62 (42.71–52.54)	58.7 (22.0)
Social Functioning	70.45 (23.37) (64.71–76.20)	54.05 (48.33–59.77)	85.0 (19.7)
Role Limitation - Emotional	67.93 (32.40) (59.96–75.89)	56.00 (49.17–62.84)	76.7 (35.1)
Mental Health	60.30 (19.64) (55.51–65.09)	48.59 (44.04–53.15)	73.6 (20.1)
PCS	40.95 (10.56) (37.85–44.05)	42.30 (39.67–44.93)	52.9 (7.0)
MCS	47.99 (10.00) (45.06–50.93)	38.89 (36.05–41.73)	44.2 (12.5)

⁴Douglas and Plugge – personal communication

⁵Jorngarden et al 2008 – see references

The physical health status of children in secure settings is clearly of concern when compared to other groups (such as young people in the Swedish general population). However, within establishments, and despite the range of physical health conditions, access to both universal services and specialist healthcare, (eg STD clinics, dentistry and accident and emergency departments) seems to be catered for well.

There are two caveats to this statement. First, in the smaller units where services are not provided on-site, escort can be very difficult to arrange especially when three people might be required. Second, it is often the case that access to universal and specialist healthcare has arisen in spite of, not because of, commissioning. Providers have worked together to develop protocols which depend on good will rather than service level agreements and commissioned healthcare.

Across the criminal justice pathway there is an important comparison to be made of the mental health/substance misuse profile of children that end up residing in secure establishments and those that are maintained in the community. Children in secure settings view drug use more positively and have used more Class A drugs and cannabis. They are more likely to have a mental illness, are five times more likely both to have been in contact with mental health services and to have deliberately self-harmed. 72% of children in secure settings trigger SQIFA (a fuller mental health assessment) compared to just 30% in YOTs. One further feature of mental health revealed by the SF36 is that a depressive disorder is highly likely for one in three of the whole sample. Kroll (2002) found similarly high levels of depression in 12-17 year old boys and a high proportion of this sample (39%) developed depression as a consequence of being in the home rather than having a pre-existing disorder. In the Kroll study, 22% of the group were identified as having a 'serious depression'. There are obvious implications for commissioners for the ways in which mental health service provision should be addressed.

The information about mental health generated from other studies which have examined ASSET is summarised below in Table 15.

Table 15

Summary of data derived from studies reporting ASSET

ASSET dimensions	Children in Secure Settings in the East Midlands n=68	Young offenders in YOT teams (Baker et al 2003) n=3395	Young offenders in YOTs teams (Harrington and Bailey 2005) n=100
Mean age at 1st conviction	13.3	14.2	12.0 ⁶
1 or more previous convictions	73%	48%	(nk)
Previously/currently accommodated by voluntary agreement with parents	41%	18%	(nk)
Known to have used tobacco	77%	74%	(nk)
Known to have used alcohol	59%	73%	(nk)
Known to have used cannabis	62%	46%	(nk)
Known to have used cocaine	23%	8%	(nk)
Positive attitude to drug misuse and/or see it as essential to life	27%	10%	(nk)
Has a health condition which significantly affects everyday life functioning	12%	8%	(nk)
Put their health at risk through their behaviour	37%	11%	(nk)
Have a diagnosis of mental illness	5%	2%	(nk)
Have had contact with/referrals to mental health services	59%	11%	(nk)
Deliberately self harmed	39%	8%	8% ⁷
Previously attempted suicide	16%	5%	(nk)
Score 2 or more on section 8 – emotional and mental health	72%	30%	(nk)
Score 3 or more on section 8 – emotional and mental health	49%	14%	15%

(nk) = not known

The identification of a mental health problem at the point of reception, as in adult prisons, is a key issue. In an ideal world this would be provided with full up-to-date relevant ASSET assessments. Our study demonstrates that much of this information is incomplete and seemingly simple instructions about which cut-off scores should trigger further assessment, SQIFA and SIFA, are not followed. The YJB insists on clear standards for incomplete ASSET completion on arrival at a secure children's home (YJB, 2008/9). One of their six standards for performance monitoring of the secure estate is that:

'If young people arrive without an Asset or pre-sentence report, follow-up action must be taken within one hour and the young person managed as vulnerable until the information is obtained from the YOT. In the event of information not arriving, the secure establishment will alert the YJB by noon the day after reception'.

⁶Age at first offence of those in custody ⁷Described as 'self harm needs' (custody)

We are uncertain what role, if any, PCTs or commissioners play in the performance management of this standard but clearly they should when depression, suicide and/or self-harm is a risk. In addition, a further standard of the YJB's is that:

'All young people will be assessed by a clinician on reception for vulnerability and substance misuse'.

In short, a mental health assessment is indicated for all children at the point at which they are received which is further supplemented by the ASSET assessment. This assessment should focus significantly on depression and many validated tools exist that could be used routinely. We would stress that such assessments should be on-going and not 'one-offs' given Kroll's finding that depression is likely to develop in such a setting.

Although all the secure children's homes in the East Midlands have access to specialist mental health services in a variety of ways (mental health workers from the YOTs teams, psychiatrists/psychologists from local CAMHs teams and in Rainsbrook and the Toscana Unit, forensic psychology input), there are serious question marks about the amount of this resource and the types of interventions, beyond, the prescription of tranquilisers and anti-depressants, that are possible. One CAMHS worker to a secure home commented that:

'For the amount of work provided by the CAMHs consultants, it should be understood that the factor limiting the amount of work done is simply the time available from the CAMHs staff (the capacity). The demand far outstrips the available capacity. Care has to be taken at all times to ensure that the most needy (of an exceptionally needy population – those admitted to a secure unit) are worked with, but this itself takes time and energy in conversation with unit staff'.

In conclusion, we believe that the physical health of the children is poor in comparison to other groups but that mostly there is access to both universal and specialist services although for the smaller units this access can be hard to organise. In contrast, the mental health status, and subsequent vulnerability, of children in secure settings is perhaps unrecognised and often remains un-assessed. We would urge commissioners to examine access to appropriate mental health care across the pathway, from YOTs teams and ASSET scores, into reception, in continuing care, and at discharge from homes to the community. One possible route to accessing the most appropriate interventions might be in relation to local initiatives that aim to 'increase access to psychological therapies'.

Recommendations

1. PCT commissioners, discuss with the YJB, the ways in which health-related standards are jointly addressed and performance-managed.

2. PCT commissioners ensure that regular mental health assessment takes place not just at reception but regularly, such assessment should focus on depression/suicidal ideation and self-harm.
3. PCT commissioners link to the development of local IAPT programmes with a view to expanding the range of relevant interventions that children receive.

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Appendices

Appendix 1

SF36 Health Survey

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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Climbing several flights of stairs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Climbing one flight of stairs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Bending, kneeling or stooping	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Walking more than a mile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) Walking half a mile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i) Walking 100 yards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Bathing and dressing yourself	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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)

<input type="checkbox"/> None	<input type="checkbox"/> Very mild
<input type="checkbox"/> Mild	<input type="checkbox"/> Moderate
<input type="checkbox"/> Severe	<input type="checkbox"/> Very severe

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

<input type="checkbox"/> None at all	<input type="checkbox"/> Slightly
<input type="checkbox"/> Moderately	<input type="checkbox"/> Quite a bit
<input type="checkbox"/> Extremely	(please tick one box)

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)

<input type="checkbox"/> All of the time	<input type="checkbox"/> Most of the time
<input type="checkbox"/> Some of the time	<input type="checkbox"/> A little of the time
<input type="checkbox"/> 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)

	Definitely true	Mostly true	Not sure	Mostly false	Definitely 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"/>

Appendix 2

ASSET data collection

Age <input type="text"/>		Gender: Male <input type="checkbox"/> Female <input type="checkbox"/>	
Ethnicity			
White	<input type="checkbox"/> British	<input type="checkbox"/> Irish	<input type="checkbox"/> Other white
Black/Black British	<input type="checkbox"/> Caribbean	<input type="checkbox"/> African	<input type="checkbox"/> Other black
Asian/Asian British	<input type="checkbox"/> Indian	<input type="checkbox"/> Pakistani	
	<input type="checkbox"/> Bangladeshi	<input type="checkbox"/> Other Asian	
Mixed	<input type="checkbox"/> White/Black Caribbean	<input type="checkbox"/> White/Black African	
	<input type="checkbox"/> White/Asian	<input type="checkbox"/> Other Mixed	
Chinese/Other ethnic group	<input type="checkbox"/> Chinese	<input type="checkbox"/> Any Other	
Primary index offence <input type="text"/>		Seriousness Score <input type="text"/>	
Case Stage			
<input type="checkbox"/> Referral Order	<input type="checkbox"/> Pre-sentence report	<input type="checkbox"/> Post Sentence	
<input type="checkbox"/> Mid-DTO	<input type="checkbox"/> Review	<input type="checkbox"/> End Order	
<input type="checkbox"/> Other			
Criminal History			
Age at first conviction	<input type="text"/>		
No of previous convictions	<input type="text"/>	No of previous custodial sentences	<input type="text"/>
Care History and "looked after" status			
	Current	Previous	Never
Accommodated by voluntary agreement with parents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Subject to a care order	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Remand to local authority accommodation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Substance use

	Ever used	Recent used	Age at first use	Not known to have used
Tobacco	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
Alcohol	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
Solvents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
Cannabis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
Ecstasy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
Amphetamines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
LSD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
Poppers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
Cocaine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
Crack	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
Heroin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
Methadone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
Tranquilisers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
Steroids	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>

	Yes	No	Don't know
Practices that put them at particular risk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sees substance use as positive and/or essential to life	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Noticeably detrimental effect on education, relationships, daily function	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Offending to obtain money for substances	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other links to offending	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Extent to which substance use is associated with further offending

Physical Health

	Yes	No	Don't know
Health condition which significantly affects everyday life functioning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Physical immaturity/delayed development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Problems caused by not being registered with GP	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lack of access to other appropriate health care services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Health put at risk through own behaviour	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Extent to which substance use is associated with further offending

8. Emotional and mental health

Is the young person's daily functioning significantly affected by emotions or thoughts resulting from the following:

	Yes	No	Don't know
Coming to terms with significant past events	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Current circumstances	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Concerns about the future	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has there been any formal diagnosis of mental illness?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Any other contact with, or referrals to mental health services?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Are there any indications that any of the following apply to the young person?

S/he is affected by other emotional or psychological difficulties	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S/he has deliberately self harmed her/himself	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S/he has previously attempted suicide	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Extent to which emotional & mental health is associated with further offending

Summary of dynamic risk factors

Living arrangements		Physical health	
Family and personal relationships		Emotional & mental health	
Education, training & employment		Perception of self and others	
Neighbourhood		Thinking and behaviour	
Lifestyle		Attitudes to offending	
Substance use		Motivation to change	
		Total	

Mental Health Screening Interview for Adolescents (SQIfA)

Yes No

Is there a SQIFA completed for this child?

☐
☐

SQIFA Item	Score
Alcohol Use	
Drug Use	
Depression	
Traumatic Experiences (PTSD)	
Anxiety/Excessive Worries/Stress	
Self Harm	
ADHD/Hyperactivity	
Psychotic Symptoms	

Full SIa Interview – Summary Sheet

1	Alcohol misuse Problems identified _____ Severity score 1 2 3 4 5 <i>(please circle)</i>
2	Substance misuse Problems identified _____ Severity score 1 2 3 4 5 <i>(please circle)</i>
3	Depressed mood Problems identified _____ Severity score 1 2 3 4 5 <i>(please circle)</i>
4	Deliberate self harm Problems identified _____ Severity score 1 2 3 4 5 <i>(please circle)</i>
5	Anxiety symptoms Problems identified _____ Severity score 1 2 3 4 5 <i>(please circle)</i>
6	Post traumatic stress problems Problems identified _____ Severity score 1 2 3 4 5 <i>(please circle)</i>
7	Halucinations, delusions and paranoid beliefs Problems identified _____ Severity score 1 2 3 4 5 <i>(please circle)</i>
8	Hyperactivity Problems identified _____ Severity score 1 2 3 4 5 <i>(please circle)</i>
Gender and cultural issues _____ _____ _____	
Action plan _____ _____ _____	

Appendix 3

Information and Consent for Children

What is this all about?

We are doing a project about the health of children and young people that are in secure units in the East Midlands. This is one part of a bigger project being carried out by the East Midlands Care Services Improvement Partnership (CSIP) who develop services to help improve people's lives.

We want you to fill in a questionnaire about your health and how you feel. We need your help to find this out as we are interested in what YOU think.

What do I have to do?

We would like to fill in the questionnaire which will take about 15 minutes.

Will you tell anyone what I put in the questionnaire?

You won't have to put your name on the questionnaire so no one will know who filled it in.

How do I take part?

If you would like to do the questionnaire you will need to tell us that you agree by signing the form at the bottom of this information sheet.

Can I change my mind?

Yes, of course. You can change your mind at any time.

What happens afterwards?

We will write a report about the health of all the children and young people who have filled in the questionnaire, but we will not use your name (or anyone else's!). No-one will know who said what.

The report will help to work out what could be done to help children and young people's health services in secure units.

Consent Form

If you would like to fill in the questionnaire, please read this form carefully, tick the box that applies and sign your name.

We would like to find out about the health of children and young people in secure units and how they feel.

Would you like to fill in the questionnaire?

Yes ☐ No ☐

If you have read the leaflet and are happy to take part please sign below

Signed _____ Date _____

Appendix 4

Interview Schedule

- 1) Do you think there is a link between offending and health?
- 2) How do you perceive the range of health problems?
- 3) What arrangements does the unit have to meet health needs? eg relationship with local services
- 4) What kinds of services are most commonly accessed?
- 5) What problems do the young people/the unit have in accessing health services?
- 6) Are there any quality issues in relation to the health services used by the young people/ the unit? Have you seen any improvements?

Appendix 5

SF36 comparison with General population

	MALE		FEMALE	
	Secure Settings	General Population	Secure Settings	General Population
Physical Function	65.37 (34.11) (51.88–78.86)	89.76*** (18.78)	63.60 (32.28) (49.86–77.34)	86.66** (20.15)
Role Limitation-Physical	67.07 (31.40) (54.38–79.75)	89.01** (21.09)	63.60 (32.28) (49.86–77.34)	86.66** (20.15)
Bodily Pain	67.31 (19.91) (59.27–75.35)	81.25*** (22.21)	68.75 (19.63) (60.46–77.04)	76.97 (23.44)
General Health	71.56 (21.43) (63.08–80.03)	70.86 (20.29)	66.13 (18.40) (58.70–73.57)	71.28 (20.54)
Energy and Vitality	62.73 (15.84) (56.47–69.00)	60.81 (18.93)	56.01 (19.00) (48.34–63.68)	55.91 (19.85)
Social Functioning	67.31 (25.27) (57.10–77.51)	84.71** (22.56)	70.67 (22.35) (61.65–79.70)	81.33* (23.62)
Role Limitation - Emotional	66.05 (35.20) (52.13–79.97)	88.08** (19.91)	67.67 (32.39) (54.30–81.04)	84.07* (21.79)
Mental Health	63.33 (21.75) (54.73–71.94)	74.32** (17.24)	53.46 (17.93) (46.22–60.70)	70.05*** (18.65)
PCS	41.19 (11.28) (36.63–45.74)	51.09*** (9.48)	40.65 (9.86) (36.16– 45.14)	49.10** (10.31)
MCS	46.92 (11.11) (42.43–51.41)	51.27 (9.25)	49.32 (8.50) (45.45–53.19)	48.94 (10.46)

*p≤0.05 ** p≤0.01 *** p≤0.001