

Census of young people in secure settings on 14 September 2016: characteristics, needs and pathways of care

Heidi Hales

Louise Warner

Jared Smith

Annie Bartlett

Census of young people in secure settings on 14 September 2016: characteristics, needs and pathways of care

Version number: 1

First published:

Updated: (only if this is applicable)

Prepared by: Heidi Hales, Louise Warner, Jared G Smith, Annie Bartlett

Classification: OFFICIAL

This information can be made available in alternative formats, such as easy read or large print, and may be available in alternative languages, upon request. Please contact Dr Heidi Hales on heidi.hales@nhs.net

Contents

Acknowledgements.....	3
Glossary	4
1 Executive Summary	7
2 Introduction	9
3 Methods	12
4 Findings	13
4.1 Census Results and Occupancy.....	13
4.2 Response Rates and Demographic Information	16
4.3 Psychosocial and Physical Vulnerability, Risk and Education.....	18
4.4 Pathways into Secure Care	20
4.5 Mental Health Needs.....	23
5 Discussion and Conclusions.....	27
Appendix A: Census Questionnaire–version 4–06.06.16; For young people detained on 14.09.16....	35
Appendix B: Supplementary Methods	41
Appendix C – Supplementary Data Tables, Figures and Analyses	45
6 References.....	60

Acknowledgements

We would like to thank the following people and organisations as without them this census project would not have been possible:

- NHS England, who funded this project.
- The Youth Justice Board and Department for Education, who have provided representatives for our steering group and facilitated contact with the secure units they commission.
- Members of our steering group (Tim Bateman, Ginny Boyd, Roger Bullock, Louise Doughty, Carla Garnelas, Nick Hindley, Laura Janes, Daniel Shotter, Claire Owens, Mayura Deshpande and Louise Bridson), who have met regularly to guide us through this process, your support, enthusiasm and comments have been invaluable.
- All the staff members in every secure unit for young people who put time aside to call in the census numbers on 14 September 2016 and to complete the census questionnaires. Without this input we would not have been able to complete this project to get this oversight.
- Brenda Bullock for proof reading and Michael Kelly for formatting, an essential task that is best done with fresh eyes away from the project team. Many thanks for giving us your time.

We would also like to take this opportunity to note the needs of the young people in secure care, and their families, for whom this service evaluation project was devised.

Glossary

ACCT: assessment, care and custody and teamwork

ADHD: attention deficit hyperactivity disorder

ASD: autistic spectrum disorder

BME: black and minority ethnic

BPD: borderline personality disorder

CAMHS: child and adolescent mental health service

CD: conduct disorder

CMHT: community mental health team (for adults with mental health needs)

Co-morbidity: the simultaneous occurrence in one individual of two or more disorders

CQC: Care Quality Commission

DBT: dialectical behaviour therapy

DTO: detention and training order (type of sentence)

HDU: high dependency unit

HMIP: Her Majesty's Inspectorate of Prisons

Informal patient: patient in hospital voluntarily, not detained under the Mental Health Act

LAC: looked after child / children

LD: learning disability

LOS: length of stay

MAPPA: multi agency public protection arrangements

MBT: mentalisation based therapy

MDT: multi-disciplinary team

MH: mental health

MHA: The Mental Health Act 1983, amended 2007

NDD: neurodevelopmental disorder

NHSE: NHS England

OCD: obsessive compulsive disorder

ODD: oppositional defiant disorder

PD: personality disorder

PICU or psychiatric ICU: psychiatric intensive care unit

Psychotic disorder: a summary term for a range of major mental illnesses where abnormal perceptions and beliefs are dominant

PTSD: post- traumatic stress disorder

S91: Section 91 (type of sentence)

SCH: secure children's home

STC: secure training centre

YCS: youth custody service (former YJB)

YJB: Youth Justice Board

YJS: youth justice system

YOI: young offender institution

YOT: youth offending team

1 Executive summary

Our scoping study (Warner, Hales, Smith, & Bartlett, 2018) identified all the secure units, in England, in which young people (under the age of 18 years at the point of detention) are detained. The three legal frameworks under which young people can be deprived of their liberty in England are: The Mental Health Act (1983, as amended 2007) placing them in hospital, Section 25 of the Children Act (1989) placing them in a secure children's home (SCH), or under the youth justice system (YJS) on remand or serving a sentence in a SCH, secure training centre (STC) or young offender institution (YOI). Most of the placements¹ available to young people are within the youth justice system (YJS), but more therapeutic input is available for those in secure hospitals.

The next question was to consider how many young people are detained in each type of institution. This report establishes:

- the distribution and size of the population of young people in the secure system
- the pathways into secure care of the young people
- the needs of those detained in different institutions under different legislation
- whether the needs of detained young people differ according to the type of institution.

1.1 Key findings

1,322 English young people were detained in a secure placement on the day of the census, 1,260 in England and 62 in Wales or Scotland.

Seventy-eight percent of placement capacity in the three English systems (mental health, welfare and youth justice) was occupied on the day of the census.

Approximately four times as many young men were detained as young women. More young women were detained under the Mental Health Act and Children Act than young men and more young men were detained under the YJS.

Detailed information is available on 93% of the 1,322 young people detained.

The ethnicity of the young people, their country of birth and the distance from home of their placement varied according to the type of placement.

The nature of their current placement correlated with their previous involvement, or not, with statutory services (youth offending teams (YOTs), social services, child and adolescent mental health services (CAMHS)) from the same system.

Waiting time for admission to low and medium secure hospital placements was over a month in half of all cases.

Three quarters of the young people were previously placed away from home. Six percent of young people had had 10 or more previous placements and almost half had had a previous secure placement.

¹ Throughout this report the term 'placement' is used to refer to the location in which a young person is detained. Within the individual secure systems, different terms are in use, but for ease of reading we have adopted a single word to cover all four types of institution, none of which young people enter voluntarily.

Over half of the young people had at least one mental health or neurodevelopmental need. A third had two or more such needs. The likelihood of a young person having such a need varied by type of placement, being most likely in a hospital and least likely in a youth justice placement.

The proportion of young people who had neurodevelopmental needs or emotional dysregulation/emerging personality disorder was far higher than in the general adolescent population, and most young people with neurodevelopmental needs were in the YJS.

These findings, which require further consideration by key stakeholders, are discussed here in terms of:

- best use of available secure placements
- most appropriate resource allocation in view of both the needs detected and how young people are distributed around the total system
- specific treatment options and how and where they might be delivered
- the best possible commissioning system
- identification and assurance of outcomes following interventions
- understanding needs in terms of vulnerability, complexity and degree
- the role and adequacy of services designed to prevent the escalation of young people into secure placements.

2 Introduction

The secure system for young people in England is complex². The three legal frameworks under which young people can be deprived of their liberty in England are: The Mental Health Act (MHA; 1983, as amended 2007) placing them in hospital, Section 25 of the Children Act (1989) placing them in a secure children's home, or under the YJS on remand or serving a sentence in a SCH, STC or YOI.

Figure 1. The secure estate for young people in England³

	Secure children's home (welfare or youth justice systems)	Secure training centre (YJS)	Young offender institution (YJS)	Secure hospital (mental health system)
Legislative framework	The Children Act or the YJS	YJS	YJS	The Mental Health Act
Placement funder	Local authority or YCS (former YJB)	YCS (former YJB)	YCS (former YJB)	NHS England
Health funder	NHS England	NHS England (except one which remains in a private contract)	NHS England	NHS England
Regulator/Inspector	Ofsted and CQC (support inspections with regards to health)	HMIP, Ofsted (for education) and CQC (for health)	HMIP, Ofsted (for education) and CQC (for health)	CQC and Ofsted (for education)

Our scoping study (Warner et al., 2017) identified all the secure units, in England, in which young people (under the age of 18 years at the point of detention) are detained. Having mapped out these units, we noted that most of the placements available to young people⁴ are within the YJS, but more therapeutic input is available

² In this report, the term 'secure' is used to mean any setting that deprives a young person of their liberty, such that the young person cannot leave if they choose and there are additional physical security measures above and beyond that available in open residential, educational or mental health units, under one of three legal frameworks used to detain young people in England (Figure 1).

³ Terminology in this table reflects the organisational designations in use at the time of the census.

⁴ Throughout this report the term 'placement' is used to refer to the location in which a young person is detained. Within the individual secure systems, different terms are in use but for ease of reading we

for those in secure hospitals. The next question was to consider how many young people are detained in each type of institution. This report establishes:

- the distribution and size of the population of young people in the secure system
- the pathways into secure care of the young people
- the needs of those detained in different institutions under different legislations
- whether the needs of detained young people differ according to the type of institution.

Prior to this service evaluation, it was not possible to find, on one site, the exact numbers of young people detained in secure care in England. Until recently, it was even difficult to find the number detained under each type of legislation, as the different types of services are commissioned separately. We can now find numbers and demographic summaries of young people detained by the YJS (<https://www.gov.uk/government/statistics/youth-custody-data>) and within SCHs (<https://www.gov.uk/government/statistics/children-accommodated-in-secure-childrens-homes-31-march-2017>) on the relevant public information websites. Numbers of young people detained under the Mental Health Act in secure psychiatric units are not yet available on one site, but the move to more centralised commissioning enables a greater awareness of overall numbers of young people detained in secure hospitals. The picture in the United Kingdom is further complicated by both the separate commissioning of health in each of the four countries and the separation of welfare and youth custody services (YCSs). Related placement rules mean that young people from England may be detained in a range of secure facilities in England, but also in a YOI or hospital in Wales or a secure children's home in Wales and Scotland.

Placement rules about age mean no unit will admit a young person over 18 years of age. However, many remain in the secure units between their eighteenth and nineteenth birthday, having been admitted prior to their eighteenth birthday. Therefore, some 18 year olds are placed in units for young people and others, if detained after their eighteenth birthday, in units for adults. There are long-standing concerns about the appropriate placement of young adults (Harris, 2015; House of Commons Justice Committee, 2017; Livanou, Furtado, & Singh, 2017; The Howard League for Penal Reform, 2007) in adult placements and there is a move in health services towards transitional placements for young adults.

There is no standard structure across the world for provision of secure services for young people. Much work has been done within European countries to improve the prison living environments for young people (Souverein, Van der Helm, & Stams, 2013) and there are some comparisons across countries of secure provision (Hart, 2015). There are European recommendations for the regulation and inspection of secure care for young people (Defence for Children International, 2016) and in England the secure services for young people are monitored by members of the National Preventative Mechanism (<https://www.nationalpreventivemechanism.org.uk/>). There are also national healthcare standards for children and young people in secure settings in England (Royal College of Paediatrics and Child Health, 2013).

have adopted a single word to cover all four types of institution, none of which young people enter voluntarily.

The map and structure of the secure system for young people in England are constantly changing, with the development of a medium secure psychiatric unit network growing from two to six units between 1995 and 2008 (Bailey, Thornton, & Weaver, 1994; Hill, Argent, Lolley, & Wallington, 2016; Hill et al., 2014; Wheatley, Waine, Spence, & Hollin, 2004) and a reduction in the number of SCHs (Ministry of Justice and Youth Justice Board, 2017) and YOIs (Taylor, 2016). Furthermore, the commissioning landscape has changed. SCH placements for those needing secure care under Section 25 of The Children Act, 1983, are the responsibility of local authorities. Now, fewer SCH placements are commissioned individually, and the Secure Welfare Co-ordination Unit was set up in 2016 by the Department for Education to support local authorities in finding suitable placements, and to gather much needed data on supply and demand and the needs and characteristics of these young people needing care. As recommended by Sir Martin Narey (Narey, 2016) in his recent review of residential care, the Department for Education is exploring options for how the secure system can be better planned and coordinated centrally. Placements by the YCS may also be commissioned in SCHs. Following a large reduction in the numbers of young people being detained under the YJS, the Charlie Taylor review (Taylor, 2016) has recently recommended a complete change to the YJS. The current configuration of YOTs, STCs and larger prisons (YOIs) will be altered to youth justice teams embedded in social services and there was a recommendation for a move towards a system of secure schools rather than other detentional facilities.

On speaking, informally, to clinicians and carers, it is not always clear why a young person is detained under one type of legislation or that the needs of those in one type of secure establishment are that different from the needs of those in another. There has also been concern that it is not always easy to access increased mental health services for those who need it within SCHs, STCs and YOIs (Bulman, 2017; Hansard, 2018; Khan, 2010; Stein, 2017).

Mental health commissioning into non-health secure institutions is now under the remit of NHS England specialised commissioning. The CAMHS transformation project provides the ideal opportunity to review mental health provision within secure settings for young people alongside the other needs of the young people within them. We hope the findings in this report will inform debate about the future best configuration and type of service for young people warranting detention and aid policy makers, service providers, young people and their family and friends in the search for best possible health and social care outcomes.

3 Methods

The Health Research Authority approved this study as a service evaluation; approval from each individual organisation was subsequently provided. On the 14.09.16, all secure units detaining young people aged under 18 from England, which were identified in the scoping stage of this project (Warner et al., 2017), provided the study team with the number of young men and young women detained within their establishment on this date.

Each unit was then sent a census patient questionnaire (see Appendix A) to complete anonymously for each young person in their unit on the census date. Questionnaires were completed either by unit clinicians or care workers for the young people on their caseload or a member of the study team (LW) reviewing (SystmOne) electronic clinical notes.

Variables where a broad range of text answers were provided were coded into a (smaller) list of categories; in the case of mental health diagnoses, where many different terms were used to describe what appear to be similar difficulties and needs, HH (consultant adolescent forensic psychiatrist) coded responses into known mental health categories where appropriate (see Appendix B: Supplementary methods for a detailed description).

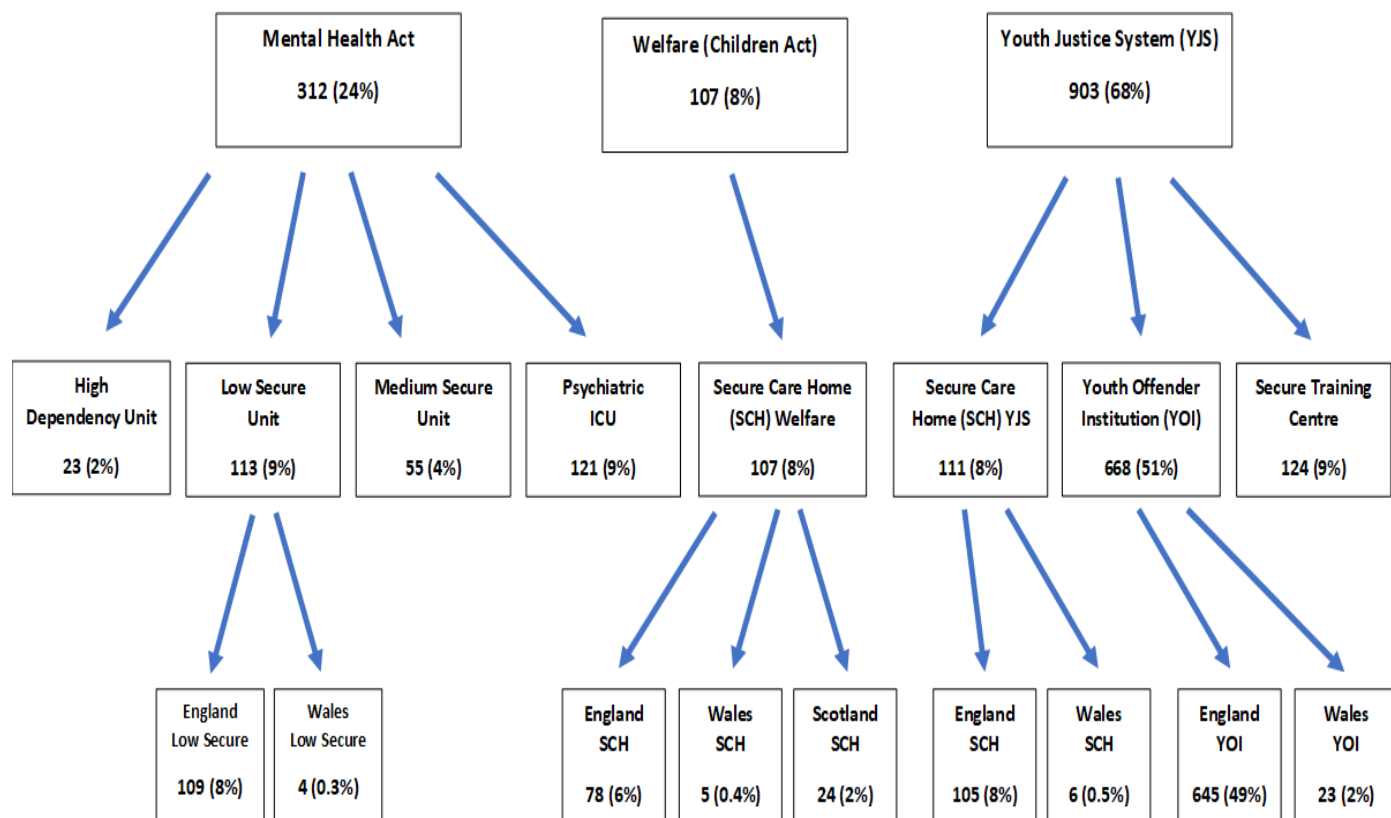
Relationships between the main (study) outcomes and variables of interest for young people in secure care were examined using chi-square tests and logistic regression, with the threshold for statistical significance set at $p < 0.05$.

4 Findings

4.1 Census results and occupancy

- There were 1,322 English young people in secure units in Great Britain on 14 September 2016, of whom 62 were placed in Wales or Scotland (Figure 2).
- There were 1283 young people placed in English secure beds on 14 September 2016, including 23 who were from Scotland or Wales.

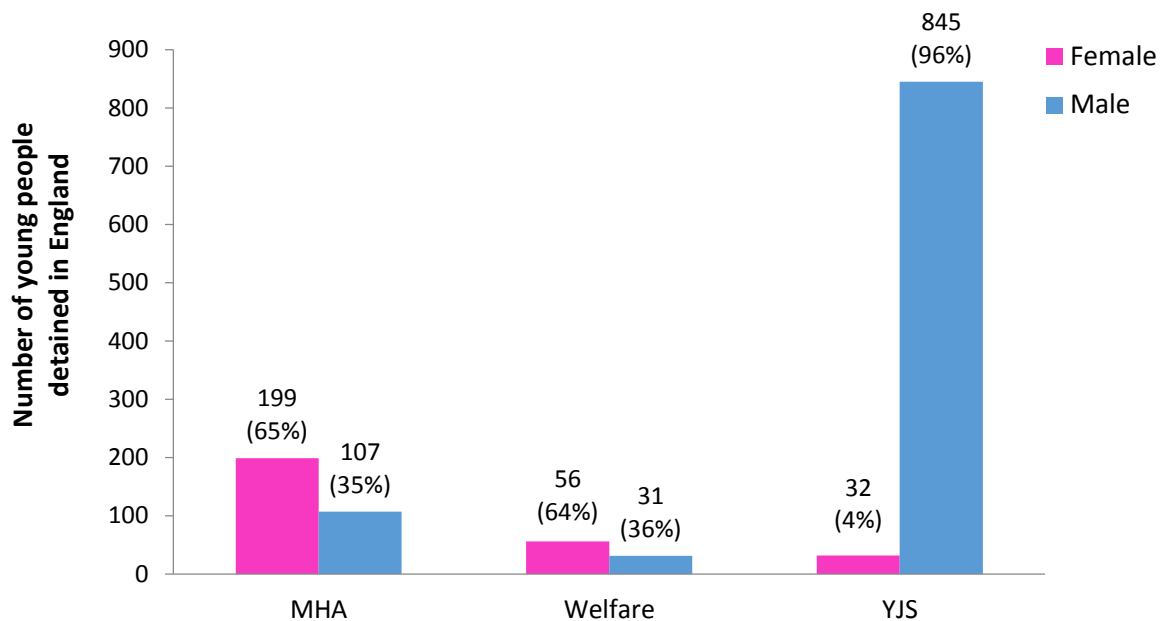
Figure 2. Secure care occupancy for English young people under legislative framework according to type of unit (n = 1322).



Notes: Data labels represent frequency (percentage) values.

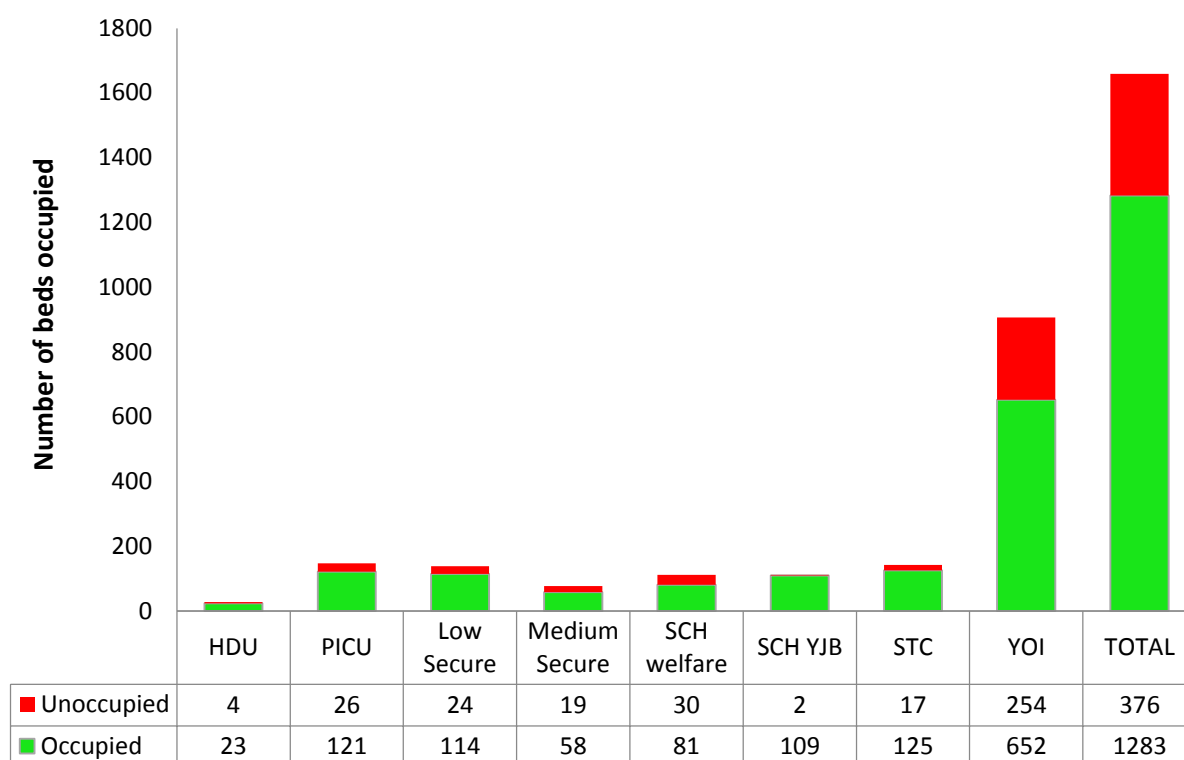
- More young women than young men were detained under the MHA and the Children Act than young men, but there were more young men detained overall, as so many more young men were detained under the YJS (figure 3).
- There were only 32 young women detained under the YJS (4% of all detained under the YJS).

Figure 3. Gender (female/male only) of young people placed in secure beds in England on 14 September 2016 according to legislative framework under which they were detained.



- Seventy-eight percent (1283/1659) of the secure placements available on the 14 September 2016 in England were occupied on that day (Figure 4, overleaf). The lowest occupancy in the YOIs (652/906, 72%) and greatest occupancy in the YCS commissioned beds in SCHs (109/111, 98%). However, as there were more beds overall available in the YOIs, there were 254 (28%) empty beds in YOIs (28% of YOI beds, just for young men) and 273 overall in the YJS (24% beds for YJS in SCH, STC and YOIs). There were very few unoccupied beds in welfare placements in SCHs (30, 27% of SCH beds) or hospitals (73, 19% of hospital beds).
- Most of the female only placements were used, though not all, and many young women were in the non-specified gender placements. Fewer of the placements only for young men were used.

Figure 4. Number of secure placements occupied on 14 September 2016 in each type of unit.



Notes: Total number of beds available for medium secure and STC units was capped at 77 (including 10 beds available for spot purchase) and 142, respectively, due to closure of beds as a result of staffing and other incidents.

4.1.1 Discussion points

- There are more YJS placements available for young men than young women and on the census date, 14 September 2016, only a handful of young women ($n = 32$) were placed in secure placements by the YJS; most young women were placed in hospital or welfare beds in SCHs. In contrast, more young women than men are placed in hospital and welfare SCHs. Without a detailed understanding of the rationale for placement, which is outside the scope of this census data, it is unclear whether young men and women are at some level presenting with different behaviours, levels of criminality in particular, or whether this reflects a bias in the decision-making within the systems based on gender.
- At least 11 young people in what we defined as secure hospitals, were not formally detained under the MHA on the census date. Though these young people were placed in short-term secure units (HDUs and PICUs), it is preferable for young people in these settings to be detained formally, in order to provide them with more legal protection.
- There is variable occupancy across the secure system for young people. High occupancy, as seen within the SCHs, may reduce flexibility in placement such that young people are placed far from home. Of note, a proportion of empty beds are necessary to ensure flexibility within the system to enable emergency

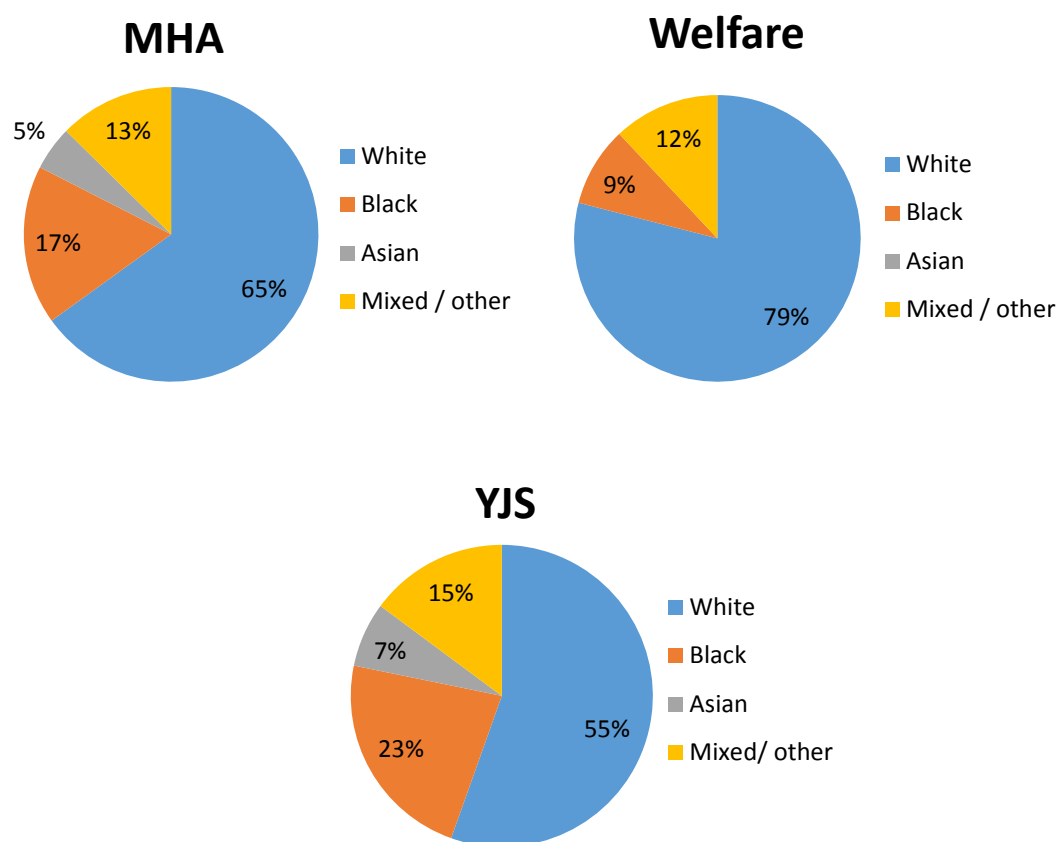
placements close to the young person's home. However, low occupancy can also be cost inefficient.

- The lower use of placements specified for young men than those specified for young women may mean more specified placements for young women may be needed. This debate hinges on the suitability or otherwise of mixed gender units for this population; specifically, the doctrine of normal mixing versus risk management. Clinically, there continues to be a role for male-only wards for young men who are considered a risk to females and for female-only wards for young women who are considered vulnerable to dangerous young men. Furthermore, having mixed gender beds requires creative architecture for hospital wards to enable young people to be on single gender bedroom corridors so that they can sleep in unlocked rooms. Our scoping process identified that young people are locked into rooms in SCHs, STCs and YOLs at night.

4.2 Response rates and demographic information

- Overall, census questionnaires were received for 93% of the 1,322 of young people from England detained in secure units on the 14 September 2016, with high response rates (> 85%) across all unit types except HDUs (Appendix C: Supplementary Table 1). Data presented in the rest of this report deals exclusively with these young people from England.
- The vast majority, 86%, of all young men (n = 983), were detained under the YJS, whereas the majority, 66%, of all young women (n = 290) were placed in secure hospitals. Five young people were described as transgender and one as intersex, though this may be an under-report as questionnaires were completed by clinicians/carers.
- The young women who were detained were significantly younger than the young men, with 34% under the age of 16 years (Appendix C: Supplementary Figure 1), and more likely to be white (84%) than young men in secure care (57%).
- Although the majority of young people in secure settings were white, there are disproportionately more young people of black and minority ethnic background in the YJS (Figure 5).

Figure 5. Ethnicity of those placed in secure care on 14 September 2016 according to the legislative framework under which the young person was detained.



Notes: Data concerning ethnicity was available for 1,087 (82%) of the 1,322 young people in secure care on the census date. Data labels represent percentage values. There were significant differences in ethnicity in secure care across the legislative frameworks ($\chi^2_6 71.73$, $p < 0.001$).

- Just less than 12% of the young people in secure settings were born in a different country, significantly more in the YJS (15%) compared to those in welfare (5%) or hospital (8%) settings (Appendix C: Supplementary Figure 2). On 14 September 2016, half of the young people born outside of the UK were from within Europe and mainly detained under the YJS.
- Young people were often placed far from home, with the furthest being 418.4 miles away, and those in welfare settings being placed, on average, furthest away of all those in secure settings (Appendix C: Supplementary Table 2). Younger young people of white ethnicity were most likely to be placed at greatest distance from home (Appendix C: Supplementary analyses; Distance from home). Although there are more SCH units than YOIs and STCs, they are smaller units and these units were the fullest, giving least flexibility, at the time of placement. This could signal a need for additional smaller units, more widely available.

4.2.1 Discussion points

- The response rate for this service evaluation was extremely good (93%). The questionnaire was designed to be simple to complete. In view of the absence of

any previous, similar evaluation, it was designed to maximise response rates rather than being onerous for respondents. Inevitably, this limited the level of detailed information obtained about individual young people.

- The patterns of placement are hard to decipher. What is missing from this study is an understanding of the extent to which challenging or offending behaviour influenced placements.
- Having said that, the reality is that the relative lack of resources in terms of staff to young person ratios in YOIs, as well as the absence of a wide range of mental health options might be seen as disadvantaging those detained there. Those detained there are exclusively young men, with an obvious over-representation of those from BME groups. There are also more young people from ethnic minorities placed in secure settings than in the general population generally, echoing concerns raised within the Lammy Report (Lammy, 2016).
- The identification of a higher number of younger young women than younger, young men, also requires careful thought; in the absence of further information it may imply a genuine difference in the prevalence of difficulties early in life or a bias in detection thereof. Notably, those who are white are more likely to be female and younger in age. Young women are more likely to be in hospital or welfare settings than YJS settings. Perhaps this may be related to risk to self, which is seen more in those who are white than those of from BME groups.
- Young people from outside of the UK detained within the YJS are at risk of being deported if they are serving a sentence longer than 18 months. This can be particularly problematic for young people who came to England at a young age and now have no real ties to their country of origin, and perhaps do not even speak the language of their country of origin. This can lead to great distress and risk of self-harm and suicide within the secure placements as their rights to remain are being investigated.

4.3 Psychosocial and physical vulnerability, risk and education

- Many young people (42%) within our census had been looked after children (LAC) prior to detention, and a further 13% had a social worker. A large majority of those on welfare placements had previously been LAC and all but one had had a social worker. Fewer of those in youth justice placements had previously been LAC, but still 38% of the young people detained under the YJS had previously been (Appendix C: Supplementary figure 3). This is much higher than in the general adolescent population in England (0.6%; Department for Education, 2017). Concerns, including from the Howard League (The Howard League for Penal Reform, 2016) have been expressed about the high numbers of LAC being detained within the YJS.
- Almost three quarters (73%) of young people placed in secure settings on 14 September 2016 had had previous contact with their local YOT. There was a significant difference in the proportions of young people detained under different legislative frameworks, with most (90%) of those detained under the YJS having had previous contact with their local YOT, but few of those placed in a secure hospital (18%) had done so (Appendix C: Supplementary analyses: previous involvement of YOT).

- Physical health needs in this population are important, both because they add to the complexity of the clinical presentation and also because, within institutions, good management of physical issues can be more difficult than at home. At least 232 (22%) of the young people placed in secure care on 14 September 2016 had a physical health problem. The complex needs of the young people included chronic physical health complaints, ie asthma (15%), diabetes (1%) and epilepsy (1%), all conditions where detention in individual locked rooms might heighten associated risks. One in 25 young people had a physical disability (Appendix C: Supplementary Table 3).
- The greatest overall reported risks were to self (33%), to others (34%) and of vulnerability (34%; Figure 6). However, the most frequently reported risk in those detained in welfare placements was that of absconding; this is unsurprising as it is one of the reasons for obtaining a secure order. Reported risk to self was high in those in hospital or welfare placements, but low in those in YJS placements. Risk to others was highest in those placed in medium secure hospitals (96%).

Figure 6. Percentage of young people with identified risks in specific categories according to legislative framework under which they were detained



Notes: A total of 1,180 (89%) of a possible 1,322 questionnaire responses contained information about the young person's risk level. Those in MHA or welfare placements had higher levels of risk to self (χ^2_2 518.63, $p < 0.001$), risk to others (χ^2_2 118.20, $p < 0.001$) and vulnerability (χ^2_2 244.36, $p < 0.001$) than those on YJS placements.

- On the day of the census, 6% of young people were on constant or continuous observations and a further 2% were in segregation or seclusion. All of those in segregation or seclusion were either in secure hospital or in YJS placements (Appendix C: Supplementary Table 4).
- Most young people's educational standard was at GCSE level or below. No young people under a welfare order were at A level standard (Appendix C: Supplementary Figure 4).

Discussion points

- Many of the young people in secure placements have previously been LAC. This demonstrates the vulnerability of these young people, but also highlights an opportunity for services to be deployed to reduce future risk.
- A much lower proportion of those being placed in secure hospitals have had contact with their local YOT than those detained under the YJS. This may suggest that young people who require secure care due to their mental health problems are being appropriately diverted away from the YJS. Previous contact with YOT teams also varied by both gender and ethnicity; young women and more of those young people who are white or Asian appear to be managed for psychosocial difficulties and are less likely to have had YOT contact than young men, in particular those who are of black or mixed ethnicity, who are more likely to be criminalised. It may well be that others within the YJS would equally have benefitted from being diverted into health or social care input rather than being criminalised.
- Trauma and bereavement issues were noted for 52 young people, despite these issues not being subject to specific inquiry; we estimate in these instances the issues are likely to be grave. We would recommend that future evaluations specifically ask about these experiences.
- Young people in YJS settings appear to present with the least number of risks, compared to those in other settings. Neither the gravity or imminence of risks was captured in these data.
- Young people in SCHs are generally younger, which may explain why there was no-one at A level standard education in this group.

4.4 Pathways into secure care

- Three quarters (73%) of young people were detained into secure care from a community setting, with 46% having been detained from their family home; 9% were moved from an open hospital.
- Almost a fifth (17%) of young people had moved from another secure establishment to their present one.
- Most (66%) of those admitted to a secure hospital were admitted from another hospital. Similarly, four out of five (82%) of those placed in a secure welfare setting came from a community welfare placement. However, the largest proportion (65%) of those detained under the YJS were from a community family setting (Appendix C: Supplementary Figure 5).
- The majority of placements were considered 'urgent' (856, 77%) simply because most detentions under the YJS are placed on the day of request for a placement. However, there was a statistical difference between urgency of placement for those detained under different legislation with just over half (56%) of those placed in hospital being planned, compared to a third (34%) of those in welfare placements and only 12% of those detained under the YJS.

- Within hospital placements, those placed in low secure (64%) and medium secure services (93%) were more likely to be planned than those in PICUs (29%; Supplementary Figure 6).
- A similar pattern was seen for time to placement. The shortest time was for urgent placements to YJS and short term hospital placements (HDUs and PICUs). Planned placements took longer from referral to placement and almost half (54, 49% of those with data) who were admitted to a medium secure unit had to wait over a month for placement (Appendix C: Supplementary Figure 7). Low secure waiting times were very similar.
- Almost three-quarters (65%) of young people had previously been placed away from home. The current secure placement was not their first placement away from home for 89% of those in hospitals, 96% of those on welfare placements, and 63% of those detained via the YJS. Thus, for young people detained through the YJS, this placement was statistically more likely to be their first placement (Appendix C: Supplementary Table 5).
- In total, 6% (54) young people had had ten or more placements (secure and/or non-secure) before being placed in their current secure placement (Figure 7).

Figure 7. Number of previous placements for young people in secure care according to the legislative framework under which they were detained.



Notes: Information was available about number of placements for 972 (74%) of the 1,322 young people in secure care on the census day. Data labels represent absolute numbers but are represented as proportions within the stack. A larger proportion of young people under welfare placements had been in at least 10 previous placements (9, 12.7%) than those detained under the MHA (11, 4.5%) or YJS legislation (34, 5.2%; χ^2_2 7.58, $p = 0.023$).

- Almost half (48%) of the young people in a secure placement on our census date had had a previous secure placement. Although young people detained within the YJS had fewer previous placements overall, half of them and half of those in secure hospitals have had a previous secure placement, which is more than those in welfare placements (Appendix C: Supplementary analyses: previous secure placements). However, those in welfare placements had the most previous non-secure placements away from the family home.
- Of note, the majority of young people in secure hospitals (52%), YJS placements (60%) and a quarter (23%) of those on welfare placements had had a secure placement under the same legislation. Thus, it appears that once a young person has been picked up by one part of the system, they remain within that system (mental health, welfare, youth justice).
- The longest anticipated stay in a secure setting was within the YJS, indicating the long sentences that some young people can be given.
- Though average (median) length of anticipated admission was much longer in the longer stay hospital units (65 weeks in medium secure and 50 weeks in low secure) than in the shorter term units (22 weeks in HDUs and 16 weeks in PICUs; Supplementary Table 6).
- Almost half the young people in secure placements (360, 43% of those with information available) did not have a placement address ready for their move back into the community. This included disproportionately more young women (57%) and more of those under welfare legislation (28%; Supplementary analyses: address ready for release/discharge).

4.4.1 Discussion points

- Time waiting for placement in low and medium secure units can be long, though occupancy seemed to be lower than other hospital placements. Placement into a longer stay secure hospital ward does not just depend upon bed status but also ward stability, patient mix and use of the seclusion room. Further work is needed to understand how to manage referrals and placements into these units more efficiently whilst retaining the care and thought put into safety and least restrictive options for the young people.
- It is notable that those detained under the YJS are more likely to be in their first placement from home compared to other secure placements. This may highlight fundamental differences between the young people detained through the YJS compared to others, or it may be suggestive of their needs not having been identified earlier with a lack of early intervention resulting in difficulties channelled into criminal behaviour. Equally, their difficulties may have arisen at an older age.
- The finding that 54 young people have had over 10 previous placements is a concern. It is likely that multiple placement moves leave a young person feeling unsettled and create difficulties with attachment and sense of security. This finding warrants further investigation.
- It is notable that for those placed in secure hospitals or YJS settings, the most common previous secure placement was under the same detaining legislation. Thus, it appears that once a young person has been picked up by one part of the system, they remain within that system (mental health, welfare, youth justice).

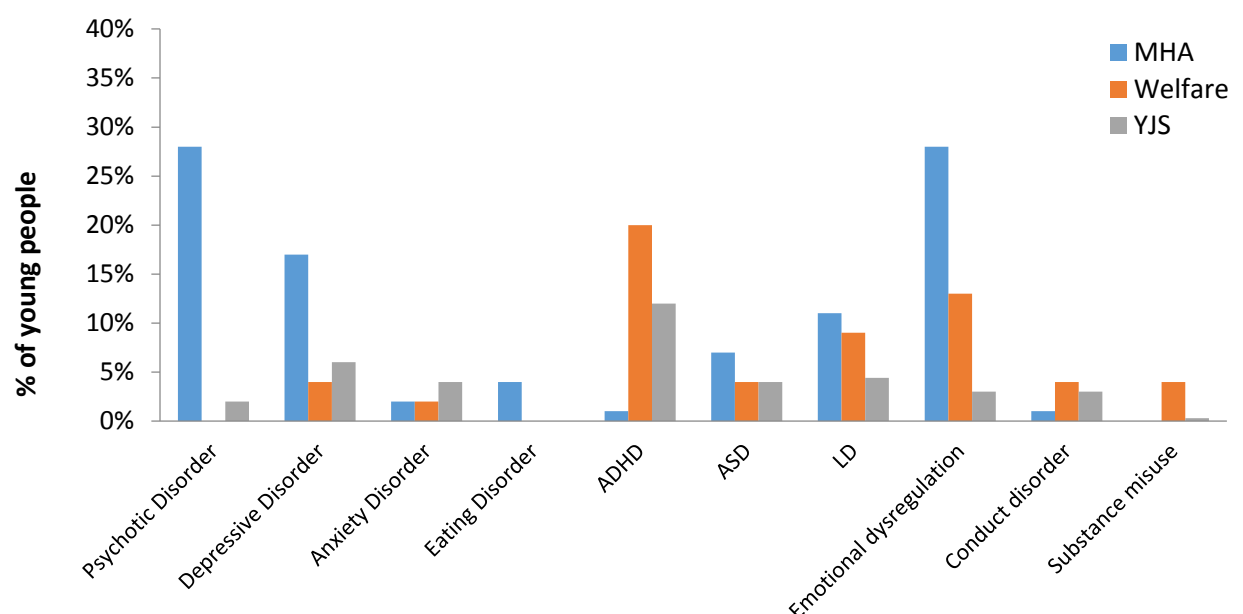
However, it also leaves an interesting question about the needs of the minority who move around the different secure systems and the extent to which their needs and/or actions truly change over time.

- Admissions into the shorter term hospital units were longer than the six weeks stated in the PICU service specification. Our scoping report highlighted how there were fewer, longer term therapeutic and educational opportunities in HDUs and PICUs because they are short-stay. It is important that this admission length is shortened. This is particularly important given that 11 young people in the HDUs and PICUs were informal patients and therefore lacked any legal route of appeal against a secure placement.

4.5 Mental health needs

- Overall, 57% of young people on the census date had at least one mental health or neurodevelopmental need/diagnosis. This included 100% of young people detained under the MHA, 33 (59%) of young people detained on welfare placements, and 313 (41%) of those detained within the YJS.
- There appears to be a pattern of young people within the YJS with mental health or neurodevelopmental needs being more likely to be placed in SCHs (42, 67%) or STCs (44, 54%), rather than YOIs (227, 37%). However, some young people with long term, mental health needs are still placed in YOIs, and further investigation is needed to assess why this occurs.
- The most common primary diagnoses for those in hospital was either psychosis (28%) or emotional dysregulation/emerging personality disorder (29%), whereas the in welfare and YJS placements it was attention deficit hyperactivity disorder (ADHD) (20% and 12% respectively; Figure 8).

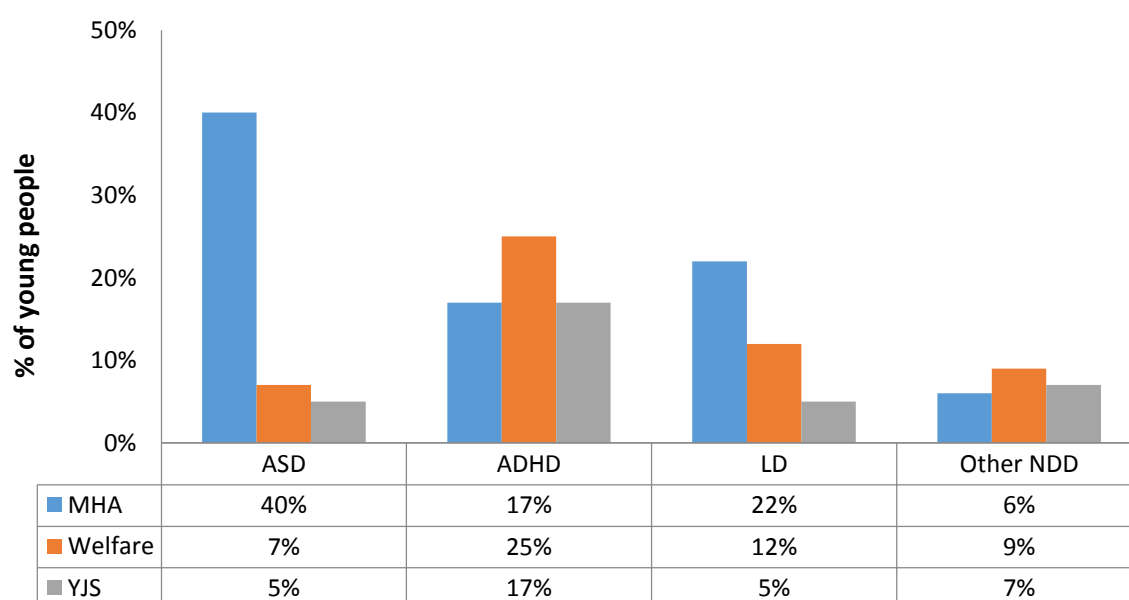
Figure 8. Primary diagnosis for young people in secure care according to the secure unit type in which they were placed.



Notes: There were data concerning (primary) diagnosis/mental health need for 1105 (84%) of the 1322 young people in secure care on the census date.

- 96 young people were suffering with a psychotic disorder. The majority of whom, 79 (82%), were in hospital, but 17 (18%) were in YJS placements.
- Statistically, a higher proportion of young women than young men and those described as white rather than of other ethnic background had mental health diagnoses/symptom clusters (Appendix C: Supplementary Figure 8).
- Young women in secure placements were more likely to present with psychosis, depression and emotional dysregulation than young men who were more likely to have ADHD (Appendix C: Supplementary Figure 9).
- In total, 27% of young people detained in secure placements were reported to have some form of neurodevelopmental disorder (this includes 55% of those in secure hospitals, 49% on welfare placements, and 28% of young people detained in the YJS).
- A higher proportion of those young people in hospital (22%) rather than in a welfare placement (12%) or a YJS placement (5%) were considered to have learning difficulties (Figure 9), which suggests that diversion to hospital is partly successful. However, there remained 34 young people with learning difficulties in YJS placements.
- ADHD was identified in 17% of young people in secure care. The prevalence of ADHD across different placements was fairly similar; 17% of young people in secure hospitals, 25% on welfare placements, and 17% of those detained through the YJS (Figure 9).

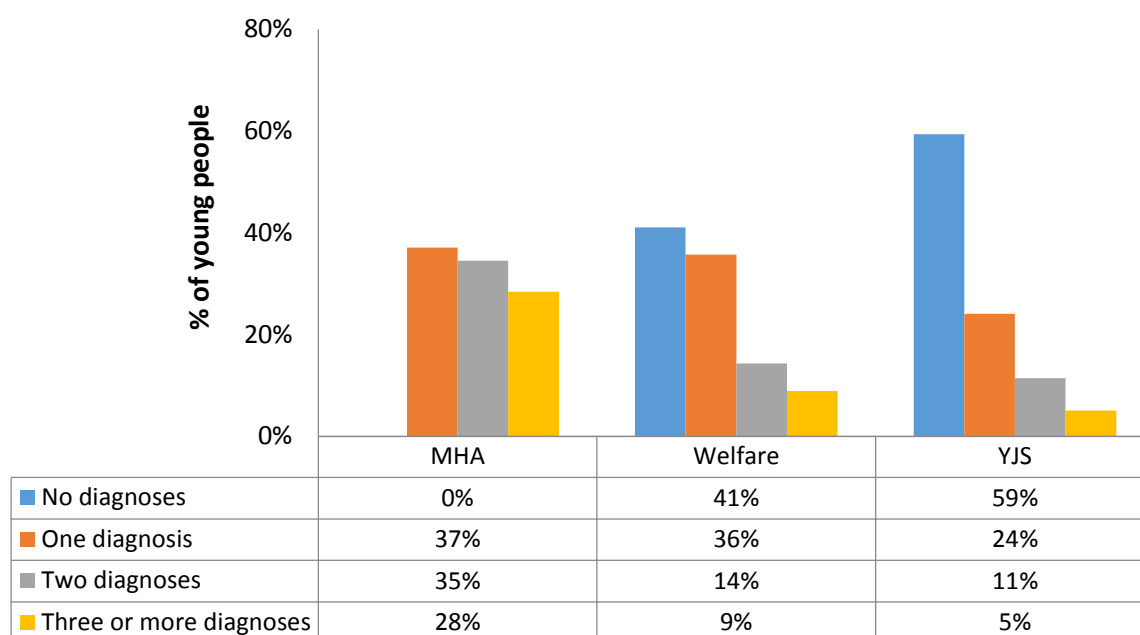
Figure 9. Neurodevelopmental disorders (NDD) in young people in secure care detained under different legislation.



Notes: Data were available regarding the presence of neurodevelopmental disorder(s) for 1,014 (77%) of the 1,322 young people in secure care on the census date. For those with at least one neurodevelopmental disorder, 129 were in hospital (55%), 21 in welfare placements (49%) and 205 in YCS settings (28%; $\chi^2_{2} 61.02$, $p < 0.001$).

- Almost a third (29%) of all young people had two or more mental health or neurodevelopmental diagnoses/symptom clusters; 192 (17%) young people had two while 123 (11%) had three or more, including 7 who had five comorbid difficulties. Comorbid diagnoses were more likely in young people placed under the legislative framework of the MHA rather than welfare or the YJS (Figure 10).

Figure 10. Number of mental health or neurodevelopmental diagnoses/symptom clusters in young people in secure care on 14 September 2016 (census date).



Notes: Data concerning mental health and/or neurodevelopmental diagnoses/symptom clusters were available for 1,105 (84%) of the 1,322 young people in secure care on the census date. Differences in the distribution of the number of mental health and/or neurodevelopmental diagnoses/symptom clusters according to legislative framework under which young people were placed was highly significant (χ^2_6 342.78, $p < 0.001$).

- As expected, the highest level of previous CAMHS support prior to detention was for those who were detained under the MHA (247, 87%), along with 50 (65%) of those on welfare orders, and 303 (37%) of those detained under the YJS. This is consistent with a pattern of mental health needs where the highest prevalence is in hospitals and lowest in YJS placements. However, there were still a high number of young people in the YJS with both a history of contact with CAMHS and diagnosable mental health needs even though the YJS is not set up primarily to help young people with mental health problems.
- Of the young people who had a diagnosed mental health problem at the time of this census, 463 (78%) were known to have had contact with CAMHS before their current secure episode. This means that 101 (22%) of young people identified to have current mental health problems had not previously had CAMHS support but 63 had been engaged with CAMHS only since detention. The reported data also suggest, though, that 95 young people with an identified mental health problem at the time of the census, who had previously had CAMHS input, were closed to CAMHS at the time of the census.

- 61 young people were considered to be inappropriately placed, most of those were in hospital or detained under the YJS (Appendix C: Supplementary Table 7).

4.5.1 Discussion points

- It is interesting to note that only one young person outside of a hospital setting was diagnosed with an eating disorder. This leads to a question of whether young people with eating disorders have a different profile to others, and are perhaps less likely to be involved in criminal behaviour. This detail cannot be explored further based on the current census data, but would be interesting for future research to consider.
- The prevalence of neurodevelopmental disorder and emotional dysregulation/emerging personality disorder is much higher than that seen in the general adolescent population.

Table 1. Comparison of mental health problems/NDD rates in young people in secure care to known prevalence in the General Population (Bernstein et al., 1993; Lewinsohn, Rohde, Seeley, & Klein, 1997)

	Mental health (n=278)	Welfare (n=56)	YJS (n=771)	General adolescent population
Prevalence of mental health/NDD problems	278 (100%)	33 (59%)	313 (41%)	10%
Prevalence of ASD	92 (40%)	3 (7%)	38 (95%)	1%
Prevalence of ADHD	40 (17%)	10 (25%)	122 (17%)	5%
Prevalence of LD	52 (22%)	5 (12%)	34 (5%)	1-3%
Prevalence of emerging PD	134 (48%)	14 (26%)	49 (6%)	0.9-3%

Notes: Data concerning mental health and neurodevelopmental diagnoses/symptom clusters were available for 1,105 (84%) and 1,014 (77%) of the 1,322 young people in secure care, respectively.

- The patterns of contact with CAMHS prior to and during current placements of young people in secure care raise questions as to the adequacy of assessment and intervention by these services before a young person is detained.

5 Discussion and conclusions

This is the first service evaluation of all the secure services in England and needs of young people from England detained in secure placements. The response rate is good considering the scope of the study and the numbers of units and young people involved. These data provide a firm basis for further discussion.

These findings prompt such discussion in a number of domains:

- Best use of available secure placements.
- Most appropriate resource allocation in view of the needs detected and how young people are distributed around the total system.
- Specific treatment options and how and where they might be delivered.
- The best possible commissioning system.
- Identification and assurance of outcomes following interventions.
- Understanding needs in terms of vulnerability, complexity and severity.
- The role and adequacy of services designed to prevent the escalation of young people into secure placements.

These points will be considered in turn below.

5.1 Best use of available secure placements

These data reveal both that occupancy of secure placements is variable, with significant under-utilisation of all hospital beds, but of medium secure hospital placements⁵ in particular, at the time of the census. STC placements at the time of the census were significantly capped and the YOIs, which provide by far the largest number of placements, were only three quarters full.

It is therefore hard to understand the waiting times for low and medium secure placements, which are over a month in roughly half of all cases. This raises the same questions as the adult prison estate where transfer times to mental hospital are chronically and deplorably low. One answer may be that the modest size of many units makes it hard to operate to full capacity if a young person is significantly disturbed and that clinicians are wisely cautious about patient mix. However, if a young person is in need of the use of the MHA, a marker of severity and urgency, it remains hard to understand why this length of time is required to admit them. Equally, given the cost of such commissioned beds, it is hard to justify them standing empty. The long term economics of under-occupancy of this kind would invite further rationalisation of the secure hospital and YOI/STC estate and allow scope to redistribute resources elsewhere.

Geography is also key to establishing best use of placements. If it is accepted that young people benefit from proximity to family and friends (with obvious exceptions where risk is paramount) the system we describe seems not to achieve best use of placements. Although the study methods for establishing meaningful distance from home should be viewed with some caution, as indicated in table 2, Appendix C, it is clear that young people are often located far from home. It is of particular concern

⁵ Albeit that this appears in line with the recent medium secure review.

that some of the youngest young people in this system are furthest from home. One inevitable consequence of this is difficulty liaising with individuals who are part of ongoing care. Distance will constrain face-to-face meetings and reduce mutual understanding and opportunities for young people and current staff to meet with those charged with a young person's ongoing care beyond the current placement.

Young people in welfare units were placed furthest away from their homes. There are many reasons why a young person might be placed far from home. This may be a consequence of the location of welfare units or a lack of available beds. In YJS placements, this is often due to gang affiliations and 'keep apart' (where certain young people are prevented from interacting with each other). Currently there are a few large YOIs and STCs so that there are few establishments between which young people can be moved if there are these gang issues. The options put forward for the reconfiguration of the adult women's estate, notably for smaller custodial settings in metropolitan areas (Corston, 2006; Robinson, 2013) might suit the young people's estate for similar reasons, while not being at odds with existing recommendations from the Taylor Review (Taylor, 2016) on secure schools for 60-70 individuals at a time. It is also likely that the availability of gender specific beds would play a role in the location where someone is placed.

5.2 Resource allocation

Resource allocation was considered in the Scoping Report in terms of the numbers, ratios and type of staff available to young people in the different types of units. We found that there was a variety in both the range of professionals at the different types of secure unit and the range of interventions available. Hospitals appear to have a wider variety of both professions represented in their MDTs and more therapeutic interventions offered, compared to other units. This seemed to reflect the prime purpose of hospitals i.e. to provide a therapeutic environment to manage mental health difficulties, whereas welfare secure placements and the YJS are primarily about social interventions or rehabilitation and less about mental health and therapeutic work. The numbers of staff available also varied, with youth justice settings (particularly YOIs and STCs) having lower ratios of staff to young people, just over a third of the ratio found in hospital and half that found in SCHs.

The range of mental health morbidity detected in the young people in the different units supports the higher staff to young person ratios in hospitals. However, overall mental health morbidity in SCHs and YOIs and STCs are not so dissimilar; the proportion of young people with a mental health diagnosis was 37% in YOIs and 54% in STCs, compared to 100% in all types of hospital unit. Assuming no major changes in the composition of the populations going forward, this should prompt a discussion, not so much as to whether the mental health input into YOIs and STCs is currently at the right level, but whether it matches the kind of need. The recent plans for implementing Secure Stairs in non-health secure establishments is a positive development, increasing the psychology staff available to work with young people in these settings in a trauma-informed approach. Evaluation which accompanies the roll out of this service will clarify whether it has achieved its aims.

5.3 Treatment options

These data permit examination of this question in relation to certain diagnostic groups.

Most of the 96 young people with psychotic illnesses were in hospital, but 17, almost all of these being young men in YOLs, were not. This may have been because they were waiting for admission, suggesting that the waiting time for admission may leave young people in far from the best environment for their needs, for some time. Equally, it may be that they are not in an acute phase of their illness, in which case it is still pertinent to ask whether their offending keeps them detained in what is essentially an untherapeutic environment, one which may have adverse consequences for their long term health needs.

A very small number of young people are diagnosed with eating disorders. Almost all of the 18 detected were in hospital. The scoping report indicates that there exists little claimed expertise in these disorders, which in non secure settings would, for those requiring hospitalisation, undoubtedly merit specialist units. This points to a clear need for the development of a specialist unit.

Neurodevelopmental disorders are common in this population of young people; a quarter have one or more such problems. This is a far higher prevalence rate than found in community samples of equivalent age. Most of the young people in this sample with neurodevelopmental disorders are in YJS settings. The presence there of 38 young people with autism spectrum disorder, 34 with a learning disability and 122 with ADHD is a concern. The nature of these difficulties is distinctive, but they can overlap in some individuals. Having said that, young people with autism spectrum disorder may find the communal living of YOLs and STCs very difficult and may be subject to victimisation. Those with a learning disability will find it hard to understand and navigate through life in a YJS placement where, if the adult prison estate is a meaningful comparison, there is limited awareness of the kind of reasonable adjustments required by law. Young people with ADHD have a treatable disorder. Their presence in such large numbers points more to questions about the adequacy of pre-YJS assessment and treatment. In all cases, it seems pertinent to consider the relevance of these problems to the young person's criminality and whether the nature and degree of their problems was understood in court and reflected in the outcome of their case.

The adult prison estate has a long history of specialised units for different vulnerabilities and difficulties. Equally, this will be one of the things considered when a young person is allocated to a particular kind of placement. However, the large numbers of both autism spectrum disorder and a learning disability in YJS settings demand greater thought. Specialised units within the YJS might be developed and staffed accordingly or, where hospitalisation could be helpful, similar specialised settings might be created under the umbrella of mental health services.

The single most common primary diagnosis was emotional dysregulation/ emerging borderline personality disorder (n = 112, 100%). Three quarters (n = 79, 71%) of these were in hospital, with a significant number (n = 26, 23%) in YJS settings and a handful (n = 7, 6%) in welfare settings. Interventions can and should be offered in a range of settings and can incorporate work on offending. A useful model in the adult prison estate has been the creation of specialised wings with psychologically informed discipline staff supplementing specialist interventions. Psychology staff

exist in all settings and both DBT and MBT are commonly offered, but the exact distribution, when available, of these specific treatments is not clear. In contrast, neither intervention is available in any of the STCs.

Several additional points are necessary. First, the reasons behind the presence of young people with significant disorders in such diverse placements cannot be determined by these mental health data. Nor do these data give any indication of severity, eg of very low IQ in a young person with a learning disability. Second, the criminality and/or offending behaviour of a given young person may leave room for consideration of different types of placement, but also may restrict it, even in the presence of mental health problems. Third, there are a number of competing priorities in terms of specialist treatment. These include the merits or otherwise of units taking local young people regardless of need, the desirability of meeting specialist needs in specialist settings and geographical disadvantage that can accrue if small, critical masses of young people need specialist units that will inevitably often be distant from their home area. This study can only inform a debate on these issues. It can explain what is currently offered where and to whom and can propose alternative possibilities where needs may be better matched to relevant resources or where the current configuration of services raises important clinical dilemmas.

5.4 Commissioning systems

Co-ordinated commissioning for these young people would make use of all relevant multi-agency expertise. Within risk assessment arenas (MAPPA) and in adult prisons (complex case management) these mechanisms are well established and operate to some extent at a frontline level for young people. However, the commissioning streams for this population operate in silos.

The high levels of mental health morbidity in the YJS and welfare placements, the high levels of LAC in all systems, the high levels of young people in welfare placements with a history of YOT contact all suggest there is a case to be made for regional multi-sector panels that would combine an understanding of legislation, available local placements and type of need. In planning terms, a degree of national oversight of the entire system might bridge government departments and aid mutual understanding.

5.5 Measures of success

This study examined pathways of care, not outcomes. Yet it has, in effect, gathered information relevant to any discussion of outcomes. If it is accepted that a good outcome is to return to the community or at least a less secure facility and to remain there, it is clearly potentially problematic if 41% of these young people arrived in their current placement from a previous secure placement. It may be that their latest move has been to a unit better suited to their needs in terms of treatment offer or length of stay. But it may be that other reasons (e.g. financial imperatives, challenging behaviour, re-admission to hospital) account for a move that requires the young person to build new relationships with staff and peers and to embark on re-assessment and new interventions.

These data raise important questions about whether placements meet young people's needs. This has two dimensions. First, once a young person has been in one type of secure setting, it appears that they may be more likely to stay within that

part of the system rather than change to another system. When they have had multiple such placements, it is reasonable to ask whether this type of placement is giving the young person what they need.

Second, a substantial proportion of young people have been moved from placement to placement. It is worth restating the most startling figure, ie that one in 20 (6%, n =54) had been in 10 or more placements. Large numbers, almost a third, had had four or more placements. These data do not provide information on how and why that has happened but even allowing for the need for them to be moved in order to access an appropriate placement, it can only be seen as highly undesirable in terms of child development and the creation of both secure attachments and secure bases from which to venture back into the outside world. The system might currently be accused of treating a significant number of young people as shuttlecocks. Relevant, additional perspectives from parents, carers and staff on the behaviours or circumstances that led to these moves will be available from the key stakeholder interview material in the third report of this study.

5.6 Vulnerability, complexity and severity

There are no accepted measures of either complexity or vulnerability and while hospitalisation might be seen as a marker of the severity of problems, other components of severity might be more debatable. This study offers scope to operationalise these concepts and to explore the relationship of factors that might reasonably be said to contribute and quantify complexity and vulnerability.

Two or more mental health diagnoses would, within the world of mental health, be considered relevant to an idea of complex needs. Secure hospitals seem to take young people with more mental health diagnoses, as would, perhaps, be expected. Eighty percent of young people in medium secure units have two or more diagnoses. However, the proportions in SCH placements are also high and even in the YOIs more than one in 10 young people have two or more diagnoses. In non-hospital units, by their nature and resourcing, young people will not necessarily get such a thorough diagnostic assessment, the focus being broader than just mental health needs, so these figures are striking and might be understood as under-estimates. Having said this, comorbidity might be understood as a gauge of severity. In this case, it would be important to clarify the extent to which non-hospital units were considered suitable placements, equipped to meet multiple mental health needs.

These data do shed light on factors that might be said to lead to vulnerability. These might relate to different kinds of cultural isolation, age or distance from home. It is of note that one in ten units had a young person of BME heritage who was the only such young person in that unit. The youngest in the study population seem to be at most risk of being located furthest from home. Many individuals with an established learning disability seem not to be located in specialist units. For young people who were born outside of the UK, it is important to consider what a secure placement might mean for them, particularly those detained through the YJS. From this census, we are unable to specify whether any of these young people are at risk of being deported, but often young people who are deported have limited links to people, places, and language within their country of origin.

Being placed at a long distance from home, for those in contact with family and friends, at best impedes informal support mechanisms and is likely to have an impact

on social networks in adult life. Distance from home has been highlighted as an important factor for the care of young people in secure care. Location is of particular importance where family work is a part of a young person's treatment or rehabilitation, as in order to be useful work, this requires the presence of the family.

When vulnerability is measured by individual respondents' views on what constituted 'vulnerability', it is interesting that, overall, those in YJS placements are construed as less vulnerable than those in other types of placement. Even so, more than one in 10 of the young people in the YJS are considered vulnerable. The logic of placement is debatable, given that there is little difference in the perceived vulnerability of the populations in YOIs and STCs, despite the service specifications stating that the purpose of STCs was to accommodate more vulnerable young people than YOIs.

Combinations of factors, be they of complexity or vulnerability, might usefully be integrated into a provider/commissioner algorithm to ensure adequate third party review, particularly if such young people have accrued a long length of stay in secure placements or have been subject to multiple moves.

5.7 Preventative services

For any young person to enter the secure system studied is very sad. This is not the same as it being inevitable. The remit of our work does not extend to the services designed to tackle young people's difficulties early rather than late. It is also true that some of the services included in this study may offer not only physical containment, but also psychological and social help, for long enough to change the likely course of a young person's life.

However, the ubiquity of mental health problems, some acute, some life-long, across the system studied, where many young people have been before the courts, known to CAMHS or social services, raises crucial questions about the adequacy of detection and management of what are at times eminently treatable disorders that have a direct relationship to challenging and offending behaviour. These data and the analysis in this report must be made available and considered by those with responsibility for the non-secure systems of care as it is there too that change must be made.

5.8 Limitations

To facilitate a good response rate, we sought a broad overview of the needs and complexity of these young people. No data were collected on the severity of young people's difficulties; it may have been useful to ask the individuals completing the questionnaires to rate the perceived complexity or level of the young person's needs.

In this census, we did not explicitly ask about mental health needs that might fall below the threshold for diagnosis, or about specific behaviours (such as self-harm, violence, or history of suicide attempts). Therefore, the figures presented here provide a broad overview of the types of mental health difficulties faced by young people in secure settings, recognising that more in-depth study is needed.

This study has been wide ranging and has, in the course of data collection and analysis, highlighted differences in professionals' conceptual frameworks. Different types of professionals completed the questionnaires, depending on the nature of the setting. In hospitals, responses were often written in a way that more obviously

related to diagnostic categories, but in other areas a more descriptive and needs-based approach was common, as diagnosis is not always the main currency of conversation.

Appendices

Appendix A: Census questionnaire – version 4 – 6 June 2016; For young people detained on 14 September 2016

Anonymisation code:

Date of completion:

Person completing:

Ward/unit name

Hospital/secure children's home/STC/YOI name:

Mental healthcare provider:

Circumstances of detention

For those in hospital

Date of referral:

Date of preadmission assessment - if done:

Date of admission:

Mental Health Act section on detention:

Diagnosis on detention:

Reason for detention:

For those in YJB beds

Date of remand or sentencing/detention:

Legal status on detention:

- ☐ Remand
- ☐ Awaiting sentencing
- ☐ DTO
- ☐ S91

Mental health needs/diagnosis on CHAT 4 /5 screen:

For those in welfare beds

Date court order:

Date placement sought (if known):

Date placement commenced:

Legal status detention – length of secure accommodation order on detention:

Mental health needs/diagnosis on CHAT 4/5 screen:

Reason for detention:

For all

If known, what type of unit was the young person admitted from? (please delete as appropriate):

Family home/foster home/children's home/boarding school/SCH/STC/YOI

Was this placement urgent or planned? (please delete as appropriate)

Pathways through other secure services for this period of detention

Has the young person been in previous placements other than their family home?

☐ Yes

☐ No

If yes, has the young person had multiple other placements:

☐ Yes

☐ No

If yes, how many:

☐ Less than 3

☐ 4 – 9

☐ Over 10

Do you know if this young person has been in any of the following placements? (please tick any that you are aware they have been previously placed in):

☐ Foster home

☐ Specialist residential education placement

☐ Children's home

☐ Secure children's home (SCH)

☐ Open adolescent hospital

☐ Secure adolescent hospital

☐ Secure training centre (STC)

☐ Young offenders institution (YOI)

If able, please could you list placements (with approximate dates) from this young person's first period of detention, including the first secure placement (including this one).

Approximate month detained	Which secure unit	What legal status	Approximate date moved	Why moved

Demographics

Age on 14 September 2016 (census date)

Gender:

☐ Male

☐ Female

☐ Transgender

☐ Intersex

Ethnicity:

Country of origin:

County/borough and town of last address:

County/borough of family or social services:

Background health

Any recorded physical disability:

Any recorded physical chronic illness - including asthma/epilepsy/blood disorder etc:

Community agencies involved

LAC status before detention (LAC/vol accommodated/has social worker/no social worker)

CAMHS before detention?

☐ YES

☐ NO

If yes, was the CAMHS provision, in your opinion, appropriate to the identified needs?

☐ YES

☐ NO

If no, should there have been CAMHS provision, and at what level?

☐ YES

☐ NO

CAMHS/CMHT from community involved now?

☐ YES

☐ NO

YOT before detention?

☐ YES

☐ NO

YOT now?

☐ YES

☐ NO

Other before detention? – please specify

Other now? – please specify

Current status on 14 September 2016 (census date)

Legal status

For those in YJB beds

☐ Remand

☐ Awaiting sentencing

☐ DTO

☐ Section 91

☐ Other (please specify)

For those in welfare beds:

Secure order length

For those in hospital:

MHA section

Mental health diagnosis, if any

Primary

Comorbid

Mental health needs, if any

Please specify

Mental health treatment package, if any

Please specify

Level of observations:

- ☐ Normal
- ☐ Enhanced (on ACCT in YOI, increased obs elsewhere)
- ☐ Continuous/constant
- ☐ Unlock with protective kit
- ☐ Unlock without protective kit
- ☐ Single unlock
- ☐ Normal unlock
- ☐ Segregation

Current risks:

- ☐ None
- ☐ To self
- ☐ To others
- ☐ Arson
- ☐ Absconding
- ☐ Vulnerability
- ☐ To female workers

Educational level:

- ☐ Pre GCSEs
- ☐ GCSEs
- ☐ BTEC or A level

Discharge release planning

Anticipated date of release/discharge date if there is one

If not estimated length of stay beyond 15 June 2016

Or, next court date for those on Children Act or trial date for those on remand

Is there an identified address for release? Yes / No

Are there other pending cases that may delay release? Yes/No

Appropriateness of placement

Of the available options that are open to this young person, do you believe they are in the setting that can most appropriately meet their needs? Yes/No

If not, where do you think they should be placed?

Appendix B: Supplementary methods

Sample population

This service evaluation considered all young people from England detained in a secure placement. The secure units were identified in our scoping study.

Ethics and clinical governance

The Health Research Authority approved this study as a service evaluation, and the Confidentiality Advisory Board provided Section 251 exemption, allowing clinical records in the YOIs and SCH to be accessed by the study team, without requiring participant consent. Approval from each individual organisation was then provided, to allow access to SystmOne clinical notes. A poster was sent to each institution to put up on the wall to explain the service evaluation to young people detained within and offer them the option to opt out. We were not informed of anyone who specifically opted out by this process. Seven young people on one hospital unit withheld consent when directly asked.

Census

On the 14 September 2016, all secure units detaining young people aged under 18 from England, which were identified in the scoping stage of this project (Warner et al., 2017), provided the study team with the number of young men and young women detained within their establishment on this date. Having worked closely with these units during the scoping process and in preparation for the census, on 14 September 2016 contact was made with all these people either by phone or email, and 100% of units provided the census numbers – a few units provided clarifications the following day.

Census patient questionnaire development

The census patient questionnaire was designed to be quick and easy to complete, to encourage high response rates. Questions were formulated with the steering committee which has representation from carers, psychiatry, law, social care and commissioners. It was piloted with members of the mental health team at HMYOI Cookham Wood, after which it was estimated that each questionnaire would take approximately 10 minutes to complete, if the young person was known to the person completing the questionnaire. Data was requested to be returned within a month; the deadline was extended to enable a higher response rate and the last data was received in February 2017.

Each unit was then sent a census patient questionnaire (see Appendix A) to complete for each young person in their unit on the census date. Each unit was given anonymisation codes for the number of young people on their units, so that data was submitted pseudo anonymised (with no name or date of birth). We asked our unit contacts if one or several members of the mental health and care team could complete the questionnaires in collaboration, as many of the questions related to clinical features.

Due to the particularly large size of the YOIs (all with >100 young people), a member of the study team (LW) collected the questionnaire data for three of these institutions, by reviewing the SystmOne electronic clinical notes. This was also the case for one large SCH. For the other YOI, the healthcare team completed the questionnaires for the young people on their caseload, whilst a member of the study team (LW) collected data for those not on the caseload. In one other YOI, members of the healthcare team checked the data following collection.

Coding

The census questionnaires were completed by clinicians and care workers and therefore recorded their opinion of the needs of the young people detained in secure accommodation. The contemporary classification of gender is more complex than previously. The emergence of new categories to describe one's gender is only partially reflected in the decision to include the categories of male, female, transgender and intersex in this study; notably, as this was coded by a clinician, it may not always capture gender dysphoria if the young person had not yet discussed this with their carers. For some variables, a broad range of text answers were given, which were then coded by our team into a smaller list of categories. For example, for ethnicity, though many descriptions were given, most were easily mapped into the larger values of white, black, Asian, mixed and other, or otherwise recorded as a missing variable.

Distance from home

Information about the (UK) county or borough of the address of family or local authority for each young person in secure care was sought for each young person in care. Data considered included UK region (Scotland, North East England, North West England, Yorkshire and the Humber, East Midlands, West Midlands, Wales, East of England London, South East England, South West England, Crown Dependencies), county or borough of secure care address and address of family or local authority. For those responses where a specific city, town or postcode (prefix) was provided, driving distance from home was calculated based on a postcode in the most central location of the relevant city, town or postcode. This method ensured provision of reliable estimates of distance from a young person's secure placement to their home – therefore providing an idea of how challenging it was for family or social services from their local area to visit.

Mental health diagnoses

Coding for mental health diagnoses was more complicated as different disciplines in the settings investigated use different terms to describe what appear to be similar difficulties and needs. For each young person, having read through the census questionnaire responses and attributed diagnostic categories to the needs listed, a consultant adolescent forensic psychiatrist (HH) reviewed these and rated their needs into primary diagnoses and comorbid disorders. The primary model for this was a hierarchical model whereby anyone with an acute psychotic disorder (not those in remission) was listed as having psychosis as their primary diagnosis. After this, on reading the listed mental health needs and reviewing allocated diagnoses, an opinion was made about what the most pressing mental health need for service

response and thereby what the primary diagnosis could be. We followed several 'rules' in doing this:

- For those with depression and anxiety disorders, depression was listed as the primary diagnosis.
- For those with several neurodevelopmental disorders (learning difficulties, autism spectrum disorder and/or ADHD): if they had a learning difficulty, we made this the primary diagnosis; if no learning difficulty, but autism, we made this the primary diagnosis; and ADHD was the primary diagnosis only if it was the only neurodevelopmental disorder and there were no other pressing mental health needs.
- For those with risks to self and emerging personality disorder, it was most likely to be emerging personality disorder.
- Conduct disorder and substance misuse were only allocated as primary diagnoses if there was no other mental health need identified and substance misuse was listed above conduct disorder.

We identified the following categories and attributed certain diagnoses, described symptoms and needs into the following diagnostic categories, from ICD10:

- Psychosis
- Mood disorders (including low mood, depression and bipolar disorder)
- Anxiety disorders
- Eating disorder
- Emotional dysregulation/emerging borderline personality disorder (see below)
- Antisocial personality disorder/ conduct disorder
- Neurodevelopmental disorders such as:
 - ASD (autism spectrum disorder)
 - LD (learning disability)
 - ADHD (attention deficit hyperactivity disorder)
- Substance misuse

We note that these categories are basic; due to the snapshot nature of this census and the simplicity of information requested to enable a high response rate, we have been unable to account for individual behaviours and needs within and outside of these diagnoses (for example, we have not considered suicidal and self-harming behaviours here, though this was considered within personality disorder traits and within risk factors). Table 1 shows the mental health needs we clustered into emotional dysregulation/emerging borderline personality disorder.

Table 1. Specific descriptions included within personality difficulties code.

Personality disorder diagnosis (any)	Attachment disorder	Mixed disorder of conduct and emotions	Trauma (in context of one of these other labels)
Emerging personality disorder (any)	Emotional regulation difficulties	Complex PTSD	Self-harm (in context of one of these other labels)

The data on antisocial personality/conduct disorder and substance misuse are incomplete as this was not noted for many in custody, which may suggest incomplete recording.

In some cases, the current mental health needs section was left blank, but mental health needs on admission was recorded. In these cases, it was assumed that the current needs were the same as the original needs.

Statistical analyses

Descriptive data are presented in the form of frequency (percentage) and median (range). Relationships between main (study) outcomes and variables of interest for young people in secure care (eg legislative framework under which placed, age, gender, ethnicity) were examined using chi-square tests with odds ratios (ORs) and 95% confidence intervals (CIs). Where the combined contribution of variables was examined, we used multivariate logistic regression models. The threshold for statistical significance in group comparisons and regression analyses was $p < 0.05$. All statistical analyses were completed with the Statistical Package for the Social Sciences, Release 25.0 (SPSS, IBM).

Appendix C – Supplementary data tables, figures and analyses

Table 1. Response rate for completed census questionnaires received for English young people detained on 14.09.16 according to unit type.

Type of unit	Number of responses	Number of English young people detained in secure care on 14. September 2016	Percentage of responses
HDU	11	23	48%
PICU	115	121	95%
Low secure	104	113	92%
Medium secure	48	55	87%
SCH	208	218	95%
STC	105	124	85%
YOI	632	668	95%
TOTAL	1223	1322	93%

Notes: Six of the missing questionnaires from HDUs were for young people who were informal patients on the census date, not detained under the MHA.

Table 2. Number (percentage) of young people placed outside of UK region, county, and county and neighbouring county as their family or local authority.

	MHA (n = 254)	Welfare (n = 80)	YJS (n = 746)
Placed outside of UK region	162 (64%)	67 (84%)	441 (59%)
Placed outside of county	225 (89%)	73 (91%)	580 (78%)
Placed outside of county and neighbouring county	151 (59%)	66 (83%)	265 (36%)

Notes: Data represent frequency (percentage) values. Data concerning address of family or local authority was available for 1,080 young people only. There were significant differences across legislation types considering UK region and county placements (for all comparisons, $\chi^2_2 > 19.05$, $p < 0.001$). The odds of young people in secure welfare placements being placed outside the region of their family or local authority was more than threefold (OR = 3.39, 95% CI = 1.85, 6.23) than that of those under MHA or YJS legislations, and this increased to more than six times when considering placement in a non-neighbouring county (OR = 6.62, 95% CI = 3.67, 11.94).

Table 3. Number (percentage) of young people under different legislation who suffer with asthma, any physical illness, and/or a physical disability.

	Asthma	Any physical health problem	Physical disability
MH (n=228)	20 (9%)	41 (18%)	5 (2%)
Welfare (n=64)	15 (23%)	20 (32%)	3 (4%)
YJS (n=769)	119 (16%)	171 (22%)	35 (4%)
Total (n=1061)	154 (15%)	232 (22%)	43 (4%)

Notes: There was information about physical health needs for 1,061 (80%) of the 1,322 young people in secure care on the census date. Any physical health problem includes but is not limited to asthma, epilepsy, and diabetes. A total of 154 (15%) had asthma, 15 (1%) diabetes, 11 (1%) epilepsy, and 77 (7%) had another diagnosis (such as a heart condition or blood disorder). This compares with UK population estimates (for teenagers) of approximately 18% for asthma (Couriel, 2003), 0.25% for diabetes (under 19 year olds; one in 400) (Diabetes UK, 2014) and 0.5% for epilepsy (under 19 year olds; one in 220) (Joint Epilepsy Council of the UK and Ireland, 2011).

There was information about physical disability on 1,105 (84%) of the 1,322 young people, with 43 (4%) reported to have a physical disability. In the general UK population, 9% of children aged 11-15 and 8% of young adults aged 16-24 are classified as disabled, although this includes individuals with physical and/or mental impairments (Office for Disability Issues, 2011). In total, 261 (25%) young people in secure placements on 14.09.16 with relevant data had either a chronic physical health illness or disability, 23% of young people aged 15 years or under and 25% of those aged 16 years or above. These results are broadly consistent with known UK population data for children; the Health Behaviour in School Aged Children study (HBSC) in England in 2014 indicated that 23% of young people aged 11-15 report that they had a long-term medical illness or physical and/or mental disability (Brooks, Magnusson, Klemra, Spencer, & Morgan, 2015), while one in seven young people (15%) aged 11-15 report having been diagnosed with a long-term medical illness or disability such as asthma, diabetes, epilepsy, cancer, or physical or mental impairment (Hagell, Coleman, & Brooks, 2015).

Notably, compared with MH and YJS settings, there was a higher proportion of young people in welfare settings with asthma (χ^2_2 10.74, $p = 0.005$) and a trend in the same direction for any physical illness (χ^2_2 5.37, $p = 0.068$).

Table 4. Levels of observations for young people in secure care on census date.

	Normal	Enhanced/ ACCT	Continuous/ constant	Single unlock	Segregation/ seclusion
MH (n=276)	162 (59%)	36 (13%)	54 (20%)	4 (1%)	20 (7%)
Welfare (n=72)	66 (92%)	5 (7%)	1 (1%)	0	0
YJS (n=809)	750 (93%)	33 (4%)	5 (0.6%)	5 (0.6%)	16 (2%)

Notes: A total of 1,157 (87%) of 1,322 questionnaire responses contained information about the level of observations the young person was on at the time of the census. Where more than one level of observation was indicated for a young person, only the highest-level observation was considered. The reported level of observations were statistically different across legislative frameworks (χ^2_8 222.29, $p < 0.001$).

Table 5. Types of previous placements for young people in secure care according to legislative framework.

	Mental health (n=270)	Welfare (n=80)	YJS (n=797)	TOTAL (n=1147)
No previous placement	23 (9%)	3 (4%)	305 (39%)	331 (29%)
Community placement				
Foster home	45 (17%)	41 (51%)	120 (15%)	206 (18%)
Specialist residential education	31 (12%)	18 (23%)	8 (1%)	57 (5%)
Children's home	45 (17%)	63 (79%)	154 (19%)	262 (23%)
Independent accommodation	10 (4%)	1 (1%)	86 (11%)	97 (9%)
Hospital				
Open adolescent hospital	180 (67%)	3 (4%)	4 (0.5%)	186 (16%)
Adult ward	6 (2%)	0%	5 (0.6%)	11 (1%)
Previous secure accommodation				
Secure adolescent hospital	14 (5%)	19 (24%)	112 (14%)	140 (12%)
SCH	2 (0.7%)	1 (1%)	169 (22%)	172 (15%)
STC	8 (3%)	0%	207 (26%)	215 (19%)
YOI	14 (5%)	19 (24%)	112 (14%)	140 (12%)

Notes: Numbers are not mutually exclusive (ie a young person could have placements in more than one setting) and therefore 'total' may be less than each column. Information was available about whether there had been any placements away from home for 1,178 (89%) of the 1,322 young people, with data about where they had been placed for 816 (96.3%) of 847 young people with previous placements. For young people detained through the YJS, this placement was more likely to be their first placement than for those detained in hospital or on a welfare placement (χ^2_2 111.28, $p < 0.001$).

Table 6. Estimated length of stay for young people in secure placements

Secure unit type	Weeks from admission to expected discharge (median, range)	Estimated average length of stay identified in scoping report (Warner et al., 2017)
HDU (n=10)	21.7 (14-34)	9.6
PICU (n=39)	15.9 (2-69)	12.6
Low secure (n=78)	49.6 (9-156)	45.6
Medium secure (n=36)	65.0 (10-183)	61.7
SCH welfare (n=22)	13.6 (3-35)	21.3
SCH mixed (n=58)	29.4 (4-852)	
SCH YJS (n=43)	25.0 (2-578)	26.1
STC (n=24)	36.1 (9-650)	15.6
YOI (n=469)	40.0 (2-927)	19.5
TOTAL (n=779)	36.6 (2-927)	

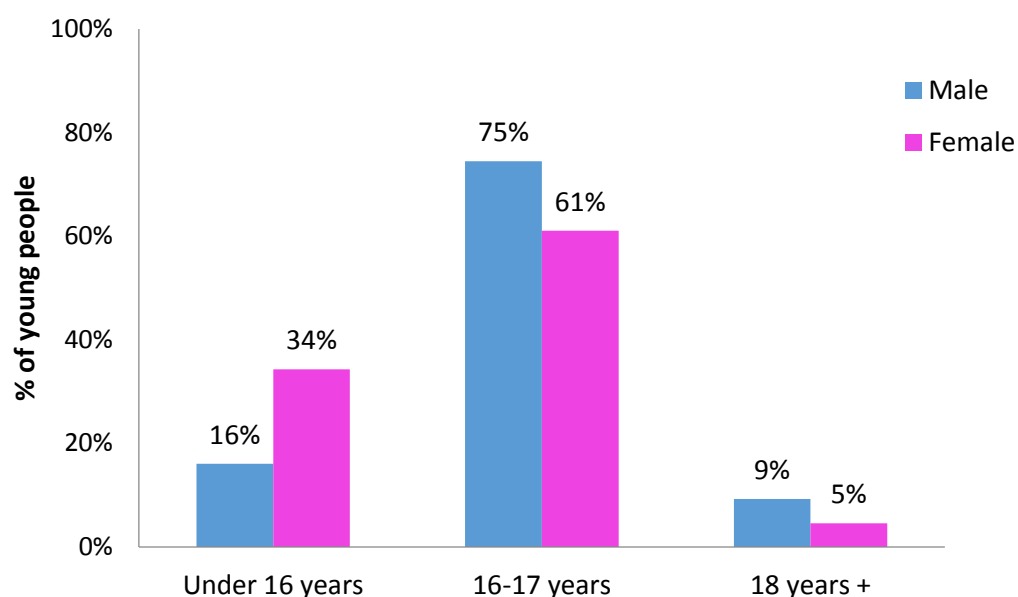
Notes: An estimated date of discharge was provided for 779 (59%) of the 1,322 young people. The estimated median total length of stay before release/discharge was, overall, 36.6 weeks (range 2-927). There was a statistical difference in estimated length of stays across the units (χ^2_8 68.61, $p = 0.004$), with the shortest length of stay estimated for those in welfare placements (13.6 weeks), HDUs (21.7 weeks) and PICUs (15.9 weeks) and longest in the low secure (49.6 weeks) and medium secure hospitals (65.0 weeks). The longest individual lengths of stay before release were estimated for young people serving sentences within the YJS.

Table 7. Reasons current placement was not the best place for the young person

	Secure hospital	SCH	STC	YOI
In appropriate place	195	135	92	42
Higher level of security				
Needs higher secure hospital	19			
Needs STC		1		
Lower level of security				
Needs open hospital ward	2			
Needs community placement	6	2		
Needs SCH	1		3	
Needs STC				1
Needs open prison				1
Specialist placement				
Needs hospital		3		2
Needs therapeutic community			1	3
Needs LD placement	1			
Needs ASD placement	1			2
Needs eating disorder placement	1			
Needs specialist sexually harmful behaviour (SHB) unit		1		
Needs Kepple unit (specialist unit in YOI)		1		
Needs somewhere else to meet their needs	1		1	
Referred				
Awaiting assessment for another placement			2	1
Referred but not accepted	1			
Needs adult unit	3		1	
TOTAL in inappropriate placement	36	8	8	10

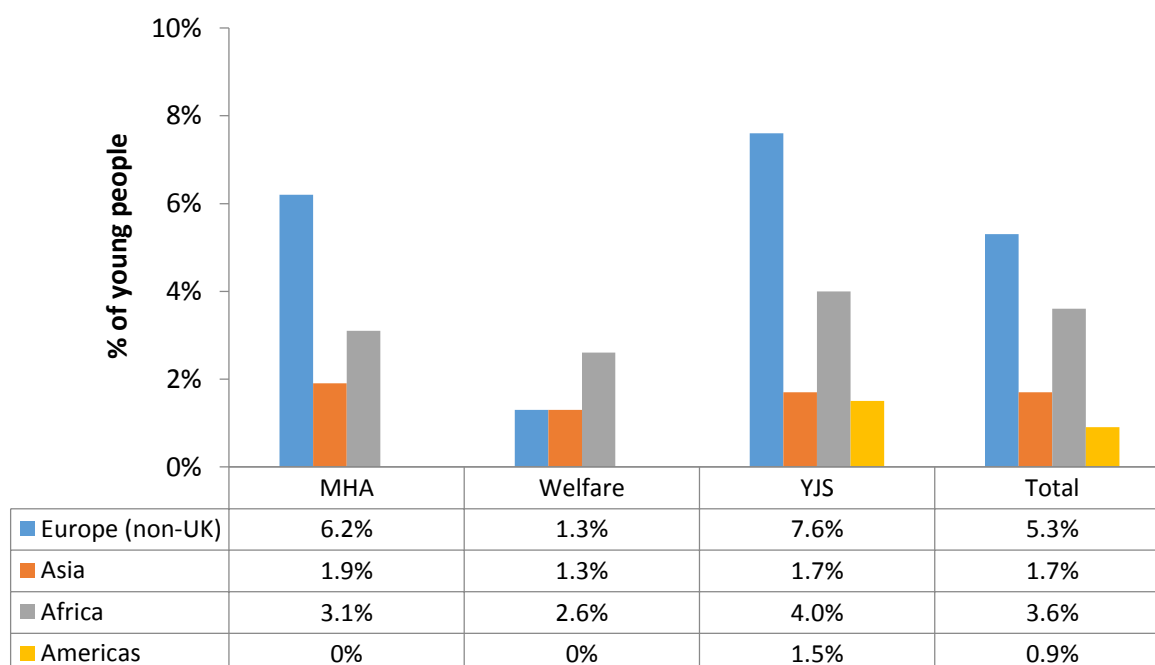
Notes: A question was asked about whether the current placement of the young person was the best place to meet their needs. This was asked as an opinion, a subjective view, of the person completing the questionnaire. If they considered that the current placement was not the best place for the young person, we asked why. There was a low response rate to this question, with only responses for 529 (40%) of the 1,322 young people in secure care on the census date.

Figure 1. Age and gender of young people detained in secure settings on 14 September 2016.



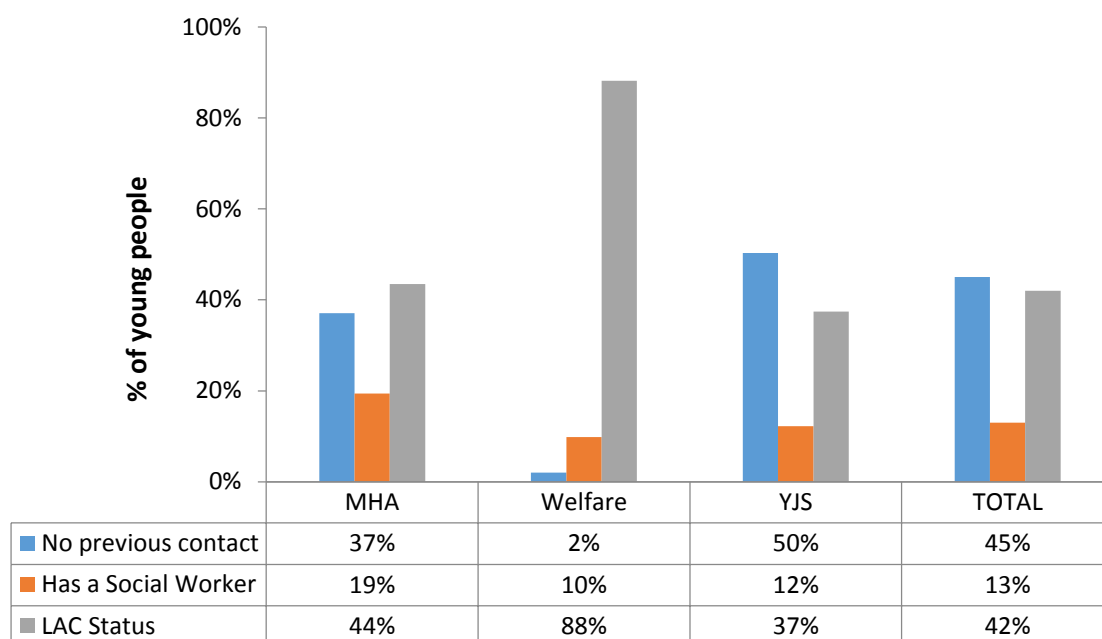
Notes: Data labels represent percentage values. Age and gender data was available for 1,138 (86%) of the 1,322 young people in secure care on the census date. Young women were more likely to be under 16 years old (OR = 2.72, 95% CI = 1.97, 3.74) and less likely to be 18 or over (OR = 0.47, 95% CI = 0.25, 0.89; overall comparison, χ^2_2 41.13, $p < 0.001$).

Figure 2. Legislation detaining young people who were born outside of the UK and detained in secure settings on 14 September 2016.



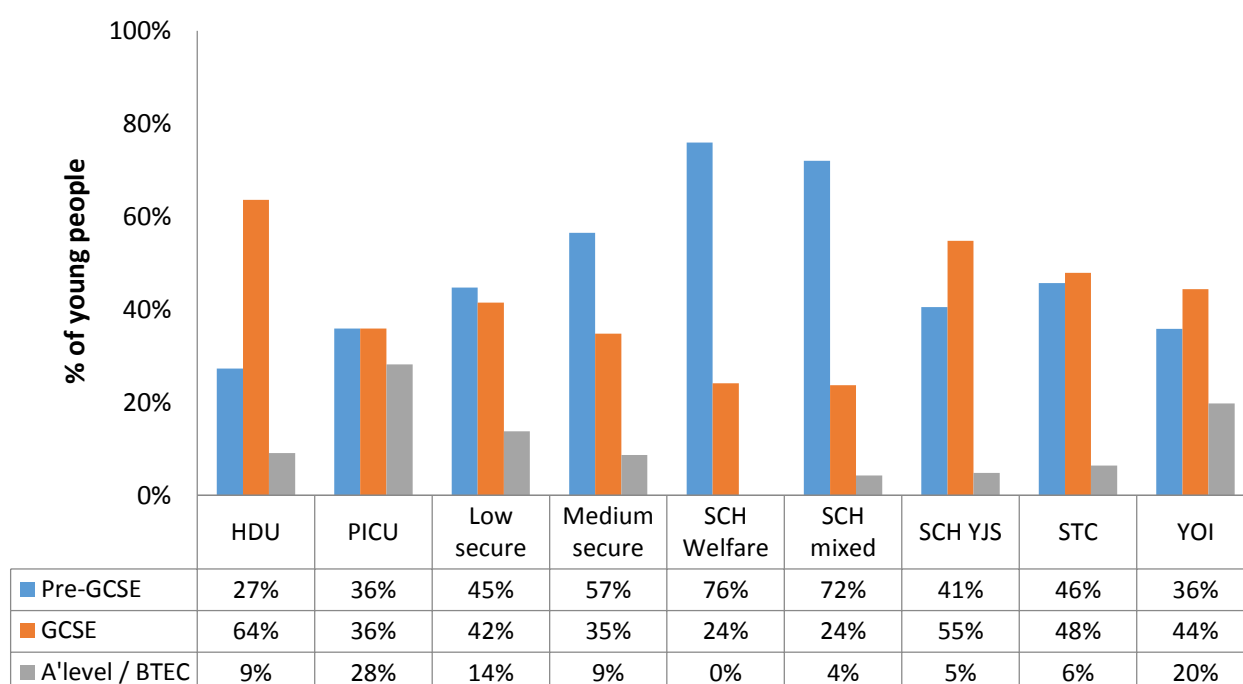
Notes: Information about country of origin was provided for 809 (61%) of the 1,322 young people detained in secure care with English funding. A higher percentage of young people in the YJS were recorded as being born in a foreign country (14.8%, compared to 5.3% on welfare placements (OR = 3.13, 95% CI = 1.11, 8.83) and 7.7% in hospitals (OR = 2.08, 95% CI = 1.24, 3.51); overall comparison, χ^2_2 11.55, $p = 0.003$).

Figure 3. Prior contact with social services according to legislative framework of secure placement.



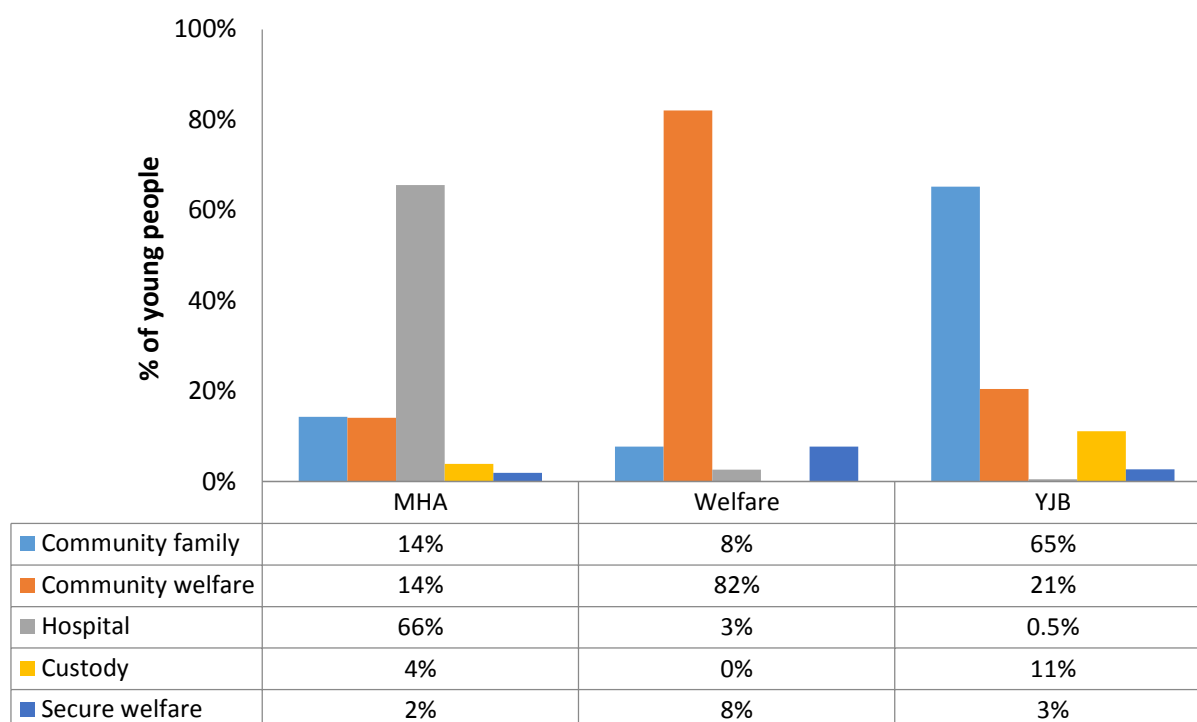
Notes: A total of 950 (72%) of a possible 1,322 questionnaire responses contained information about the young person's LAC status prior to their current secure placement. Across secure settings under the YJS, there were significant differences in levels of prior contact with social services ($\chi^2_4 27.48$, $p < 0.001$). More young people in SCH units were 'looked after' or had a social worker (59, 71.1%) than those in STCs (49, 56.3%; OR = 1.91, 95% CI = 1.01, 3.60) and those in YOIs (where less than half had any previous contact with social services; 254, 45.4%; OR = 2.95, 95% CI = 1.79, 4.88).

Figure 4. Educational attainment for young people in secure care in each unit.



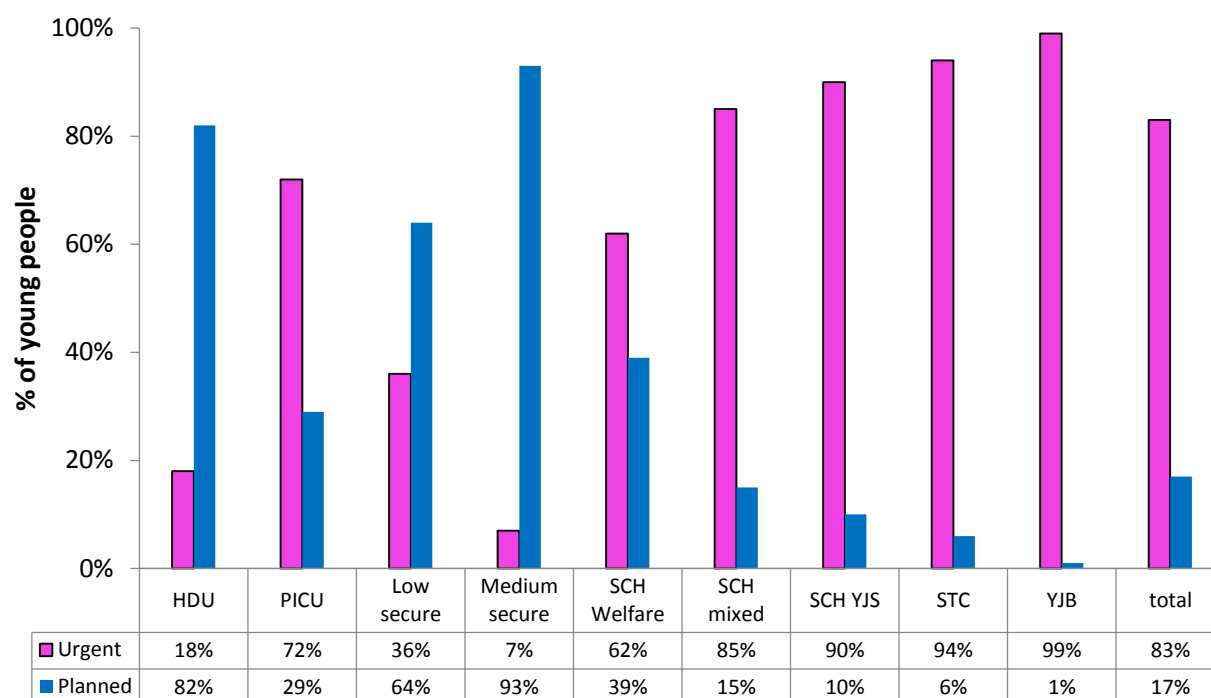
Notes: Data were available about educational level for 674 (51%) of 1,322 young people in secure care on the census date. In some cases, multiple boxes were ticked, for example GCSE and A' level; for the purposes of analysis, the highest level of attainment was taken. No young person on a welfare order was reported to be at A level standard compared to 47 (19%) from hospitals and 44 (12%) from YJS settings. More specifically, only 6 (4%) and 52 (32%) young people in SCHs were working at A-level and GCSE standards, respectively, reflecting their younger age (almost two-thirds, 65%, were 15 years or younger) compared with young people across other units (where 12% were aged 15 years or younger).

Figure 5. Differences in where young people detained under the different legislative frameworks were admitted from.



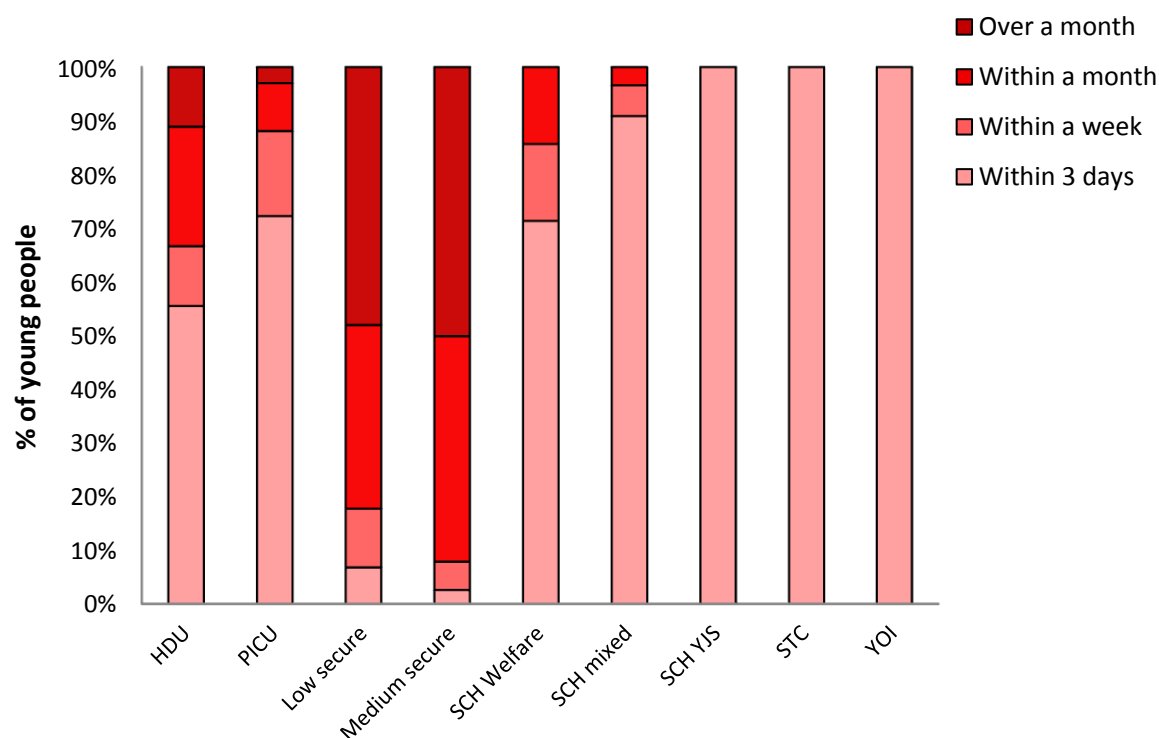
Notes: Data were available for 1,122 (90%) of the 1,322 young people in secure care on the census date. Community family refers to young people's home, independent accommodation and homeless or National Fostering Agency (NFA); community welfare includes foster homes, children's homes, supported accommodation, hospital includes open CAMHS, 136 suite, general hospital, secure CAMHS, adult prison, adult secure, and adult 136; custody refers to YOI, STC and police custody; and secure welfare refers to SCH. Differences in settings from which people were admitted according to legislative framework under which young people were placed was highly significant (χ^2_8 820.71, $p < 0.001$).

Figure 6. Proportion of planned and urgent placements across different secure care institutions for young people in secure care on the census date.



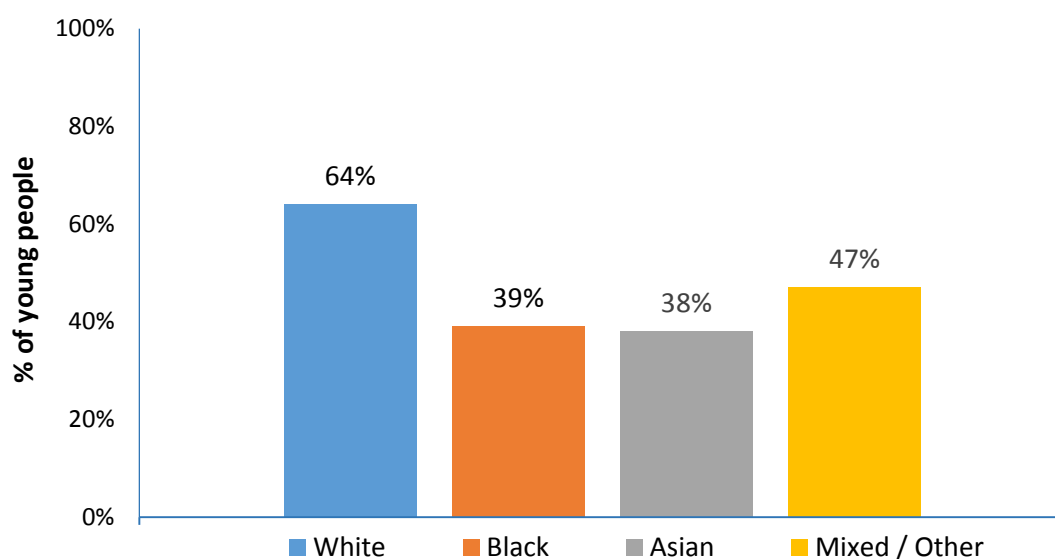
Notes: Placement urgency data were available for 1,109 (84%) of the 1,322 young people detained on 14 September 2016. There was a significant difference in urgency of placement for those detained under different types of legislation (χ^2_2 214.78, $p < 0.001$), with just over half (140, 56%) of those detained under the MHA having planned admissions compared to only a handful (92, 12%) of those detained under the YJS. There was more a mixed picture for those detained under The Children Act, with 41 (66%) considered to be urgent admissions and 21 (34%) being planned. Furthermore, within different types of hospitals there was a significant difference between whether the placement was urgent or planned (χ^2_3 61.22, $p < 0.001$), with the majority of low and medium secure hospital placements (60, 64% and 42, 93%, respectively) being planned compared to less than one third (29, 29%) of those in PICUs.

Figure 7. Time to taken to place for young people in secure care across different types of units.



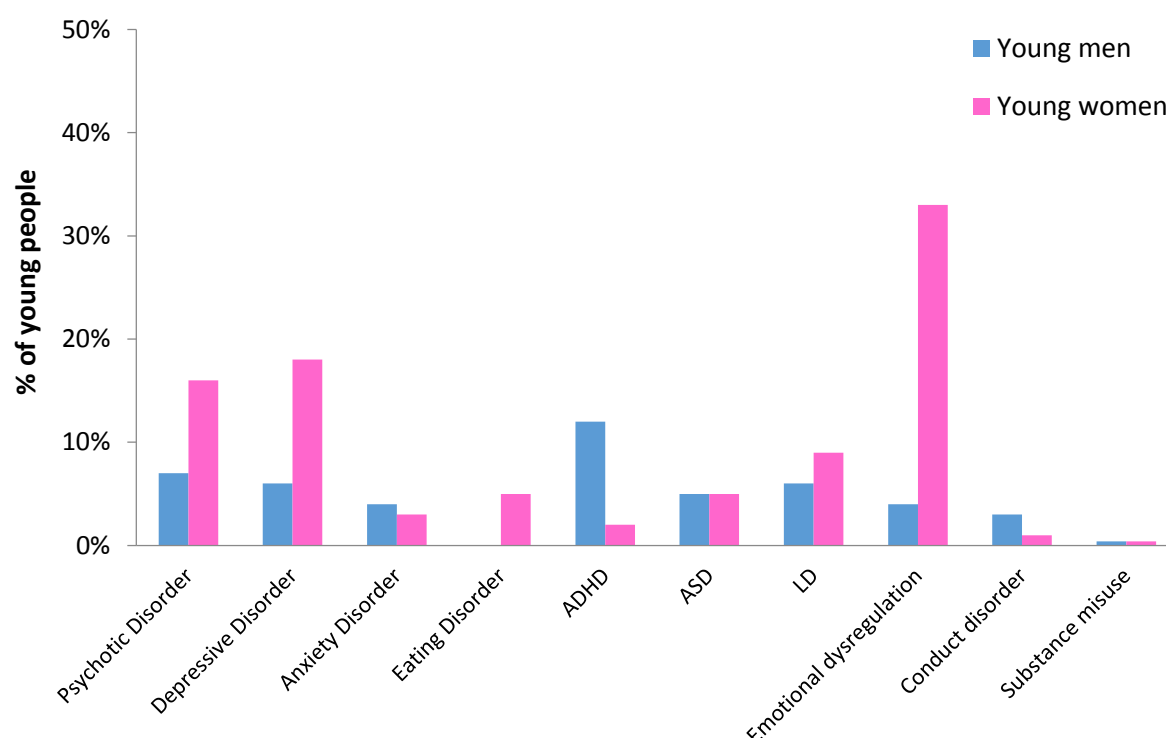
Notes: There were data on time to placement for 957 (72%) of the 1,322 young people in secure care on the census date. There was a statistical difference between legislative frameworks in the time taken to place young people in secure care (χ^2_2 485.23, $p < 0.001$). All of those detained under the YJS were placed within 3 days compared to only 44 (76%) of those detained under The Children Act and only 84 (38%) of those placed in hospital.

Figure 8. Proportion of young people in secure care with mental health and/or neurodevelopmental diagnoses/symptom clusters according to ethnic background.



Notes: Data labels represent percentage values. There were data concerning presence of mental health and/or neurodevelopmental diagnoses/symptom clusters and ethnicity for 981 (74%) of the 1,322 young people in secure care on the census date. There was a significant difference in the prevalence of mental health and/or neurodevelopmental diagnoses/symptom clusters within different ethnic groups (χ^2_3 49.65, $p < 0.001$), with higher rates in white young people rather than those within ethnic minorities.

Figure 9. Distribution of primary diagnoses by gender in young people in secure care.



Notes: There were data concerning the presence of mental health and/or neurodevelopmental diagnoses/symptom clusters and gender for 1,098 (83%) of the 1,322 young people in secure care on the census date. Young women were more likely to have a mental health or neurodevelopmental diagnoses/symptom cluster (219, 90%) than young men (399, 47%; χ^2_1 142.84, $p < 0.001$). There was also a different pattern of prevalence of primary diagnosis in young men and women. Most young men did not have a mental health or neurodevelopmental diagnosis, and for those with mental health needs, the most common disorder was ADHD (12%). In contrast, for young women, the most common primary diagnoses were emotional dysregulation (33%), depressive disorder (18%) and psychotic disorder (16%).

Supplementary analyses: distance from home for young people in secure care

Young people of age ≤ 15 years (115 of 191, 60%) were more likely to be placed out of home and neighbouring counties than those aged 16 to 17 (295 of 727, 41%) and 18 or older (23 of 70, 33%; $\chi^2_1 = 27.36$, $p < 0.001$). Additionally, young people of white ethnicity (320, 52%) were more likely to be placed out of home and neighbouring counties than persons of BME background (113, 32%; $\chi^2_1 = 34.35$, $p < 0.001$, OR = 2.25, 95% CI = 1.71, 2.96). After controlling for each other, and (YJS) legislative framework of placement and whether or not the unit was in London (both of which were linked with closer placements and related to age and/or ethnic background), the associations remained significant for white ethnicity ($p = 0.033$, OR = 1.41, 95% CI = 1.03, 1.94) and age group ($p = 0.029$, OR = 1.53, 95% CI = 1.05, 2.23). In separate analyses that did not consider YOIs, there was a trend for females (157, 63%) to be placed out of home and neighbouring counties more often than males (149, 55.0%; $\chi^2_1 = 3.71$, $p = 0.054$, OR = 1.41, 95% CI = 0.99, 2.01).

Supplementary analyses: Previous involvement of youth offending team

Information about previous contact with a YOT was available for 1,009 (76%) of the 1,322 young people in secure care on the census date. Within this group, approximately three quarters (733, 73%) had had contact with their local YOT prior to their secure placement. As expected, the highest prevalence of previous YOT contact was in the group of young people detained within the YJS, where 90% (657 of 731) had had such contact. There was also a high prevalence of previous YOT contact amongst those on welfare placements (58%; 33 of 57), compared to only 18% (40 of 218) of those detained under the MHA ($\chi^2_{22} 438.08$, $p < 0.001$). This suggests that young people who require secure care due to mental health problems that warrant hospitalisation are least likely to have previous contact with the YJS.

Unsurprisingly, as only 32 young people in the YJS were female, there was a highly significant difference between the likelihood of young men or women having previous contact with their local YOT ($\chi^2_1 291.47$, $p < 0.001$). The majority (155, 74%) of young females had not had previous contact with their local YOT compared to the vast majority (671, 85%) of young men who had had contact with their local YOT. There was also a significant difference in the proportions of young people who have had previous contact with their local YOT within the different ethnic groups ($\chi^2_3 28.72$, $p < 0.001$), with more of those from black (132, 84%) and mixed/other groups (102, 84%) having such contact compared to those from white (395, 66%) or Asian (31, 66%) ethnic backgrounds.

Supplementary analyses: previous secure placements of young people in secure care

When investigating previous secure placements within this service evaluation, we considered whether a young person had previously been in a secure hospital, SCH, STC, or YOI. Data were available on this matter for 1,149 (87%) of the 1,322 young people in secure care on the census date, and more specifically, 814 (96%) of the 847 people with one or more known previous placements. Unfortunately, we were unable to include data relating to police custody or immigration detention centres. However, in the process of completing this census, it became clear that some young people had previously been placed in an immigration removal centre.

In total, 550 (48%) young people had previously been placed in secure accommodation. This includes more than half (151, 56%) of those detained under mental health legislation on the census date, just under half of those detained in the YJS (377, 47%), and a smaller number (22, 27%) of young people in welfare placements. There were significantly fewer young people in secure welfare placements who had had a previous secure placement ($\chi^2_2 22.41$, $p < 0.001$).

Of note, a slim majority of young people in secure hospitals (52%) and YJS settings (60%) had had a secure placement under the same legislation, while just under a quarter (23%) of those on welfare placements had previously been placed in a SCH. There was a close association between number of previous placements and having a previous secure placement ($\chi^2_3 15.57$ $p < 0.001$). More than three-quarters (42, 78%) of those who had 10 or more previous placements had also had a previous secure placement, whereas two-thirds (384, 67%) of those with one to nine

placements had a previous secure placement. For a quarter of those who have had a previous secure placement (105, 25%), that placement had been their only other placement outside of the family home.

Supplementary analyses: address ready for release/discharge

Information concerning an address for release/discharge was available for 840 (64%) of the 1,322 young people in secure care on the census date. For those with information available, a small majority (480, 57%) had an address ready for when they returned to the community. Of note, 39 (5%) were due to move to another adult establishment prior to moving into the community, of which only seven (1%) had an address for release.

There was a statistical difference (χ^2_2 50.11, $p < 0.001$) in placement planning for those detained under different legislation, with fewer of those in welfare placements (23, 28%) having an address for release/discharge compared to those in hospital (127, 50%) or detained under the YJS (330, 68.8%). Within YJS placements, more young people in YOIs (220, 72%) had an address ready for release than did those in STCs (62, 60%) or SCHs (48, 52%; χ^2_2 14.40, $p < 0.001$). There was also a statistical difference (χ^2_1 30.96, $p < 0.001$) in placement planning between the genders, with fewer females (105, 43%) having a placement ready for /release/discharge than their male counterparts (372, 64%); this may be unsurprising as there are proportionally more females in welfare placements than males. Of note, there were no significant differences in having an address for release/discharge between females and males within hospital placements (79, 48% versus 47, 55%; $p = 0.248$) or within welfare placements (14, 28% versus 9, 28%; $p = 0.990$).

6 References

- Bailey, S., Thornton, L., & Weaver, A. (1994). The first 100 admissions to an adolescent secure unit. *Journal of Adolescence*, 17(3), 207-220. Abstract available at: <https://www.sciencedirect.com/science/article/pii/S0140197184710219>
- Bernstein, D. P., Cohen, P., Velez, C. N., Schwab-Stone, M., Siever, L. J., & Shinsato, L. (1993). Prevalence and stability of the DSM-III-R personality disorders in a community-based survey of adolescents. *American Journal of Psychiatry*, 150, 1237-1243. Abstract available at: <https://ajp.psychiatryonline.org/doi/pdf/10.1176/ajp.150.8.1237>
- Brooks, F., Magnusson, J., Klemara, E., Spencer, N., & Morgan, A. (2015). *Health Behaviour in School Aged Children, England national report*. Hatfield: University of Hertfordshire. Retrieved from: [http://researchprofiles.herts.ac.uk/portal/en/publications/hbsc-england-national-report-health-behaviour-in-schoolaged-children-hbsc\(8308a2b1-2599-4bc0-92df-5cdf8483c9d8\)/export.html](http://researchprofiles.herts.ac.uk/portal/en/publications/hbsc-england-national-report-health-behaviour-in-schoolaged-children-hbsc(8308a2b1-2599-4bc0-92df-5cdf8483c9d8)/export.html)
- Bulman, M. (2017). Young offenders deprived of psychology services amid 'epidemic' of mental health problems in prisons. *Independent*. Retrieved from <http://www.independent.co.uk/news/uk/home-news/young-offenders-mental-health-crisis-prisons-children-custody-deprived-psychology-services-epidemic-a8098286.html>
- Corston, J. (2006). *A Report by Baroness Jean Corston of a Review of Women with Particular Vulnerabilities in the Criminal Justice System*. London: Home Office. Retrieved from: <http://criminaljusticealliance.org/wp-content/uploads/2017/07/Corston-report-2007.pdf>
- Couriel, J. (2003). Asthma in adolescence. *Paediatric respiratory reviews*, 4(1), 47-54.
- Defence for Children International. (2016). *Practical guide: Monitoring places where children are deprived of liberty*. Belgium: Defence for Children International (DCI) Retrieved from: <https://defenceforchildren.org/wp-content/uploads/2016/02/DCI-Practical-GuideEN.pdf>
- Department for Education. (2017). *Children looked after in England (including adoption), year ending 31 March 2017*. London: Department for Education. Retrieved from: <https://www.gov.uk/government/statistics/children-looked-after-in-england-including-adoption-2016-to-2017>
- Diabetes UK. (2014). *Diabetes: Facts and stats*. London: Diabetes UK. Available at: <https://www.diabetes.org.uk/resources-s3/2017-11/diabetes-key-stats-guidelines-april2014.pdf>
- Hagell, A., Coleman, J., & Brooks, F. (2015). Key data on adolescence 2015. *London: Association for Young People's Health*. Retrieved from: <http://www.youngpeopleshealth.org.uk/wp-content/uploads/2015/09/KeyData2015.pdf>
- Hansard, H. o. C. (Producer). (2018, February 2018). Mental Health in Prisons Retrieved from <https://hansard.parliament.uk/commons/2018-01->

- Harris, T. (2015). Changing prisons, saving lives: Report of the independent review into self-inflicted deaths in custody of 18-24 year olds (the Harris Review). Retrieved from: <http://iapdeathsincustody.independent.gov.uk/wp-content/uploads/2015/07/Harris-Review-Report2.pdf>
- Hart, D. (2015). Correction or care? The use of custody for children in trouble. Retrieved from: <https://www.wcmt.org.uk/sites/default/files/report-documents/Hart%20Diane%20Report%202015%20Final.pdf>
- Hill, S., Argent, S., Lolley, J., & Wallington, F. (2016). Characteristics of male patients admitted to an adolescent secure forensic psychiatric hospital. *The Journal of Forensic Psychiatry & Psychology*, 27(1), 21-37. Abstract available at: <https://www.tandfonline.com/doi/full/10.1080/14789949.2015.1094117?scroll=top&needAccess=true>
- Hill, S., Brodrick, P., Doherty, A., Lolley, J., Wallington, F., & White, O. (2014). Characteristics of female patients admitted to an adolescent secure forensic psychiatric hospital. *The Journal of Forensic Psychiatry & Psychology*, 25(5), 503-519. Abstract available at: <https://www.tandfonline.com/doi/full/10.1080/14789949.2014.933863>
- House of Commons Justice Committee. (2017). *Government Response to the Justice Committee's Seventh Report of Session 2016-2017: The treatment of young adults in the criminal justice system*. London: House of Commons. Retrieved from: <https://www.parliament.uk/documents/commons-committees/Justice/treatment-of-young-adults-govt-response.pdf>
- Joint Epilepsy Council of the UK and Ireland. (2011). *Epilepsy prevalence, incidence and other statistics*. Leeds: JEC. Retrieved from: [http://www.epilepsyscotland.org.uk/pdf/Joint_Epilepsy_Council_Prevalence_and_Incidence_September_11_\(3\).pdf](http://www.epilepsyscotland.org.uk/pdf/Joint_Epilepsy_Council_Prevalence_and_Incidence_September_11_(3).pdf)
- Khan, L. (2010). Reaching out, reaching in: Promoting mental health and emotional well-being in secure settings. *London: Centre for Mental Health*, 16-18. Retrieved from: <https://www.centreformentalhealth.org.uk/Handlers/Download.ashx?IDMF=2257640f-f2a3-4afd-a796-d8a03fe6f252>
- Lammy, D. (2016). An independent review of the treatment of, and outcomes for, Black, Asian and Minority Ethnic (BAME) individuals in the Criminal Justice System (CJS). Retrieved from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/643001/lammy-review-final-report.pdf
- Lewinsohn, P. M., Rohde, P., Seeley, J. R., & Klein, D. N. (1997). Axis II psychopathology as a function of Axis I disorders in childhood and adolescence. *Journal of the American Academy of Child & Adolescent Psychiatry*, 36(12), 1752-1759. Abstract available at: [https://jaacap.org/article/S0890-8567\(09\)62717-9/pdf](https://jaacap.org/article/S0890-8567(09)62717-9/pdf)
- Livanou, M. I., Furtado, V., & Singh, S. P. (2017). Mentally disordered young offenders in transition from child and adolescent to adult mental health services across England and Wales. *Journal of Forensic Practice*, 19(4), 301-308.

Abstract available at: <https://www.emeraldinsight.com/doi/pdfplus/10.1108/JFP-01-2017-0002>

Ministry of Justice and Youth Justice Board. (2017). *Youth Justice Statistics: 2016 - 2017 supplementary tables*. (Vol. Chapter 7, Table 7.3). London: Ministry of Justice. Available at: <https://yjresourcehub.uk/our-community/resources-for-sharing/item/410-youth-justice-sta>

Narey, M. (2016). Residential care in England: report of Sir Martin Narey's independent review of children's residential care: July 2016. Retrieved from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/534560/Residential-Care-in-England-Sir-Martin-Narey-July-2016.pdf

Office for Disability Issues. (2011). *Life Opportunities Survey, Wave one results, 2009/11*. London: Office for Disability Issues. Retrieved from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/180891/los_wave_one_200911.pdf

Robinson, C. (2013). *Women's custodial estate review*. London: NOMS. Retrieved from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/252851/womens-custodial-estate-review.pdf

Royal College of Paediatrics and Child Health. (2013). *Healthcare standards for children and young people in secure settings*. UK: Royal College of Paediatrics and Child Health (RCPCH). Retrieved from: https://www.rcpch.ac.uk/sites/default/files/2018-03/healthcare_standards_for_children_and_young_people_in_secure_settings_june_2013.pdf

Souverein, F., Van der Helm, G., & Stams, G. (2013). 'Nothing works' in secure residential youth care? *Children and Youth Services Review*, 35(12), 1941-1945. Available at: http://www.academia.edu/25422790/Nothing_works_in_secure_residential_youth_care

Stein, M. (2017). We're failing our young people on mental health provision. *Guardian*. Retrieved from: <https://www.theguardian.com/society/2017/aug/06/were-failing-our-young-people-on-mental-health-provision>

Taylor, C. (2016). *Review of the youth justice system in England and Wales*. London: Her Majesty's Stationery Office: Youth Justice Board. Retrieved from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/577105/youth-justice-review-final-report-print.pdf

The Howard League for Penal Reform. (2007). *Judging maturity: Exploring the role of maturity in the sentencing of young adults*. London: The Howard League for Penal Reform. Retrieved from: <https://howardleague.org/wp-content/uploads/2017/07/Judging-maturity.pdf>

The Howard League for Penal Reform. (2016). *Criminal Care: Children's homes are criminalising children*. London: The Howard League for Penal Reform. <https://howardleague.org/wp-content/uploads/2016/02/Criminal-Care.pdf>

- Warner, L., Hales, H., Smith, J. G., & Bartlett, A. (2018). *Secure settings for young people; a national scoping exercise*. Central and North West London NHS Foundation Trust. London.
- Wheatley, M., Waine, J., Spence, K., & Hollin, C. R. (2004). Characteristics of 80 adolescents referred for secure inpatient care. *Clinical Psychology & Psychotherapy*, 11(2), 83-89. Abstract available at: <https://onlinelibrary.wiley.com/doi/pdf/10.1002/cpp.398>