Children's COMMISSIONER

Who are they? Where are they? 2020

Children in tier 4 mental health units
Technical report

November 2020

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Introduction

This analysis examines 4 data extracts covering children in inpatient mental health wards (hereafter 'tier 4 units') during 2019/20. This data has been provided by the NHS based on data taken from their 'Specialised Mental Health' - Patient Level Dataset. These 4 extracts cover:

1. All admissions of children to tier 4 units during 2019/20
2. Children in a tier 4 unit on 31st March 2020
3. All discharges from tier 4 beds during 2019/20
4. Admissions to tier 4 wards during 2019/20 where the child had a previous discharge within the same financial year

The analysis below examines the numbers and characteristics of the children covered by these extracts. It also examines whether particular groups of children (based on age, gender and ethnicity) are equally reflected at different stages of the tier 4 system. Specifically we examine whether there are disparities in:

- Where children are admitted to these units from
- The type of unit children are admitted to
- The legal basis under which they are in these units
- Their distance from home
- How long they are in these units for
- Where they are discharged to
- Whether they are readmitted within the same financial year

To do this we first examine if there are univariate differences on the above outcomes between different age groups/genders/ethnicity. Where possible, we then test if these differences remain significant once we take into account other factors that are likely to influence the above outcomes.

Key findings

- At 31st March 2020 there were 944 children in a bed in a tier 4 unit in England. The majority of these (54%) were girls aged 15-17. 25% of children (237) are detained in a secure unit.
- Over 1 in 5 children are in units that are more than 50 miles from their last known home postcode. 7% are in units more than 100 miles away.
- Children in secure units are notably more likely to be placed more than 50 miles from their last known home postcode. Even after accounting for other factors in this dataset, these children are 77% more likely to be detained more than 50 miles from home.
- Just over a third of children discharged from a tier 4 unit during 2019/20 had been there for more than 3 months (90 days). Around 160 children discharged during the year had been in the unit for more than 1 year.
- Even after accounting for other factors, children aged under 15 discharged during 2019/20 were 20% more likely to have been in a tier 4 unit for over 3 months.
- Boys are slightly more likely than girls to be discharged to their permanent (or a temporary) place of residence). Girls on the other hand are slightly more likely to be discharged to a subsequent medical institution, with 1 in 5 being discharged to a hospital or subsequent mental health ward (compared to 15% of boys).
- Girls over-represent amongst readmissions to tier 4 wards during 2019/20, accounting for 80% of readmissions compared to 74% of discharges during the year.

Children in tier 4 beds at 31st March 2020

At 31st March 2020 there were 944 children in a bed in a tier 4 unit. Table 1 below demonstrates the demographic characteristics of this sample of children. It shows that overall 75% of children in these beds are female and 54% are girls aged 15-17. Appendix A provides further information on differences in diagnosis types and mental health act statuses amongst these children.

Table 1: Demographic characteristics of children in tier 4 beds at 31st March 2020[1]

Demographic	Characteristic	Number of children	%
Gender	Female	710	75
	Indeterminate[2]	20	2
	Male	215	23
Age group	12-14	230	24
	15-17	685	72
	Not known	15	2
	Under 12	15	2
Gender + age	Female 12-14	185	20
	Female 15-17	510	54
	Female Not known	5	1
	Female Under 12	5	1
	Indeterminate 12-14	*	*
	Indeterminate 15-17	15	1
	Indeterminate Not known	*	*
	Male 12-14	40	4
	Male 15-17	160	17
	Male Not known	5	1
	Male Under 12	10	1
Ethnicity	Asian or Asian British	55	6
	Black or Black British	50	5
	Missing[3]	75	8
	Mixed	45	5
	Other Ethnic Groups	25	2
	White	695	73
High level diagnosis category (ICD-10 based)[4]	Eating disorders	190	20
	Schizophrenia, schizotypal and delusional disorders	40	4

[1] Note: For disclosure reasons, counts of children in all tables in this report have been rounded to the nearest five and any counts between 1 and 5 have been replaced with a *. Rows will therefore not always add up to the total. Percentages have been calculated based on the unrounded numbers.
[2] This is the term the NHS data uses to refer to children who neither identify as male or female.
[3] Throughout this report 'missing' refers to instances where data are not recorded rather than children who have gone missing
[4] Note: categories are all high level ICD-10 codes (for example F1, F2 etc) with the exception of 'Eating disorders' which contains ICD codes F50.0 through F50.9. This exception is due to the high frequency of these eating disorder codes in the data set.

Demographic	Characteristic	Number of children	%
	Mood [affective] disorders	80	8
	Neurotic, stress-related and somatoform disorders	95	10
	Disorders of adult personality and behaviour	25	3
	Disorders of psychological development	40	4
	Behavioural and emotional disorders with onset usually occurring in childhood and adolescence	80	8
	Missing	360	38
	Other	35	3

These children are spread across 94 tier 4 units nationally. These units incorporate general adolescent units, psychiatric intensive care (PICU) units, low and medium secure units and specialist autism, learning disabilities and deaf child units (Table 2). They range in size from less than 5 children to 51 children in the largest unit at a point in time.

Table 2: Tier 4 units with at least 1 child in a bed at 31st March 2020

Unit type	Number of units	% of units
General Adolescent Inc. Eating Disorders	61	65
PICU	12	13
Medium Secure	6	6
Low Secure	9	10
LD	4	4
ASD	1	1
Deaf Child	1	1

Are there disparities in the type of unit children are in?

Most commonly children are held in general adolescent wards. At 31st March 2020 687 (73% of children in tier 4 units) were in a General Adolescent ward. Around 25% of children were held in psychiatric intensive care units (PICU) or medium/low secure units (equivalent to 237 children).

Table 3: Numbers of children in Tier 4 wards at 31st March 2020 by type of unit

Unit type	Count	%
General Adolescent Inc. Eating Disorders	685	73
Low Secure	105	11
PICU	95	10
Medium Secure	35	4
LD	15	2
ASD	*	*
Deaf Child	*	*

Girls over-represent amongst those in General adolescent wards compared to boys. 77% of girls in tier 4 units are in General Adolescent wards compared to 61% of boys. Boys on the other hand are notably more likely to be held in secure units; just over 1 in 3 boys at the 31st March are held in PICU or low/medium secure units compared to 1 in 5 girls (Table 4).

Table 4: Children in tier 4 units by unit type and gender. Note: excludes 19 children where gender recorded as indeterminate

Unit type	Female	Male
ASD	*	*
Deaf Child	*	0 (0)
General Adolescent Inc. Eating Disorders	77% (545)	61% (130)
LD	1% (5)	5% (10)
Low Secure	12% (85)	7% (15)
Medium Secure	1% (5)	13% (30)
PICU	9% (65)	14% (30)

There are smaller correlations with age though older children are more likely to be in medium secure and PICU units than younger. Children aged 15-17 are around 50% more likely to be in either a medium secure unit or a PICU unit than children aged 12-14 (Table 5).

Table 5: Children in tier 4 units by unit type and age group at admission. Note: excludes 14 children where their age is unknown

Unit type	**Under 12**	**12-14**	**15-17**
ASD	0 (0)	*	*
Deaf Child	0 (0)	0 (0)	*
General Adolescent Inc. Eating Disorders	81% (15)	75% (175)	71% (485)
LD	*	2% (5)	1% (10)
Low Secure	*	12% (25)	11% (80)
Medium Secure	0 (0)	2% (5)	4% (30)
PICU	0 (0)	8% (20)	11% (75)

Table 6 demonstrates that gender differences are most pronounced amongst older age groups. For example 76% (390) of girls aged 15-17 are in general adolescent wards compared to 56% (89) of boys aged 15-17.

Table 6: Children in tier 4 units by unit type, gender and age

Unit type	Male Under 12	Male 12-14	Male 15-17	Female Under 12	Female 12-14	Female 15-17
ASD	0 (0)	*	0 (0)	0 (0)	0 (0)	*
Deaf Child	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	*
General Adolescent Inc. Eating Disorders	70% (5)	71% (30)	56% (90)	100% (5)	76% (140)	76% (390)
LD	*	*	4% (5)	0 (0)	*	*
Low Secure	*	*	8% (10)	0 (0)	13% (25)	12% (60)
Medium Secure	0 (0)	*	16% (25)	0 (0)	*	1% (5)
PICU	0 (0)	*	16% (25)	0 (0)	8% (15)	10% (50)

Black children who are in a tier 4 setting are more likely to be held in secure units than their White peers and less likely to be held in general adolescent wards. Just under 1 in 2 Black or Black British children are held in secure units compared to 1 in 4 White children (Table 7).

Table 7: Children in tier 4 units by unit type and ethnicity

Unit type	White	Asian or Asian British	Black or Black British	Missing	Mixed	Other Ethnic Groups
ASD	*	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Deaf Child	*	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
General Adolescent Inc. Eating Disorders	74% (515)	80% (45)	51% (25)	75% (60)	73% (30)	65% (15)
LD	1% (10)	*	0 (0)	*	*	0 (0)
Low Secure	12% (85)	*	12% (5)	12% (10)	*	*
Medium Secure	2% (15)	*	18% (10)	*	*	*
PICU	10% (70)	9% (5)	18% (10)	9% (5)	*	*

Table 8 below demonstrates that after controlling for differences by admission source, MHA status and high level ICD diagnosis type, differences by gender and ethnicity become non-significant[5]. This suggests the differences in the tables above are explained by differences in these control factors.

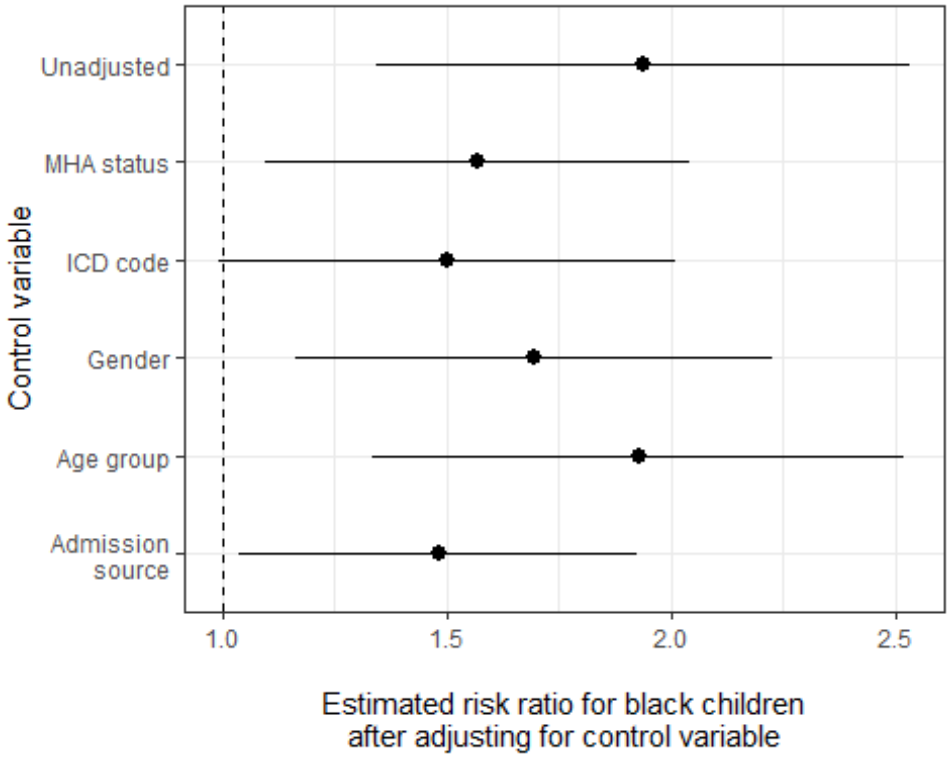
*Table 8: Risk ratios for being in a low/medium secure or PICU unit for gender, ethnicity and age group. Ratios are presented as univariate correlations (left hand column) and after adjusting for diagnosis, admission source and MHA status (right hand column). Note: ** = p value < 0.05, * = p value <0.1*

Variable	Level	Unadjusted risk ratio	Adjusted risk ratio
Age (ref = 15-17)	Under 15	0.8	1.03
Ethnicity (ref = White)	Asian or Asian British	0.67	0.79
	Black or Black British	1.94**	1.28
	Missing	0.66	0.74
	Mixed	0.8	0.76
	Other Ethnic Groups	1.26	1.11
Gender (ref = Female)	Male	1.52**	1.31

Table 8 also demonstrates that the largest change in these risk ratios is for black children after adjusting for the factors listed above. Figure 1 below suggests it is a combination of factors that account for this change but suggests the biggest fall is due to differences by MHA status, high level diagnosis code and admission source.

Figure 1: Plot of estimated risk ratios (dot) and 95% confidence intervals (horizontal lines) for the risk ratio of Black children being in a secure unit compared to White children after controlling (individually) for each control variable included in our model

[5] Risk ratios show the percentage differences between the proportions experiencing an outcome anfd those not. For example a risk ratio of 1.5 for children aged under 15 in this table would indicate children age under 15 are 1.5 times (or 50%) more likely to experience the outcome in question than those aged 15-17. Unadjusted risk ratios refer to these differences before correlations with other factors in the model are taken into account, adjusted ratios show the difference after we account for these factors. These risk ratios are calculated via a poisson regression as detailed in Zou 2004. Standard errors are calculated via the delta method.



Are there disparities in the legal basis under which children are admitted (their Mental Health Act status)?

Children are most commonly admitted either under section 3 of the mental health act or informally. These represent 39% and 31% of those in tier 4 wards at 31st March 2020 respectively (Table 9). Overall, 60% of children in tier 4 wards at the 31st March 2020 (equivalent to 545 children) are detained under a section of the mental health act.

Table 9: Numbers of children in tier 4 units by Mental health act status

Mental health act status	Count	%
Section 3	370	39
Informal	295	31
Section 2	140	15
Missing[6]	105	11
Section 37/47/48	15	1
Section 5	15	1
Section 136	*	*
Other acts	*	*

Table 10 demonstrates there are comparatively few differences by gender in the MHA status of children in tier 4 wards at 31st March 2020. Boys are more likely to be held under criminal justice related sections of the Act (sections 37/47/48) though numbers are small. They are also slightly more likely to be held under Section 2 (detention for assessment) though the scale of this difference is again small (18% compared to 14% amongst girls).

[6] Note: throughout tables relating to children's MHA status, missing refers to those record as 'Not known', 'Not applicable' and where no value was entered.

Table 10: Children in tier 4 wards by gender and MHA status. Note: table excludes children recorded as having indeterminate gender

Mental health act status	Female	Male
Informal	33% (235)	27% (60)
Missing	11% (75)	9% (20)
Other acts	0 (0)	*
Section 136	*	*
Section 2	14% (100)	18% (40)
Section 3	40% (280)	38% (80)
Section 37/47/48	*	6% (10)
Section 5	2% (10)	*

There are larger differences by children's age group. Table 11 demonstrates that younger children are more likely to be held under an informal MHA status, whereas children aged 15-17 are more likely to be detained for assessment and under criminal justice related sections of the Act.

Table 11: Children in tier 4 wards by age group and Mental Health Act status. Note: table excludes children recorded as having unknown age

Mental health act status	Under 12	12-14	15-17
Informal	62% (10)	42% (95)	28% (190)
Missing	*	10% (20)	10% (65)
Other acts	0 (0)	0 (0)	*
Section 136	0 (0)	*	*
Section 2	*	10% (25)	17% (120)
Section 3	*	36% (85)	42% (285)
Section 37/47/48	0 (0)	0 (0)	2% (15)
Section 5	0 (0)	*	2% (10)

Table 12 demonstrates how this varies by combined age and gender.

Table 12: Children in tier 4 wards by age group, gender and Mental health act status. Note: table excludes children recorded as having unknown age or indeterminate gender

Mental health act status	Male Under 12	Male 12-14	Male 15-17	Female Under 12	Female 12-14	Female 15-17
Informal	60% (5)	50% (20)	20% (30)	*	40% (75)	30% (155)
Missing	*	*	6% (10)	*	10% (20)	10% (50)
Other acts	0 (0)	0 (0)	*	0 (0)	0 (0)	0 (0)
Section 136	0 (0)	0 (0)	*	0 (0)	*	*
Section 2	0 (0)	*	23% (35)	*	11% (20)	16% (80)
Section 3	*	31% (15)	41% (65)	0 (0)	38% (70)	42% (210)
Section 37/47/48	0 (0)	0 (0)	8% (10)	0 (0)	0 (0)	*
Section 5	0 (0)	*	0 (0)	0 (0)	*	2% (10)

Black children in tier 4 units are more likely to be detained for assessment (section 2) than other ethnicities and are notably less likely to be held informally. Table 13 demonstrates that rates of children detained for assessment are roughly twice as high amongst Black children compared to their White peers. Around 1 in 10 of these children are admitted informally compared to 1 in 3 White children.

Table 13: Children in tier 4 wards by ethnicity and Mental health act status. Note: table excludes children recorded as missing ethnicity

Mental health act status	White	Asian or Asian British	Black or Black British	Mixed	Other Ethnic Groups
Informal	33% (230)	36% (20)	10% (5)	32% (15)	26% (5)
Missing	11% (75)	11% (5)	*	*	0 (0)
Other acts	0 (0)	0 (0)	*	0 (0)	0 (0)
Section 136	*	0 (0)	*	*	0 (0)
Section 2	13% (90)	14% (10)	33% (15)	20% (10)	*
Section 3	41% (285)	34% (20)	31% (15)	32% (15)	56% (15)
Section 37/47/48	*	*	*	*	*
Section 5	1% (10)	0 (0)	*	0 (0)	0 (0)

Table 14 demonstrates that even after controlling for diagnosis code, admission type and other demographics, younger children are around 20% less likely to be held under section 2/3 compared to children aged 15-17.

*Table 14: Risk ratios for being detained under section 2 or 3 of the mental health act compared to being admitted informally by gender, ethnicity and age group. Ratios are presented as univariate correlations (left hand column) and after adjusting for all demographics, diagnosis and admission source (right hand column). Note: ** = p value < 0.05, * = p value <0.1*

Variable	Level	Unadjusted risk ratio	Adjusted risk ratio
Age (ref = 15-17)	Under 15	0.75**	0.78**
Ethnicity (ref = White)	Asian or Asian British	0.92	0.99
	Black or Black British	1.38*	1.17
	Missing	0.96	0.92
	Mixed	0.99	1.07
	Other Ethnic Groups	1.16	1.18
Gender (ref = Female)	Male	1.08	1.05

Table 15 demonstrates that even once we control for other factors, Black children remain around twice as likely to be detained for assessment rather than treatment compared to their white peers.

*Table 15: Risk ratios for being detained under section 2 (for assessment) of the mental health act compared to being detained under section 3 (for treatment) by gender, ethnicity and age group. Ratios are presented as univariate correlations (left hand column) and after adjusting for all demographics, diagnosis and admission source (right hand column). Note: ** = p value < 0.05, * = p value <0.1*

Variable	Level	Unadjusted risk ratio	Adjusted risk ratio
Age (ref = 15-17)	Under 15	0.73	0.73
Ethnicity (ref = White)	Asian or Asian British	1.21	0.97
	Black or Black British	2.1**	2**
	Missing	1.73*	1.5
	Mixed	1.59	1.49
	Other Ethnic Groups	0.76	0.48
Gender (ref = Female)	Male	1.24	0.97

Are there disparities in how far children in tier 4 units are from home?

Table 16 demonstrates that around 1 in 5 children in tier 4 units are more than 50 miles from their last known postcode. 7% (60 children) are more than 100 miles away.

Table 16: Distance from child's last known residence for children in tier 4 wards at 31st March 2020. Note: excludes children where distance is missing or recorded as 0

Distance from child's last known residence	Count	%
20 miles or less	445	50
21-50 miles	265	29
Over 50 miles	190	21
Over 100 miles	60	7

Overall there are comparatively few differences in the distance from home between different demographic groups. Tables 17-19 demonstrate comparatively small differences in proportions placed more than 50 miles from last known residence when split by gender, age or ethnicity.

Table 17: Proportions in units more than 50 miles from the child's last known residence by gender

Distance from child's last known residence	Female	Male
50 miles or less	79% (545)	78% (155)
Over 50 miles	21% (140)	22% (45)

Table 18: Proportions in units more than 50 miles from the child's last known residence by ethnicity

Distance from child's last known residence	White	Asian or Asian British	Black or Black British	Mixed	Other Ethnic Groups
50 miles or less	78% (515)	91% (50)	83% (40)	79% (35)	86% (20)
Over 50 miles	22% (150)	9% (5)	17% (10)	21% (10)	*

Table 19: Proportions in units more than 50 miles from the child's last known residence by age group

Over 50 miles	Under 12	12-14	15-17
50 miles or less	88% (15)	82% (185)	78% (510)
Over 50 miles	*	18% (40)	22% (150)

Table 20 demonstrates that once diagnosis code, MHA status, admission source and the type of unit they are placed in are accounted for there are no statistically significant differences between demographic groups in the likelihood of children being placed over 50 miles from home.

*Table 20: Risk ratios for being in a unit more than 50 miles from child's last known residence. Ratios are presented as univariate correlations (left hand column) and after adjusting for all other variables listed in the table (right hand column). Note: ** = p value < 0.05, * = p value <0.1*

Variable	Level	Unadjusted risk ratio	Adjusted risk ratio
Admission source (ref = General NHS hospital)	LA care	2.37	2.13
	Mental health ward	0.94	0.97
	Missing	0.8	0.93
	NHS run hospital/care home	0.75	0.89
	Privately run hospital/care home	1.67	1.24
	Usual/temporary residence	0.52	0.68
Unit type (ref = Not low secure/PICU/medium secure)	PICU/medium/low secure	2.54**	1.77**
ICD code grouping (ref= Eating disorders)	Behavioural and emotional disorders with onset usually occurring in childhood and adolescence	1.7**	1
	Disorders of adult personality and behaviour	1.29	0.67
	Disorders of psychological development	1.47	0.85
	Missing	0.46**	0.41**
	Mood [affective] disorders	0.69	0.54*
	Neurotic, stress-related and somatoform disorders	1.06	0.61*
	Other	1.18	0.65
	Schizophrenia, schizotypal and delusional disorders	1.14	0.72
Mental health act status (ref = Section 2)	Informal	0.51**	0.64*
	Missing	0.38**	0.6
	Section 136	0	0
	Section 3	1.19	0.86
	Section 37/47/48	0.89	0.55
	Section 5	0.31	0.4
Age (ref = 15-17)	Under 15	0.77	0.79
Ethnicity (ref = White)	Asian or Asian British	0.42*	0.55
	Black or Black British	0.78	0.68
	Missing	0.99	1.15
	Mixed	0.93	1.14
	Other Ethnic Groups	0.61	0.68
Gender (ref = Female)	Male	1.1	1.09

It also demonstrates significant differences by unit type and a child's source of admission. For example, even after accounting for other factors children held in secure units are 77% more likely to be more than 50 miles from their last known residence than those held in other types of unit. Table 21 provides a full (unadjusted) breakdown by unit type of the proportion of children in tier 4 units more than 50 miles from their last known postcode.

Table 21: Proportions in units more than 50 miles from the child's last known residence by type of unit

Over 50 miles	ASD	Deaf Child	General Adolescent Inc. Eating Disorders	LD	Low Secure	Medium Secure	PICU
50 miles or less	*	0 (0)	85% (565)	73% (10)	61% (55)	58% (15)	63% (60)
Over 50 miles	*	*	15% (100)	*	39% (35)	42% (10)	37% (35)

Admissions to tier 4 units during 2019/20

Overall there were 4,127 admissions to tier 4 units during 2019/20. Table 22 demonstrates that most admissions tend to come from a child's usual/temporary place of residence or from an NHS run medical institution.

Table 22: Proportions of admissions to tier 4 units during 2019/20

Admission source	Count	%
Usual/temporary residence	1495	36
NHS run hospital/care home	1250	30
Mental health ward	635	15
Missing	395	10
Privately run hospital/care home	275	7
Court/police	50	1
LA care	25	1

Girls are slightly more likely to be admitted from general hospital institutions than boys. 32% of admissions during the year amongst girls were from general NHS institutions compared to 27% amongst boys. They are notably less likely to be admitted from the courts or police sources (Table 23).

Table 23: Proportions of admissions to tier 4 units during 2019/20 by gender

Admissions source	Female	Male
Court/police	0% (15)	3% (35)
LA care	0% (15)	1% (10)
Mental health ward	15% (450)	17% (180)
Missing	10% (285)	10% (105)
NHS run hospital/care home	32% (940)	27% (290)
Privately run hospital/care home	7% (210)	5% (50)
Usual/temporary residence	36% (1060)	38% (410)

Older children are notably more likely to have been admitted from a previous mental health ward. 16% of admissions amongst children aged 15-17 were from a previous mental health ward compared to 13% amongst 12-14 year olds. However, older children are less likely to be admitted from their usual or temporary residence (Table 24).

Table 24: Proportions of admissions to tier 4 units during 2019/20 by age group

Admissions source	Under 12	12-14	15-17
Court/police	0 (0)	*	2% (45)
LA care	0 (0)	*	1% (25)
Mental health ward	10% (5)	13% (110)	16% (515)
Missing	*	8% (70)	10% (325)
NHS run hospital/care home	7% (5)	33% (290)	30% (955)

Privately run hospital/care home	0 (0)	5% (45)	7% (230)
Usual/temporary residence	79% (55)	40% (350)	34% (1090)

Admission sources are broadly similar by ethnicity (Table 25). However, Black or Black British children are slightly more likely to be admitted from criminal justice related sources than white children though the proportions of admissions are small (4% amongst Black children compared to 1% amongst White children).

Table 25: Proportions of children admitted to tier 4 units during 2019/20 by ethnicity

Admissions source	White	Asian or Asian British	Black or Black British	Missing	Mixed	Other Ethnic Groups
Court/police	1% (25)	3% (5)	4% (10)	*	2% (5)	*
LA care	0% (15)	*	*	*	*	*
Mental health ward	15% (450)	14% (30)	16% (35)	15% (60)	18% (40)	14% (15)
Missing	10% (290)	6% (15)	6% (15)	14% (60)	5% (10)	5% (5)
NHS run hospital/care home	30% (880)	27% (60)	31% (70)	30% (120)	38% (85)	32% (35)
Privately run hospital/care home	7% (215)	6% (15)	5% (10)	5% (20)	5% (10)	4% (5)
Usual/temporary residence	36% (1070)	43% (90)	36% (80)	35% (140)	31% (70)	40% (45)

Children discharged from tier 4 units during 2019/20

Characteristics of discharges against the population at a point in time

This section examines how the characteristics of children discharged from tier 4 units[7] compares to the characteristics of children in these units at a point in time. This attempts to highlight which groups of children are more likely to be discharged in a year, however it makes the assumption that the proportions of children with multiple discharges is relatively small and that the profile of children in these units at a point in time stays broadly consistent throughout the year.

Table 26 through Table 27 show there are relatively small differences between children in a tier 4 unit at a point in time and those discharged during the year by gender, age and ethnicity.

Table 26: Differences in proportions of children in tier 4 units at 31st March 2020 and those discharged during 2019/20 by gender

Gender	Children discharged during the year	Children in a tier 4 unit at 31st March 2020
Female	73% (3035)	77% (710)
Male	27% (1130)	23% (215)

Table 28: Differences in proportions of children in a tier 4 unit at 31st March 2020 and those discharged during 2019/20 by age group

Age group	Children discharged during the year	Children in a tier 4 unit at 31st March 2020
Under 12	2% (75)	2% (15)
12-14	22% (925)	25% (230)
15-17	76% (3235)	74% (685)

Table 27: Differences in proportions of children in tier 4 units at 31st March 2020 and those discharged during 2019/20 by ethnicity

Ethnicity	Children discharged during the year	Children in a tier 4 unit at 31st March 2020
White	73% (3080)	74% (695)
Asian or Asian British	5% (210)	6% (55)
Black or Black British	5% (210)	5% (50)
Missing	9% (395)	8% (75)
Mixed	6% (240)	5% (45)
Other Ethnic Groups	2% (105)	2% (25)

[7] Note: all discharge figures exclude discharges recorded as having a length of stay of 0 days or those where their discharge destination was recorded as 'not applicable - hospital provider spell not finished at episode end (i.e. Not discharged) or current episode unfinished'

However, there are larger differences by children's high level diagnosis type (Table 29). Children with identified eating disorders under-represent by around 25% amongst discharges during the year compared to the population in a tier 4 unit at 31st March 2020. This group accounted for 20% of the population in Tier 4 but only 14% of discharges.

Table 29: Differences in proportions of children in a tier 4 unit at 31st March 2020 and those discharged during 2019/20 by high level diagnosis

High level diagnosis type	Children discharged during the year	Children in a tier 4 unit at 31st March 2020
Eating disorders	14% (610)	20% (190)
Schizophrenia, schizotypal and delusional disorders	7% (295)	4% (40)
Mood [affective] disorders	14% (575)	8% (80)
Neurotic, stress-related and somatoform disorders	13% (560)	10% (95)
Disorders of adult personality and behaviour	6% (245)	3% (25)
Disorders of psychological development	8% (330)	4% (40)
Behavioural and emotional disorders with onset usually occurring in childhood and adolescence	11% (480)	8% (80)
Missing	21% (875)	38% (360)
Other	1% (35)	4% (35)
Mental and behavioural disorders due to psychoactive substance use	2% (95)	0 (0)
Non-mental health code	3% (135)	0 (0)

Conversely, children held informally over-represent amongst discharges compared to the population in a tier 4 unit at 31st March 2020 (45% and 31% respectively - Table 30). Children detained under section 3 (those detained for treatment) unsurprisingly over-represent amongst children in a tier 4 unit at a point in time (39% of those in a tier 4 unit at 31st March compared to 19% of discharges).

Table 30: Differences in proportions of children in a tier 4 unit at 31st March 2020 and those discharged during 2019/20 by mental health act status

Mental health act status	Children discharged during the year	Children in a tier 4 unit at 31st March 2020
Informal	45% (1895)	31% (295)
Missing	15% (645)	11% (105)
Other acts	*	*
Section 136	1% (35)	*
Section 2/4	19% (795)	15% (140)
Section 3	19% (790)	39% (370)
Section 35/37/47/48	0% (20)	0 (0)
Section 37/47/48	0 (0)	1% (15)
Section 5	1% (60)	1% (15)

Finally, Table 31 demonstrates children held in general adolescent wards make up a greater proportion of discharges than of children in a tier 4 unit at a point in time (83% compared to 73% at 31st March 2020). Those in low and medium secure over-represent amongst those in a tier 4 unit at 31st March.

Table 31: Differences in proportions of children in a tier 4 unit at 31st March 2020 and those discharged during 2019/20 by unit type

Unit type	Children discharged during the year	Children in a tier 4 unit at 31st March 2020
ASD	0% (15)	*
Deaf Child	0% (5)	*
General Adolescent Inc. Eating Disorders	83% (3505)	73% (685)
LD	2% (70)	2% (15)
Low Secure	3% (140)	11% (105)
Medium Secure	1% (50)	4% (35)
PICU	11% (450)	10% (95)

Are there disparities in children's length of stay in a tier 4 ward

On average each discharged child had been in their unit for 99 days though this is highly skewed (median = 60 days). Just over 1 in 3 were discharged after more than 3 months (90 days) in a unit. Around 4% of children were discharged after more than 1 year.

Table 32: Distribution of children's length of stay in tier 4 wards amongst those discharged during 2019/20

Measure	
Mean number of days	99
Median number of days	60
% Over 90 days	36% (1520)
% Over 1 year	4% (155)
% Over 2 years	1% (25)
Total number of discharges	4237

Table 33 demonstrates that on average girls have longer lengths of stay than boys. Around 4 in 10 girls were in a tier 4 unit for more than 90 days compared to 3 in 10 boys.

Table 33: Average length of stay for children discharged from tier 4 wards during 2019/20 by gender

Gender	Mean number of days	Median number of days	Over 90 days	Over 1 year	Total number of discharges
Male	92	48	30% (335)	4% (335)	1130
Female	101	65	38% (1160)	4% (1160)	3035

Similarly younger children are likely to have been in a tier 4 unit for a longer period than older children. 43% of children discharged during 2019/20 aged 12-14 had been in a tier 4 unit for 90 days or more compared to 34% of those aged 15-17 (Table 34). Table 35 demonstrates that this difference is largely driven by longer lengths of stay amongst young girls.

Table 34: Average length of stay for children discharged from tier 4 wards during 2019/20 by age group

Age group	Mean number of days	Median number of days	Over 90 days	Over 1 year	Total number of discharges
Under 12	119	80	46% (35)	4% (35)	75
12-14	117	73	43% (395)	4% (395)	925
15-17	93	55	34% (1085)	3% (1085)	3235

Table 35: Average length of stay for children discharged from tier 4 wards during 2019/20 by age group and gender

Age + Gender	Mean number of days	Median number of days	Over 90 days	Over 1 year	Total number of discharges
Male Under 12	114	76	39% (15)	4% (15)	45
Male 12-14	137	61	38% (60)	7% (60)	165
Male 15-17	83	43	28% (255)	4% (255)	925
Female Under 12	127	115	54% (20)	3% (20)	35
Female 12-14	113	76	44% (330)	4% (330)	750
Female 15-17	97	60	36% (810)	3% (810)	2255

Table 36 demonstrates there is comparatively little difference by ethnicity in average lengths of stay. The possible exception is that those whose ethnicity is not recorded have on average shorter stays though this may reflect data quality issues.

Table 36: Average length of stay for children discharged from tier 4 wards during 2019/20 by ethnicity

Ethnicity	Mean number of days	Median number of days	Over 90 days	Over 1 year	Total number of discharges
White	103	63	37% (1150)	4% (1150)	3080
Missing	67	39	22% (85)	2% (85)	395
Other Ethnic Groups	81	53	37% (40)	0% (40)	105
Mixed	102	59	37% (90)	3% (90)	240
Black or Black British	89	61	33% (70)	1% (70)	210

Asian or Asian British	103	68.50	39% (85)	2% (85)	210

Similarly, there are relatively small differences in children's length of stay based on their admission source (Table 37). The one exception is that children admitted from non-NHS run hospitals/care homes have on average longer stays than those from other sources, with 55% of children in a tier 4 unit for longer than 90 days.

Table 37: Average length of stay for children discharged from tier 4 wards during 2019/20 by admission source

Admissions source	Mean number of days	Median number of days	Over 90 days	Over 1 year	Total number of discharges
Mental health ward	107	64	38% (240)	5% (240)	630
Usual/temporary residence	100	66	38% (590)	3% (590)	1565
Privately run hospital/care home	170	105	55% (175)	12% (175)	315
NHS run hospital/care home	83	50	31% (390)	2% (390)	1260
LA care	126	83	42% (15)	8% (15)	35
Court/police	142	66	40% (20)	12% (20)	50
Missing	64	33	24% (90)	1% (90)	380

There are larger differences by children's MHA status. As might be expected children detained for assessment (those held under section 2 or 4) have on average shorter lengths of stay (around 1 in 5 are in a tier 4 unit for more than 90 days). Those detained for treatment have on average the longest stays with 6 in 10 in a tier 4 unit for longer than 90 days (Table 38).

Table 38: Average length of stay for children discharged from tier 4 wards during 2019/20 by mental health act status

Mental health act status	Mean number of days	Median number of days	Over 90 days	Over 1 year	Total number of discharges
Section 3	174	118	60% (475)	11% (475)	790
Informal	91	61	35% (670)	2% (670)	1895
Section 2/4	64	33	21% (170)	1% (170)	795
Section 5	86	58	34% (20)	2% (20)	60
Missing	70	46	25% (160)	1% (160)	645
Section 35/37/47/48	286	240	90% (15)	26% (15)	20

Section 136	50	22	15% (5)	3% (5)	35
Other acts	*	*	*	*	*

Children diagnosed with eating disorders have the longest stays (on average) amongst children discharged during the year. Around two thirds of children whose primary diagnosis type was eating disorders were in a tier 4 unit for over 90 days (Table 39).

Table 39: Average length of stay for children discharged from tier 4 wards during 2019/20 by high level diagnosis type

High level diagnosis type	Mean number of days	Median number of days	Over 90 days	Over 1 year	Total number of discharges
Eating disorders	151	126	67% (410)	5% (410)	610
Disorders of adult personality and behaviour	115	57	38% (95)	7% (95)	245
Disorders of psychological development	146	81	46% (150)	10% (150)	330
Neurotic, stress-related and somatoform disorders	86	53	32% (175)	2% (175)	560
Mood [affective] disorders	85	60	31% (180)	2% (180)	580
Behavioural and emotional disorders with onset usually occurring in childhood and adolescence	79	42	25% (120)	4% (120)	480
Schizophrenia, schizotypal and delusional disorders	91	56	33% (95)	2% (95)	295
Missing	84	50	28% (245)	2% (245)	875
Mental and behavioural disorders due to psychoactive substance use	39	23	10% (10)	0% (10)	95
Other	150	103	54% (20)	9% (20)	35
Non-mental health code	39	21	9% (10)	1% (10)	135

There are also large differences in average lengths of stay by type of unit. For example, 9 out of every 10 children in low and medium secure units discharged during 2019/20 were in a tier 4 unit for over 90 days. This is 3 times the rate among those in general adolescent units (Table 40).

Table 40: Average length of stay for children discharged from tier 4 wards during 2019/20 by unit type

Unit type	Mean number of days	Median number of days	Over 90 days	Over 1 year	Total number of discharges
General Adolescent Inc. Eating Disorders	85	54	32% (1130)	2% (1130)	3505
Low Secure	305	279.50	89% (125)	32% (125)	140
PICU	90	59.50	37% (165)	2% (165)	450
LD	167	101.50	51% (35)	13% (35)	70
Medium Secure	445	351.50	94% (45)	50% (45)	50
Deaf Child	123	94	*	*	5
ASD	203	146	87% (15)	7% (15)	15

Table 41 demonstrates that even after controlling for other demographics, admission source, diagnosis, MHA status and type of unit younger children are around 20% more likely to be in a tier 4 unit for over 90 days. It also demonstrates that children with eating disorders remain more likely than any other diagnosis type to be in a tier 4 unit for more than 90 days.

*Table 41: Risk ratios for being discharged after more than 90 days in a tier 4 unit. Ratios are presented as univariate correlations (left hand column) and after adjusting for all other variables listed in the table (right hand column). Note: ** = p value < 0.05, * = p value <0.1*

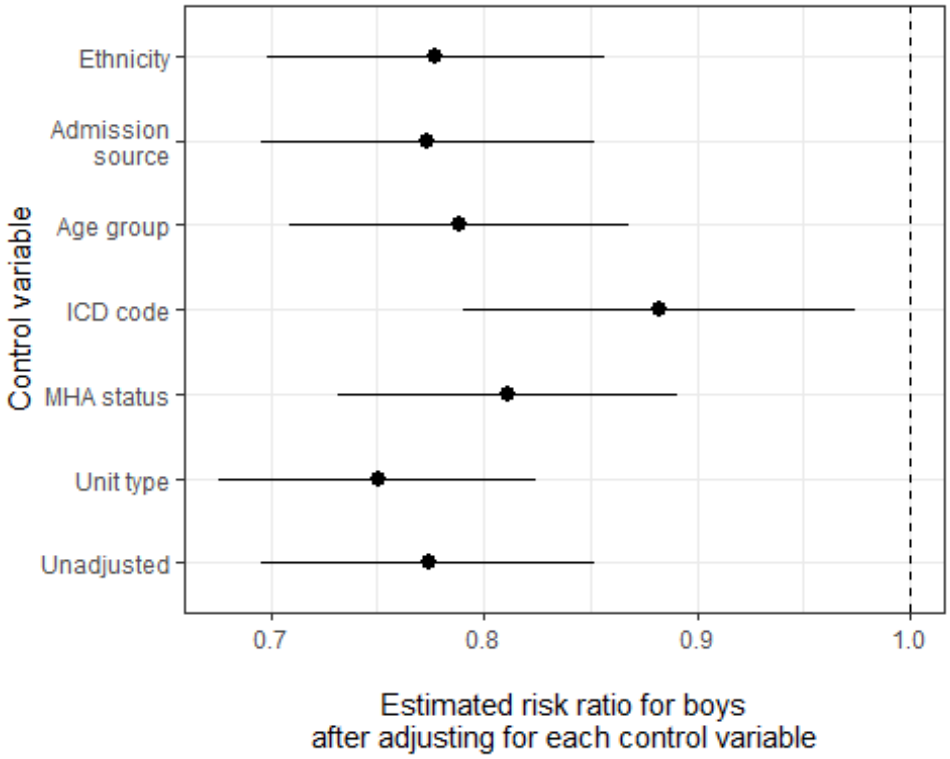
Variable	Level	Unadjusted risk ratio	Adjusted risk ratio
Admission source (ref = General NHS hospital)	LA care	1.07	1.3
	Mental health ward	0.98	1.15
	Missing	0.6**	0.76
	NHS run hospital/care home	0.79	1.05
	Privately run hospital/care home	1.43	1.35
	Usual/temporary residence	0.98	1.24
Unit type (ref = Not PICU/low/medium secure)	PICU/medium/low secure	1.59**	1.39**
ICD code grouping (ref= Eating disorders)	Behavioural and emotional disorders with onset usually occurring in childhood and adolescence	0.37**	0.38**
	Disorders of adult personality and behaviour	0.57**	0.51**
	Disorders of psychological development	0.69**	0.65**

	Mental and behavioural disorders due to psychoactive substance use	0.14**	0.18**
	Missing	0.42**	0.46**
	Mood [affective] disorders	0.46**	0.47**
	Neurotic, stress-related and somatoform disorders	0.47**	0.49**
	Non-mental health code	0.13**	0.17**
	Other	0.81	0.84
	Schizophrenia, schizotypal and delusional disorders	0.48**	0.48**
Mental health act status (ref = Section 2)	Informal	1.67**	1.44**
	Missing	1.16	1.27**
	Other acts	2.35	1.72
	Section 136	0.71	0.8
	Section 3	2.83**	2.18**
	Section 35/37/47/48	4.18**	3.75**
	Section 5	1.59**	1.54*
Age (ref = 15-17)	Under 15	1.29**	1.22**
Ethnicity (ref = White)	Asian or Asian British	1.05	1.15
	Black or Black British	0.89	1.12
	Missing	0.58**	0.78**
	Mixed	0.99	1.13
	Other Ethnic Groups	1	1.17
Gender (ref = Female)	Male	0.77**	0.9

Table 41 also demonstrates that gender differences become non-significant after other factors are accounted for.

Figure 2 below demonstrates that this reduction is not due to a single confounding factor but the largest reduction is due to gender differences in diagnosis (likely reflecting the higher rates of eating disorder diagnoses amongst girls).

Figure 2: Plot of estimated risk ratios (dot) and 95% confidence intervals (horizontal lines) for the risk ratio of girls being in a tier 4 unit for more than 90 days compared to boys after controlling (individually) for each control variable included in our model



Are there disparities in where children are discharged to?

Most commonly children are discharged to either their usual place of residence or to a temporary residence (68% - 2876 discharges) (Table 42). However, around 1 in 5 are discharged to either another mental health ward or another medical facility (either NHS or privately run).

Table 42: Discharge destinations for children discharged during 2019/20

Discharge destination	Count	%
Usual/temporary residence	2875	68
Mental health ward	455	11
Privately run hospital/care home	360	8
Missing	350	8
LA care	140	3
NHS run hospital/care home	50	1
Court/police	10	0

Table 43 demonstrates that children discharged from tier 4 units were most commonly admitted from a private residence (either their usual or a temporary residence) and return to a similar destination after discharge from these units (around 1 in 4 children discharged during 2019/20). 14% of children discharged during the year (575 children) were admitted from a medical institution (including NHS and privately run mental health wards, hospitals and care homes) and were also discharged to one of these institutions.

Table 43: Proportions of children discharged during 2019/20 by admission source and discharge destination. Note: percentages are of all discharges during the year rather than row or column percentages

Admissions source	Court/police	LA care	Mental health ward	Missing	NHS run hospital/care home	Privately run hospital/care home	Usual/temporary residence
Court/police	0% (5)	*	0% (5)	0% (5)	0 (0)	0% (5)	0% (20)
LA care	*	0% (5)	0% (5)	0% (10)	0 (0)	0% (5)	0% (10)
Mental health ward	*	1% (30)	2% (100)	1% (55)	0% (10)	2% (65)	9% (370)
Missing	*	0% (20)	1% (40)	0% (20)	*	0% (15)	7% (280)
NHS run hospital/care home	0 (0)	1% (35)	3% (145)	2% (100)	0% (25)	3% (115)	20% (840)
Privately run hospital/care home	0 (0)	0% (20)	1% (45)	0% (15)	0% (5)	2% (65)	4% (165)
Usual/temporary residence	*	1% (35)	3% (110)	3% (140)	0% (10)	2% (85)	28% (1185)

Girls who are discharged are notably more likely to be sent to a privately run hospitals/care home or a further mental health ward on discharge than boys who are discharged (21% compared to 15% amongst boys) and slightly more likely to be sent to a mental health ward. They are also slightly less likely to be discharged to their usual/temporary residence (Table 44).

Table 44: Discharge destinations for children discharged from tier 4 wards during 2019/20 by gender

Discharge destination	Female	Male
Court/police	*	0% (5)
LA care	3% (105)	3% (35)
Mental health ward	11% (340)	10% (105)
Missing	7% (220)	11% (125)
NHS run hospital/care home	1% (35)	1% (10)

Privately run hospital/care home	10% (290)	6% (65)
Usual/temporary residence	67% (2045)	69% (780)

There is a similar pattern with regards children's age groups (Table 45). 15-17 year olds who are discharged are slightly more likely to be discharged to a privately run hospital/care home or another mental health ward than younger children and slightly less likely to return to their usual/a temporary residence.

Table 45: Discharge destinations for children discharged from tier 4 wards during 2019/20 by age group

Discharge destination	Under 12	12-14	15-17
Court/police	0 (0)	*	0% (10)
LA care	0 (0)	3% (30)	3% (110)
Mental health ward	*	10% (90)	11% (360)
Missing	16% (10)	7% (65)	8% (270)
NHS run hospital/care home	0 (0)	1% (10)	1% (35)
Privately run hospital/care home	*	7% (65)	9% (295)
Usual/temporary residence	79% (60)	71% (660)	67% (2155)

Table 46 demonstrates there is comparatively little variation in rates of children being discharged to their usual/temporary residence by children's ethnicity.

Table 46: Discharge destinations for children discharged from tier 4 wards during 2019/20 by ethnicity

Discharge destination	White	Asian or Asian British	Black or Black British	Missing	Mixed	Other Ethnic Groups
Court/police	0% (5)	*	*	*	0 (0)	0 (0)
LA care	3% (100)	*	4% (10)	3% (10)	4% (10)	7% (5)
Mental health ward	10% (300)	9% (20)	17% (35)	15% (60)	13% (30)	10% (10)
Missing	7% (230)	15% (30)	6% (15)	5% (20)	20% (50)	9% (10)
NHS run hospital/care home	1% (40)	*	*	*	*	*
Privately run hospital/care home	10% (295)	6% (10)	5% (10)	6% (25)	6% (15)	8% (10)
Usual/temporary residence	68% (2110)	68% (145)	67% (140)	71% (280)	58% (135)	66% (70)

As might be expected there are larger differences in discharge destination based on children's MHA status (Table 47). Those detained for treatment or assessment (section 2/4 and section 3) and those held under criminal justice related sections of the act (Section 47/48/35/37) are the least likely to return to their usual/temporary place of residence, where around half of these groups are discharged to these residences. This compares to nearly 80% of those held informally.

Table 47: Discharge destinations for children discharged from tier 4 wards during 2019/20 by children's mental health act status

Discharge destination	Informal	Missing	Other acts	Section 136	Section 2/4	Section 3	Section 35/37/47/48	Section 5
Court/police	*	0 (0)	0 (0)	0 (0)	*	0 (0)	37% (5)	0 (0)
LA care	3% (50)	3% (20)	0 (0)	*	4% (30)	5% (40)	0 (0)	*
Mental health ward	7% (130)	8% (50)	0 (0)	15% (5)	13% (105)	19% (150)	*	10% (5)
Missing	7% (140)	8% (50)	0 (0)	0 (0)	8% (65)	11% (85)	*	*
NHS run hospital/care home	1% (15)	*	0 (0)	0 (0)	2% (10)	2% (20)	0 (0)	0 (0)
Privately run hospital/care home	5% (95)	1% (5)	0 (0)	*	14% (110)	18% (145)	*	8% (5)
Usual/temporary residence	77% (1460)	80% (520)	*	70% (25)	59% (470)	45% (355)	*	75% (45)

Table 48 on the following page demonstrates that there are reasonably large differences in discharge destinations by children's high level diagnosis type. Children diagnosed with eating disorders are the most likely to be discharged to their usual/temporary place of residence at just over 80%. Children diagnosed with personality and/or behaviour disorders and those with psychological development disorders are the least likely and are more likely to be discharged to another medical institution.

Table 48: Discharge destinations for children discharged from tier 4 wards during 2019/20 by children's high level diagnosis type

Discharge destination	Eating disorders	Mental and behavioural disorders due to psychoactive substance use	Schizophrenia, schizotypal and delusional disorders	Mood [affective] disorders	Neurotic, stress-related and somatoform disorders	Disorders of adult personality and behaviour	Disorders of psychological development	Behavioural and emotional disorders with onset usually occurring in childhood and adolescence	Missing	Non-mental health code	Other
Court/police	0 (0)	0 (0)	0 (0)	*	0 (0)	*	*	*	1% (5)	*	0 (0)
LA care	*	*	4% (10)	2% (10)	3% (15)	6% (15)	6% (20)	6% (30)	3% (30)	*	*
Mental health ward	6% (35)	6% (5)	16% (45)	12% (70)	9% (50)	14% (35)	11% (35)	10% (50)	12% (105)	12% (15)	*
Missing	3% (20)	14% (15)	9% (25)	9% (50)	7% (40)	3% (10)	7% (25)	6% (30)	14% (120)	6% (10)	31% (10)
NHS run hospital/care home	2% (10)	*	0 (0)	1% (10)	*	*	2% (5)	2% (10)	*	*	0 (0)
Privately run hospital/care home	6% (40)	*	7% (20)	10% (55)	8% (45)	20% (50)	12% (40)	12% (60)	4% (35)	*	20% (5)
Usual/temporary residence	82% (505)	70% (65)	65% (190)	66% (380)	73% (405)	55% (135)	61% (200)	64% (305)	66% (575)	74% (100)	34% (10)

Table 49 demonstrates there are large differences in children's discharge destination by type of unit they are admitted to. Those that are discharged from general adolescent wards are the most likely to return to a usual place of residence/temporary residence with around three quarters of those discharged returning to these residences. Those discharged from low and medium secure units are the least likely to be discharged to a usual/temporary residence (38% and 16% respectively). These children are most commonly sent to either a subsequent mental health ward or a privately run hospital/care home on discharge.

Table 49: Discharge destinations for children discharged from tier 4 wards during 2019/20 by unit type

Discharge destination	ASD	Deaf Child	General Adolescent Inc. Eating Disorders	LD	Low Secure	Medium Secure	PICU
Court/police	0 (0)	0 (0)	*	0 (0)	0 (0)	15% (5)	*
LA care	0 (0)	0 (0)	3% (95)	*	11% (15)	10% (5)	5% (20)
Mental health ward	*	0 (0)	10% (340)	*	10% (15)	23% (10)	19% (85)
Missing	*	0 (0)	7% (260)	49% (35)	11% (15)	12% (5)	7% (30)
NHS run hospital/care home	0 (0)	0 (0)	1% (35)	0 (0)	*	0 (0)	2% (10)
Privately run hospital/care home	40% (5)	0 (0)	6% (190)	14% (10)	28% (40)	23% (10)	23% (105)
Usual/temporary residence	40% (5)	100% (5)	74% (2585)	29% (20)	38% (55)	17% (10)	44% (195)

Table 50 on the following page demonstrates that boys are slightly (10%) more likely to be discharged to their usual/temporary place of residence than girls after accounting for other factors. However, the largest differences are based on the type of unit children are discharged from, their MHA status and their high level diagnosis category.

*Table 50: Risk ratios for being discharged to a child's usual/temporary residence. Ratios are presented as univariate correlations (left hand column) and after adjusting for all other variables listed in the table (right hand column). Note: ** = p value < 0.05, * = p value <0.1*

Variable	Level	Unadjusted risk ratio	Adjusted risk ratio
Admission source (ref = General NHS hospital)	LA care	0.68	0.66
	Mental health ward	1.26	1.13
	Missing	1.54**	1.16
	NHS run hospital/care home	1.42	1.12
	Privately run hospital/care home	1.08	1.06
	Usual/temporary residence	1.62**	1.22
Unit type (ref = Not PICU/medium secure)	PICU/medium/low secure	0.56**	0.67**
ICD code grouping (ref= Eating disorders)	Behavioural and emotional disorders with onset usually occurring in childhood and adolescence	0.8**	0.86**
	Disorders of adult personality and behaviour	0.67**	0.84*
	Disorders of psychological development	0.76**	0.84**
	Mental and behavioural disorders due to psychoactive substance use	0.95	1.06
	Missing	0.89*	0.88*
	Mood [affective] disorders	0.85**	0.89*
	Neurotic, stress-related and somatoform disorders	0.91	0.94
	Non-mental health code	0.93	0.9
	Other	0.59*	0.63
	Schizophrenia, schizotypal and delusional disorders	0.83**	0.92
Mental health act status (ref = Section 2)	Informal	1.28**	1.21**
	Missing	1.35**	1.26**
	Section 136	1.08	1.05
	Section 3	0.79**	0.87*
	Section 35/37/47/48	0.31**	0.5
	Section 5	1.21	1.16
Age (ref = 15-17)	Under 15	1.07	1.01
Ethnicity (ref = White)	Asian or Asian British	1.07	1.08
	Black or Black British	0.96	1.04
	Missing	0.99	0.96
	Mixed	0.97	1.02
	Other Ethnic Groups	0.97	0.98
Gender (ref = Female)	Male	1.07	1.1**

Children readmitted to tier 4 units during 2019/20

This final section provides information on the characteristics of children that were discharged during 2019/20 and readmitted within the same 12 month period. Overall, there were 545 readmissions during 2019/20 comprising 14% of all discharges during the year.

However, there are some limitations that should be kept in mind with this section's analysis. Firstly, in the extract provided it is not possible to identify exactly which discharges led to a readmission as (for privacy reasons) there was no information provided to link children between the discharge and readmission extracts. This limits our analysis to comparing the profiles of readmissions to discharges though this assumes that the proportions with multiple discharges/readmissions during 2019/20 are small.
This also limits us to comparing relatively static factors such as age, gender and ethnicity as it is possible that factors such as diagnosis types and mental health act status will change in the intervening period between discharge and readmission.

Secondly, this readmissions extract will not cover those discharged towards the end of 2019/20 as these children will have had comparatively less time in which to be readmitted than those discharged earlier in 2019/20. This therefore represents an undercount of the numbers of children discharged during 2019/20 that will experience a readmission.

Are there disparities in who is readmitted?

Table 51 demonstrates profiles of children discharged and readmitted are broadly similar in terms of gender, though girls make up a slightly higher proportion of readmissions than they do discharges.

Table 51: Profile of children readmitted during 2019/20 compared to those discharged by child's gender

Gender	Discharges	Readmissions
Female	74% (2815)	80% (430)
Male	26% (1005)	20% (110)

Older children make up a greater proportion of readmissions than discharges. 85% of readmissions are amongst children aged 15-17 compared to 76% of discharges (Table 52)

Table 52: Profile of children readmitted during 2019/20 compared to those discharged by child's age group

Age group	Discharges	Readmissions
Under 12	2% (65)	1% (5)
12-14	22% (860)	15% (80)
15-17	76% (2960)	84% (460)

Readmissions are particularly concentrated amongst girls aged 15-17, accounting for around two thirds of readmissions. This compares to 55% of discharges during the year (Table 53).

Table 53: Profile of children readmitted during 2019/20 compared to those discharged by child's age group and gender

Age + Gender	Discharges	Readmissions
Male Under 12	1% (35)	*
Male 12-14	4% (150)	*
Male 15-17	21% (820)	19% (100)
Female Under 12	1% (30)	*
Female 12-14	18% (695)	14% (75)
Female 15-17	55% (2090)	65% (350)

Table 54 demonstrates that profiles of discharges and readmissions during 2019/20 are broadly similar by ethnicity.

Table 54: Profile of children readmitted during 2019/20 compared to those discharged by child's ethnicity

Ethnicity	Discharges	Readmissions
White	73% (2850)	72% (395)
Asian or Asian British	5% (180)	4% (20)
Black or Black British	5% (195)	7% (35)
Missing	10% (375)	9% (50)
Mixed	5% (190)	6% (30)
Other Ethnic Groups	2% (95)	2% (10)

Appendix A - Differences in high level diagnosis category by demographic and mental health act characteristics

Table 55: Proportions of children in tier 4 beds at 31st March 2019 by gender and high level diagnosis type

High level diagnosis type	Female	Male
Eating disorders	35% (160)	24% (30)
Schizophrenia, schizotypal and delusional disorders	3% (10)	21% (25)
Mood [affective] disorders	14% (65)	12% (15)
Neurotic, stress-related and somatoform disorders	18% (85)	8% (10)
Disorders of adult personality and behaviour	6% (25)	0 (0)
Disorders of psychological development	6% (30)	10% (10)
Behavioural and emotional disorders with onset usually occurring in childhood and adolescence	13% (60)	14% (15)
Other	4% (20)	11% (15)

Table 56: Proportions of children in tier 4 beds at 31st March 2019 by age and high level diagnosis type

High level diagnosis type	Under 12	12-14	15-17
Eating disorders	*	43% (60)	29% (125)
Schizophrenia, schizotypal and delusional disorders	0 (0)	6% (10)	7% (30)
Mood [affective] disorders	*	13% (20)	14% (60)
Neurotic, stress-related and somatoform disorders	0 (0)	11% (15)	18% (80)
Disorders of adult personality and behaviour	0 (0)	0 (0)	6% (25)
Disorders of psychological development	0 (0)	5% (5)	8% (35)
Behavioural and emotional disorders with onset usually occurring in childhood and adolescence	*	17% (25)	12% (50)
Other	0 (0)	5% (5)	6% (25)

Table 57: Proportions of children in tier 4 beds at 31st March 2019 by age, gender and high level diagnosis type

High level diagnosis type	Male Under 12	Male 12-14	Male 15-17	Female Under 12	Female 12-14	Female 15-17
Eating disorders	*	37% (10)	18% (15)	*	44% (50)	32% (105)
Schizophrenia, schizotypal and delusional disorders	0 (0)	18% (5)	24% (20)	0 (0)	*	2% (10)
Mood [affective] disorders	*	*	12% (10)	0 (0)	13% (15)	15% (50)
Neurotic, stress-related and somatoform disorders	0 (0)	*	10% (10)	0 (0)	13% (15)	20% (70)
Disorders of adult personality and behaviour	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	8% (25)
Disorders of psychological development	0 (0)	*	10% (10)	0 (0)	*	7% (25)
Behavioural and emotional disorders with onset usually occurring in childhood and adolescence	*	*	14% (10)	*	18% (20)	12% (40)
Other	0 (0)	*	12% (10)	0 (0)	4% (5)	4% (15)

Table 58: Proportions of children in tier 4 beds at 31st March 2019 by high level diagnosis and ethnicity

High level diagnosis type	White	Asian or Asian British	Black or Black British	Mixed	Other Ethnic Groups
Eating disorders	37% (170)	30% (10)	0 (0)	28% (5)	*
Schizophrenia, schizotypal and delusional disorders	2% (10)	*	38% (10)	24% (5)	*
Mood [affective] disorders	13% (60)	26% (5)	*	20% (5)	0 (0)
Neurotic, stress-related and somatoform disorders	18% (80)	*	*	*	*
Disorders of adult personality and behaviour	5% (25)	0 (0)	*	0 (0)	*
Disorders of psychological development	7% (35)	*	*	*	0 (0)
Behavioural and emotional disorders with onset usually occurring in childhood and adolescence	12% (55)	*	23% (5)	*	*
Other	6% (25)	*	0 (0)	*	0 (0)

Table 59: Proportions of children in tier 4 beds at 31st March 2019 by high level diagnosis and ethnicity

High level diagnosis type	ASD	Deaf Child	General Adolescent Inc. Eating Disorders	LD	Low Secure	Medium Secure	PICU
Eating disorders	*	0 (0)	26% (180)	0 (0)	*	0 (0)	5% (5)
Schizophrenia, schizotypal and delusional disorders	0 (0)	0 (0)	3% (20)	0 (0)	*	22% (10)	10% (10)
Mood [affective] disorders	0 (0)	0 (0)	9% (65)	0 (0)	8% (10)	*	6% (5)
Neurotic, stress-related and somatoform disorders	0 (0)	0 (0)	7% (45)	0 (0)	26% (30)	*	20% (20)
Disorders of adult personality and behaviour	0 (0)	0 (0)	2% (15)	0 (0)	9% (10)	0 (0)	*
Disorders of psychological development	*	0 (0)	3% (20)	0 (0)	9% (10)	*	7% (5)
Behavioural and emotional disorders with onset usually occurring in childhood and adolescence	0 (0)	0 (0)	6% (40)	0 (0)	20% (20)	*	14% (15)
Missing	0 (0)	*	42% (285)	94% (15)	17% (20)	53% (20)	24% (25)
Other	0 (0)	0 (0)	2% (15)	*	8% (10)	0 (0)	10% (10)

Table 60: Proportions of children in a tier 4 bed at 31st March 2019 by high level diagnosis and mental health act status

High level diagnosis type	Informal	Missing	Other acts	Section 136	Section 2	Section 3	Section 37/47/48	Section 5
Eating disorders	35% (105)	*	0 (0)	0 (0)	12% (15)	18% (65)	0 (0)	0 (0)
Schizophrenia, schizotypal and delusional disorders	*	0 (0)	0 (0)	*	8% (10)	5% (20)	*	*
Mood [affective] disorders	11% (35)	*	0 (0)	0 (0)	5% (5)	9% (35)	*	*
Neurotic, stress-related and somatoform disorders	6% (20)	*	0 (0)	0 (0)	9% (15)	16% (60)	0 (0)	0 (0)
Disorders of adult personality and behaviour	2% (5)	0 (0)	0 (0)	0 (0)	*	5% (20)	0 (0)	*
Disorders of psychological development	4% (10)	*	0 (0)	0 (0)	4% (5)	6% (20)	0 (0)	0 (0)
Behavioural and emotional disorders with onset usually occurring in childhood and adolescence	5% (15)	5% (5)	0 (0)	0 (0)	11% (15)	10% (40)	*	*
Missing	34% (100)	76% (80)	*	*	44% (65)	27% (100)	62% (10)	38% (5)
Other	2% (5)	5% (5)	0 (0)	0 (0)	7% (10)	3% (10)	0 (0)	*

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