Distribution and characteristics of in-patient child and adolescent mental health services in England and Wales[†]

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Background Little is known about the current state of provision of child and adolescent mental health service in-patient units in the UK.

Aims To describe the full number, distribution and key characteristics of child and adolescent psychiatric in-patient units in England and Wales.

Method Following identification of units, data were collected by a postal general survey with telephone follow-up.

Results Eighty units were identified; these provided 900 beds, of which 244 (27%) were managed by the independent sector. Units are unevenly distributed, with a concentration of beds in London and the south-east of England. The independent sector, which manages a high proportion of specialist services and eating disorder units in particular, accentuates this uneven distribution. Nearly two-thirds of units reported that they would not accept emergency admissions.

Conclusions A national approach is needed to the planning and commissioning of this specialist service.

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Child and adolescent in-patient care has been shown to be effective (Green *et al*, 2001) and remains a necessary function of a comprehensive child and adolescent mental health service. Surprisingly little is known about the current state of provision of in-patient units, but their development has been described as haphazard and their function as capricious (Kurtz *et al*, 1995). The number of National Health Service (NHS) beds in England and Wales has decreased over the past decade (House of Commons Health Committee, 1997) and it is not known whether this has been balanced by an expansion in the number of beds managed by the independent sector. Previous surveys give inadequate information, for example, one simply identified but did not describe in any detail the characteristics of these units (Kurtz *et al*, 1994; Chesson & Chisholm, 1996) and another was restricted to services for a specific age group (Green & Jacobs, 1998). The National In-patient Child and Adolescent Psychiatry Study (NICAPS) was commissioned to fill some of the gaps in our knowledge about provision. This paper addresses one of the study's main aims: a description of the distribution and the characteristics of units in England and Wales.

METHOD

Criteria for inclusion

For the purpose of this study, a unit is defined as a ward or other setting within a service whose specialist function is to admit young people with a mental illness. A hospital or service may contain more than one unit. We used the following criteria for inclusion:

(a) the unit's geographical location was within England or Wales;

(b) the unit was managed by either the NHS or the independent sector;

(c) the unit was exclusively a health facility (we excluded units for young people managed by local authorities as well as those managed by the independent sector that provided social care only or were solely for the purpose of detention);

(d) learning disability units, addictions units and secure units were included provided they had specific facilities for young people with psychiatric disorder.

Identification and recruitment of units

We used triangulation to ensure that all psychiatric in-patient units for young people in England and Wales were identified, using the three sources described below.

(a) Published lists and directories of units were consulted. None was comprehensive. Three were available at the time of the survey: a directory compiled by the charity YoungMinds (1998); a directory of NHS adolescent units in the south-east of England compiled in 1998 by Dr Paul Caviston (P. Caviston, personal communication, 1998); and the list of units published by Chesson & Chisholm (1996). We also checked NHS Executive regional directories for 1998/1999.

(b) Major independent health care providers were asked to supply lists of all services for children and adolescents that they managed.

(c) A survey of 474 members of the Royal College of Psychiatrists' child and adolescent faculty asked them for the name and address of any local units known to them.

A researcher telephoned every unit identified from these sources to confirm that it was still operating and met the inclusion criteria. This was followed by a letter sent to the lead consultant psychiatrist and senior nurse for the unit. In this letter we described the study, outlined what we would require from the unit and asked for their agreement to participate. We identified a key contact within each unit who would be the liaison person between the unit and the NICAPS team throughout the study.

The survey

We drew up a questionnaire in consultation with our advisory group and, following piloting, sent this to each unit. This asked for information about the age group accepted for admission, the diagnostic

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group of young people treated, the number of days each week that the unit was open and whether they admit patients in emergencies. To achieve uniformity we asked for information specific to 19 October 1999. If we had no reply we sent written reminders and followed through with telephone calls.

RESULTS

We identified 80 units meeting the inclusion criteria: 78 in England and 2 in Wales. All provided information about the key data items listed above.

Number and location of in-patient beds

Figure 1 shows the distribution of the 80 units across England and Wales. These units provided 900 beds on the census day. Table 1 shows the distribution of these beds across the nine English and Welsh regions. Clearly, there is a concentration of units and beds in the London and South-East Regions.

Table 1 Regional distribution of beds available per 100 000 persons aged 18 years or under

Region	Population aged 18 years and under[1]	Number of beds[2]	Number of units	Beds/100 000 aged 18 years and under[3]
South-East	2 073 177	268	21	12.9
London	1 737 899	190	15	10.9
Northern and Yorkshire	1 529 321	106	12	6.9
Eastern	1 288 221	74	7	5.7
Trent	1 220 069	60	5	4.9
South-West	1 127 516	55	6	4.9
North-West	1 630 358	68	7	4.2
West Midlands	1 314 750	55	5	4.2
Wales	709 402	24	2	3.4
Total	12 630 713	900	80	7.1

1. Estimate based on 1991 census and mid-1999 projections.
2. The number of beds open in the unit on the census day, whether occupied or unoccupied.
3. The denominator is the population of the region and assumes that the beds are for the use of the local population.

Types of unit

Table 2 gives a complete categorisation of units according to the target patient group in terms of type of disorder and age range, and the managing agency. Beds managed by the independent sector are located in only four out of the nine geographical areas, with a particular concentration in the London and South-East Regions, where 211 (86%) of all independent sector beds are located.

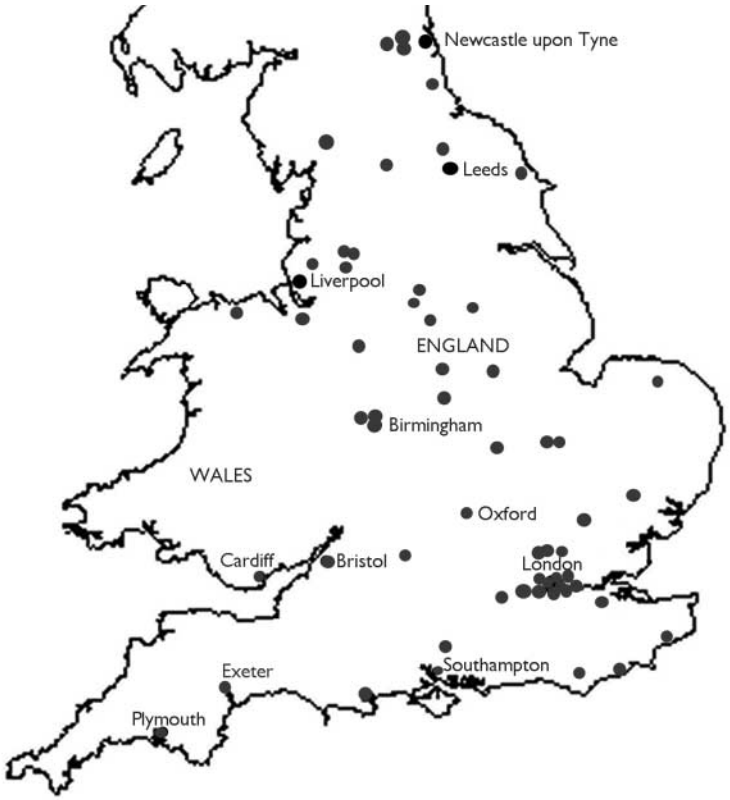

Fig. 1 Location and distribution of child and adolescent units in England and Wales. A unit is represented by a large dot on the map.

Type of disorder treated

The units can be classified into seven categories according to the type of disorder they target.

General units General units (58 units, 626 beds) admit a wide range of diagnostic groups. There is at least one in each of the nine geographical areas, although there is a wide range of availability of beds between these areas (40–140 per 100 000 population aged 18 years or under). Ninety per cent of general unit beds are managed by the NHS.

Eating disorder units Nine units (98 beds) are located in four out of the nine regions, namely the South East (26 beds), London (50 beds), Eastern (20 beds) and North West (2 beds). Only 18% of these beds are managed by the NHS.

Forensic units Two units (16 beds) admit young mentally disordered offenders who mainly pose a threat to others. Both units are managed by the NHS and are located in the north of England.

Secure units Three units (56 beds) mainly admit young people who pose a threat to themselves but not to others. All three units are in the south-east of England and are managed by the independent sector.

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Table 2 Classification of units and beds by type, age range and managing sector

Type of unit	No. of units (beds)	Managing sector: No. of units (beds)
General psychiatric	58 (626)	
Child	13 (115)	NHS: 13 (115)
Adolescent	40 (462)	NHS: 35 (400); independent: 5 (62)
Child and adolescent	4 (46)	NHS: 4 (46)
Adult ward with adolescent beds	1 (3)	Independent: 1 (3)
Eating disorder	9 (98)	
Adolescent	5 (73)	NHS: 2 (18); independent: 3 (55)
Adult ward with adolescent beds	4 (25)	Independent: 4 (25)
Forensic	2 (16)	
Adolescent	2 (16)	NHS: 2 (16)
Secure	3 (56)	
Adolescent	3 (56)	Independent: 3 (56)
Addiction	2 (13)	
Adolescent	1 (9)	Independent: 1 (9)
Adult ward with adolescent beds	1 (4)	Independent: 1 (4)
Learning disability service	5 (79)	
Adolescent	3 (52)	NHS: 2 (22); independent 1 (30)
Child and adolescent	2 (27)	NHS: 2 (27)
Combined paediatric and psychiatric ward	1 (12)	
Child and adolescent	1 (12)	NHS: 1 (12)
Total	80 (900)	

Addictions units Two units (13 beds) admit young people with a dual diagnosis of addiction and psychiatric problems. Both units, one in the South East and one in the West Midlands, are managed by the independent sector.

Learning disability units Five units (79 beds) admit young people with learning disabilities and psychiatric problems. All units are in England and 38% of these beds are managed by the independent sector.

Combined paediatric and psychiatric unit One 12-bedded NHS unit in the south-east of England.

Age group accepted for admission

There is considerable variation between units in the age range of patients admitted, particularly around the upper end of the range for units that target children and the lower end of the range for those that target adolescents.

Children's units Children's units predominantly admit those aged 4–13 years. All 13 children's units (115 beds) are managed by the NHS and at least one is located in every area except the South West (where there is a combined child and adolescent in-patient unit) and Wales. The size of these units range from 4 beds to 15 beds (mean 9.3).

Adolescent units These units predominantly admit those aged 12–18 years. The 54 such units provide 668 beds, 30% of which are managed by the independent sector. There is at least one unit in every region of England and in Wales.

Combined child and adolescent units Combined units admit young people across the age bands – generally from 5 years to 16 years of age. Seven units across seven regions provide 85 beds; all are managed by the NHS.

Adolescent beds in adult wards Six adult psychiatric wards, all managed by the independent sector, have earmarked a number of beds for young people. The youngest age accepted for admission is 14 years in four units, 16 years in one and 17 years in the other.

Availability and responsiveness

Twenty-four units (30%) are open for only 5 days each week; however, 14 of these would open at weekends if the need arose. Forty-nine units (61%) reported that they do not admit patients at short notice (that is, in an emergency) or provide an admission service outside office hours. There is at least one unit that does accept emergency referrals located in every region except Wales.

DISCUSSION

We believe that this paper presents a complete picture of psychiatric in-patient facilities for young people in England and Wales in October 1999. Although some new units have opened and some existing ones have closed since the survey, these changes are unlikely to have greatly altered the overall picture or reduced the usefulness of these data for the purposes of service planning or commissioning.

Overall capacity

This survey alone cannot answer the question as to whether there are enough psychiatric in-patient beds for young people in England and Wales. There are no current norms that command universal respect. Older attempts to provide norms did not allow for the specialist provision that we have identified in terms of eating disorder, forensic, secure units and so forth. They were drawn up at a time when most adolescent units assumed an upper age limit of 16 years, something that is no longer the case. More importantly, attempts to create such norms could not reflect the diversity and development of community services. This is relevant because it is widely assumed that the quality of these will affect the number of beds required. However, a separate component of the NICAPS suggests an overall deficit: this was the finding that a third of young people with a psychiatric disorder needing to be in hospital are admitted inappropriately to a paediatric or adult psychiatric ward (further details available from the author upon request).

Although it is likely that the nature and level of provision of in-patient psychiatric services for the young will vary year on year for a host of reasons, a comparison between the survey findings and the YoungMinds directory does suggest a reduction in the number of general beds available and an increase in the provision of specialist

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services by the independent sector. This can only be a tentative suggestion, because no previous complete survey has included independent-sector provision.

Distribution of beds

The most striking finding is the uneven geographical distribution of units. Taken overall, half the beds in the country are in the London and South East Regions. If specialist units are considered, eating disorder units and secure units are heavily concentrated in the South East region. There are probably a number of causes for this pattern, other than differences in population need. These may include historical factors, such as the distribution of academic centres or centres pioneering the development of child and adolescent psychiatry; demographic factors, such as the concentration of population leading to a greater perception of need; and 'market forces' within both the NHS and the private sector. Whatever the cause, the findings demonstrate the consequence of services developing in the absence of national planning.

It is not known to what extent health authorities compensate for inadequate provision by contracting beds in distant parts of the country. Even if this practice is widespread, the uneven distribution, and the resulting flow of patients from areas with need but no resource to the areas where there is provision, will have adverse consequences. Its implications in terms of provision for family therapy, continuity of care, liaison with local services, aftercare, ownership of services and accessibility for families and friends are clear.

The role of the independent sector

The involvement of the independent sector appears to have accentuated the unevenness of provision. This particularly applies to the provision of specialist services, such as eating disorder units and secure units, which are concentrated in the South East. These services are considered important by policy-makers (Department of Health, 1995; NHS Health Advisory Service, 1995), and clinicians have expressed concern about their unavailability (Duthie, 2001; Worrall & O'Herlihy, 2001).

Admission in an emergency

Emergency referrals to child and adolescent mental health service in-patient units will include not only those with acute and severe mental disorders such as severe psychosis, but also those who are causing services and carers great anxiety through their behaviour. Although admission to a psychiatric unit might not be appropriate for many in the latter group, the large number of units that will not consider urgent referrals compounds the difficulties of emergency access to social services care and intensive out-patient therapy (Cotgrove, 1997). Although it may not always be cost-effective to keep beds empty for admissions at short notice, a pilot trial of an emergency admissions service in a regional general psychiatric unit suggested that the easy availability of an assessment and second opinion can be beneficial (Cotgrove, 1997). The unwillingness or inability of many units to admit in an emergency contributes to the high number of young people admitted to adult psychiatric or paediatric wards (Duthie, 2001; further details available from the author upon request).

Five-day opening

It is likely that units that are only open for 5 days each week either cannot admit young people who are more severely disturbed or at high risk, or have to resort to placing them in another facility (such as an adult psychiatric ward) at weekends. It may also be the case that many patients who are able to benefit from a stay on a 5-day unit could attend a day hospital, provided that travel times allowed this.

Implications for planning

The relatively low volume of these services means that there is a need for coordinated service planning, including ways of achieving the optimum balance of units (e.g. general *v.* specialist) while ensuring accessibility. Up to now services have developed in a piecemeal fashion and there has been little regional or national planning. In particular, the driver of independent sector provision is likely to be financial rather than the need to

CLINICAL IMPLICATIONS

- There is very uneven distribution of child and adolescent mental health service in-patient beds, with little or no specialist provision in some regions.
- The involvement of the private sector has contributed to the concentration of provision in the south-east of England.
- The majority of units do not accept emergency admissions.

LIMITATIONS

- There may have been changes to the pattern of provision since the data were collected in October 1999.
- No information was collected about commissioning contracts, which might influence access to beds by regions that have few units within their catchment area.
- Conclusions about response to emergency admissions are based on the unit's policy and not their actual practice.

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provide a comprehensive service. The data presented in this paper provide support for a more measured and coherent approach to service planning and provision. With the changes in purchasing health services that are consequent to the establishment of primary care trusts, there is likely to be particular value in developing a national plan with regional implementation for in-patient child and adolescent mental health services. An implication of this would be to separate the purchasing of such services from local community services, perhaps on a regional basis, as with forensic mental health services. Perhaps there is now recognition of the need for this.

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