Use of hospital services by homeless families in an inner London health district

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Abstract

Over the past decade the number of families in London who were considered officially to be homeless appreciably increased. In response to this many families have been given temporary accommodation, usually in bed and breakfast hotels, while awaiting permanent rehousing. About 200 of the roughly 600 hotels in London that provide such accommodation are located in the area of the former Paddington and North Kensington Health Authority, now part of Parkside Health Authority. The use made by the homeless population of hospital services was studied by finding out the numbers of inpatients admitted to hospital and the numbers presenting to the walk in paediatric clinic and the casualty department at one hospital. These figures were compared with those for local residents and the overall workload.

The bed and breakfast population were high users of inpatient beds, the casualty department, and the paediatric clinic. Overall, about one tenth of the beds were used by these people. The health authority receives no additional funding for this group of patients. Further research is needed to find out if the high use of hospital services made by these patients reflects their increased morbidity or their inability to obtain primary care services.

Introduction

The number of families in London considered to be homeless under the terms of the 1985 Housing Act doubled in the 10 years from 1978 to 1987—from 14 430 to 28 382.¹ The main response to the increase was to place families in temporary accommodation, usually bed and breakfast hotels, while they awaited permanent rehousing. It is not known how many hotels provide this service in London nor is there information on the size and characteristics of this population of homeless people. It is estimated that at least 600 hotels were being used for temporary accommodation throughout London, roughly 200 of which were in the area served by the former Paddington and North Kensington Health Authority (now part of Parkside Health Authority). There are few published data on the use that these people make of the health services. We report the results of a preliminary analysis of the implications for an inner city health authority of having a large concentration of homeless families by comparing the use they made of hospital services with that made by local residents.

Method

Three sources of data were used: (a) the number of inpatient admissions to the two non-psychiatric hospitals in the district for May 1988; (b) a systematic one in four sample of attendances at a paediatric walk in clinic for the year 1 September 1987-31 August

1988; (c) all attendances at the casualty department at St Mary's Hospital for one week beginning 7 May 1988.

A list of the names and addresses of all hotels in Paddington and North Kensington that were known to house homeless families was compiled from the environmental health department of Westminster City Council and the Bed and Breakfast Information Exchange. The addresses of all the people who were admitted as inpatients and who attended the casualty department and the paediatric clinic were manually classified into four groups: no fixed address, bed and breakfast hotel, permanent resident of Paddington and North Kensington, and resident in other health authorities.

The resident population of Paddington and North Kensington in 1988 was estimated to be 124 000, which provides the denominator for calculating rates of use of hospital services for the local population. Data on the size and age and sex distribution of the bed and breakfast population of Paddington and North Kensington were not available from published sources. From a database of voluntary notifications from local authorities of homeless families who lived in hotels in the district, maintained by the information unit of the department of public health, we estimated the size and age structure of the homeless population living in hotels. A total of 5595 homeless people was recorded, of whom 2787 were aged 0-14 years. According to the London Research Centre there were 1569 homeless families in the district. The average family size was estimated at three, giving a total population of 4707. In this study we used 5595 as the denominator, thereby possibly underestimating the use of services by the bed and breakfast population. For analysing the data χ^2 statistics and odds ratios were used and confidence intervals calculated.²

Results

INPATIENT ADMISSIONS

During May 1988, 1563 inpatients were admitted: 1105 to St Mary's Hospital and 458 to St Charles's Hospital. At least 78 (5%) were from bed and breakfast hotels and six had no fixed abode. Seventy one of the patients from hotels went to St Mary's Hospital and seven to St Charles's Hospital, which is further away from the main hotel area. Of the 1105 patients admitted to St Mary's Hospital, 358 (32%) had a permanent home address in Paddington and North Kensington. We discuss here only the admissions and the use of emergency services at St Mary's Hospital.

For the local resident population the admission rate to hospital for the index month was 2.8 per 1000 (358/124 000) compared with 12.6 per 1000 for the hotel population (71/5595), giving a one month admission odds ratio of 4.5 (90% confidence interval 3.6 to 5.5).

There were no appreciable differences in the sex

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distribution of those admitted to hospital among the three groups (homeless population, permanent residents, and residents of other health authorities). Table I shows that a significantly higher proportion of patients admitted from bed and breakfast accommodation was aged 0-15 compared with local residents.

It was impossible to calculate age specific admission rates because there was no detailed demographic information about the population living in hotels. Some estimates, however, were available for the population aged under 16. In 1988 there were an estimated 18 400 children resident in Paddington and North Kensington, of whom 54 were admitted to hospital during the study period, a rate of 2.9 per 1000, whereas the rate for the homeless population was 6.4 per 1000 (18/2787), giving an odds ratio of 2.2 (90% confidence interval 1.4 to 2.3). Table II shows that a significantly higher proportion of patients from hotels were admitted for emergency care than local residents. An appreciably higher proportion of patients from the hotel population was admitted to the paediatric department or for antenatal care than from the local population (table III). The average length of stay for children was the same in both groups (4.2 days for children from hotels, 3.9 days for local children).

PAEDIATRIC CLINIC

A representative sample of 1379 attendances at the paediatric walk in clinic was analysed comprising 207 (15%) children from hotels and 791 (57%) children with local addresses. One hundred and one (49%) children from the hotels were boys compared with 467 (59%) of local children ($\chi^2=32.2$; $df=2$, $p=0.001$). Significantly more homeless children (194; 94%) were referred directly to the clinic than local children (680; 86%) ($\chi^2=29.7$; $df=2$; $p=0.001$). The proportion of children admitted to hospital from the two groups (13% and 16%) was similar. Children from the hotels were significantly more likely to present with an

infection (118; 57%) than local children (332; 42%) ($\chi^2=35.18$; $df=2$; $p=0.001$).

USE OF CASUALTY DEPARTMENT

A total of 1147 attendances at the casualty department were recorded: 479 (42%) residents and 56 (5%) patients from hotels (3.8 per 1000 and 10 per 1000 respectively; odds ratio 2.6, 90% CI 2.0 to 3.3). The patients from hotels were significantly younger than the residents (26.7 years and 34.4 years) and less likely to be registered with a general practitioner—two fifths compared with three fifths of permanent residents ($\chi^2=9.96$, $df=1$, $p=0.01$).

The diagnoses were grouped into four categories: trauma, infections, psychiatric, and other. Five patients from hotels had psychiatric symptoms compared with 21 residents ($\chi^2=7.25$; $df=1$; $p=0.01$). There was no difference between the two groups for the outcome of attendance at the casualty department.

Discussion

We investigated the use that homeless people living in bed and breakfast accommodation made of several hospital services. Both overall admission rates and the admission rate for children were significantly higher among the homeless population than among local residents. Moreover, a larger proportion of homeless people were admitted for emergency care. As there is no accurate denominator for the size of the homeless population, these rates must be interpreted with caution. Underestimating the numbers of homeless people may artificially inflate the rates for use of hospital services. But even if the size of this population was underestimated by half contact rates would still be appreciably higher among the homeless living in hotels than among local residents. Thus it is unlikely that the higher rates among homeless families are simply an artefact. There are also doubts about the accuracy of the resident population denominator for Paddington and North Kensington, but this probably does not adequately explain the observed differences. Neither is it likely that the admission rate for local residents is artificially lowered by their use of hospital services in neighbouring districts.

The high rates of use found for the homeless group may reflect greater morbidity or their social circumstances, which might preclude caring for a sick person in a hotel room. Some studies have attempted to measure the morbidity of those who live in temporary accommodation and have suggested an increased prevalence of various conditions among those who live in bed and breakfast hotels.^{3,4} Little account has been taken, however, of possible confounding factors such as social class or ethnicity, which may explain the perceived decrease in the state of health among this group. More rigorous studies need to be undertaken to provide data on the morbidity of this group. This will require more reliable information on the size and demographic composition of homeless families and the rates of change than is currently available.

Attendances at the casualty department and paediatric clinic unbooked show some interesting differences between the homeless and resident populations. Adults who attended the casualty department from the hotels were unlikely to be registered with a general practitioner, while children attending the clinic had referred themselves rather than being referred by a general practitioner. Rates of use for these two services were also higher among the homeless than among local residents, perhaps again reflecting greater morbidity or the use of the casualty department as a substitute for primary care services. Homeless people may have difficulties gaining access to primary care because general practitioners are unable to register

TABLE I—Numbers (percentages) of admissions to hospital for three groups of patients according to age (excluding four patients with no fixed abode)

	Homeless living in hotels (n=71)	Permanent local residents* (n=358)	Permanent residents of other areas (n=672)	Total (n=1101)
0-15	18 (25)	54 (15)	65 (10)	137 (12)
16-24	9 (13)	18 (5)	53 (8)	80 (7)
25-44	24 (34)	84 (23)	188 (28)	296 (27)
45-64	16 (22)	90 (25)	179 (27)	285 (26)
≥65	4 (6)	112 (31)	187 (27)	303 (28)

* Resident in the former health authority of Paddington and North Kensington.
 $\chi^2=32.06$, $df=8$, $p=0.001$.

TABLE II—Numbers (percentages) of admissions by type for three groups of patients (excluding four patients with no fixed abode)

	Homeless living in hotels (n=71)	Permanent local residents* (n=358)	Permanent residents of other areas (n=672)	Total (n=1101)
Elective	14 (20)	123 (34)	269 (40)	406 (37)
Emergency	43 (61)	198 (55)	316 (47)	557 (51)
Antepartum	7 (10)	22 (6)	28 (4)	57 (5)
Other	7 (10)	15 (4)	59 (9)	81 (7)

$\chi^2=25.07$, $df=6$, $p=0.001$.

TABLE III—Numbers (percentages) of admissions by specialty for three groups of patients (excluding four patients with no fixed abode)

	Homeless living in hotels (n=71)	Permanent local residents* (n=358)	Permanent residents of other areas (n=672)	Total (n=1101)
Antenatal	8 (11)	19 (5)	48 (7)	75 (7)
Medicine	22 (31)	115 (32)	197 (29)	334 (30)
Paediatrics	17 (24)	36 (10)	43 (6)	96 (9)
Surgery	16 (23)	93 (26)	155 (23)	264 (24)
Other	8 (11)	95 (27)	229 (34)	332 (30)

$\chi^2=41.98$, $df=6$, $p=0.001$.

them or because they remain on their doctor's list in their "home" borough. In response to this problem the family practitioner committee has set up a special primary care service for homeless families.

For our health district the presence of a substantial homeless population has clear resource implications. Overall, 9% of the beds at St Mary's Hospital were being used by homeless people for whom the health authority received no additional financial allocation. Given the current stringent budget constraints under which all health authorities operate, this is a great extra burden in a very deprived district. Antenatal and childcare services are most affected by the influx of homeless families. Further research is needed to measure the true size of the homeless population, how long they remain homeless, and the levels of morbidity

they experience to understand and develop services to meet their needs. If the white paper on the reform of the health service is fully implemented the implications for health care for homeless people are profound.

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- 2 Rothman KS. *Modern epidemiology*. Boston: Little, Brown, 1986.
- 3 Conway J, ed. *Prescription for poor health*. London: SHAC, Shelter, London Food Commission, and Maternity Alliance, 1988.
- 4 Stearn J. An expensive way of making children ill. *Roof* 1986 Sept/Oct:11-14.

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Regional NHS Profile

To flourish or fade: the NHS in Dumfries and Galloway

Richard Smith

Nine years ago I wrote an article describing how the NHS worked unusually well in Dumfries and Galloway.¹ The article is still remembered in that beautiful part of Scotland and is even sent out to some of those applying for jobs in the region. It is because the article is remembered and used that Dr John Macdonald, a general practitioner from Wigtown in the west of the region, wrote to me suggesting that I make another visit to look at what he sees as a deterioration.

The morale of many of my colleagues, and certainly my own, was poor before the publication of the recent white paper and has obviously not been helped by recent events. The struggle to provide a comprehensive 24 hour service in isolated rural areas... In reward for less than the average remuneration... takes its toll, particularly on family life... I recognise the symptoms of burn out even in the young. The depressing thing is that we see no way out. We are desperate for reforms in the NHS but not reforms that are going to make things infinitely worse—to the point of threatening the very viability of our current practices.

Inspired by Dr Macdonald's words I set off in August to see if things were so bad, thinking that the

future for the whole NHS must be grim indeed if it can no longer work in Dumfries and Galloway. Also ringing in my ears were the Prime Minister's recent words that she wanted to make the NHS so good that nobody would seek private care. Ironically this was effectively true in Dumfries and Galloway in 1980. I wondered if it was still true.

Assets

Many of the assets of the region identified nine years ago remain in place. One is that expenditure on the NHS at £415 for each person is higher than almost anywhere else in Britain. The area is outstandingly beautiful and offers a high quality of life. The population is united, stable, and generous to its hospitals. Recruitment of nursing and most other staff is easy, and there is even a waiting list for qualified nurses who want jobs. The region's main hospital, the Dumfries and Galloway Royal Infirmary, was built in 1975 and remains in good condition. Hospital staff have access to a swimming pool and a nine hole golf course.

Most of the consultants and general practitioners know each other personally, and the chairman of the health board knows every consultant. All the consultants with whom I spoke agreed that the standard of general practice was uniformly good. I asked consultants whether they could think of any general practitioners who weren't up to scratch, and most said no; one senior consultant did, however, admit eventually that he could think of two—"And they of course think that they're the best." The doctors also know the managers—they were administrators nine years ago—but it is in these relationships that the cracks are beginning to appear.

Improvements

There have been measurable improvements in the past nine years. A six bed hospice has been opened inside the infirmary and has improved terminal care across the region. A surgical intensive care unit has also been opened. The region has appointed consultants in dermatology, ophthalmology, and ear, nose, and throat surgery and begun its own services in these specialties. ("This region must be one of the last strongholds of otosclerosis," observed one of the ear, nose, and throat

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