ETHNICITY AND HEALTH: A COMPARISON BETWEEN THE RESPONSES TO THE QUESTION ON ETHNICITY IN THE 1991 CENSUS AND HEALTH SERVICE RECORDS

Christine E Jones

Christine Jones worked for over 30 years as a physiotherapist in the National Health Service (NHS). The research on which this article is based was undertaken while she was a student at the London School of Economics, preparing a dissertation for a Masters Degree in Demography. She has since obtained a PhD in History at the University of Essex and works as a research assistant in the UK Data Archive.

Introduction

Following the rapid increase of migration into England and Wales after the Second World War, there was a desire for more detailed information on the origins of the people enumerated than could be obtained by the birthplace question alone, which had been included in every census since 1851. Questions on previous addresses of the individual and on the birthplaces of their parents were introduced in an attempt to gain the information indirectly. A question on ethnicity was piloted for the 1981 census but abandoned following objections. It was not until the 1991 census that a question on ethnicity was asked for the first time in a British census.[1]

In December 1984 the editorial in *LPS* **33** commented on the proposal to include a question on ethnic origin in the 1991 census, describing it as an 'interesting extension of the census'.[2] The initial results of the 1991 enumeration began to be published in 1993.[3] However, there have been no articles in *LPS* making use of this new data source. The probable reason for this is that most nineteenth-century census-based local population studies have relied heavily on the technique of nominal record linkage and the 1991 census enumeration, in common with all previous enumerations, is subject to the '100 year rule' to preserve anonymity. Just because nominal information is not available, it does not mean that a local population cannot be studied, or studied demographically. While local population historians make considerable use of the census enumerators' books and published census reports for research on nineteenth-century communities, the possibilities presented by more recent census material are much more rarely explored. This article demonstrates how twentieth-century data can be used to study a local community. It uses anonymised data from the 1991 census together with anonymised data collected by the physiotherapy service of an NHS Trust in a multi-ethnic area to explore how far the service was available to and meeting the needs of the local population. The output from the 1991 census is usually

presented as a ten-category classification: White, Black-Caribbean, Black-African, Black-Other, Indian, Pakistani, Bangladeshi, Chinese, Other groups-Asian, Other groups-Other. It is these ten categories that will be used in this study.

Health inequalities and ethnic monitoring

In 1977 a working group was appointed under the chairmanship of Sir Douglas Black to 'assemble available information about the differences in health status among the social classes and about factors which might contribute to these'. It was further to 'analyse this material in order to identify possible causal relationships … and to assess the implications for policy'.[4] In 1980 the working group published what became known as the Black Report. It is notable that less than two of its 213 pages mention race or ethnicity. Sadly, the magnitude of inequalities within the health service is still a cause for concern. Twenty years later another work on health inequalities found it necessary to devote two chapters, 35 of its 221 pages, to ethnicity.[5]

There are many references in the medical literature to the issues of equity and equality in the areas of clinical need, perceived need, demand, access to and utilisation of aspects of health care by minority ethnic populations.[6] Evandrou *et al* defined an equitably distributed service as one in which only variables that measure a respondent's need for the service provide a significant explanation of whether the respondent receives the service.[7] Yet few writers on health and ethnicity have mentioned physiotherapy in this context.[8] Far more typical was the approach of Patel who, in a chapter on black elders' care—a subject on which physiotherapy might be expected to make a significant contribution—made no mention of the profession, while citing contacts with General Practitioners (GPs), district nurses, health visitors, chiropodists, dentists, opticians, social workers and even alternative practitioners.[9] McCalman entitled her report on the needs of the elderly and their carers within the Afro-Caribbean, South Asian, Vietnamese/Chinese communities 'The Forgotten People'. It would be an equally appropriate title for the physiotherapists, as she finds that only a minority knew of the existence of physiotherapy, although a majority might have benefited from it.[10]

In the period 1988–1997 the monthly journal of the Chartered Society of Physiotherapy printed only four articles of relevance.[11] Burnard described the development of a community physiotherapy service for adults in Brent in 1985 and it is remarkable for the total omission of any mention of ethnic groups, despite the fact that there had been substantial Caribbean and Indian populations in Brent since the late 1950s and the less visible European Jewish and Irish populations since the 1940s. Moreover, it was published four years after a highly critical report by Brent Community Health Council, entitled 'Black People and the Health Service', and one year after the Greater London Association for Disabled People's study 'Disability and Ethnic Minorities', which made extensive use of evidence from Brent. To be fair to Burnard, neither of these reports made any mention of physiotherapy.[12] In 1992 French reviewed the literature and took a critical look at the provision of health and

social services for people from ethnic minorities, highlighting areas of progress and suggesting how the situation might be improved.[13] Jaggi and Bithell described a questionnaire survey of physiotherapists employed by two health authorities undertaken to assess their contact and general knowledge with regard to Bangladeshi patients. The findings indicated that contact with Bangladeshi people increased awareness of their culture and customs but this did not result in fewer problems in their physiotherapy management. Communication was found to be the greatest problem, and more qualified interpreters together with cultural awareness training were suggested solutions.[14] Stewart outlined the case for physiotherapy management of the sequelae of Sickle Cell disorders and raised serious concerns about the lack of awareness of physiotherapists regarding these conditions.[15] Bhat would welcome such belated concern, having been scathing of the disproportionate amount of research directed to genetic defects affecting predominantly the white ethnic groups, such as cystic fibrosis.[16]

During the 1980s pressure was growing on public bodies to demonstrate that they were equally accessible to all sections of the community. Among the recommendations of Cox and Bostock was that 'as part of the exercise of assessing the quality of service, an area of high minority ethnic population should be selected and that NHS personnel with appropriate experience should study the relevance of the service being provided to the needs of the local minority ethnic community'.[17]

Parkside Health NHS Trust

Parkside Health NHS Trust (hereafter referred to simply as Parkside) was a Community Trust situated in such an area. It disappeared in a subsequent reorganisation, but in 1995 comprised the whole of the London Borough of Brent and the northern wards of the boroughs of Kensington and Chelsea and of Westminster.[18] Table 1 shows the population of Great Britain and the population of Parkside in 1991 by ethnic group as numbers and percentages.

Unlike local government boundaries, trust boundaries are 'semi-permeable'. Where a person lives determines to which local government authority they pay their council tax and who is responsible for collecting their refuse, and providing other services. Where a person lives does not completely control with which GP they register. Traditionally GPs had the freedom to refer their patients to the consultant of their choice. This freedom became somewhat constrained by the system of contracts between purchasers and the providers, but no single trust held the monopoly of all the contracts in their area. Thus a patient living in the area of Parkside and registered with a GP in Parkside might be referred to hospitals outside the area according to the specialist service they required.

Parkside prided itself on a sensitive response to ethnic issues such as dietary provision, spiritual observance, care of the dying, deceased and bereaved, sign-posting and information leaflets, a bi-lingual speech therapy service and a professional interpreting service.[19] Ethic monitoring of patients began in 1993.

Table 1 The population of Great Britain and the population of Parkside in 1991 by ethnic group

	Great Britain		Parkside	
Ethnic group	No.	%	No.	%
White	51,810,555	94.4	271,192	64.2
Caribbean	493,339	0.9	33,599	8.0
Black African	208,110	0.4	15,683	3.7
Black Other	219,091	0.4	8,071	1.9
Indian	840,255	1.5	45,112	10.7
Pakistani	476,555	0.9	8,473	2.0
Bangladeshi	162,835	0.3	4,513	1.1
Chinese	156,938	0.3	5,373	1.3
Other	521,166	0.9	30,311	7.2
Total	54,888,844	100.0	422,327	100.0

Sources: Census 1991, Ethnic Group and Country of Birth, Volume 2 of 2, Table A

Parkside information provided by the Office for National Statistics [ONS] in the form of 1991 Census Small Area Statistics (Crown Copyright).

Patients were asked voluntarily to supply the information and had the right to decline to answer the question. Access to medical records, both original hard copies and computerised records, is subject to strict limitations concerning what information can be released and to whom. Detailed information on an individual's ethnic group is confidential, and its availability is restricted to those involved in the direct care of the patient. It was Parkside's policy that the aggregated information was collated, analysed and subsequently fed into the planning process.

Referrals to the physiotherapy service

Referrals to the physiotherapy service in Parkside were analysed for a period of 12 months, from 1 October 1995 to 30 September 1996, to see whether the ethnic mix of the patients reflected that of the population as a whole. A 12–month period was chosen to provide a sufficiently large data set for analysis and to avoid any effects of seasonality. If one or more ethnic groups were under-represented in relation to the others this might indicate problems of access to the service. The hypothesis, therefore, was that there is no statistical difference in the distribution of the ethnic groups between those patients referred to the physiotherapy service in Parkside and the population of Parkside as a whole. Ideally one would have wanted figures for the current population of Parkside, broken down by sex, age and ethnic group, with which to compare the referrals to Parkside's physiotherapy service. Unfortunately these did not exist.[20] In the absence of ideal figures for a base population the practice used throughout Parkside of taking the 1991 census figures was adopted, despite the fact that these were more than five years out of date. For the purposes of this study a programme (Uniquery) was written which would print out by Master Patient Index (MPI) the number of all patients registered

Table 2 Comparison of physiotherapy referrals and residents of Parkside by ethnic group

Ethnic group	Physiotherapy referrals No.	Physiotherapy referrals %	% of assigned ethnicity	Residents of Parkside No.	Residents of Parkside %
White	2,741	46.1	65.4	271,192	64.2
Caribbean	328	5.5	7.8	33,599	8.0
Black African	111	1.9	2.6	15,683	3.7
Black Other	106	1.8	2.5	8,071	1.9
Indian	520	8.7	12.4	45,112	10.7
Pakistani	114	1.9	2.7	8,473	2.0
Bangladeshi	19	0.3	0.5	4,513	1.1
Chinese	16	0.3	0.4	5,373	1.3
Other Asian	20	0.3	0.5	14,007	3.3
Other Other	214	3.6	5.1	16,304	3.9
Total assigned ethnicity	4,189	70.4	100.0	422,327	100.0
Missing data	1,761	29.6			
Total	5,950	100.0			

Sources: Parkside CIS and author's calculations
ONS 1991 Census Small Area Statistics (Crown Copyright).

by all the teams of the Parkside physiotherapy service during the 12–month period. This was designed to include the ethnic code, sex, date of birth, team code and source of referral, but to omit names and addresses.

Table 2 compares the physiotherapy referrals with the residents of Parkside at the time of the 1991 census by ethnic group. It will be noted that certain ethnic groups appear to be over-represented: White, Black Other, Indian, Pakistani, Other Other; and the following groups under-represented: Black Caribbean, Black African, Bangladeshi, Chinese and Other Asian. However, the situation is far more complex than this, as the following analysis shows.

The overall sex distribution of the patients (including those whose ethnic origin was unknown) was 2,331 males to 3,619 females. It is normal for a larger number of females than males to be referred to a physiotherapy service. Sex ratios are usually expressed as the number of males per 100 females. In this case the overall sex ratio is 64.4. Any ethnic group of patients whose sex ratio deviates substantially from this, unless their sex ratio in the community as a whole also deviates, could be suspected of having limited access to physiotherapy. Table 3 presents the sex ratios of the patients in each ethnic group compared with those of the resident population.[21] Before considering the sex distribution of the patients it is worth noting that the sex ratio of the resident population supports the view that Black Caribbean and Black Other males may have been under-enumerated in the 1991 census. It also shows that among the more recent immigrants, Pakistanis and Bangladeshis, the sex ratio had not yet reached parity. Turning to the sex ratios of the patients, Black African, Bangladeshi and Other Asian women appear to be under-represented

Table 3 Comparison of sex ratio of physiotherapy referrals and residents of Parkside by ethnic group

Ethnic group	Patients Male	Patients Female	Patients Sex Ratio	Population Sex Ratio
White	1,010	1,731	58.3	91.1
Caribbean	134	194	69.1	85.3
Black African	59	52	113.5	94.4
Black Other	43	63	68.3	90.0
Indian	215	305	70.5	99.3
Pakistani	53	61	86.9	110.1
Bangladeshi	11	8	137.5	104.3
Chinese	5	11	45.5	97.2
Other Asian	11	9	122.2	94.4
Other Other	101	113	89.4	105.9
Total of assigned ethnicity	1,642	2,547	64.5	92.7

Sources: Parkside CIS and author's calculations

among the patients when compared with the resident population, as do Chinese men.

The pattern of physiotherapy referrals does not match the age distribution of the population as a whole, a disproportionate number of referrals being for members of the older age groups. Equally the ethnic groups are not distributed evenly across the age range. Migrants are typically young adult males. Once settled in this country they are joined by wives and children, further children are born in this country and elderly dependants may get permission to join them. The more recently the ethnic group arrived in this country the younger they are likely to be, such as the Bangladeshi community. However, among the Black Caribbean and Indian communities there are increasing numbers of elderly. Whereas among school children in parts of Brent it is the white ethnic group who are the minority, among the elderly the white ethnic group is relatively larger than in the population as a whole. Table 4 presents the population of Parkside by age group and ethnic group. To analyse the ethnic representativeness of the physiotherapy referrals further it is necessary to carry out an indirect standardisation for age.[22] Table 5 shows the actual referrals by ethnic group and age band. Where the actual referrals for an age band were zero they have been combined with the referrals for the adjacent age band to give a numerator for calculating the ratio for Table 6. The figures for the corresponding expected referrals were combined to give the denominator.

The standardised referral ratio in a given age-group for an ethnic category is equal to the actual number of referrals experienced by that ethnic category divided by the number that would have been expected if that ethnic group had had the same age-specific referral ratio as the population as a whole. In other words, if j represents an ethnic category, P represents the total number of

Table 4 1991 Census Small Area Statistics for Parkside for ethnic group by age group [C]

Ethnic group	0–4 yrs	5–15 yrs	16–29 yrs	30 yrs to pension age	Pension age	Total
White	12,503	22,643	70,224	110,165	55,657	271,192
Caribbean	2,379	4,877	8,637	14,447	3,259	33,599
Black African	1,620	2,755	5,491	5,485	332	15,683
Black Other	1,344	2,267	2,813	1,469	178	8,071
Indian	3,764	8,544	9,938	19,989	2,877	45,112
Pakistani	914	1,913	2,163	3,234	249	8,473
Bangladeshi	572	1,363	1,089	1,399	90	4,513
Chinese	272	595	1,874	2,411	221	5,373
Other Asian	1,068	1,842	3,800	6,903	394	14,007
Other Other	2,026	3,561	4,432	5,585	700	16,304
Total [R]	26,462	50,360	110,461	171,087	63,957	422,327

Source: ONS 1991 Census Small Area Statistics (Crown Copyright).

Table 5 Actual referrals by ethnic group and age band [E]

Ethnic group	0–4 yrs	5–15 yrs	16–29 yrs	30 yrs to pension age	Pension age	Total
White	31	34	251	864	1,561	2,741
Caribbean	6	4	30	174	114	328
Black African	10	7	16	63	15	111
Black Other	2	4	17	68	15	106
Indian	9	10	45	329	127	520
Pakistani	6	2	19	65	22	114
Bangladeshi	1	0	4	7	7	19
Chinese	0	1	3	8	4	16
Other Asian	1	0	4	9	6	20
Other Other	10	9	20	123	52	214
Total [P]	76	71	409	1,710	1,923	4,189

Source: Parkside CIS

referrals in the age group (Table 5), R represents the number of people in the age group enumerated in the 1991 census as residents of Parkside (Table 4), C j is the number of people enumerated in the 1991 census in ethnic category j, and Ej is the number of referrals in ethnic category j, then the standardised referral ratio is calculated as follows:

$$\text{Standardised referral ratio in age group} = \frac{\text{actual referrals}}{\text{expected referrals}} = \frac{Ej}{Cj(P/R)}$$

Table 6 Standardised referral ratios [E/C(P/R)]

Ethnic group	0–4 yrs	5–15 yrs	16–29 yrs	30 yrs to pension age	Pension age	0–15 yrs
White	0.9	1.1	1.0	0.8	0.9	
Caribbean	0.9	0.6	0.9	1.2	1.2	
Black African	2.1	1.8	0.8	1.1	1.5	
Black Other	0.5	1.3	1.6	4.6	2.8	
Indian	0.8	0.8	1.2	1.6	1.5	
Pakistani	2.3	0.7	2.4	2.0	2.9	
Bangladeshi	0.6	0.0	1.0	0.5	2.6	0.3
Chinese	0.0	1.2	0.4	0.3	0.6	0.6
Other Asian	0.3	0.0	0.3	0.1	0.5	0.2
Other Other	1.7	1.8	1.2	2.2	2.5	

Source: Author's calculations

If there were no statistical difference in the distribution of the ethnic groups between those patients referred to the physiotherapy service in Parkside and the population of Parkside as a whole each standardised referral ratio would be close to unity. Clearly, from Table 6, this is not the case for Caribbean children aged 5–15, African babies and children, African pensioners, all Black Other age groups, Indian adults aged over 30, all Pakistani age groups, all but the 16–29 year old Bangladeshi age groups, all the Chinese age groups, all the Other Asian age groups and all but the 16-29 year old Other Other age groups. Deviation from unity is the rule rather than the exception for all ethnic groups except the White and the Caribbean. Bangladeshi children, Chinese adults and all Other Asians are grossly under-represented. African and Pakistani babies, Pakistani and Black Other adults, and Bangladeshi elderly, are grossly over-represented. However, it should be remembered that the figures for both actual and expected referrals for some age and ethnic groups are very small and that there are 1,761 patients for whom the ethnic origin is unknown. This shows the distortion that may occur from incomplete recording of ethnic monitoring. Alternatively, changes in the population since 1991 could account for those groups with very high Standardised Referral Ratios. It is possible that larger numbers of African and Pakistani babies than of other ethnic groups were now living in Parkside.[23] It may be that Black Other adults were under-enumerated in 1991 and the level of referrals actually reflects the true number in the population. There may have been in-migration by Pakistani adults and Bangladeshi elderly. This shows the difficulty of working with data that are five years out of date.

Conclusion

Initial aggregative analysis showed less than 3 per cent difference between the ethnic distribution of the patients and the population of Parkside (Table 2). However, on disaggregating by sex and by age it was found that there was a significant mis-match between patients and population. The groups that

appeared to be under-represented were Bangladeshi children, Chinese adults and Other Asians of all ages. The groups that were over-represented were African and Pakistani babies, Pakistani and Black Other adults and the Bangladeshi elderly. Chinese males, African, Bangladeshi and Other Asian females were particularly under-represented. Unless these groups have less need for physiotherapy, which is not suggested anywhere in the literature, the physiotherapists of Parkside were failing to provide an equitably distributed service.

As the analysis progressed to further levels of disaggregation the problems of missing data became more apparent. 1995–1996 was the wrong time to be carrying out such a study as the population base from the 1991 census was five years out of date. It seems likely that there had been considerable change in the ethnic and age structure of the population in the intervening period and this may have been the reason why some groups appear to be over-represented.[24] The difficulty of accounting for all the residents of Parkside was further complicated by the presence within the geographic area of physiotherapy services administered by other trusts.[25] Nor should it be assumed that NHS Trusts hold the monopoly of physiotherapy services. No attempt was made in this study to discover the ethnic mix of patients attending private hospitals or individual private physiotherapists. This could distort the referral patterns to the NHS. While physiotherapists may be the major providers of physical therapy for neurological and respiratory conditions, they compete with osteopaths and chiropractors to provide a service for musculo-skeletal conditions. It may be that other manual therapists are preferred by members of minority ethnic populations as well as sections of the white majority. Opinions in the literature vary as to how much minority ethnic groups use alternative practitioners.[26] What is not in doubt is the availability of alternative medicine within Parkside: over 45 outlets were identified from the local *Yellow Pages*.[27]

Throughout this study the emphasis was on ethnicity as defined in the 1991 census. However, Clark and Bhat claimed that for many Muslims their Muslim identity based on faith is greater than any ethnic identity.[28] Work based on ethnicity may ignore vital cultural aspects. No attempt was made to analyse the patients by religion, partly because it was known that there were even greater problems with missing data in this field, but also because there was no standard against which to measure the findings. The religious question in the 2001 census provides such a standard, and studies could now be undertaken into access to services by religion. It is hoped that this article will provide a stimulus to other local population historians to use material from the late twentieth-century censuses, particularly the Samples of Anonymised Records, to study the more recent demographic history of local communities.

NOTES

1. For fuller descriptions of the need for and development of a question on ethnicity see D. Coleman and J. Salt eds, *Ethnicity in the 1991 Census: demographic characteristics of the ethnic minority population* (London, 1996), 1–62; C. Peach ed., *Ethnicity in the 1991 Census: the ethnic minority populations of Great Britain* (London, 1996), 1–24; P. Ratcliffe ed., *Ethnicity in the 1991 Census: social*

geography and ethnicity in Britain (London, 1996), 1–22; V. Karn ed., *Ethnicity in the 1991 Census: employment, education and housing among the ethnic minority populations of Britain* (London, 1997), xi–xxiv.

2. 'Editorial', *Local Population Studies*, **33** (1984), 7.
3. A. Teague, 'Ethnic group: first results from the 1991 Census', *Population Trends*, **72** (1993), 12–17.
4. P. Townsend, N. Davidson and M. Whitehead, *Inequalities in health* (London, 1982), xi.
5. H. Graham ed., *Understanding health inequalities* (Buckingham, 2000), 23–57.
6. Those published before 1995 were comprehensively reviewed in C. Smaje, *Health, race and ethnicity* (London, 1995), 91–145.
7. M. Evandrou, J. Falkingham, J. Le Grand and D. Winter, 'Equity in health and social care', *Journal of Social Policy*, **21** (1992), 489–523.
8. The exceptions are: J. Cruickshank and D. Beevers, *Ethnic factor in health and diseases* (Sevenoaks, 1989), 136; A. Hopkins and V. Bahl, *Access to health care for people from black and ethnic minorities* (London, 1993) 32; A. Norman, *Triple jeopardy: growing old in a second homeland* (London, 1985) 72, 77; T. Rathwell and D. Phillips, *Health, race and ethnicity* (London, 1986), preface, unpaginated.
9. N. Patel, 'Healthy margins: black elders' care – models, policies and prospects', in W Ahmad ed., *'Race' and health in contemporary Britain* (Buckingham, 1993), 114–34.
10. J. McCalman, *The forgotten people* (Kings Fund Centre, 1990). A search of the catalogues of the Kings Fund Library and Information Service in 1997 revealed very few references to access to physiotherapy services by minority ethnic populations.
11. A further search in December 2005 produced only three more articles on ethnicity in six years.
12. S. Burnard, 'Development of a community physiotherapy service', *Physiotherapy*, **74** (1988), 4–8; Brent Community Health Council, *Black people and the health service* (1981); Greater London Association for Disabled People, *Disability and ethnic minority communities* (1987).
13. S. French, 'Health care in a multi-ethnic society', *Physiotherapy*, **78** (1980), 174–80.
14. A. Jaggi and C. Bithell, 'Relationships between physiotherapists' level of contact, cultural awareness and communication with Bangladeshi patients in two health authorities', *Physiotherapy*, **81** (1995), 330–7.
15. M. Stewart, 'Sickle cell disorders and physiotherapy', *Physiotherapy*, **83** (1997) 333–9.
16. M. Grimsley and A Bhat, 'Health', in A. Bhat, R. Carr-Hill and S. Ohri eds, *Britain's black population* (Aldershot, 1988), 188–93.
17. J. Cox and S. Bostock, *Racial discrimination in the health service* (Newcastle-under-Lyme, 1989), 13.
18. Brent had the highest proportion of ethnic minority residents of any local authority in England and Wales. For details see *1991 Census ethnic groups in Brent* (Brent, 1994); *The Royal Borough of Kensington and Chelsea: ethnic origin and country of birth* (London, no date); *City of Westminster 1991 Census ward profiles* (London, 1993).
19. GRIP (Group of Reliable Interpreters from Parkside) was developed so that people could communicate in the language with which they felt most comfortable. By 1995 it offered over 40 languages and extended beyond Parkside, covering a large part of north-west London. Other organisations used GRIP's services extensively.
20. If the ethnic origin of all patients registered with a GP had been recorded and passed to the health authority, it would, in theory, have been possible to obtain the sex, age and ethnic origin of the base population. Enquiries to Brent and Harrow Health Authority drew the response from their medical demographer that only a few practices were collecting data on the ethnic group of their patients and the information was not readily available.
21. This illustrates the assertion that Black Caribbean and Black Other males were under-enumerated in the 1991 census. It also shows that among the more recent immigrants, Pakistanis and Bangladeshis, the sex ratio had not yet reached parity.
22. C. Newell, *Methods and models in demography* (Chichester, 1988), 66–7.
23. There was anecdotal evidence from health visitors of in-migration by Somali and Kurdish refugees to support this: that is, Black African and Other Asian respectively.
24. It was recommended in the report to Parkside that plans be made for the replication of this study by other services to coincide with the 2001 census.
25. Central Middlesex Hospital is located in an area of Brent where over 20 per cent of the residents are Caribbean. Northwick Park Hospital is located in an area where over 20 per cent are Indian.

These residents may go in preference to their local hospital for physiotherapy rather than to Willesden or Wembley respectively, which are administered by Parkside.

26. Rathwall and Phillips, *Health, Race and ethnicity*, 12; W. Ahmad ed., '*Race*' *and health in contemporary Britain*, 142; B. Qureshi, 'Alternative/complementary medicine' in B. McAvoy and L. Donaldson eds, *Health care for Asians* (Oxford, 1990), 93–115; U. Sharma, 'Using alternative therapies', in P. Abbott and G. Payne eds, *New directions in the sociology of health* (Basingstoke, 1990), 127–39; N. Thorogood, 'Caribbean home remedies', in P. Abbott and G. Payne eds, *New directions*, 140–52.
27. These included acupuncture, aromatherapy, fitness centres, health clubs, health foods, herbalists, homeopathy, hypnotherapy, massage and reflexology.
28. C. Clark and A. Bhatt, *Muslim health profile* (Brent and Harrow Health Agency, 1996).