the labour ward, getting started in breast feeding, and willingness to deliver another child later.

Mothers' were also asked:

Did you have confidence in yourself during your delivery/confidence in the staff? Did you experience tolerable pain/intolerable pain/fear that your delivery would not succeed/fear that your baby would not survive/fear that you would not survive?

Did you feel exhausted?

Did you feel that your delivery was easier/more difficult than you had expected?

Was your childbirth a period of happiness/horror?

Was the atmosphere at the hospital reception friendly/encouraging/calm/busy/harsh/nervous/fear inducing and stress inducing/fear reducing and stress reducing?

How did you experience your labour pains?

How would you assess the atmosphere at the puerperal department?

How well did getting breast feeding started succeed?

Are you still breast feeding? (At the time of the three month follow up)

Would you like to have another baby?

PARENTS' SOCIODEMOGRAPHIC VARIABLES

Age

Basic education

Vocational education

Occupation

Estimation about one's own social position.

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Changes in ethnic minority membership of health authorities 1989-92

Nick Jewson, David Mason, Helen Bourke, Chris Bracebridge, Frances Brosnan, Kim Milton

Ethnicity Research Centre, University of Leicester, Leicester LE1 7RH
Nick Jewson, codirector
David Mason, codirector
Helen Bourke, postgraduate trainee
Chris Bracebridge, postgraduate trainee
Frances Brosnan, postgraduate trainee
Kim Milton, postgraduate trainee

Correspondence to:
Messrs Jewson and Mason.

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In 1989 a King's Fund survey concluded that ethnic minority membership of health authorities was already low¹ and suggested that changes proposed in *Working for Patients*² could lead to a further decline. In 1992 we did a similar study of the ethnic composition of health authorities to compare the findings with the earlier data.

Methods and results

The 1992 survey used the same questionnaire as the earlier study, save only for necessary changes to categories of membership. In 1989 there were 14 regional health authorities and 190 district health authorities in England. Each comprised a chairperson and 16 or more members. The members were divided among professional (4-6), local authority (4), and generalist or lay (8) members. In 1992 there were 14 regional health authorities and 179 district health authorities (although several mergers were in progress). Their reduced membership comprised a chairperson, five non-executive members, and up to five executive members. All regional health authorities and 157 district health authorities replied to questionnaires mailed in March 1992.

In 1989 none of the chairs of regional health

authorities and only seven of the 208 other members (3%) were from ethnic minorities. In 1992 there were still no ethnic minority chairs and just two of the 141 members were of ethnic minority origin (1.4%), both holding non-executive appointments (see table). In 1989 none of the chairs of district health authorities and 3% of the other members (89 of 2974) were from ethnic minority groups. Of these 50 (56%) were Asian while a further 24 (27%) were of Caribbean origin. In 1992 one district health authority reported an Asian chair. Thirty seven (2.6%) of the 1405 other members were from ethnic minority groups. Between 1989 and 1992 the proportion of Asian members marginally increased (from 1.6% to 1.7%) but those of Caribbean origin declined from 0.8% to 0.1% (see table). Members from ethnic minorities were twice as likely to be non-executives than executives. The National Health Service and Community Care Act 1990 reduced total numbers of health authority members by nearly half. Between 1989 and 1992 Asian membership also roughly halved (from 50 to 26) but Afro-Caribbean membership fell disproportionately (from 24 to just 2).

Comment

Estimates derived from the 1991 census suggest that

Ethnic origin of members of regional and district health authorities (including chairs) in 1989 and 1992

	Regional authorities		District authorities	
	1989	1992	1989	1992
White	214 (97)	139 (99)	3066 (97)	1525 (98)
African	1 (0.5)	1 (0.7)	6 (0.2)	2 (0.1)
Caribbean	2 (0.9)	0	24 (0.8)	2 (0.1)
Asian	3 (1.4)	1 (0.7)	50 (1.6)	26 (1.7)
Other	1 (0.5)	0	9 (0.3)	7 (0.4)
Total	221	141	3155	1562

people from ethnic minorities comprise some 6.2% of the population of England. Both the 1989 and 1992 surveys show an ethnic minority presence on health authorities considerably below this level. They also indicate a decline over the period in ethnic minority membership of regional health authorities and in Afro-Caribbean membership of district health authorities. This may, in part, reflect the enhanced role of executive positions and the disappearance of local authority and generalist members. Indeed, reorganisation was intended to make health authorities more managerial with less emphasis on representation. Nevertheless, Department of Health guidance specifically enjoins authorities to seek "a greater proportion of women and candidates from ethnic minority groups..."³ and suggests that district authorities should play important local advocate functions in making the National Health

Service more responsive to the needs of local communities. A recent survey revealed that members themselves emphasised the importance of non-executives, in particular, "acting as the voice of the community."⁴ Moreover, managerial effectiveness might well be heightened by the inclusion of a broader cross-section of the population. In short, it seems that fears expressed in the earlier report were not groundless.

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A survey of intravenous drug administration by preregistration house officers

K Teahon, D N Bateman

Regional Drug and Therapeutic Centre, Wolfson Unit of Clinical Pharmacology, Newcastle upon Tyne NE1 4LP
K Teahon, senior registrar
D N Bateman, reader in therapeutics

Correspondence to:
Dr Teahon.

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Preregistration house officers may spend up to one fifth of their time giving intravenous drugs, often to unfamiliar patients.¹⁻³ The quality of their training for and their skill in performing this task have both been questioned.^{2,4,5} We attempted to evaluate, by anonymous questionnaire, the procedures used by preregistration house officers in giving intravenous drugs and the frequency and nature of any drug errors which they know have occurred. In addition we examined, by postal survey of medical schools, the extent of undergraduate instruction in the practicalities of parenteral drug administration.

Methods and results

An anonymous postal questionnaire was sent to 138 preregistration house officers working in 20 units in the Northern Regional Health Authority. These were mainly graduates of the University of Newcastle upon Tyne and were identified from the list of 226 house officer posts in Northern region held by the postgraduate dean's office. The survey was conducted during July 1992 (the last month of the preregistration year for most doctors). A reminder was sent two weeks after the questionnaire had been distributed, and at least two doctors from each hospital were contacted by telephone to ensure that they had received the questionnaire and to remind them and their colleagues to complete it, if they had not already done so. The questions asked are summarised in the table. One hundred and eleven (80%) of the questionnaires were returned and all were suitable for analysis.

Questionnaires were then sent to the heads of clinical pharmacology at all 27 medical schools in the United Kingdom listed in the *Medical Directory*. Twenty three (85%) replied; the table shows their comments.

The 19 doctors who could recall undergraduate or postgraduate instruction in giving intravenous drugs did not have a different error rate than the 92 who had not had instruction (11/19 v 40/92; $\chi^2=0.80$, $p=0.37$). Doctors working in units where nurses routinely gave intravenous drugs (19) had a similar error recall rate to those in other units (11/19 v 40/92; $\chi^2=0.80$, $p=0.37$).

Comment

Any attempt to assess the real error rate in medical

practice is hampered both by the reluctance of staff to disclose their mistakes and their frequent lack of awareness that mistakes have happened unless clinical problems ensue. In addition to this, a retrospective questionnaire is obviously limited by accuracy of recall.

Despite these problems this study shows that most preregistration house officers surveyed used unsatisfactory methods for giving intravenous drugs. Although these findings suggest that current instruction is inadequate, consideration should also be given to other circumstances of the preregistration year

Summary of response to questionnaire on administration of intravenous drugs

Questions	No (%) of replies
House officers (n=111)	
Aware of hospital or district guidelines	12 (11)
Can recall undergraduate instruction	8 (7)
Can recall postgraduate instruction	11 (10)
The staff routinely responsible for giving intravenous drugs are:	
Nurses	19 (17)
Doctors	36 (32)
Variable	56 (51)
Check patients identity wristlet against prescription sheet:	
Never	24 (22)
Rarely	58 (52)
Usually	28 (25)
Always	1 (1)
Have read data sheets of commonly administered drugs:	
None	7 (6)
Some	56 (50)
Most	43 (39)
All	5 (5)
Double check drugs and diluents with another member of staff:	
Never	33 (30)
Rarely	62 (56)
Usually	14 (12)
Always	2 (2)
Number of errors made when administering intravenous drugs since February 1992:	
None	60 (54)
1	32 (29)
2 or 3	17 (15)
4 or 5	2 (2)
Type of errors recalled:	
Wrong drug	8 (10)
Wrong diluent	9 (11)
Wrong dose of drug	22 (27)
Wrong dose of diluent	8 (10)
Wrong patient	21 (25)
Other	14 (17)
Usually flush cannula before administration	6 (5)
Usually flush cannula after administration	9 (8)
Medical schools (n=23)	
Students are expected to learn this procedure during their clinical attachments	11 (48)
Students are given a self completed "check list" of procedures of which this is one	5 (22)
"Check list" of procedures is signed by whoever has done the instruction	1 (4)
Formal lecture session	5 (22)*
Obligatory "practical skills" session	2 (8)

*Three combined lectures with check lists or practical skills sessions. Two other medical schools replied: one gave no teaching to undergraduates on this topic ("We believe this and other practical procedures should be taught to PRHOs"); in the other "All techniques except check lists are used and individual examination is to be introduced in the near future."