

- coronary events with lovastatin in men and women with average cholesterol levels: results of AFCAPS/TextCAPS. *JAMA* 1998;279:1615-22.
- 7 Shepherd J, Cobbe SM, Ford I, Isles CG, Lorimer AR, MacFarlane PW, et al. Prevention of coronary heart disease with pravastatin in men with hypercholesterolemia. *N Engl J Med* 1995;333:1301-7.
  - 8 Hansson L, Zanchetti A, Carruthers SG, Dahlöf B, Elmfeldt D, Julius S, et al. Effects of intensive blood-pressure lowering and low-dose aspirin in patients with hypertension: principal results of the hypertension optimal treatment (HOT) randomised trial. *Lancet* 1998;351:1755-62.
  - 9 MacMahon SW, Cutler JA, Neaton JD, Furberg CD, Cohen JD, Kuller LH, et al. Relationship of blood pressure to coronary and stroke morbidity and mortality in clinical trials and epidemiological studies. *J Hypertens* 1986;4(suppl):S14-7.
  - 10 Prescott E, Hippe M, Schnohr P, Hein HO, Vestbo J. Smoking and the risk of myocardial infarction in women and men: longitudinal population study. *BMJ* 1998;316:1043-47.
  - 11 UK Prospective Diabetes Study Group. Tight blood pressure control and risk of macrovascular and microvascular complications in type 2 diabetes (UKPDS 38). *BMJ* 1998;317:703-13.
  - 12 UK Prospective Diabetes Study (UKPDS) Group. Intensive blood-glucose control with sulphonylureas or insulin compared with conventional treatment and risk of complications in patients with type 2 diabetes. *Lancet* 1998;352:837-85.
  - 13 Scandinavian Simvastatin Survival Study Group. Randomised trial of cholesterol lowering in 4444 patients with coronary heart disease: the Scandinavian Simvastatin Survival Study (4S). *Lancet* 1994;344:1383-89.
  - 14 Medical Research Council general practice research framework. Thrombosis prevention trial: randomised trial of low intensity oral anti-coagulation with warfarin and low-dose aspirin in the primary prevention of ischaemic heart disease in men at increased risk. *Lancet* 1998;351:233-41.
  - 15 Mehta RH, Eagle KA. Secondary prevention in acute myocardial infarction. *BMJ* 1998;316:838-42.
  - 16 Anderson KM, Odell PM, Wilson PWF, Kannel WE. Cardiovascular disease risk profiles. *Am Heart J* 1991;121:293-8.
  - 17 Second Joint Task Force of European and Other Societies on Coronary Prevention. Prevention of coronary heart disease in clinical practice. *Eur Heart J* 1998;19:1434-503.
  - 18 National Cholesterol Education Program. Second report of the expert panel on detection, evaluation, and treatment of high blood cholesterol in adults (adult treatment panel II). *Circulation* 1994;89:1329-445.
  - 19 National Health Committee. *Guidelines for the management of mildly raised blood pressure in New Zealand*. Wellington: Ministry of Health, 1998. [www.nzgg.org.nz/library/gl\\_complete/bloodpressure/index.cfm#contents](http://www.nzgg.org.nz/library/gl_complete/bloodpressure/index.cfm#contents) (accessed 5 Sept 2001).
  - 20 Department of Health. *National service framework for coronary heart disease*. London: HMSO, 2000.
  - 21 Wallis EJ, Ramsay LE, Ul Haq I, Ghahramani P, Jackson PR, Rowland-Yeo K, et al. Coronary and cardiovascular risk estimation for primary prevention: population validation of a new Sheffield table. *BMJ* 2000;320:671-6.
  - 22 Isles CG, Ritchie LD, Murchie P, Norrie J. Risk assessment in primary prevention of coronary heart disease: randomised comparison of three scoring methods. *BMJ* 2000;320:690-1.
  - 23 Peters TJ, Montgomery AA, Fahey T. How accurately do primary health care professionals use cardiovascular risk tables in the management of hypertension? *Br J Gen Pract* 1999;49:987-8.
  - 24 Grover SA, Lowensteyn I, Esrey KL, Steinert Y, Joseph L, Abrahamowicz M. Do doctors accurately assess coronary risk in their patients? Preliminary results of the coronary health assessment study. *BMJ* 1995;310:975-8.
  - 25 Montgomery AA, Fahey T, Mackintosh C, Sharp DJ, Peters TJ. Estimation of cardiovascular risk in hypertensive patients in primary care. *Br J Gen Pract* 2000;50:127-8.
  - 26 Ramsay LE, Haq IU, Jackson PR, Yeo WW, Pickin DM, Payne JN. Targeting lipid-lowering drug therapy for primary prevention of coronary disease: an updated Sheffield table. *Lancet* 1996;348:387-8.
  - 27 Wood D. European and American recommendations for coronary heart disease prevention. *Eur Heart J* 1998;19 (Suppl A):A12-9.
  - 28 British Cardiac Society, British Hyperlipidaemia Association, British Hypertension Society, endorsed by the British Diabetic Association. Joint British recommendations on prevention of coronary heart disease in clinical practice. *Heart* 1998;80(suppl 2):1-29. [http://heart.bmjournals.com/cgi/content/full/80/suppl\\_2/S1](http://heart.bmjournals.com/cgi/content/full/80/suppl_2/S1) (accessed 21 Dec 2001).
  - 29 Erens R, Primatesta P. *Health survey for England 1998*. London: Stationery Office, 1999:1-368.
  - 30 Landis JR, Koch GG. The measurement of observer agreement for categorical data. *Biometrics* 1977;33:159-74.

(Accepted 15 October 2001)

## Experiences and career intentions of general practice registrars in Thames deaneries: postal survey

Isobel Bowler, Neil Jackson

22 Marriott Road,  
London N4 3QL  
Isobel Bowler  
independent health  
service researcher

London  
Department of  
Postgraduate  
Medical and Dental  
Education, London  
WC1N 1DZ  
Neil Jackson  
dean of postgraduate  
general practice  
education

Correspondence to:  
I Bowler  
isobel@gower.  
u-net.com

*BMJ* 2002;324:464-5

The national plan for the NHS in Britain has promised an additional 2000 general practitioners and 550 training places for general practice registrars by 2004.<sup>1</sup> A study of the experiences and career intentions of general practice registrars was commissioned by the four deans of postgraduate general practice education responsible for south east England. These deaneries included a third of all registrars in general practice training in England.<sup>2</sup>

### Methods and results

A postal questionnaire was developed, piloted, and sent to all 470 general practice registrars in the Thames deaneries in April 2000. Altogether 373 (79%) completed questionnaires were returned, 92% (330/358) by registrars in their final year of training. The proportion of female respondents (60%, 218/365) was similar to the national average<sup>2</sup>; the participants' median age was 30.0 years (mean 31.5 years). Most had trained in UK medical schools, but 29% (108/373) had qualified overseas (table). Doctors qualified overseas were older than UK graduates. Almost two thirds had chosen general practice after becoming a doctor, a median of three years after qualification.

Most registrars were satisfied with their training. Fifty eight per cent (213/366) would prefer the general

practice component of training to be extended by six months, to 18 months. Seventy four per cent (272/369) would be interested in a salaried post combining clinical work with further training and development for 12 months, and 70% (257) would be interested in a programme of higher professional education for up to 12 months after completing training.

Altogether 94% (349/370) intended to work in general practice in the United Kingdom at some stage in their career, 1% (4) did not intend to do so, and 4% (17) were undecided. Four per cent (2/45) of doctors who had qualified in the European Union did not intend to work in the United Kingdom and 22% who had qualified in the United Kingdom (10) were undecided ( $P < 0.0001$ ,  $\chi^2$  test). Graduates from medical schools outside the European Union had similar intentions to graduates from the United Kingdom.

Overall 74% (275/370) intended to take a general practice job immediately after training, but only 26% (96) a principalship. A significantly higher proportion of men than women intended to go straight into a principalship (37% (54/147) *v* 18% (39/218);  $P < 0.001$ ,  $\chi^2$  test). Overall, 81% (301/373) intended to be a principal at some stage (14% (53) were undecided). Overall, 52% (194/370) anticipated becoming a principal within 12 months and a further 24% (89) within 24 months of finishing training.

Characteristics of general practice registrars participating in the survey. Where the difference by sex is significant, the results are given. Values are percentages (numbers) unless otherwise specified

	Value
Sex (n=365):	
Men	40 (147)
Women	60 (218)
Median (range) age (n=362):	30.0 (95% CI 24 to 59)
By place of qualification†:	
UK medical school (n=259)	29.0 (24-50)
Non-UK medical school (n=103)	35.0 (25-59)
EU medical school (n=44)	33.50 (25-50)
Non-EU medical school (n=59)	35.0 (28-59)
Medical school (n=373):	
In UK	71 (265)
Elsewhere in EU	12 (45)
Elsewhere in world	17 (63)
Medical school attendance by sex (n=365):*	
Men (non-UK school) (n=147)	37 (55)
Women (non-UK school) (n=218)	23 (50)
Timing of decision to become general practitioner (n=373):	
Before medical school	7 (26)
At medical school	17 (65)
During preregistration year	14 (52)
After becoming doctor	62 (230)
Median (range) number of years (n=229)‡	3.0 (0-23)
Type of general practitioner training (n=372):	
Three year vocational scheme	46 (171)
Registrar year after self organised hospital training	54 (201)
Full or part time training (n=372):	
Part time	8 (28)
Men (n=147)	1 (2)
Women (n=218)	12 (25)
Satisfaction with general practitioner training (n=364):	
Satisfied or very satisfied	77 (281)
Mixed	17 (61)
Dissatisfied or very dissatisfied	6 (22)
Life partner's career affects where registrar can work (n=295):**	
Women (n=170)	79 (134)
Men (n=113)	53 (60)
Marital status (n=373):	
Has spouse or partner	79 (295)
Spouse or partner is doctor	29 (107)
Has children under 18 (n=371):	
Men (n=147)***	40 (58)
Women (n=218)	29 (63)

†Differences are significant between UK and non-UK graduates ( $P < 0.0001$ ,  $t$  test) and between EU and other overseas qualified doctors ( $P = 0.006$ ,  $t$  test).

‡Mean (SD) 4.7 (4.34). \* $P = 0.003$ ,  $\chi^2$  test. \*\* $P < 0.0001$ ,  $\chi^2$  test.

\*\*\* $P < 0.036$ ,  $\chi^2$  test.

Of those intending to be principals, 48% (143/301) planned to work full time. Thirty per cent (51/171) of women and 75% (91/122) of men planned to work full time ( $P < 0.0005$ ,  $\chi^2$  test). Overall, almost half (49%, 179/365) planned to work in general practice in the health authority in which they trained, 38% (138) as a principal.

## Comment

Our study shows that the government's national plan may underestimate the numbers of new doctors needed. Another study has estimated that 150 new entrants to general practice are required to replace 100 retiring principals, but this is a minimum figure.<sup>3</sup> If the government's ambitious target of 2000 new general practitioners is to be met, then the 550 promised new

training posts will not be enough. Qualified doctors currently in practice should be retained and encouraged to participate more in the workforce.

More than 10% of doctors training for general practice had attended medical school in other EU countries, and this group showed less commitment to working in general practice in the United Kingdom. Only half the registrars intended to stay in the health authority where they trained. Many expressed an interest in working part time, especially women registrars, who now make up more than half of doctors training for general practice.

NJ, Patrick Pietroni, Abdol Tavabie, and Ri Hornung (the four deans of postgraduate general practice for the former North and South Thames deaneries) had the idea for the survey and commissioned the work. They commented on the draft questionnaire, coordinated the mailout to the registrars in their deaneries, and commented on earlier drafts of this paper. NJ also arranged the piloting of the questionnaire and commented on the final draft of the paper. IB reviewed the literature, designed the questionnaire, analysed the data, and wrote this paper. Jackie Bradford entered the data. IB is the guarantor.

Funding: The work was funded by the four Thames postgraduate general practice deaneries.

Competing interests: None declared.

1 Secretary of State for Health. *The NHS plan. A plan for investment. A plan for reform*. London: Stationery Office, 2000.

2 NHS Executive. *General and personal medical statistics England and Wales: 1 October 1999*. Leeds: NHS Executive, 2000.

3 Royal College of General Practitioners. *The primary care workforce. A descriptive analysis*. London: RCGP, 1997.

(Accepted 27 October 2001)

## Christmas corrections and clarifications

### *Photofinish*

We unfortunately neglected to include the names of two contributors to the final page in our Christmas issue. We apologise for not attributing the piece about the Kettering hypertherm to Dr J Martin Stewart, a retired general practitioner from Oxford and Dr Rob Wilcox from Flinders Medical Centre in Adelaide, South Australia.

### *In grandfather's room*

We were 10 years out with a date in this article by A M Clarfield (22-29 December, pp 1496-7). The article was originally published in the *New York Times Sunday Magazine* in 1986, not in 1996.

### *Christiaan Barnard: his first transplants and their impact on concepts of death*

We have received several communications about a photograph that appeared in this article by Raymond Hoffenberg (22-29 December, pp 1478-80). We published what we thought was a 1967 photograph of Christiaan Barnard explaining heart transplantation. However, some readers have told us that the photograph shows Marius Barnard, Christiaan's brother. Hoffenberg himself was at first sure that it was Christiaan but now thinks it may indeed be Marius. The picture agency that supplied the picture has no information other than that it is Christiaan.

### *Income, health, and the National Lottery*

We inadvertently repeated a sentence in this editorial by Anthony Rodgers (22-29 December, pp 1438-9). The first part of the final sentence should have been omitted. Also, the penultimate sentence of the second paragraph should include the words "education" (after "employment") and "even" (before "entrepreneurship").