

The characteristics and views of early retirees compared with doctors still in work: views of the UK medical graduates of 1983 surveyed in 2016

Short title: Characteristics of doctors who retire early

Keywords (MeSH terms): Attitude of health personnel; physicians; workforce, medical; retirement.

ABSTRACT

Questionnaires were used to compare the characteristics and views of early retirees with those of doctors who were still working. Of doctors aged under 60, 88% were still working in medicine, 5% were fully retired and 7% were 'returners' (had retired and returned to do work). More women (8%) than men (4%) were fully retired. More GPs (13%) than hospital doctors (8%) had retired: male hospital doctors had a low retirement rate of 5.3%.

More working doctors (28%) than fully retired doctors (20%) agreed that there were good prospects for improvement of the NHS in their specialty. More fully retired doctors (67%) and returners (67%) than working doctors (55%) referred to adverse health effects of working as a doctor. Early retirement decisions were motivated by the doctors' views of what is happening in their own specialty, and by adverse health effects that they attributed to their work.

147 words

INTRODUCTION

A recent survey of consultant physicians in the United Kingdom (UK) found an average intended retirement age of 62, and 72% of these doctors did not intend to work beyond their contracted retirement age. Early retirement, and increasing numbers of doctors working less than full time, lessen the service benefit of increases in workforce numbers.¹ Amongst General Practitioners (GPs), 54% of those aged over 50 years are likely to retire within the next 5 years;² this specialty in particular faces challenges in recruitment and retention.^{3,4}

Commonly cited reasons for early retirement include wanting increased leisure time, and excessive work pressure.⁵ In the aforementioned survey,⁶ doctors cited similar reasons for retiring which included work pressure and excessive working hours. A recent systematic review of studies of motivations for early retirement suggested that high workload and burnout can lead to doctors' earlier retirement.⁷ Given recent uncertainty around National Health Service (NHS) contracts,^{8,9} and the UK's impending exit from the European Union,¹⁰ it is timely to update knowledge in this area with regard to UK-trained doctors.

Previously surveyed late-career doctors were predominantly aged over 60.⁵ For this paper we wanted to survey a sample of younger doctors aged under 60. This would allow a contemporaneous insight into the views and characteristics of a group of doctors who were thinking about retiring, or in some cases had already retired.

Our aim was to compare the characteristics and views of early retirees with those of doctors who are still working.

METHODS

In 2016 the UK Medical Careers Research Group surveyed the UK medical graduates of 1983. Non-respondents were sent up to four reminders. Full methodological details are available elsewhere.¹¹

The survey included structured, 'closed' questions and statements about employment. In designing the questionnaire we used two data sources: a) recurring themes in the literature and b) themes raised, in other surveys, by doctors arising in comments made to us.

Doctors were asked to indicate which one of seven phrases best described their current employment status: *working full-time in medicine*; *working part-time in medicine*; *working full-time outside medicine*; *working part-time outside medicine*; *retired*, *not now working in*

medicine; retired and 'returned' for some medical work ('returners'); other. We created two 'employment status' groups comprising doctors who: 1) Were still in medicine and were under 60, and 2) Had retired and were under 60 (including returners). We refer to these two groups as: 1) Doctors still in medicine, and 2) Early retirees.

Doctors still in medicine were asked '*Thinking of your career in medicine to date, how much have you enjoyed it overall?*' and retired doctors were similarly asked: '*Thinking of your career in medicine, how much did you enjoy it overall?*' In each case a 10 point scale was presented with two extremes: *I haven't enjoyed/didn't enjoy it at all* (1) and *I have enjoyed/enjoyed it greatly* (10): respondents were asked to give a score on this scale.

Doctors still in medicine were asked '*How much do you enjoy your current work?*' and doctors who had retired were asked: '*How much did you enjoy your last post?*' In each case a 10 point scoring scale was presented with two extremes: *I don't/didn't enjoy it at all* (1) and *I enjoy/enjoyed it greatly* (10).

Retired doctors were also asked: '*What were the circumstances of your retirement?*' with four options for reply (see Appendix 3) Finally, the retired doctors were asked '*Which of these, if any, was a factor in your decision to retire when you did?*' The doctors were presented with thirteen factors (listed in Figure 1) and were asked to tick all that applied. Those who chose the factor listed as 'Other' were asked to provide further detail in text comment, which we analysed for content.

All doctors were asked to indicate their level of agreement with statements covering areas such as professional opportunities, working practices, NHS prospects and equal opportunities (see Appendix 1 for details), using a five-point scale covering 'strongly agree', 'agree', 'neither agree nor disagree', 'disagree', and 'strongly disagree'. The questions selected were chosen for their relevance from a question bank of statements we have used over the last 25 years in our studies. These in turn were developed in part from the literature, in part from our own ideas of potentially important areas, and in part from themes raised with us by respondents in free text comments. For this paper we chose those statements which we hypothesised *a priori* may be related to retirement issues.

All doctors were also asked: '*Do you feel that working as a doctor has had any adverse effects on your own health or well-being?*' with the options of Yes, No, or Prefer not to answer.

To facilitate comparison of responses from doctors in different specialties, we allocated a *career specialty* to each respondent using their job history as reported to us, and additional information they provided about their specialist registration with the GMC. We were unable to assign a small number of respondents to a single career specialty, either because we did not have sufficient data about the doctor's career, or because the doctor had worked in different specialties during their career. Respondents were grouped for analysis into these groups: *hospital medical specialties, surgical specialties, paediatrics, emergency medicine, obstetrics and gynaecology, anaesthesia, radiology, clinical oncology, pathology, psychiatry, and general practice / family medicine (GP)*.

We used χ^2 tests and Kruskal-Wallis tests to explore differences in characteristics between doctors still in medicine and early retirees. We also compared differences in views between doctors still in medicine and early retirees, men and women, and doctors working in different career specialties.

RESULTS

Response rate

In 2014, we were able to obtain contact 2690 (70%) of the original graduation cohort in 1983 of 3845 doctors (2379 men, 1466 women). Of these, 2106 responded (78.3%; men 76.6%, women 81.0%). The 1155 members of the cohort who we could not contact included 78 known to be deceased, 34 who declined to participate, 13 for whom no contact details could be found, and 1030 who had not replied to any of our previous surveys. The median age of respondents at the time of the survey was 57 years for both men and women.

Current employment status

Of 2103 respondents who gave their employment status, 5.6% had retired (4.0% of men, 7.9% of women); 8.6% had retired and returned for some medical work (9.5% of men, 7.2% of women); 84.5% were still working in medicine (85.5% of men, 83.0% of women); 0.7% were working outside medicine; and 0.6% replied 'other'. Therefore, 93.1% of respondents overall were still working in medicine (whether they didn't retire or had retired-and-returned; 95.0% of men, 90.2% of women).

Characteristics of doctors still in medicine and early retirees

To ensure we were comparing doctors from a uniform demographic, we restricted analysis to doctors who were UK based and under 60. This reduced the sample from 2103 respondents

to 1917 (Table 1), of which 88% were still working in medicine (89% of men, 86% of women); and 12% were early retirees (11% of men, 14% of women, a marginally significant difference, $p=.044$).

We distinguished between doctors who were fully retired from medicine and doctors who had retired and returned to do some medical work (see Method). A higher proportion of women than men were fully retired ($p<0.001$), but similar proportions of men and women had retired and returned ($p=0.32$).

Historically, in the UK psychiatrists can retire at an earlier age than other doctors with no actuarial reduction in pension.¹² Psychiatrists in their fifties who hold Mental Health Officer (MHO) status can retire from the age of 55 onwards.¹³ They are therefore a special group with much higher rates of younger retirement than other doctors. Among our respondents, 41% of psychiatrists were retired compared with 7.5% of other hospital doctors, combining all other hospital-based specialties. For this reason we omit psychiatrists from the hospital doctors shown in Table 1.

A higher percentage of GPs than hospital doctors had retired, a difference which was more pronounced in the retired and returned group than in the fully retired group (Table 1). Comparing the 4 groups of male GPs, female GPs, male hospital doctors and female hospital doctors, retirement rates differed, with male hospital doctors having the lowest retirement rate and contributing markedly to the observed differences.

Views on opportunities, practices and prospects

Differences were found between the responses of doctors who were retired, returners, and those still working in medicine for three of the nine statements (Table 2): prospects for improvement of the NHS in my specialty; the NHS as a good equal opportunities employer for doctors from ethnic minorities; and the NHS as a good equal opportunities employer for doctors with disabilities. In each case fully retired doctors and returners tended to be less positive than doctors who were not retired, but percentage differences were modest.

Considering the statement 'There are good prospects for improvement of the NHS in my specialty', more working doctors (28%) than fully retired doctors (20%) agreed ($\chi^2_4=15.4$, $p<0.01$), particularly among men (28% compared with 13%; $\chi^2_4=13.1$, $p<0.05$): this difference was not significant for women.

Considering the statement 'The NHS of today is a good equal opportunities employer for women doctors', more hospital returners (83.3%) than hospital doctors who were fully retired (72.4%) agreed ($\chi^2_4=18.1$, $p<0.001$): this difference was not significant among GPs.

Considering the statement 'The NHS of today is a good equal opportunities employer for doctors from ethnic minorities', among men, fewer fully retired doctors (51.4%) than returners (81.0%) agreed ($\chi^2_4=12.8$, $p<0.05$): this difference was not significant for women; and more hospital returners (90.0%) than hospital doctors who were fully retired (50.0%) agreed ($\chi^2_4=28.5$, $p<0.001$): this difference was not significant among GPs.

Adverse effects on doctors' own health or well-being

All respondents were asked: '*Do you feel that working as a doctor has had any adverse effects on your own health or well-being?*'. More fully retired doctors (67.0%) and returners (66.9%) than doctors still working (55.3%) replied 'yes' ($\chi^2_2=10.9$, $p<0.01$; Table 3); this difference was significant among men, but not among women. More hospital returners (88.5%) than hospital doctors who were not retired (50.8%) replied 'yes' ($\chi^2_2=17.7$, $p<0.001$); this difference was not significant among GPs.

Circumstances and reasons for retirement

The retired doctors were asked: '*What were the circumstances of your retirement?*' More fully retired doctors (39.0%) than returners (20.2%) said that retirement had been unplanned and due to changes in personal circumstances ($\chi^2_3=12.6$, $p<0.01$; Appendix 3). There were no differences in responses between men and women doctors.

The retired doctors were asked '*Which of these, if any, was a factor in your decision to retire when you did?*' (see Method). The most frequently cited factor was 'pressure of work' (61.0%) followed by 'reduced job satisfaction' (54.4%). More fully retired doctors (34.7%) than returners (12.9%) signified 'Poor health' (Figure 1). More fully retired doctors (20.6%) than returners (7.2%) signified 'The prospect of revalidation'. Fully retired doctors also scored 'Possibility of deteriorating skill/competence' and 'Retirement of spouse/partner' more than returners. More returners (16.0%) than fully retired doctors (7.2%) scored 'Not wanting to do out-of-hours work'. More returners (39.2%) than fully retired doctors (27.6%) scored 'Financial security/insufficient financial incentive to stay'. Comments were received from 22 of the 32 respondents who replied 'other': they described a variety of issues including the

desire to work in another career area, perceived management issues, and having MHO status (see above).

Significantly more hospital doctors (23%) than GPs (6%) retired because they did not want to do out-of-hours work ($\chi^2_1 = 8.8$, $p < .01$). Within the retirees, those doctors who had 'retired and returned' to do some medical work showed the greatest difference between hospital doctors and GPs, with 39% of hospital doctors compared with 5% of GPs having retired (and returned) because they did not want to do out of hours work ($\chi^2_1 = 14.1$, $p < .001$). There were no other significant differences between GPs and hospital doctors for reasons for retirement.

Job enjoyment

The grouped median score for overall career enjoyment of doctors still working in medicine was 8.0, compared with 7.9 for fully retired doctors and 7.8 returners; for recent enjoyment the scores were 7.0, 7.2 and 6.9 respectively (Appendix 4). Neither overall nor recent enjoyment differed significantly between the three groups of doctors, between men or women, or between GP men, GP women, Hospital men and Hospital women.

DISCUSSION

Main findings

More GPs had retired than hospital doctors, and male hospital doctors had the lowest rate of retirement in the cohort. No differences in career enjoyment were found when comparing retired and non-retired doctors. Retirement groups held similar views of career opportunities, support from juniors and nursing staff, the prospects for improving the NHS as a whole, and the NHS as a good employer in respect of doctors when ill. Some differences were found in the following areas: prospects for improvement of the NHS in the respondents' own specialties, the NHS as a good employer for doctors from ethnic minorities, the NHS as a good employer for women doctors, and adverse effects on health of working as a doctor. Many hospital doctors (but not GPs) who had retired and returned had been motivated by the desire to avoid out of hours work.

Retired doctors had lower expectations of improvement to their specialty than non-retired doctors, a difference which was larger among GPs than among hospital doctors. Retired men and hospital doctors had a lower view of the NHS as a good employer for ethnic minority doctors than did non-retired doctors. Fully retired doctors were more likely than others to refer to adverse health effects of working as a doctor. The largest difference in this respect was found among male hospital doctors. Fully retired doctors were more likely than

returners to have had an unplanned retirement due to changes in personal circumstances, and were more likely to say that poor health and the prospect of revalidation were factors in their retirement.

Strengths and limitations

This independent, large-scale study of doctors who graduated from UK medical schools in 1983 had a high response rate of 78%. However, some non-response bias may have been present. Our large sample enabled us to focus our analysis upon a sample of doctors aged under 60.

We surveyed these doctors at a time when thoughts about retirement were likely to have been an important concern. Therefore the timing of this survey has allowed insight into these doctors' current thinking regarding retirement, as opposed to relying on their recall.

Comparison with existing literature

More GPs than hospital doctors had retired, and retired GPs in particular had lower expectations of improvement to their specialty than working GPs. A study of older GPs found that 64% were likely to leave direct patient care within the next 5 years: and these GPs expressed 'uncertainty regarding the future of general practice'.¹⁴ Other research with GPs has reported intentions to leave which rise sharply from the age of 52 years;¹⁵ less positive views about career prospects than hospital doctors;¹⁶ and higher levels of burnout compared with hospital consultants.¹⁷

Retired doctors reported experiencing more adverse health effects from working as a doctor than working doctors. A recent survey of senior doctors also found more adverse health effects among retired doctors than working doctors.¹⁸ Fully retired doctors we surveyed reported that poor health and deteriorating competence were important factors in their retirement. In previous research, many UK doctors have raised concerns about stress and the effects of ageing upon stamina and energy levels.¹⁸ A review of research in the United States reported a decline in measured cognitive ability of 20% between the ages of 40 and 75 years.¹⁹

Fully retired doctors reported that the prospect of revalidation was an important factor in their retirement. Studies of GPs have found that this is frequently given as a reason for intending retirement.^{14,20,21}

Implications / conclusions

Early retirees were similar to non-retirees in respect of several factors which may have been expected to be relevant to retirement decisions, namely their enjoyment of their work and their career opportunities, their support from juniors and nursing staff, their general view of prospects for improvement of the NHS, and their treatment by the NHS when ill.

However, there were some observed differences in this cohort between doctors who were retired and those who were not, which may suggest short term policy changes and directions for future research.

Early retirement was more common amongst GPs, both men and women, and among women hospital doctors, than it was among male hospital doctors. Adverse health effects were more commonly reported among those not retired in the first three groups, and were reported least often among male hospital doctors still in medicine. Further research should investigate the interplay between perceived risk to health of being a doctor and attitudes towards retirement, and what can be done to minimise risks to health.

Among GPs, those who were retired, both men and women, had a more negative view of the prospects for improvement of the NHS in their specialty than did doctors who were not retired. In part this may be due to current pressures on general practice consequent to low take-up of training places. However, there is scope for research to examine the future model of general practice and the career paths and options for doctors at all stages of their careers.

The desire to avoid out of hours work was a motivator for hospital doctors both to fully retire and to 'retire and return'. Contractual changes to allow older doctors to opt for fewer antisocial hours would encourage some to remain in medicine for longer.

Policy initiatives which seek to encourage doctors to remain working in medicine until normal retirement age should address these areas.

[2956 words]

REFERENCES

1. Royal College of Physicians. Underfunded, underdoctored, overstretched: The NHS in 2016. London: Royal College of Physicians, 2016.

2. Hann M, McDonald J, Checkland K, et al. Seventh National GP Worklife Survey. Manchester, 2013.
3. NHS. Securing the future GP workforce—delivering the mandate on GP expansion: GP Taskforce final report., 2014.
4. Lambert T, Goldacre M. Trends in doctors' early career choices for general practice in the UK: Longitudinal questionnaire surveys. *Br J Gen Pract* 2011; 61; 588: e397-e403.
5. Smith F, Lachish S, Goldacre MJ, Lambert TW. Factors influencing the decisions of senior UK doctors to retire or remain in medicine: national surveys of the UK-trained medical graduates of 1974 and 1977. *BMJ open* 2017; 7; 9.
6. Royal College of Physicians. Census of consultant physicians and higher specialty trainees in the UK 2014-15. London: Royal Colleges of Physicians, 2016.
7. Silver MP, Hamilton AD, Biswas A, Warrick NI. A systematic review of physician retirement planning. *Human Resources for Health* 2016; 14; 1: 67.
8. NHS employers. *Junior doctors' 2016 contract*. 2016. Available online at www.nhsemployers.org/your-workforce/need-to-know/junior-doctors-2016-contract [Accessed 7 April 2017].
9. Lambert TW, Smith F, Goldacre MJ. Why doctors consider leaving UK medicine: qualitative analysis of comments from questionnaire surveys three years after graduation. *J R Soc Med* 2017.
10. Torjesen I. Four in 10 European doctors may leave UK after Brexit vote, BMA survey finds. *BMJ* 2017; 356: doi: 10.1136/bmj.j988.
11. Goldacre M, Lambert T. Participation in medicine by graduates of medical schools in the United Kingdom up to 25 years post graduation: National cohort surveys. *Acad Med* 2013; 88; 5: 699-709.
12. British Medical Association. *Pensions advice for Mental Health Officers (MHO)*. 2017. Available online at www.bma.org.uk/advice/employment/pensions/mho-pension-advice [Accessed 19 June 2017].
13. Royal College of Psychiatrists. Response to the Health Committee's Inquiry into Workforce needs and planning for the health service. London: Royal College of Psychiatrists, 2006.
14. Sansom A, Calitri R, Carter M, Campbell J. Understanding quit decisions in primary care: A qualitative study of older GPs. *BMJ Open* 2016; 6; 2: e010592.
15. Fletcher E, Abel GA, Anderson R, et al. Quitting patient care and career break intentions among general practitioners in South West England: Findings of a census survey of general practitioners. *BMJ Open* 2017; 7; 4: e015853.

16. Lambert TW, Smith F, Goldacre MJ. Perceived future career prospects in general practice: quantitative results from questionnaire surveys of UK doctors. *Br J Gen Pract* 2016; 66; 652: e848-e57.
17. Halliday L, Walker A, Vig S, Hines J, Brecknell J. Grit and burnout in UK doctors: A cross-sectional study across specialties and stages of training. *Postgrad Med J* 2017; 93; 1101: 389-94.
18. Smith F, Goldacre MJ, Lambert TW. Adverse effects on health and well-being of working as a doctor: views of the UK medical graduates of 1974 and 1977 surveyed in 2014. *J R Soc Med* 2017; 110; 5: 198-207.
19. Patchen Dellinger E, Pellegrini CA, Gallagher TH. The aging physician and the medical profession a review. *JAMA Surgery* 2017; 152; 10: 967-71.
20. British Medical Association. National survey of GP opinion 2011. London: BMA, 2011.
21. Dale J, Potter R, Owen K, Leach J. The general practitioner workforce crisis in England: A qualitative study of how appraisal and revalidation are contributing to intentions to leave practice. *BMC Family Practice* 2016; 17; 1.

Table 1: Retirement status of doctors aged under 60, by specialty and gender

Group	Not retired % (N)	All retired % (N)	All retired		Total N (100%)
			Retired and returned % (N)	Fully retired % (N)	
All responders	87.7 (1681)	12.3 (236)	6.9 (133)	5.4 (103)	1917
Men	88.9 (1020)	11.1 (127)	7.4 (85)	3.7 (42)	1147
Women	85.8 (661)	14.2 (109)	6.2 (48)	7.9 (61)	770
General practice	87.1 (838)	12.9 (124)	7.2 (69)	5.7 (55)	962
Hospital medicine*	92.5 (727)	7.5 (59)	3.3 (26)	4.2 (33)	786
GP men	86.8 (465)	13.2 (71)	8.8 (47)	4.5 (24)	536
GP women	87.6 (373)	12.4 (53)	5.2 (22)	7.3 (31)	426
Hospital men*	94.7 (501)	5.3 (28)	3.0 (16)	2.3 (12)	529
Hospital women*	87.9 (226)	12.1 (31)	3.9 (10)	8.2 (21)	257

All retired (vs rest): men vs women $\chi^2_1=3.8$, $p=.052$; GP vs hospital medicine $\chi^2_1=12.8$, $p<.001$; 4 groups $\chi^2_3=22.0$, $p<.001$

Retired and returned (vs rest): men vs women $\chi^2_1=0.8$, $p=.36$; GP vs hospital medicine $\chi^2_1=11.8$, $p<.001$; 4 groups $\chi^2_3=18.8$, $p<.001$

Fully retired (vs rest): men vs women $\chi^2_1=15.6$, $p<.001$; GP vs hospital medicine $\chi^2_1=1.8$, $p=.182$; 4 groups $\chi^2_3=18.6$, $p<.001$

* omits psychiatry (see text)

Table 2: Percentages of doctors who agreed or disagreed with each statement

Statement	Not retired		Retired and returned		Fully retired		Chi value	P value (df=4)
	% Agree	% Disagree	% Agree	% Disagree	% Agree	% Disagree		
Opportunities	84.7	4.8	83.1	4.6	76.6	9.6	6.1	0.193
Junior work	53.6	27.1	55.7	28.7	59.0	30.8	4.8	0.307
Nurse work	50.7	31.7	52.0	28.8	49.4	32.9	0.6	0.962
Improving specialty	28.3	45.7	25.6	60.0	20.0	57.5	15.4	0.004
<i>GP men</i>	23.5	59.0	28.9	62.2	9.1	72.7	5.0	0.281
<i>GP women</i>	23.2	54.1	18.2	68.2	13.0	73.9	4.9	0.293
<i>Hospital men*</i>	32.4	33.7	20.0	53.3	27.3	36.4	2.7	0.613
<i>Hospital women*</i>	37.6	31.9	33.3	55.6	35.7	28.6	2.8	0.584
Improving NHS	24.0	53.8	21.3	62.3	19.3	59.0	4.6	0.330
NHS women	77.5	7.9	82.0	6.3	74.1	12.9	4.2	0.383
NHS ethnicity	69.6	7.6	77.5	7.8	56.2	15.1	11.7	0.019
NHS disability	30.3	18.5	40.2	18.3	27.9	30.9	10.5	0.033
NHS illness	27.0	45.2	24.8	46.0	21.7	49.4	1.4	0.848

The percentages who chosen 'neither' are not shown in the table but can be calculated by subtracting the agree and disagree percentages from 100%.

The numbers on which the percentages shown are based can be found in Appendix 1.

* omits psychiatry (see text)

See Appendix 2 for a full list of the abbreviations used in this table.

Table 3: Adverse effects on health by specialty and gender

Percentages who responded 'Yes' to the question 'Do you feel that working as a doctor has had any adverse effects on your own health or well-being?'								
	Not retired		Retired and returned		Fully retired		Chi value	P value (df=2)
	%	(n/N)	%	(n/N)	%	(n/N)		
All	55.3	(893/1614)	66.9	(85/127)	67.0	(65/97)	10.9	0.004
Men	52.5	(512/976)	68.4	(54/79)	57.5	(23/40)	7.7	0.022
Women	59.7	(381/638)	64.6	(31/48)	73.7	(42/57)	4.6	0.102
General practice	59.1	(476/805)	66.7	(42/63)	69.2	(36/52)	3.3	0.196
Hospital medicine*	50.8	(354/697)	88.5	(23/26)	68.8	(22/32)	17.7	0.000
GP men	57.9	(256/442)	70.7	(29/41)	62.5	(15/24)	2.7	0.264
GP women	60.6	(220/363)	59.1	(13/22)	75.0	(21/28)	2.3	0.312
Hospital men*	47.2	(227/481)	87.5	(14/16)	63.6	(7/11)	11.1	0.004
Hospital women*	58.8	(127/216)	90.0	(9/10)	71.4	(15/21)	4.9	0.085

69 responders are excluded from specialty breakdowns because their career specialty was unknown.

* omits psychiatry (see text)

Figure 1: Reasons for retirement, comparing fully retired doctors with retired and returned doctors

Appendix 1: Numbers of doctors who agreed or disagreed with each statement: by specialty, gender, and retirement status

Statement	Not retired				Retired and returned				Fully retired			
	Agree (N)	Neither (N)	Disagree (N)	Total (N)	Agree (N)	Neither (N)	Disagree (N)	Total (N)	Agree (N)	Neither (N)	Disagree (N)	Total (N)
Opportunities	1404	174	79	1657	108	16	6	130	72	13	9	94
Junior work	840	302	425	1567	68	19	35	122	46	8	24	78
Nurse work	822	284	514	1620	65	24	36	125	39	14	26	79
Improving specialty	445	409	720	1574	32	18	75	125	16	18	46	80
<i>GP men</i>	103	77	259	439	13	4	28	45	2	4	16	22
<i>GP women</i>	83	81	193	357	4	3	15	22	3	3	17	23
<i>Hospital men</i>	155	162	161	478	3	4	8	15	3	4	4	11
<i>Hospital women</i>	79	64	67	210	3	1	5	9	5	5	4	14
Improving NHS	380	352	852	1584	26	20	76	122	16	18	49	83
NHS women	1201	227	122	1550	91	13	7	111	63	11	11	85
NHS ethnicity	1024	336	112	1472	79	15	8	102	41	21	11	73
NHS disability	365	618	223	1206	33	34	15	82	19	28	21	68
NHS illness	387	399	649	1435	28	33	52	113	18	24	41	83

Appendix 2: Statements used in the questionnaire and abbreviations in Table 2

Abbreviation	Statement (to be rated by responders on a five point scale from 'strongly agree' to 'strongly disagree')
Opportunities	I have had good professional opportunities in my career to date
Junior work	In recent years, I have often found myself doing too much work that a junior doctor could have done
Nurse work	In recent years, I have often found myself doing too much work that an appropriately trained nurse could have done
Improving specialty	There are good prospects for improvement of the NHS in my specialty
Improving NHS	There are good prospects for improvement of the NHS overall
NHS women	The NHS of today is a good equal opportunities employer for women doctors
NHS ethnicity	The NHS of today is a good equal opportunities employer for doctors from ethnic minorities
NHS disability	The NHS of today is a good equal opportunities employer for doctors with disabilities
NHS illness	The NHS of today is a good employer when doctors become ill themselves

Appendix 3: Retirement circumstances by retirement status

What were the circumstances of your retirement?		Fully retired	Retired and returned	Total
I retired when I had planned to retire	N	13	33	46
	%	13.0%	25.6%	20.1%
It was unplanned and due to a change in the work environment	N	37	49	86
	%	37.0%	38.0%	37.6%
It was unplanned and due to changes in personal circumstances	N	39	26	65
	%	39.0%	20.2%	28.4%
Other	N	11	21	32
	%	11.0%	16.3%	14.0%
Total	N	100	129	229
	%	100.0%	100.0%	100.0%

* This table includes psychiatry

Appendix 4: a) Career enjoyment b) Current/last job enjoyment, comparing doctors still in medicine with early retirees