

Why doctors consider leaving UK medicine: qualitative analysis of comments from questionnaire surveys three years after graduation

Short title: Why doctors consider leaving UK medicine

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ABSTRACT

Objective: To report the reasons why doctors are considering leaving medicine or the United Kingdom (UK).

Design: Questionnaire survey.

Setting: UK.

Participants: Questionnaires were sent three years after graduation to all UK medical graduates of 2008 and 2012.

Main outcome measures: Comments from doctors about their main reasons for considering leaving medicine or the UK (or both).

Results: The response rate was 46.2% (5291/11461). 60% of respondents were not definitely intent on remaining in UK medicine: 50% were considering working in medicine outside the UK and 10% were considering leaving medicine.

Among those considering working in medicine outside the UK, the most commonly cited reasons were to gain wider experience, that things would be 'better' elsewhere, and a negative view of the NHS and its culture, state, and politics. Other reasons included better training or job opportunities, better pay and conditions, family reasons, and higher expectations. Three years after graduation, doctors surveyed in 2015 were significantly more likely than doctors surveyed in 2011 to cite factors related to the NHS, to pay and conditions, to their expectations, and to effects on work-life balance and patient care.

Among those considering leaving medicine, the dominant reason for leaving medicine was a negative view of the NHS (mentioned by half of those in this group who commented). Three years after graduation, doctors surveyed in 2015 were more likely than doctors surveyed in 2011 to cite this reason, as well as excessive hours and workload, and financial reasons.

Conclusions: An increasingly negative view is held by many doctors of many aspects of the experience of being a junior doctor in the NHS, and the difficulty of delivering high quality patient care within what many see as an under-funded system. Policy changes designed to encourage more doctors to remain should be motivated by a desire to address these concerns by introducing real improvements to resources, staffing and working conditions.

[314 words]

INTRODUCTION

After completing their undergraduate courses, medical graduates in the United Kingdom (UK) undertake a two-year broad-based foundation programme designed to prepare them for entry to specialist training in hospital practice or general practice (family medicine).¹ Although there have always been some who have taken time out at the end of foundation training, for various reasons, the great majority have proceeded immediately to specialist training. However, the picture is changing. The percentage of doctors who have progressed immediately from foundation training to specialty training in the United Kingdom (UK) has declined steadily from 71% in 2011 to 50% in 2016.² The numbers of doctors applying for Certificates of Good Standing (which enable UK based doctors to work abroad) have increased in recent years: by 12% between 2008 and 2013.³ A 40 year study of doctors' careers found that, surveyed three years into their careers, 90% said that they would 'definitely or probably' practise medicine in the UK in 1977-1986, 81% in 1996-2011, and 64% in 2015.⁴ Therefore there is a clear trend towards leaving UK medicine, at least for a period, and/or delaying specialty training in the UK.

A study of UK-trained doctors who had emigrated to New Zealand found that the reasons doctors gave for leaving the UK included lifestyle, to be with family, to travel, and dissatisfaction with the NHS.⁵ Job satisfaction among the New Zealand based doctors was higher than among UK based doctors working in the National Health Service (NHS).⁵

We know from surveys of senior doctors who work abroad that over two thirds of them do not intend to return to UK medicine, and that they would only consider returning to the UK if changes were made to the clinical-political interface, funding, pay, working hours, work-life balance, and management.⁶

In addition to the usual push and pull factors for leaving UK medicine, there are new factors at play. Doctors are currently in a period of contractual uncertainty with the UK government.⁷ Junior doctors surveyed two years after graduation indicated that in some cases contractual issues had been a factor in a choice to switch specialty, and many doctors said that they now felt less valued.⁸ Doctors also face an uncertain economic outlook in the light of UK's impending exit from the European Union.⁹

Our aim in this paper is to report the reasons doctors gave, in two recent surveys undertaken three years after graduation, for considering leaving medicine or the UK. We report data

from doctors who graduated from UK medical schools in 2008 and 2012, surveyed respectively in 2011 and 2015.

METHODS

The UK Medical Careers Research Group surveyed the UK medical graduates of 2008 and 2012. We sent postal questionnaires three years after qualification (in 2011 and 2015). Up to four reminders were sent to non-respondents. Further details of the methodology are available elsewhere ¹⁰.

Our surveys were multipurpose and covered many aspects of the doctors' career intentions, career progression and views. Among these questions we asked doctors: '*Apart from temporary visits abroad, do you intend to practise medicine in the United Kingdom for the foreseeable future?*' (with the options being *Yes-definitely*, *Yes-probably*, *Undecided*, *No-probably not*, and *No-definitely not*). Those doctors who did not answer '*Yes-definitely*', were asked if they were considering: '*practising medicine abroad*', '*leaving medicine but remaining in the UK*', or '*leaving medicine and leaving the UK*'. Doctors who indicated that they were considering one of these options were asked: '*What is your main reason for doing so?*' (with the doctors being asked to respond in their own words).

We analysed the quantitative data by cohort, sex and specialty group using crosstabulation and χ^2 statistics (reporting Yates's continuity correction where there was only one degree of freedom). Respondents were grouped for analysis into four specialty groups: hospital medical specialties, hospital surgical specialties, general practice (GP), and other hospital specialties combined (paediatrics, emergency medicine, obstetrics and gynaecology, anaesthetics, radiology, clinical oncology, pathology, and psychiatry).

In order to analyse the responses to the open question '*What is your main reason for doing so?*' (that is, considering leaving medicine and/or the UK) we first divided the doctors into those who were considering *leaving the UK* and those who were considering *leaving medicine* (Appendix 1 contains details about how these were allocated). We [used content analysis,¹¹ identifying themes raised and their context, to](#) develop a coding scheme for the responses given by each group of doctors. [We did not use an entirely inductive approach, but instead began with the knowledge of themes from our similar research in this area, and added deductively from within the data: a hybrid approach.¹²](#) Each scheme reflected the themes and sub-themes raised within the answers. Two researchers independently coded the answers, which were presented for coding in random order and without knowledge of

which survey each comment corresponded to, with differences in coding being resolved through discussion. We found that by assigning each comment up to three codes we were able to adequately encode the richness of the responses. We protected the anonymity of doctors by redacting references to hospital trusts, medical schools and other identifying information.

RESULTS

Response rates

We surveyed 12200 UK doctors. The aggregated response rate from contactable doctors, over both surveys, was 46.2% (5291/11461). Responses to the surveys were 49% (3228/6540) in 2011 and 42% (2063/4921) in 2015 (Appendix 1). Of 5291 doctors who responded, 78 completed a short questionnaire which did not include any questions about intentions to leave medicine or the UK: these are excluded from the analysis. The rest of this paper focuses upon the remaining 5213 respondents.

Intentions to practise medicine in the UK

In response to the question '*Apart from temporary visits abroad, do you intend to practise medicine in the United Kingdom for the foreseeable future?*' 39.4% replied '*Yes-definitely*' (Appendix 1). A full analysis of this question is contained in our companion paper.⁴ Of the remaining 60.6% of doctors, 83.4% were considering '*practising medicine abroad*', 17.0% '*leaving medicine but remaining in the UK*', and 7.3% '*leaving medicine and leaving the UK*'.

Intentions to leave the UK

Of the 3145 doctors who said that they were not definitely intent on remaining in UK medicine, 2523 doctors provided comments about their reasons for considering leaving the UK (Appendix 1).

Eleven themes were identified but three reasons for leaving the UK dominated the comments (Table 1): '*experience abroad*', cited by 34.1% of commenters; '*better abroad*' (31.5%); and '*NHS culture/state/politics*' (26.0%). Additionally, '*training/job opportunities*' was cited by 19.7% of doctors, '*UK pay and conditions*' by 14.2%, '*family reasons*' by 11.8% and '*expectations/value*' by 10.4%.

Three years after graduation, doctors surveyed in 2015 were significantly ($p < 0.001$) more likely than doctors surveyed in 2011 to cite '*NHS culture/state/politics*' (43.2% in 2015, 10.9% in 2011), '*UK pay and conditions*' (21.6%, 7.7%), '*expectations/value*' (15.5%, 5.9%),

'*effect on health/family/work-life balance*' (6.5%, 2.4%), and '*patient care*' (2.5%, 0.7%). Doctors surveyed in 2011 were significantly more likely than doctors surveyed in 2015 to cite '*training/job opportunities*' (26.8% in 2011, 11.5% in 2015) and '*experience abroad*' (41.3%, 25.8%).

Gender differences in the reasons given were generally modest. Women were more likely than men to cite '*family reasons*' (14.6% women, 7.7% men; $\chi^2_1=26.8$, $p<0.001$). Men were more likely than women to cite '*NHS culture/state/politics*' (22.3% women, 31.3% men), '*expectations/value*' (7.9% women, 14.1% men), and '*UK pay and conditions*' (11.5% women, 18.1% men: $\chi^2_1=25.1$, 24.7, and 21.1 respectively, all $p<0.001$).

We summarise the doctors' comments below and provide each quote we reference, in full, in Box 1. We also provide each quoted doctor's gender, survey year, specialty and grade.

Experience abroad

Many doctors wanted to work abroad to gain experience of another country and a different health system (Box 1, quotes 1-2). For some doctors there was a desire to help people in developing countries, perhaps for charity work, and sometimes for religious reasons (Box 1, quotes 3-4). Some doctors wanted to develop career interests which could not be pursued in the UK (e.g. tropical medicine, international health; box 1, quote 5). A few doctors said that they would be travelling abroad as part of their armed services job (Box 1, quote 6).

Better abroad

Doctors considered the lifestyle offered by other countries, such as Australia and New Zealand, to be better than that offered by the UK. Doctors believed that there were many reasons why living abroad would be better: lifestyle, work-life balance, working conditions, pay, economic prospects, and climate (Box 1, quotes 7-9). Some doctors had favourable experience of working abroad, or were already living abroad at the time of the survey (Box 1, quotes 10-11).

NHS culture/state/politics

Many doctors bemoaned the state of the NHS, and expressed uncertainty around proposed new contracts (Box 1, quotes 12-13). This issue was raised in the 2011 survey, but was much more frequent in the 2015 survey. Many doctors complained about political factors, and, uniquely in our experience, some even named the current Health Secretary for the NHS in England as the reason for their desire to work abroad (Box 1, quotes 14-15).

Training/job opportunities

Several doctors wanted to enhance their training and skills, and many felt that they could not do so in the UK (Box 1, quotes 16-17). There was concern that training in the UK was too rushed, and that doctors were forced to specialise too early (Box 1, quotes 18-19). Several doctors believed that training opportunities in the UK were too limited, involved being sent around the country, and that posts were also limited at the end of training (Box 1, quotes 20-21).

UK pay and conditions

Many commenters said that working conditions in the UK were too difficult. This included excessive working hours and workload, and too much stress. Several doctors considered pay to be too low (Box 1, quotes 22-23).

Family reasons

Several doctors wanted to work abroad because their family and friends lived abroad, or because their partner was going abroad and they would like to accompany them (Box 1, quotes 24-26).

Expectations/value

Many doctors, especially those surveyed in 2015, felt undervalued and talked about low morale (Box 1, quote 27). Doctors were unhappy about images of doctors within the media, and felt that these images were influenced by the government and then filtered down to the public resulting in low public esteem for doctors (Box 1, quote 28)

Effect on health/family/work-life balance

Several doctors were concerned that their job was affecting their health or their family, and that their work-life balance was poor or getting worse (Box 1, quotes 29-30).

Patient care

Some doctors felt that patient safety was compromised by proposed contract changes (Box 1, quote 31). A few doctors talked about 'sub-optimal' or 'sub-standard' conditions for patients (Box 1, quotes 32-33).

Lack of support

A few doctors complained about a lack of support from their seniors, and from management. Some doctors were also affected by bullying or harassment (Box 1, quotes 34-35).

Career change

A few doctors had doubts about medicine as a career or disliked the job content (Box 1, quotes 36-37).

Intentions to leave medicine

Of the 3145 doctors who said that they were not definitely intent on remaining in UK medicine, 476 doctors provided comments about their reasons for considering leaving medicine (Appendix 1).

One reason for leaving medicine dominated the comments (Table 2): '*NHS culture/state/politics*' was cited by 48.5% of these commenters. Other reasons included: '*travel/break*' (29.2%), '*expectations/value*' (21.6%), '*hours/workload*' (21.0%), '*family/work-life balance*' (20.4%), and '*financial*' (19.7%).

Three years after graduation, doctors surveyed in 2015 were significantly more likely than doctors surveyed in 2011 to cite '*NHS culture/state/politics*' (67.1% in 2015, 29.2% in 2011; $\chi^2_1=66.9$, $p<0.001$), '*hours/workload*' (30.0% in 2015, 11.6% in 2011; $\chi^2_1=23.3$, $p<0.001$), and '*financial*' (26.7% in 2015, 12.4% in 2011; $\chi^2_1=14.5$, $p<0.001$). Doctors surveyed in 2011 were significantly more likely than doctors surveyed in 2015 to cite '*career choice*' (21.0% in 2011, 4.9% in 2015; $\chi^2_1=26.1$, $p<0.001$), and '*training*' (15.9% in 2011, 6.2% in 2015; $\chi^2_1=10.5$, $p<0.001$).

Women were significantly more likely than men to cite '*family/work-life balance*' (25.5% women, 12.1% men; $\chi^2_1=11.7$, $p<0.001$). Men were significantly more likely than women to cite '*financial*' (28.0% women, 14.6% men; $\chi^2_1=11.9$, $p<0.001$), and '*NHS culture/state/politics*' (56.6% women, 43.5% men; $\chi^2_1=7.2$, $p<0.01$).

We summarise the doctors' comments below and provide each quote we reference, in full, in Box 2. We also provide each quoted doctor's gender, survey year, specialty and grade.

NHS culture/state/politics

Many doctors said that the reason they were considering leaving medicine was because of the state of the NHS, and uncertainty around future contracts (Box 2, quotes 1-2). Many of

these doctors blamed the government for 'damaging' the NHS (Box 2, quotes 3-4). This issue was raised more frequently in 2015 than in 2011 survey.

Travel/break

Many doctors expressed a desire to travel to experience another culture (Box 2, quote 5). Some doctors wanted to have a break from medicine (Box 2, quote 6). Others were leaving medicine to stay with their partners (Box 2, quote 7).

Expectations/value

Many doctors felt undervalued, unappreciated and felt that their professional status was being eroded (Box 2, quotes 8-9). Doctors talked about low workforce morale (Box 2, quote 10).

Some doctors also felt a lack of respect, and some hostility, from patients (Box 2, quote 11).

Hours/workload

Another topic raised more in 2015 than in 2011 was excessive working hours and workload (Box 2, quotes 12-13). Many considered the workload to be unsustainable (Box 2, quote 14).

Family/ work-life balance

Many doctors were unhappy with the small amount of time they could spend with their families, and were leaving medicine in order to achieve work-life balance (Box 2, quotes 15-16).

Financial

Some doctors believed that they were not paid enough for the hours they worked (Box 2, quotes 17-18). A few doctors compared their profession with other professions and concluded that they would be better paid elsewhere (Box 2, quotes 19-20).

Career choice

Many doctors, especially those surveyed in 2011, were unsatisfied with medicine (not just for financial reasons) and wanted to change career (Box 2, quotes 21-22).

Training

Several doctors complained of poor quality, or restrictive and inflexible training (Box 2, quotes 23-24). A few doctors felt that there were fewer training opportunities for Less-Than-

Full-Time doctors (Box 2, quote 25). Doctors often described training as being too dominated by service provision (Box 2, quote 26). A few doctors felt that there was a lack of training posts (Box 2, quote 27).

Job insecurity/location

Several doctors were concerned about job shortages and excessive (or unfair) competition (Box 2, quotes 28-29). Many doctors also felt that it was difficult to obtain a medical job in their desired location (Box 2, quote 30).

Patient care

A few doctors described 'unsafe' working conditions, and target-based not patient-focused medicine (Box 2, quotes 31-32).

Lack of support

Some doctors felt that they did not receive enough support, respect or encouragement from their seniors (Box 2, quotes 33-34).

Difficulty/exams

A few doctors described unreasonably high expectations, and found the exams onerous (Box 2, quotes 35-36).

Health

Some doctors mentioned that their health had made them consider leaving medicine. For one doctor, this involved deteriorating mental health, but some doctors simply said 'for health reasons' (Box 2, quote 37).

DISCUSSION

Main findings

Almost two thirds of junior UK-trained doctors surveyed in 2011 and 2015 were not definitely intent on remaining in UK medicine. Half of these doctors were considering working in medicine outside the UK and 10% were considering leaving medicine.

Among those who were considering working in medicine outside the UK, comments which we have characterised as saying that respondents felt life would be better abroad, and comments relating family reasons for leaving, were made in roughly equal measure both in 2011 and 2015. However, comments we characterised as relating to the state of the NHS,

UK pay and conditions, expectations and values, work-life balance, and adverse effects on patient care, were all made much more frequently by doctors in 2015 than in 2011. In sharp contrast, reasons relating to opportunities for better training, job opportunities and experience abroad were mentioned much more frequently by doctors in 2011 than in 2015.

A similar pattern was observed in the reasons doctors gave for considering leaving medicine altogether. In 2015 the dominant reason for leaving medicine was the state of the NHS as respondents saw it. Excessive hours and workload, and financial issues, were also strong factors in decisions to leave medicine. In 2011 the reasons given were more diverse, with concerns about training, career choice, and job security being more common than they were in 2015.

Strengths and limitations

This was a large-scale national study of doctors who graduated from UK medical schools in 2008 and 2012. The response rate was 49% and non-responder bias may have been present.

Not everyone gave us reasons for considering leaving medicine or the UK. However, four fifths of respondents who were not definitely intent on remaining in UK medicine provided comments about their reasons for considering leaving the UK. Fewer respondents provided comments about their reasons for considering leaving medicine: but fewer doctors were considering this option, therefore fewer comments were to be expected.

Comparison with existing literature

In our study there was a sharp fall between 2011 and 2015 in the percentage who were definitely going to practise medicine in the UK. This trend is mirrored in the decreasing numbers of doctors moving into specialty training over recent years.²

Our respondents were considering leaving UK medicine to gain experience of a different country and health system, due to perceptions that things were 'better abroad', to avoid NHS culture/state/politics, and for better training and job opportunities. These reasons were also found in a study of UK-trained doctors working in New Zealand,⁵ but our more recent survey has found that dissatisfaction with the NHS, and with the politics surrounding it, is now more of a push factor: especially for doctors surveyed in 2015. A more recent study of UK-trained doctors in New Zealand found that, as with our study, younger doctors were more likely to say that their motivation for leaving the UK was to leave the NHS.¹³

UK pay and conditions also became more influential for doctors surveyed in 2015, compared with those surveyed in 2011. A study of health professionals who had emigrated from Ireland, surveyed in 2014, found that their main reasons for emigrating were difficult working conditions.¹⁴

Implications / conclusions

The reasons doctors gave for considering leaving UK medicine were many and varied. Within that, comparison of the 2011 and 2015 results shows an increasingly negative view is held by many doctors of many aspects of the experience of being a junior doctor in the NHS, and the difficulty of delivering high quality patient care within what many see as an under-funded system. Policy changes designed to encourage more doctors to remain should be motivated by a desire to address these concerns by introducing real improvements to resources, staffing and working conditions. Effort should also be made, at the level of senior staff and employers, to change culture and make junior doctors feel valued.

[3126 words]

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Table 1: Comments about reasons for considering working in medicine outside the UK, percentages and numbers: by survey year

Reasons	Survey year (s)		
	2011 (N=1345)	2015 (N=1178)	2011 and 2015 (N=2523)
Experience abroad*	41.3 (556)	25.8 (304)	34.1 (860)
Better abroad	32.5 (437)	30.4 (358)	31.5 (795)
NHS culture/state/politics*	10.9 (146)	43.2 (509)	26.0 (655)
Training/job opportunities*	26.8 (306)	11.5 (136)	17.5 (442)
UK pay and conditions*	7.7 (103)	21.6 (255)	14.2 (358)
Family reasons	13.1 (176)	10.4 (122)	11.8 (298)
Expectations/value*	5.9 (79)	15.5 (183)	10.4 (262)
Effect on health/family/work-life balance*	2.4 (32)	6.5 (76)	4.3 (108)
Patient care*	0.7 (9)	2.5 (29)	1.5 (38)
Lack of support	1.0 (14)	1.0 (12)	1.0 (26)
Career change	0.7 (10)	0.8 (9)	0.8 (19)
Other	0.6 (8)	0.3 (3)	0.4 (11)

Percentages in each column add to more than 100% because some doctors cited more than one reason.

*denotes $p < 0.001$; significance tests, comparing 2011 and 2015: $\chi^2_1 = 66.7, 340.3, 91.2, 99.8, 62.0, 24.4, 12.4$ respectively for Experience abroad, NHS culture/state/politics, Training/job opportunities, UK pay and conditions, Expectations/value, Effect on health/family/work-life balance, Patient care.

Table 2: Comments about reasons for considering leaving medicine, percentages and numbers: by survey year

Reasons	Survey year (s)		
	2011 (n=233)	2015 (n=243)	2011 and 2015 (n=476)
NHS culture/state/politics*	29.2 (68)	67.1 (163)	48.5 (231)
Travel/break	25.8 (60)	32.5 (79)	29.2 (139)
Expectations/value	20.6 (48)	22.6 (55)	21.6 (103)
Hours/workload*	11.6 (27)	30 (73)	21 (100)
Family/work-life balance	21.5 (50)	19.3 (47)	20.4 (97)
Financial*	12.4 (29)	26.7 (65)	19.7 (94)
Career choice*	21 (49)	4.9 (12)	12.8 (61)
Training*	15.9 (37)	6.2 (15)	10.9 (52)
Job insecurity/location	10.3 (24)	4.9 (12)	7.6 (36)
Patient care	2.1 (5)	4.9 (12)	3.6 (17)
Lack of support	4.3 (10)	2.1 (5)	3.2 (15)
Difficulty/exams	2.6 (6)	0.8 (2)	1.7 (8)
Health	2.1 (5)	0 (0)	1.1 (5)

Percentages in each column add to more than 100% because some doctors cited more than one reason.

*denotes $p < 0.001$; significance tests, comparing 2011 and 2015: $\chi^2_1 = 66.9, 23.3, 14.5, 26.1, 10.5$ respectively for NHS culture/state/politics, Hours/workload, Financial, Career choice, Training.

Box 1: Selected quotations about reasons for considering leaving the UK

Quote number	Quote	Sex, survey year, specialty and grade
1.	'Keen to try living in another country'	Male, 2011, Core trainee
2.	'To experience other healthcare systems and gain exposure to varied pathologies. To be able to travel whilst practicing medicine and maintaining an income'	Female, 2015, Paediatrics, grade unknown
3.	'I have already worked in a rural Ugandan hospital and would be keen to work in resource poor settings in the future or provide support/training'	Female, 2015, Paediatrics trainee
4.	'Hoping to go onto missionary work in the future'	Female, 2011, Medical specialist trainee
5.	'Interest in Tropical Medicine, would like to spend time working in the tropics. Would like to spend time working with MSF'	Female, 2011, Medical specialist trainee
6.	'I am about to begin a commission as a medical officer in the British Army - this will see me practice both and at home and overseas for the next 4 years at least'	Male, 2015, British Army, specialty unknown
7.	'Better work-life balance and pay in Australia'	Female, 2011, Medical specialist trainee
8.	'Weather is better abroad. Better income and living/working conditions'	Male, 2011, Psychiatry core trainee
9.	'Foreseeable better future overseas - in terms of better lifestyle, salary'	Female, 2011, Anaesthetics trainee
10.	'Excellent previous experience working abroad'	Female, 2015, Psychiatry core trainee
11.	'Currently working in Australia. Very good work conditions, work life balance and support / teaching / training in the work place very high quality'	Female, 2015, Emergency medicine, grade unknown
12.	'Uncertainty about future job prospects and working environment within NHS'	Female, 2015, GP trainee
13.	'The NHS may not be around for long and the downfall may be disastrous in the short term'	Male, 2015, Surgery trainee
14.	'[named Minister for Health] and the contract reforms debacle'	Female, 2015, GP trainee
15.	'The effects of politics on the NHS, e.g. [named Minister for Health]'s plans. Having a privatised health-care system and work pressures might convince me out of the service even though it is my absolute vocation. It feels like continuing medicine in the UK will amount to sacrificing my human right to a personal and family life and my work would continue (albeit as much as I love it) at the expense of the people I love'	Female, 2015, Medical specialist trainee
16.	'Further experience in my chosen specialty, plus jobs outwith my specialty that will broaden my skill and knowledge, useful for working in Emergency Medicine. Unable to do this in the current UK training scheme'	Male, 2011, Emergency medicine trainee
17.	'Gain greater experience & time in post pre-Consultant'	Male, 2011, Medical specialist trainee
18.	'To escape the inflexibility of our current job system and the inability to 'try out' different specialities before having to make your lifelong decision'	Female, 2011, Obstetrics and gynaecology trainee
19.	'Unhappy with training in UK, forced to choose a specialty too early. No flexibility to change mind'	Female, 2011, Anaesthetics trainee
20.	'Don't want to train in UK, too difficult to get onto programme and will be sent all over the country and may struggle to get a post at the end too. I also want the lifestyle in Australia and ease of joining training scheme'	Female, 2011, Emergency medicine trainee
21.	'Worsening job security in the UK. Disorganisation of the NHS. Move from training posts/job to pure "service provision"'	Female, 2011, Medical specialist trainee
22.	'Increased working hours with reduced remuneration in medicine in the UK'	Male, 2015, Obstetrics and gynaecology trainee
23.	'Poor working conditions in UK. Long hours. Reductions in pay. Level of responsibility and stress associated with the job not worth the criticism and poor pay'	Female, 2015, GP trainee
24.	'Family in Canada (born & raised there)'	Female, 2011, Obstetrics and gynaecology trainee

25.	'Majority of our friends have gone abroad to work in Australia, so we plan to go out and join them next August'	Female, 2011, GP trainee
26.	'My partner's career may be improved by working abroad. If it is a convenient time in my career I would go with him'	Female, 2015, Obstetrics and gynaecology trainee
27.	'Not feeling valued, low morale'	Male, 2015, Anaesthetics trainee
28.	'There is growing hatred from the public and media for doctors particularly GPs'	Female, 2015, GP trainee
29.	'The costs of the medical rota on my health and family life'	Female, 2015, Medical specialist trainee
30.	'Work is all consuming here. You finish late, skip meals, are exhausted and treated poorly'	Female, 2015, GP trainee
31.	'The current contract changes undermine our skills and threaten patient safety and I don't want to work in an institution that doesn't support its trainees. I already am overworked and it doesn't feel safe'	Female, 2015, Paediatrics trainee
32.	'Poor NHS organisation - often leads to suboptimal patient outcomes that you then feel responsible for'	Male, 2015, Radiology trainee
33.	'I have found working practices to be somewhat demoralising and I am tired of working in a system that is chronically and catastrophically under-funded. I do not wish to be a cog in a machine that perpetually delivers sub-standard care anymore'	Male, 2015, Emergency medicine trainee
34.	'Hideous working conditions, hours, lack of senior support and work/life balance'	Female, 2011, Unknown
35.	'Unsympathetic & distressing treatment regarding maternity leave. Sexism & harassment in work place'	Female, 2011, Pathology trainee
36.	'Unclear if I definitely want to continue practising medicine, and would like to work abroad at some point'	Male, 2015, Emergency medicine trainee
37.	'Working in Canada as a doctor is a potential life plan or leaving medicine because medicine doesn't interest me that much & being a doctor isn't what it used to be'	Female, 2015, Emergency medicine trainee

Quote number cross-refers to the Results section.

Box 2: Selected quotations about reasons for considering leaving medicine

Quote number	Quote	Sex, survey year, specialty and grade
1.	'Uncertainty about the future of the NHS & what it will be like to work in the NHS'	Female, 2011, Emergency medicine trainee
2.	'Disillusionment with NHS'	Male, 2015, Anaesthetics trainee
3.	'Government ruining NHS and its image'	Male, 2015, Medical specialist trainee
4.	'Current Tory Government's determination to dismantle the NHS and victimise doctors'	Male, 2015, Medical specialist trainee
5.	'More to life than medicine. Want to travel & do other things that medicine may or may not allow'	Female, 2011, GP trainee
6.	'May have a gap year'	Female, 2011, Unknown
7.	'Possibility of moving abroad with husband's work'	Female, 2011, Foundation Year 2
8.	'Because our professional status is being eroded. For the extra and hours, and hard work, we are not appreciated or remunerated appropriately'	Female, 2011, Unknown
9.	'Run down. Lack of appreciation'	Female, 2011, Medical specialist trainee
10.	'Leaving the UK or leaving medicine in the UK due to low work force moral. Erosion of professional standing and autonomy'	Male, 2015, Emergency medicine trainee
11.	'Lack of job satisfaction working within some departments of some NHS Trusts in the UK. Also the patient mix - regularly dealing with rude, abusive patients is rather tiring and disheartening'	Female, 2011, Unknown
12.	'Increased working hours with reduced remuneration in medicine in the UK'	Male, 2015, Obstetrics and gynaecology trainee
13.	'Poor hours. Poor working conditions. Poor pay for working pattern'	Female, 2011, Anaesthetics trainee
14.	'UK job is underpaid, over-pressured, overworked and not sustainable as a long term career. There are not enough staff and the government paints us as evil hateful people, yet we are already stretched too thin'	Male, 2015, Medical specialist trainee
15.	'I have decided to leave medicine as I have struggled to maintain a sustainable work/life balance leading to huge sacrifices in where I have been living, time spent with my family & ability to pursue outside interests'	Female, 2011, Medical specialist trainee
16.	'Leaving medicine would be to achieve a better work-life balance, and to feel more relaxed'	Female, 2015, Unemployed
17.	'Poor salary for hours worked'	Female, 2011, Unknown
18.	'Better financial prospects outside medicine'	Male, 2011, Radiology trainee
19.	'Salaries in medicine have no kept pace with other professional careers e.g. those of accountants and lawyers'	Male, 2015, Medical specialist trainee
20.	'Better pay elsewhere. More respect for doctors elsewhere. Other career interests away from medicine'	Female, 2015, GP trainee
21.	'I don't find pleasure in hospital medicine/surgery and I don't feel that GP would offer me enough excitement. As I didn't get a specialist training job, I now have the opportunity to pursue a medico-legal career, which is something I have been considering for a while'	Female, 2011, Surgery trainee
22.	'I enjoy public health, and am open to other, related careers not necessarily within the boundaries of 'medicine' - e.g. research, working for NGOs, local or national government'	Female, 2011, Public health trainee.
23.	'Increasingly poor training/career prospects'	Female, 2011, Anaesthetics trainee
24.	'Disillusionment with surgical training and career prospects in the NHS'	Male, 2011, Surgery trainee
25.	'I am considering other options. Not because I want to leave medicine but because I am unable to work full-time. I feel that currently the opportunities to gain adequate training and exposure are more limited for Less-Than-Full-Time (LTFT). Remuneration for LTFT trainees is also not equitable pro rata in my Trust. I feel there are real inequalities in training compared with my full time peers and this will impact on my	Female, 2011, Unknown

	ability to compete for posts'	
26.	'Postgraduate medical training is terrible. I feel deeply demoralised at the state of training in the UK, which is completely subjugate to service provision'	Male, 2015, Emergency medicine trainee
27.	'Likely absence of Higher Specialty Training posts / likely absence of permanent career-grade post / consultant post'	Male, 2011, Emergency medicine trainee
28.	'Difficulty obtaining consultancy jobs in chosen specialty'	Male, 2015, Medical specialist trainee
29.	'Job shortages, unacceptably unfair competition and increasingly arduous application processes'	Male, 2011, Emergency medicine trainee
30.	'Difficulty getting a job where you live, competitiveness'	Female, 2011, Medical specialist trainee
31.	'Unsafe working conditions being imposed by proposed junior doctors contract'	Female, 2015, Medical specialist trainee
32.	'Business model of the NHS - putting profit/targets before patients. I find it unbearable having to practice poor clinical medicine due to management induced restrictions/protocols'	Female, 2011, Psychiatry trainee
33.	'Lack of respect and encouragement from senior colleagues'	Female, 2015, GP trainee
34.	'I may leave medicine due to long working hours, not enough support from seniors. Also I would rather have a job with less responsibility'	Female, 2011, Unemployed
35.	'Unreasonably high expectations (clinical, research, teaching, exams)'	Male, 2015, , Surgery trainee
36.	'Post grad exams are off-putting'	Male, 2011, Radiology trainee
37.	'Last year my mental health deteriorated as a result of factors both inside and outside of work. I am taking time out of training. My focus will be on improving work-life balance and increasing the sense of control over my work'	Female, 2011, Unemployed

Quote number cross-refers to the Results section.

Appendix 1: Survey response and intentions to leave the UK and/or medicine

	2011 survey (N)	2015 survey (N)	Total (N)	<i>Percentage of respondents to question</i>	<i>Percentage of respondents to the full questionnaire</i>
Responders to survey	3228	2063	5291		
Responders to full version of survey	3150	2063	5213		
Intention to practise medicine in the UK for the foreseeable future					
Total responses	3140	2053	5193	100.0%	99.6%
Yes, definitely	1538	510	2048	39.4%	39.3%
Yes, probably	1001	779	1780	34.3%	34.1%
Undecided	319	443	762	14.7%	14.6%
No, probably not	195	241	436	8.4%	8.4%
No, definitely not	87	80	167	3.2%	3.2%
Considerations of those not Definitely intent on remaining in UK medicine					
Total responses	1602	1543	3145	100.0%	60.3%
Considering medicine abroad - 1	1386	1237	2623	83.4%	50.3%
Considering leaving medicine, remaining in the UK - 2	207	328	535	17.0%	10.3%
Considering leaving medicine and the UK - 3	90	141	231	7.3%	4.4%
Comments provided for leaving the UK (1 and 3 above)	1345	1178	2523		
Comments provided for leaving medicine (2 and 3 above)	233	243	476		