Completing the Picture Survey

Methods and Data Annexes

A collaboration between the General Medical Council (GMC), Health Education England (HEE), Department of Health (Northern Ireland), NHS Education for Scotland (NES) and Health Education and Improvement Wales (HEIW).

General Medical Council

Health Education England

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NHS Education for Scotland

GIG CYMRU NHS WALES Addysg a Gwella Iechyd Cymru (AaGIC) Health Education and Improvement Wales (HEIW)

Contents

Annex 1 – Methods Annex

Data collection

We aimed at studying doctors who previously practised in the UK but were not doing so anymore. We defined them as those meeting the following inclusion criteria, based on the data held in the GMC databases, by the launch date of our survey (21-Jan-2020).

- Must have practised in the UK, between 3 months and 15 years ago.
- We had reason(s) to believe that they were no longer practising in the UK, e.g. they had an 'erased' status or were registered but did not hold a licence to practise. This means that doctors may not have been contacted where they were on a temporary break and had not notified us of a change in their circumstances.
- Were not erased from the GMC register for a Fitness to Practise (FtP) reason.
- Did not have a suspended right to practise but may have had it in the past.
- Must have been 68 years old at most.
- Did not have open FtP cases but may have closed cases.

A total of 91,313 doctors met these criteria —our population of interest— and we were able to email 90,601. For the remainder, we either didn't have their email address or there was another reason why we couldn't email them (e.g. the doctor had requested not to be contacted any more). The first email was an initial invite to complete our survey. This was followed by up to two reminders, depending on whether each doctor had already completed the survey or contacted us to opt-out. Of the 90,601 emails sent 25,836 failed to deliver, possibly due to expired email addresses, spam filters etc. Out of the remaining doctors, 16,570 completed the survey or were screened out, which resulted in 13,158 usable responses after data cleaning. The overall hit-rate was 25.6%, which is very good for an online survey. All completed the survey between 21-Jan-2020 and 10-Mar-2020.

The survey completion period covered the very earliest stages of the COVID-19 pandemic, with only a few hundred cases reported in the UK by the end of it. There is a chance that the attitudes of doctors may have changed due to the pandemic, especially those around willingness and likelihood to return to practising in the UK. And this likely to have affected their subsequent behaviour, e.g. doctors who said they wouldn't return might have done so, and vice versa. This must be considered when interpreting the results.

Questionnaire

We developed the questionnaire in partnership across all five organisations. We designed it to take approximately 15 minutes to complete. It consisted only of closed questions, covering the key research questions alongside more general demographic information. We then implemented it using SmartSurvey software. Its full specification for programming is in Annex 4.

Data analysis

We conducted all analyses via a combination of bespoke scripts written in Python (3.7), R (4.0.2), and Stata (16).

Data parsing, cleansing, and engineering

As per usual practise, the initial raw data required multiple transformations to be analysable. To start with, we parsed dates and rectified them to realistic ranges (e.g. all birth dates must be before 10-Mar-1998), stripped surrounding white space from emails as entered by respondents, and removed special characters like dashes and backslashes from text-based variables.

After this, we computed the answering time in hours, per respondent, out of the timestamps for them starting and finishing the survey. On average, it took 52 hours for respondents to complete the survey and 99.9 % completed it within 72 hours of starting. We also computed the age of respondents out of their date of birth and the timestamp when each started the survey.

Of the initial 16,570 responses in the raw data exported from SmartSurvey, 3,412 responses were not usable because they did not actually match the inclusion criteria set at the outset for this survey. Consequently, we removed:

- 193 respondents reporting to be currently practising medicine in the UK in question 1 (Q1)
- 1,814 respondents reporting never having practised medicine in the UK in Q2
- 1,405 respondents reporting to have last practised in the UK within the last three months or beyond 15 years ago in Q4

This left us with 13,158 respondents meeting our criteria, referred to as the respondents throughout this report. These represent a usable response rate of 20.3 % of the 64,765 emails that were successfully delivered. Out of these respondents, 87% completed the survey by 3-Mar-2020, when there were only a couple of hundred cases of COVID-19 recorded in the UK.

By design, only respondents not selecting "definitely will not return" in Q16 (asking about the likelihood of return to practise) were meant to answer Q17 to Q23. Of the respondents that finally answered "definitely will not return" in Q16, a minority chose initially a different answer, went on to answer one or more of questions 17 to 24, and apparently went back in the questionnaire to amend their initial answer in Q16 to "definitely will not return", which made them skip again to Q24. This meant that, for this small group, we had data in Q17 to Q23 that should not be considered for consistency, and possibly duplicated responses for Q24. For this group, we erased any answers in Q17 to Q23 and merged any repeated responses for Q24 into a single one.

In Q11 and Q24 —on the reasons to stop UK practice and not to return to it, respectively— respondents could have given between one and five answers, ordered as primary reason, second, third, etc. Some respondents gave a single reason, others two, others all five. Unfortunately, respondents were allowed to select in any order and there were sometimes empty gaps between the possible five reasons. For instance, a respondent may have only chosen primary and a third reasons, while the rest were left blank. In addition to this, some respondents chose the same reason (e.g. retirement) repeated, say in the primary, second, third, and fourth places, with the fifth left blank. If unresolved, the first issue could have rendered a misrepresentation of the priority intended for given reasons, and the second would render an artificial over-representation of them. To solve this, for each respondent, we "settled" and de-duplicated the reasons given in Q11 and Q24. This means that, in the first example, the reasons given would be allocated to primary and second, leaving the rest blank. In the second example, the repeated reason would be allocated as primary reason, leaving the rest blank.

In some questions, in addition to a set of usual categories (say male and female), an additional category of "other" was offered, alongside a free-text field to elaborate on. On its own, these free-text responses are interesting to analyse in qualitative terms. However, some respondents selecting this additional category, filled the free-text field with an answer that would have obviously fitted one of the usual categories instead (e.g. "Male of 44 years old"). For these obvious cases, we replaced the original response by the evidently intended usual category, to remove as many ambiguities as possible.

For multiple questions we consolidated original responses into fewer categories, to simplify the communication of results, and sometimes the analysis. For example, in Q13 about current residence, we often consolidated all regions of England into "England."

Generalisation of the survey to the population of study

Though we attempted to contact the entire population of study (91,313 doctors) and had a good response rate, respondents were much less than 100% of it —a common issue with online surveys. This poses the question of whether some groups of doctors from the population were over- or under-represented among the respondents, thus biasing the data to over - or underrepresent their views. For instance, 31% of the 13,158 respondents reported practising last as general practitioners (GP), a much higher proportion than the GPs registered in the population, at 17%. We minimized such biases by estimating weights (weighting for short) to better represent the population of study. This required several layers of machine-learning. For this we used for reference population data from the GMC databases, alongside the data collected in the survey, as follows.

Cross-completion of data between datasets

Weighting relies on having data that is comparable across the population and survey datasets. In particular, we needed age, gender, ethnicity, and religion to be as complete as possible. However, there was missing data in both datasets. In the population data, ethnicity and religion were incomplete because there has been no opportunity to collect them. In the survey data, age was incomplete because some respondents entered implausible or uninterpretable birth dates. Also, gender was collected as male, female, or 'other' in the survey, whereas in the population it was collected only as male or female. Though we recognize that the 1.1% of doctors responding 'other' in the survey may not identify with a binary gender, the practicalities of homologising datasets for some of our analyses, compelled us to assign them to one of the binary categories.

As a first step in the completion of missing data, we linked survey and population datasets using contact email as unique identifier, for respondents disclosing it within the survey. We then filled ethnicity and religion from the survey dataset into the population one, and age and gender from the population dataset into the survey one. Importantly, note that for the population side we exclusively worked with a frozen extract from GMC databases, and we did not use survey data to update the GMC databases for doctors that identified themselves.

Inference of missing data

Though highly certain, the above cross-completion of datasets was only ever going to be partially successful. This is because the respondents were a lot less than the population size and only about half of the former disclosed an email address. To finish the completion, we resorted to inferring the remainder of missing data via 60-nearest neighbour multiple imputation. For each exercise, we included all the data we had available that could potentially relate to the variables inferred, as follows.

To infer the ethnicity group for doctors missing it within the population dataset, we were only able to run the imputation algorithm on a randomly selected sub-sample of 80 % of the 91,313 doctors. This due to limitations in available computational power. This inference was based on the data that the GMC held about the gender, religion, country of primary medical qualification (PMQ), and PMQ world region (UK, European Economic Area (EEA), or international medical graduate (IMG)).

To infer the gender that respondents would have chosen were they given only male and female as options in the survey, as well as the age, where date of birth was missing, we used: Q3 (registration

status), Q5 (date of last practise), Q6 (last role), Q10 (last full/part-time or locum), primary reason to leave UK practice (from Q11), Q12 (current employment status), Q16 (likelihood of return), primary reason not to return (from Q24), Q32 (ethnicity), Q33 (religion), and PMQ region (out of Q35 and Q36). For a few respondents, data for Q5, Q11, and Q24 was also missing, so we also inferred it as well within the same exercise.

Weight computation

After the above completion exercise, we computed representation weights as the inverse of the probability predicted by a logistic regression model, fitted to a balanced dataset composed of the 13,158 survey respondents (labelled as such), plus the same number of doctors from the population (labelled as non-respondents). We randomly drew the latter half of the regression dataset from the 80% of the population dataset in which we previously completed ethnicity, minus any doctors that we could identify as survey respondents via their disclosed email address.

In this model we controlled for all variables that we had complete both in the survey and population datasets. These were age, gender (male or female), ethnicity (BME, white, or unknown), PMQ region (UK, EEA, or IMG), an indicator of being a GP, another of being a specialist, another of age having been imputed, another of gender having been imputed, and another one of ethnicity having been imputed.

Doctors older than roughly 55 years old responded more frequently than it would be expected by their representation in the population. This while doctors younger than this responded less frequently. To adjust for the complex differences in representation by age in the model, we binned it in the intervals: [0,35], (35, 40] ∪ [49, 57], (40, 49), (57, 62] ∪ (68, 100], and (62, 68]. Then controlled for it as a categorical variable.

We decided not to control for religion, sexual orientation, and disability to compute representation weights. The reason is that these characteristics were missing for nearly 80% of doctors in the population data. Attempting to complete them by inference and using them for weight computation, would arguably do more harm than good.

To avoid outlier effects, we rectified a handful of the weights computed, that were beyond four, to about four. In fig. 1 we show the final distribution of weights for the survey respondents. We incorporated these weights in all the analyses hereafter.

As a corollary, it is important to highlight that, even though by computing these weights we minimized the biases associated to the variables that we controlled for in the weighting model, in practice there is no way to remove all biases. To do so we would need to account for other factors yet to be identified and measured. Still, intuitively, using these weights boosted the representation of doctor groups that were under-represented among respondents and vice versa for overrepresented ones. In this way best approximating the results that we would have obtained had the whole population responded our survey.

Unless explicitly specified, all results in this report were weighted. Therefore, though based on survey responses from 13,158 doctors, they can be taken as the best attainable representation of the whole population of 91,313 doctors.

Caveats of estimated quantities generalised to the population of study out of survey data

Using the weights above, we were able to compute totals and proportions out of survey data that were the best estimates of the corresponding true ones in the population. From this it follows that a

basic requirement for computing expected numbers of doctors (or proportions) generalised to the whole population is that there were respondents in the survey giving the relevant combination of responses. When there were none, the numbers or proportions cannot be estimated. This is different from computing a number or proportion of zero. To make this difference clear, where numbers or proportions could not be estimated for exploratory tables and charts, we leave the relevant spaces blank throughout this report, instead of filling them with zeroes.

Related to this, we remind the reader that all the expectations computed as generalised to the population are not certain numbers. They carry along with them the uncertainty coming from us studying only a fraction of the population (the 13,158), rather than the whole population. In general, this uncertainty is more pronounced for the smallest among the generalised numbers and proportions computed.

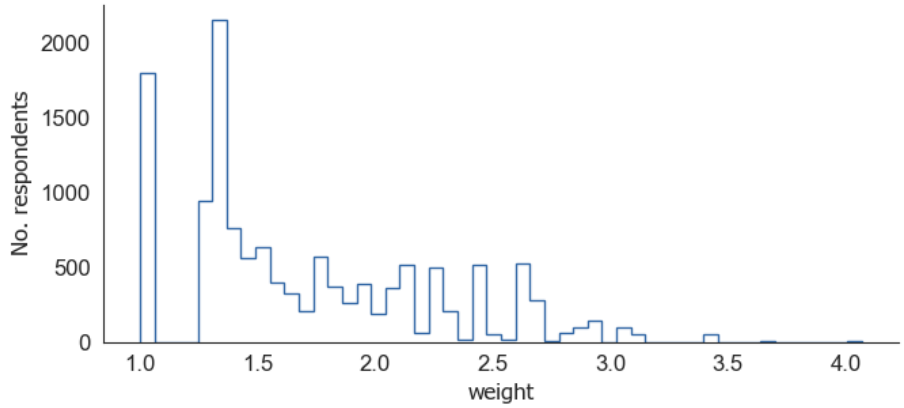


Figure 1: Distribution of the representation weights computed for the survey respondents.

Analysis of multi-answer questions

For the multi-answer Q11 and Q24, there was useful information in the prevalence of the answers — as in other questions — but also in the ordering of answers per respondent, and on the collective response vigour being higher for the primary reason than say for the third reason.

If we were to consider individual sequences of answers to group respondents, we'd find that there were 6,455 and 5,353 unique such sequences (in Q11 and Q24, respectively), among the 13,158 respondents. This is to say that the three answers "retirement, burnout, and family reasons" would be a unique sequence, different to "burnout, retirement, and family reasons." Under this view, pretty much every respondent would have had their own reasons to stop practising or for not returning. If we are to ignore the ordering, which would bundle these two examples into the same type of response, this would only be improved to 3,906 and 4,106 individual combinations of answers. Which is still uninterpretable.

To solve this, we used two main methods to analyse responses in Q11 and Q24, each giving a different angle on them. The simplest was just reporting the prevalence of reasons, as the percentage of respondents selecting each, regardless of whether it was say the primary or fourth reason. We report results of using the prevalence methods in the main report.

In the second method we took into account the order of the reasons given and the collective response vigour. Intuitively, in this method each doctor is given a "vote." If a doctor gave only one (primary) reason, that would be taken as their whole vote. But if they gave more reasons, each would be assigned a convex weight based on the collective response vigour of all respondents in as

many answers as the respondent selected. For instance, a respondent giving three reasons would have their primary reason taken with a weight equal to the number of respondents giving a primary reason, divided by the sum of this number, plus the number giving a second reason, plus that giving a third reason. This method has the advantage of using data-led weights to incorporate the information contained in the ordering of reasons. In this way, for a respondent giving "retirement, burnout, and family reasons" as their reasons to stop practising, "retirement" would have a higher importance than for another respondent answering "burnout, retirement, and family reasons." In contrast to the prevalence method above, this method gave a % share of the importance of different reasons, where such shares sum to 100 %. These could be interpreted as a ranking of the importance given to each reason to stop practising in the UK or to not return to it.

Analysing multi-answer questions via the second, vigour-weighted method, highlighted not only which reasons were given more often, but which were given a higher importance. This often nuancing the plain prevalence view that we mostly reported. From this angle, the reasons to stop practising with the highest importance shares were: returned to country of previous residence, retirement, and dissatisfaction with role / place of work / NHS culture (fig. 2). Compared to the plain prevalence of reasons, this view brings to the fore the importance of retirement. Regarding reasons not to return to UK practice, and compared to the plain prevalence of reasons, importance shares bring to the fore family reasons other than caring and regulation (fig. 4).

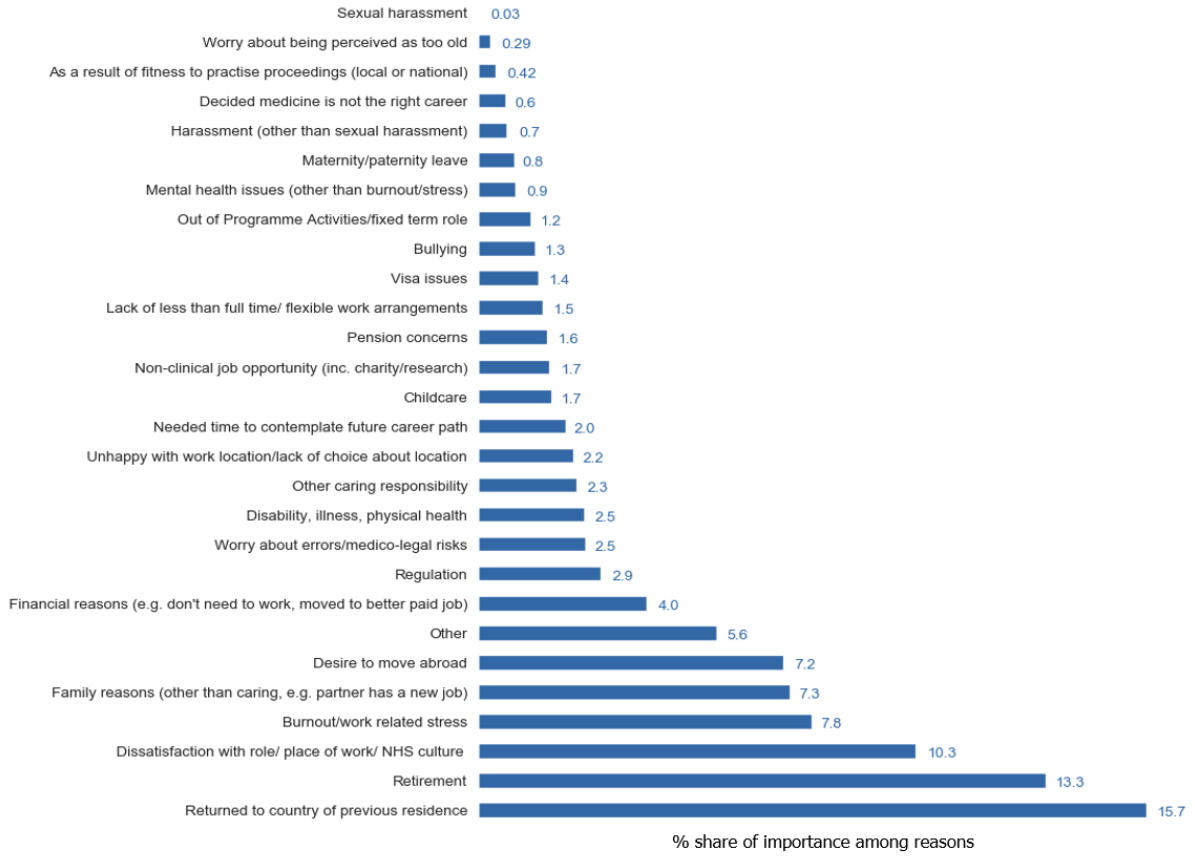


Figure 2: Importance share of reasons to stop practising in the UK, obtained by merging all possible answers in Q11.

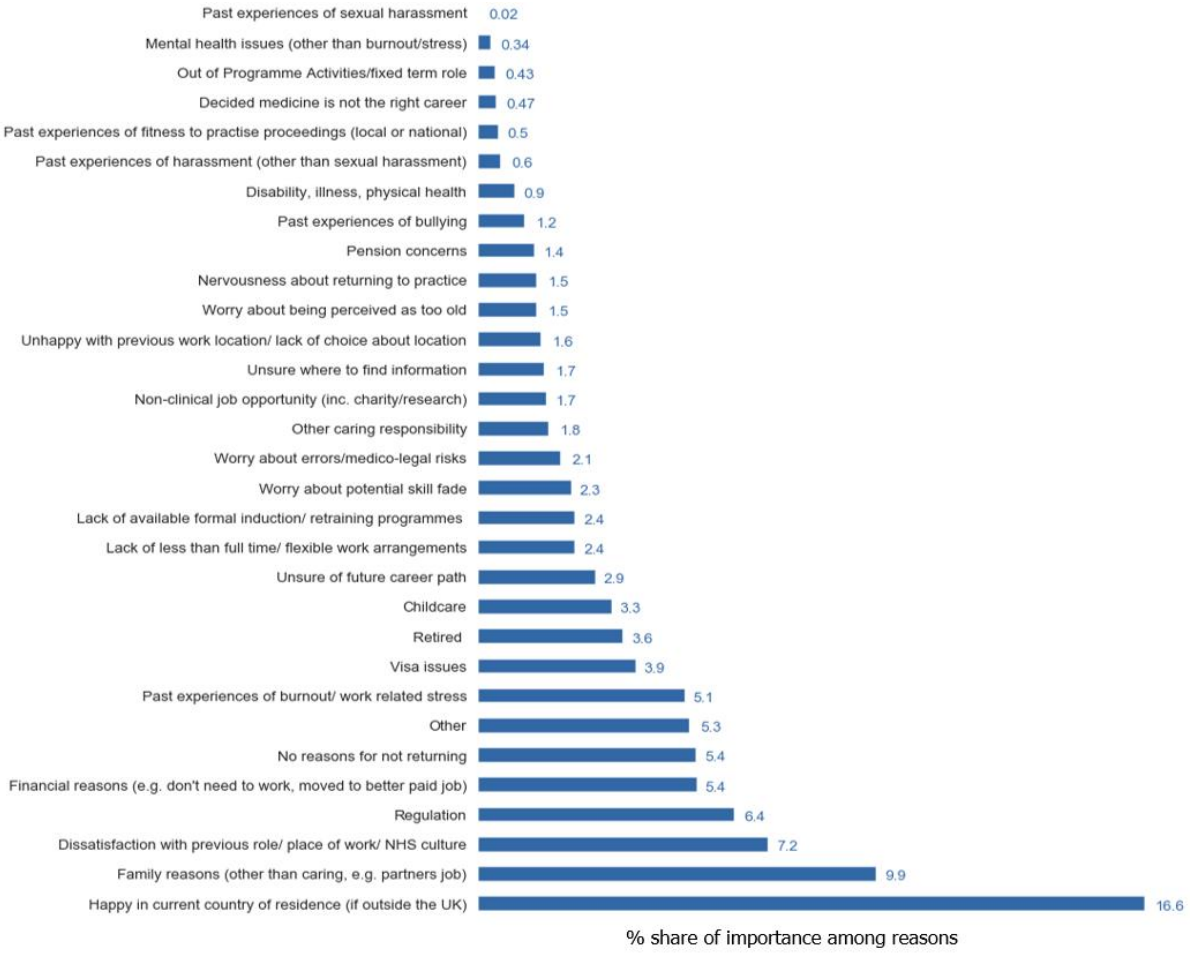


Figure 3: Importance share of reasons not to return to practising in the UK, obtained by merging all possible answers in Q24.

Analysis of factors converting into other factors

To visualize transformations of factors reflecting migration or shift in reasons, we produced Sankey diagrams (the main ones about migration are in the main report). Other than these, we also asked whether the reasons to stop practising remained as reasons not to return or transformed into something else (fig. 4). From this we learn that retirement remained a dominant reason for retirees to remain so. Similarly, burnout and dissatisfaction remained important as reasons to not return to UK practice. Further, returning to a country of previous residence transformed into multiple other reasons to not return like satisfaction with living in such place, and family reasons other than caring. A host of reasons to stop practising involved moving abroad and, out of those, being happy in the new country became a reason to not return to practise in the UK. And lastly, while Regulation, Childcare, and Visa Issues were not a highly prevalent primary reason to stop practising, they became much more prevalent as a reason to not return to practising.

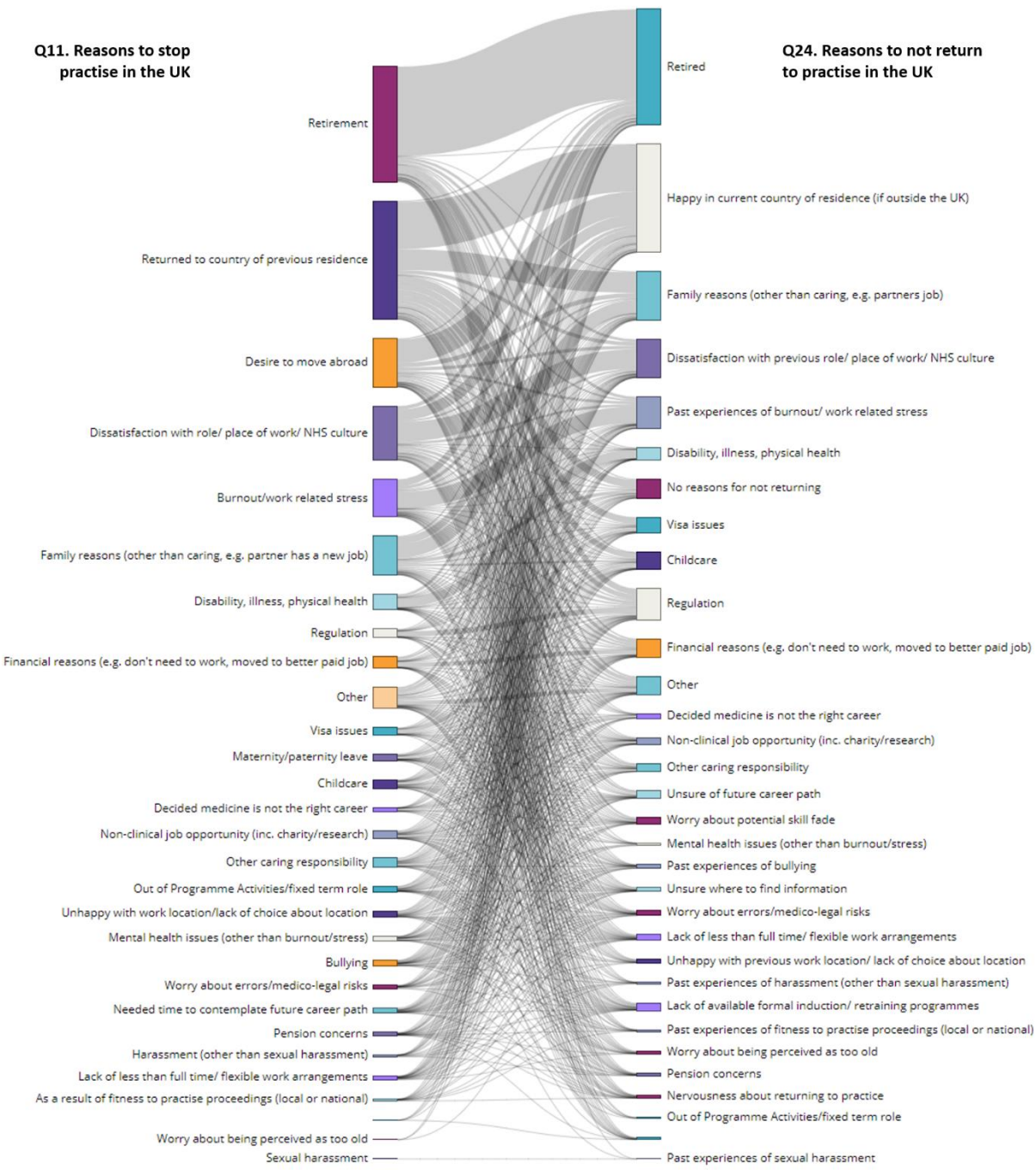


Figure 4: Sankey diagram of the relationship between the primary reasons to stop practising in the UK (Q11) and the primary reasons to not return to it (Q24).

Factors systematically related to wanting to return to practice extracted via modelling

We measured the willingness to return to UK practice (Q15) mostly before the COVID-19 pandemic was of central importance and before the first UK-wide lockdown. Nonetheless, we wanted to determine whether a variety of factors, as measured by questions in the survey, systematically related to it. By "systematically" we refer to the capacity of statistical models to extract the contribution of say being retired, separate from the contribution of all other variables controlled for, importantly age in this example. Hence, all results from models can be read as preceded by "all else

equal." This in contrast to exploratory results where such contributions may remain mixed and so potentially confounded by other factors.

For this purpose, we trained another logistic regression model on the data of all respondents. In this model, we controlled for: registration status (Q3), last role (Q6), UK country of last practice (from Q9), last full/part-time/locum working pattern (Q10), current work situation (Q12), current residence (Q13), age (completed), gender (completed and made binary from Q29), disability (Q30), ethnicity (Q32), religion (Q33), sexual orientation (Q34), willingness to be contacted for future research (Q39), PMQ region, and date of last practice (Q5 completed).

This model tells us about the main factors related to either wanting or not wanting to return to practise in the UK (fig. 5). Though there are multiple stories intertwined in these results, we only discuss further the ones that we consider the most practically impactful and productive.

Among the factors related to wanting to return to UK practice (blue in fig. 5), being registered and holding a licence to practise —compared to having neither— was the factor most importantly related to it, while being registered without a license was the fourth. These were as expected, with more willing doctors being in a simpler regulatory position to return. Being a Muslim, compared to having no religion, was the second highest impact factor, with being Buddhist, Hindu, or Christian also showing up as statistically significant with relatively smaller impacts. And being an IMG, compared to being a UK graduate, was the third highest impact factor; this with being an EEA graduate showing up as the fifth highest impact factor.

In relation to not wanting to return (magenta in fig. 5), being retired, compared to not working when surveyed, was the highest impact factor, with being older separately showing as significant in this same direction. This suggests that retiring from medical practice is a choice that is highly unlikely to change. Working non-clinically in a job requiring a PMQ, compared to not working, was the second highest impact factor, while working instead in a job not requiring a PMQ figures as the fourth. Not wanting to participate in follow up research (somewhat measuring motivation to engage further), was the third highest impact factor. And working clinically abroad, compared to not working, was the fifth most impactful factor in this direction. Importantly, since living abroad when surveyed had a negligible importance and was not statistically significant, this suggested that it is practising clinically abroad that is important, rather than living abroad per se.

The factors unrelated to willingness to return to UK practice (grey in fig. 5) were as telling as those that are related. For instance, as said before, living abroad per se was unrelated to the willingness to return. This points to practising clinically abroad instead as the factor associated to not wanting to return to UK practice. Gender and sexual orientation, both were unrelated to willingness to return. The UK country where doctors last practised or that where they were living when surveyed, was unrelated to willingness to return. This clearly signalled no difference in the patterns of doctors between UK countries. This adds evidence for it being most productive to produce a single UK-wide report of the survey results, rather than reports per UK country. Treating all data together in this way also has the advantage of allowing for maximum statistical power and lower sampling error for our analyses, maximally benefiting all UK countries.

Despite this model suggesting that living in the UK or abroad was unrelated to the willingness to return to practise, doctors with either residence would be practically addressed in different ways. To learn more about each of these sub-groups, we trained two subsidiary models dividing respondents into two datasets by their reported residence at the time of responding (40% lived in the UK, 60% abroad). In general, the highest impact factors remained the same in these subsidiary models as in

the overall model. Among notable differences, in the model of residents abroad only, being a male had a small impact towards not wanting to return to UK practice, while age lost its systematic association to such willingness. In the model of UK residents only, having an undisclosed disability status became one of the main factors towards wanting to return to UK practice, and being a male became significantly related to wanting to return, albeit with a relatively low importance.

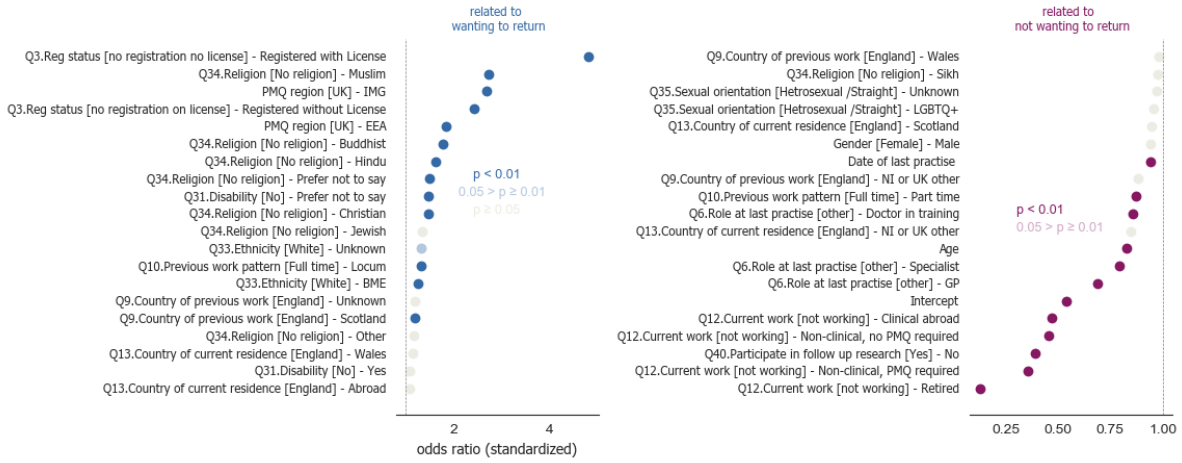


Figure 5: Odds ratios (OR) on *z*-scored or dummy variables related to the willingness of doctors to return to practise in the UK, from a logistic regression model. The name of factors with several categories is in the format "Question. Name of factor [reference category] – category." Blue: factors related to wanting to return. Magenta: factors related to not wanting to return. Grey: factors unrelated to either (p 0:05). Dense hue of blue or magenta: highly significant systematic association ($p < 0.01$). Light hue: moderately significant systematic association ($0.05 > p \geq 0.01$).

		Q15. Willingness to return	
		No	Yes
Q16. Likelihood of return	Definitely will return	31	2532
	Very likely	180	5763
	Likely	1504	11457
	Don't know	3560	5900
	Unlikely	11369	4770
	Very Unlikely	14542	1666
	Definitely will not return	27928	109
	total	59114	32197

Table 1: Expected number of doctors in the population by their willingness to return to UK practice (Q15) against their likelihood (Q16). Higher numbers per column are in denser blue.

Factors systematically related to likelihood of return to practice extracted via modelling

The likelihood to return to practice in the UK (Q16) may have changed less due to the pandemic than the willingness to do so (Q15). So, it was of high interest to extract the systematic association of factors to this likelihood. We did so by training a partial proportional odds model on the survey data (fig. 6). This type of model extracts the association of factors to grouped-up likelihood levels, thereby informing us about transitions between likelihood levels. For instance, comparison "d" (navy triangle) represents the association of factors to responses of "unlikely," "very unlikely," or

"definitely will not return," instead of not knowing or reporting that return was in any way likely. Across comparisons, the model then informs us on the direction and strength in which factors 'pull' towards "definitely will return" in shades of blue or "definitely not return" in shades of purple. Due to the size of this model, we only highlight associations as significant at $\alpha = 0.01$ level.

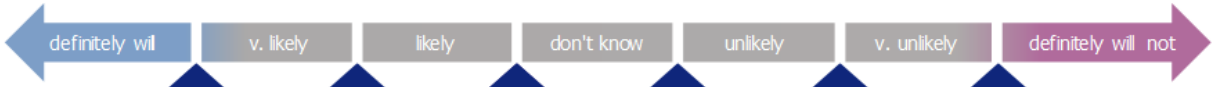
Responses about willingness to return to UK practice were highly concurrent with those about likelihood to return (χ^2 on survey frequencies, $p < 0.0001$). This with unwilling doctors tending to report a low likelihood to return and willing doctors reporting some likelihood to do so (table 1). Because of this high concurrence, the results of training our likelihood model were very similar to those of the model of willingness to return above, as follows.

All else equal, holding both a registration and license was the factor most strongly related to an increased likelihood to return, with holding only a registration also remaining a top factor (fig. 6). Again, this signalling that doctors that see their return to UK practice as more likely, tend to keep a regulatory status that will enable them to more easily do so. This was followed by being a Muslim (compared to having no religion) with being Hindu also strongly related to a high likelihood. Noting that being a Buddhist was in this model only related to moving away from not knowing or 'unlikely' categories. Lastly, being an IMG (compared to a UK graduate) was mostly related to a high likelihood, with EEA graduates tending to report away from the 'unlikely' side. Interestingly, living abroad when surveyed, was somehow consistently related to higher likelihood to return to UK practice.

All these factors controlled for, being retired (compared to not working when surveyed) was the factor most related to lower likelihood to return to practice, with a strong graded pattern in this direction. Again, this indicating that retirees see a change in mind about retirement form medical practice as unlikely. Working on a non-clinical job or working clinically abroad were also, in general, significantly related to a low likelihood to return. Being unwilling to provide contact details for follow up research was also consistently related to lower likelihoods of return. And having been a GP in their last role (compared to non-GP/specialists not in training) remained significantly related to lower likelihoods to return. However, in contrast to the willingness model, having been a specialist or trainee were unrelated to the likelihood to return.

About personal characteristics, older age was related to reporting a return to UK practice as unlikely, separately from being retired. Gender, disability, and sexual orientation were, for the most part, unrelated to the likelihood to return. And being BME was slightly related to higher likelihood to return than being white.

Among other non-significant factors, the most interesting is probably the lack of association of the UK country where doctors practise last, to the likelihood of return. This again supporting us predominantly reporting UK-wide results, with higher statistical power and lower sampling errors, than reporting results separately for individual UK countries.



variable	base	category	parallel	a OR (std.)	a $p<0.01$	b OR (std.)	b $p<0.01$	c OR (std.)	c $p<0.01$	d OR (std.)	d $p<0.01$	e OR (std.)	e $p<0.01$	f OR (std.)	f $p<0.01$
age (from Q28)				1.28	•	1.23	•	1.28	•	1.23	•	1.36	•	1.84	•
gender (from Q29)	female	male		1.02		1.07		1.00		1.19	•	0.97		0.80	•
ethnicity (Q32)	white	BME		0.59	•	0.73	•	0.85		0.76	•	0.90		0.96	
		unknown		0.39	•	0.70		0.84		0.75		0.93		1.41	
disability (Q30)	no	undisclosed		1.34		1.19		0.75		0.52	•	0.67		0.60	•
		yes	•	1.15		1.15		1.15		1.15		1.15		1.15	
religion (Q33)	no religion	Buddhist		1.51		0.68		0.63	•	0.48	•	0.49	•	0.82	
		Christian	•	0.77	•	0.77	•	0.77	•	0.77	•	0.77	•	0.77	•
		Hindu	•	0.61	•	0.61	•	0.61	•	0.61	•	0.61	•	0.61	•
		Jewish/Sikh/Other		1.09		1.09		1.09		1.09		1.09		1.09	
		Muslim		0.59	•	0.39	•	0.35	•	0.34	•	0.38	•	0.54	•
		Undisdosed	•	0.73	•	0.73	•	0.73	•	0.73	•	0.73	•	0.73	•
sexual orientation (Q34)	heterosexual	LGBTQ+	•	1.22		1.22		1.22		1.22		1.22		1.22	
		unknown		1.36		1.12		1.25		1.13		0.95		0.75	•
PMQ region (from Q35 and Q36)	UK	EEA		1.46		0.95		0.61	•	0.57	•	0.47	•	0.54	•
		IMG		0.73		0.54	•	0.45	•	0.43	•	0.38	•	0.40	•
date of last practise (Q5)				0.94	•	0.94	•	0.94	•	0.94	•	0.94	•	0.94	•
registration status (Q3)	neither registered	registered, not licensed		0.31	•	0.42	•	0.44	•	0.42	•	0.41	•	0.36	•
	nor licensed	registered and licensed		0.12	•	0.14	•	0.21	•	0.20	•	0.26	•	0.37	•
current work situation (Q12)	not working	retired		12.73	•	10.28	•	10.22	•	9.72	•	6.43	•	4.87	•
		work din abroad		2.58	•	1.72	•	1.20		1.47	•	1.49	•	1.40	•
		work non-din non-PMQ	•	2.16	•	2.16	•	2.16	•	2.16	•	2.16	•	2.16	•
		work non-din PMQ		1.68		2.26	•	2.12	•	2.60	•	2.58	•	3.31	•
last work pattern (Q10)	full-time	part-time	•	1.02		1.02		1.02		1.02		1.02		1.02	
		locum		0.73		0.74	•	0.72	•	0.64	•	0.77	•	0.72	•
last role (Q6)	non-GP/specialist	trainee	•	1.10		1.10		1.10		1.10		1.10		1.10	
	and non-trainee	GP	•	1.35	•	1.35	•	1.35	•	1.35	•	1.35	•	1.35	•
		specialist	•	1.08		1.08		1.08		1.08		1.08		1.08	
country where last worked (Q9)	England	Northern Ireland or UK-other	•	1.30		1.30		1.30		1.30		1.30		1.30	
		Scotland	•	0.90		0.90		0.90		0.90		0.90		0.90	
		unknown		1.23		1.23		1.23		1.23		1.23		1.23	
		Wales		0.89		0.89		0.89		0.89		0.89		0.89	
current residence (Q13)	UK	abroad	•	0.72	•	0.72	•	0.72	•	0.72	•	0.72	•	0.72	•
happy to give contact details (Q39)	yes	no		1.68	•	2.04	•	2.09	•	2.04	•	1.99	•	1.30	•
constant				62.03	•	18.18	•	7.37	•	3.17	•	1.26		0.52	•

Figure 6: Odds ratios (OR) on z-scored or dummy variables related to the reported likelihood of doctors to return to practise in the UK, from a partial proportional odds model. Navy triangles: mark each of the comparisons fitted in the model, e.g. triangle "e" signals the comparison of reporting "definitely will not" or "v. unlikely" instead of any of the other likelihood levels. Blue density: importance of factors related to being likely to return. Magenta density: importance of factors related to being unlikely to return. Highly significant ($p < 0.01$) ORs are marked with a bullet next .to them.

Identifying natural groups via clustering

We were interested in whether doctors could be naturally partitioned into groups that were relatively distinct; this as driven by the patterns in the data itself. We determined this by clustering a dimensionally reduced survey dataset.

Since it was of central interest to learn what would be productive to attract doctors back into UK practice, we based these exercises on the factors suggested to be the most impactful by the above models of willingness and likelihood to return to practice. These factors were: registration status (Q3), current work status (Q12), willingness to return itself (Q15), likelihood of return itself (Q16), religion (Q33, consolidating minority religions), willingness to be contacted for further research (Q39), and PMQ region. These, plus some additional factors that were related to possible avenues via which we could practically address different cohorts of doctors: current residence (Q13, consolidated as UK or abroad), date of last practice (Q5, completed), age (completed), and gender (Q29, completed and made binary).

Dimensionality reduction

Despite the pre-selection of variables above, we still had too many factors for clustering. Thus, we sought to reduce the dimensionality of the dataset. For this, we used principal component analysis with metrics, giving a very similar reduction to factor analysis but much more computationally efficient. The data turned out to be quite high-dimensional. We retained for clustering the first 10 out of its 26 dimensions, capturing 57% of all the variance in the dataset.

Clustering

We clustered the 10 retained dimensions via k-medoids. This dataset most naturally grouped into two to four groups, as suggested by average silhouette widths. However, we considered such groupings simplistic and impractical for addressing doctors within the identified groups. To improve on this, we decided to first overly partition the dataset into 10 groups (fig. 7). This partition had the advantage of surfacing smaller, relatively distinct cohorts. Cluster 1, for instance, concentrating nearly all doctors that had Sikh, Jewish, or 'other' minority religions. Conveniently, several of these clusters shared commonalities important for the practical addressing of doctors within. Therefore, we amalgamated post-hoc these 10 groups into five that made better practical sense (fig. 8).

The amalgamation in fig. 8 highlights the main aspects of the population that may be practically useful for addressing different cohorts: age, whether doctors live in the UK or not, and their current work situation (e.g. retired, practising clinically abroad, in non-clinical job, etc.). Briefly, the biggest cohorts of interest were, first, group '3/5' tending to encompass older doctors, retired, UK graduated, UK residing, that see a return to practice as highly unlikely. The second, further joining groups '2/4' and '7/8/10', tends to encompass younger doctors, living and practising clinically abroad. In terms of likelihood to return to UK practice, there is a difference, apparently associated to PMQ region. Group '2/4' was enriched in EEA graduates, was less keen, and saw that prospect as unlikely. In contrast, group '7/8/10' was enriched in IMGs, was very keen to return to UK practice, and reported the highest likelihood to do so.

To further understand these groups, we divided the reasons to stop practise (Q11) and the reasons not to return to practice (Q24) by the amalgamated groups (figs. 9 and 10). Again, the profile of reasons for the groups of younger doctors living and practising clinically abroad ('2/4' and '7/8/10') appeared very similar. Among them, the main reasons involve motivations to be or stay abroad, family reasons other than caring, dissatisfaction with previous work arrangements, and possible visa

issues. The group of older, retired doctors had a slightly different profile of reasons, where retirement itself figured quite strongly.

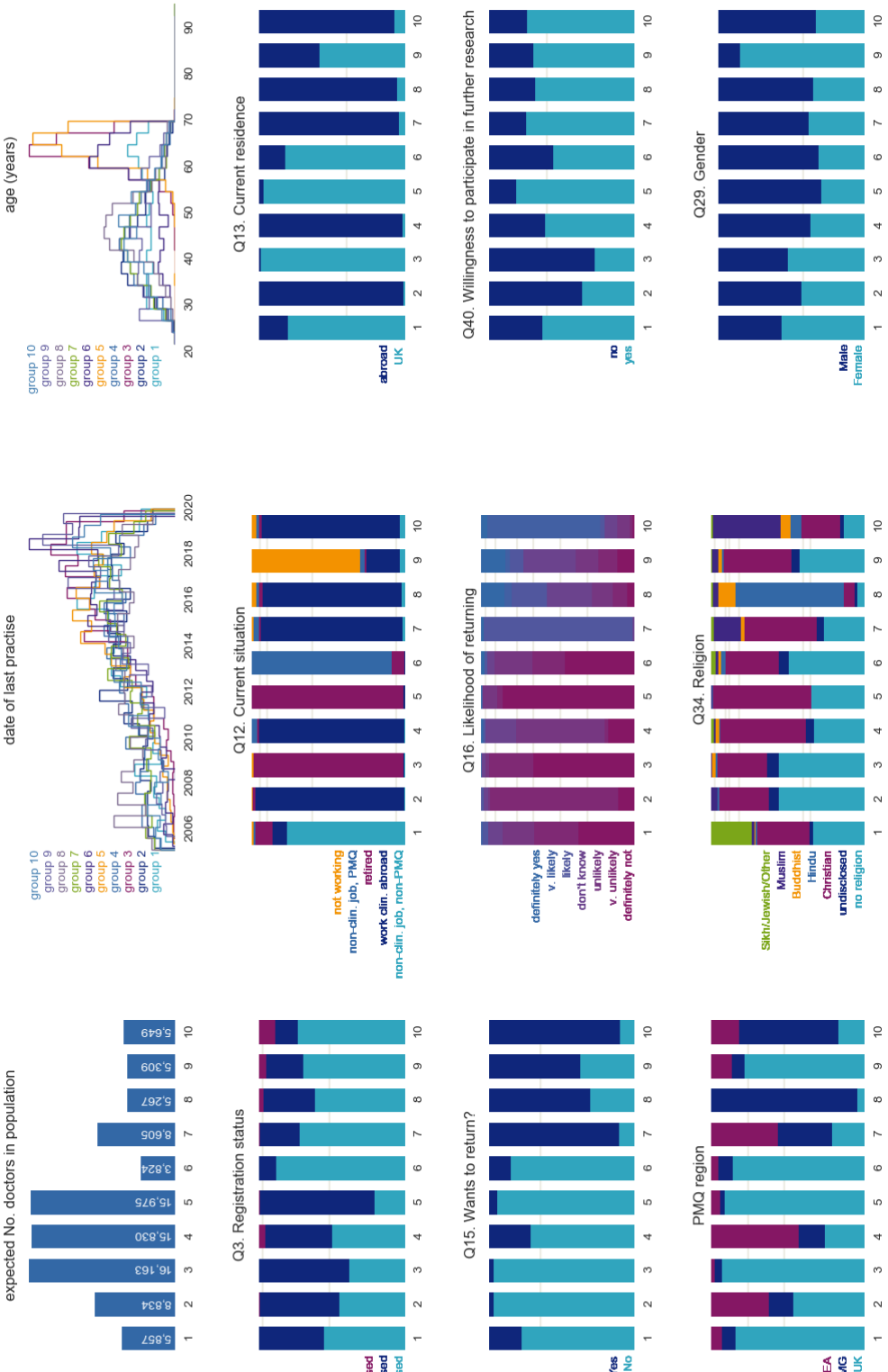


Figure 7: Characteristics of doctors grouped as 10 groups (group number in the x-axis). Top-left: number of doctors expected within the population (the 91,313 doctors) per group. Histograms: date of last practise and age distribution per group. Stacked bars: proportion of groups by the considered categorical factors. As a reference, the faint grey lines in the background of stacked-bars represent overall compositions.

Figure 8: Characteristics of doctors grouped into five amalgamated groups. Note that the names of these groups reflect which of the initial 10 groups in fig. 7 were consolidated to obtain them. Same conventions as in such figure.

Figure 9: Percentage of doctors, within each group, raising each reason to stop practising in the UK, as one among up to five reasons to do so in Q11. The expected number of doctors per group is in parentheses at the top.

Figure 10: As in fig. 9, but about reasons not to return to practise in the UK.

Annex 2 – Limitations of the research

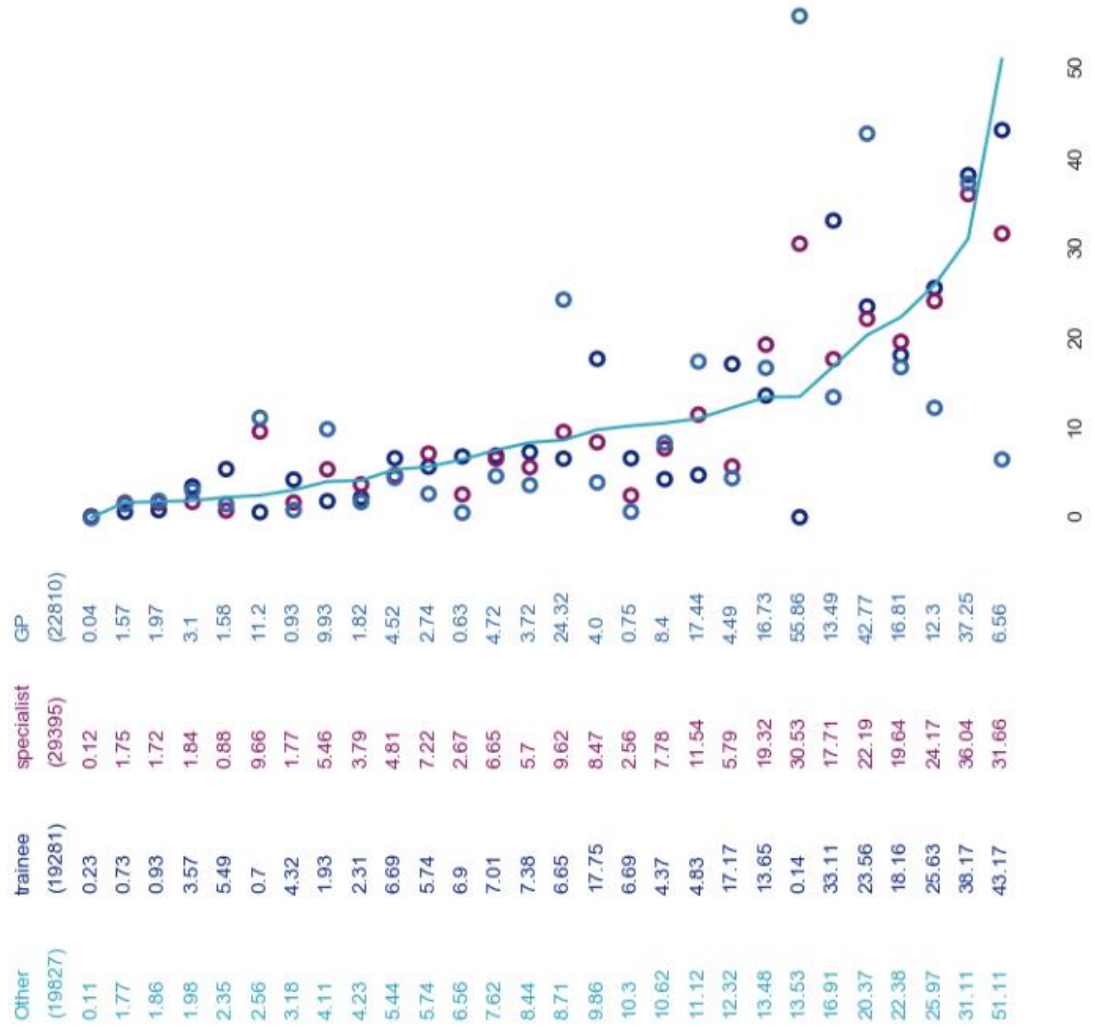
While every effort was taken to make this research as robust and generalisable as possible, there are several limitations which must be considered:

1. **Population surveyed** – as highlighted in the section on inclusion criteria, this survey was only sent to those doctors where the GMC had reason to believe they were not currently practising, due to either their registration/licencing status, or whether they currently had a prescribed connection. This means that there will be doctors, potentially those who have more recently left or are on a break, that will not have been contacted about taking part, despite the fact that they were not practising in the UK at the time of the survey.
2. **Free text** – the decision was taken not to use 'open ended' questions in the survey, but rather the options were limited to a predefined number of reasons for leaving and not returning. Given this survey was designed to be relatively light touch and exploratory piece of research this was felt proportionate given the size of the survey. However, it does mean that there are potentially reasons for doctors leaving/ not returning that were not captured, or perhaps in some cases doctors selected the 'next best fit' option, so it is possible that some nuance may have been lost.
3. **Sensitive topics** – it is only appropriate to interpret the answers as they were given by the respondents. However, it is possible that given the sensitive nature of some of the questions, e.g. asking if doctors have a disability, or asking about experiences of bullying or sexual harassment, that some of these issues may have been underreported.
4. **The reality is more complex than the answers given -** While the report gives lots of details on why doctors leave (and won't return) it must be emphasised that this is aggregated data. Both in the sense that it combines doctors' answers together, but also that it represents doctors who gave just a single reason for leaving and those who gave up to five reasons. This aggregation is important to consider when thinking about policy implications, because whatever support or changes are made, they must recognise that any findings presented in this report are necessarily a simplification. The real-life experiences of the doctors who completed this survey will be more complex.

   For example, we heard anecdotally that doctors who selected 'worry about being perceived as too old', may not necessarily be older doctors approaching retirement age, but rather doctors who feel that they haven't progressed sufficiently with their careers, or in returning they might feel 'behind' their peers. Similarly, 'Unsure where to find information' will include situations that certain doctors face, whereby there isn't a simple route back to practice, so it isn't that they haven't found information that already exists, but rather they would need to actively reach for a solution themselves.

Annex 3 – Additional Data Tables and Charts

Figure 1: Reasons for leaving by role

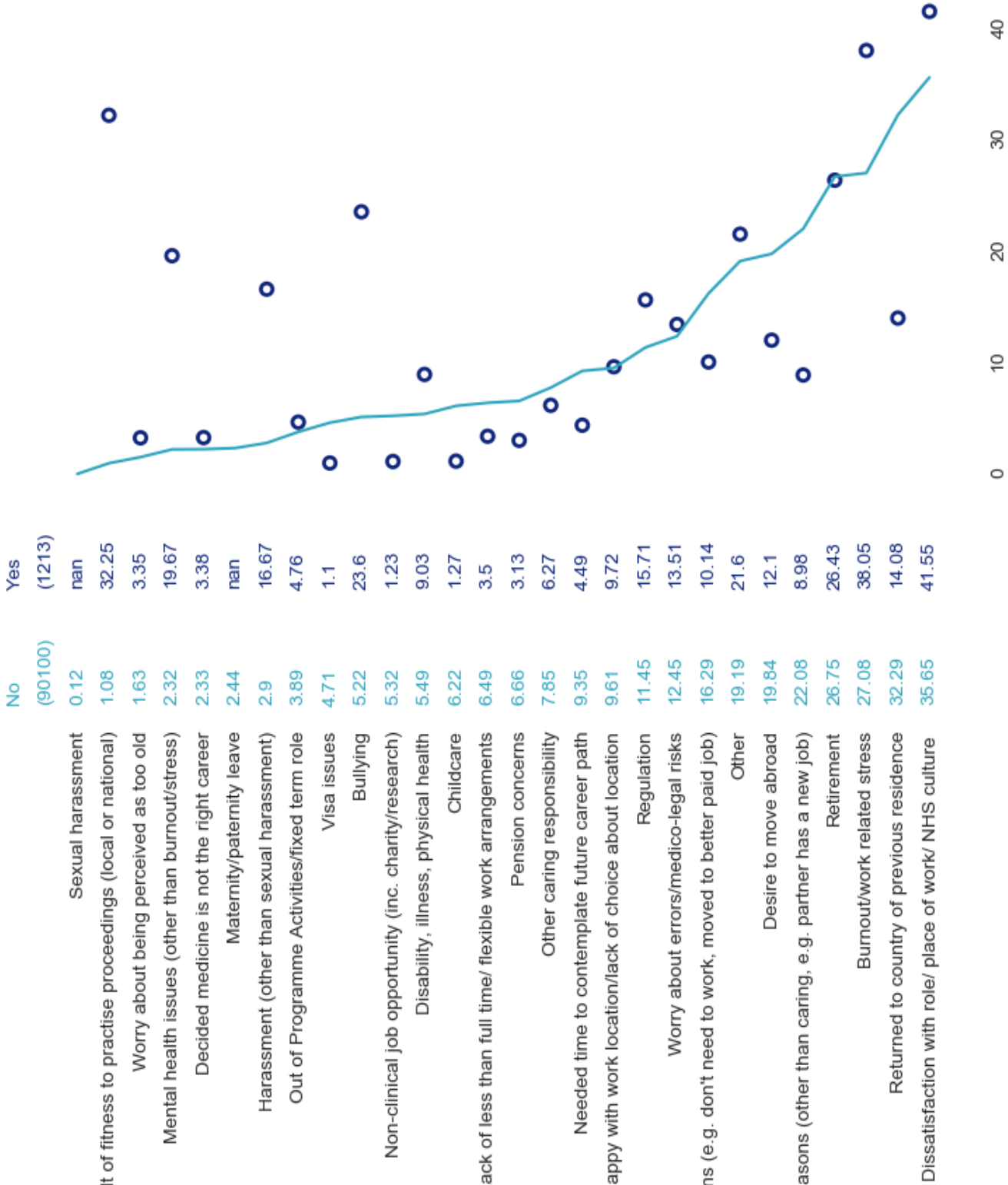


	GP	Paediatrics	Obs & gynae	Ophth.	Pathology	Emergency	Radiology	Psychiatry	Pub. health	Others	Surgery	Medicine	Intens. care	Occup. med
	(23,429)	(3,698)	(2,392)	(1,611)	(1,290)	(2,358)	(1,970)	(4,856)	(722)	(8,536)	(7,868)	(6,314)	(6,275)	(713)
Sexual harassment	0.04	nan	0.49	0.45	nan	nan	0.33	nan	nan	0.1	nan	0.1	0.27	nan
Out of Programme Activities/fixed term role	0.74	5.05	5.82	4.7	2.96	5.08	4.03	2.31	2.19	3.92	6.48	4.49	2.41	1.35
Visa issues	0.84	5.7	5.83	7.81	4.23	8.86	9.45	2.3	nan	6.38	5.1	7.11	5.38	nan
Maternity/paternity leave	1.06	2.98	5.56	2.27	0.54	2.05	1.5	0.87	2.75	2.76	1.63	2.99	2.01	1.48
As a result of fitness to practise proceedings (local or national)	1.59	1.75	0.98	1.0	0.92	2.86	2.93	2.06	nan	2.19	1.66	1.35	1.34	2.98
Decided medicine is not the right career	1.7	1.06	0.78	1.1	0.99	3.77	0.99	2.39	2.88	1.49	0.89	1.35	0.78	3.32
Harassment (other than sexual harassment)	1.85	3.75	4.4	1.29	2.74	4.5	2.88	5.17	1.57	3.81	5.58	3.18	3.64	2.17
Worry about being perceived as too old	1.98	2.63	1.89	0.35	2.74	0.87	1.82	0.83	nan	2.01	1.71	2.02	2.21	1.2
Bullying	2.83	6.57	8.94	5.85	5.97	7.49	5.69	6.96	4.18	6.98	7.02	5.77	6.03	6.78
Mental health issues (other than burnout/stress)	3.17	1.57	1.7	1.09	1.2	2.36	0.96	5.58	3.37	1.95	0.55	1.35	1.44	1.39
Childcare	3.82	8.36	11.69	7.1	4.21	8.11	4.78	4.87	4.65	6.78	5.29	9.23	6.11	3.65
Unhappy with work location/lack of choice about location	4.15	8.8	14.29	6.47	4.76	12.12	5.76	6.64	10.62	9.42	11.04	8.6	8.47	0.57
Non-clinical job opportunity (inc. charity/research)	4.58	4.8	3.84	2.23	3.1	6.17	3.12	5.22	12.04	6.18	4.55	6.07	3.66	7.81
Lack of less than full time/ flexible work arrangements	4.69	6.55	11.35	4.9	5.94	13.15	6.02	6.37	8.44	6.13	6.96	7.01	7.1	2.38
Needed time to contemplate future career path	4.74	8.46	6.72	7.06	3.91	16.4	7.19	9.05	4.18	8.58	6.92	11.41	6.35	3.68
Returned to country of previous residence	7.35	39.41	40.96	53.31	25.36	36.77	33.47	23.58	5.87	42.28	55.49	37.65	38.44	16.09
Other caring responsibility	8.49	12.7	11.71	7.72	10.88	8.12	4.96	8.61	12.79	9.69	6.86	9.11	8.17	6.94
Disability, illness, physical health	9.82	4.69	3.61	2.83	7.98	4.63	3.86	6.16	10.88	6.35	2.76	3.38	5.75	11.23
Pension concerns	10.93	7.86	5.15	6.04	12.4	5.76	12.83	10.0	8.64	4.93	5.23	5.26	8.04	9.16
Family reasons (other than caring, e.g. partner has a new job)	12.63	30.22	29.14	29.9	24.15	22.29	22.06	19.4	13.14	24.55	27.65	25.49	24.73	9.09
Desire to move abroad	13.44	20.35	19.55	16.79	15.45	26.83	11.26	17.3	8.05	12.82	17.03	22.15	17.49	15.93
Financial reasons (e.g. don't need to work, moved to better paid job)	16.6	15.64	17.86	17.32	17.09	13.18	26.17	17.49	13.2	13.69	19.34	16.35	18.35	18.5
Other	17.09	19.57	20.01	20.72	16.14	20.6	25.01	19.01	22.0	21.85	20.19	21.06	20.4	24.53
Regulation	17.19	5.78	10.08	13.33	14.17	10.77	18.07	12.81	15.82	11.05	10.32	8.85	13.88	22.97
Worry about errors/medico-legal risks	23.95	9.17	8.04	9.48	8.95	9.49	14.29	12.75	6.09	7.25	6.14	9.78	12.04	6.7
Dissatisfaction with role/ place of work/ NHS culture	37.11	33.74	37.01	27.77	25.36	41.89	29.54	46.26	45.33	28.63	38.2	29.76	31.94	25.43
Burnout/work related stress	42.26	27.6	20.61	17.52	27.41	33.9	21.65	30.26	19.53	19.51	14.39	22.61	17.49	15.27
Retirement	55.08	24.53	18.29	17.19	47.61	9.72	30.38	36.41	48.61	23.13	13.38	18.08	28.02	53.82

% of doctors by category in Q8. Last Specialty

Figure 2: Reasons for leaving by speciality

Figure 3: Reasons for leaving by those who had experienced previous FtP sanctions



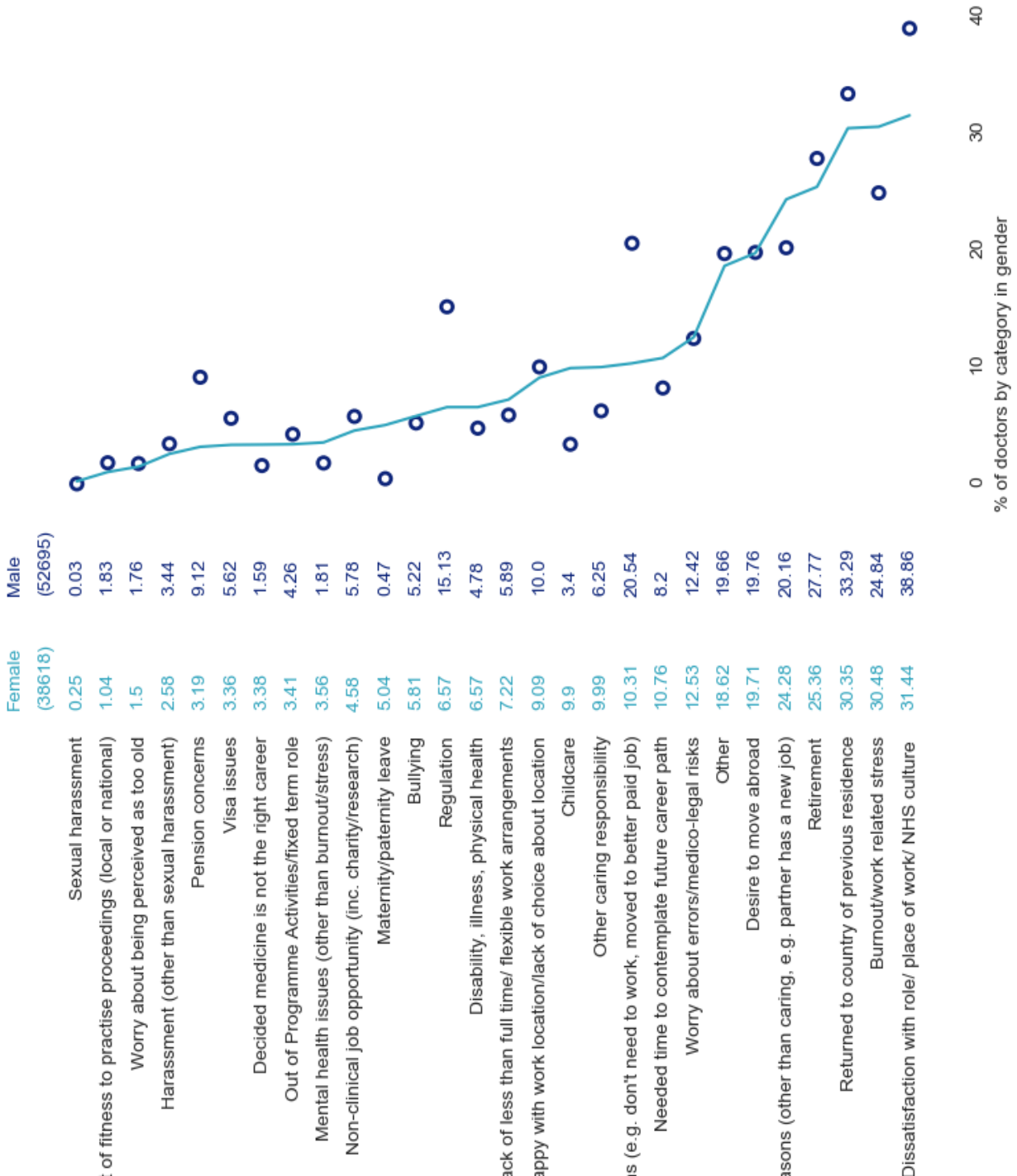
	England (76413)	Scotland (8648)	Wales (3445)	NI/other (2031)	Unknown (777)
Sexual harassment	0.14	nan	0.19	nan	nan
As a result of fitness to practise proceedings (local or national)	1.42	1.59	2.18	2.29	2.55
Worry about being perceived as too old	1.52	2.26	3.06	1.76	0.94
Mental health issues (other than burnout/stress)	2.39	3.58	3.23	3.27	1.51
Decided medicine is not the right career	2.39	1.92	2.28	2.62	2.35
Maternity/paternity leave	2.52	1.64	2.35	2.27	nan
Harassment (other than sexual harassment)	3.12	2.49	3.66	2.47	4.96
Out of Programme Activities/fixed term role	3.91	3.24	4.31	4.39	6.65
Visa issues	4.78	3.32	5.6	3.66	6.22
Non-clinical job opportunity (inc. charity/research)	5.41	4.97	2.92	4.91	6.29
Disability, illness, physical health	5.45	5.82	5.92	7.09	5.74
Bullying	5.46	4.65	6.51	4.49	13.08
Lack of less than full time/ flexible work arrangements	6.34	6.02	8.11	6.69	14.74
Childcare	6.39	5.02	4.28	6.52	2.6
Pension concerns	6.45	7.83	8.17	5.64	4.96
Other caring responsibility	7.83	6.57	9.76	9.7	8.6
Needed time to contemplate future career path	9.21	9.43	9.01	10.32	13.93
Unhappy with work location/lack of choice about location	9.68	8.5	9.9	11.39	9.41
Regulation	11.63	9.58	10.31	14.42	18.18
Worry about errors/medico-legal risks	12.49	12.1	15.02	11.11	6.32
Financial reasons (e.g. don't need to work, moved to better paid job)	16.67	13.47	14.5	14.1	14.54
Other	19.18	19.01	18.22	21.81	23.29
Desire to move abroad	19.7	19.92	19.86	21.8	15.08
Family reasons (other than caring, e.g. partner has a new job)	22.31	18.93	19.49	22.75	23.45
Retirement	25.22	37.53	33.73	27.5	24.02
Burnout/work related stress	27.05	26.14	32.14	29.43	28.71
Returned to country of previous residence	33.86	22.0	24.29	19.59	31.89
Dissatisfaction with role/ place of work/ NHS culture	36.24	32.59	36.0	29.89	34.23

Figure 4: Reasons for leaving by country where last practised in the UK

	Don't know	Likely	Wants to but unlikely	Doesn\'t want to and unlikely
	(9,460)	(21,469)	(6,545)	(53,839)
Sexual harassment	0.12	0.07	0.06	0.15
Worry about being perceived as too old	1.41	1.21	3.14	1.68
Decided medicine is not the right career	1.51	0.66	2.22	3.18
As a result of fitness to practise proceedings (local or national)	1.88	1.5	2.28	1.33
Mental health issues (other than burnout/stress)	2.31	1.09	5.07	2.87
Pension concerns	3.02	2.58	6.44	8.87
Disability, illness, physical health	3.64	1.84	6.46	7.24
Harassment (other than sexual harassment)	4.01	2.83	4.34	2.86
Maternity/paternity leave	4.38	4.13	3.37	1.26
Out of Programme Activities/fixed term role	5.25	6.75	5.13	2.37
Non-clinical job opportunity (inc. charity/research)	5.26	4.86	6.95	5.23
Retirement	5.41	2.13	13.08	41.98
Bullying	6.32	4.66	9.22	5.19
Lack of less than full time/ flexible work arrangements	7.26	7.35	10.18	5.5
Other caring responsibility	7.58	11.77	7.08	6.39
Worry about errors/medico-legal risks	9.06	6.64	12.38	15.4
Visa issues	9.12	9.22	7.29	1.74
Childcare	9.92	11.1	8.01	3.29
Regulation	10.01	8.76	16.6	12.25
Needed time to contemplate future career path	12.88	15.91	10.12	5.91
Financial reasons (e.g. don't need to work, moved to better paid job)	13.15	18.07	14.43	16.22
Unhappy with work location/lack of choice about location	13.53	11.72	10.58	7.96
Burnout/work related stress	22.37	17.6	24.77	32.21
Desire to move abroad	22.64	26.12	14.88	17.27
Other	23.45	21.58	24.37	16.9
Family reasons (other than caring, e.g. partner has a new job)	29.86	35.83	26.35	14.42
Dissatisfaction with role/ place of work/ NHS culture	34.83	26.02	33.6	40.01
Returned to country of previous residence	47.33	53.08	38.14	20.23

Figure 5: Reasons for leaving by likelihood/desire of return

Figure 6: Reasons for leaving by gender



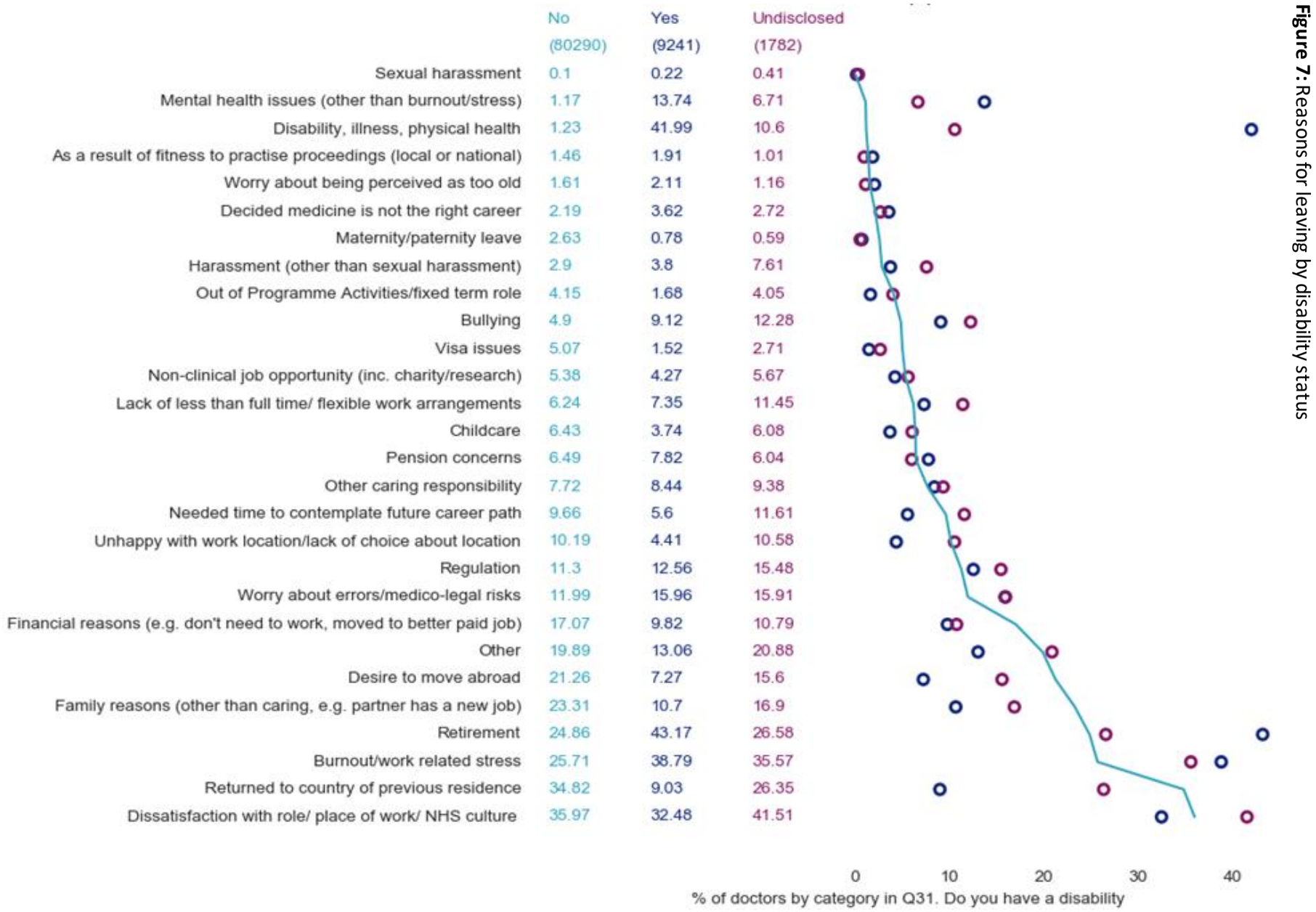


Figure 7: Reasons for leaving by disability status

Figure 8: Reasons for leaving by ethnicity

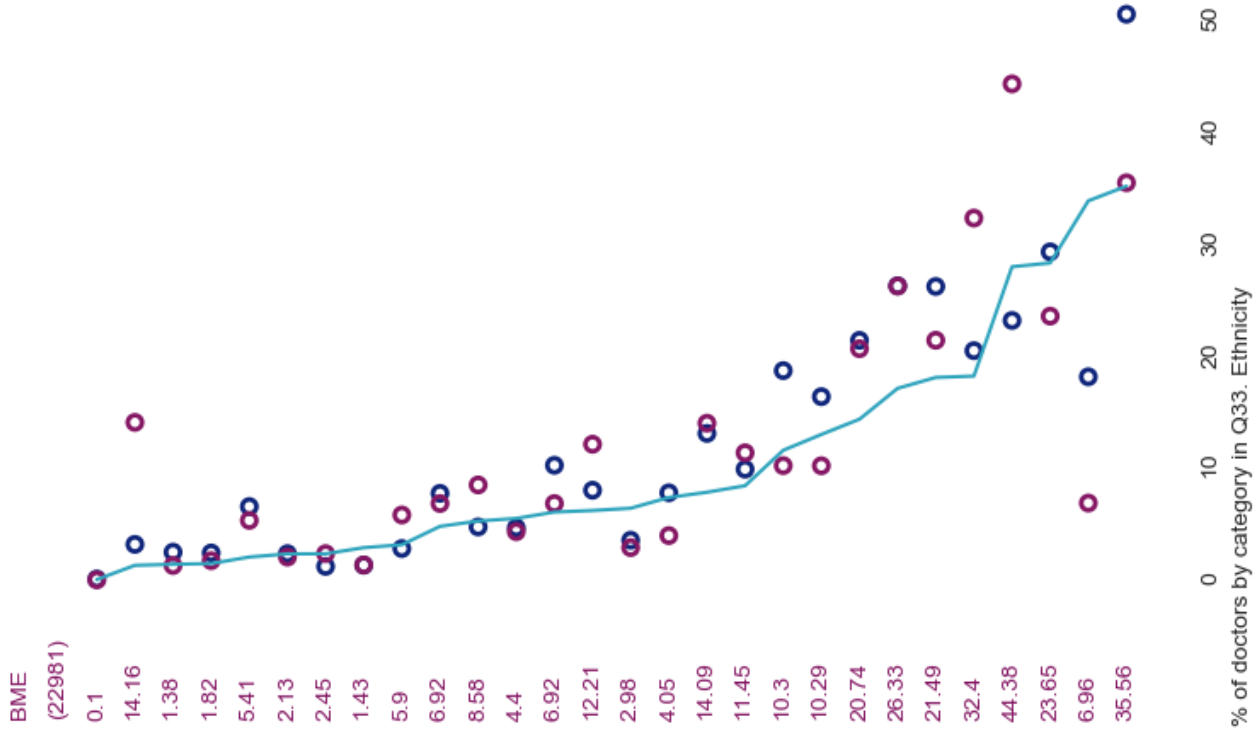


Figure 9: Reasons for leaving by PMQ location

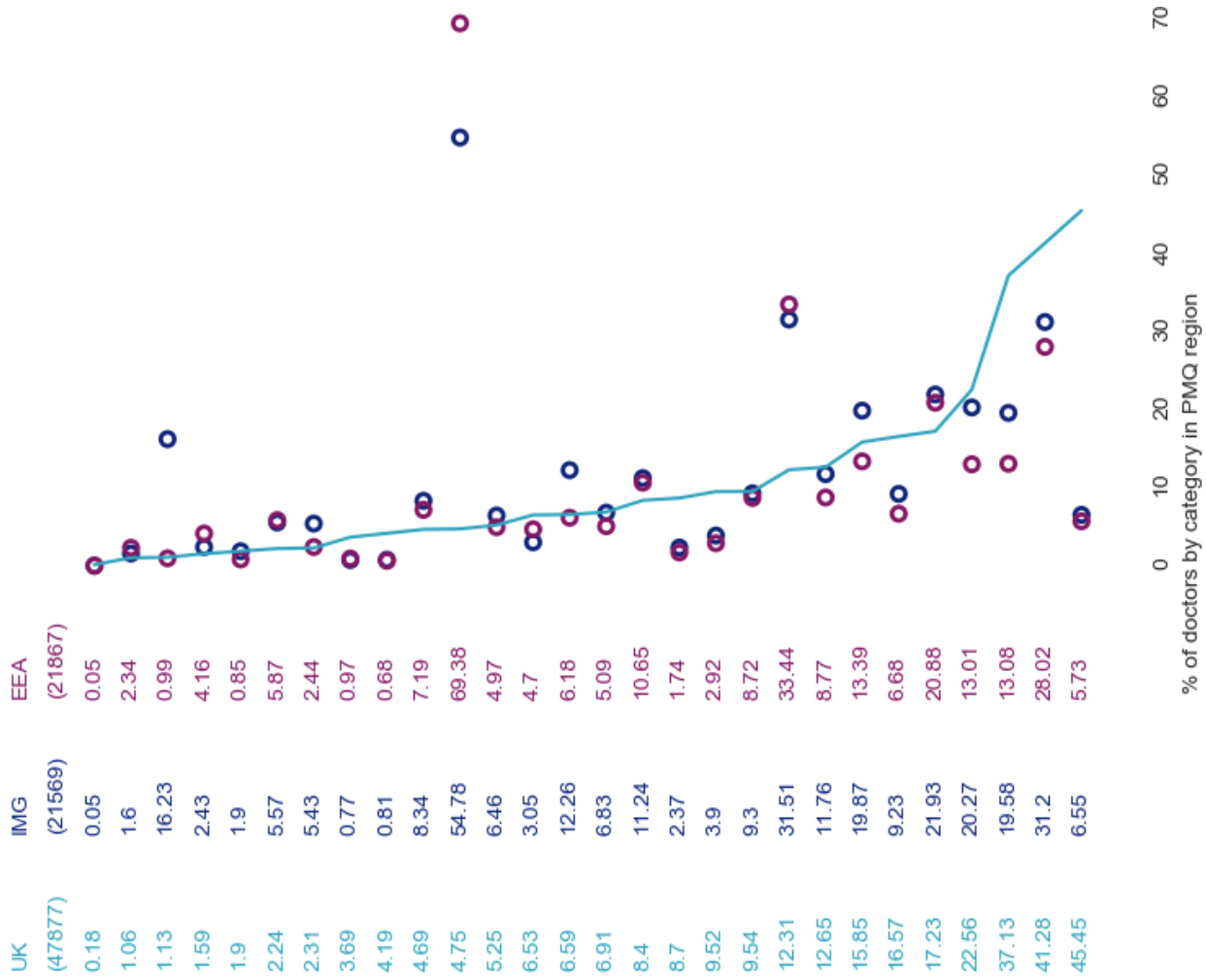


Figure 10: Reasons for leaving by religion

	No religion (32528)	Undisclosed (3892)	Christian (38085)	Hindu (5921)	Buddhist (2372)	Muslim (6429)	Jewish (884)	Other (841)	Sikh (359)
Sexual harassment	0.12	0.29	0.13	0.2	nan	nan	nan	nan	nan
As a result of fitness to practise proceedings (local or national)	1.18	1.47	1.81	1.33	0.41	1.85	1.08	2.02	nan
Worry about being perceived as too old	1.4	1.76	1.75	2.73	0.95	1.51	1.86	1.24	1.13
Maternity/paternity leave	1.78	1.11	2.98	2.55	2.46	3.05	1.51	2.29	nan
Visa issues	1.97	3.69	2.67	16.97	16.15	15.1	3.69	3.75	8.89
Harassment (other than sexual harassment)	2.08	5.04	2.52	6.27	5.33	5.4	4.15	5.92	13.04
Out of Programme Activities/fixed term role	2.68	2.8	4.28	6.36	6.05	6.09	0.97	2.92	nan
Decided medicine is not the right career	3.1	1.2	1.88	1.5	2.51	2.2	2.16	6.01	3.95
Mental health issues (other than burnout/stress)	3.27	0.81	2.45	0.97	2.88	1.59	3.3	4.97	nan
Childcare	4.43	3.61	6.36	10.04	8.28	11.74	2.72	3.7	3.28
Bullying	4.93	9.83	4.98	6.61	4.95	6.77	4.82	11.31	8.61
Other caring responsibility	4.93	5.89	7.83	14.98	13.74	14.8	6.5	8.74	10.5
Lack of less than full time/ flexible work arrangements	5.85	6.84	6.57	8.08	4.07	8.63	3.94	6.58	1.13
Non-clinical job opportunity (inc. charity/research)	5.92	4.05	5.48	3.74	2.45	3.56	9.29	2.34	8.5
Disability, illness, physical health	6.01	4.88	6.19	3.13	2.48	2.17	11.1	7.39	2.98
Pension concerns	7.89	7.81	6.71	3.86	1.94	3.97	4.28	3.97	2.56
Unhappy with work location/lack of choice about location	9.54	13.49	7.7	16.3	10.8	13.21	5.28	7.09	11.16
Needed time to contemplate future career path	10.52	10.93	7.59	9.56	9.15	12.08	8.25	8.81	9.56
Regulation	12.22	17.97	10.81	9.24	10.85	10.03	11.77	15.27	9.99
Worry about errors/medico-legal risks	14.02	13.73	11.78	9.43	11.66	11.19	11.51	13.54	9.54
Family reasons (other than caring, e.g. partner has a new job)	15.24	18.01	23.14	33.97	21.67	40.13	14.51	26.34	21.26
Financial reasons (e.g. don't need to work, moved to better paid job)	16.64	14.15	14.16	20.73	8.45	25.94	15.79	17.4	17.79
Other	18.03	24.75	18.33	20.41	19.34	24.64	19.28	24.94	30.52
Returned to country of previous residence	22.37	26.75	35.21	46.82	64.41	42.71	23.41	22.42	24.93
Desire to move abroad	23.08	21.46	15.1	24.32	13.69	26.36	22.46	20.12	27.93
Retirement	32.12	24.47	30.52	6.67	8.54	3.87	32.62	26.71	11.55
Burnout/work related stress	32.53	26.39	24.27	18.98	20.52	27.43	33.21	34.56	12.79
Dissatisfaction with role/ place of work/ NHS culture	41.52	44.72	30.62	36.55	26.52	31.98	36.53	45.19	44.51

% of doctors by category in Q34. Religion

Figure 11: Reasons for leaving by sexual orientation

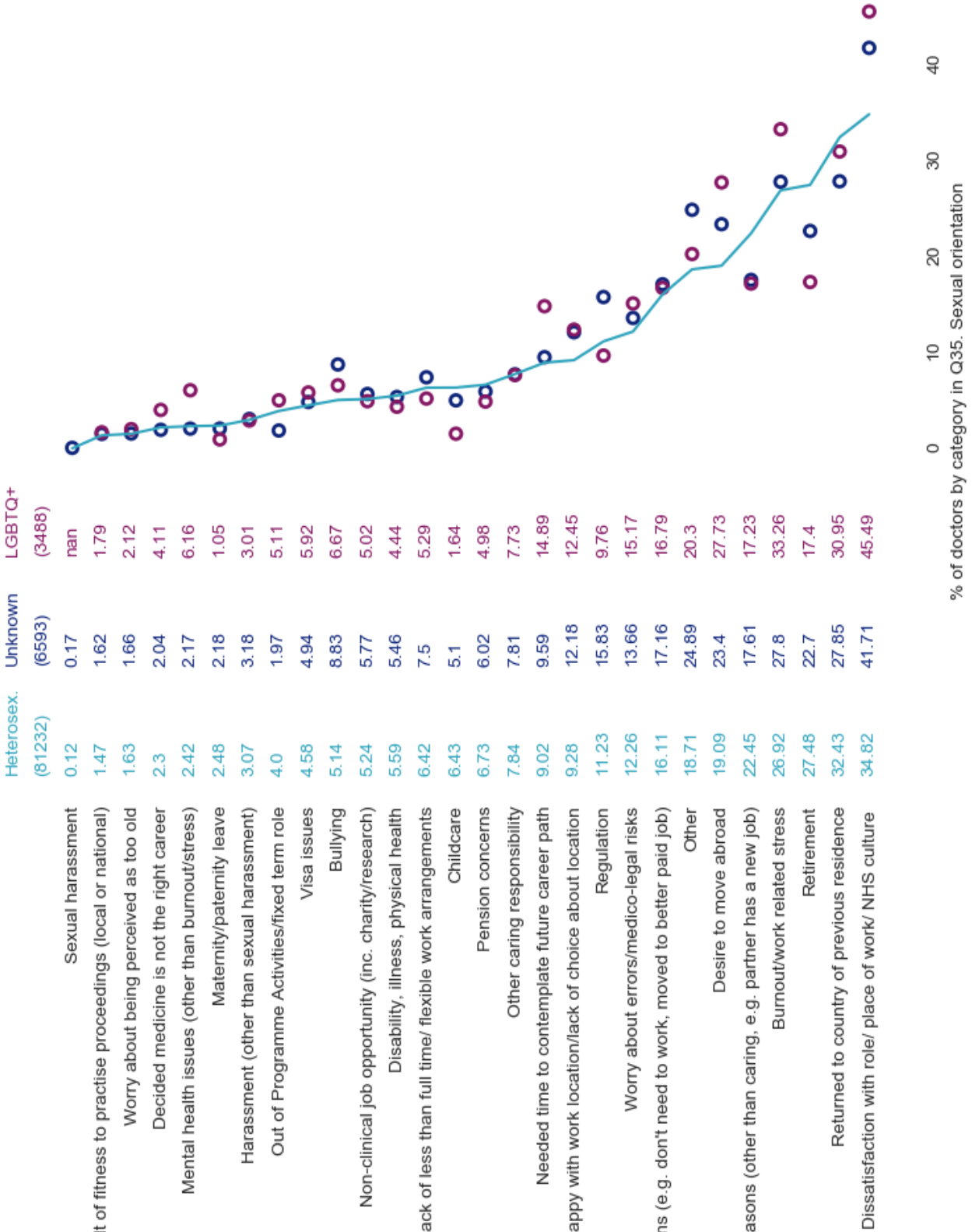
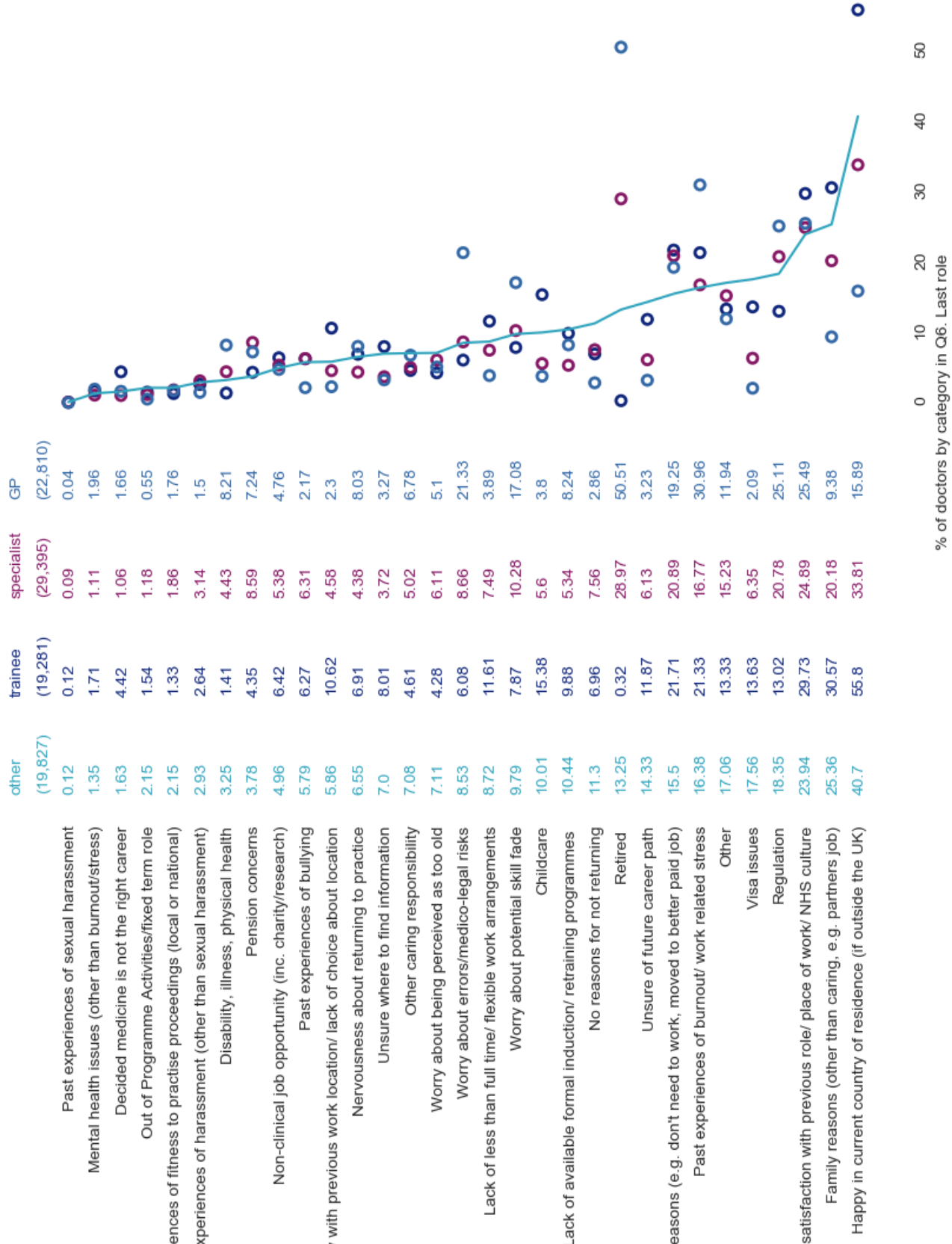


Figure 12: Reasons for not returning by role

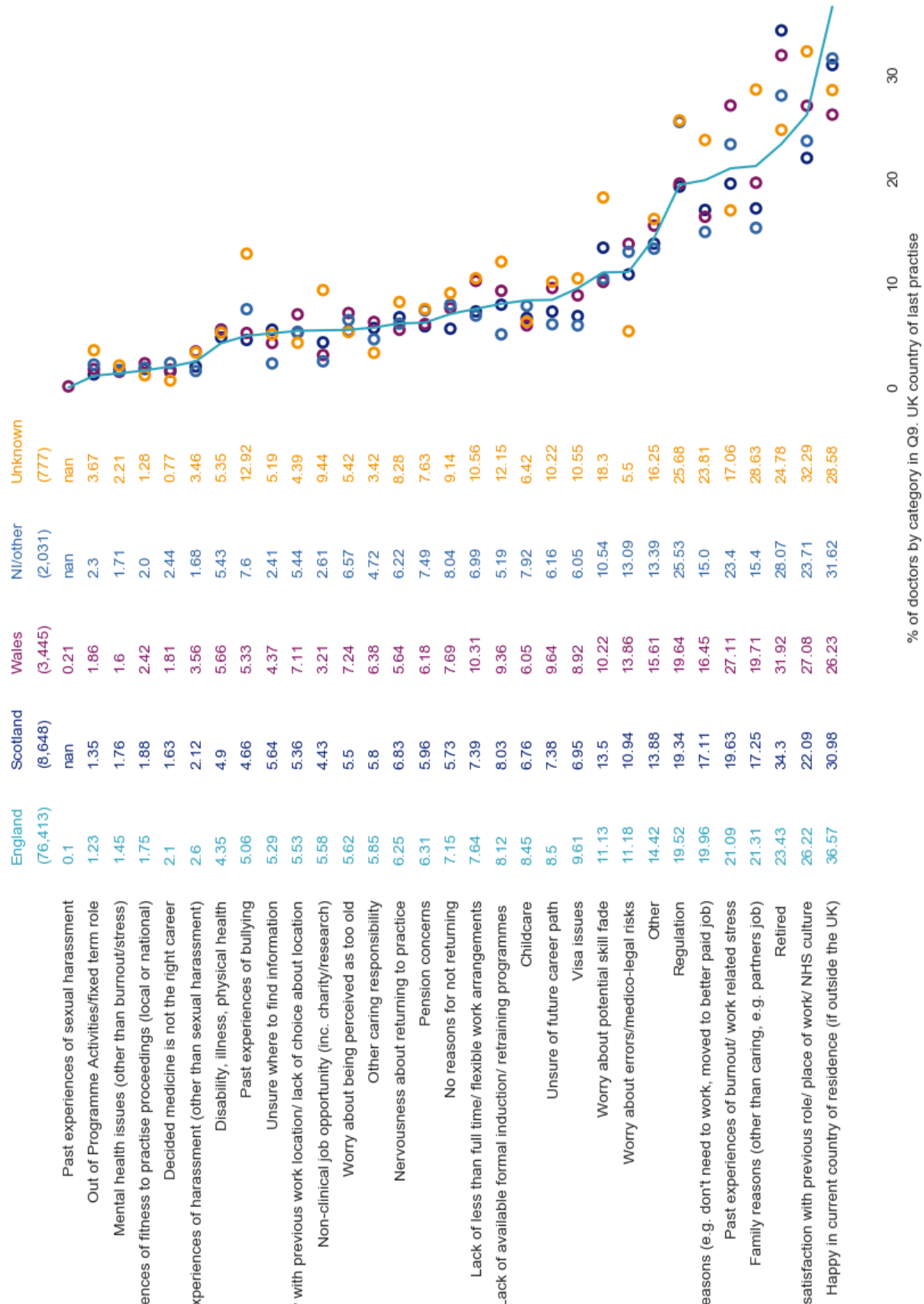


	GP	Paediatrics	Obs & gynae	Ophth.	Pathology	Emergency	Radiology	Psychiatry	Pub. health	Others	Surgery	Medicine	Intens. care	Occup. med
	(23,429)	(3,698)	(2,392)	(1,611)	(1,290)	(2,358)	(1,970)	(4,856)	(722)	(8,536)	(7,868)	(6,314)	(6,275)	(713)
Past experiences of sexual harassment	0.04	nan	nan	0.45	nan	0.29	nan	nan	nan	0.21	nan	nan	0.06	nan
Out of Programme Activities/fixed term role	0.42	2.36	1.7	1.13	1.71	3.34	2.41	0.78	nan	1.88	1.65	0.92	0.8	1.58
Decided medicine is not the right career	0.63	0.46	nan	0.25	nan	1.59	nan	1.54	2.03	0.93	0.3	0.94	0.27	nan
Mental health issues (other than burnout/stress)	0.8	0.7	0.76	nan	nan	1.25	0.31	1.37	0.81	0.56	0.33	0.8	0.27	0.57
Past experiences of harassment (other than sexual harassment)	0.95	2.08	1.42	2.21	0.75	2.98	0.37	3.18	nan	2.37	2.58	1.44	2.57	1.62
Past experiences of fitness to practise proceedings (local or national)	1.1	1.03	0.25	1.73	0.92	1.71	3.42	2.7	nan	1.78	1.33	0.94	1.52	1.62
Past experiences of bullying	1.42	5.01	4.91	2.84	0.43	5.93	4.12	3.79	nan	4.64	5.16	3.75	3.96	5.63
Unhappy with previous work location/ lack of choice about location	1.78	4.57	5.63	4.08	4.15	5.91	2.89	3.7	2.23	4.12	5.32	4.68	3.43	2.59
No reasons for not returning	2.04	6.85	13.3	11.39	6.92	7.13	6.64	5.76	5.69	8.71	11.03	7.56	8.18	5.3
Disability, illness, physical health	2.16	1.64	1.85	1.7	0.89	1.04	1.69	3.27	2.45	2.73	1.21	0.84	2.04	4.82
Visa issues	2.22	10.34	7.15	12.36	7.05	13.87	16.18	5.68	nan	11.43	10.46	11.93	11.99	3.42
Lack of less than full time/ flexible work arrangements	2.79	7.71	9.16	3.92	2.43	11.3	7.9	5.51	8.58	6.74	7.54	8.32	5.84	2.46
Non-clinical job opportunity (inc. charity/research)	2.88	4.18	2.73	1.55	nan	5.75	2.84	3.51	6.68	5.07	3.15	4.96	3.08	5.32
Childcare	2.92	8.45	7.79	4.87	4.9	9.43	5.12	4.43	4.46	7.76	6.11	6.87	6.59	2.57
Unsure where to find information	2.99	3.68	5.19	2.39	3.23	8.77	3.59	5.59	4.09	4.85	4.56	5.93	5.02	2.34
Other caring responsibility	3.07	6.11	4.63	4.05	3.76	4.79	3.07	5.56	5.5	5.55	2.9	4.75	4.08	0.78
Unsure of future career path	3.14	13.39	9.79	11.4	1.9	9.37	5.72	5.48	5.71	9.02	12.41	9.98	7.04	7.44
Pension concerns	3.19	5.65	4.25	6.66	6.08	7.4	5.21	6.19	3.96	4.2	4.04	5.16	6.02	4.45
Worry about being perceived as too old	3.21	6.16	5.38	4.77	6.45	4.79	5.32	4.67	8.12	5.22	4.94	6.39	7.24	3.55
Nervousness about returning to practice	4.98	4.65	5.34	3.67	4.24	4.46	3.43	6.09	6.2	5.4	1.59	5.34	3.25	2.29
Other	6.49	13.34	12.86	9.67	9.3	13.02	11.17	11.45	8.52	11.73	15.08	13.69	11.89	7.08
Lack of available formal induction/ retraining programmes	6.87	7.49	5.36	3.35	3.21	9.08	3.14	7.6	11.5	7.74	5.83	7.12	4.84	7.21
Family reasons (other than caring, e.g. partners job)	7.4	21.31	20.78	23.39	12.84	20.21	17.32	14.75	1.27	21.28	27.52	23.7	19.11	1.41
Worry about potential skill fade	8.24	5.15	6.86	6.56	6.99	7.95	4.68	7.5	14.72	7.83	3.85	8.29	5.28	6.63
Financial reasons (e.g. don't need to work, moved to better paid job)	8.73	12.14	11.71	18.42	14.21	13.88	18.52	13.98	8.14	12.76	16.16	15.97	15.88	8.64
Worry about errors/medico-legal risks	8.86	6.06	7.12	5.66	2.32	7.55	7.31	6.68	1.49	5.83	4.68	7.25	5.87	6.68
Retired	9.04	7.88	8.5	3.94	12.91	3.52	6.84	10.43	15.99	6.22	3.82	6.69	6.35	11.79
Dissatisfaction with previous role/ place of work/ NHS culture	12.58	15.76	15.44	14.05	8.56	23.13	12.13	22.67	17.85	15.22	21.28	17.88	15.12	9.78
Past experiences of burnout/ work related stress	13.1	15.09	12.65	8.58	8.37	20.45	6.68	13.97	7.68	10.82	9.45	13.56	8.43	8.08
Happy in current country of residence (if outside the UK)	13.2	34.57	35.54	40.25	13.09	40.11	27.01	23.52	6.41	31.64	41.33	34.11	32.23	12.54
Regulation	13.92	13.73	12.35	16.41	12.66	17.62	20.56	18.77	4.18	15.55	13.86	17.4	16.21	21.34

% of doctors by category in Q8. Last Specialty

Figure 13: Reasons for not returning by speciality

Figure 14: Reasons for not returning by country



	Don't know	Likely	Wants to but unlikely	Doesn\'t want to and unlikely
	(9,460)	(21,469)	(6,545)	(53,839)
Past experiences of sexual harassment	0.19	nan	0.11	0.11
Mental health issues (other than burnout/stress)	0.86	0.83	2.47	1.76
Decided medicine is not the right career	1.17	0.71	0.88	2.87
Out of Programme Activities/fixed term role	1.82	2.51	1.24	0.75
Past experiences of fitness to practise proceedings (local or national)	2.0	1.96	3.24	1.5
Disability, illness, physical health	2.65	1.47	4.51	6.0
Past experiences of harassment (other than sexual harassment)	2.66	2.21	4.63	2.46
Retired	4.43	1.91	7.33	39.79
Past experiences of bullying	5.73	4.07	8.45	5.08
Non-clinical job opportunity (inc. charity/research)	5.81	4.79	5.5	5.48
Other caring responsibility	5.82	7.57	6.45	5.05
Pension concerns	6.71	5.27	7.72	6.49
Worry about being perceived as too old	7.57	7.33	11.06	4.05
Unhappy with previous work location/ lack of choice about location	7.62	6.68	5.46	4.77
Nervousness about returning to practice	7.73	5.82	12.27	5.5
Worry about errors/medico-legal risks	8.09	6.99	10.15	13.64
No reasons for not returning	8.84	16.28	4.58	3.39
Worry about potential skill fade	9.59	6.04	16.92	13.12
Unsure where to find information	10.91	8.83	11.47	2.03
Lack of less than full time/ flexible work arrangements	11.18	11.64	13.06	4.91
Lack of available formal induction/ retraining programmes	11.87	10.52	18.92	5.21
Childcare	13.16	11.53	11.43	5.56
Financial reasons (e.g. don't need to work, moved to better paid job)	16.01	17.05	18.87	21.13
Visa issues	16.28	17.61	13.12	4.23
Past experiences of burnout/ work related stress	16.35	15.65	16.93	24.77
Unsure of future career path	16.51	13.99	14.14	4.04
Other	17.81	16.59	16.29	12.7
Regulation	22.98	18.83	30.16	18.19
Dissatisfaction with previous role/ place of work/ NHS culture	23.37	17.47	23.02	29.98
Family reasons (other than caring, e.g. partners job)	29.5	30.68	23.38	15.02
Happy in current country of residence (if outside the UK)	44.12	40.96	34.93	31.83

Figure 15: Reasons for not returning by likelihood/desire of return

Figure 16: Reasons for not returning by gender

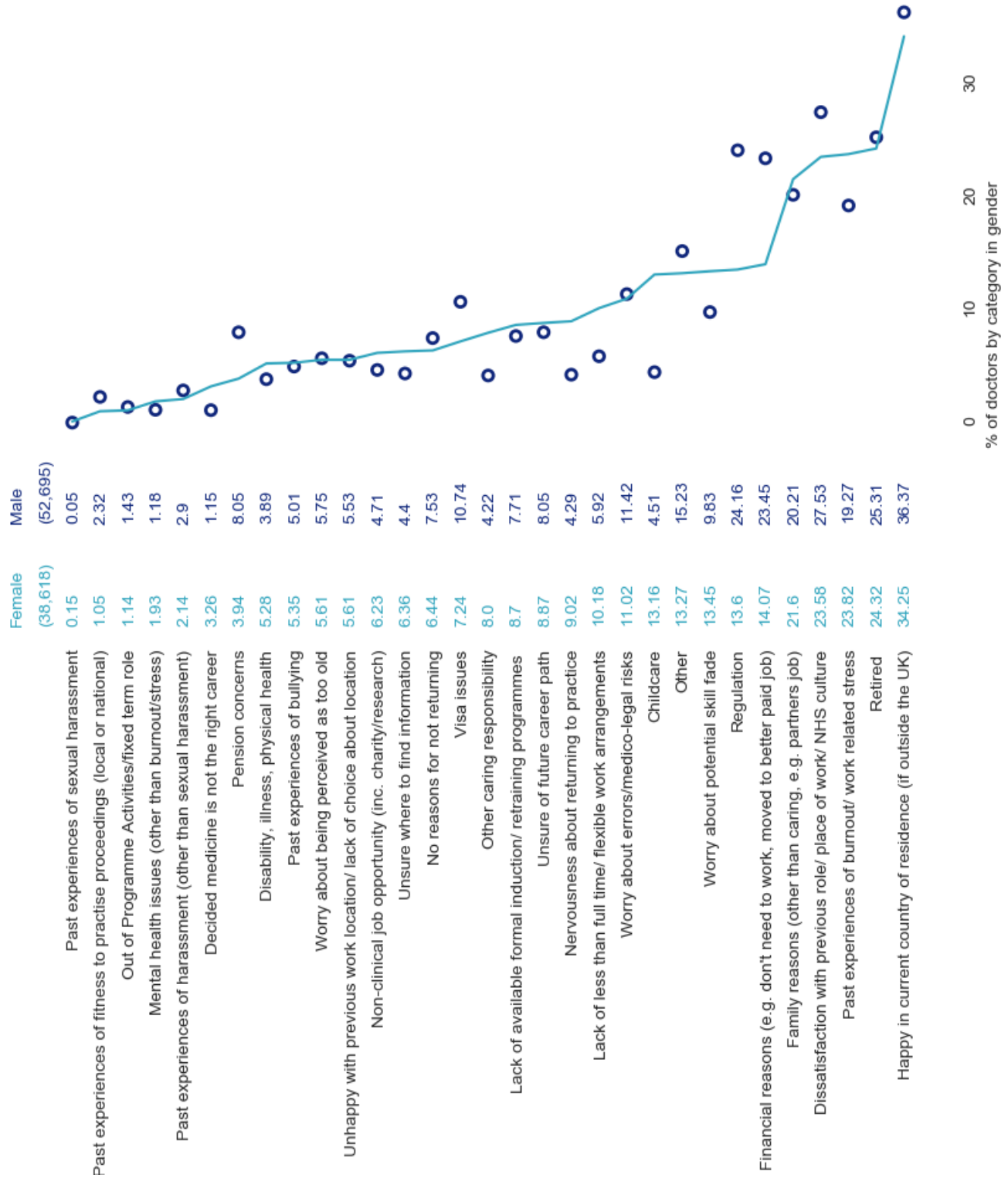


Figure 17: Reasons for not returning by disability status

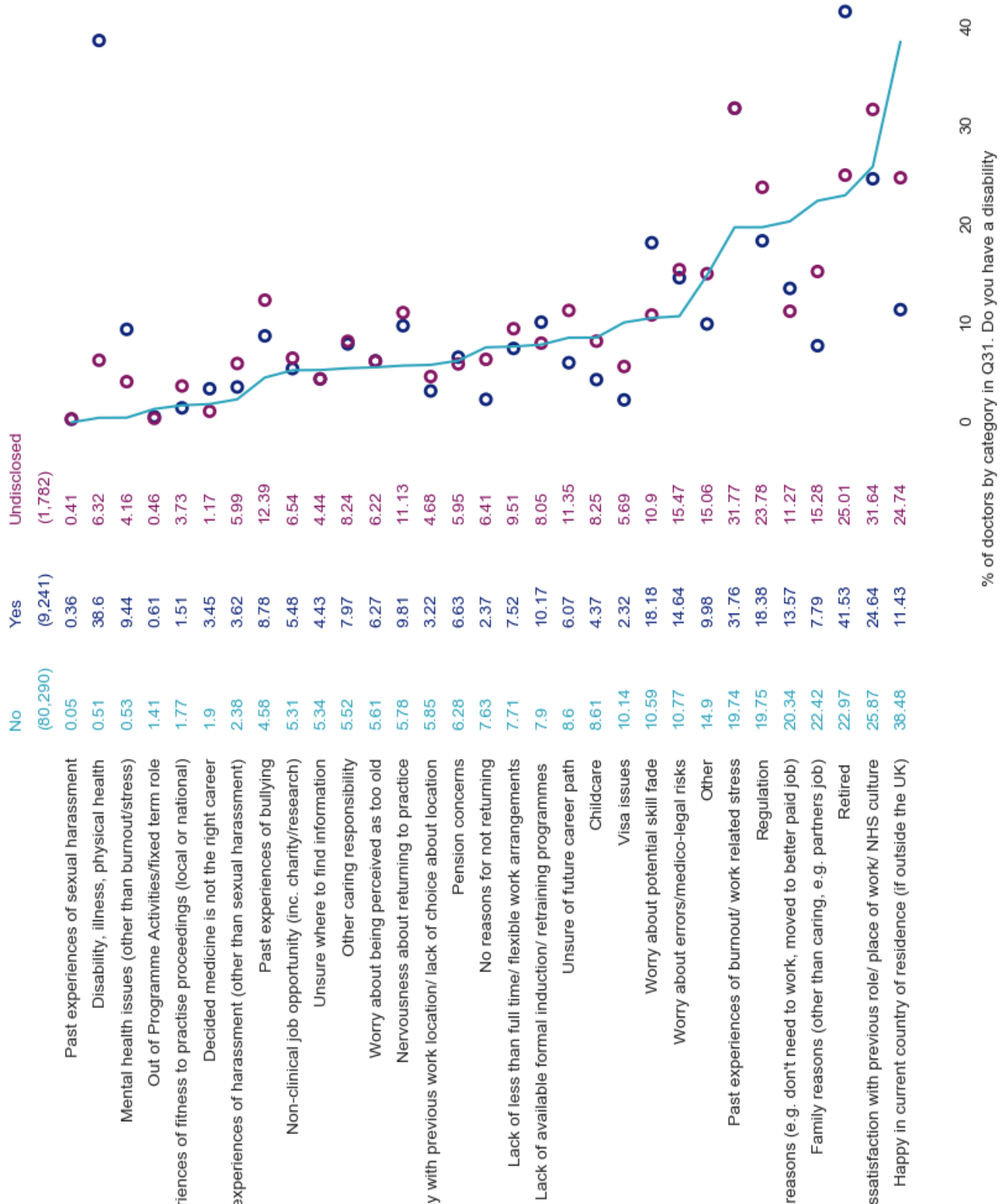


Figure 18: Reasons for not returning by ethnicity

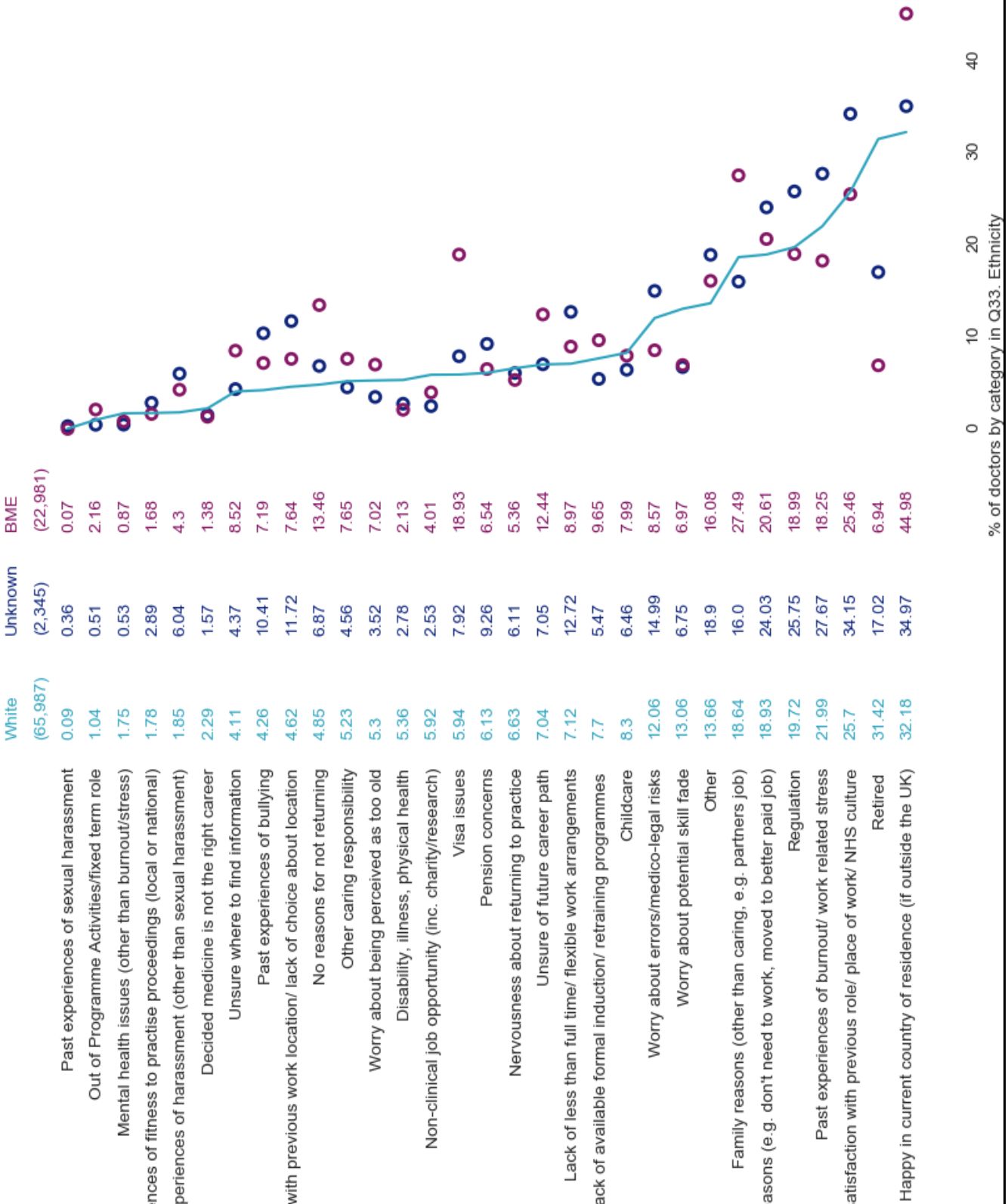


Figure 19: Reasons for not returning by PMQ location

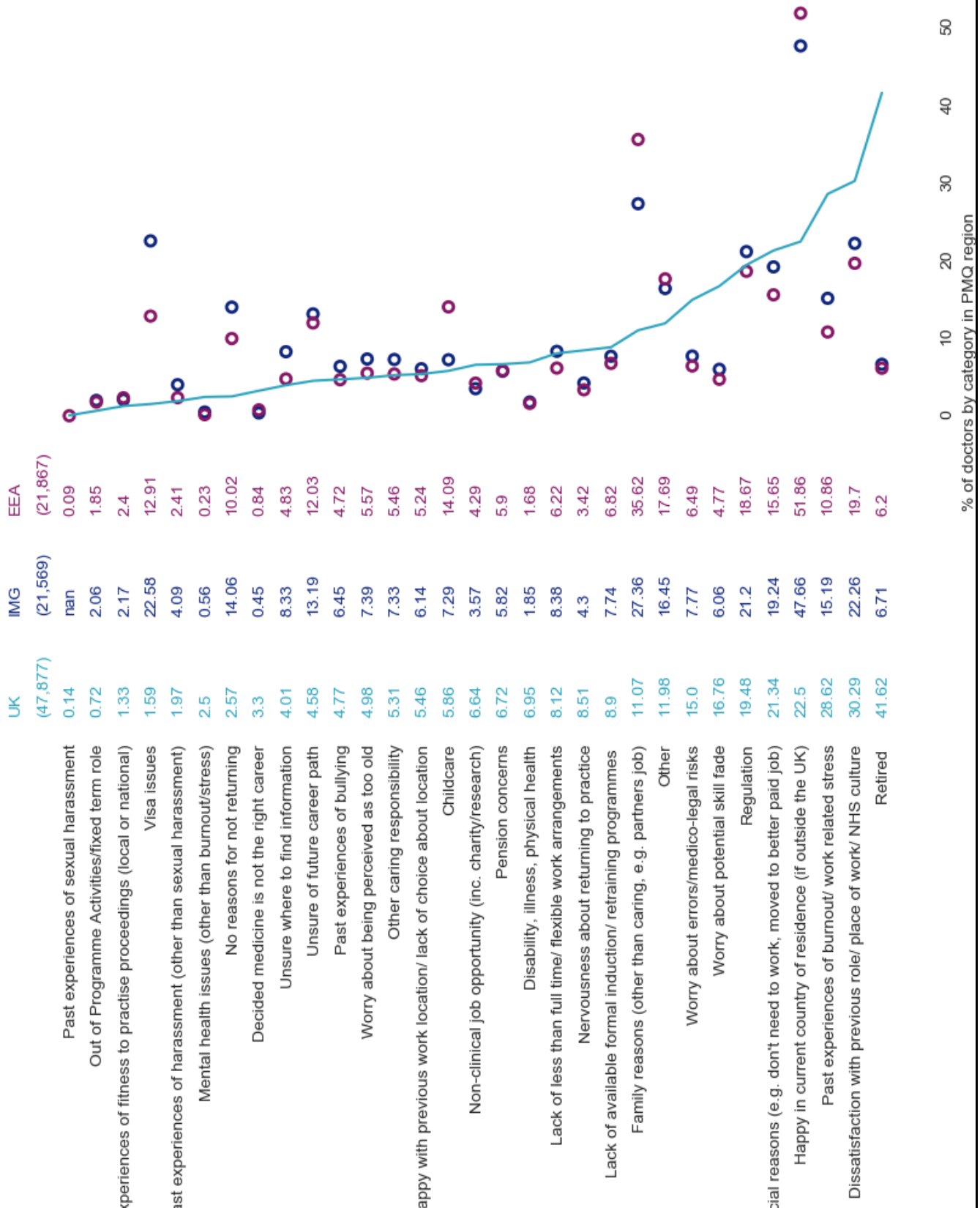


Figure 20: Reasons for not returning by religion

	No religion (32,528)	Undisclosed (3,892)	Christian (38,085)	Hindu (5,921)	Buddhist (2,372)	Muslim (6,429)	Jewish (884)	Other (841)	Sikh (359)
Past experiences of sexual harassment	0.12	0.19	0.08	nan	nan	nan	nan	0.85	nan
Out of Programme Activities/fixed term role	0.88	1.0	1.11	2.37	1.97	3.92	nan	1.11	nan
Past experiences of fitness to practise proceedings (local or national)	1.68	1.06	2.02	1.57	0.24	1.93	1.54	2.26	5.11
Mental health issues (other than burnout/stress)	1.92	0.65	1.41	0.39	1.33	1.41	2.76	1.67	nan
Past experiences of harassment (other than sexual harassment)	1.92	3.04	2.28	5.14	3.35	3.65	3.21	6.84	10.51
Decided medicine is not the right career	2.93	1.04	1.72	0.84	1.31	1.15	0.66	5.3	3.08
No reasons for not returning	3.84	5.93	6.58	15.19	14.01	16.75	3.23	7.31	20.06
Other caring responsibility	4.11	4.71	6.38	7.05	12.52	8.44	6.27	3.8	5.57
Past experiences of bullying	4.37	8.4	4.54	6.25	5.94	8.13	3.88	14.29	11.14
Worry about being perceived as too old	4.41	5.31	6.15	7.29	4.65	8.72	7.6	4.78	nan
Unsure where to find information	4.56	3.68	4.73	9.76	6.71	8.35	2.82	3.24	5.11
Disability, illness, physical health	4.89	3.78	5.1	1.9	1.71	2.53	6.4	4.84	nan
Unhappy with previous work location/ lack of choice about location	5.5	7.37	4.43	7.68	7.51	8.91	4.45	6.29	5.85
Non-clinical job opportunity (inc. charity/research)	5.71	3.96	6.04	2.65	1.41	3.22	11.59	5.81	7.94
Visa issues	5.84	6.63	8.37	19.59	19.47	20.21	8.11	8.36	12.86
Unsure of future career path	6.33	9.59	8.0	16.67	13.63	11.46	5.34	10.6	2.0
Pension concerns	6.34	8.13	6.33	6.87	5.05	6.31	1.26	2.11	3.69
Childcare	6.49	6.87	9.7	8.05	8.62	9.42	4.55	6.04	3.28
Nervousness about returning to practice	6.5	5.06	6.47	4.59	5.99	6.09	8.83	10.34	nan
Lack of less than full time/ flexible work arrangements	7.86	8.83	7.15	8.51	3.83	10.92	5.43	9.01	3.28
Lack of available formal induction/ retraining programmes	8.33	7.47	7.64	9.02	5.72	10.47	8.75	10.31	2.16
Worry about errors/medico-legal risks	12.01	11.24	11.7	7.18	10.33	8.45	14.92	10.66	11.7
Worry about potential skill fade	12.76	7.99	12.4	7.19	8.88	5.33	11.68	12.17	2.56
Other	14.67	17.89	13.33	15.17	11.38	16.91	12.82	21.89	15.56
Family reasons (other than caring, e.g. partners job)	16.66	17.2	21.9	28.0	24.62	29.98	18.15	16.3	27.2
Regulation	20.79	24.78	19.08	15.92	15.47	18.42	22.09	25.39	23.9
Financial reasons (e.g. don't need to work, moved to better paid job)	22.38	20.43	17.01	19.23	12.72	20.98	19.24	25.01	18.8
Past experiences of burnout/ work related stress	24.88	21.48	18.76	14.58	21.1	21.28	27.41	30.5	13.52
Retired	29.85	21.1	28.6	5.28	8.64	4.85	28.28	22.92	9.29
Dissatisfaction with previous role/ place of work/ NHS culture	30.47	32.21	22.36	24.77	18.02	22.72	26.54	30.42	24.18
Happy in current country of residence (if outside the UK)	34.5	35.37	33.37	46.43	45.25	41.07	33.61	23.32	35.57

% of doctors by category in Q34. Religion

Figure 21: Reasons for not returning by sexual orientation

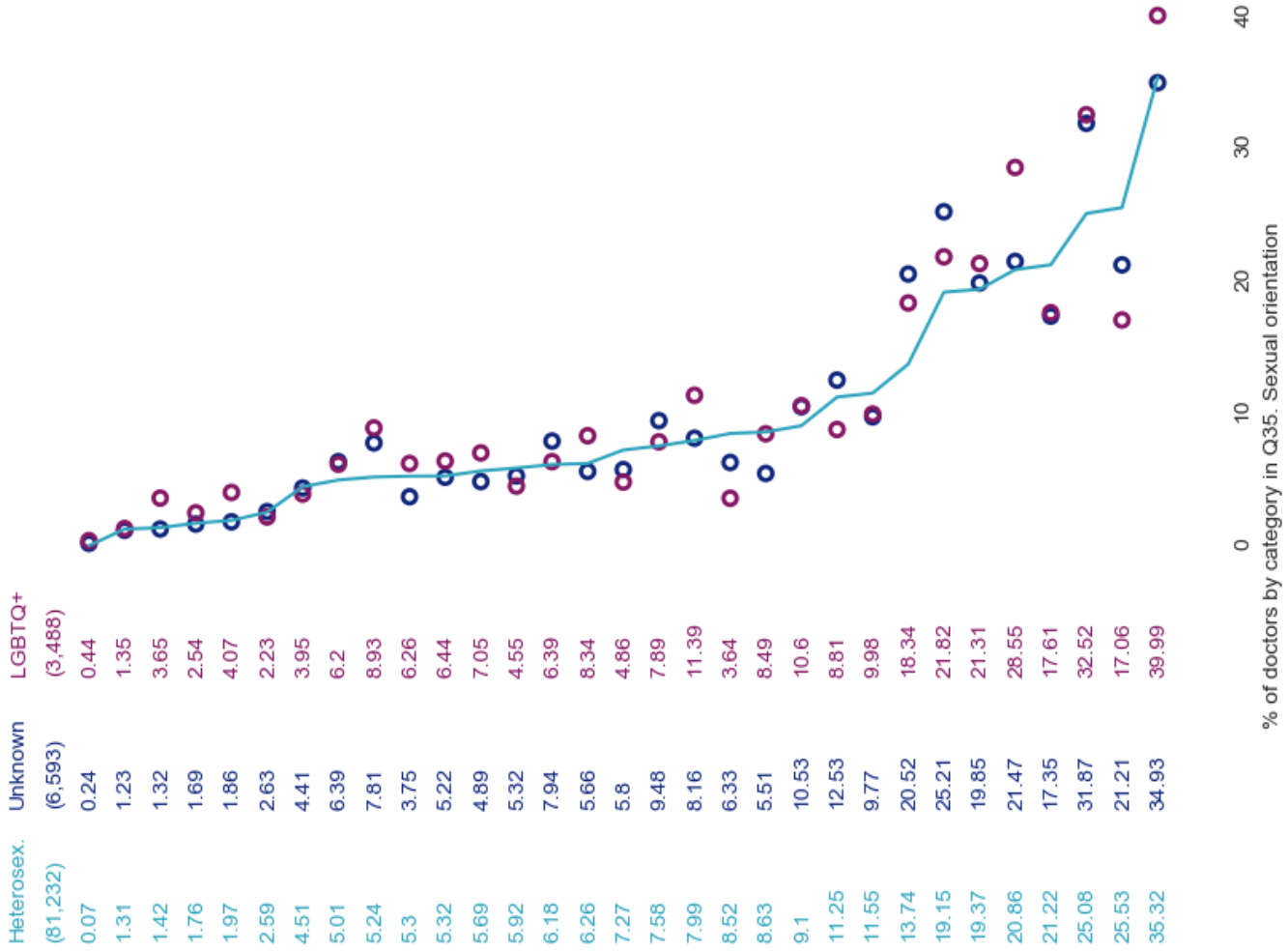


Table 1 – Likelihood of return split by role – showing only those who said they would return to **England**

	Likely	Don't know	Wants to but unlikely	Doesn't want to and unlikely	Total
Doctor in training (including FY1/FY2)	2844	1175	893	4122	9034
General practitioner (on the GP register)	1682	1221	1091	15309	19303
Other	4804	1831	987	5821	13443
Specialist (on the specialist register)	8667	3669	2522	18315	33173
All	17997	7897	5492	43567	74953

Table 2 – Likelihood of return split by role – showing only those who said they would return to **Northern Ireland**

	Likely	Don't know	Wants to but unlikely	Doesn't want to and unlikely	Total
Doctor in training (including FY1/FY2)	100	20	22	181	323
General practitioner (on the GP register)	80	40	17	551	688
Other	124	82	38	285	529
Specialist (on the specialist register)	254	62	67	717	1100
All	559	204	143	1734	2640

Table 3 – Likelihood of return split by role – showing only those who said they would return to **Scotland**

	Likely	Don't know	Wants to but unlikely	Doesn't want to and unlikely	Total
Doctor in training (including FY1/FY2)	458	138	134	495	1225
General practitioner (on the GP register)	238	214	153	2300	2905
Other	491	235	106	931	1763
Specialist (on the specialist register)	819	469	298	2751	4337
All	2006	1056	691	6477	10230

Table 4 – Likelihood of return split by role – showing only those who said they would return to **Wales**

	Likely	Don't know	Wants to but unlikely	Doesn't want to and unlikely	Total
Doctor in training (including FY1/FY2)	75	21	44	103	243
General practitioner (on the GP register)	76	59	26	815	976
Other	362	91	47	261	761
Specialist (on the specialist register)	394	132	101	882	1509
All	907	303	218	2061	3489

Table 5 – Likelihood of return split by speciality – showing only those who said they would return to **England**

	Likely	Don't know	Wants to but unlikely	Doesn't want to and unlikely	Total
Anaesthetics and intensive care medicine	1892	771	536	3609	6808
Emergency medicine	648	234	175	1288	2345
General practice	2055	1388	1202	15764	20409
Medicine	2250	701	363	3368	6682
Obstetrics and gynaecology	1006	253	163	1212	2634
Occupational medicine	35	49	38	414	536
Ophthalmology	545	180	155	969	1849
Other or multiple specialty groups	2567	1349	760	4297	8973
Paediatrics	1188	481	251	1986	3906
Pathology	297	97	68	769	1231
Psychiatry	986	485	367	2694	4532
Public health	119	118	58	530	825
Radiology	543	256	128	1037	1964
Surgery	2717	1134	779	3658	8288
All	16849	7497	5044	41596	70986

Table 6 – Likelihood of return split by speciality – showing only those who said they would return to **Northern Ireland**

	Likely	Don't know	Wants to but unlikely	Doesn't want to and unlikely	Total
Anaesthetics and intensive care medicine	57	*[1]	*	148	205
Emergency medicine	34	4	12	94	144
General practice	80	50	23	572	725
Medicine	73	15	9	112	209
Obstetrics and gynaecology	23	11	*	73	107
Occupational medicine	*	*	*	16	16
Ophthalmology	*	*	11	25	36
Other or multiple specialty groups	50	53	29	174	306
Paediatrics	24	15	24	103	166
Pathology	*	*	9	43	52
Psychiatry	47	9	7	115	178
Public health	*	*	*	12	12
Radiology	33	15	*	30	78
Surgery	86	30	16	115	247
All	506	200	139	1630	2475

[1] *See Annex 1, page 6 for an explanation of blank spaces

Table 7 – Likelihood of return split by speciality – showing only those who said they would return to **Scotland**

	Likely	Don't know	Wants to but unlikely	Doesn't want to and unlikely	Total
Anaesthetics and intensive care medicine	211	106	93	562	972
Emergency medicine	115	68	25	357	565
General practice	307	242	153	2382	3084
Medicine	222	70	78	473	843
Obstetrics and gynaecology	67	27	12	85	191
Occupational medicine	11	24	6	83	124
Ophthalmology	37	11	17	52	117
Other or multiple specialty groups	227	87	79	625	1018
Paediatrics	157	67	30	257	511
Pathology	40	30	[2]*	129	199
Psychiatry	73	54	25	398	550
Public health	6	22	7	94	129
Radiology	58	48	28	200	334
Surgery	222	137	89	507	955
All	1753	992	643	6204	9592

Table 8 – Likelihood of return split by speciality – showing only those who said they would return to **Wales**

	Likely	Don't know	Wants to but unlikely	Doesn't want to and unlikely	Total
Anaesthetics and intensive care medicine	101	17	15	193	326
Emergency medicine	48	8	38	63	157
General practice	76	69	26	836	1007
Medicine	79	25	7	112	223
Obstetrics and gynaecology	54	9	*	58	121
Occupational medicine	*	*	20	25	45
Ophthalmology	12	9	7	29	57
Other or multiple specialty groups	166	20	14	132	332
Paediatrics	135	31	11	75	252
Pathology	42	12	7	44	105
Psychiatry	49	27	24	189	289
Public health	*	4	4	40	48
Radiology	25	19	*	56	100
Surgery	105	35	15	172	327
All	892	286	188	2024	3390

[2] *See Annex 1, page 6 for an explanation of blank spaces

Annex 4 – Questionnaire with Programming Notes

Thanks for taking part in this survey. Before you begin please read the information below

Purpose

We want to better understand why doctors who aren't currently practising (in the UK) are no longer doing so, including those who have decided to practise abroad instead, or have left the profession altogether. But more than that we want to understand what can be done to help doctors who want to return to practice.

Confidentiality

We want you to respond in an honest and frank way, so the survey will be completely confidential. The survey tool helps ensure this by assigning each respondent a unique ID which is entirely random.

Impact

Your responses will help deliver real benefits for you and your colleagues, across the UK. The research will feed into important decisions, for example, around the potential to better support doctors wanting to return to practice.

Our team of analysts will also create a report which we will publish on our website and share with key organisations. The data will be reported anonymously.

FAQ

For more information, take a look at our frequently asked questions. [During programming insert link]

Before you start the survey we need to ask you a few questions, to make sure you're eligible to take part

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1. Are you currently practising medicine **in the UK**?
    a. Yes *(screen out)*
    b. No
2. Have you ever practised medicine **in the UK**?
    a. Yes
    b. No *(screen out)*
3. Which of the following best describes your current situation?
    a. I'm no longer registered or licensed to practise with the GMC
    b. I'm registered, but not currently licensed to practise with the GMC
    c. I'm registered and licensed to practise with the GMC
4. How long has it been since you last practised medicine **in the UK**?
    a. 3 months or less *(screen out)*
    b. More than 3 months, but less than 15 years
    c. 15 years or more *(screen out)*

Thanks for answering those questions – you can now take part in the survey

5. To the best of your memory, when did you last practise medicine **in the UK**?

   [ ] (DD/MM/YYYY)

6. Which of the following best describes your role when you last practised medicine **in the UK**?
   a. Doctor in training (including FY1/FY2)
   b. General practitioner (on the GP register) *(skip to Q9)*
   c. Specialist (on the specialist register) *(skip to Q8)*
   d. Other *(skip to Q8)*
7. Which of the following best describes your training grade when you last practised medicine **in the UK**?
   a. Foundation year 1 *(skip to Q9)*
   b. Foundation year 2 *(skip to Q9)*
   c. Core training *(skip to Q9)*
   d. GP training *(skip to Q9)*
   e. Specialty training
8. Which of the following best describes your specialty when you last practised medicine **in the UK**?
   a. General practitioner
   b. Medicine
   c. Surgery
   d. Anaesthetics and intensive care medicine
   e. Psychiatry
   f. Radiology
   g. Paediatrics
   h. Obstetrics and gynaecology
   i. Pathology
   j. Ophthalmology
   k. Emergency medicine
   l. Public health
   m. Occupational medicine
   n. Other or multiple specialty groups
9. In which country or region of the UK did you last practise medicine?
   a. England - East of England
   b. England - London
   c. England - Midlands
   d. England - North East and Yorkshire
   e. England - North West
   f. England - South East
   g. England - South West
   h. Northern Ireland
   i. Scotland
   j. Wales
   k. Other
10. On what basis did you last practise medicine **in the UK**?

a. Full-time
b. Less than full-time
c. Locum

11. There are many reasons why doctors may decide to stop practising medicine or take a break and we realise the reasons may be more complex than the below options.

But please select **all of the reasons, starting with the most important,** which were a factor in why you stopped/took a break from practising medicine **in the UK**.

Please select **up to** 5 reasons.

Primary reason	*Click to show drop down list*
2nd reason	*Click to show drop down list*
3rd reason	*Click to show drop down list*
4th reason	*Click to show drop down list*
5th reason	*Click to show drop down list*

[Programming note: respondents will see the following options as a drop-down menu]

a. Retirement
b. Maternity/paternity leave
c. Childcare
d. Other caring responsibility
e. Family reasons (other than caring, e.g. partner has a new job)
f. Disability, illness, physical health
g. Mental health issues (other than burnout/stress)
h. Burnout/work related stress
i. Returned to country of previous residence
j. Desire to move abroad
k. Non-clinical job opportunity (inc. charity/research)
l. Out of Programme Activities/fixed term role
m. Lack of less than full time/ flexible work arrangements
n. Unhappy with work location/lack of choice about location
o. Dissatisfaction with role/ place of work/ NHS culture
p. Bullying
q. Sexual harassment
r. Harassment (other than sexual harassment)
s. Decided medicine is not the right career
t. Needed time to contemplate future career path
u. Financial reasons (e.g. don't need to work, moved to better paid job)
v. Pension concerns
w. As a result of fitness to practise proceedings (local or national)
x. Regulation
y. Worry about errors/medico-legal risks
z. Worry about being perceived as too old
aa. Visa issues
bb. Other

12. Which option best describes your **current** employment situation?
    a. Retired

b. Working clinically (outside the UK)
c. Working non-clinically – in job not requiring medical degree
d. Working non-clinically – in job requiring medical degree (e.g. pharma industry)
e. Not currently working

13. Where are you **currently** living?
    a. England - East of England *(skip next Q)*
    b. England – London *(skip next Q)*
    c. England – Midlands *(skip next Q)*
    d. England - North East and Yorkshire *(skip next Q)*
    e. England - North West *(skip next Q)*
    f. England - South East *(skip next Q)*
    g. England - South West *(skip next Q)*
    h. Northern Ireland *(skip next Q)*
    i. Scotland *(skip next Q)*
    j. Wales *(skip next Q)*
    k. UK – other *(skip next Q)*
    l. Outside the UK
14. Please select from the below list where you are **currently** living
    a. [During programming insert list of 197 countries]
15. Do you want to return to practising medicine **in the UK**?
    a. Yes
    b. No
16. How likely are you to return to practising medicine **in the UK** at any point in the future?
    a. Definitely will return
    b. Very likely
    c. Likely
    d. Unlikely
    e. Very Unlikely
    f. Definitely will not return *(Skip to Q24 - reason for not returning - then demographic questions)*
    g. Don't know
17. If you were to return to practising medicine **in the UK**, what is your best estimate of when that would be?

    ☐ DD/MM/YYYY

18. If you were to return to practising medicine **in the UK**, where would you most likely work?
    a. England - East of England
    b. England - London
    c. England - Midlands
    d. England - North East and Yorkshire
    e. England - North West
    f. England - South East
    g. England - South West
    h. Northern Ireland
    i. Scotland
    j. Wales
    k. Other

l. Don't know

19. If you were to return to practising medicine **in the UK**, would you return to the same **specialty/role/training grade** as when you previously worked in the UK?
    a. Yes *(skip to Q23)*
    b. No
    c. Don't know *(skip to Q23)*
20. Which of the following would best describe your role if you returned to practising medicine **in the UK**?
    a. Doctor in training (including FY1/FY2)
    b. General practitioner (on the GP register) *(skip to Q23)*
    c. Specialist (on the specialist register) *(skip to Q22)*
    d. Other *(skip to Q22)*
21. Which of the following would best describe your training grade if you returned to practising medicine **in the UK**?
    a. Foundation year 1 *(skip to Q23)*
    b. Foundation year 2 *(skip to Q23)*
    c. Core training *(skip to Q23)*
    d. GP training *(skip to Q23)*
    e. Specialty training
22. Which of the following would best describe your specialty if you returned to practising medicine **in the UK**?
    a. General practice
    b. Medicine
    c. Surgery
    d. Anaesthetics and intensive care medicine
    e. Psychiatry
    f. Radiology
    g. Paediatrics
    h. Obstetrics and gynaecology
    i. Pathology
    j. Ophthalmology
    k. Emergency medicine
    l. Public health
    m. Occupational medicine
    n. Other or multiple specialty groups
23. If you were to return to practising medicine **in the UK**, on what basis would you do this?
    a. Full-time
    b. Less than full-time
    c. Locum
24. We're conscious that the decision to return to practising medicine **in the UK** might be very complex, with potential barriers making the decision more difficult.

We realise the reasons may be more complex than the below options, but please select **up to 5 reasons, starting with the most important,** why you might **not** return to practising medicine **in the UK**.

If none of the below are relevant, please select **'Other'** or **'No reasons for not returning'**.

a. Retired
b. Childcare

c. Other caring responsibility
d. Family reasons (other than caring, e.g. partners job)
e. Disability, illness, physical health
f. Mental health issues (other than burnout/stress)
g. Past experiences of burnout/ work related stress
h. Happy in current country of residence (if outside the UK)
i. Non-clinical job opportunity (inc. charity/research)
j. Out of Programme Activities/fixed term role
k. Lack of less than full time/ flexible work arrangements
l. Unhappy with previous work location/ lack of choice about location
m. Dissatisfaction with previous role/ place of work/ NHS culture
n. Past experiences of bullying
o. Past experiences of sexual harassment
p. Past experiences of harassment (other than sexual harassment)
q. Decided medicine is not the right career
r. Unsure of future career path
s. Financial reasons (e.g. don't need to work, moved to better paid job)
t. Pension concerns
u. Past experiences of fitness to practise proceedings (local or national)
v. Regulation
w. Worry about errors/medico-legal risks
x. Worry about being perceived as too old
y. Unsure where to find information
z. Worry about potential skill fade
aa. Nervousness about returning to practice
bb. Lack of available formal induction/ retraining programmes
cc. Visa issues
dd. Other
ee. No reasons for not returning

We're aware that returning to practice after an extended period of absence can be stressful and that support and induction is required to make the process run smoothly and safely. This support and induction can be provided by employers or other bodies, both regionally and nationally and can contain various elements, e.g. mentoring, buddying etc. The next few questions explore what support you might find most helpful if you were to return to practising medicine in the UK.

25. If you were planning to **return to UK practice** and you were enrolled on a formalised return programme, how important do you feel it would be for each of the following to be included as part of the programme?

	Not at all important	Slightly important	Moderately important	Very important	Extremely important
Induction - Local/departmental (e.g. cardiology, vascular surgery etc)					
Induction - Directorate (e.g. medicine, surgery)					
Induction - Corporate/ health board/ trust					

Induction - Resources/IT (e.g. computer access) /facilities					
Formal teaching sessions - clinical knowledge					
Formal teaching sessions - clinical skills					
Confidence building activities (e.g. workshops, training courses, group activities)					
Having a dedicated point of contact, e.g. return to practice lead					
Mentoring (guidance/ support provided by a senior colleague typically on a relatively long-term basis)					
Buddying (more informal guidance/ support provided by a colleague of similar seniority)					
Opportunity to network with peers in similar circumstance/ other social support					
Work shadowing/ clinical observership/ working supernumerary/ keeping in touch days					
Graduated return (i.e. gradual increase in days/ hours worked)					

26. If you were planning to return to practising medicine **in the UK** and a formalised return programme was available to you, which was individualised to your needs, how **likely would you be to use it**?
    a. Very likely
    b. Likely
    c. Unlikely
    d. Very unlikely
27. To what extent, if at all, do you agree with the following statement?

"If I had the option to take part in a formalised return programme, which was individualised to my needs, it would make me **more likely** to return to practising medicine **in the UK**."

a. Strongly agree
b. Agree
c. Disagree
d. Strongly Disagree
e. Don't know

Demographics

In this section we ask for information about your background. This information will be used when we analyse the results to help us better understand the perspectives of different groups. Specifically, this could help us understand whether certain groups may be more likely to leave medicine, or certain groups are more likely to leave for a certain reason. Equally, it might reveal that some groups may face different barriers to return or may require additional, or different support to help them to do so. You can find out more in our FAQs. *[During programming insert link]*

28. What is your date of birth?

    [ ] DD/MM/YYYY

29. What best describes your gender?
    a. Female
    b. Male
    c. Prefer not to say
    d. Prefer to self-describe [ ]
30. Do you have a disability, long-term illness or health condition?
    a. Yes
    b. No *(skip next Q)*
    c. Prefer not to say *(skip next Q)*
31. Please select if any of the below apply to you.
    a. Blind or sight loss
    b. Deaf or hearing loss
    c. Mobility - e.g. difficulty in walking short distances or climbing stairs
    d. Manual dexterity
    e. Learning disability - e.g. dyslexia
    f. Mental illness - e.g. depression
    g. Speech impairment
    h. Cognitive disability - e.g. brain injury, autism
    i. Other impairment - e.g. epilepsy, asthma, cancer or facial disfigurement
    j. Prefer not to say
32. What is your ethnic group?
    a. White - British, English, Northern Irish, Scottish or Welsh
    b. White – Irish
    c. White – Gypsy or Irish traveller
    d. White - Any other white background
    e. Mixed or multiple ethnic groups - White and Black Caribbean
    f. Mixed or multiple ethnic groups – White and Black African
    g. Mixed or multiple ethnic groups – White and Asian
    h. Mixed or multiple ethnic groups - Any other mixed or multiple ethnic background
    i. Asian or Asian British – Indian
    j. Asian or Asian British - Pakistani
    k. Asian or Asian British - Bangladeshi
    l. Asian or Asian British - Chinese
    m. Asian or Asian British - Any other Asian background
    n. Black, African, Caribbean or black British – Caribbean
    o. Black, African, Caribbean or black British – African

p. Black, African, Caribbean or black British - Any other black, African, or Caribbean background
q. Other ethnic group - Arab
r. Other ethnic group - Any other ethnic group
s. Prefer not to say

33. What is your religion?
    a. No religion
    b. Buddhist
    c. Christian - Baptist
    d. Christian – Brethren
    e. Christian – Catholic
    f. Christian – Church of England
    g. Christian – Church of Ireland
    h. Christian – Church of Scotland
    i. Christian – Free Presbyterian
    j. Christian – Methodist
    k. Christian – Other
    l. Christian - Presbyterian
    m. Christian - Protestant
    n. Hindu
    o. Jewish
    p. Muslim
    q. Sikh
    r. Other
    s. Prefer not to say
34. What is your sexual orientation?
    a. Bi
    b. Gay man
    c. Gay woman/Lesbian
    d. Heterosexual/Straight
    e. Prefer not to say
    f. Prefer to self-describe ☐
35. Where did you receive your primary medical qualification (PMQ)?
    a. England - East of England *(skip next Q)*
    b. England – London *(skip next Q)*
    c. England – Midlands *(skip next Q)*
    d. England - North East and Yorkshire *(skip next Q)*
    e. England - North West *(skip next Q)*
    f. England - South East *(skip next Q)*
    g. England - South West *(skip next Q)*
    h. Northern Ireland *(skip next Q)*
    i. Scotland *(skip next Q)*
    j. Wales *(skip next Q)*
    k. UK – other *(skip next Q)*
    l. Outside the UK
36. Where **outside the UK** did you receive your primary medical qualification (PMQ)?

[During programming insert the list of 161 countries listed as country of PMQ from the GMC database]

37. *Where were you living at the point of applying for medical school?*
    a. *England - East of England (skip next Q)*
    b. *England – London (skip next Q)*
    c. *England – Midlands (skip next Q)*
    d. *England - North East and Yorkshire (skip next Q)*
    e. *England - North West (skip next Q)*
    f. *England - South East (skip next Q)*
    g. *England - South West (skip next Q)*
    h. *Northern Ireland (skip next Q)*
    i. *Scotland (skip next Q)*
    j. *Wales (skip next Q)*
    k. *UK – other (skip next Q)*
    l. *Outside the UK*
38. *Where **outside the UK** did you live at the point of applying for medical school?*

[During programming insert the list of 197 countries]

Follow up

39. We're considering carrying out some follow up research. If you would like the opportunity to take part then please select 'I'm happy to provide my name and email address' below.

    Please note – your email address will only be used for the purpose of inviting you to take part in follow up research. For example, if we were particularly interested in mentoring then we might contact people who have indicated that they might find such support useful to seek their views.

    Any participation in the subsequent research would be completely voluntary and as with this survey your responses would be kept confidential, with the findings reported anonymously.

    a. I'm happy to provide my name and email address
    b. I'd rather not on this occasion *(finish)*

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40. Please provide your…

    Name…

    Email address…

Thanks for taking part!

If you are interested in seeing the results of the survey these will be published on the research section of our website due later in the year