



City Research Online

City St George's, University of London

Citation: Mandeville, K. L., Satherley, R-M., Hall, J., Sutaria, S., Willott, C., Yarrow, K., Mohan, K., Wolfe, I. & Devakumar, D. (2018). The political views of doctors in the United Kingdom: A cross sectional study. *Journal of Epidemiology and Community Health*, 72(10), pp. 880-887. doi: 10.1136/jech-2018-210801

This is the accepted version of the paper.

This version of the publication may differ from the final published version. To cite this item please consult the publisher's version.

Permanent repository link: <https://city-ref-test.eprints-hosting.org/id/eprint/19957/>

Link to published version: <https://doi.org/10.1136/jech-2018-210801>

Copyright and Reuse: Copyright and Moral Rights remain with the author(s) and/or copyright holders. Copies of full items can be used for personal research or study, educational, or not-for-profit purposes without prior permission or charge, unless otherwise indicated, provided that the authors, title and full bibliographic details are credited, a hyperlink and/or URL is given for the original metadata page and the content is not changed in any way. For full details of reuse please refer to [City Research Online policy](#).

The political views of doctors in the United Kingdom: a cross-sectional study

Kate L Mandeville,¹ *honorary associate professor*, Rosie-Marie Satherley,² *research associate*, Jennifer Hall,³ *principal clinical researcher*, Shailen Sutaria,⁴ *specialty registrar in public health*, Chris Willott,² *lecturer in global health*, Kielan Yarrow,⁵ *reader in psychology*, Keerthi Mohan,^{1,6} *specialty registrar in public health*, Ingrid Wolfe,² *clinical senior lecturer in public health*, Delan Devakumar,³ *clinical lecturer in public health*

¹London School of Hygiene and Tropical Medicine, London, UK

²King's College London, Guy's and St Thomas' NHS Foundation Trust, London, UK

³University College London, London WC1E 6JB, UK

⁴Queen Mary University of London, London, UK

⁵City University London, London, EC1V 0HB, UK

⁶National Infection Service, Public Health England, 61 Colindale Ave, London NW9 5EQ
UK

Correspondence to: Delan Devakumar, d.devakumar@ucl.ac.uk

30 Guilford St, London, WC1N 1EH

ABSTRACT

Background: Little is known about the political views of doctors in the United Kingdom, despite their importance in the functioning of the National Health Service.

Methods: Survey-based cross-sectional study in which we asked questions about voting behaviour in 2015 and 2017 UK general elections and 2016 referendum on leaving the European Union (Brexit) and questions relating to recent health policies.

Results: 1,172 doctors (45.1% women) from 1,295 responded to an online survey. 60.5% described their political views as 'left-wing' and 62.2% described themselves as 'liberal'. 79.4% of respondents voted to remain in the EU in the 2016 referendum compared to 48.1% of voters as a whole ($\chi^2=819.8$, $p<0.001$). 98.6% of respondents agreed that EU nationals working in the NHS should be able to remain in the UK after Brexit. The median score for the impact of Brexit on the NHS on a scale of 0 (worst impact) to 10 (best impact) was 2 (IQR=1-4). Most respondents agreed with the introduction of minimum alcohol pricing in the UK (73.9%), charging patients who are not eligible for NHS treatment for non-urgent care (70.6%) and protecting a portion of national spending for the NHS (87.1%). 65.8% thought there was too much use of NHS-funded private sector provision in their medical practice. Specialty, income and grade were associated with divergent opinions.

Conclusions: UK doctors are left-leaning and liberal in general, which is reflected in their opinions on topical health policy issues. Doctors in the UK voted differently from the general electorate in recent polls.

What this paper adds

Section 1: What is already known on this subject

- The UK is going through a politically turbulent period that could have a profound effect on the health of the population.
- Doctors are visible advocates on health issues, yet little is known about the political views of doctors themselves.

Section 2: What this study adds

- Most UK doctors are left-leaning and liberal, but political views vary significantly by specialty, grade and income.
- Doctors in the UK have voted differently to the general public in recent polls
- Most doctors think Brexit will have a negative impact on the National Health Service

INTRODUCTION

Doctors have the capacity to be trusted and visible advocates for the health system that they work in. In the United Kingdom (UK), doctors consistently top polls of the most trusted professions by the general public, with 89% of the UK public trusting doctors to tell the truth in a 2015 survey.¹ Medical leaders have drawn attention to emerging threats to health, such as excessive drinking, and campaigned for effective solutions.^{2 3} Doctors are also crucial stakeholders in the implementation of health policy reforms, with unique insight into the benefits and risks of proposed changes to the National Health Service (NHS).⁴ Yet the advocacy role of UK doctors in political issues that may affect the population's health appears to be relatively under developed compared to clinical topics.

The health and social care landscape in the UK is rapidly being redesigned in the context of a continued period of significant political flux.⁵ The last three years have seen referendums on Scottish independence and exiting the European Union ("Brexit"), and two general elections. In 2010, the historical dominance of two major political parties (Conservative and Labour) in regional strongholds fractured into a tapestry of multi-party support, leading to a coalition government (Conservative and Liberal Democrats) and the largest vote recorded to date for the right-wing populist UK Independence Party (UKIP) in the 2015 general election.⁶ The early general election of 2017 saw a movement back to the traditional two big parties, with the Conservative government losing its parliamentary majority but holding onto power with support of the Northern Irish Democratic Unionist party.⁷

Major political changes have been echoed in health and social care. Health reforms under the last coalition government included one of the largest top-down reorganisations of the National Health Service (NHS) in its history, followed by the rapid escalation of commercial contracting of NHS services.^{8 9} The NHS continues to undergo the largest sustained reduction in spending as a percentage of gross domestic product since 1951, accompanied by the highest debt ever reported by NHS hospitals in England.^{10 11} Doctors have reported "increasing workload, low levels of morale, plans to retire early and the intention to leave the

UK to practice abroad”,¹² and discontent among junior doctors on contract reform led to their first strike in 40 years.¹³

Little is known, however, about the political views and voting behaviour of doctors themselves. Given their potential influence, understanding the political opinions of doctors is crucial. In light of recent changes to the political landscape, we sought to investigate the political opinions and voting behaviour of the UK medical workforce. To do this, we undertook a survey of medical doctors in the UK. We examined views on politics and health policy by specialty and other professional and demographic groups.

METHODS

Survey development

We developed a survey (supplementary file) with three parts:

(i) General political views and past voting behaviour

We asked participants to place themselves on a scale from zero to ten, where zero represented extremely left wing political views and ten extremely right wing political views. In order to capture an alternative dimension of political beliefs in a short survey, we then asked participants to choose a term that best suited their political views, from “extremely liberal” to “extremely conservative”.¹⁴ Participants were also asked how they voted in the 2015 and 2017 UK general elections, and the 2016 EU referendum. For those who were not eligible or chose not to vote, we asked how they would have voted.

(ii) Views on specific health policy issues

Participants were asked to rate the potential impact of Brexit on the NHS using a scale from zero (worst) to ten (best). We then asked participants whether they agreed with a series of statements on topical UK health policy issues using a five-point Likert scale (strongly agree to strongly disagree). These were on the following issues: (a) minimum alcohol pricing; (b) charges for non-urgent care for patients who are not eligible for free NHS treatment; (c) a

protected proportion of national spending for the NHS; and (d) private sector provision of healthcare in the UK.

(iii) Participant characteristics

We obtained demographic and professional information from participants, including: age, gender, region of residence (UK NUTS 1 statistical regions), type of residential area (urban/rural/other), specialty, type of workplace in which majority of work is undertaken, grade, annual income from clinical activities, and location of medical school (UK/EU member state/non-EU member state).

We used the online survey software Qualtrics (Provo, USA) to conduct the survey. The survey tool was piloted first within the research team and with 20 doctors across a range of specialties and grades, with iterative modification to wording, layout and skip logic.

Data collection

To reach a representative sample of UK doctors, we collaborated with Doctors.net.uk, the largest online professional network, validated against General Medical Council (GMC) records of doctors (www.doctors.net.uk). Members were presented with a link to the survey after logging into their accounts. Data collection started one day after the 2017 general election (8 June 2017) and continued for one week. A preliminary analysis of these responses by specialty identified low responses in several specialties, including general practice, public health, ophthalmology, and surgery, compared to GMC data. In order to obtain a more representative sample by specialty, we then sent the survey link to targeted national specialty networks with responses collected for another three weeks. These networks included: the Association of Surgeons in Training, the British Orthopaedic Trainees Association; a national email group for public health specialty registrars; regional representatives of ophthalmology specialty registrars; a national Facebook group for general practitioners (GPs), the Trainee Doctors group of the Academy of Medical Royal Colleges, a

national Facebook group for doctors who are also mothers (Physician Mum's Group UK) to capture doctors on parental leave, and junior doctor and consultant Facebook groups focused on professional contracts.

We obtained comparison data from the GMC to assess the representativeness of our survey. This included gender; age; location where primary medical qualification was obtained; and region of GMC-registered address. The latter is not necessarily a current residential address, but a good proxy. We also obtained 2016 data for doctors on the GP register, all individual specialty registers, and those registered with the GMC but not on either GP or specialty registers.

The research was approved by the UCL Research Ethics Committee (2744/004). All responses were anonymous and the data could not be traced back to an individual. There was no specific funding for this study.

Statistical analysis

Analysis was carried out in SPSS (version 22) and Matlab (2015a). χ^2 tests were used to compare survey and GMC data, with post-hoc comparison of individual categories compared to the sum of all other categories in that variable using χ^2 tests with a Bonferroni correction. As region of residence is strongly associated with voting behaviour, direct standardisation was used to adjust the voting behaviour results by the regional distribution of the overall electorate using Electoral Commission data for the EU referendum, 2015 and 2017 general elections.¹⁵⁻¹⁷ We used Bowker tests to examine changes in voting behaviour between the 2015 and 2017 general elections based on paired data within our sample.

Ordinal logistic regressions (Matlab `mnrfit` command) were used to investigate whether any respondent characteristics influenced their views on these issues. Predictors were restricted to the pre-specified variables of specialty, grade (with collapsed consultant and GP classes), main workplace, type of residential area and income, which were all included in the model.

The first four categorical variables were effects coded in order to compare against the unweighted mean of categories. Increasing categories of income were coded one to ten for

£0-£9,999 up to £90,000 - £99,999 respectively, 11 for £100,00-£150,000, and 16 for ≥ £150,000. Income was then treated as a linear predictor in the regression model. Where the omnibus model was significant (via a deviance-based test), we went on to consider any effects of individual predictors/levels using a Bonferroni correction to adjust for familywise error inflation.

RESULTS

Participants

Responses were obtained from 1,295 individuals, of which 123 were excluded (see supplementary file for flow of responses). Of the 1,172 respondents included in analysis, 45.1% were women and the modal age group was 30 to 39 years (Table 1). The majority of respondents (84.8%) qualified in the UK. Nearly nine out of ten lived in England (87.5%), and two thirds in urban areas (66.8%). Over half the respondents were consultants (36.1%) or GPs (19.8%), and a third were junior doctors (29.8%). Most respondents' primary workplace was within the NHS (86.1%).

Table 1: Participant characteristics

Characteristic	Class	Survey data	GMC data
Gender (n = 1136)	Male	624 (54.9)	153,303 (54.5)
	Female	508 (44.7)	128,137 (45.5)
	Non-Binary	2 (0.2)	N/A
	Other	2 (0.2)	N/A
Age in years (n = 1137)	20 to 29*	116 (10.2)	41,716 (14.6)
	30 to 39	370 (32.5)	84,970 (29.8)
	40 to 49*	225 (19.8)	75,244 (26.4)
	50 to 59	210 (18.5)	52,311 (18.3)
	60 to 69*	152 (13.4)	23,145 (8.1)
	≥ 70*	64 (5.6)	7,874 (2.8)
Location of primary medical qualification (n = 1079)	UK*	915 (84.8)	177,376 (63.0)
	EU member state*	55 (5.1)	30,983 (11.0)
	Outside EU*	109 (10.1)	73,081 (26.0)
Region of residence (n = 1128)	Wales	43 (3.8)	11,675 (4.6)
	Scotland	77 (6.8)	22,504 (8.8)
	Northern Ireland	21 (1.9)	7,898 (3.1)
	North East England	55 (4.9)	Only aggregated data available*: Survey data = 154 (13.7); GMC
	Yorkshire and the Humber	99 (8.8)	

			data = 20,174 (7.9)
	North West England	122 (10.8)	31,134 (12.2)
	East of England	66 (5.9)	Only aggregated data available: Survey data = 124 (11.0) GMC data = 29,585 (11.6)
	East Midlands	58 (5.1)	
	West Midlands	81 (7.2)	
	Greater London	220 (19.5)	
	South East England	179 (15.9)	38,869 (15.2)
	South West England	107 (9.5)	20,408 (8.0)
Type of residential area (n = 1143)	Urban	763 (66.8)	N/A
	Rural	306 (26.8)	N/A
	Other	74 (6.5)	N/A
Grade [†] (n = 1137)	GP*	225 (19.8)	67,762 (24.0)
	Consultant*	410 (36.1)	89,116 (31.6)
	Specialty doctor [§]	68 (6.0)	Only aggregated data available: Survey data = 502 (44.2) GMC data = 125,426 (44.4)
	Foundation year 1 or 2 doctor	31 (2.7)	
	Junior doctor in year ≥ 3 specialty training	206 (18.1)	
	Junior doctor in year 1 or 2 specialty or core training	102 (9.0)	
	Other	95 (8.4)	
Main workplace ^{††} (n = 1134)	NHS	976 (86.1)	N/A
	Academic	41 (3.6)	
	Private sector	25 (2.2)	
	Charity	8 (0.7)	
	Local government	22 (1.9)	
	Other	62 (5.5)	
Annual income from clinical activities (n = 1082)	0 to £9,999	45 (4.2)	N/A
	£10,000 to £19,999	12 (1.1)	
	£20,000 to £29,999	39 (3.6)	
	£30,000 to £39,999	126 (11.6)	
	£40,000 to £49,999	135 (12.5)	
	£50,000 to £59,999	145 (13.4)	
	£60,000 to £69,999	88 (8.1)	
	£70,000 to £79,999	102 (9.4)	
	£80,000 to £89,999	96 (8.9)	
	£90,000 to £99,999	87 (8.0)	
	£100,000 to £149,999	159 (14.7)	
	≥ £150,000	48 (4.4)	

Notes: Values are numbers (percentages); n = number of respondents to that question; GMC = General Medical Council; [†]comparison with GMC data as follows: doctors on GP register (survey response "GP"), doctors on all specialty registers (survey response "consultant"); doctors on neither GP or specialty registers (aggregated responses); ^{††}type of organisation in which the majority of work is undertaken; [§]formerly known as staff grade or associate specialist doctor; *Significant difference between survey and GMC data for that category compared to sum of all other categories in that variable

Our sample represented 0.4% of the 282,304 doctors licenced by the GMC in 2016. There was no significant difference in gender between our sample and GMC data (Table 1), however more respondents were aged over 60 years ($\chi^2 = 72.5$, $p < 0.001$) and from Yorkshire and the Humber/North East England ($\chi^2 = 50.9$, $p < 0.001$) than in the general medical workforce. We received responses from significantly more consultants ($\chi^2 = 10.6$, $p = 0.001$) and fewer GPs ($\chi^2 = 11.0$, $p = 0.001$) compared to the national distribution, but a representative number of junior and specialty doctors. The largest group of consultants were physicians (76/418, 18.2%), with a representative number of all specialties except pathology and occupational medicine (Figure 1). Significantly more doctors who had trained in the UK responded to our survey compared to the general medical workforce ($\chi^2 = 218.9$, $p < 0.001$).

Political Views

On a scale of zero (extremely left wing) to ten (extremely right wing), 60.5% of respondents rated their political views as less than five. The median was four (interquartile range (IQR) 3 to 5) (Figure 2A). Several characteristics were associated with significant divergence on this score compared to the average for all groups. Adjusted for all other variables in the model, increasing income level was associated with more right-wing views ($\exp(\beta) = 1.12$, $p < 0.001$, 95% CI 1.07, 1.17) and being a surgeon doubled the odds of a more right-wing score ($\exp(\beta) = 2.13$, $p = 0.018$, 95% CI 1.39, 3.27). In contrast, being a psychiatrist ($\exp(\beta) = 0.44$, $p = 0.002$, 95% CI 0.29, 0.66) or public health doctor ($\exp(\beta) = 0.39$, $p = 0.040$, 95% CI 0.22, 0.69) more than halved the odds of a more right-wing score. Being a junior doctor of ST3 level or above decreased the odds of a more right-wing score relative to all other grades ($\exp(\beta) = 0.60$, $p = 0.007$, 95% CI 0.46, 0.79).

62.2% described themselves as liberal, slightly or extremely liberal and 23.6% described themselves as conservative, slightly or extremely conservative (Figure 2B). Seventy participants (6% of total) opted out of the question and entered an alternative descriptive term, for example “socialist” or “libertarian”. The only characteristic affecting scores on this

question significantly was income: higher income was associated with increasing odds of more conservative views ($\exp(\beta) = 1.08$, $p=0.021$, 95% CI 1.03, 1.13).

Previous voting behaviour

Over half of respondents who voted, did so for either Labour (29.3%) or Conservative (26.2%) in the 2015 General Election (Table 2). In the 2017 General Election, the percentage of respondents voting Labour increased to 46.3% and the percentage voting Conservative fell to 19.7%. The doctors in our sample who voted in both elections showed a significant swing away from the Conservatives (6.43%, $B = 23.8$, $p<0.001$), in comparison to an increase in support from the general public. For those who were not eligible or chose not to vote in the 2017 general election, nearly a third (29.6%, 26/88) would have voted for Labour, followed by the Liberal Democrats (22.7%, 22/88) and the Conservatives (21.6%, 19/88). Doctors were far more likely to vote in both elections than the general public.

Table 2 Voting behaviour of participants standardised by region

Vote	Political party/ referendum option	Crude survey data	Region- standardised results ^s	Electoral Commission data [†]
2015 General Election	Labour*	343 (29.3)	14,375,396 (32.4)	9,347,273 (30.4)
(n = 1170)	Conservatives	306 (26.2)	12,782,912 (28.8)	11,334,226 (36.9)
	Liberal Democrats*	233 (19.9)	9,770,105 (22.0)	2,415,916 (7.9)
	Green Party*	75 (6.4)	3,055,848 (6.9)	1,118,425 (3.6)
	Scottish National Party	31 (2.7)	1,291,203 (2.9)	1,454,436 (4.7)
	UKIP*	30 (2.6)	1,162,083 (2.6)	3,881,099 (12.6)
	Other*	48 (4.1)	1,936,805 (4.4)	964,446 (3.7)
	Chose not to vote*	49 (4.2)	1,979,845 (4.3) ^{††}	15,656,672 (33.8) ^{††}
	Not eligible to vote	55 (4.7)	N/A	N/A
2017 General Election	Labour*	538 (46.3)	22,722,571 (50.0)	12,866,949 (39.9)
(n = 1162)	Conservatives*	229 (19.7)	9,645,145 (21.2)	13,584,516 (42.2)
	Liberal Democrats*	196 (16.9)	8,254,854 (18.1)	2,392,494 (7.4)
	Green Party*	37 (3.2)	1,607,524 (3.5)	528,473 (1.6)
	Scottish National Party	28 (2.4)	1,173,058 (2.6)	996,817 (3.1)
	UKIP*	2 (0.2)	86,893 (0.2)	616,754 (1.9)
	Other*	47 (4.0)	1,998,544 (4.4)	1,234,814 (4.3)

	Chose not to vote*	32 (2.8)	1,346,845 (2.9) ^{††}	14,614,616 (31.2) ^{††}
	Not eligible to vote	53 (5.6)	N/A	N/A
EU Referendum	Remain a member of the EU*	890 (76.6)	36,919, 521 (79.4)	16,141,241 (48.1)
(n = 1162)	Leave the EU*	196 (16.9)	8,518,641 (18.3)	17,410,742 (51.9)
	Not eligible to vote	52 (4.5)	N/A	N/A
	Chose not to vote*	24 (2.1)	823,331 (2.2)	12,948,018 (27.8)

Notes: Values are numbers (percentages); n = number of respondents to that question;

[§]Standardised against Electoral Commission results for each region¹⁵⁻¹⁷; [†]Percentage of valid votes;

^{††}Percentage of electorate; EU = European Union; N/A = Not available; UKIP = United Kingdom

Independence Party; *Significant difference between survey and electoral commission data for that category compared to sum of all other categories in that variable

In the 2016 EU Referendum, 79.4% of respondents voted to remain a part of the EU, significantly more than voters as a whole (48.1%) ($\chi^2 = 819.8$, $p < 0.001$). Of those who were not eligible or chose not to vote, 85.5% (65/76) would have voted to remain a member of the EU. Only 2.1% of eligible doctors in our sample chose not to vote in the referendum compared to 27.8% of the electorate.

Nearly all doctors (98.6%) agreed that EU nationals working in the NHS should be able to remain in the UK after leaving the EU. The median score for the impact of Brexit on the NHS on a scale of zero (worst impact) to ten (best impact) was 2 (IQR 1 to 4), with 82.7% (920/1113) of doctors scoring the impact of Brexit as less than five. There were no characteristics associated with significantly different views on the Brexit questions.

Views on health policy issues

The majority of respondents either strongly or somewhat agreed with the introduction of minimum alcohol pricing (73.9%; 95% CI 71.3, 76.4%), charging patients who are not eligible for NHS treatment for non-urgent care (70.6%; 95% CI 67.8, 73.2%) and protecting a portion of national spending for the NHS (87.1%; 95% CI 85.1, 89.0%) (Figure 3).

Public health doctors were the only groups associated with significantly different (exaggerated) views on the introduction of minimum alcohol pricing, with public health as a

specialty increasing the odds of stronger agreement with this policy by a factor of approximately five compared to all other groups ($\exp(\beta) = 5.05$, $p < 0.001$, 95% CI 2.38, 10.71). Specialty was also the only characteristic leading to significantly divergent views on charging of non-eligible patients for non-urgent care, with being a surgeon multiplying the odds of stronger agreement by three compared to the mean of all other specialities ($\exp(\beta) = 2.94$, $p < 0.001$, 95% CI 1.81, 4.78). In contrast, being a psychiatrist ($\exp(\beta) = 0.36$, $p < 0.001$, 95% CI 0.24, 0.55) or public health doctor ($\exp(\beta) = 0.37$, $p = 0.032$, 95% CI 0.21, 0.67) decreased the odds of agreement. With regard to a protected portion of national spending for the NHS funds, the only significant characteristic leading to divergent views was income, with the odds of disagreeing with this policy rising with income level ($\exp(\beta) = 1.14$, $p < 0.001$, 95% CI 1.08, 1.19).

Finally, nearly two-thirds of respondents (65.8%) thought there was too much use of NHS-funded private sector provision in their medical practice (Figure 4). The only characteristic leading to significantly divergent views on this issue was being a surgeon, which more than halved the odds of thinking there was too much use of the private sector ($\exp(\beta) = 0.375$, $p = 0.023$, 95% CI 0.211, 0.622).

DISCUSSION

This is the first large-scale representative investigation of the political opinions of UK doctors to our knowledge. As a group, UK doctors describe themselves as left-wing and liberal. There was a significant shift away from voting Conservative between the last two UK general elections. Specialty and income were associated with self-reported political views, with being a surgeon or having a higher income being associated with more right-wing views and public health doctors and psychiatrists being more left-wing minded. Nearly four fifths of respondents voted to remain a member of the EU, significantly more than the general population, and four out of five doctors assessed the impact of Brexit on the NHS as negative. Nearly all doctors agreed that NHS staff who are EU nationals should be able to remain in the UK. Views on health policy issues tended to align with more left-wing opinions.

The majority of doctors thought that there was too much use of NHS-funded private sector provision, that the UK should introduce minimum alcohol pricing, that there should be a protected portion of national spending for the NHS and that patients should be charged for non-urgent care if they are not eligible for free NHS treatment. However, specialty and income were associated with divergent opinions on these issues.

We obtained a large and generally representative sample of the UK medical workforce and documented their views in relation to specialty, income and place of work. Most respondents qualified in the UK and work in the NHS, therefore their responses are likely to be indicative of UK practice. Our survey design captured a large number of respondents from across the country, specialties and grades, with further targeted sampling for specialty and standardisation for region of residence in order to strengthen representativeness. We cannot rule out selection bias, particularly with an online format, however we attempted to overcome this with additional targeted sampling that enabled us to match the specialty profile of UK doctors and standardisation for region. Ideally, we would have adjusted for age as well, given the slightly older age profile in our sample compared to the general medical workforce, however the information needed to do this was not available. Despite these efforts, it is likely that our sample is not fully representative of other dimensions not examined here, meaning these results should be only taken as an indication of the views of the UK medical workforce. While an online survey software may have exacerbated selection bias, it offers a confidential format that reduces the considerable risk of socially desirable responses on these topics, particularly as participant identifiers were not collected.¹⁸ We acknowledge that our questions were a simplification of complex political identities, but the survey was kept deliberately short to maximise participation. More comprehensive tools are available, such as the Political Compass, and could be considered in future research.¹⁹ In particular, the numerical scale for left versus right wing scales could have been improved through the use of anchoring vignettes or reference points.²⁰ The question we used on liberal versus conservative views was designed for an American context and therefore may be less well-suited to the UK setting, however all terms are common in UK political discourse and were

recognisable and understood readily in our piloting.²¹ We could not restrict multiple entry of data from a single participant or non-UK doctors from taking the survey, however we think this is unlikely as the majority of our respondents were GMC-registered members of Doctors.net.uk.

With the challenges imposed on UK health services from leaving the EU now widely recognised in the medical community, the consensus among UK doctors on the negative impact of Brexit is perhaps not surprising.^{22 23} Doctors' support for EU staff is mirrored in the general population, with a recent survey finding that nearly nine out of ten people believe that NHS staff from the EU should be allowed to continue working in the UK post-Brexit.²⁴ With regard to NHS funding and service delivery, 55% of the general public would prefer to use a NHS-provided service, up from 39% in the 2014 British Social Attitudes survey.^{24 25} In addition, 88% of the general public believe that the NHS should be tax-funded, remarkably similar to the 87.2% of doctors in this sample, with two thirds of the general population agreeing that taxes should be increased to fund the NHS, as now suggested by former Minister Nick Boles.^{24 26} We could not identify any similar research on the political opinions of healthcare professionals in the UK. In this vacuum, our study has provided evidence for the first time on long-held stereotypes on the political views of different medical specialties. Indeed, differences in medical specialties have been shown from car ownership to coffee purchases, so political opinions may be just an extension of this divergence.^{27 28}

Our results suggest that the Conservative government lost support from doctors between the 2015 and 2017 UK general elections. Given that more of the electorate voted Conservative in 2017 than in 2015, this suggests that our representative sample of doctors reacted differently to the events of the intervening two years than the general population. The 2017 general election was widely seen as a mandate for the government's stance on a 'hard' Brexit, and this swing may therefore reflect doctors' assessment of largely negative consequences of Brexit for the NHS. Doctors would also be acutely aware of the contribution of their EU colleagues in the NHS and the impact of continued government ambiguity on the status of EU citizens in the UK post-Brexit. Despite the medical and public support for EU

nationals in the NHS, lack of official clarity on their post-Brexit status has likely contributed to the 96% reduction in nurses applying to work in the UK since the referendum and growing resignations among EU-trained ambulance staff.^{29 30} Alternatively, the reduction in support for the current government may reflect discontent with declines in real wages, reduction in NHS and local government funding, and changes to junior doctor contracts.^{5 10 13 31}

Another finding in this study was broad support for minimum alcohol pricing, which has just been introduced in Scotland.³² Strong backing for this policy among doctors from across the UK should lend support to its wider implementation. There was overall agreement with the policy introduced in 2017 of charging patients not eligible for NHS treatment upfront for non-urgent care.³³ This is despite debate on the practicalities and relevance of this policy, which is more likely to affect migrants to the UK rather than so-called “health tourists”.^{34 35} We speculate that the varying views of surgeons compared to psychiatrists and public health doctors may be due to a difference in patient interactions, understanding of the overall impact of barriers to the health service access, or their underlying political opinions. Finally, the finding of political opinions aligned by specialty has implications for medical leaders and educationalists. It may be that doctors self-select into specialties with similar views to their own. Alternatively, the specialties themselves may reinforce political opinions. It is easy for specialists to exist in their own echo chambers, with views reinforced by colleagues and a lack of exposure to contrasting viewpoints. This is a trend noted in wider society, with concerns that such siloed dialogue leads to greater political polarisation.^{36 37} Efforts to break down stereotypes and engage across specialties may improve multidisciplinary teamworking and diversity in specialty recruitment.

Further work is essential to obtain a better understanding of UK doctors’ political identities, particularly the economic and societal differences. This is important as the political ideology of doctors has been shown to influence clinical decisions on contentious issues in other contexts.³⁸ This study provides a starting point for understanding the political views of doctors during a tumultuous period for the UK. Given the health impact of political and

economic decisions, doctors have an important role in public debates; one which might be further developed in the public's interest.

References

1. Ipsos MORI Social Research Institute. Ipsos MORI Veracity Index 2015. London: Ipsos MORI, 2016.
2. Trueland J. Raise a glass to minimum alcohol pricing London: British Medical Association; 2017 [Available from: <https://www.bma.org.uk/news/2017/november/raise-a-glass-to-minimum-alcohol-pricing>].
3. House of Commons. Health Committee - First Report. Alcohol. London: The Stationery Office, 2009.
4. McKee M, Hurst L, Aldridge RW, et al. Public health in England: an option for the way forward? *The Lancet*;378(9790):536-39. doi: 10.1016/S0140-6736(11)60241-9
5. Sutaria S, Roderick P, Pollock AM. Are radical changes to health and social care paving the way for fewer services and new user charges? *BMJ* 2017;358 doi: 10.1136/bmj.j4279
6. Hawkins O, Keen R, Nakatudde N. General Election 2015. Briefing Paper. Number CBP7186. London: House of Commons Library, 2015.
7. Apostolova V, Audickas L, Baker C, et al. General Election 2017: results and analysis. Second edition. Briefing Paper Number CBP 7979. London: House of Commons Library, 2017.
8. Iacobucci G. A third of NHS contracts awarded since health act have gone to private sector, BMJ investigation shows. *British Medical Journal* 2014;349:g7606. doi: 10.1136/bmj.g7606
9. Ham C, Baird B, Gregory S, et al. The NHS under the coalition government. Part 1: NHS reform. London: King's Fund, 2015.
10. Appleby J. NHS spending: squeezed as never before. . London: King's Fund, 2015.
11. NHS Improvement. Quarter 4 Performance Report. London: NHS Improvement, 2016.
12. British Medical Association. Workload, recruitment, retention and morale. A BMA member briefing for the 3 May 2016 Special Representative Meeting. 2016
13. Rimmer A. The impact of the junior doctor contract—one year on. *BMJ* 2017;358 doi: 10.1136/bmj.j4125
14. Pabayo R, Kawachi I, Muennig P. Political party affiliation, political ideology and mortality. *J Epidemiol Community Health* 2015;69(5):423-31. doi: 10.1136/jech-2014-204803 [published Online First: 2015/01/30]
15. The Electoral Commission. 2015 UK Parliamentary General Election results. London: The Electoral Commission, , 2015.
16. The Electoral Commission. 2017 UK Parliamentary General Election results. London: The Electoral Commission, 2017.
17. The Electoral Commission. EU Referendum results data. London: The Electoral Commission, 2016.
18. Burkill S, Copas A, Couper MP, et al. Using the Web to Collect Data on Sensitive Behaviours: A Study Looking at Mode Effects on the British National Survey of Sexual Attitudes and Lifestyles. *PLoS ONE* 2016;11(2):e0147983. doi: 10.1371/journal.pone.0147983
19. The Political Compass. The Political Compass. Available at: <https://www.politicalcompass.org/>. Accessed 18 December 2017 [
20. King G, Wand J. Comparing Incomparable Survey Responses: New Tools for Anchoring Vignettes. *Political Analysis* 2007;15:46-66.
21. Pabayo R, Kawachi I, Muennig P. Political party affiliation, political ideology and mortality. *Journal of Epidemiology and Community Health* 2015;69(5):423-31. doi: 10.1136/jech-2014-204803

22. Fahy N, Hervey T, Greer S, et al. How will Brexit affect health and health services in the UK? Evaluating three possible scenarios. *The Lancet* 2017;390(10107):2110-18. doi: 10.1016/S0140-6736(17)31926-8
23. Selby P, Lawler M, Banks I, et al. The EU: what's best for UK cancer research and patients? *The Lancet Oncology*;17(5):556-57. doi: 10.1016/S1470-2045(16)30063-8
24. The Health Foundation. What does the public think about NHS and social care services? . London: The Health Foundation, 2017.
25. Park A, Bryson C, Curtice Je. British Social Attitudes: the 31st Report. London: NatCen Social Research, 2014.
26. Boles N. The Square Deal2018.
27. Giesinger K, Hamilton DF, Erschbamer M, et al. Black medicine: an observational study of doctors' coffee purchasing patterns at work. *BMJ* 2015;351 doi: 10.1136/bmj.h6446
28. Cooke FJ, Morris J, Richards DB, et al. Bangers and cash: multicentre survey of what doctors are driving. *BMJ* 1999;319(7225):1616-17. doi: 10.1136/bmj.319.7225.1616
29. The Health Foundation. New data show 96% drop in nurses from EU since July last year. Available at: <http://www.health.org.uk/news/new-data-show-96-drop-nurses-eu-july-last-year>. Accessed 18 December 2017 London: The Health Foundation; 2017 [
30. Campbell D. Fears of Brexit drain as more EU27 ambulance staff quit the NHS. *The Observer* 2018.
31. Bryson A, Forth J. Wage growth in pay review body occupations. Report to the Office of Manpower Economics, 2017.
32. Christie B. Minimum alcohol pricing goes ahead in Scotland after drinks industry loses legal battle. *BMJ* 2017;359 doi: 10.1136/bmj.j5302
33. Department of Health. Patients not eligible for free NHS care to be charged up-front for non-urgent treatment. London: Department of Health, 6 Feb 2017.
34. Hanefeld J, Mandeville K, Smith R. Making "health tourists" pay for care. *BMJ* 2017;356 doi: 10.1136/bmj.j771
35. Doctors of the World. Deterrence, delay and distress: the impact of charging in NHS hospitals on migrants in vulnerable circumstances. London: Doctors of the World, 2017.
36. Del Vicario M, Zollo F, Caldarelli G, et al. Mapping social dynamics on Facebook: The Brexit debate. *Social Networks* 2017;50(Supplement C):6-16. doi: <https://doi.org/10.1016/j.socnet.2017.02.002>
37. Karsten J, West DM. Inside the social media echo chamber. Washington, D.C.: The Brookings Institute, 2016.
38. Hersh ED, Goldenberg MN. Democratic and Republican physicians provide different care on politicized health issues. *Proceedings of the National Academy of Sciences* 2016;113(42):11811-16. doi: 10.1073/pnas.1606609113

FIGURES

Figure 1 Speciality of respondents

*Figure legend: * Significant difference between survey and GMC data for that specialty compared to sum of all other specialties*

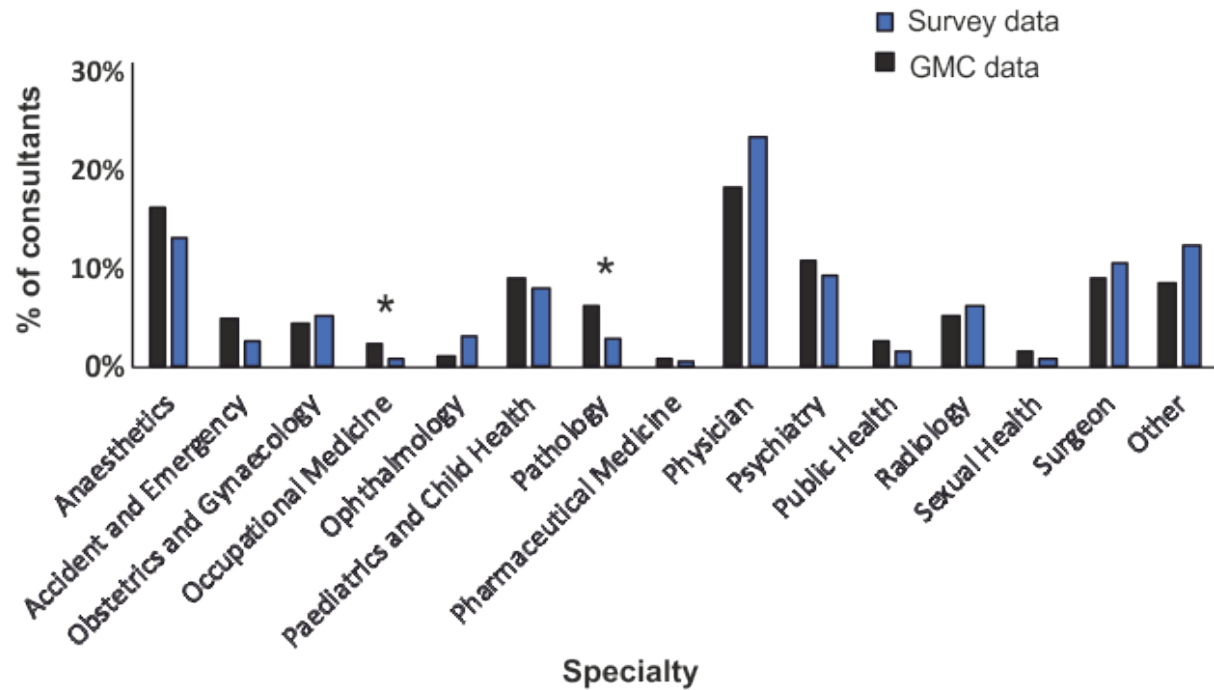


Figure 2: Participants' political views

- A. Participants' political views on a left to right wing scale B. Political term that best describes respondents' political views.

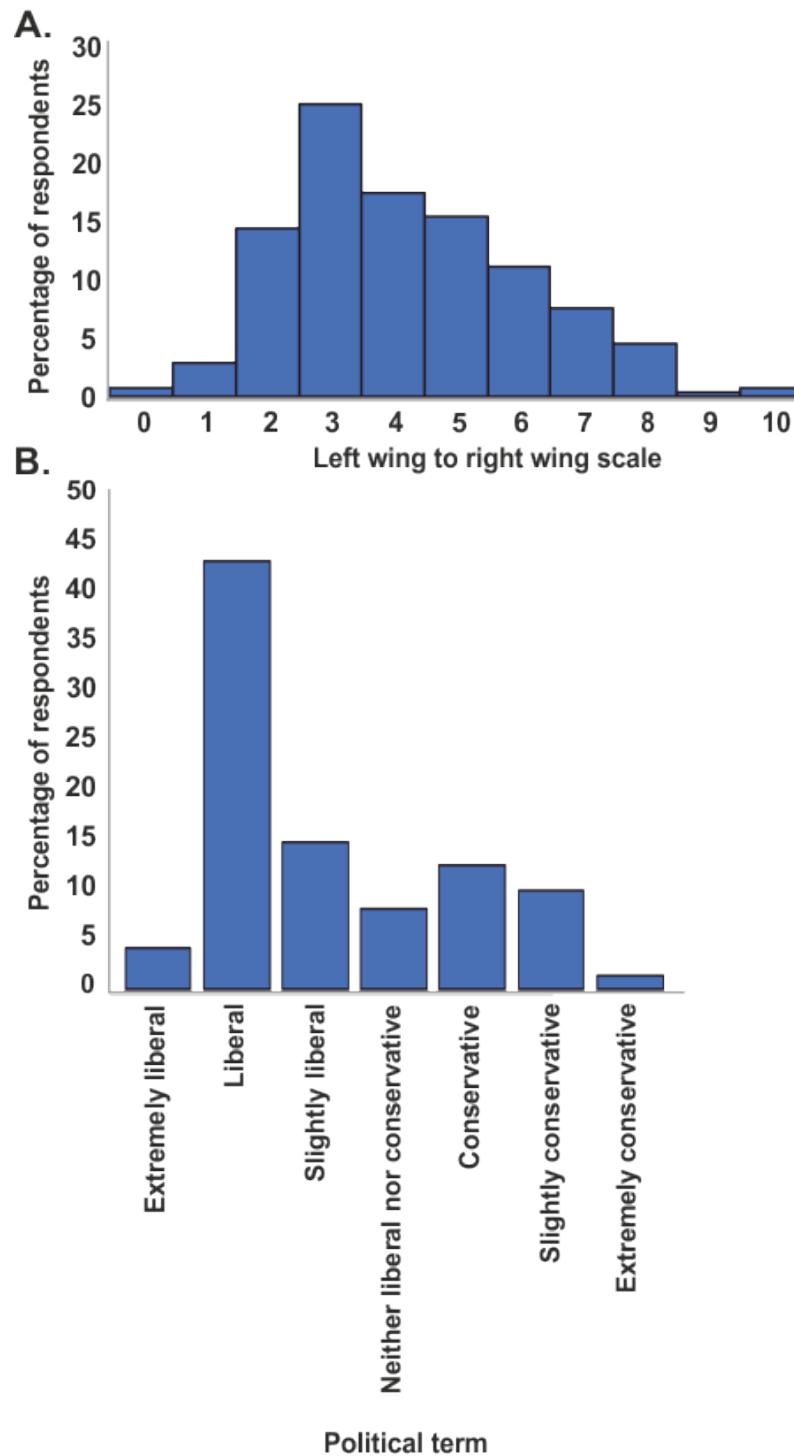


Figure 3: Participants' views on topical health issues

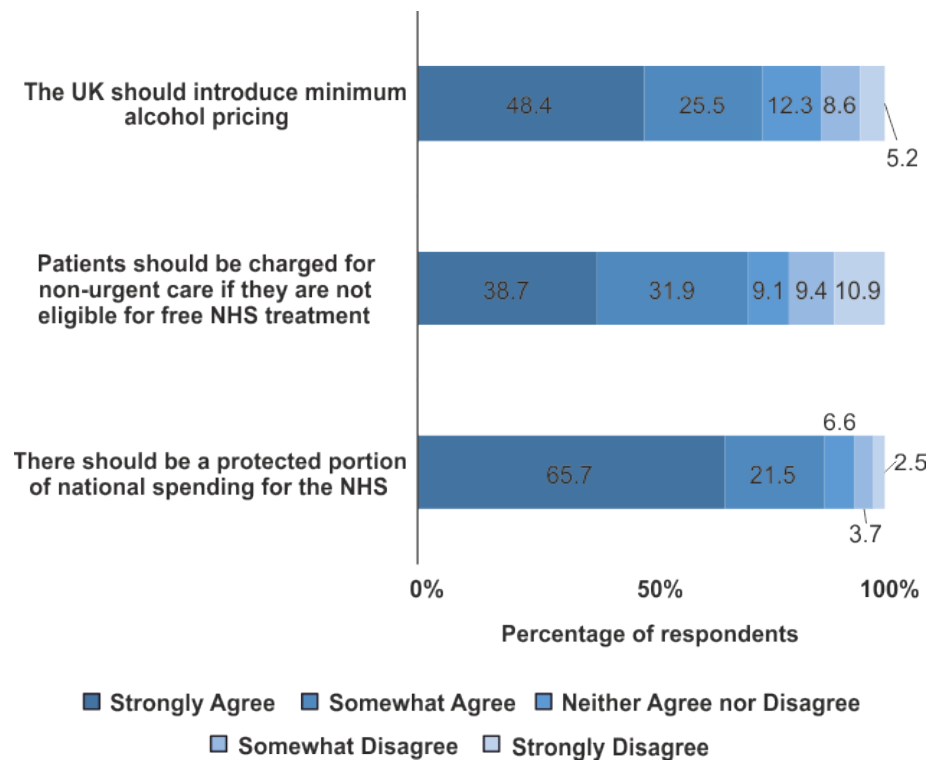
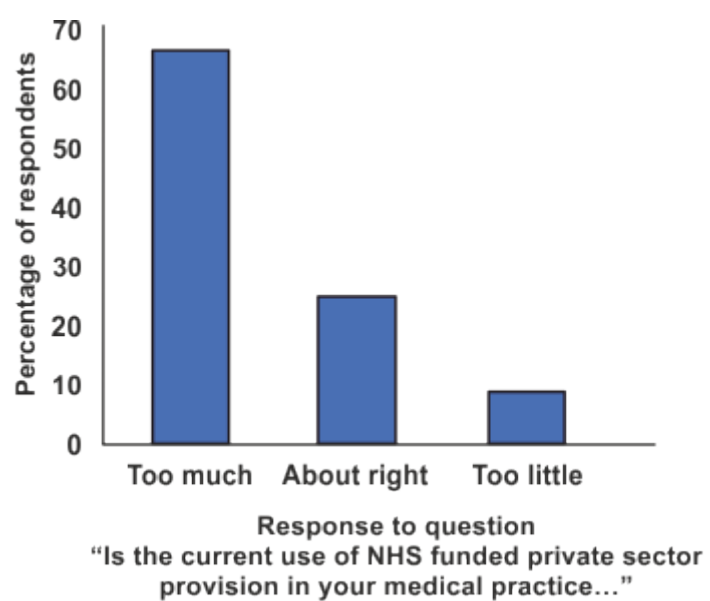


Figure 4: Participants' views on NHS funded private sector provision



Competing interests

All authors have completed the ICMJE uniform disclosure form at www.icmje.org/coi_disclosure.pdf and declare the following relationships: Dr Mohan has been an unpaid member of the British Medical Association Council since 2013.

We, the authors, declare no other support from any organisation for the submitted work; no financial relationships with any organisations that might have an interest in the submitted work in the previous three years; no other relationships or activities that could appear to have influenced the submitted work.

Ethics approval

Ethics approval was obtained from UCL Ethics Committee for this study (2744/004).

Sources of funding

No specific funding was received for this study. DD and JH salary funding from NIHR. This paper presents independent research funded by the National Institute for Health Research (NIHR). The views expressed are those of the authors and not necessarily those of the NHS, the NIHR or the Department of Health.

Details of contributors

DD conceived the study. DD, KLM, JH, SS, CW and RS designed and piloted the survey instrument. RS, DD, KLM, SS, JH, KY, KM and IW collected the data. RS, KY and KLM analysed the data. KLM wrote the first draft of the manuscript, to which all authors contributed and reviewed.

Acknowledgements

We would like to thank members of doctors.net, in particular Dr Neil Reynolds who constructively commented on the questionnaire.

Delan Devakumar is the guarantor for this study.

Data

All authors, external and internal, had full access to all of the data (including statistical reports and tables) in the study and can take responsibility for the integrity of the data and the accuracy of the data analysis.

Transparency declaration

I, Delan Devakumar, affirm that the manuscript is an honest, accurate, and transparent account of the study being reported; that no important aspects of the study have been omitted; and that any discrepancies from the study as planned (and, if relevant, registered) have been explained.

Data sharing statement

Data sharing: The full anonymised dataset (with aggregation for small numbers) is available from the corresponding author. Participants gave informed consent for data sharing with other researchers.

The Corresponding Author has the right to grant on behalf of all authors and does grant on behalf of all authors, an exclusive licence (or non-exclusive for government employees) on a worldwide basis to the BMJ Publishing Group Ltd and its Licensees to permit this article (if accepted) to be published in JECH editions and any other BMJ PGL products to exploit all subsidiary rights, as set out in our licence.

[\(http://group.bmj.com/products/journals/instructions-for-authors/licence-forms/\)](http://group.bmj.com/products/journals/instructions-for-authors/licence-forms/).