



Corporate Strategy and Perceptions Tracking 2020: Technical Appendix

Prepared by IFF Research for the General Medical Council

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Technical Appendix

Overview

The research outlined in the main report consisted of seven strands with seven different audiences. Six audiences (doctors, ROs, medical students, educators, providers and the public/patients) took part in online surveys, while key stakeholders were surveyed by telephone.

The following table summarises the key details on approach and response for each survey audience.

Audience	Method	Total number of responses	Invited to participate	Response rate
Doctors	Online	2169 doctors	22054 (following opt-out exercise)	10%
Responsible Officers	Online	101	556 (following opt-out exercise – attempted census)	18%
Public and patients	Online	2040 ¹ : 1530 patients (75% of total) 471 public (23% of total)	N/A	N/A
Providers	Online, with follow-up telephone calls made to private providers	406	8248	5%
Educators	Online	35	243 (attempted census)	14%
Medical students	Online	901	7657 (following opt-out exercise – attempted census)	12%
Stakeholders	Computer Assisted Telephone Interviewing	51	86 (attempted census)	59%

¹ 39 individuals do not fall into either category as they did not wish to disclose this information.

The number of responses among doctors, medical students, providers and among patients / the public, provide robust base sizes for analysis, including some analysis by subgroup. The base size among ROs is smaller, and for stakeholders and educators is particularly small (driven by the low population sizes), therefore little sub-group analysis is possible among these audiences.

Stakeholders were interviewed on the basis that their responses would be attributable at an organisational level (to the GMC but not publicly). That said, all were given the opportunity to provide feedback on an anonymous basis.

The response rates outlined above are in line with other, similar studies that IFF Research conducts, and broader industry standards.

Sampling

The sampling strategy for each audience is outlined in detail below.

Doctors

The doctors' sample was sourced from the GMC's medical register. Records were only provided for licensed doctors where the GMC held an email address for the individual, the doctor had a UK registered address, and they had not opted out of previous research exercises. Further exclusions were also applied, for example doctors who were suspended or who were involved in a current Fitness to Practise investigation at the time the sample was extracted were excluded.

From this file, IFF Research drew an anonymised, stratified sample that was representative of the licensed doctor population by age, gender, ethnicity, place of Primary Medical Qualification (PMQ)² and registration type³ but over-sampled by certain sub-groups within country (each of the devolved nations) and ethnicity (Black doctors) to ensure minimum base sizes for analysis. The selected sample was then contacted by the GMC to provide them with the opportunity to remove themselves from the research prior to the commencement of fieldwork.

Once this process was completed, an initial survey invite was sent to doctors by IFF Research and over the five weeks of fieldwork, four further 'reminder' invites were sent, approximately one per week.

IFF Research did not use a quota-based approach during fieldwork; rather the profile of those responding were allowed to 'fall out' naturally, and then any small differences between the population and the survey profile were corrected using a simple weighting approach described in the 'weighting' section below.

² The three groups here were: UK, EEA (European Economic Area) or IMG (International Medical Graduates)

³ The types of registration included: Specialist, GP, Trainee and Other doctors (not on the GP or Specialist Registers and not in training).

Responsible Officers

The sample for the RO research was sourced from the GMC's medical register, with ROs having been excluded from the doctors' data extract so they could be dealt with separately. All ROs were contacted by the GMC to give them the opportunity to remove themselves from the research. An initial invite was followed by four reminder emails over the five weeks of fieldwork.

The profile of those responding was allowed to fall out naturally, and then compared to the population profiles to determine whether weighing would be required – this is discussed in more detail in the weighting section below.

Medical students

The sample for all final year UK medical students was sourced from the GMC's medical register. All medical students with an email address were contacted by the GMC to give them the opportunity to remove themselves from the research. An initial invite was followed by four reminder emails over the five weeks of fieldwork.

A chance to enter a £250 prize draw was offered to all completing the survey.

The profile of those responding was allowed to fall out naturally, and then compared to the population profiles to determine whether weighing would be required – this is discussed in more detail in the weighting section below.

Educators

The GMC provided the records of undergraduate and postgraduate Deans and Quality Leads at medical education institutions in the UK. A census approach was taken due to the limited amount of sample available (243 records). The profile of those responding was allowed to fall out naturally, and then compared to the population profiles to determine whether weighing would be required.

Providers

Sample for the providers research was sourced from a healthcare database provider. Based on response rates achieved in previous IFF surveys with this audience, sample was ordered on a 5:1 ratio. The sample design aimed to balance comparability with the baseline against maintaining a fit with the population profile.

To allow for some comparison with the baseline research, the sample draw included an equal split between primary and secondary care providers. As there are relatively few secondary care organisations in the population, this necessitated drawing multiple contacts from NHS Trusts / Local Health Boards.

However, the sampling approach differed from the baseline research in other respects, meaning that a direct comparison over time should be treated with caution. For example, fewer CCGs were sampled in the research this year than previously: given that CCGs are based in England only, this decision was taken to ensure the achieved sample better reflected the geographical spread of the provider universe.

Due to the differences in organisational structure by country, it was not possible to draw an even split of primary and secondary care organisations within country, nor was it possible to achieve the base sizes in each devolved nation which would have allowed for sub-group analysis by country (this would have necessitated sampling more than 100 contacts from each Trust / Health Board).

To enable sub-group analysis by public vs private sector providers, a target of a minimum of 100 interviews with private providers was set. The scarcity of contacts in the private sector meant all records received an invite to the survey, and telephone interviewing was used to boost response rate among this sub-group.

The following job titles were invited to take part:

- Chairman
- Vice/Deputy Chairman
- Chief Officer
- Non-Executive Director
- Other top-level Directors
- Accountable Officers (CCG)
- Clinical Lead (CCG)

NB. previous research with providers has included Responsible Officers, who were interviewed separately in this year's research. Again, this means that comparisons with previous years should be treated with caution.

Stakeholders

The GMC provided the records of the person within each stakeholder organisation who it was felt had had most prior contact or engagement with the GMC. Stakeholders included education bodies, employer organisations, health departments, public bodies, professional bodies and regulators. A census approach was taken due to the limited amount of sample available (86 records). Referrals were taken within each organisation where this was requested by the original contact.

Patients and the public

The public and patient survey was carried out over two weeks via an online panel. Quotas were applied on the following demographic variables to ensure that the sample was nationally representative of the UK population: age, gender, socio-economic grade, and NHS region. On top of this, a boost to achieve 100 completes in each of the devolved nations was applied.

Weighting was used at analysis stage to bring the sample in line with the population profile on region and ethnicity.

Weighting

Final data for doctors, medical students, and patients and the public, were weighted prior to analysis to ensure that results were reflective of the population of licensed doctors, final year medical students and the general population, respectively.

Doctors

Survey responses were weighted to reflect the population of licensed doctors by region, registration status, ethnicity and gender.

The following table shows the demographic profile achieved in the survey, the weighting targets, and then the post-weighted profile, of doctors. The post-weighting profile does not match every target exactly as rim weighting on several variable works to achieve a 'best fit'.

Profile category		Survey profile (%)	Population figures / weighting targets (%)	Post-weighting profile (%)
Region	East of England	7%	8%	8%
	London	14%	18%	16%
	Midlands	12%	14%	13%
	North East & Yorkshire	10%	12%	11%
	North West	10%	11%	11%
	South East	11%	12%	11%
	South West	8%	8%	8%
	Northern Ireland	6%	3%	3%
	Scotland	12%	8%	8%
	Wales	7%	4%	4%
	Unallocated/other	2%	3%	3%
	Registration	Doctors in training	19%	24%

status	Doctors on GP register	24%	24%	24%
	Doctors on specialist register	34%	31%	32%
	Other doctors	22%	21%	21%
Ethnicity	Asian or Asian British	20%	27%	25%
	Black or Black British	6%	5%	5%
	Mixed	2%	2%	2%
	White	57%	53%	49%
	Other	3%	4%	4%
	Not recorded	11%	9%	15%
Gender	Male	56%	52%	52%
	Female	44%	48%	48%

Patients and the public

Results for patients and the general public were weighted to be nationally representative of all British adults aged 18+, by age, gender, region, ethnicity and socio-economic grade.

Medical students

Survey responses were weighted by gender to bring the profile in line with the population. There were no other significant variations in the demographic profile of those who took part in the survey compared to the population.

Responsible Officers

The survey data for ROs were not weighted. This was because the survey was sent to the entire RO population with no over-sampling, and so we would only need to potentially correct for non-response, and there were few non-response differences. There were also very few differences in the RO survey results by country, age, ethnicity or PMQ area, and given the relatively small base size of 101, we did not want to reduce this any further by adding weighting that did not seem wholly necessary.

Educators

The survey data for educators were not weighted. As with ROs, this was because the survey was sent to the entire population with no over-sampling, and so we would only need to potentially correct for non-response, and there were few non-response differences. Applying any weighting would also further reduce the effective base size, which would present a challenge given the relatively small base size achieved.

Providers

The survey data for providers were not weighted. The sample was designed to allow for comparability with baseline, and to ensure coverage by key sub-groups (necessitating an over-sampling of private sector and secondary care organisations), while maintaining a fit with the population as far as possible. There were no reliable population statistics available for staff within secondary care organisations (only for the number of organisations overall), hence weighting was not applied.

Stakeholders

The stakeholder survey data were not weighted due to the small base size (51) and because of the high response rate of 59%: together this means that data weighting would have little effect in enhancing the survey's level of representativeness.

Key Driver Analysis

A 'key driver analysis' (KDA) using linear regression was run to explore the relative impact on perceptions of the GMC, in relation to doctors confidence in the GMC's regulation of doctors and the extent to which doctors feel supported by the GMC to deliver good, safe care.

The advantage of a multivariate approach, such as a KDA, is that it considers the impact of each variable on the dependant variable (here, confidence in the GMC's regulation of doctors or feeling supported by the GMC to deliver good, safe care), while at the same time controlling for other variables. If the model finds a particular variable is statistically significant and has an effect on perceptions, we know this relationship exists having taken into account other variables.

Various regression methods were employed to identify the optimum model to explain doctors perceptions of the GMC.⁴ The final model used the 'backward elimination' method, which begins by including all variables to begin with and then sequentially removing those with no effect followed by those that where no statistically significant effect can be identified.

⁴ Methods explored were: 'enter' which includes all variables at the same time and 'forward' which looks at the relationship between each variable and the dependent variable (total costs) and adds them cumulatively to build a model consisting of those with a significant effect that creates the optimum model for explaining as much of the dependent variable as possible.

Table 1.1 shows the variables considered as part of the modelling.

Table 1.1 List of explanatory variables included in the key driver analysis

Initial explanatory variables included
Model 1: Doctor's confidence in the GMC's regulation of doctors
Trust in the GMC to register doctors who have the right qualifications and skills
Trust in the GMC to check that a doctor is up to date and safe to practise
I know under what circumstances I should raise a concern about an individual doctor with the GMC
I know under what circumstances I should raise a concern about the quality and safety of a local training / practice environment with the GMC
The GMC addresses the right type of concerns about doctors, focusing on the most serious concerns and expecting less serious ones to be resolved locally
The GMC takes action to protect patients before they are put at risk
The GMC promotes and maintains public confidence in the medical profession
The GMC is improving the way it deals with a concern about a doctor's practice or behaviour
Visited the GMC website to access guidance and learning materials in the last 12 months
Have had verbal or written advice from the GMC in the last 12 months
Have taken part in a GMC learning session (e.g. a session by liaison advisors etc.)
Felt unable to cope with workload in the last 12 months
Had to take a leave of absence due to stress in the last 12 months
Found it difficult to provide a patient with the sufficient level of care they need in the last 12 months
Considered leaving the medical profession in the last 12 months
Felt unsupported by the management or senior management in the last 12 months
Felt unsupported by my immediate colleagues in the last 12 months
Model 2: The extent to which doctors feel supported by the GMC to deliver good safe care
The GMC is helping to make appraisal and revalidation more straightforward
The GMC is helping to change doctors' training and education to make it fairer and more flexible
The GMC protects the quality of doctors' training and education when there are concerns
Visited the GMC website to access guidance and learning materials in the last 12 months
Have had verbal or written advice from the GMC in the last 12 months
Have taken part in a GMC learning session (e.g. a session by liaison advisors etc.)
Felt unable to cope with workload in the last 12 months
Had to take a leave of absence due to stress in the last 12 months
Found it difficult to provide a patient with the sufficient level of care they need in the last 12 months
Considered leaving the medical profession in the last 12 months
Felt unsupported by the management or senior management in the last 12 months
Felt unsupported by my immediate colleagues in the last 12 months

The final model for doctor's confidence in the GMC's regulation of doctors explains 53% of the variance in the data, which means if trying to predict confidence in the GMC's regulation of doctors using the information gathered, our prediction would be improved by 53% compared with not having that information. The percentages shown in the charts in the main report are the proportion of variance explained by each factor, rounded to zero decimal places.

The final model for doctor's confidence in the GMC's regulation of doctors explains 45% of the variance in the data.

Segmentation

The following questions were used to derive the doctor segmentation referenced under Strategic Aim 3:

Segment	1	2	3	4	5	6
Title	'Fully on board'	'Assume all fine'	'Perceive lack of direction'	'Need persuasion of GMC ability'	'Informed dissenters'	'Assume the worst'
Definition	B1 <= 2 & C4 <= 2 & H7 <= 3	B1 <= 2 & C4 <= 2 & H7 >=4	B1 <= 2 & C4 >=3	B1 >=3 & C4 <= 2	B1 >=3 & C4 >=3 & H7 <= 3	B1 >=3 & C4 >=3 & H7 >=4
Size of segment (unweighted)	456	90	419	110	649	445