

How might COVID-19 affect the number of GPs available to see patients in England?

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Key points

- NHS England has suggested that NHS staff at potentially higher risk from coronavirus (COVID-19) are risk assessed and have their activities adjusted accordingly, including ceasing face-to-face patient contact.
- In England, many GP practices have shifted to a 'telephone first' approach to providing patient care. But some people need face-to-face consultations for specific health problems, and all patients should have access to face-to-face consultations if clinically necessary to provide good care.
- We apply risk scoring to calculate the number of GPs practising in England who are likely to be at high or very high risk of death from COVID-19. We estimate that of the 45,858 GPs in our sample, 7.9% are at high or very high risk. This is likely to be a conservative estimate.
- GPs at very high risk of death from COVID-19 are more likely to be working in areas of high socioeconomic deprivation.
- Almost one in ten GP practices (9.4% or 639 out of 6,771) are run by a single GP. These practices serve 2,497,159 patients and are particularly vulnerable to COVID-19 related disruption should the single-handed GP fall ill or die of COVID-19.
- Almost one in three of these single-handed GP practices (32.7%, or 209 out of 639) are run by a GP we estimate to be at high or very high risk from COVID-19. If these GPs were to not see patients face-to-face, 710,043 patients would be left without face-to-face GP appointments. Single-handed GP practices in areas of high socioeconomic deprivation are more likely to be run by a GP at higher risk of COVID-19.
- There is a timely opportunity to provide additional support to keep GPs and patients safe. CCGs must ensure that they are aware of gaps in face-to-face provision of core general practice services, and must work with practices and primary care networks to find solutions. This may require additional funding to 'buy in' locum support, or to compensate GPs for providing additional cover.

Introduction

As the NHS shifts to the ‘second phase’ of responding to the COVID-19 pandemic, general practice has to learn to work alongside the virus. For a service widely considered to be the ‘front door’ of the NHS, this is a challenge. Strategies already in use are likely to be maintained, including seeing patients with suspected COVID-19 at separate sites (so called ‘hot hubs’), and using telephone and video consulting to reduce face-to-face contact where possible. But these can only go so far. The number of patients requiring face-to-face consultations is likely to creep up over time (as examinations and tests can no longer be deferred), and with this comes the potential for greater exposure of GPs to COVID-19.

Risk factors

The risk of catching COVID-19 – and of dying from it – is not equally distributed between GPs. Relatively early in the pandemic, [NHS England issued guidance](#) identifying three risk factors used to guide managers in conversations with staff about increased vulnerability to COVID-19. These risk factors were: being aged 70 years or older, selected underlying health conditions and pregnancy.¹

Although ethnicity was not originally included as a risk factor, this has since been recognised as an important omission. Morbidity and mortality from COVID-19 is higher among black and minority ethnic people, and the vast majority of COVID-19 deaths in health care workers have been among black and minority ethnic staff – despite these workers accounting for 21% of the NHS workforce.^{2,3,4}

At the end of April 2020, following widespread media coverage of NHS staff deaths, NHS England issued expanded guidance recommending that NHS employees deemed to be at higher risk from COVID-19 be redeployed to roles without face-to-face patient contact. The NHS risk reduction framework was developed to help guide managers in conversations with staff around risk.^{5,6}

Implications for general practice

Unlike secondary care, where individuals often work as part of large teams, GPs tend to work in smaller teams, and sometimes as the sole medical practitioner responsible for a surgery (so-called ‘single handed’ practice). The impact of removing GPs from face-to-face patient duties may be harder to compensate for. And in some cases this may leave an entire patient population without a GP they can consult with in person, in a manner that is safe for the GP and patient.

NHS system leads must plan for how to provide care to patients affected by these gaps in GP provision. Recognising this problem is a key first step. Understanding the scale of the problem – the number of GPs that may be restricted in consulting with their patients face-to-face due to COVID-19 risk, and where those GPs are working – is then vital.

We draw attention to this by calculating how many GPs currently practising in England are likely to be at high personal risk from COVID-19. We analyse whether these GPs are concentrated in particular geographical areas, and the correlation of this with socioeconomic deprivation. We also calculate the number of single-handed practices being run by GPs likely to be at high risk from COVID-19, and the number of patients covered by these GPs.

About this research

Detailed study methodology and supplementary data are provided in the appendix.

We used primary care workforce data, from [the most recent release of the General Practice Workforce series](#)⁷ to categorise GPs by age, sex, country of qualification, primary job role and clinical commissioning group (CCG). Data series on GP practices are used to identify single-handed GP practices, and ONS data are used to capture deaths from COVID-19. We used COVID-19 risk assessment frameworks for health care staff, including the NHS risk reduction framework and the safety assessment and decision score (SAAD score) to guide our understanding of the key characteristics that contribute to the level of risk from COVID-19 faced by GPs. Age-sex specific COVID-19 mortality rates were used to create a risk scoring system for GPs, with adjustment made for ethnicity based on ONS data. We used country of qualification as a proxy for ethnicity for the purposes of risk scoring. Proxying country of qualification for ethnicity is not perfect (see section on underestimation below), but is an accepted practice in research of this type, as GP workforce data do not include ethnicity data for GPs. The resulting risk scores allowed us to categorise GPs into four risk categories of death from COVID-19 – low, medium, high and very high risk.

What did we find?

Although the majority of GPs practising in England are at low risk of death from COVID-19, a significant proportion of GPs – 7.9% (3,632 GPs) – are at high or very high risk. Summary statistics describing the 45,858 GPs and 639 single-handed GP practices used in our analysis are included in the appendix.

Our analysis suggests that a large majority of GPs older than the age of 70 are likely to be from a black and minority ethnic background. We also see that locums are substantially over-represented among GPs at very high risk from COVID-19. Less than 10% of the GP workforce are locums, but locums make up 17% of GPs at very high risk (Figure 1).

Figure 1



In this analysis we apply risk scoring to calculate the number of GPs practicing in England who are likely to be at high or very high risk of death from COVID-19.

We used COVID-19 risk assessment frameworks for health care staff to guide our understanding of the key characteristics that contribute to the level of risk from COVID-19 faced by GPs. The resulting risk scores allowed us to categorise GPs into four risk categories of death from COVID-19 – low, medium, high and very high risk.

Coding COVID-19 risk

Our categories:



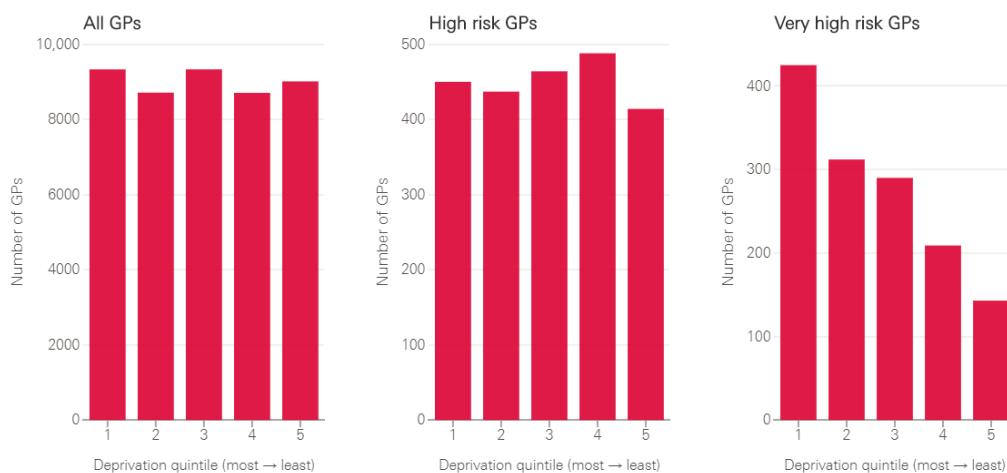
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GPs at very high risk of death from COVID-19 are more than three times as likely to be working in the most deprived CCGs in the country than they are to be working in the most affluent CCGs (Figure 2).

Figure 2

GPs at very high risk of death from COVID-19 are more likely to be working in areas of high deprivation

Distribution of COVID-19 mortality risk for GPs by CCG IMD quintile: England, 2019



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Source: NHS Digital, General Practice Workforce – 31 March 2020, 2020 • Note: COVID-19 risk scores: Low (0–1), Medium (1–4), High (4–9), Very high (>9), deprivation quintiles based on population weighted Index of Multiple Deprivation 2019 rank at CCG level

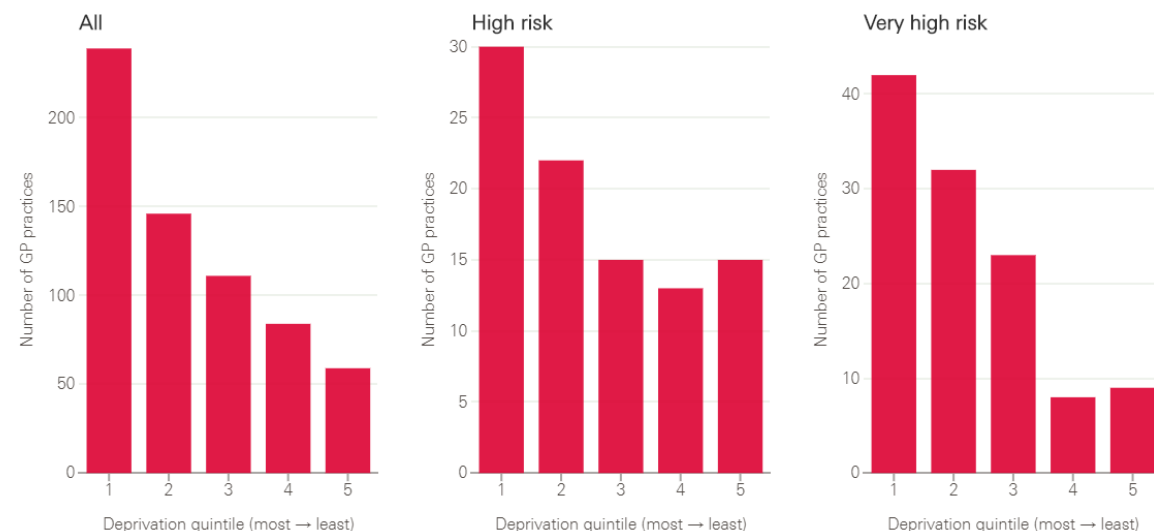
Almost one in ten GP practices (9.4% or 639 out of 6,771) are run by a single GP. These practices serve 2,497,159 patients. Of these single-handed GP practices, nearly one in three (32.7%) are run by a GP at high or very high risk from COVID-19. The socioeconomic distribution of single-handed GP practices displays a steep deprivation gradient, and these surgeries are far more likely to be located in less affluent areas (Figure 3).

Single-handed practices run by GPs classed as being at very high risk are more than four times as likely to be located in the most deprived CCGs in the country as compared to in the most affluent CCGs. Put another way, there are 126,412 patients registered to single-handed GPs classed as being at very high risk working in the most deprived CCGs in the country. This is compared with 33,745 patients registered to single-handed GPs classed as very high risk located in the most affluent CCGs.

Figure 3

GP practices run by a single GP are far more likely to be located in areas of high deprivation

Distribution of COVID-19 mortality risk for single handed GP practices by IMD quintile: England, 2019



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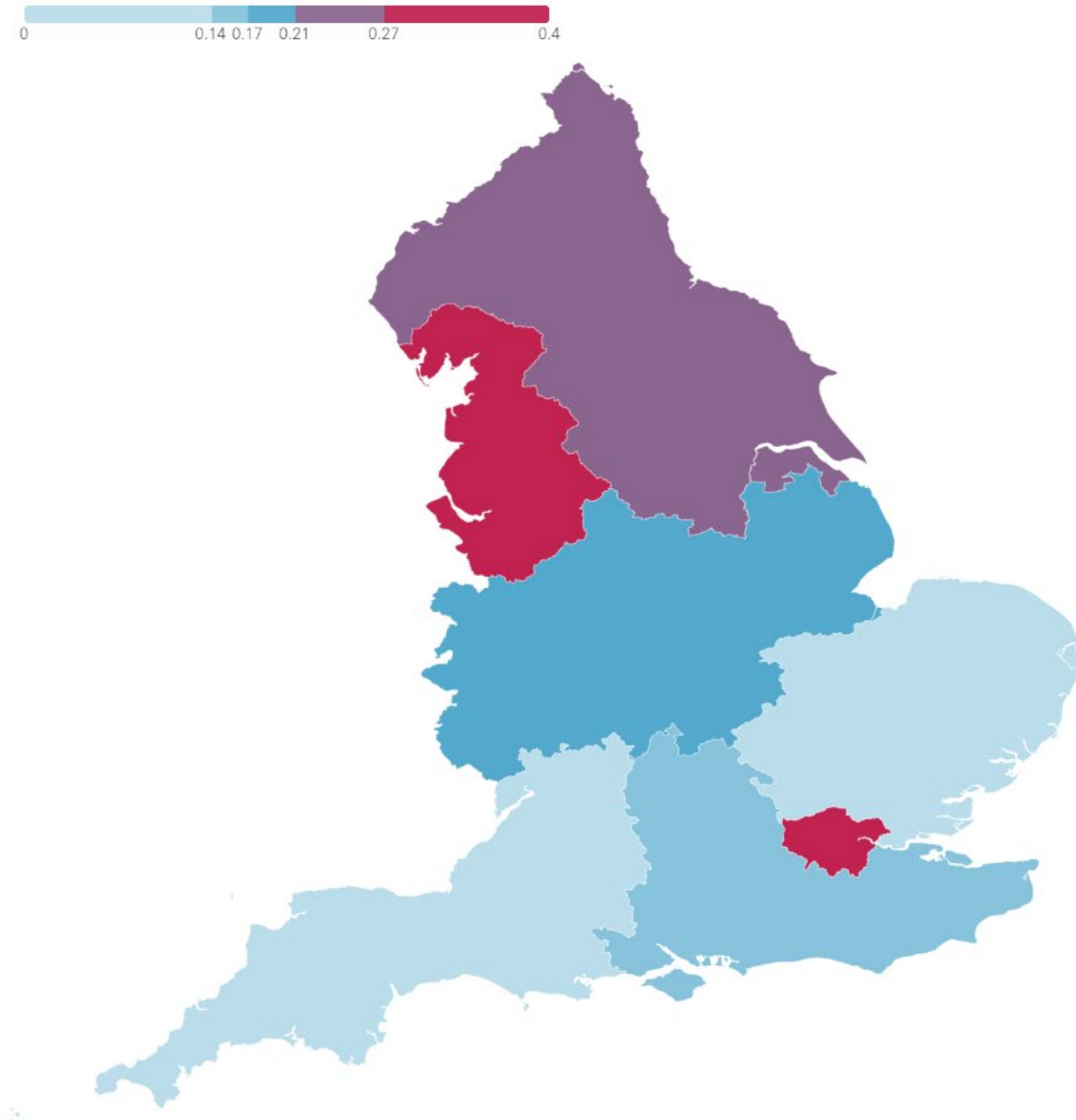
Source: NHS Digital, General Practice Workforce - 31 March 2020, 2020 • Note: COVID-19 risk scores: Low (0–1), Medium (1–4), High (4–9), Very high (>9), deprivation quintiles based on population weighted Index of Multiple Deprivation 2019 rank at CCG level


London may be particularly affected if GPs at high risk from COVID-19 restrict their patient-facing activities. We found that London has the highest proportion of GPs at very high risk from COVID-19 (5.2 very high risk GPs per 100,000 population), of single-handed GP surgeries run by a GP at very high risk (0.37 very high risk single-handed GP practices per 100,000 population) and patients registered to these single-handed practices (1,160 patients per 100,000 population registered to single-handed practices run by a GP likely to be at high risk of COVID-19).

Figure 4

London and the North West have the highest proportion of single-handed GP practices run by a GP at very high risk

Number of single-handed GP practices run by GPs at very high risk from COVID-19, per 100k population: England, 2019



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Source: Office for National Statistics, United Kingdom population mid-year estimate, 2019, NHS Digital, General Practice Workforce - 31 March 2020, 2020, Office for National Statistics, NHS England Regions (April 2020) Boundaries EN BFC, 2020 • Note: COVID-19 risk scores: Low (0–1), Medium (1–4), High (4–9), Very high (>9); Map boundaries licensed under the Open Government Licence v.3.0, contains OS data © Crown copyright and database right 2019

Are we underestimating the scale of the problem?

It is very likely that we are underestimating the number of GPs at high or very high risk from COVID-19. This is for two reasons:

1. The NHS risk reduction framework suggests that clinicians with certain underlying health conditions, or those in the later stages of pregnancy, should be considered to be at higher risk from COVID-19. Data on the health conditions of GPs are not recorded in the NHS workforce datasets we used for this analysis, and were therefore not included in our calculations of risk.
2. The datasets used for our analysis do not include explicit data on the ethnicity of GPs. We instead had to use country of qualification as an inexact proxy for ethnicity. This underestimates the number of black and minority ethnic GPs, by incorrectly assuming that all GPs trained in the UK and EEA are white. To get a sense of the magnitude of this underestimation we note that we classify 23.9% of GPs in our dataset as being of black and minority ethnicity. This is in contrast to the 44% of all doctors in the NHS that we know are of black and minority ethnicity.⁸

We also expect that the socioeconomic deprivation gradients highlighted by our analysis are steeper than the estimates we present. The datasets underpinning our analysis are only able to provide data at CCG-level. But CCGs cover large and heterogeneous populations, and the impact of deprivation is masked when used at this coarse level of geography.

Our results therefore underestimate both the number of GPs at higher risk from COVID-19, and the relationship between affected GPs and the deprivation level of the areas in which they practise.

While our analysis is limited to GPs, further work is needed to understand the impact of occupational risk from COVID-19 on the wider primary care team. Although the implications for face-to-face consulting will differ between roles, responsible employers will be risk assessing all staff. This is particularly important in light of evidence suggesting that COVID-19 risk may be higher in less well paid roles,⁹ and may have implications for the day-to-day running of surgeries.

What does this mean for general practice?

Amid an inevitable focus on 're-opening' secondary care, the challenges of co-existing with COVID-19 in general practice must not be overlooked by policymakers and those holding NHS purse-strings. General practice plays a crucial part in keeping people well, and in keeping them out of hospital. Maintaining it as a 'front door' to the NHS that is safe for GPs and patients is vital but not easy.

Options to quarantine and pre-test patients, outlined by NHS England for hospitals, cannot be deployed in general practice. GP surgeries are taking all reasonable precautions, but patient-facing members of the primary care team will be exposed to risk from COVID-19. Measures intended to protect GPs at higher risk from COVID-19 are likely to be necessary for some time and may vary over time depending on COVID-19 incidence and prevalence.

Our analysis suggests that a significant number of GPs would be at high personal risk from COVID-19 if they continue to consult face-to-face. Withdrawing GPs at higher risk from face-to-face consulting does not necessarily mean removing them from the clinical workforce. Doctors who are unable to see patients face-to-face may continue to consult via other means, including telephone and video consulting. Some higher risk GPs may decide to continue to see patients ‘as usual’. But surgeries need to plan for how to cover gaps in the provision of face-to-face appointments, acknowledging that the duration of GPs’ absence from face-to-face work is unknown.

The scale of this challenge will vary depending on factors including the number of other GPs working at the same practice, and the COVID-19 risk status of those GPs. Where a single-handed GP falls into a high risk group, practices may not be able to offer any face-to-face appointments at all. This may have an impact on other local practices or care providers (eg urgent care centres), creating second order effects on inequality (for example increased demand leading to longer waiting times for appointments). If GPs at higher risk do continue to practise face-to-face there is a greater than average risk that their ability to do so may be restricted by illness or death from COVID-19.

If GPs at higher risk of COVID-19 stop seeing patients face-to-face, the reduction in provision will be greatest in the most deprived areas. These are areas where overall health need is greatest, and where morbidity and mortality from COVID-19 is likely to be greater too.^{10,11} Pre-pandemic, areas of high socioeconomic deprivation already had an under-supply of GPs relative to demand, and so disproportionately reducing GP supply in the most deprived areas will make a bad situation worse.^{12,13,14,15} Alternatives to face-to-face consulting, such as telephone and video consultations, may be harder to access for deprived populations, and those with additional barriers to care such as a lack of proficiency in English.

Ultimate responsibility for providing core general practice services to populations lies with CCGs. In some areas, collaborations between practices (such as GP federations and primary care networks), may be able to organise cross-cover to surgeries where face-to-face provision is not adequate to meet need. But these collaborations have not developed at equal pace across the country, have many demands on their capacity and may not be sufficiently mature to take on this challenge. These local factors – including the availability of locums – will need to be considered by commissioners. In August 2020, [NHS England suggested that where practices unavoidably require additional clinical capacity as a result of COVID-19, reimbursement should be made if agreed by the commissioner.](#) Application of this process, and its continuation until risk abates, will be key to ensuring that all patients can access to face-to-face consultations.

Conclusion

Our analysis suggests that there are a relatively large number of GPs at high risk of mortality from COVID-19, and there is geographical and socioeconomic variation in the distribution of affected GPs. We do not know how many of these GPs will in practice choose to step away from direct patient contact, and how this may vary over time. Further work is required to track what actually happens, and the effect on patient care of a possible reduction in the number of GPs able to consult face-to-face.

There is a timely opportunity to provide additional support to ensure that no GPs are put at unnecessary risk from COVID-19, and that no patients are denied access to clinically necessary face-to-face GP appointments. CCGs should ensure that they are aware of any gaps in face-to-face provision of core general practice services arising from occupational COVID-19 risk. Additional and ongoing funding may be required for primary care to enable practices to 'buy in' locum GP support for face-to-face consultations. Failure to adequately assess the extent of the problem, and to provide sufficient funding to engineer solutions, is likely to further exacerbate existing health inequalities.

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