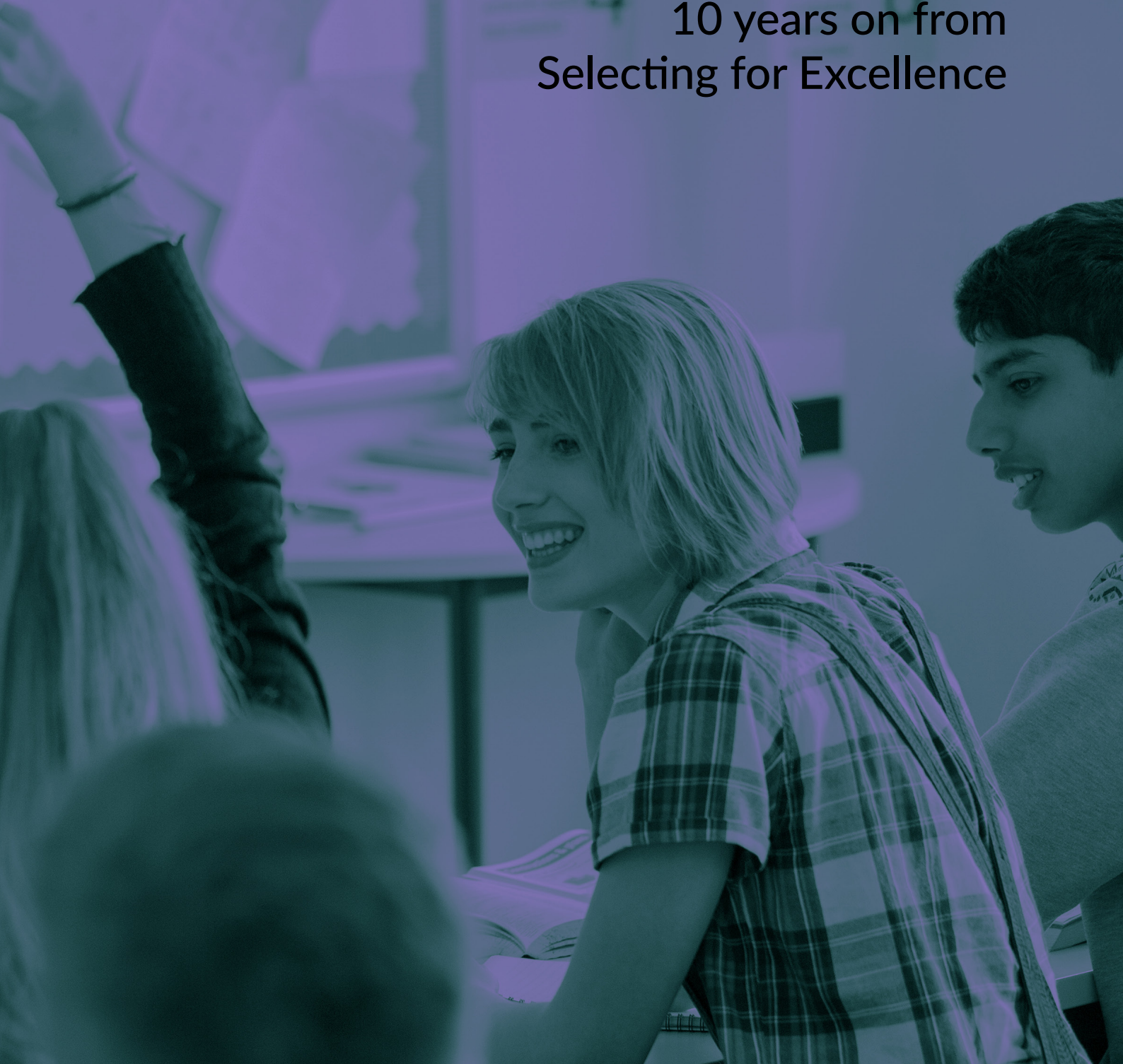


Fostering Potential

10 years on from
Selecting for Excellence



December 2024



msc Medical
Schools
Council

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The authors would like to thank Ceri Nursaw of Nursaw Associates for her help and support over the last 10 years and Sally Curtis for leading the Data Monitoring Group of the MSC Selection Alliance.

MSC's work over the last 10 years and this report would not have been possible without the guidance and support of the MSC Selection Alliance Board Members both past and present.

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Foreword

A decade ago *Selecting for Excellence* mapped the unrepresentative, inequitable, and obscure nature of admissions to medical school and challenged the UK medical schools and Medical Schools Council to radically improve this key part of their work. The final report set out recommendations for policy change, outreach, transparency, equity, and the systematic collection of evidence, to widen access and participation in medicine.

In the succeeding ten years, multiple stakeholders have collaborated to implement many of these recommendations. In particular, Medical Schools Council set up a Selection Alliance, comprising admissions deans, admission tutors, and outreach leads from each medical school, charged with this widening participation work, led by an elected board, and monitored by an oversight group. The Selection Alliance has worked with, and alongside, the individual medical schools, student widening participation societies, the National Medical Schools Widening Participation Forum, the UK Medical Education Database, Brightside, and others, receiving sustained support from NHS England.

From this report about the considerable progress and achievements made in widening participation to medicine, we can celebrate accessibility and transparency about admission to medical school, enhanced equity in access, selection and participation, and probably the best evidential base to support the mission set by *Selecting for Excellence*.

Reflection on the successes also raises awareness of those areas that require focus and commitment over the coming years – workforce, inclusion, success from admission through medical school into postgraduate training. Most urgent are the expansion of medical student places, the need for consistent longitudinal support, and ensuring that our students and doctors in training feel supported, heard, and cared for, no matter what their background.

The report concludes with a chapter that charts the way ahead, setting out priorities, recommendations, and targets for the next decade. Building on existing collaborations, extending evaluation and research to include study of experience and aspiration, and expanding the focus from selection to success at medical school, will provide firm foundations for the next steps in this mission.

We should like to acknowledge the work of everyone involved in the effort to widen access and participation in medicine: it is only because of their continued commitment over ten years that so much has been achieved. In particular, the key person we should thank is Clare Owen, Director at MSC, who has led and coordinated so much and so well.



Paul Garrud

Chair, Medical Schools Council Selection Alliance



Tony Weetman

Emeritus Professor of Medicine; Chair, Scottish Medical Schools Board

Executive summary

MSC has published this report to mark 10 years since the publication of the *Selecting for Excellence Final Report* in December 2014. That report marked the culmination of 18 months' work to look at the related issues of fair and effective selection into medical school and how best to facilitate widening participation to the profession. Over the past 10 years MSC has committed considerable resources to the implementation of the recommendations in the *Selecting for Excellence Final Report* and medical schools have likewise invested in their admissions processes and outreach teams. This, coupled with investment from governments across the UK, has led to real progress in terms of the number of students from lower socio-economic backgrounds studying medicine in the UK. In this report MSC reflects on the interventions that have been put in place to support this growth, sets out data to show what progress has been made, and puts forward a vision of what needs to happen over the next 10 years for progress to be maintained.

Reflections on the last 10 years

- **Outreach** – Medical schools have always provided significant outreach into the community. Over the last ten years this has been enhanced through greater collaboration between medical schools, enhanced mapping of outreach activity across the UK and longitudinal, multistage interventions. In the next 10 years more focus needs to be put on outreach targeted at primary and early secondary school pupils.
- **Better advice for applicants** - MSC has worked with medical schools to ensure that all applicants have access to high quality advice to support them in making a successful application to medical school. Notable successes include:
 - MSC's website detailing UK medical schools' entry requirements. It has received 287k visitors over the last 12 months.
 - Studying Healthcare website - this website collates all the resources created by MSC into a single place. It has had 23,000 active users over the last 12 months.

- **Teachers and careers advisers** – Teachers can sign up to regular newsletters on how to support their pupils to make a successful application to medical school. MSC-run webinars are available on its YouTube channel and have been viewed over 49,000 times.
- **Work experience** – Work experience in a healthcare setting is no longer required by the majority of medical schools as there is inequality of access to these experiences. Instead, medical schools focus on encouraging applicants to work or volunteer in roles where they have significant contact with the general public and to reflect on their experiences in these roles. This is in line with guidance produced and promoted by MSC.
- **Healthcare focused gap years** – It is recommended that medical schools, placement providers in health and social care and MSC work together to encourage potential applicants to medical school to undertake a year of paid work in a relevant setting before medical school.
- **Alternative entry routes** – In 2014 there were four Gateway Courses, which are six year programmes designed for widening participation students. In 2024 there are 19 of these programmes running across the UK. MSC recommends that all medical schools running a standard entry course should consider setting up a Gateway Course.
- **Contextual admissions** – All medical schools now use contextual admissions to lower the A Level, or Scottish Highers, attainment requirement for students from lower socio-economic backgrounds. Medical schools are increasingly adding in geographical factors to their contextual measures to help them recruit from their local area.
- **Level 3 requirements** - 10 years ago most medical schools would require applicants to take A Levels, or alternative advanced qualifications, in chemistry, biology, and physics or maths in order to be eligible to apply for their course. Requirements in 2024 are much more liberal with most schools only requiring two sciences at advanced Level and many dropping the chemistry requirement. This expands the pool of potential applicants.
- **Role of the Doctor** – MSC has produced guidance setting out the skills, values and attributes needed to study medicine. This guidance has been widely used by medical schools in outreach activities.

- **Selection methods** – Medical schools continue to follow best practice in the selection of medical students and the decision taken to encourage them not to follow a uniform approach has meant that innovation has been possible.
- **Evidence base** – the introduction of the UK Medical Education Database which links data from admissions to graduation and into postgraduation training has provided valuable insights that will be used to secure a sustainable medical workforce over the next 10 years.

Data analysis

- Over the last ten years, the proportion of entrants into medical schools from IMD Q1 (the most deprived areas) more than doubled from 6% to 14%, although the acceptance rate is still lower compared to applicants from Q5 (33% and 51%, respectively).
- The number of applicants and entrants from POLAR quintiles 1 and 2 (areas where the least number of young people progress to higher education) has more than doubled in 2021-2022 compared with 2013-2014, along with an increased proportion of both applicants and entrants from these quintiles and corresponding decrease in proportion from quintile 5.
- The proportion of entrants from non-selective state schools has increased from 47% to 54%, while for independent schools this has decreased from 29% to 24%.
- The proportion of male applicants has fallen, and proportion of female applicants has increased from 57% to 63%.
- The proportion of Asian applicants has increased from 27% to 29%, while the proportion of Black applicants has grown from 6% to 10%.
- There is an almost 20-fold difference in participation rate between the lowest (Na h-Eileanan Siar, Outer Hebrides) and highest (Sutton, England) local authority areas.
- The number of schools producing applicants to medicine has increased from 57% to 64%. However, 1/3 of schools still do not produce any medical school applicants and around half have had no successful entrants to medical school.

- Schools providing no applicants to medicine have higher proportions of students eligible for Free School Meals, are located in more deprived areas (IMD Q1-Q2), and have a lower average A level points score.

Priorities for the next 10 years

- **Expansion of medical school places** – The planned increase in medical school places across the UK has both opportunities and challenges for selection and widening participation. Current outreach activity will need to be expanded and targeted at under-doctored areas and communities. More flexibility may be needed on entry requirements to support expansion.
- **Reconceptualising widening participation** – The current discourse around widening participation tends to focus on the need to remediate some perceived deficit of young people from these backgrounds. To make medical school truly inclusive it is important that instead of a deficit model the sector, and stakeholders, recognise the value of students who bring different life experiences to both the learning environment and the profession. Institutions should adopt a system-focused approach, identifying where young people have been excluded and let down by existing structures and policies.
- **Demystifying admissions** – Great progress has been made in providing potential applicants to medical school with free and accessible information on how to make a high-quality application to medicine. However, more transparency is needed about the application of contextual admission within individual institutions to help applicants identify if they will be eligible.
- **Collaborative approaches** – Medical schools should seek to collaborate on outreach activities and recognise in their own contextual admissions policies students who have participated in outreach activities run by other institutions. Regulators should seek to incentivise collaboration in their quality assurance of higher education.
- **Improving the evidence base** – MSC has entered into a collaboration with the Higher Education Access Tracker (HEAT) which will help medical schools to better understand the longitudinal outcomes of their outreach programmes. MSC has developed a robust evaluation plan for the summer schools funded by NHS England that it runs. This will include a comparison with a control group which did not attend one of the summer schools.

- **Widening participation at medical school** – MSC’s work on supporting widening participation has focused on the need to increase the number of students from disadvantaged backgrounds studying at medical school. Over the next 10 years work will be developed to increase the support for widening participation students once they are studying at medical school. This will include ensuring that these students are able to financially support themselves whilst they study, through work or access to bursaries.

- **Postgraduate training and beyond** – The UKMED database has provided clear evidence of differences in how students from lower socioeconomic backgrounds move through their careers once they graduate, including the specialties they work and train in. MSC will work with stakeholders to ensure that all students understand how to prepare for an application to specialty training and that the application process itself takes into account the additional challenges faced by widening participation students during education and training.

- **Priorities for the next 10 years** – MSC has identified the following areas as priorities for policy development over the next ten years;
 - Developing targeted widening participation programmes aimed at specific under-represented groups including, but not limited to, care leavers, young carers and young people from a Black Caribbean background.

 - Developing widening participation programmes focused on areas where few young people apply to study medicine as well as under doctored areas.

 - Investigating the potential for the stratified use of contextual admissions

 - Evaluating the impact of interviews on widening participation applicants

 - Tracking the outcomes of students who entered medical school with a contextual offer

- o Exploring the experiences of students from underrepresented backgrounds at various stages of their medical education utilizing qualitative research approaches
 - o Establishing ways of ensuring current medical students are consulted in the development of widening participation initiatives.
- **Targets** – this report sets targets to increase the proportion of students from the most disadvantaged geographical areas by 2% over the next 10 years. This target may appear modest but it is ambitious when expansion is taken into account; if it is met then the numbers of students from disadvantaged backgrounds will be dramatically increased.

Implementation approach

Underpinning all of the recommendations within this report will be focus on three main actions that need to be taken to maintain progress in widening participation;

- **Attraction** – ensuring that young people understand that medicine is a career for them. Outreach will be key to this and must become more targeted at under represented groups and under doctored areas.
- **Admissions** – ensuring the selection processes used by medical schools give all candidates a fair chance of success and appropriately take into account the context of individuals. Getting this right will involve developing new approaches to selection and evaluating current processes to ensure they remain fit for purpose.
- **Attainment** – ensuring that every student has the ability to excel on the course no matter what their background. To do this it will be important to understand the needs of students from diverse backgrounds and properly support students from lower socio-economic backgrounds once they enter medical school.

Recommendations

Recommendations for the Medical Schools Council

- MSC to continue to investigate trends in work experience requirements needed to study medicine applied by UK medical schools.
- Medical schools and MSC to work with stakeholders to set up a formal programme of healthcare focused gap years for applicants wishing to take a year out between finishing school and starting medical school.
- MSC to work with graduate-entry medical schools to identify and implement ways they can contribute to efforts to widen participation to medicine.
- MSC to update the document Indicators of good practice in contextual admissions, to reflect changes in measures available over the last 10 years and support medical schools to evaluate how successfully their contextualised admissions policy leads to an increased proportion of under-represented groups.
- MSC to review its contextual admissions guidance for medical schools and explore expansion of the entry requirements tool and data collection to include eligibility for contextual admissions.
- MSC to review and update the guidance on the skills, values and attributes needed to study medicine in light of the latest version of Good Medical Practice.
- MSC to look at ways of actively promoting medicine as a career.
- MSC to seek more information from applicants and potential applicants on what types of advice and guidance, and the modalities to deliver this, they find most helpful in preparing to apply to medical school.

- MSC will collect and publish longitudinal outcomes of its outreach and that of its members, including higher education destinations not limited to medicine, alongside qualitative evaluation of their experiences.
- MSC will develop robust evaluation procedures for its summer school programmes, including control-group (non-summer-school attendees) comparison and short-, medium- and long-term outcomes.
- MSC to continue to support the New Medical Schools forum and develop a guidance document for new medical schools (including graduate-entry schools).
- MSC to work with the Academy of Medical Royal Colleges (AoMRC) to produce guidance for students on applying for postgraduate training that can be used in medical school teaching and careers guidance.
- MSC to work with stakeholders, including the GMC and Royal Colleges, to ensure that there is an understanding across the profession of the challenges faced by WP students and that this is considered in any review of the selection processes for postgraduate careers.
- MSC must report annually on medical school progress in meeting these targets, including assessing the impact of these targets on applicants in IMD quintiles 3-4.
- MSC to contribute towards developing the evidence base on how intersectionality impacts medical school applications.
- MSC to develop targeted outreach for demographic clusters with particularly low participation in medicine.
- MSC to build the evidence base on interview performance for students from widening participation backgrounds.

- MSC to explore the feasibility of tracking contextual admissions via the Higher Education Access Tracker (HEAT).
- MSC should set up a student advisory group of representatives from medical schools throughout the UK to oversee and guide its own outreach activities.
- MSC and medical schools to work with stakeholders to promote medicine as a career option to primary and younger secondary school age pupils, especially within relatively under-doctored and under-represented communities.

Recommendations for medical schools

- All medical schools with standard-entry medicine courses should consider providing a gateway year course option.
- Medical schools should consider ways in which they can demonstrate that they value students from a range of backgrounds and experiences and support them not just through the selection process, but also when at medical school.
- Medical schools should continue to develop robust admissions procedures which include those measuring non-cognitive skills and attributes required of a doctor.
- Medical schools should review their public-facing contextual admissions information and ensure they are transparent in how applicants are assessed for eligibility, and how this is considered in their application and selection processes.

- Medical schools to explore collaborative models to widen participation including joint delivery of outreach activities and cross-recognition of outreach participation in accessing contextual offers.
- Medical schools and outreach providers should work with other healthcare professions and NHS organisations to develop their outreach provision targeting pre-16-year-old school pupils.
- Medical schools to undertake further qualitative research into the experiences of their under-represented students to inform curricular change, faculty development and ongoing support strategies.
- Medical schools must annually evaluate their provision of financial support and paid employment guidance to ensure that this remains adequate for disadvantaged students.
- Medical schools to review their curricular structures to assess suitability for students to undertake paid work concurrently with their studies.
- Medical schools to explore whether they can offer training for medical students to undertake paid work as qualified healthcare assistants during their studies.
- Medical schools must work towards meeting the targets of increasing the numbers of students from significantly under-represented communities.
- Medical schools to share best practice on supporting applicants with care experience, young carers, refugees and other groups with small numbers.
- Medical schools should explore the feasibility of adopting contextual admissions on a more graded approach to account for different levels of disadvantage.

- Medical schools should review their entry criteria in the context of expansion of medical school places, to explore opportunities to widen the potential pool of applicants.
- Medical schools should facilitate the work of student-led widening participation groups in addition to their own outreach provision.

Recommendations for the General Medical Council (GMC)

- GMC to consider implementing a regular national survey of undergraduate students to monitor their experiences.
- GMC should consider requiring medical schools to audit their application processes on an annual basis to identify if there are improvements they could make to ensure that applicants from minoritised ethnic communities are not disadvantaged in making an application to their medical school.

Recommendations for other organisations

- HESA should consider routinely collecting data on entrants through a contextual admissions process.
- Higher education regulators should put in place schemes to recognise collaborative efforts to widen participation across multiple institutions.
- Organisations publishing university league tables should consider removing average entry tariff from their criteria and including measures of diversity and inclusion.

- Bodies responsible for student finance arrangements across the UK to consider the impacts of the cost of living crisis on medical students and their ability to succeed on the course given the financial pressure they are under.

Abbreviations

AoMRC	Academy of Medical Royal Colleges
BMAT	Biomedical Admissions Test
GMC	General Medical Council
HEAT	Higher Education Access Tracker
HESA	Higher Education Statistics Agency
IMD	Index of Multiple Deprivation
MMI	Multiple Mini Interview
MSC	Medical Schools Council
MSCSA	Medical Schools Council Selection Alliance
NHSE	National Health Service England
NHS LTWP	National Health Service Long-Term Workforce Plan
POLAR	Participation of Local Areas
SJT	Situational Judgement Test
TASO	Transforming Access and Student Outcomes in Higher Education
UCAS	University and Colleges Admissions Service
UCAT	University Clinical Aptitude Test (formerly UKCAT)
UKFPO	United Kingdom Foundation Programme Office
UKMED	United Kingdom Medical Education Database
UKWPMED	United Kingdom Widening Participation to Medicine Scheme

1. Reflections on the last 10 years

This chapter will revisit/review the recommendations made in the 2014 Selecting for Excellence Final Report and reflect on the progress made in meeting them. New recommendations have been made where issues are outstanding, or policy drivers have changed.

Widening participation

The Selecting for Excellence project found the biggest challenge facing medicine in terms of diversity was a lack of students from lower socioeconomic backgrounds accepted into medical school. It stated this should be the focus of widening participation activities for medical schools and acknowledged that no individual intervention could address this issue but instead medical schools, and other stakeholders including the MSC, should look at a variety of ways to increase the recruitment and participation of this group.

Outreach

At the time of the report's publication all medical schools in the UK were already running outreach schemes for potential medical students. Therefore, the report focused on how their outreach provision could be enhanced.

The recommendations started with a focus on the need for outreach to be longitudinal in nature, acknowledging that young people need different interventions depending on where they are in their journey to studying medicine. Guidance was released at the same time as the Selecting for Excellence Final Report outlining the form this could take. For primary and early secondary school pupils the focus should be on promoting university as an option for them and creating enthusiasm around healthcare and science. When students reach the point where they are considering an application to medical school, they will need more intensive support to understand and excel in what is a complicated selection process.

Healthcare Heroes

Professor Clare J Ray, University of Birmingham

In 2018, male students comprised 27% of the undergraduate intake to the College of Medical and Dental Sciences at the University of Birmingham, compared to 42% male students across the whole campus. The reasons for this disparity might include the impact of differential GCSE performance on progression to A-level subjects required for admission to biomedical degrees and selection for interview where GCSE grades are considered, and/or the perceived stigma associated with males working in caring professions. To address these, we developed the Healthcare Heroes outreach activity.

Healthcare Heroes is an interactive campus-based activity which aims to introduce Year 9 (aged 13-14 years) male students from schools in the West Midlands to the variety of careers in healthcare and by introducing them to male role models from caring professions increase their motivation for achieving the academic grades which would give them the option to study relevant degrees. Teachers from local schools, with high proportions of pupils from lower socioeconomic groups and low progression to higher education were invited to select 10 male students to attend. 40 male students from four schools attended our first event in 2019 and this was repeated in 2022. Numbers were kept low to maximise opportunities for each attendee to engage with the hands-on activities which included: Battlefield First Aid, led by the Royal Centre for Defence Medicine; Exercise Medicine and Physiology in our teaching laboratories; Clinical Skills and Hygiene, led by male members of our School of Nursing; and Basic Life Support, led by our male medical students.

After a lunch in the Medical School canteen with male student ambassadors (a highlight for many pupils!) an interactive competitive quiz introduced the attendees to some of the lesser-known roles in healthcare and their entry requirements before they heard from a real-life Healthcare Hero. These have included two military nurses who spoke about their unconventional route through education and training to working in ITU and Critical Care and a doctor who alongside his role in the NHS has worked with a local football team's youth academy where he highlighted the roles

of all the different healthcare professions involved on match days and during training.

Feedback from attendees has been very positive, with many stating they would now consider a career in healthcare and teachers highlighting how the range of activities engaged the pupils in ways that lecture-theatre sessions would not. Male university students also reflected on the impact that this sort of activity would have had on them. We have gone on to work with local universities and NHS trusts with the aim of delivering further in-person and online events which will broaden the range of roles we can introduce pupils to and give further opportunities to increase their knowledge of and motivation for accessing healthcare-related degrees and careers. It has also led to changes in our admissions processes including ensuring male staff and student representation on open days and avoiding admission interview sessions with only one or a small number of male attendees.

MSC has been proactive in mapping the provision of outreach by medical schools across the UK. Since 2015 medical schools and/or their parent universities have provided MSC with data detailing which secondary schools they provided outreach to and the nature of that outreach.

Figure 1 shows the change in outreach provision between 2015-2019. MSC uses these data when commissioning outreach projects from medical schools; schools are provided with a list of 'cold spots' they should target in the project. Success in recruiting attendees from these areas is a key evaluation metric for MSC.

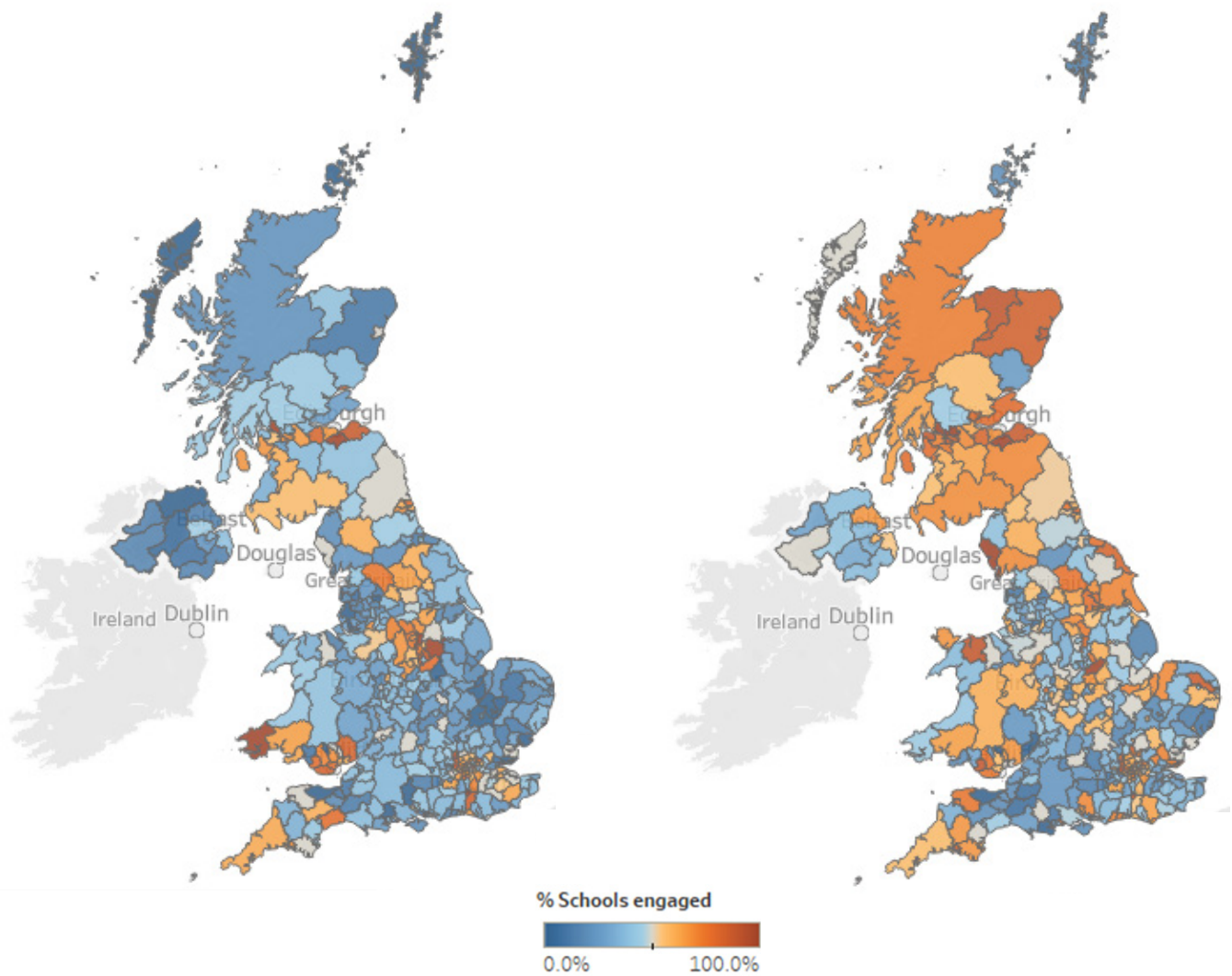


Figure 1: Map showing the percentage of schools engaged with medical school outreach by local authority area from 2015 (left) to 2019 (right).

Much progress has been made in the last ten years to enhance outreach across the UK. However, more progress needs to be made in encouraging primary and younger secondary school age children to consider a career in medicine. The means of addressing this may lie in increased collaboration between medical schools, NHS trusts and other organisations that already work with primary and secondary schools.

Whilst multi-stage longitudinal outreach has yet to be successfully fully implemented there has been real success in the implementation of longitudinal outreach that focuses on pupils taking GCSEs and A Levels in England. These programmes not only provide long-term advice and support to pupils, but some also involve making contextual adjustments for these students when they apply to the medical school.

Seven medical schools which run these types of programmes have come together through the UK Widening Participation to Medicine Scheme (UKWPMED) to recognise each other's programmes so that a student who has successfully completed a scheme at one medical school can receive the same contextual adjustments at the point of application at another member school. This is very encouraging as efforts to widen participation to medicine must be a sector-wide project.

There is a temptation within universities to see outreach as recruiting students to their own institution but for a profession such as medicine it is key for institutions to work together for the good of potential applicants and the profession. MSC accepts this approach needs to be balanced with the need to tackle relatively under-doctored areas where local recruitment and retention needs to be encouraged. Research suggests that ultimately many doctors choose to work close to the area where they made their original application to go to medical school.

UKWPMED – A Collaborative Scheme for the Benefit of Underrepresented Student Groups

Dr Andy Spencer, Dr Gordon Dent¹, Alexandra Murphy²

¹Keele University

²Hull York Medical School

Many medical schools offer supportive longitudinal access programmes for students from educationally disadvantaged and socially underrepresented backgrounds during sixth form. Students who complete these courses are usually offered adjustments to selection/entry requirements, often including a guaranteed or fast track to interview and lower entry offer. However, this applies only to their host medical school, meaning when they apply elsewhere, their contextual background and participation in support programmes isn't acknowledged, and they are less likely to be successful in their application.

UKWPMED was originally formed of 6 medical schools which wished to offer mutual recognition for their access programmes, meaning a student who had successfully

completed a programme and met specific contextual criteria could apply elsewhere and gain the same benefits as a host student. The benefits between the schools had to be equivalent, and all UKWPMED participating medical schools offer guaranteed interviews and reduced offers to applicants from specific access programmes meeting selection criteria. UCAS assisted the programme by offering a UKWPMED tag in its application system, and each medical school independently verifies students taking part.

Data are collected annually from each medical school to record the number of applications they have received from UKWPMED students. Since 2021, 814 applications have been recorded over 3 application cycles. 48% were to their host medical school and 52% to another UKWPMED medical school. 83% received an interview and of those 49% received an offer. 47% of those offered took up their offer. This provides an estimated success rate of 40% which is significantly higher than the sector wide average of 12%.¹

The scheme successfully provides a mutual recognition programme that supports geographical as well as social mobility for students who we know come from underrepresented groups. The scheme also provides opportunities for students who may not otherwise receive an interview, to gain one at multiple schools, thereby overcoming a significant barrier within the medicine selection procedure. The scheme expanded in 2023 to include one additional medical school, bringing the total up to 7. The UKWPMED scheme can be used as an effective blueprint where institutions are considering mutual recognition for access to increase participation and diversity within their student cohorts.

¹UCAS Undergraduate End of Cycle Data Resources. UCAS, 2023. Available from: <https://www.ucas.com/data-and-analysis/undergraduate-statistics-and-reports/ucas-undergraduate-end-cycle-data-resources-2023>

The Selecting for Excellence report also recommended that medical schools should co-ordinate their outreach activities to target areas and schools which do not send high numbers of students to medical school. This followed research by Dr Paul Garrud that found ‘around half of UK secondary schools and colleges did not provide any applicants to medicine over a three-year period’ (2009-2011). This recommendation was also designed to encourage medical schools to replicate the successful REACH programme that continues to run in Scotland. Real progress has been made with regards to collaboration between medical schools on outreach and better targeting of cold spots where little outreach has traditionally been carried out.

MSC has been commissioned by NHS England to run summer schools for six of the 10 years since the Selecting for Excellence report was published. The majority of the summer school projects supported by MSC have been collaborative efforts run by two or more medical schools. More established medical schools have, in many cases, worked with new medical schools to deliver this work which has provided additional value to the collaboration. This approach promotes the opportunities available to students at new medical schools and allows recruitment of attendees from a wider geographical area. It is also an opportunity to share best practice in outreach between medical schools. For attendees, there is a real benefit to hearing from more than one medical school as it gives them an appreciation of the differences between institutions and allows them to reflect on what type of medical school might suit them best.

MSC and NHSE Summer School Programme – Key Facts

Since 2019, there have been 2490 participants in the MSC summer schools. Around a quarter of these come from cold spot areas highlighted by the outreach mapping data. All participants had to meet at least three criteria to be eligible, which included:

- From a school with below average Progress 8¹
- From a school with below average Attainment 8²
- From a school with a high percentage of free school meals
- From an area with low progression into HE
- Young carer
- No parental degree
- Recipient of FSMs

Since 2022, there have been 945 attendees to medicine summer schools:

- 52.0% were recipients of free school meals
- 49.3% attended a school achieving below Attainment 8 and 42.4 % attended a school achieving below Progress 8
- 16.3% have been in care, or are an estranged student, or are a young carer, or are an asylum seeker/refugee

Full reporting on MSC's summer schools is available annually on the MSC website.

¹ Progress 8 is an indicator of pupil progress from the end of primary school to the end of year 11.

² Attainment 8 is a measure of pupils' average grade across a set of eight GCSE subjects.

Better information for all applicants

Recommendations from the Selecting for Excellence report addressed the need for medical schools to make the information they provide to potential applicants clear and easy to find, particularly information related to contextual admissions and supporting WP students in applying to medical school. There were also recommendations about the need for stakeholders such as the NHS to provide better advice on the realities of working as a doctor and career options in terms of postgraduate training and specialty choice. Finally, there was a recommendation that MSC enhances the advice and guidance available to teachers and careers advisers on how their students could make a successful application to medical school.

Guidance to applicants

MSC has put considerable effort into ensuring that the advice and guidance given to applicants is both accurate and readily available. All content produced by MSC is checked by admissions deans to ensure that it accurately reflects what happens in admissions processes across UK medical schools.

Utilising funding from NHSE, MSC has developed the Studying Healthcare website which includes information on admissions to medicine, dentistry, and pharmacy schools. There is advice and guidance on the website covering all aspects of the admissions processes to medical schools including admissions tests, interviews and how applicants can choose the most suitable medical school and course for them.

The most popular piece of guidance MSC provides is its Entry Requirements tool, which lists every course available at every medical school in the UK along with their prerequisites, such as academic attainment, aptitude tests and interviews. There are also details of any contextual adjustments in place. The idea behind the guidance is to give applicants a single place to find out more about courses in the UK so they can identify which ones they qualify for and can then go and find out more detailed information by looking at the websites for those schools. The guide is extremely popular and in 2023 it was viewed approximately 287,000 times. MSC is currently working to develop medical student-created content relating to the admissions and selection processes for the Studying Healthcare website as applicants respond well to the advice and guidance coming from near-peers.

BrightMed and BrightIdeas

Charlotte Smyrk, Brighton and Sussex Medical School

BrightMed is a longitudinal widening participation programme for students in Year 9-12 (aged 13-18), from across Sussex, who are interested in science and considering a career in medicine. Students in Years 9 and 10, attend five sessions each year that take place at Brighton and Sussex Medical School. Students in Year 11 attend four and students in Year 12 also attend four, in addition to a 4-day, 3-night summer school. The 2023-2024 cohort comprises of 200 students.

Throughout the programme, current undergraduate medical school students facilitate fun, interactive and inspiring workshops that introduce students to scientific concepts, medical conditions and clinical skills such as the cardiovascular system, cancer and HIV and taking a patient history respectively. As well as aiming to raise attainment, the programme endeavours to build confidence, develop critical thinking and enhance students' interpersonal skill set. The summer school provides students with an opportunity to experience student life, to gain undergraduate level knowledge and to further their understanding of the medical school application and admissions process. In addition, students that complete the BrightMed programme are eligible for the UKWPMED scheme.

BrightIdeas provides Year 12 students, who are underrepresented and under-resourced, the opportunity to develop the knowledge and skills required to submit a competitive application to medical school. The nationwide programme is centred around students undertaking a research project that combines scientific literature with insights from people with lived experience of chronic conditions. Alongside completing the project, students also attend four online events and a residential summer school, where they experience undergraduate level teaching, practise key clinical skills, meet doctors, patients and medical students from across the UK and receive 1:1 support via e-mentoring.

For the past two years, BrightIdeas has been run collaboratively with colleagues from Anglia Ruskin University, funded by the NHS and supported by the Medical Schools Council (MSC). Between 2018 and 2021, the programme was delivered in conjunction with Kent and Medway Medical School with again funding and support from the NHS and MSC respectively.

Teachers and careers advisers

Over the last 10 years, MSC has been working on the recommendation to enhance the advice and guidance available to teachers and careers advisers on how their students could make a successful application to medical school. The MSC has noticed that the needs of teachers have shifted considerably over this timeframe.

Ten years ago, it was possible to assemble a large number of teachers and careers advisers for in-person events, but now teachers report that they are unable to take the time out of school to attend this type of activity. MSC, working with medical schools, has therefore shifted the focus of its work towards online events and webinars.

In addition to providing resources for teachers on its Studying Healthcare website, MSC has run approximately 20 webinars for teachers and careers advisers over the last three years which are all available on the MSC YouTube channel to view on demand. Over the last 12 months, videos on the MSC YouTube channel have been viewed over 49,000 times.

Postgraduate medical careers

The Selecting for Excellence Final Report stated that information about postgraduate careers should be readily available to both applicants and current medical students. It tasked bodies responsible for NHS and postgraduate training across the UK with providing this information. This information is now increasingly available on a range of different websites and there are more resources such as videos of doctors talking about their roles than were accessible 10 years ago.

Work experience

Access to work experience emerged as a clear barrier to widening participation during the Selecting for Excellence project. Applicants from disadvantaged backgrounds find it harder to access work experience opportunities in clinical settings and this may put them off applying to medical school if they feel that without this experience, they could not make a successful application.

The Selecting for Excellence Final Report focused on two aspects in relation to work experience, improving access to opportunities and removing clinical work experience as a mandatory requirement in medical school selection policies. During the last 10 years MSC has focused on the second element as it does not have the necessary levers to control access to work experience within the NHS. However, it should be acknowledged that the healthcare sector has made real progress in both increasing the number of opportunities available and ensuring access to them is fair, including releasing toolkits to Trusts and GP Practices. There is a greater understanding in the sector that access should not be based on who you know but should instead be centrally managed. In relation to medical school requirements around work experience there has been excellent progress and nearly all schools now follow the MSC's guidance on work experience (see below).

Work experience is any activity or life experience that helps you to prepare for medical school. This means any activity that allows you to demonstrate:

- That you have had people-focused experience of providing a service, care or help to others and that you understand the realities of working in a caring profession.
- That you have developed some of the values, attitudes and behaviours essential to being a doctor such as conscientiousness, good communication skills, and the ability to interact with a wide variety of people. The values that medical schools are looking for are set out in the NHS Constitution and explained in the MSC guidance Core Values and Aptitudes needed to study medicine.
- That you have a realistic understanding of medicine and in particular the physical, organisational and emotional demands of a medical career.

The guidance emphasises that a wide range of activities such as paid employment and volunteering are equally as valuable as direct observation of healthcare. Knowledge of medicine as a career and healthcare can be developed through talking to healthcare professionals, reading books and articles about the health service, and undertaking volunteer work in related fields such as health and social care.

Recommendation: MSC to continue to investigate trends in work experience requirements needed to study medicine applied by UK medical schools.

During the Covid 19 pandemic access to work experience in all forms was severely restricted. In response to this, MSC published updated guidance on work experience that encouraged applicants to utilise newly developed online work experience packages from the Royal College of General Practitioners and Brighton and Sussex Medical School. Applicants were also advised that they could volunteer in mutual support activities within their community if it was safe for them to do so. The pandemic accelerated the acceptance of online work experience as a valid option and this has been a real benefit for students from lower socioeconomic backgrounds, as it provides insight into working as a doctor in a way they can fit round activities such as paid employment.

Supporting schools and applicants during the pandemic

During the time period of this report the world was hit by the global Covid 19 pandemic. As countries across the world went into lockdown, disrupting almost every aspect of normal life, the pandemic had a big impact on the admissions process to medical school. Schools closed across the UK and students did not undertake formal assessments.

During the pandemic MSC was keen to support medical schools in ensuring that they were able to run effective admissions processes without endangering public health. Key to this was moving interview processes online. MSC regularly brought admissions leads together online to share best practice and approaches to online interviewing. MSC also commissioned the Work Psychology Group to produce guidance on running online Multiple Mini Interviews (MMIs) and shared stations with schools.

Applicants were concerned that lockdown would have a negative impact on their ability to make a successful application to medical school. MSC responded to their concerns by producing guidance on how to access activities to support their application such as online work experience. Guidance was also produced on how prepare for online interviews.

Medical schools and the MSC were concerned that the pandemic would have a negative impact on efforts to widen participation. At the time most outreach activities and support for WP applicants took place face to face and it was feared that students from more deprived backgrounds would struggle to access online teaching and might lack quiet spaces to study. MSC moved all of its outreach activities online and was able to support schools in running online summer schools. 1256 students took part in an online summer school in 2020 and 2021.

These steps taken by MSC and medical schools, as well as efforts made by the wider education sector and governments, appear to have had the intended impact and the pandemic did not have an immediate negative impact on efforts to widen participation.

Healthcare focused gap years

MSC is aware that many medical school applicants are unsuccessful the first time that they make an application but are ultimately successful the second time they apply. There will be multiple reasons for this, but one key factor may be that taking a year out to gain more experience of working with the public enables them to gain confidence which they bring to their interviews and therefore perform better. Taking a year out also allows applicants to focus on preparing for the University Clinical Aptitude Test (UCAT) without needing to worry about performing well at A Level.

MSC believes that taking a year out between finishing A Levels and starting medical school should become normalised and encouraged. A formal programme should be put in place to support young people in this position to take up meaningful paid posts in the health and social care workforce. This would help applicants prepare for their future careers as well as giving them high quality experiences to support a successful application to medicine. It would also benefit the healthcare sector by providing extra workforce support in the form of informed and enthusiastic young people.

Medical schools should support any formal programme of pre-application placements by offering incentives to applicants who choose to take this route. For example, they could offer them a guaranteed interview or a reduced grade offer. MSC could support this process by working with medical schools and placement providers to put in place a portfolio that applicant undertaking these placements could be asked to fill in in order to access these incentives.

Recommendation: Medical schools and MSC to work with stakeholders to set up a formal programme of healthcare focused gap years for applicants wishing to take a year out between finishing school and starting medical school.

Alternative entry routes to medicine

Foundation courses

The Selecting for Excellence project found that there were two main types of foundation courses operating in the UK:

Gateway year courses – six-year courses aimed at students from lower socioeconomic backgrounds where an extra year of medical education supports the transition and integration into university and medical school, supporting future success. The entry requirements for these courses are reduced substantially compared to those required for standard-entry courses. It should be noted that some of these programmes, particularly in Scotland, require completion of interviews and/or admissions tests at the end of the gateway year in order to progress onto the main course.

Foundation Courses - these six-year programmes are essentially science conversion courses and are used for high achieving students who did not study sciences at A Level or equivalent.

The Selecting for Excellence Final Report acknowledged that gateway year courses are an important part of efforts to widen participation to medical school. It recommended that medical schools evaluate their current approach to widening participation and see if the introduction of a gateway year course would enhance their ability to recruit more students from lower socioeconomic backgrounds.

When the Selecting for Excellence Final Report was published in 2014 there were four medical schools operating gateway year courses. There are now 19 courses operating in the UK and they have been an important part of the sector's response to the challenge of widening participation to medicine. Whilst the absolute number of students studying on these courses is low, they represent very different cohort from those studying on standard-entry courses. The nature of the course means that entry requirements can be significantly lowered which in turn helps to make medicine a more achievable goal for applicants from the most socially and educationally deprived groups.

Recommendation: All medical schools with standard-entry medicine courses should consider providing a gateway year course option.

MSC provides support to the Foundation and Gateway Leads Group which brings together educators delivering these courses to share best practice in how to run them and how best to support students in this first year at university. This group will be available to support medical schools wishing to set up a new gateway year course.

The Foundation Year for Medicine: Edge Hill University Medical School

Dr Peter Leadbetter, Edge Hill University

Edge Hill University (EHU) Medical School opened in 2019 and is committed to widening participation (WP) and supporting social mobility. The North-West has some of the worst health in England linked to high levels of social disadvantage.

To alleviate health inequalities and in recognition of barriers faced by WP students, the EHU Foundation Year for Medicine (FY) has lower grade criteria for WP students from the Northwest. The FY for Medicine focuses on personal, professional, and academic development and experience of a range of health settings and communities. Students successfully completing the programme progress directly onto the undergraduate medicine programme.

Distinctive features of the programme include:

- A practically driven curriculum focusing on particular population groups and incorporating core subjects required for the study of medicine (science for medicine, public health, communication for clinical practice, personal & professional development, multi-disciplinary team working in healthcare, academic study skills)

- Clinical and community learning & placements, acquiring the skills needed to develop personally and professionally and build confidence and resilience
- Clinical skills and simulation days

The programme is enhanced by opportunities to participate meaningfully in medicine and associated networks, including community events and outreach, engaging with outside organisations (GMC, MSC and Social Mobility Foundation), establishing student societies and paid summer student internships.

The impact is that FY students are not only accessing and progressing in medicine but also meaningfully participating. This has a 'ripple effect' by providing realistic role models and ensures the views of WP students are influential in national networks.

Measurable outcomes of success include:

- 95% students completed the course with over 90% currently on our undergraduate medicine programme (up to 50% of the cohort in some year groups).
- Despite the students entering with lower A Level grades (compared to direct entry students), differences in assessments results between the two groups are non-significant with FY students outperforming direct entry students in some assessments.
- In 2023 all students agreed "they felt part of a medical school community of staff and students."
- Student evaluations and feedback are positive (4.08-4.56/5 for overall satisfaction); students feel the FY has prepared them personally and professionally for medicine
- FY external examiner: "students are receiving an excellent and varied learning experience and exposure to high quality teaching and learning."
- Local and national media coverage and recognition (GMC: "Areas that are working well: The commitment to widening participation is commendable").

Whilst there has been a significant increase in the number of gateway year courses there has been a corresponding drop in the number of foundation courses. There is now only one course of this type operating in the UK. Whilst this could be considered a retrospective step as it was a good route into medical school for students who made the decision to apply for medicine once they had chosen and started A Levels, the reduction in the number of these courses needs to be viewed in relation to wider changes to entry requirements. Whereas 10 years ago most medical schools were looking for predominantly science qualifications at A Levels and Highers this is no longer the case. Many schools only ask for two science subjects to be studied, and some ask for even fewer or do not stipulate acceptable subjects for application at all. Graduate-entry courses to medicine are also increasingly taking students with any degree type rather than science degrees.

Access to Higher Education Diplomas

Access to Higher Education Diplomas are typically run by further education institutions and are designed for mature learners who may have missed out on formal qualifications at 16-18. They provide a qualification suitable for application to university. The Selecting for Excellence Final Report recognised the value of these courses in widening participation and recommended that MSC continue to promote guidance on access courses designed to help potential applicants choose a suitable course.

Since 2014 the MSC Selection Alliance, and in particular Dr Gordon Dent, has worked with the Quality Assurance Agency on their Subject Descriptor for Access to Medicine courses. This means that the content and assessment policies used in these courses are now much more closely aligned to undergraduate medical education content and policies which in turn makes these courses more acceptable to medical schools as a means of entry to their courses. MSC provides guidance to those considering using this route to access medical education and this, along with the Subject Descriptor, means that potential applicants to these courses have much greater clarity on the course they should pick to study.

Access to HE – A Subject Descriptor for Medicine

Dr Gordon Dent¹, Anne-Marie Karadia², Charlotte Collard²

¹Keele University

²Quality Assurance Agency for Higher Education (QAA)

The 2014 Selecting for Excellence report recommended the continuing promotion of guidance to medical schools on content and acceptability of Access to HE Diplomas for entry to medicine. At that time, a variety of Diplomas were promoted as preparation for study of medicine. However, there was little consistency among them in terms of content coverage, modes of assessment or criteria for selection. This made it difficult for students to work out whether and where a particular Diploma might be accepted, as well as making the decision to accept a new Diploma a risky one for medical schools. Medical schools were concerned that students entering via Access had limited experience of high-stakes exams that are essential assessments within both undergraduate and postgraduate medical training.

In view of the confusing options for Access students wishing to study medicine, the Quality Assurance Agency for Higher Education (QAA) proposed a subject descriptor for medicine that would define content, assessment modalities, appropriate coaching for medical school applications.

Working with representatives of HE institutions, Access Validating Agencies (AVAs) and providers (FE colleges), QAA drew up the subject descriptor and consulted regularly with the Medical Schools Council Selection Alliance (MSCSA) to ensure that it was moving in a direction that would have broad acceptability among those medical schools which were willing to consider Access to HE applicants.

The subject descriptor for medicine was published in September 2021 and was piloted by three AVAs and their providers in the 2021–22 academic year. A new professional behaviours unit was developed for inclusion in all Diplomas intended specifically for

medicine, as evidence of commitment and professionalism was judged by medical schools to be essential. Following completion of the pilot, Diplomas bearing the title Access to HE Diploma (Medicine) are required to comply fully with the subject descriptor. This has allowed medical schools to decide whether to specify that only compliant Diplomas would be accepted.

Acceptance of Access to HE Diplomas for entry to medicine has become more consistent than previously, allowing MSCSA to include Access requirements on its medical school entry requirements web page. For 2025 entry, 17 UK medical schools accept a subject-descriptor-compliant Diploma, while a further 3 list all Diplomas/providers currently known to be compliant.

Compared to the situation in 2014, Access to HE courses for prospective medical students and their acceptance by medical schools show greater consistency and transparency. Following on from the implementation of the subject descriptor for medicine, a new descriptor has been developed for nursing and health professions.

Graduate-entry courses

The Selecting for Excellence Final Report acknowledged that graduate-entry courses are important in increasing diversity within the student body. Whilst they are not primarily designed to increase participation of students from lower socioeconomic backgrounds, they do mean that people with varied life experience, including experience of working in different occupations, can enter the profession.

Utilising graduate-entry courses to widen participation to medicine for students from lower socioeconomic backgrounds is challenging. This is because the measures used to identify widening participation students are all based on the model of an 18-year-old school leaver. The measures available include postcode derived geographic measures or information on the type of school attended. The problem in doing this for postgraduate students is twofold. Firstly, not all applicants will make applications from their family home and therefore it is difficult to use geographical measures as an applicant applying from their current

university address may live in a deprived area that does not reflect the one they grew up in. Secondly, for mature students it is difficult to identify a timeframe over which to measure disadvantage. It is often the case that applicants to graduate-entry medicine will have worked in a different profession before applying. If this is a well-paid role it is hard to argue that the applicant is from a widening participation background, no matter how deprived their upbringing.

Despite these difficulties it is important to investigate how graduate-entry courses can contribute to wider efforts to widen participation to medicine. Exploring potential ways of using contextual admissions in recruitment is important, as well as these schools contributing to efforts to use outreach to attract non-traditional applicants into the medical profession.

Recommendation: MSC to work with graduate-entry medical schools to identify and implement ways they can contribute to efforts to widen participation to medicine.

The previous Selecting for Excellence report also identified that financial support available to graduate-entry students is different from that available to undergraduate students, especially in England where they have to fund their first year's tuition fees without access to loans. In particular, graduate-entry students are affected by the fact that the NHS Bursary in England has not risen in line with inflation. This has caused severe financial difficulties for some students and could jeopardise the sustainability of these courses in the long-term.

Contextual admissions

Contextual admissions aim to put an applicant's attainment into the context in which it was achieved. This recognises that not all people have the same ability to demonstrate their potential, due to educational and socioeconomic disadvantage. The Selecting for Excellence Final Report acknowledged that in 2014 most medical schools applied some sort of contextual admissions policy to their selection process at the point of admission. However, it recommended that schools evaluate their approach to ensure it is evidence-based.

It also stated that the use of contextual admissions was not well understood by applicants and that medical schools, universities and government should do more to advertise the fact that students may be able to access medical school on lower grades if they are from a disadvantaged background.

In 2018 MSC published good practice indicators in the use of contextual admissions to medical courses.¹ This guidance encourages schools to use more than one contextual measure in their process and to use a combination of measures that look at different aspects of disadvantage: education related measures, geographical measures and individual measures (see Figure 2).

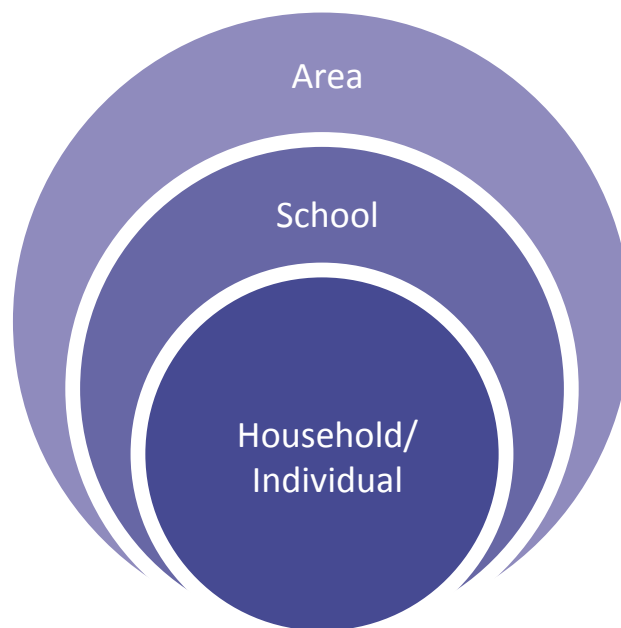


Figure 2: Triangulation of contextual measures from Indicators of good practice in contextual admissions, MSC (2018).¹

This approach is more likely to accurately identify applicants from disadvantaged backgrounds than a single measure, which can yield a false positive response. The document explored the measures available to schools and provided an overview of the strengths and weaknesses of each measure in terms of accurately identifying disadvantage and the accessibility of that measure to admissions staff, as well as acknowledging that some measures may be specific to certain localities.

¹ Indicators of good practice in contextual admissions. Medical Schools Council, 2018. Available from: <https://www.medschools.ac.uk/media/2413/good-practice-in-contextual-admissions.pdf>

Recommendation: MSC to update the document Indicators of good practice in contextual admissions, to reflect changes in measures available over the last 10 years and support medical schools evaluate whether their contextualised admissions policy leads to an increased proportion of traditionally under-represented groups.

The Role of the Doctor

Aspiring to Excellence, the 2008 Inquiry into the debacle around Modernising Medical Careers called for a consensus statement on the Role of the Doctor arguing that an educational programme could not be developed until there was agreement on the doctor's role and responsibilities. The first version was published in 2009 and the 2014 Selecting for Excellence Final Report summarised the process that had been undertaken to ensure the statement remained fit for purpose. Significant engagement with stakeholders such as the British Medical Association, NHS Employers and the Academy of Medical Royal Colleges had been undertaken. A number of focus groups were also carried out with patients and the public to ensure the contents matched their expectations of doctors.

In the course of writing this report, MSC has considered the contents of the statement, and believes that it remains a useful description of what differentiates a doctor from other healthcare professionals. It adequately reflects the professionalism that all healthcare professionals need to bring to their roles with regard to communication skills and respect for patients but makes the important distinction that the role of the doctor is unique:

Doctors alone amongst healthcare professionals must be capable of regularly taking ultimate responsibility for difficult decisions in situations of clinical complexity and uncertainty drawing on their scientific knowledge and well-developed clinical judgement. Underpinning this is the importance of keeping up-to-date with research, reflecting on their own practice and advocating for evidence-based medicine.

Medical undergraduate education must provide a strong grounding in relevant science and in clinical practice as well as providing opportunities to develop an appreciation for research. Doctors must

have the ability to assimilate new knowledge critically, have strong intellectual skills and grasp of scientific principles and be capable of effectively managing uncertainty, ambiguity and complexity. They must have the capacity to work out solutions from first principles when the pattern does not fit.

Whilst this remains the case in 2024, the context of scientific knowledge that underpins the practice of medicine has changed. The last ten years have seen huge changes with the emergence of widely available generative artificial intelligence (AI) platforms, an increase in the availability of patient health data from wearable technologies and the increased utilisation of genomics data in providing healthcare, to name but three.

These changes were acknowledged within the NHS Long Term Workforce Plan for England (NHS LTWP) which stated that AI will be used to streamline administration processes within the NHS and that it will also be an increasingly important tool in diagnosing conditions in patients across a range of specialties including pathology and dermatology. The NHS LTWP also flags that remote monitoring of patients will be increasingly used to avoid them having to come into hospitals unnecessarily. MSC has developed guidance setting out how medical students will need to make use of data science to optimise the use of such innovations in their practice.

The increased utilisation of technology is not the only aspect of the NHS LTWP which will have an impact on the role of the doctor in the next 10 years. It also sets out ambitious plans to increase the number of staff working in roles within the NHS that have been introduced within the last ten years. This includes roles such as musculoskeletal first contact practitioners and physician and anaesthesia associates. Doctors have always worked in teams with a wide range of different healthcare professionals and giving medical students opportunities to learn how to do this effectively has long been a crucial part of undergraduate medical education. Therefore, whilst the proposals to increase the number of roles in the NHS is not an issue affecting the fundamental role of the doctor, integration must be done in a way that ensures patients and NHS staff have absolute clarity on the roles and responsibilities of the different professionals working within the NHS.

The first version of the LTWP focused on the three themes of Recruitment, Retention and Reform. It had always been the intention to refresh the LTWP regularly and the new Government has embarked on a comprehensive review

of the needs of the NHS. Starting with Lord Darzi's findings on the state of the NHS in England, the Change.NHS consultation is currently providing a wealth of information that will inform the Government's revised proposals for the LTWP. Medical schools are actively involved in this work and are determined to use their expertise to

- Enhance aspiration, facilitate access and support less privileged students
- Ever improve the quality of education
- Optimise the quality of patient care
- Increase the sector's contribution to research and innovation for the benefit of both patients and the economy.

Skills, values and attributes needed to study medicine

The second part of this chapter in the Selecting for Excellence Final Report focused on the need for applicants and their teachers/careers advisers to understand the skills, values and attributes that medical schools look for at the point of admission. MSC developed guidance in 2014 to support the launch of the Selecting for Excellence Final Report based on the GMC's flagship ethical guidance for doctors Good Medical Practice and the values set out in the NHS Constitution.

The key skills, values and attributes medical schools look for at the point of admission as set out in the guidance were:

- Motivation to study medicine and genuine interest in the medical profession
- Insight into your own strengths and weaknesses
- The ability to reflect on your own work
- Personal organisation
- Academic ability
- Problem solving
- Dealing with uncertainty
- Manage risk and deal effectively with problems
- Ability to take responsibility for your own actions
- Conscientiousness
- Insight into your own health
- Effective communication, including reading, writing, listening and speaking
- Teamwork
- Ability to treat people with respect

- Resilience and the ability to deal with difficult situations
- Empathy and the ability to care for others
- Honesty

Since 2014 the guidance has been widely used by medical schools in their outreach activities. They recommend that all applicants to medicine read the guidance and reflect on how they can demonstrate the skills, values and attributes in their personal statements and at interview.

Observe GP

Professor Gail Nicholls, University of Leeds

Observe GP is an online alternative to work experience for aspiring medics aged 16 or over. It is a free interactive video platform providing insights into the role of a GP and the wider primary care team. It is designed to provide insights for all, regardless of family networks or locality.

Observe GP has been developed by GPs, healthcare professionals and those involved in admissions to medical school. The video content allows students to observe differing members of the primary care team. Eight videos set in GP have been filmed with the team talking directly to camera, each consultation starts with an introduction and ends with a debrief, split screen the participant can see both the GP and patient at the same time. Reflective activities are provided in the interactive online platform and terminology is explained through pop up boxes.

The RCGP has also produced a reflective diary in partnership with the Medical Schools Council that can be used to support any learning activity an applicant undertakes in preparation for applying to medical school. From work experience to volunteering, summer schools to taster days, it provides a format for participants to reflect on their experience helping them to learn from situations, to develop competencies and use this to think about career choices.

MSC also promotes this guidance to both applicants and careers advisers and teachers during its outreach activities. It has proved a useful way to inform applicants about what medical schools are looking for in potential students, which in turn helps to reduce applicant anxiety. It is particularly helpful in the context of work experience, ensuring applicants focus on the experience and what they have learnt rather than the achievement of accessing a clinical placement.

Recommendation: MSC to review and update the guidance on the skills, values and attributes needed to study medicine in light of the latest version of Good Medical Practice.

Selection methods

The Selecting for Excellence Final Report contained a chapter on the selection methods used by medical schools. To support the project MSC commissioned a research team, led by Professor Jen Cleland, to assess the reliability and validity of different aspects of an overall selection process and to examine the impact of those measures on widening participation applicants.

The research team found that:

- The academic attainment of candidates remains a common feature of all selection policies and the strength of evidence for its continuing to do so remains strong.
- The strength of evidence paints a relatively clear picture regarding structured interviews/MMIs, aptitude testing and SJTs being effective across several criteria. Selection centres appear worth exploring further.
- In terms of assessing different types of factors, the data suggest that SJTs and MMIs are the most valid predictors of inter- and intra-personal (non-academic) attributes such as empathy and integrity.
- The picture at this point in time is less clear for aptitude tests generally but there is emerging evidence that UKCAT (now known as UCAT) can enhance predictive validity and improve fairness.
- The strength of evidence for continuing to use personal statements is low.

- There is very little research on the incremental predictive validity of combining selection tools, although this is common practice.

The research team was asked to give a view on whether there was sufficient evidence to support the development of national framework for selection to be used by all UK medical schools. The team considered that this would not be possible given the current evidence and the report went on to recommend that medical schools evaluate whether they should develop a selection process that includes elements of academic attainment, aptitude tests and MMIs.

In the last 10 years medical schools have largely followed this approach, although some still use structured interviews rather than MMIs. This convergence of practice has made it easier for MSC and colleagues working within outreach in medical schools to provide high quality advice to potential applicants as, although there will be differences in each school's processes, the basic requirements are very similar. This means generic resources can, and have been, developed, providing the necessary clarity for applicants and allowing schools to continue to innovate. Over the last ten years new approaches to selection, such as giving additional weight to applicants from specific geographical areas, have been developed while also maintaining a common approach.

Given the plans in England to expand the number of medical school places, the lack of a national framework will allow schools to take innovative approaches to selection. One of those which could be considered was recommended in the Selecting for Excellence Final Report: selection centres.

Bristol Work-Based Selection Scheme

Simon Atkinson, University of Bristol

In common with most UK medical schools, the University of Bristol uses the multiple mini-interview format (MMI) to select candidates for offers. We noted that the personality characteristic of extraversion correlates positively with MMI performance¹, yet this is a personality characteristic which is negatively associated with socioeconomic status.² To reinforce this linkage there is also evidence to suggest that higher socioeconomic status (SES) also correlates positively with higher MMI performance.³ Although the MMI process is generally reliable and valid⁴, there is

reasonable cause to suspect that low SES candidates, i.e. those from WP backgrounds, might perform at interview in a way which does not give a true indication of their non-cognitive attributes.

We selected a group of 6 candidates who interviewed for A100 MBChB in 2016-7, and who were rejected after interview. All candidates met certain WP markers and had previously participated in the University's Access to Bristol scheme. We arranged one weeks' work experience at Weston General Hospital, as well as accommodation in a shared house for the duration of the project. We devised a 360 Feedback process, conducted online and mapped to the domains set out in the Medical Schools Council's Statement on the core values and attributes needed to study medicine. Candidates were also assessed by short informal discussion with two representatives of the Medical School at the end of the project, and by two current MBChB undergraduates with whom they spent time during the project. We continued the scheme in 2018 (12 candidates), 2019 (12 candidates) & 2024 (10 candidates).

Results:

- Since 2017 a total of 40 candidates have passed through this scheme.
- Of these 23 (57.4%) were female and 17 (42.6%) male.
- 28 (70%) have received an offer as a result of the scheme, around 20% higher than the usual MMI interview / offer rate.
- Female candidates were more likely to gain an offer than males: 87% received offers as opposed to 47% of males.
- 10 of the 28 candidates offered a place have now graduated successfully. All others are progressing, with the exception of:
 - o 1 candidate entered medical school and subsequently withdrew; 2 other candidates entered medical school but are currently on leave of absence. All completed the first 3 years of the course.
 - o 1 student failed Y1 but passed upon re-sit.
 - o 1 candidate failed to meet the terms of their offer.

¹Jerant A, Griffin E, Rainwater J, et al. Does applicant personality influence multiple mini-interview performance and medical school acceptance offers? *Acad Med*. 2012 Sep;87(9):1250-9.

²Jonassaint CR, Siegler IC, Barefoot JC, et al. Low life course socioeconomic status (SES) is associated with negative NEO PI-R personality patterns. *Int J Behav Med*. 2011 Mar;18(1):13-21.

³Leduc JM, Rioux R, Gagnon R, et al. Impact of sociodemographic characteristics of applicants in multiple mini-interviews. *Med Teach*. 2017 Mar;39(3):285-294.

⁴Pau A, Jeevaratnam K, Chen YS, et al. The Multiple Mini-Interview (MMI) for student selection in health professions training - a systematic review. *Med Teach*. 2013 Dec;35(12):1027-41.

Medical schools have not as yet pursued this recommendation but over the last ten years there has been a move towards greater collaboration between schools. For example, during the pandemic medical schools admitted applicants from other schools who had not been through their own selection system where that school had over recruited (due to the uncertainty in A Level attainment). Given that resources within medical schools and universities are increasingly stretched, it may be more feasible for medical schools to collaborate on selection in the future.

MMI station development

The final report of the Selecting for Excellence project recommended that MSC work with medical schools to facilitate the sharing of MMI items and the building of an evidence base as to the effectiveness of different forms of MMI items. In 2017, the first MMI station writing event was held. These two-day residential events were run annually (and adapted to online during the pandemic), bringing together representatives from over 20 medical schools, patients, service users and medical students (including those from widening participation backgrounds) to train and work on developing new MMI stations. These stations were piloted and tested across several medical schools and are now included in an MMI shared station database and available for use by medical schools.

Over 50 new MMI stations have been developed through the collaborative MMI station writing events. In 2022, the research on this project was suspended due to challenges in securing data from medical schools using the common stations and due to the fact that medical schools all use different scoring mechanisms within their MMI processes which made it difficult to determine reliability of the stations across medical schools. Despite these challenges, this work has brought together admissions colleagues, clinicians, patients and students with a common purpose of innovating and developing inclusive MMI stations for testing the competencies of communication skills, empathy, resilience and team work. It was anticipated that the shared database and training materials that have been developed would be available to help support new medical schools in designing their own MMI processes.

UKMED

The Selecting for Excellence Final Report made a clear recommendation that longitudinal evaluation of selection methods should be carried out and that MSC should continue to support the development of the UK Medical Education Database (UKMED). This database combines data sets from the point of admission to medical school from UCAT and the University and Colleges Admissions Service (UCAS) with data from the Higher Education Statistics Agency (HESA) on what happens to students once they enter medical school. These data are then further linked to data held by the GMC on progression and exam performance in postgraduate education and training.

UKMED is a powerful tool for researchers to use to study the validity of selection methods and provide valuable insights into how doctors progress through their careers.

These are some of the key findings that researchers using UKMED have made over the last 10 years.

- Curtis and Smith found modest evidence that gateway year courses facilitate students from under-represented backgrounds to achieve greater academic potential, although there remains an awarding gap which continues post graduation.^{2, 3}
- Paton et al found that the verbal reasoning section of the UCAT aptitude test had predictive validity and achieving a high score in this section increased the likelihood of a student going on to perform well on the Royal College of Physicians' membership exam.⁴
- Kumwenda et al found that students who entered medical school from independent schools were more likely to have a high score on the UCAT aptitude test than students from state schools. However, they also found that medical students who attended a state school were twice as likely to receive a high ranking when they finished medical school than those who attended an independent school with the same A level attainment.⁵
- Cleland et al found that doctors originating from areas of low participation in higher education were significantly more likely to proceed directly into postgraduate specialty training post-foundation year 2.⁶
- Kumwenda et al found that doctors have a preference to train at foundation schools close to their family home, especially those who attended state-funded schools, from non-White ethnic backgrounds and/or from lower

2 Curtis, S., Smith, D. A comparison of undergraduate outcomes for students from gateway courses and standard-entry medicine courses. *BMC Med Educ.* 2020 Jan; 20(4).

3 Elmansouri A, Curtis S, Nursaw C, Smith D. How do the post-graduation outcomes of students from gateway courses compare to those from standard-entry medicine courses at the same medical schools? *BMC Med Educ.* 2023 May;23(1):298.

4 Paton LW, McManus IC, Cheung KYF, et al. Can achievement at medical admission tests predict future performance in postgraduate clinical assessments? A UK-based national cohort study *BMJ Open.* 2022;12:e056129.

5 Kumwenda B, Cleland JA, Walker K, et al. The relationship between school type and academic performance at medical school: a national, multi-cohort study *BMJ Open.* 2017;7:e016291.

6 Cleland J, Prescott G, Walker K, et al. Are there differences between those doctors who apply for a training post in Foundation Year 2 and those who take time out of the training pathway? A UK multicohort study *BMJ Open.* 2019;9:e032021.

socioeconomic status backgrounds.⁷ This was followed up by Hitchings et al who found that those from deprived backgrounds moved shorter distances from their family homes, while students with higher degrees on entry to medical schools or parents with professional occupations tend to move further away.⁸

- Kumwenda et al also looked at which specialties students from a widening participation background entered and they found that doctors whose parents did not attend higher education were statistically less likely to choose careers in medical specialties relative to general practice.⁹

These research projects provide important insights into a number of factors that will help medical schools and governments across the UK to both widen participation (and identify those students requiring support) and increase the numbers of students studying medicine. It is clear from the research projects that students from widening participation backgrounds, including those who enter with lower grades, are able to succeed on the course and this should give the sector confidence to continue efforts to widen participation and increase the use of contextual admissions. More work should be done in supporting these students to ensure that the awarding gap within undergraduate and postgraduate careers for these students is reduced.

The projects also indicate that students from widening participation backgrounds can benefit efforts to increase the numbers of GPs and address issues of geographical need in terms of healthcare provision. However, it must be stressed that every student accepted onto a medical course should have the same opportunities to succeed and the freedom to pick the specialty and geographical location to work in.

Whilst the data suggest that WP students can assist the overall workforce picture individuals must not feel that they are obliged to make decisions on the basis of their backgrounds.

7 Kumwenda, B., Cleland, J.A., Prescott, G.J. et al. Geographical mobility of UK trainee doctors, from family home to first job: a national cohort study. *BMC Med Educ.* 2018; 18(314).

8 Hitchings L, Fleet B, Smith DT, et al. Determining the distance patterns in the movements of future doctors in UK between 2002 and 2015: a retrospective cohort study *BMJ Open.* 2024;14:e077635.

9 Kumwenda B, Cleland J, Prescott G, et al. Relationship between sociodemographic factors and specialty destination of UK trainee doctors: a national cohort study *BMJ Open.* 2019;9:e026961.

The final chapter of this report will look in more detail at how medical schools and the wider sector can work together to ensure equality of access to fulfilling careers for all graduates and how medical schools can expand their numbers whilst still maintaining progress in widening participation.

2. Data analysis

Data were obtained from UKMED for all UK-domiciled applicants aged 17 to 19 to standard-entry and gateway year courses in the UK over the ten-year period 2013-2022.

These data were aggregated into five 2-year periods (further information on data analysis can be found in Appendix 3).

Data analysis

In the ten years since the Selecting for Excellence Final Report, there have been a number of key changes in demand for, and provision of, medicine courses. These include the opening of new medical schools, the development of substantial numbers of new courses (including gateway year and graduate-entry) by established medical schools, increased numbers of places approved in the four UK nations, and a sustained increase in the number of applicants.¹⁰

As shown in Table 1, in 2021 and 2022 there were a total of 36635 applicants to standard-entry and gateway year courses, compared to 22440 in 2013 and 2014.

Table 1: Number of applicants, entrants and competition ratio (applicants per place) aged 17 to 19 to standard-entry and gateway year medical course types for aggregated years 2013-2022.

Aggregated years	Applicants	Entrants	Competition ratio
2013-14	22440	10140	2.21
2015-16	19430	9835	1.98
2017-18	21455	10625	2.02
2019-20	27695	13465	2.06
2021-22	36635	14250	2.57

Of the 40 current UK medical schools included in this dataset, five were established recently (2018) in England with explicit widening access and participation missions. These are Anglia Ruskin, Sunderland, Lincoln, Edge Hill, and Kent and Medway Medical School (see Figure 3), referred to in this analysis as 'New Medical Schools' (NMS).

¹⁰ Although there has been a small drop in 2023.

Key findings over the last 10 years

- The proportion of male applicants has fallen, and proportion of female applicants has increased from 57% to 63%.
- The proportion of Asian applicants has increased from 27% to 29%, while the proportion of Black applicants has grown from 6% to 10%, however entrance rates remain significantly higher for White applicants. The reasons for this are unclear and it has not yet been possible to identify at what point in the admissions process these students are removed from consideration.
- There is an almost 20-fold difference in participation rate between the lowest (Na h-Eileanan Siar, Outer Hebrides) and highest (Sutton, England) local authority areas.
- The proportion of entrants into medical schools from IMD Q1 (the most deprived) more than doubled from 6% to 14%, although the entrance rate is still far lower compared to applicants from Q5 (33% and 51%, respectively).
- The proportion of entrants from non-selective state schools has increased from 47% to 54%, while for independent schools this has decreased from 29% to 24%.

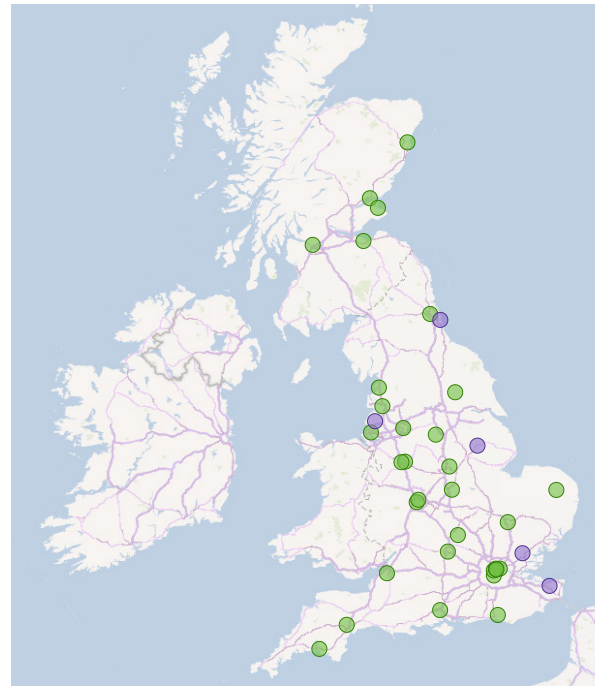


Figure 3: Map showing the locations of medical schools offering undergraduate medicine courses in 2022. The 5 medical schools established in England in 2018 are labelled in purple.

- The number of schools producing applicants to medicine has increased from 57% to 64%. However, over a third of schools still do not produce any medical school applicants and around half have had no successful entrants to medical school.
- Schools producing no applicants to medicine have higher proportions of students eligible for Free School Meals, in more deprived areas (IMD Q1-Q2), and have a lower average A level points score.

Identity

Gender

The data used only categorises gender as either male or female and it is hoped that in future reports data will be collected in a way that enables MSC to report on the figures for gender diverse applicants. The proportion of female applicants and entrants has been steadily increasing and has now reached a proportion around two-thirds (see Figure 4). However, the 18-year-old UK population has consistently had a slightly more males (51.2%); clearly, a sustained and higher proportion of the female school leaver population applies for and enters medicine (see Figure 5).

This may be about vocational aspiration since the rates of acceptance are similar between male and female applicants, although a recent Universities UK survey of young people's attitudes to NHS careers¹¹ found similar proportions of male and female respondents expressed interest in healthcare careers, with males being substantially more likely to identify medicine and physiotherapy as the subjects considered for degree study. However, this discrepancy may be explained by the higher average attainment of females in advanced secondary qualifications.¹²

11 Survey of young people's attitudes to NHS careers. Universities UK, 2024. Available from: <https://www.universitiesuk.ac.uk/what-we-do/creating-voice-our-members/campaigns/powering-nhs/survey-young-peoples-attitudes-nhs>

12 Carroll, M (2023) Sex gaps in education in England. Cambridge University Press & Assessment. Available from: <https://www.cambridgeassessment.org.uk/Images/698454-sex-gaps-in-education-in-england.pdf>

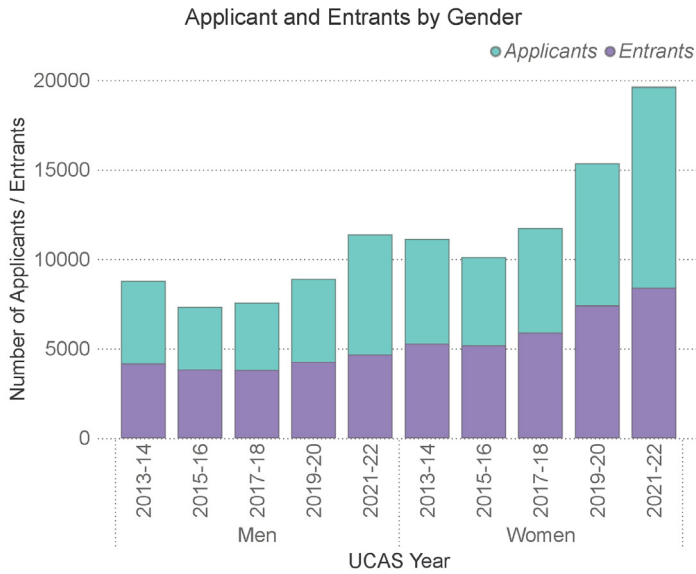


Figure 4: Numbers of applicant and entrants by gender.

Entrants bar is nested within the Applicants bar.

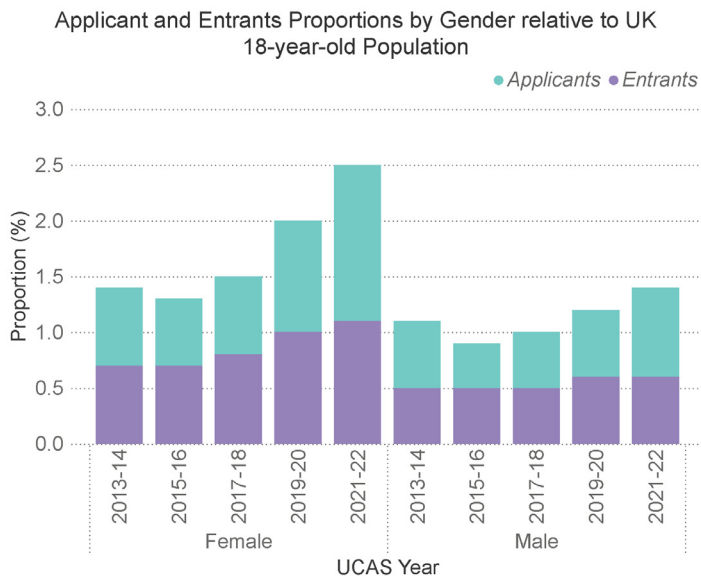


Figure 5: Proportion of UK applicants and entrants from 18-year-old population by gender.

Entrants bar is nested within the Applicants bar.

Ethnicity - an overview

Young people from minoritised ethnic backgrounds have continued to increase in the number and proportion of medicine applicants and entrants over the last ten years, now making the majority of applicants and about half of all entrants in 2021-22.

As shown in Figure 6, the proportion of Asian applicants and entrants to standard-entry courses has increased greatly over the past 10 years (from 26.9% to 38.9% of applicants), alongside smaller increases in the proportion of Black applicants and entrants (from 5.5% to 9.2% of applicants).

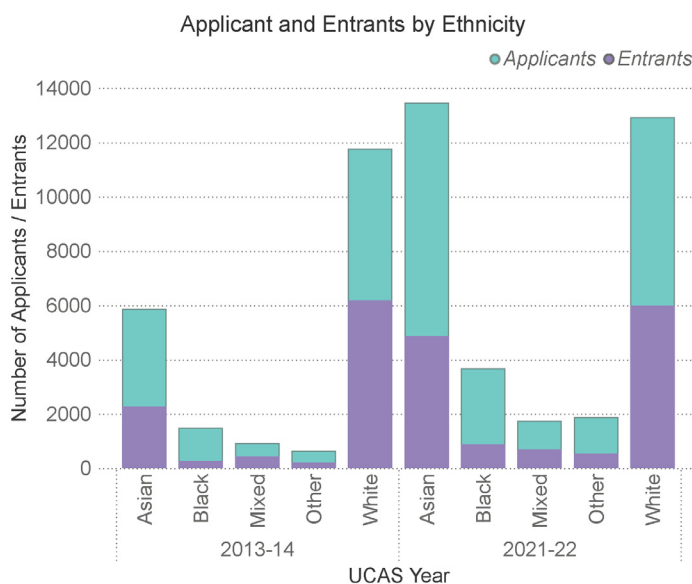


Figure 6: Numbers of applicant and entrants by Ethnicity (high level).

Entrants bar is nested within the Applicants bar.

However, the entrance rate remains far higher for White applicants than applicants from any other ethnicity (see Table 2). This has slightly improved in the past ten years, but the disparity is still large, with the difference being largest for Black applicants, who are 50% less likely to ultimately end up at medical school than white applicants. The reasons for this are not well understood and there are multiple points at which applicants can fall out the application process. These include invitation to interview based on, for example, predicted A Level performance and UCAT, performance at interview and meeting the academic requirements to enter the course such as achieved A Level performance. More work needs to be done to understand this difference.

Table 2: Likelihood of entrance to medical school relative to White ethnicity for different ethnic groups for aggregated years 2021-22.

Likelihood of entrance to medical school relative to White ethnicity (95% CIs)		
Ethnicity	Standard-entry medicine	Gateway year course
Asian	0.75 (0.71-0.80)	0.78 (0.77-0.96)
Black	0.50 (0.46-0.55)	0.66 (0.64-0.84)
Mixed	0.79 (0.71-0.87)	0.75 (0.52-1.14)
Other	0.56 (0.50-0.63)	0.81 (0.50-1.89)

Gateway year courses have far higher proportions of Black and Asian applicants and entrants than standard-entry (see Figure 7). The disparity in entrance rate is also far smaller but still present, with Asian and Black applicants being 22% and 34% less likely be accepted compared to White applicants in 2021-22.

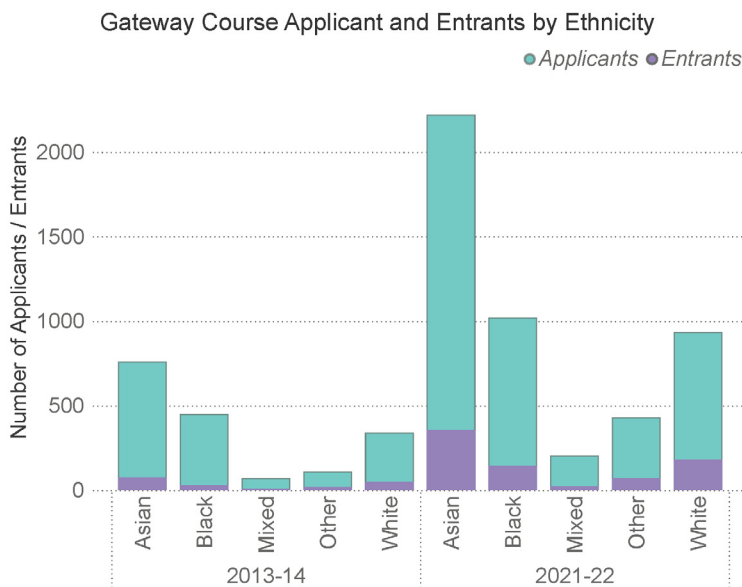


Figure 7: Numbers of applicants and entrants to gateway year courses by Ethnicity (high level).

Entrants bar is nested within the Applicants bar.

There are also variations by region of the UK, with some regions having a far higher proportion of applicants from each 18-year-old ethnic group (see Figure 8). For instance, in 2021-22 Scotland had the highest proportion of Black applicants (128 per 1000), while Wales had the lowest proportion (51 per 1000).

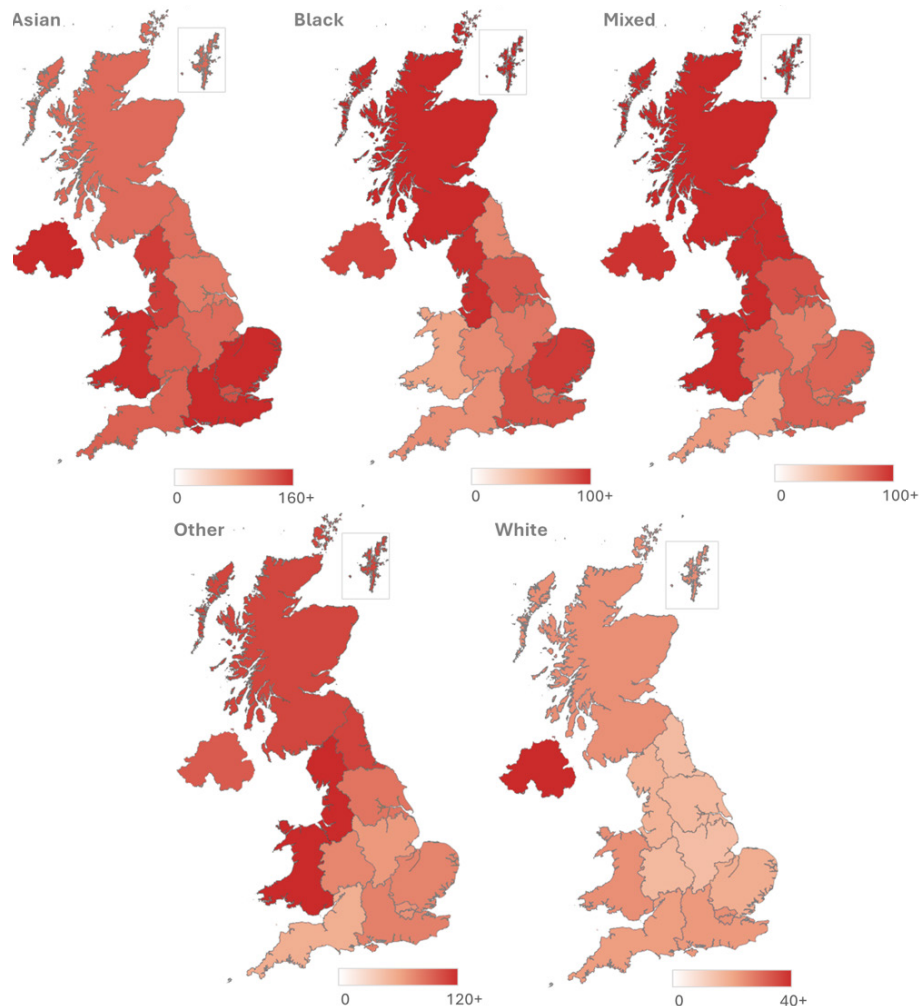


Figure 8: Number applicants to medicine in 2021-22 per 1000 18-year-olds by ethnicity and UK region.

These striking differences suggest that research into the influences on vocational aspirations of young people in different communities would be helpful – particularly where they are heavily under-represented. There are, of course, also associated differences in socioeconomic and educational disadvantage that likely intersect (e.g. via attainment in secondary qualifications).

Ethnicity - detailed

There is now almost a 9-fold difference between the proportion of applicants from 18-year-olds from White (low) and Indian (highest) communities (see Figure 9). The proportion of Asian Pakistani applicants and entrants has seen a far larger increase than other Asian ethnicity subgroups.

Similarly for Black African applicants and entrants compared to Black Caribbean, where there is now a 5-fold difference in applicant proportions relative to 18-year-old population. See Appendix 4 for supplementary tables.

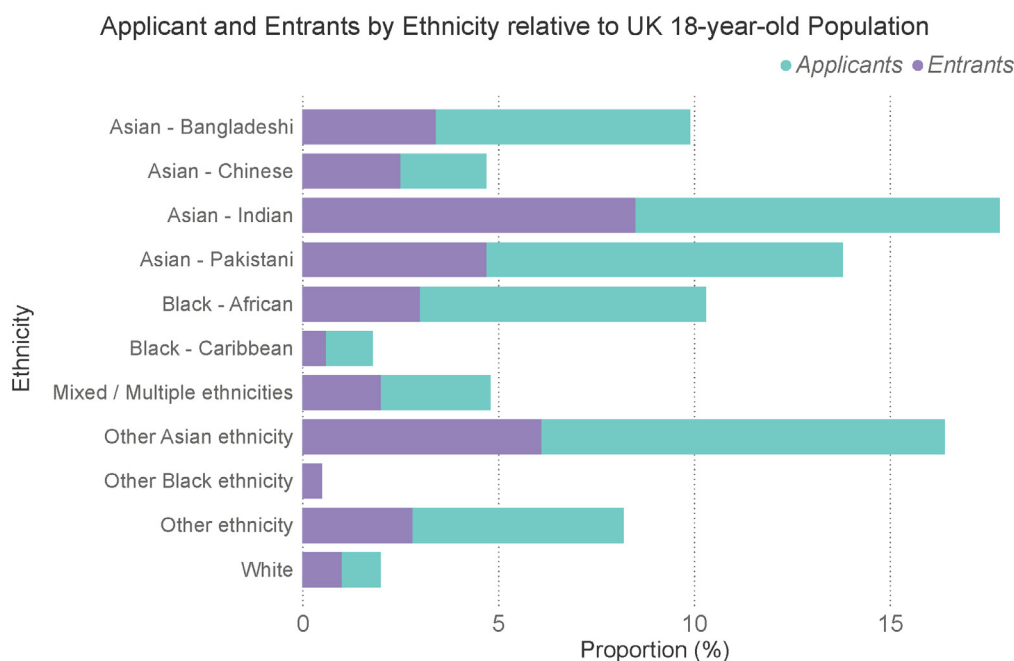


Figure 9: Proportion of applicants and entrants by low-level ethnicity in 2021-22. Entrants bar is nested within the Applicants bar.

There are also variations in entrance rates within ethnicity groups – Chinese and Indian applicants having higher entrance rates (53.4% and 47.9% respectively in 2021-2022) than Bangladeshi and Pakistani applicants (34.6% and 34.0% respectively in 2021-2022). Differences seen reflect the differences in average attainment 8¹³ scores of 11-16 year olds.¹⁴

13 Attainment 8 is a measure of a pupil's average grade across a set of eight GCSE subjects.

14 GCSE results (Attainment 8). UK Government, 2023. Available from: <https://www.ethnicity-facts-figures.service.gov.uk/education-skills-and-training/11-to-16-years-old/gcse-results-attainment-8-for-children-aged-14-to-16-key-stage-4/latest/>

Disability

The proportion of applicants and entrants with a declared disability has increased by 80% from 2013-14 to 2021-22 (see Figure 10). Entrance rates are slightly lower for those with a declared disability (-2.6%) in standard-entry courses, though not in gateway year courses.

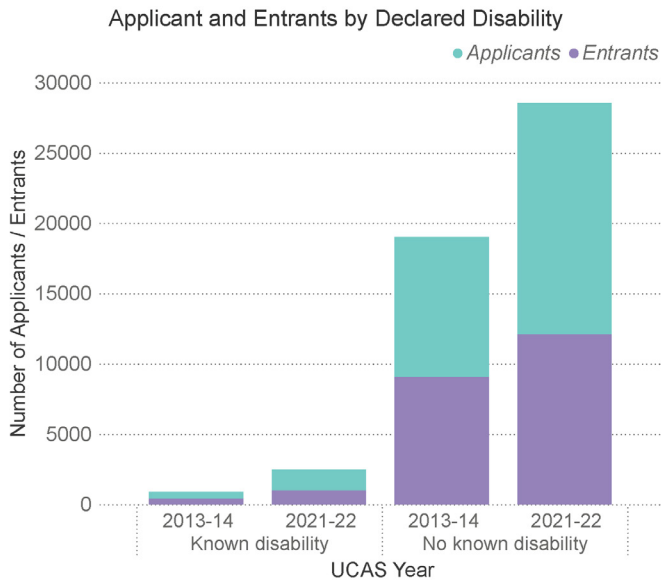


Figure 10: Numbers of applicants and entrants by declared disability.

Entrants bar is nested within the Applicants bar.

Specific learning difficulty is the commonest disability declared, followed by mental health, and long-standing illness, together making up around two thirds of applicants with a disability (see Figure 11).

Types of Declared Disability of Applicants to Medicine (2013-2022)

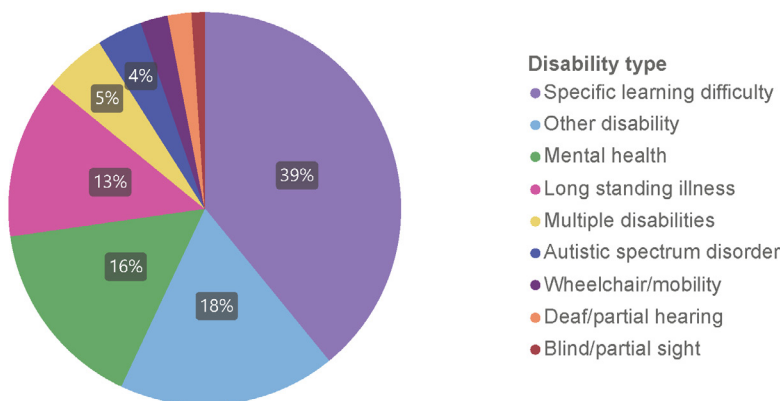


Figure 11: Types of disabilities declared amongst applicants to medicine between 2013 and 2022.

The changes in access and participation for people with a disability reflect much improved inclusion policies in medical schools, facilitated by several publications from public bodies^{15,16,17,18} and research from advocates.¹⁹ Recent research from UKMED²⁰ demonstrates that disabled medical students perform as well as non-disabled peers at medical school.

Geographical indicators

Regional

There have been no large variations between 2013 and 2022 in applicant or entrant proportions by region. Most regions have seen a decrease in entrance rates (probably due to increased numbers of applicants compared to places) except for Scotland (with an increase of 11% in entrance rate in the last 10 years).

For gateway year courses, there has been a jump in applicants and entrants for Scotland in 2017-18 following the introduction of Glasgow and Aberdeen gateway year courses. There are low proportions of applicants from NI and Wales, probably due to the absence of gateway year courses in those nations – although it should be noted that all of the devolved nations have contextual admissions policies in place for these students.

15 Langlands, A (2005) The Gateways to the Professions Report. Available from: <https://dera.ioe.ac.uk/id/eprint/6459/1/Gateways%20to%20the%20Professions%20Report%20-%20July%202005%20-%20%20FINAL.pdf>

16 Gateways to the professions. Advising medical schools: encouraging disabled students General Medical Council, 2008. Available from: https://www.gmc-uk.org/-/media/documents/gateways-to-the-professions-nov-2016_pdf-68375486.pdf

17 Welcome and valued: Supporting disabled learners in medical education and training. General Medical Council, 2019. Available from: https://www.gmc-uk.org/-/media/documents/welcomed-and-valued-2021-english_pdf-86053468.pdf

18 Active inclusion: Challenging exclusions in medical education. Medical Schools Council, 2021. Available from: <https://www.medschools.ac.uk/media/2918/active-inclusionchallenging-exclusions-in-medical-education.pdf>

19 Shaw, A. Inclusion of disabled Higher Education students: why are we not there yet? *International Journal of Inclusive Education*. 2021;28(6), 820–838.

20 Murphy MJ, Dowell JS, Smith DT. Factors associated with declaration of disability in medical students and junior doctors, and the association of declared disability with academic performance: observational study using data from the UK Medical Education Database, 2002-2018 (UKMED54). *BMJ Open*. 2022 Mar;12(4):e059179.

As shown in Table 3, there has been a marked decrease from 2013-2014 to 2021-2022 in the proportion of applicants to gateway year courses from London (from 57% to 29%). This may be due to the fact that gateway courses have increased in number across the country, whereas they were previously based primarily in the South of England.

Table 3: Numbers and proportions of applicants to gateway courses by applicant domicile region. S represents where numbers have been suppressed.²¹

Region	Number of applicants to gateway year courses (proportion)	
	2013 - 2014	2021 - 22
East Midlands	75 (4.3%)	370 (7.6%)
East of England	95 (5.4%)	405 (8.3%)
London	990 (56.6%)	1425 (29.3%)
North East	55 (3.1%)	95 (2.0%)
North West	110 (6.3%)	525 (10.8%)
Northern Ireland	S	S
Scotland	S	320 (6.6%)
South East	135 (7.7%)	425 (8.7%)
South West	40 (2.3%)	185 (3.8%)
Wales	S	75 (1.5%)
West Midlands	115 (6.6%)	565 (11.6%)
Yorkshire and the Humber	105 (6.0%)	455 (9.4%)

²¹ Suppressed (data have been excluded in order to protect individual identities).

New medical schools have higher proportions of applicants and entrants in the regions they are based (see Figure 12).

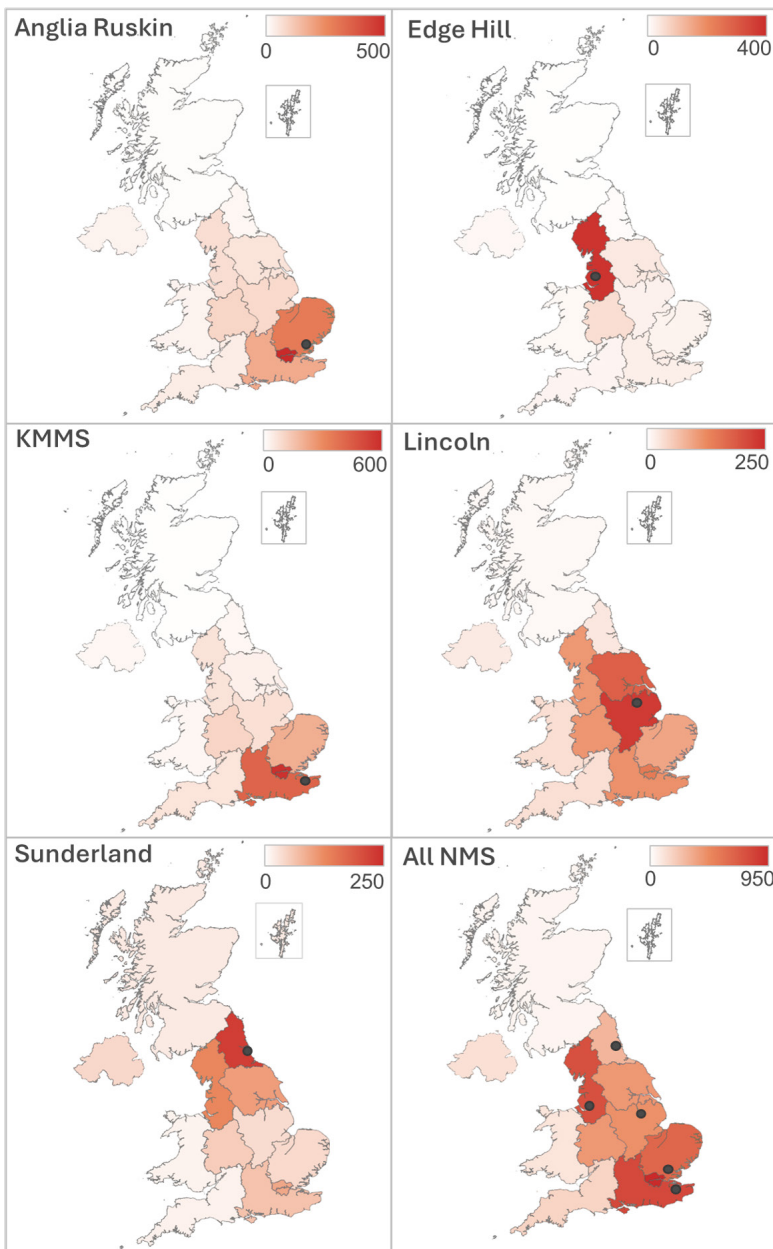


Figure 12: The number of applicants to the new medical schools in 2021-22 by applicant domicile region.

Analysis at the level of local authorities demonstrated more substantial differences than the larger regional data (see Figures 13 and 14), with almost a 20-fold difference in application rates per 1000 18-year-olds between the lowest (Na h-Eileanan Siar, Outer Hebrides) and the highest (Sutton, England). This variation is also likely to be influenced by educational factors – mean attainment of schools/colleges, type of secondary school, availability of an advanced level science curriculum – as well as social, economic, and geographical ones. Most local authority districts in the bottom and top quartiles for applicants per 1000 in 2013-14 remained in the same quartile in 2021-22.

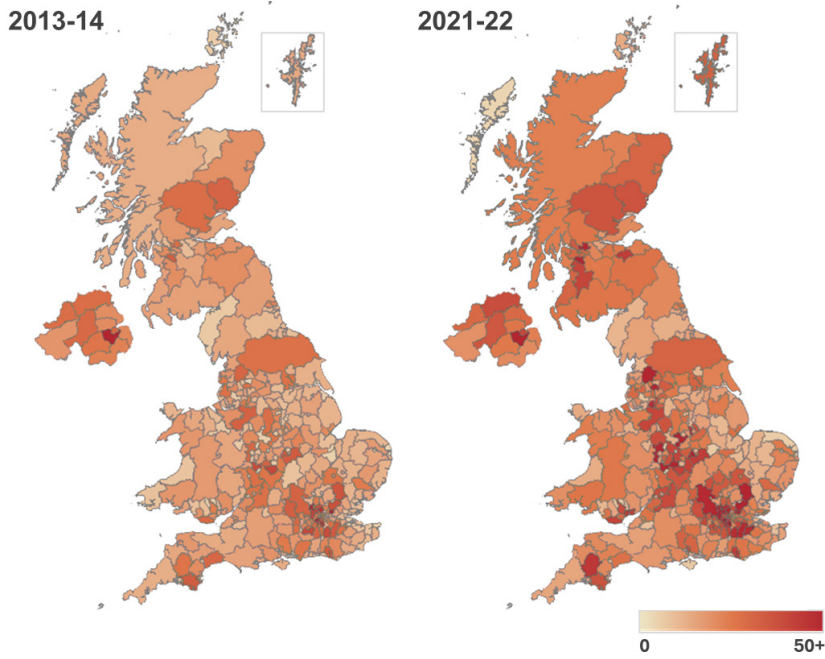


Figure 13: Applicants per 1,000 18-year-olds by local authority.

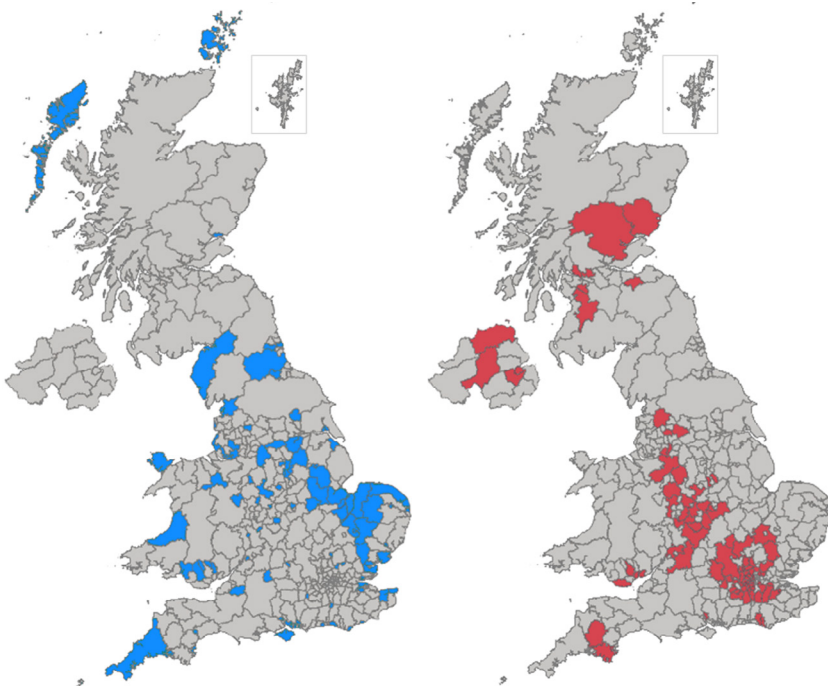


Figure 14: Lowest (left) and highest (right) quartiles of Local Authorities by applicants per 1,000 18-year-olds in 2021-22.

There is a moderate correlation between the applicant rate and the mean IMD score for local authorities ($r=-0.35$).²²

²² IMD scores averaged over each local authority area.

Index of Multiple Deprivation (IMD)

Index of Multiple Deprivation (IMD) is a small area measure of relative deprivation for each nation within the UK, comprising several domains including income, employment, education, health, crime, barriers to housing and services and living environment. Scores have been grouped into quintiles, whereby Quintile 1 represents areas with highest relative deprivation and Quintile 5 with the lowest.

The numbers and proportions of applicants from IMD Q1 (most deprived) have increased dramatically over the past 10 years (from 10.2% to 18.2%), while the proportion from Q5 has decreased (see Figure 15) - the ratio of applicants from Q5 to Q1 has more than halved from 3.4 in 2013-14 to 1.5 in 2021-22. Similar, and larger, changes can be seen for the proportion of entrants, where the proportion from Q1 has more than tripled to 14.3%.

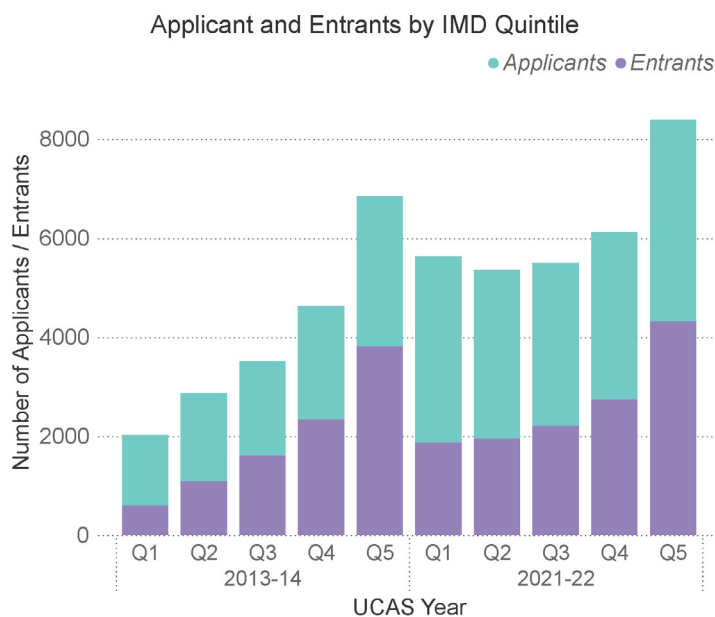


Figure 15: Numbers of applicants and entrants by IMD Quintile.

Entrants bar is nested within the Applicants bar.

The proportion of applicants from the 18-year-old population varies across different regions of the UK, with the West Midlands, North West, and Yorkshire & Humber showing the highest levels (see Figure 16).

Proportion of Applicants from IMD Q1

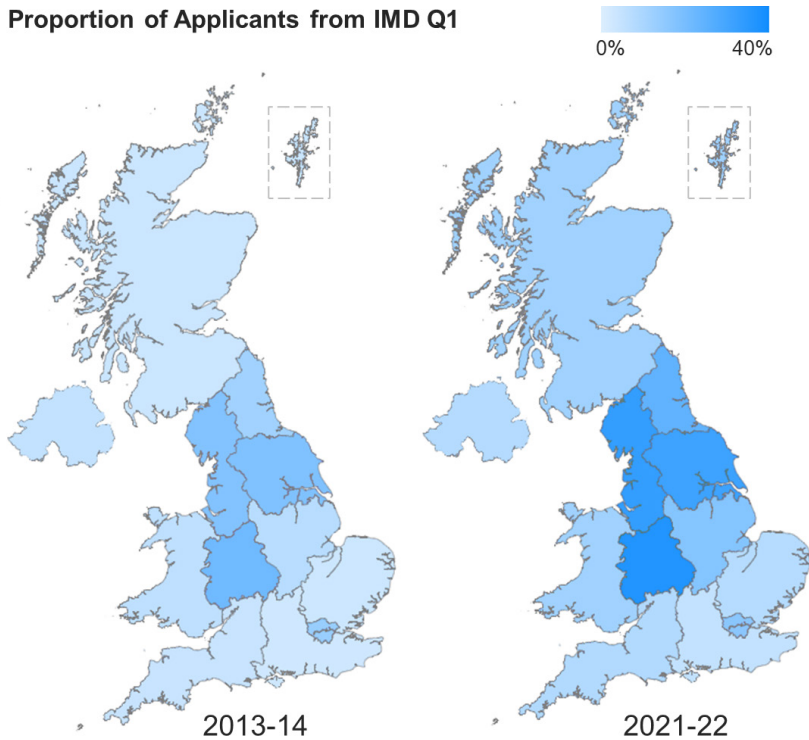


Figure 16: Proportion of all applicants from IMD Quintile 1.

The entrance rate has increased for those in Q1/Q2 and decreased for those in Q4/Q5 (see Figure 17). Despite this, the entrance rate remains positively associated with higher IMD quintile (i.e. greater advantage). Those in Q1 were 37% less likely to be accepted than those in Q5 in 2021-22.

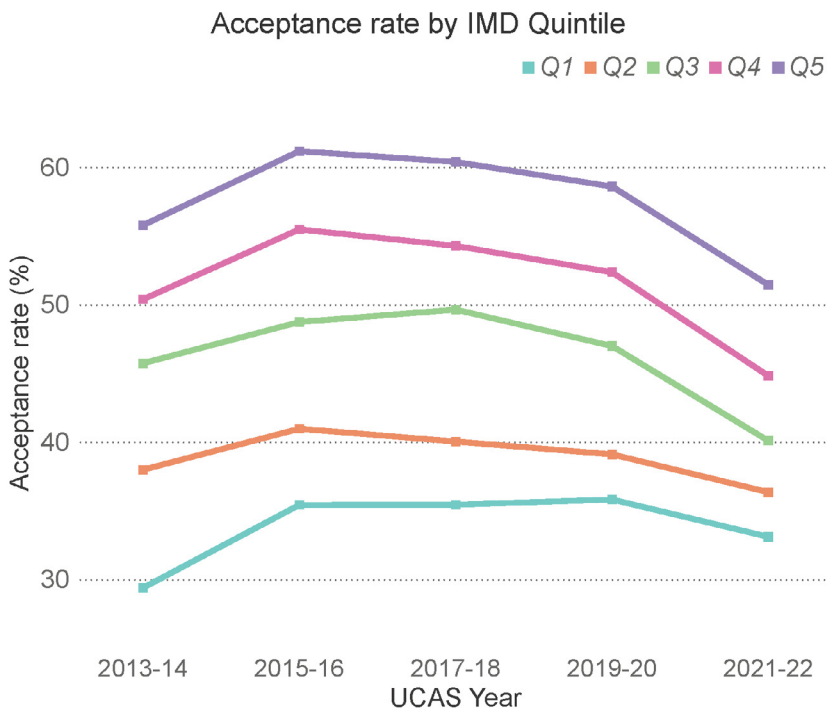


Figure 17: Entrance rate by IMD Quintile between 2013-14 and 2021-22.

For gateway year courses, 67% of applicants and 71% of entrants were from Q1 or Q2 (see Figure 18).

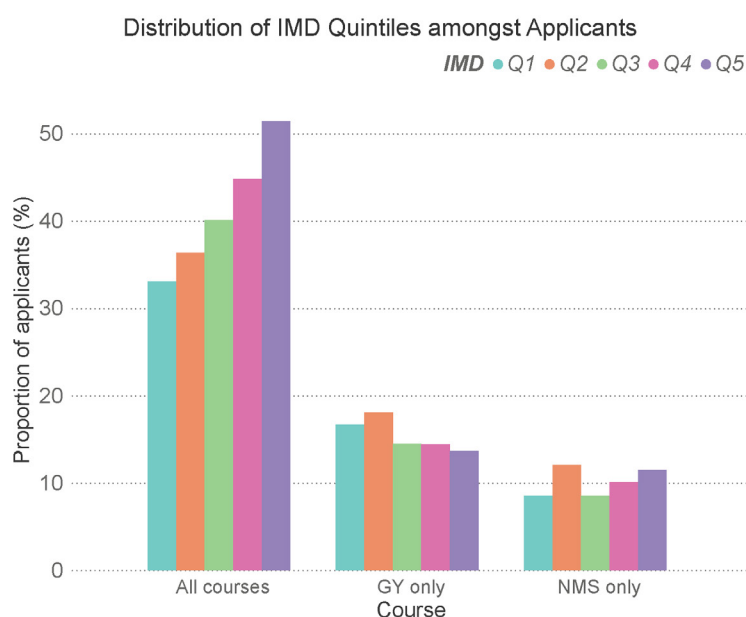


Figure 18: Proportions of applicants by IMD quintiles for all medical schools, gateway year courses and new medical schools in 2021-22.

Entrance rates now do not differ significantly from Q1 to Q5. As shown in Table 4, the New Medical Schools have a slightly more even split of applicants (and entrants) than other standard-entry medicine courses in the first few years they have been established (although still weighted towards Q5).

Table 4: Proportions of applicants and entrants and entrance rate by IMD quintiles for all medical schools and new medical schools in 2021-22.

IMD Quintile	All medical schools			New medical schools		
	Applicant proportion	Entrant proportion	Entrance rate	Applicant proportion	Entrant proportion	Entrance rate
Q1	18.2%	14.3%	33.1%	19.4%	16.2%	8.5%
Q2	17.3%	14.9%	36.3%	19.7%	23.2%	12.0%
Q3	17.7%	16.9%	40.1%	18.2%	15.2%	8.5%
Q4	19.7%	21.0%	44.8%	19.4%	19.2%	10.1%
Q5	27.1%	33.0%	51.4%	23.3%	26.3%	11.5%

POLAR

The participation of local areas classification (POLAR) groups areas across the UK by the proportion of young people who enter higher education. This is represented as quintiles, whereby Quintile 1 shows the lowest rates of participation and Quintile 5 the highest. However, it should be noted that POLAR is not designed as a measure of socioeconomic disadvantage, poorly correlating with low family income.²³

The number of applicants and entrants from Q1/Q2 has more than doubled in 2021-2022 compared with 2013-2014, along with an increased proportion of applicants and entrants from these quintiles and corresponding decrease in proportion from Q5 (see Figure 19). However, the proportion of applicants and entrants from Q5 remains substantially higher. New medical schools have higher proportions of applicants from lower quintiles.

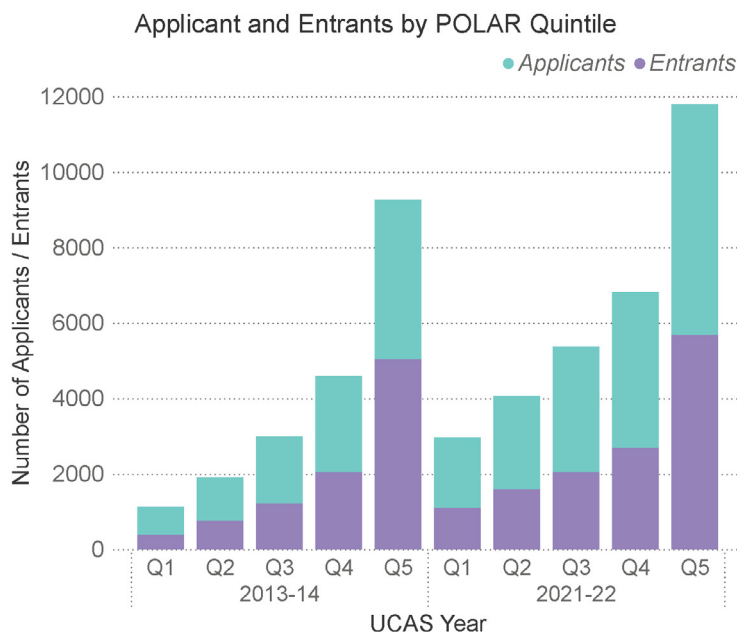


Figure 19: Numbers of applicants and entrants by POLAR Quintile.

Entrants bar is nested within the Applicants bar.

Differences in entrance rates have narrowed over the last 10 years but remain higher for those from higher quintiles (see Figure 20). New medical schools have similar entrance rates across all courses, similar to gateway year courses and in contrast to standard-entry.

²³ Jerrim, J. (2021). Measuring Disadvantage. Sutton Trust. Available from: <https://www.suttontrust.com/our-research/measuring-disadvantage-higher-education-polar-fsm/>

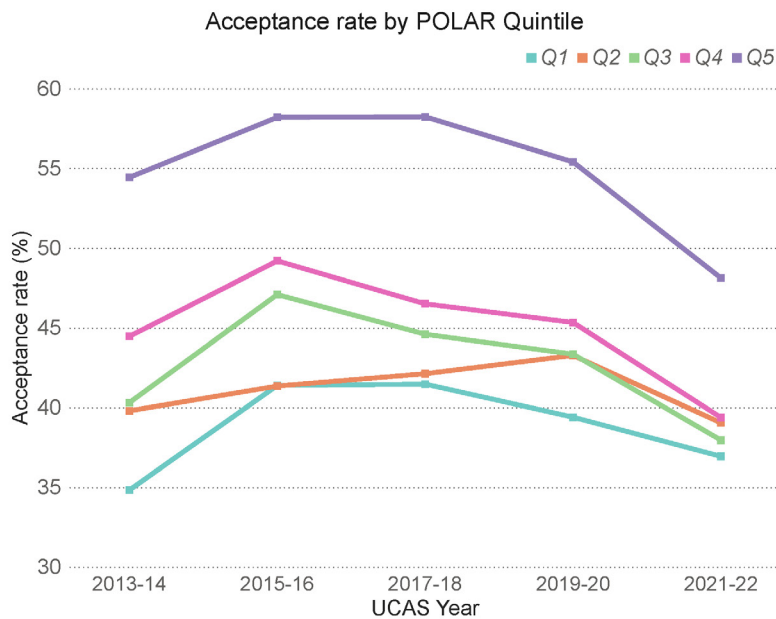


Figure 20: Entrance rate by POLAR Quintile.

While IMD and POLAR measures cannot be directly compared, the results report a similar pattern of change for both geographical indicators of disadvantage – the Index of Multiple Deprivation (IMD) and POLAR (Participation of Local Areas), though the improvements in access (application) and participation (entry) are greater with IMD. POLAR (v4) is based on HE participation rates from 2009–2013, whereas IMD has been updated (re-based) in 2015 and 2019 and may, therefore, be a more sensitive measure. Boliver et al²⁴ certainly argue that IMD is a direct measure of disadvantage and also based on areas with an average 1,500 population compared to POLAR (7,910 average population), although they also argue strongly that it is only verified, individual indicators, such as free-school meals, that have genuine validity when applied to young people.

As with ethnicity, there is a major difference between standard-entry and gateway year courses in their relationship with IMD (and a smaller one with POLAR), namely that in gateway year courses the majority of applicants and entrants come from the most disadvantaged areas (quintiles 1&2) whereas in standard-entry the majority come from the most advantaged quintiles (4&5). Since the Selecting for Excellence Final Report in 2013/14 both types of medicine course have seen a steady shift towards more disadvantaged applicants and entrants. Indeed, the improvement in access and participation for young people from the most disadvantaged areas has been around 80% over ten years.

24 Boliver, V., Gorard, S., & Siddiqui, N. Who counts as socioeconomically disadvantaged for the purposes of widening access to higher education? *British Journal of Sociology of Education*. 2022; 43(3), 349–374.

It should be noted that, while IMD and POLAR are both area-based measures used for widening participation, evidence suggests they have differing effectiveness in determining individual socioeconomic deprivation. Sutton Trust (2021)²⁵ found POLAR to have poor correlation to low family income and that it exhibits bias against certain demographic groups, such as those from minoritised ethnic backgrounds. IMD has a comparably better correlation, although still is not a perfect measure.

Ethnicity and Deprivation intersection

Across all ethnicity groups, more applicants and entrants come from predominantly less deprived areas (IMD Q3-5). For Mixed and White applicants, there are significantly higher proportions from Q3-5 than Q1-2 than for applicants from other ethnic groups.

Between 2013-14 and 2021-22, there has been an increase in applicants from more deprived areas and an increase in the entrance rate across some ethnicities (see Table 5). For instance, the entrance rate for Black applicants from IMD Q1-Q2 has increased by just under 10% and for Asian applicants it has increased by 2.3%, while for White applicants or applicants with Mixed/multiple ethnicities this has decreased by 2%. However, the entrance rate for Black applicants from IMD Q1-Q2 remains the lowest across all groups at 27.8%.

Table 5: Proportion of applicants and entrants from different ethnicities by IMD Quintile

Ethnicity	Proportion (%)	2013-14		2021-22	
		Q1-Q2	Q3-Q5	Q1-Q2	Q3-Q5
Asian	Applicant proportion	38.8	61.2	44.3	55.7
	Entrant proportion	29.5	70.5	37.8	62.2
	Entrance rate	32.1	48.6	34.4	45.0
Black	Applicant proportion	62.0	38.0	67.8	32.2
	Entrant proportion	51.9	48.1	65.3	34.7
	Entrance rate	18.1	27.4	27.8	31.1

²⁵ Jerrim, J. (2021). Measuring Disadvantage. Sutton Trust. Available from: <https://www.suttontrust.com/our-research/measuring-disadvantage-higher-education-polar-fsm/>

Ethnicity	Proportion (%)	2013-14		2021-22	
		Q1-Q2	Q3-Q5	Q1-Q2	Q3-Q5
Mixed / Multiple ethnicities	Applicant proportion	20.7	79.3	29.0	71.0
	Entrant proportion	17.9	82.1	26.1	73.9
	Entrance rate	40.5	48.6	38.3	44.3
Other	Applicant proportion	38.8	61.2	49.2	50.8
	Entrant proportion	31.0	69.0	46.2	53.8
	Entrance rate	28.9	40.8	31.4	35.4
White	Applicant proportion	13.5	86.5	18.1	81.9
	Entrant proportion	11.5	88.5	16.0	84.0
	Entrance rate	45.4	54.5	42.8	49.7

Educational background

School type

Applicants and entrants from independent (private) schools have reduced in proportion over the decade, with a corresponding increase in those from state schools (principally non-selective) from 50.7% to 56.5% (see Figure 21).

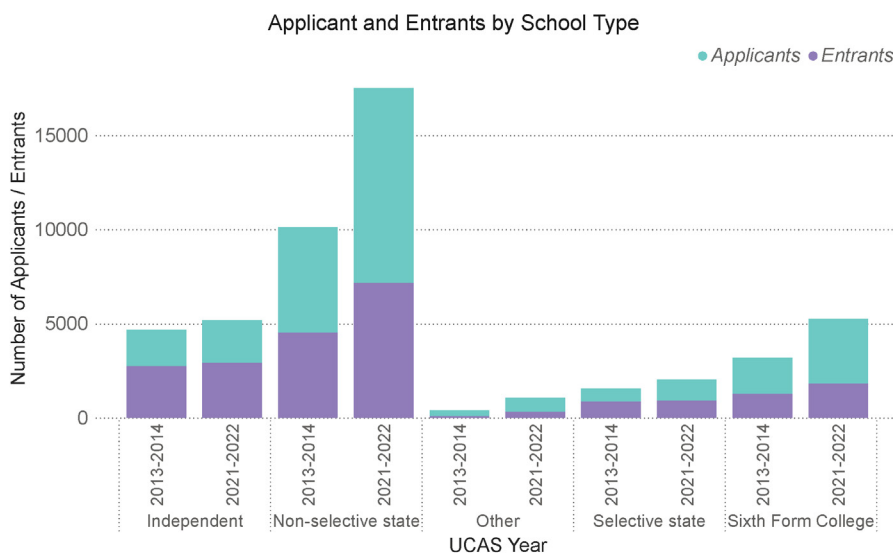


Figure 21: Numbers of applicants and entrants by school type.

Entrants bar is nested within the Applicants bar.

In the latest 2-year period analysed, applicant numbers were roughly proportionate to the school populations (approximately 17% independent), although entrant numbers were still somewhat over-represented (22% independent), with a higher likelihood of acceptance (66% higher), as shown in Figure 22.

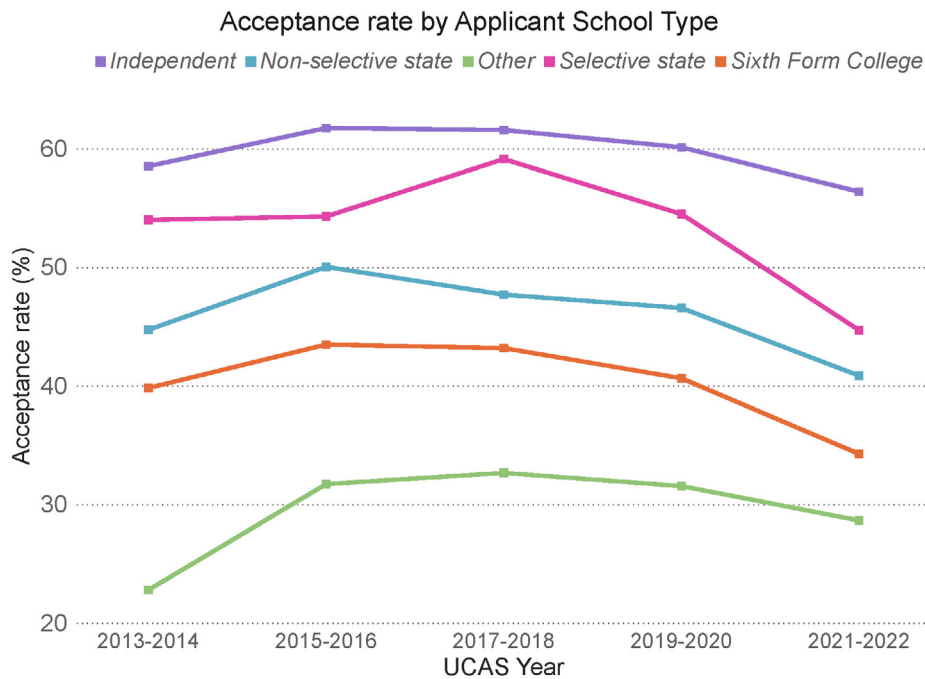


Figure 22:
Entrance rate by school type.

Gateway year courses, consistent with their widening participation mission, have higher proportions of applicants and entrants from the state sector and non-selective schools and colleges (than standard-entry courses), together with entrance rates broadly similar across school type (see Table 6). Many gateway year courses restrict eligibility to students from non-selective and state schools, as well as the local region in some cases.

Table 6: Proportion of applicants and entrants to standard-entry and gateway year courses by school type (in 2021-22). S represents where numbers have been suppressed.²⁶

School type	Proportion (%)	Standard entry	Gateway year
Non-selective state school	Applicant	56.2	65.7
	Entrant	54.0	67.1
Selective state school	Applicant	6.9	1.8
	Entrant	7.2	S
Independent school	Applicant	17.6	2.0
	Entrant	23.6	S
Sixth form college	Applicant	6.9	20.8
	Entrant	7.2	20.9
Further education	Applicant	2.7	4.6
	Entrant	1.8	3.8
Other	Applicant	3.2	5.1
	Entrant	2.2	4.4

The proportions of 18-year-olds attending independent schools in England who apply to and enter medicine are higher than the proportions attending state schools, though this difference appears to be narrowing (see Table 7). 5.6% of state-funded school leavers applied to medicine in 2021-22 compared to 6.3% of those leaving independent schools.

Table 7: Proportion of 18 year-old population applying and entering medicine by School Type. Data are for English-domiciled applicants only. State-funded schools include Sixth Form Colleges but not Further Education Colleges or Other.

School type	Proportion (%)	Aggregated UCAS years		
		2017-18	2019-20	2021-22
Non-selective state school	Applicant	4.5	5.1	6.3
	Entrant	2.7	2.9	3.2
Selective state school	Applicant	3.3	4.5	5.6
	Entrant	1.5	1.9	1.9

²⁶ Suppressed (data have been excluded in order to protect individual identities).

Individual schools - applicants

Since 2013-14, the number of schools contributing medicine applicants has been steadily increasing (see Table 8), with 466 more schools contributing applicants in 2021-22 than in 2013-14. This is a 21.6% increase in the number of schools over 10 years, with 64.1% of schools contributing applicants in 2021-22. Over one third (35.9%) do not have any medical school applicants.²⁷

Table 8: Number of UK Schools producing applicants to medicine between 2013-14 and 2021-22

Aggregated year	Number of schools producing applicants	Schools producing applicants (%)	Percentage increase from 2013-14
2013-14	2157	57.0	-
2015-16	2172	55.7	0.7
2017-18	2349	58.7	8.9
2019-20	2497	61.5	15.8
2021-22	2623	64.4	21.6

England has experienced the largest increases both in the number and proportion of schools and colleges producing applicants. The number rose from 1,682 schools (58.6%) in 2013-14 to 2,113 schools (66.4%) in 2021-22.

Scotland has a higher overall proportion of schools contributing applicants compared to the other devolved nations. This proportion increased over the last two-year period, with 302 schools (73.8%) in 2021-22, up from 278 schools (67.6%) in 2013-14. This may be due to the early establishment of the REACH programme by the Scottish Government with a mandate to universities to equalize participation in higher education across the Scottish IMD quintiles.

Wales has seen a consistent proportion of schools contributing applicants, with a notable increase in 2021-22. The number of schools rose from 125 (36.1%) in 2013-14 to 138 (42.9%) in 2021-22.

²⁷ Figures constructed from total number of schools and colleges with 16-18 year-old provision, excluding special schools; NB: this includes specialist schools (e.g. University Technical Colleges) and FE Colleges.

Northern Ireland has the lowest proportion of schools producing applicants in 2021-22. This figure has remained relatively stable, with around 70 schools (~42%) contributing applicants. Northern Ireland differs in part as it retains the selective state grammar school system attended by approximately 43% of secondary age pupils.

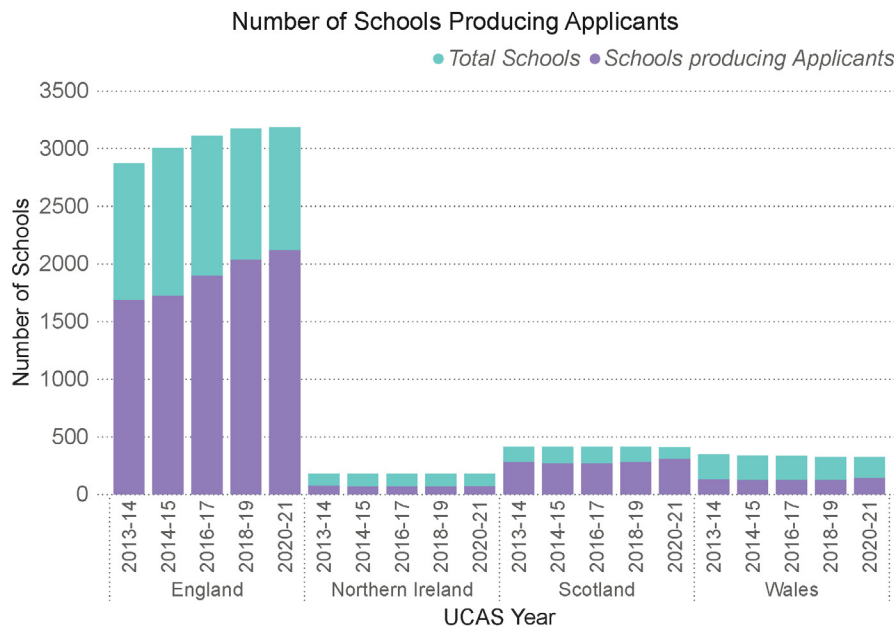


Figure 23: The number of schools producing applicants from the total number of schools, by UK country.

Entrants bar is nested within the Applicants bar.

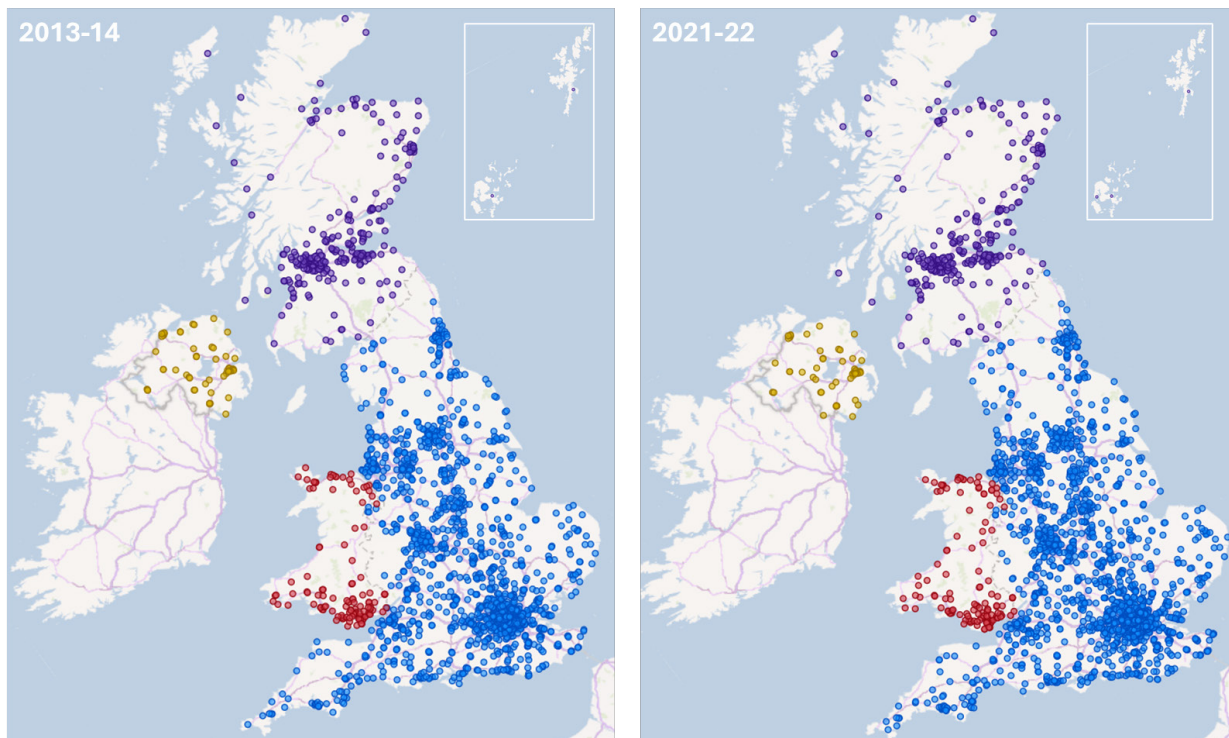


Figure 24: The locations of Schools in the UK contributing applicants to medicine in 2013-14 (left) and 2021-22 (right). Colours correspond to each devolved nation – England (blue), Wales (red), Scotland (purple) and Northern Ireland (yellow).

Dr Paul Garrud reported that in the years 2009–2011, approximately 20% of schools produced 80% of applicants.²⁸ This figure has increased slightly, from 19.3% to 23.4% in years 2021–2022.²⁹ Approximately 60 schools consistently account for 20% of the applicant pool each year; this includes the sixth form colleges in England that typically have substantially larger cohorts than other secondary schools. Many schools and colleges that have started to provide applicants over the last decade are responsible for small numbers per cohort, often single applicants.

Individual schools - entrants

Since 2013–14, the number of schools contributing entrants in each 2-year period has been steadily increasing, with 491 more schools contributing entrants in 2021–22 than in 2013–14. This is a 31.7% increase in the number of schools over 10 years, with 49.9% of schools contributing entrants in 2021–22. However, this means that 50% are not responsible for any entrants.

While the proportion of schools producing entrants has increased (see Table 9), approximately 47 schools consistently account for 20% of the entrant pool each year; this includes sixth form colleges in England that, typically, have substantially larger cohorts than other secondary schools.

Table 9: The proportion of schools with successful applicants in each 2-year period.

Year	No. of schools with applicants	No. of schools with entrants	Proportion of schools with successful applicants (%)
2013-14	2157	1551	71.9
2015-16	2172	1585	73.0
2017-18	2349	1765	75.1

²⁸ Garrud, P. Help and hindrance in widening participation: commissioned research report. Medical Schools Council. 2014. Available from: <https://www.medschools.ac.uk/media/2446/selecting-for-excellence-research-dr-paul-garrud.pdf>

²⁹ The figure of 19.3% was aggregated across three years of study (2009–11). The comparable figure of 23.4% is aggregated across a two-year period (2021–22) and so is likely to be marginally lower.

Year	No. of schools with applicants	No. of schools with entrants	Proportion of schools with successful applicants (%)
2019-20	2497	1952	78.2
2021-22	2623	2042	77.8

However, there has been growth in the number and a slight increase in the proportion of schools responsible for producing 80% of the entrants. This has increased from 620 schools (16.3%) in 2013-14 to 761 (18.6%). This marks a 22.7% increase in the number of schools responsible for 80% of the entrants, and a 2.3% increase in the proportion of schools.

Individual school/college characteristics (England only)

1,029 schools and colleges provided no applicants in 2021-22; all bar 27 of those schools had non-selective admissions policies (see Table 10).

Table 10: Admission policies of schools producing and not producing applicants to medicine in 2021-22 (England only).

School type	Schools with Applicants		Schools with Zero Applicants	
	N	%	N	%
Non-selective	1396	70.1	595	29.9
Selective	301	91.8	27	9.0
Unknown	432		407	

Schools with zero applicants had a higher proportion of pupils on free school meals, with 10.5% of schools contributing no applicants having >50% of pupils on FSM versus just 2.9% of schools contributing applicants (see Figure 25).

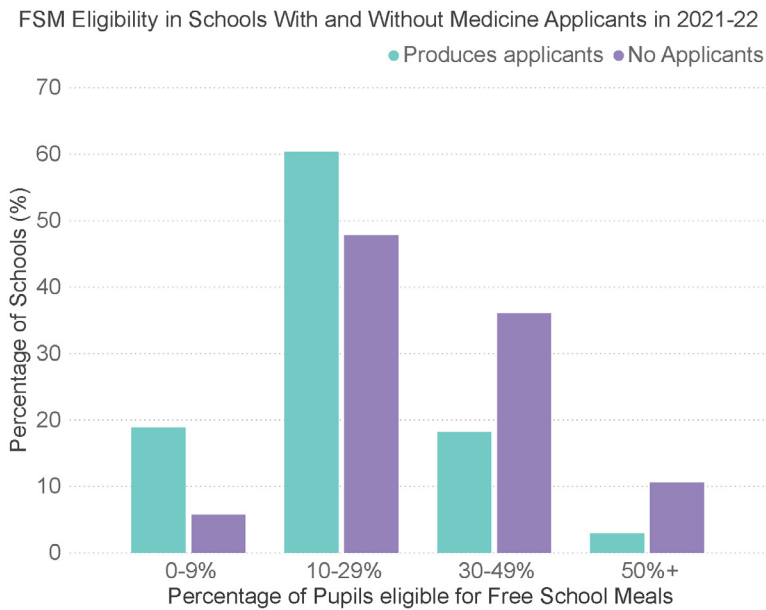


Figure 25: Proportion of pupils eligible for Free School Meals by whether the schools produce applicants to medicine.

As shown in Figure 26, the average A level points score for schools not producing medical school applicants was significantly below the average for all other schools and colleges (32.0³⁰ vs 38.0). It is also important to note that a number of secondary education establishments are highly specialised – e.g. University Technical Colleges – and may simply not offer relevant qualifications.

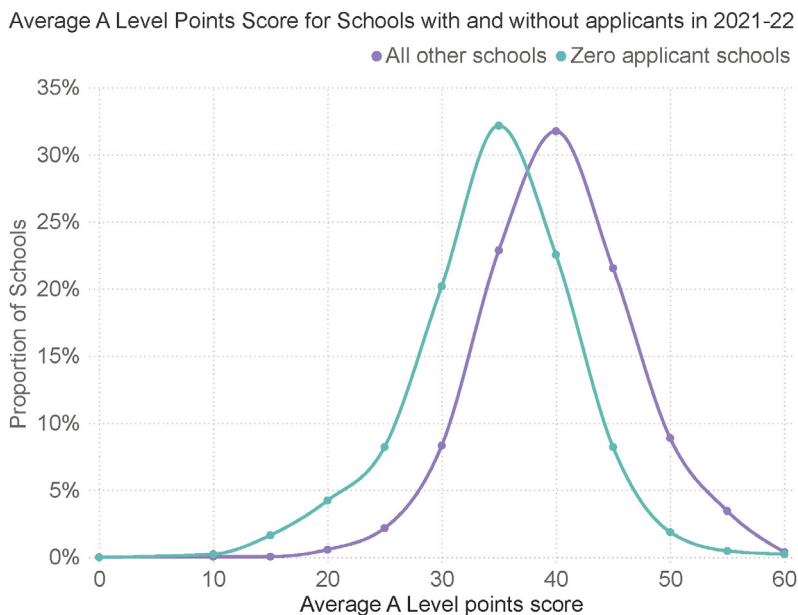


Figure 26: Average A level points score for schools with (purple) and without (blue) applicants to medicine in 2021-22.

30 Points score for A level grades: A*=56, A=48, B=40, C=32, D=24, E=16.

The location of these schools and colleges was slightly uneven across IMD quintiles, with 45% of these schools being in IMD Q1 or Q2 (see Figure 27).

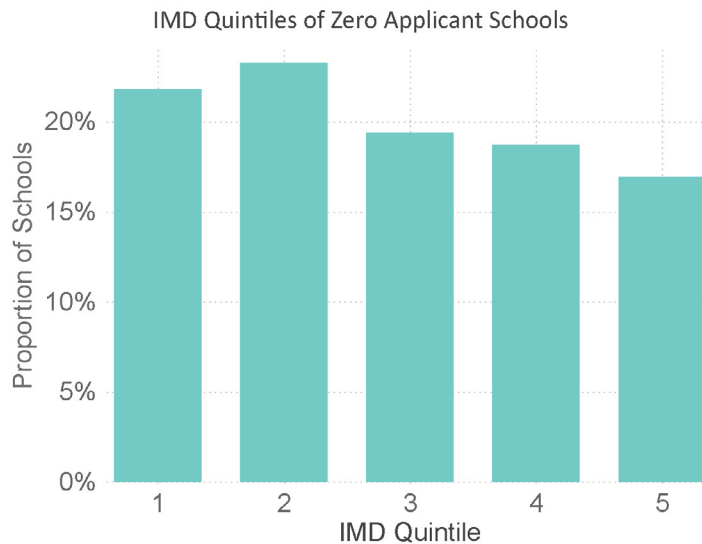


Figure 27: IMD Quintiles of schools producing no applicants to medicine in 2021-22.

Conclusion

These results demonstrate a set of changes over the last decade since the publication of the Selecting for Excellence Final Report that are consistent with widening access and participation in medicine, as well as continuing some earlier trends. In particular, applications to medicine have steadily increased from young people in disadvantaged areas, from minoritised ethnic backgrounds, from those with disabilities, and from non-selective state schools. Pre-existing trends for greater numbers of women and for substantial representation of young people from Asian communities, have also continued over this period.

They also indicate that there remain communities defined by geography, by educational as well as socioeconomic disadvantage, and by some ethnicities, which are heavily under-represented and which should constitute key targets for outreach over the next decade.

3. Priorities for the next 10 years

Discussed in this chapter are the areas of priority for the next 10 years of medical education, continuing the Selection Alliance's work to provide patients with a diverse, representative and skilled cohort of doctors for the future.

Introduction

Medical education is preparing for a substantial expansion in student numbers over the next decade to meet the demands of a growing and ageing population as highlighted within England's NHS Long Term Workforce Plan.

There is a particular demand for healthcare professionals in rural and remote areas, as well as deprived towns and cities across the UK, where there are fewer NHS staff per head than in major cities. These are areas with greater levels of deprivation, fewer opportunities and lower social mobility, and which attract fewer candidates to medicine. Applicants from these areas, with rich and diverse experiences, reflective of the population they will serve, will be well placed to help combat such health inequalities.

Promotion of Medicine to Welsh-domiciled and Welsh-speaking Students

Dr Naomi Stanton, University of Cardiff

Apart from the traditionally recognised under-represented groups within medicine, Wales also has a particular challenge as a result of Welsh-domiciled and Welsh speaker medical students being under-represented. (A Royal College of Physicians report from 2016 highlighted that only 30% of students within Cardiff University School of Medicine were Welsh-domiciled, compared to 80% of English students in English Medical Schools, 60% Scottish students in Scottish medical schools and 85% of Northern Irish students in Northern Ireland.)¹

Cardiff University School of Medicine introduced a range of free university-led Widening Participation (WP) programmes. Successful engagement and completion of these programmes leads to a guaranteed interview:

- A Step-Up scheme (running for over 20 years) for potential applicants to healthcare courses including Medicine is a two-year, academic programme for college and sixth form students who have experienced educational disadvantage or disruption.

- A Sutton Trust summer school for WP pupils (comprising 50% Welsh-domiciled and 50% rest of the UK pupils).
 - o For these programmes, 283 students have received guaranteed interviews between 2019 and 2023 and 138 (65%) were given offers, with 81 (59%) of those given offers enrolling.
 - o Both programmes aim to equip students with the right skills and knowledge not only to successfully negotiate the application process, but also to thrive at university having developed confidence and knowledge around healthcare
 - o Both programmes involve regular student engagement and culminate in a residential summer school.
- Doctoriad Yfory (Doctors of Tomorrow) is specifically for Welsh speakers. 152 applicants have been interviewed between 2020 and 2023, 104 (68%) were given offers and 74 (71%) of those given offers enrolled.

In partnership with the Welsh Government funded scheme (Seren) which supports more academically able pupils from state-schools in Wales, a Medicine Seren Summer School piloted in 2023 proved very successful. 55 Year 12 pupils from across the whole of Wales participated in a residential 2-day and 2-night programme. Medical students provided mentoring and attendees experienced university life, practical taster sessions of the medical course at Cardiff (including clinical & communication skills) and information on the application and selection process. 63% applied and all reached threshold for interview and 85% of those interviewed were given offers. Of these, half accepted and enrolled and 15% are studying Medicine elsewhere. Other attendees successfully applied to other allied healthcare courses. The summer school expanded in 2024 to include Dentistry and it is hoped that it will continue given the feedback and successes.

A student-led Widening Access Mentoring for Medicine scheme (WAMMS) established in 2018 supports Welsh-domiciled state school applicants through the application and selection process, specifically targeting pupils from under-represented areas. Having run online summer conferences during Covid, they ran

two successful conferences in the summer of 2024 with 40 attendees in North Wales and over a hundred in Cardiff. The students designed the agenda and ran sessions themselves with support from staff. Feedback was excellent and the students are planning further events across Wales. There are now medical students on the course who cite the support they had WAMMS as being an integral part of their successful application and are becoming mentors for future applicants.

Since introduction of these activities a significant increase in successful applications from all under-represented groups from across the UK has been seen. This includes the proportion of Cardiff's 300 students being Welsh-domiciled which has increased from approximately 25% just over 5 years ago to a 47% average over the past 3 years, with an increase in the number of Welsh-language speakers. The intention is to continue these successful activities to ensure a balanced and diverse medical student cohort intake that is representative of the UK.

¹Response to Inquiry into Winter Pressures: Royal College of Physicians of Wales 2016/17.

Available from: <https://business.senedd.wales/documents/s53592/WP%2006%20Royal%20College%20of%20Physicians%20Wales.pdf>

Medical schools will need to work collaboratively with education providers to promote careers in medicine and support applicants to make a successful application. There are increasing demands on school teachers and careers advisers, who in the absence of sufficient staffing and resources, are not always able to provide the most up to date or accurate support to their students.

Remedying the current situation will work best by allying efforts from medical schools with focused investment in education by government to improve educational attainment in these areas. MSC, working with medical schools, can improve the visibility of, and reduce barriers to, medical careers for students from these areas, so that making a successful application to medicine is no longer insurmountable. Medical schools may also need to be realistic about the entry criteria they apply to widening participation applicants from these areas due to the severe nature of the educational disadvantage they may be facing.

Following a successful application, support needs to continue – providing sufficient financial assistance, developing a sense of belonging and the social connections necessary for them to succeed, and academic support. All of this requires an understanding of the challenges that often come (with greater intensity and frequency) for students from lower socioeconomic backgrounds.

Discussed in this chapter are the areas of priority for the next 10 years of medical education, continuing the Selection Alliance’s work to provide patients with a diverse, representative and skilled cohort of doctors for the future.

Promoting medicine as a career

The number of applicants to medical school increased dramatically during the Covid 19 pandemic. The reasons for this increase are unclear but it was likely due to a combination of factors including the positive representation of healthcare workers in the media and the impact of teacher assessed grades on A Level and equivalent advanced qualifications performance. Since the pandemic the number of applications has been steadily falling but not to the extent that they have dipped below pre-pandemic numbers. However, there is variation in this drop across the four nations in the UK which may indicate a problem that will need to be addressed.

Given this context, and ambitions to expand the number of students studying medicine in the UK there will be a need to more actively promote medicine as a career. Social media will play an important role in this promotion and MSC is actively looking at ways it can deepen its presence across a range of platforms used by young people, teachers and parents.

Recommendation: MSC to look at ways of actively promoting medicine as a career.

Reconceptualising ‘Widening Participation’

As work to increase inclusion has expanded, so have perspectives on how widening participation is conceptualised, with differences in approaches emerging. Traditionally, institutions have subscribed to a deficit model of WP, in which students from disadvantaged backgrounds require ‘top up’ to meet the standards of their more privileged peers. The discourse of needing to raise aspiration and attainment implies that students from underrepresented backgrounds are not normally ambitious, hardworking or as strongly academic. This approach hopes that, by delivering outreach, universities will discover the ‘diamond in the rough’ with potential, who can be nurtured to fit in within the higher education ecosystem. Widening participation is described as a virtuous action of increasing social mobility of individuals, rather than enrichment of the relative homogeneity in the medical profession.

The deficit model places the responsibility onto the disadvantaged individual, who lacks the economic, educational, social and cultural capital to succeed. Existing admissions systems feature an over-reliance on advanced level secondary qualifications³¹ as a marker of prior success. Whilst contextual admissions policies are in place and this is a very positive step, academic achievement remains the biggest barrier to entry. Historically, high-tariff institutions have been reluctant to reduce grade offers for a fear of lowering standards and threatening their position on university league tables, which continue to rank on the basis of average entry tariff and do not include measures of success in widening participation.

Recommendation: Organisations publishing university league tables should consider removing average entry tariff from their criteria and including measures of diversity and inclusion.

At the root of this issue is that exam performance at medical school, used as a marker of success in recruiting capable doctors, primarily focuses on knowledge acquisition in its measurement. Whilst the GMC’s Outcomes for Graduates outlines the values and non-cognitive skills which doctors must also develop, tools to measure these attributes are much less established.

31 E.g. A levels, Scottish Highers/Advanced Highers, or International Baccalaureate.

As a profession, medicine is understandably trapped in a discourse of assessing things which can more easily be measured on a large scale and with perceived objectivity, despite evidence that minoritised groups are disadvantaged in these assessments.³² What is needed are new tools to quantify other important aspects of being an effective doctor such as team working, conscientiousness and resilience that can be used alongside existing knowledge and skills assessments to give a more rounded picture as to what excellent performance is.

The problem with the deficit model is three-fold – firstly, by attributing lack of success to the individual, institutions are discouraged from looking introspectively at their own policies and structures and identifying ways in which they are exclusionary or fail to support and facilitate success for minoritised groups.

It follows that framing new medical schools, opened to combat workforce shortages in, for example, rural areas, as a solution to widen access to medicine is a potentially problematic narrative. It suggests to potential applicants from disadvantaged backgrounds that they may not be as welcome at more traditional institutions compared to new medical schools. This is not the case, and all medical schools have significant strategies in place to widen participation to their courses. It also fails to account for applicant choice - any applicant, from any background should be free to pick a medical school that they feel would be best suited to them. Not all applicants from deprived areas will want to study in these areas and this should also be supported.

Secondly, this narrative encourages a self-fulfilling prophecy wherein students, parents and their teachers have lower expectations for what they feel able to achieve. Students feel disempowered and may be actively discouraged by potential mentors.

Finally, this perpetuates a message that there are segments of the population who are less capable than another and exposes them to discrimination. Those who do enter higher education may find an environment unfriendly to their culture and/or background and feel that they must alter themselves to exist within this space, ultimately leading to the loss of the rich range of valuable and diverse experiences which are beneficial to everyone's learning environment.

32 Brown C, Goss C, Sam AH. Is the awarding gap at UK medical schools influenced by ethnicity and medical school attended? A retrospective cohort study. *BMJ Open*. 2023;13:e075945.

Organisations ought to be challenged to consider whether this viewpoint is accurate or desirable. The medical profession is enriched by the voices of a diverse workforce, who are best placed to serve the needs of the population - this includes differences in culture and experience. By framing WP initiatives as a fix for a deficiency on the level of the individual, it undermines these experiences and indicates that they are not valued within this sector. Instead, institutions should adopt a system-focused approach, identifying where young people have been excluded and let down by existing structures and policies.

The current rhetoric places higher education institutions in a position of power, as the giver of opportunities to the disadvantaged. Reversing this, focus should instead be on recruiting and attracting a rich range of voices and experiences by demonstrating that they are valued within the sector. As an example, GMC in 2019 published its guidance *Welcomed and Valued*³³, which emphasised supporting medical students and doctors with disabilities throughout their training. It is evident from the data in the previous chapter that medicine is becoming a more accessible profession for these students and doctors.

Quintessential to promoting inclusivity is ensuring that appropriate role models are visible to potential applicants and in positions where they can enact change. Further examples of where medical schools could demonstrate this value include co-creation of policies with under-represented students and rewarding work within the community or with disadvantaged groups.

Recommendation: Medical Schools should consider ways in which they can demonstrate that they value students from a range of backgrounds and experiences and support them not just through the selection process, but also when at medical school.

33 Welcomed and Valued: Supporting disabled learners in medical education and training. General Medical Council. 2019. Available from: https://www.gmc-uk.org/-/media/documents/welcomed-and-valued-2021-english_pdf-86053468.pdf

Reverse Mentoring

Professor Sally Curtis¹, Jacquie Kelly¹

¹University of Southampton

The Faculty of Medicine at the University of Southampton has a strong commitment to welcoming and valuing students from a wide range of backgrounds through its range of undergraduate programmes. However, awarding gaps have been identified and some students feel marginalised. Reasons posited for this include a lack of understanding from staff and students of the challenges faced, high rates of imposter syndrome, financial difficulties, and a 'White-centric' curriculum lacking diverse and representative clinical examples, resources, staff and sim patients.

To help the faculty understand the perspectives and challenges that students from underrepresented and minoritised backgrounds face, a reverse mentoring (RM) programme was implemented. The students are mentors, and the mentees include senior faculty staff, clinical supervisors, wider faculty staff and senior research staff. The RM scheme is designed to create safe spaces for difficult conversations, to challenge assumptions and perspectives and to identify positive ways for staff and students to work together, aiming to:

- Increase awareness and understanding of the challenges our students face
- Create a more inclusive learning and working environment
- Reduce awarding gaps

The safety and well-being of all participants was core to the development of this scheme and required the creating of safe spaces. The reversal of the power dynamic between students and staff, together with the difficult and often challenging nature of the conversations around bias and discrimination, could leave all any participants in a vulnerable position. This necessitated training for all participants and support for the mentors to plan and deliver their sessions.

The scheme's structure consisted of an initial training session, a minimum of four mentor/mentee meetings over a period of 3/4 months, and separate mid-way support sessions and evaluation for both mentors and mentees. A Handbook for Mentors provided information and guidance, including suggested structure and content for the sessions. Further resources to support mentors and to use as discussion material were circulated after the initial training session.

The RM pilot scheme was well-received by most participants and successful in facilitating challenging conversations around discrimination, bias and race. It raised awareness of issues around inclusivity and the different experiences and perceptions of the faculty and has also been reported as reducing the student deficit discourse.

Mentees identified feeling inspired, enlightened and having enjoyed the experience and mentors said they found it positive, empowering, insightful and informative.

Recommendations from the mentor/mentee pairs included:

- More opportunities for staff and student interaction to enable sharing of stories
- Increased staff and student EDI training
- Support for students in financial hardship
- Curriculum review
- Working together to reduce microaggressions

Consequently, an education EDI working group was formed to action these and many other recommendations from the RM process.

Medical schools must also invest in methods of recognising potential beyond grade requirements. Whilst interviews are designed to assess some of these attributes, the gatekeeper of the medical degree remains academic attainment. Reassuringly, contextual admissions are growing as a mechanism for ensuring fair access to medicine, often allowing entry onto the medical course with reduced grade offers to account for disadvantage.

Recommendation: Medical Schools should continue to develop robust admissions procedures which include those measuring non-cognitive skills and attributes required of a doctor.

Demystifying admissions

There is extensive evidence^{34, 35, 36} that applicants from disadvantaged backgrounds face greater barriers in navigating the application process for medicine, illustrated by reduced numbers of applicants from these groups outlined in the previous chapter. Lower performing schools are less equipped to advise potential applicants (resulting in lower numbers of successful applicants), and parents who have not experienced higher education themselves possess less tacit knowledge to advise their children. These are often also the students who may be eligible for contextual admissions pathways, which adds a layer of complexity to the decision-making process of where to apply.

Standardisation of admissions practices is not the goal of the Selection Alliance, it should be recognised that each medical school will have its own local WP challenges and sharing of best practice helps shape and align the missions and values whilst acknowledging the autonomy of each medical school's selection process, ultimately providing more opportunities for a wider range of applicants.

34 Alexander K, Nicholson S, Cleland J. "It's going to be hard you know..." Teachers' perceived role in widening access to medicine. *Adv Health Sci Educ Theory Pract*. 2021 Mar;26(1):277-296.

35 Martin AJ, Beska BJ, Wood G, Wyatt N, Codd A, Vance G, Burford B. Widening interest, widening participation: factors influencing school students' aspirations to study medicine. *BMC Med Educ*. 2018; 18(117).

36 Greenhalgh T, Seyan K, Boynton P. "Not a university type": focus group study of social class, ethnic, and sex differences in school pupils' perceptions about medical school. *BMJ*. 2004 Jun;328(7455):1541.

However, variation of practice is an issue for applicants when this process is not clear, or this information is not easily accessible. By committing to providing transparency about how contextual information is used within medical school applications (including eligibility, scoring, UCAT uplifts and grade offers), applicants who may be eligible will be better able to choose between medical schools and maximise their opportunities for success. It is in the interest of fairness to all potential applicants that admissions processes are as clear and transparent as possible.

A recent audit of contextual admissions policies in UK medical schools found that many medical schools do not provide candidates with the information to ascertain whether they are eligible for a contextual offer or provide information on the considerations, or adjustments, that would be made for those students.³⁷

Recommendation: Medical schools should review their public-facing contextual admissions information and ensure they are transparent in how applicants are assessed for eligibility, and how this is considered in their application and selection processes.

Recommendation: MSC to review its contextual admissions guidance for medical schools, and explore expansion of the entry requirements tool and data collection to include eligibility for contextual admissions.

Discussed in the first chapter, the development of the UKWPMED collaboration has ensured cross-recognition of engagement with outreach for disadvantaged students within the network of partner medical schools, simplifying the process for applicants and giving them the option of applying to each of the partner schools. The Selection Alliance is keen to see this model of collaboration and cross-recognition, through UKWPMED or otherwise, expanded over the next 10 years.

37 Eguiguren Wray, O., Pollard, S. R., & Mountford-Zimdars, A. An investigation into the contextual admissions information available at UK medical schools' websites: what are the opportunities for enhancement? *Perspectives: Policy and Practice in Higher Education*. 2022; 28(1), 28–37.

More widely, outreach provision by medical schools needs to move away from an activity that is undertaken to increase participation in that medical school's course and should instead be seen as net good designed to increase participation in the profession as a whole. This is at odds with the way universities generally approach outreach and access provision which is mainly due to the way they are regulated across the UK. While it is right that universities should be held accountable for their progress in widening participation flexibility is also needed to ensure they can gain credit for activities that do not directly lead to students entering their particular course.

Recommendation: Medical schools to explore collaborative models to widen participation including joint delivery of outreach activities and cross-recognition of outreach participation in accessing contextual offers.

Recommendation: Higher education regulators should put in place schemes to recognise collaborative efforts to widen participation across multiple institutions.

The extensive advice and guidance MSC has been able to develop over the last 10 years has been extremely helpful and very well received by applicants, teachers and careers advisers and medical schools. However, it is important to ensure that MSC is providing guidance at the right time and in the optimal formats for potential applicants. Given the aims of NHS England and the devolved nations to radically increase medical student places by 2031, the Selection Alliance is investing in understanding the perceptions of young people of applying to, studying and working in medicine. By developing a pre-application survey, piloting in late-2024, MSC will build upon the work of the UK Medical Applicant Cohort Survey (UKMACS)³⁸ to expand current understanding of decision-making factors, including potential barriers, when considering a career as a doctor. The results of the pre application survey will, following publication, provide the sector with the contemporary insight required to successfully expand recruitment of the next generation of doctors.

38 Harrison D, McManus IC, Rees EL, Woolf K. Institutional choice among medical applicants: a profile paper for The United Kingdom Medical Applicant Cohort Study (UKMACS) prospective longitudinal cohort study. *BMJ Open*. 2022 Sep;12(9):e060135.

Recommendation: MSC to seek more information from applicants and potential applicants on what types of advice and guidance, and the modalities to deliver this, they find most helpful in preparing to apply to medical school.

Continuing to increase the engagement MSC has with teachers and careers advisers will also be a key priority for MSC over the next 10 years and it is already putting in place new ways of doing this. MSC has invested in a new content management system that will allow teachers to sign up to receive regular newsletters on medicine and dentistry admissions. The content of the newsletters aligns with the admissions cycle and will be informed by market research, so teachers and careers advisers will receive content relevant to the stage in the process that their students are going through. This work compliments all which is already being done by medical schools to engage with their local secondary education providers.

Improving the evidence base

The evidence base informing outreach and widening participation activities is limited.³⁹ Without knowing what works, with whom and why, decision makers have difficulty knowing where to invest their efforts, and risk investing efforts in WP without making a real impact.

Designing high quality studies in outreach can be challenging. Many outreach activities are complex and multi-faceted, making it difficult to determine which aspects are the most effective. Increasingly, longitudinal outreach models are being used with several points of contact.

Students who choose to attend outreach activities are often a self-selecting group who have already committed to applying to medicine, and so success rates in these groups may be higher than the general population. Additionally, whilst these activities could support participants to increase their chances of making a successful application, because of this the activities do nothing to persuade

39 Torgerson, C., Gascoine, L., Heaps, C., Menzies, V. and Younger, K. Higher Education access: Evidence of effectiveness of university access strategies and approaches. Sutton Trust, 2014. Available from: <https://www.suttontrust.com/wp-content/uploads/2019/12/Higher-Education-Access-Report-1.pdf>

students to apply to medicine in the first place. Following guidance from the Office for Students⁴⁰, interventions should be developed with clear objectives determined at the outset, with appropriate evaluation methods integrated into their design. The chosen outcomes should reflect the purpose of the activity, for example increasing confidence in primary school age students, or increasing likelihood of receiving an offer to study medicine in school leavers.

Establishing a causal relationship between an intervention and its outcome in clinical practice usually involves randomised controlled trials (RCTs). However, there are ethical considerations in designing RCTs and depriving a group of individuals of information which may help them to form a control group. Providers will need to be innovative in their approaches to evaluation and research to overcome these obstacles.

In their 2020 report, ‘The impact of interventions for widening access to higher education’⁴¹, Transforming Access and Student Outcomes in Higher Education (TASO) recommended that delivery bodies need to focus on longitudinal outcomes and enrolment rates in higher education following outreach activities, after review of the evidence base demonstrated too great a focus on shorter-term outcomes of awareness and aspiration in their evaluations. Medical Schools Council has this year embarked on an exciting collaboration with the Higher Education Access Tracker (HEAT), which, along with ongoing research with UKMED, will enable the longitudinal tracking of outcomes.

Recommendation: MSC will collect and publish longitudinal outcomes of its outreach and that of its members, including higher education destinations not limited to medicine, alongside qualitative evaluation of their experiences.

40 Standards of evidence and evaluating impact of outreach. Office for Students, 2019. Available from: <https://www.officeforstudents.org.uk/publications/standards-of-evidence-andevaluating-impact-of-outreach/>

41 The impact of interventions for widening access to higher education. Transforming Access and Student Outcomes in Higher Education, 2020. Available from: <https://taso.org.uk/news-item/report-evidence-widening-access-to-higher-education/>

The TASO report also identified 92 primary research studies evaluating the impact of outreach activities, further highlighted that the majority of current outreach provision is focused on post-16 education, a finding echoed by the Selection Alliance's own mapping of medical school members' outreach (see Figure 1 in the first chapter). Whilst post-16 interventions are useful in supporting applicants through the complex admissions process, successful admission to medicine often require years of forethought in selecting appropriate subject options, gaining relevant experience and preparing for admissions tests. Therefore, highlighting and supporting pupils with aspirations to careers in medicine and healthcare earlier is desirable.

Recommendation: Medical schools and outreach providers should work with other healthcare professions and NHS organisations to develop their outreach provision targeting pre-16-year-old school pupils.

A large amount of resource is also currently dedicated to provision of high-intensity summer schools for medicine. Whilst these have positive impacts on student confidence and aspirations, the evidence base on their effectiveness at increasing admissions rates needs to be enhanced. Given the large financial investment in delivering these interventions, it is clear that more work needs to be done in this area to establish their cost-effectiveness.

Recommendation: MSC will develop robust evaluation procedures for its summer school programmes, including control-group (non-summer-school attendees) comparison and short-, medium- and long-term outcomes.

Widening participation at medical school

Over the last few years, the Selection Alliance has identified supporting WP students once enrolled in medical school as a key component of its future WP work. Historically, efforts in WP have focused on admissions, but research within the field has accumulated to provide convincing evidence that disadvantage follows students through medical school^{42, 43} and into their careers.⁴⁴

Disadvantaged students may face difficulties accessing opportunities, social networks of support and resources to succeed at medical school. The implicit rules and expectations of students at medical school, and the hidden curriculum, exert social pressure on students from disadvantaged backgrounds whose identities conflict with those of the traditional medical student. This hidden curriculum is perpetuated by the lack of representation of doctors with non-traditional characteristics in senior leadership positions. It must be noted that not all WP students enter medical school via a contextualised route or gateway year course. Disadvantaged students joining standard-entry courses are less likely to be 'flagged' as requiring additional support by their medical school and risk being overlooked.

Whilst several papers have emerged in recent years exploring the impact of different characteristics of disadvantage at medical school, this research is still within its infancy and further investigation is warranted, particularly given the wide variation in course structures, locations and cultures at different medical schools.

42 Krstić C, Krstić L, Tulloch A et al. The experience of widening participation students in undergraduate medical education in the UK: A qualitative systematic review. *Med Teach*. 2021 Sep;43(9):1044-1053.

43 Sartania N, Alldridge L, Ray C. Barriers to access, transition and progression of Widening Participation students in UK Medical Schools: The students' perspective. *MedEdPublish* (2016). 2021 May 17;10:132.

44 Elmansouri, A., Curtis, S., Nursaw, C. et al. How do the post-graduation outcomes of students from gateway courses compare to those from standard-entry medicine courses at the same medical schools? *BMC Med Educ*. 2023; 23(298).

Recommendation: Medical schools to undertake further qualitative research into the experiences of their under-represented students to inform curricular change, faculty development and ongoing support strategies.

MSC has heard from medical students across the UK that they are increasingly concerned about the cost of studying medicine. The current financial circumstances are challenging for universities, governments and students themselves. MSC recognises the difficult financial situation that institutions find themselves in but this report focuses on the needs of widening participation students and it is important to acknowledge that they are particularly impacted by this issue.

Many medical students rely on the receipt of bursaries and loans to fund their study, which are not always sufficient. Medical students in England within the penultimate two years receive a reduced Student Finance loan alongside an NHS bursary, amounting to a maximum of £6,458 annually.⁴⁵ Funding bodies must review their provision for medical students studying fulltime in the light of the recent cost of living crisis.

Recommendation: Bodies responsible for student finance arrangements across the UK to consider the impacts of the cost of living crisis on medical students and their ability to succeed on the course given the financial pressure they are under.

The common need for students to find paid work to support themselves and/or their families can lead to missing opportunities to socialise or take up extracurricular activities which facilitate integration into the student body. The result can be lack of sense of belonging, both within the institutional setting and the profession. At worst, students may find necessary employment encroaches on their ability to study. Financial support and bursary provision vary by institution, and whilst some universities have policies on suggested maximum hours students may undertake paid employment whilst on the course, the adverse outcome of this is that students facing financial hardship who are

45 A Liveable Bursary for Medical Students. Doctors Association UK, 2022. Available from: <https://www.dauk.org/liveable-nhs-bursary/>

exceeding the working hours suggested by their school may choose not to disclose this to their university.

Recommendation: Medical schools must annually evaluate their provision of financial support and paid employment guidance to ensure that this remains adequate for disadvantaged students.

Recommendation: Medical schools to review their curricular structures to assess suitability for students to undertake paid work concurrently with their studies.

Medical schools will need to establish other ways of ensuring students can have paid employment and thrive on their courses. Currently, several medical schools have initiatives for medical students to become trained as healthcare assistants, who can join the staff bank of their local trust and obtain paid work with the added benefit of providing increased patient contact.

Recommendation: Medical schools to explore whether they can offer training for medical students to undertake paid work as qualified healthcare assistants during their studies.

Widening participation is not only about ensuring equality of opportunity, but also a means to provide a workforce with a diverse range of experiences fit to serve the population. With the opening of new medical schools in the last five years, there has been an increased focus on healthcare provision in specific geographical areas, based on the tendency for students to continue to work within the area they grew up in.⁴⁶ Many new medical schools are hosted by universities with established expertise in widening access and are seeing positive results in the proportion of their cohorts coming from deprived backgrounds and their local geography (as demonstrated in the previous chapter).

46 Hitchings L, Fleet B, Smith DT, et al. Determining the distance patterns in the movements of future doctors in UK between 2002 and 2015: a retrospective cohort study. *BMJ Open*. 2024;14:e077635.

The New Medical Schools forum, a subgroup of the MSC, facilitates the communication of successes and challenges in establishing these new schools, providing a platform for their faculty to share ideas. With plans to continue to increase the number of medical schools in the next 10 years, there is an opportunity to transfer lessons learned.

Recommendation: MSC to continue to support the New Medical Schools forum and develop a guidance document for new medical schools (including graduate-entry schools).

In postgraduate training, the UKMED database has provided clear evidence that there are differences in how students from lower socioeconomic backgrounds move through their careers once they graduate. Kumwenda et al found that ‘trainees who came from families where no parent was educated to a degree level had statistically significant lower odds of choosing careers in medical specialties relative to general practice’.⁴⁷ Whilst some of this variation may be accounted for by the financial implications of applying to longer and more competitive training programmes, or a genuine interest in a career in general practice, there is some evidence to suggest that different factors are at play.

A qualitative study from Ashley and MacDonald⁴⁸ found that students from a lower socioeconomic background do not always understand the hidden curriculum that needs to be followed to enter certain specialties. In particular, they may not appreciate the advantage that activities such as undertaking research and presenting at conferences might give them when applying for specialties that are highly competitive. People from families that are more aware of what a career in medicine entails tend to have a greater awareness of this hidden curriculum and those from more privileged backgrounds often find it easier to build relationships that enable them to access it. The resultant social stratification in medical specialties self-perpetuates as students from non-traditional backgrounds are not able to access role models like themselves.

47 Kumwenda B, Cleland J, Prescott G, et al. Relationship between sociodemographic factors and specialty destination of UK trainee doctors: a national cohort study. *BMJ Open*. 2019;9:e026961.

48 Ashley, Louise, and Ian McDonald. When the Penny Drops: Understanding how social class influences speciality careers in the UK medical profession. *Social Science & Medicine*. 2024 May; 348(116747).

Whilst there is an argument that medical schools should seek to ensure that all their students understand that entry into some careers is very competitive and it is advantageous for students to start to prepare for their application whilst still in medical school, this may not address structural inequalities. Because many students from widening participation backgrounds need to work part-time alongside their studies, they will not always have the time to undertake extracurricular activities to boost their portfolios. Therefore, a multi-faceted approach will be necessary to address this inequality; medical schools will need to ensure that students are aware that they should start thinking about their application to certain specialties early if they have a passion to pursue them. At the same time Royal Colleges should look at their recruitment processes to ensure their requirements are not inadvertently discriminating against students from disadvantaged backgrounds.

Recommendation: MSC to work with the Academy of Medical Royal Colleges (AoMRC) to produce guidance for students on applying for postgraduate training that can be used in medical school teaching.

Recommendation: MSC to work with stakeholders, including the GMC and Royal Colleges, to ensure that there is an understanding across the profession of the challenges faced by WP students and that this is considered in any review of the selection processes for postgraduate careers.

Recognising the differences in opportunities between medical students, in 2024 the UK Foundation Programme Office (UKFPO) redesigned the way it assigns foundation year jobs to a preference-informed allocation system, moving away from a points-based system. This includes the majority of specialised foundation programme allocations – opening up taster experiences of a career in academia to a wider variety of resident doctors. The impact of these changes is still to be evaluated, but demonstrates an appetite for ensuring fairness in postgraduate opportunities and reflects the contemporary priority of providing highly skilled doctors to underserved communities.

Priorities for the next 10 years

Greater targeting of outreach

As outlined in the first chapter of this report, there have also been increased efforts to provide outreach for applicants with other forms of social disadvantage over the last 10 years, such as those who are or have been in care, which have seen modest success. Given the relatively small numbers of these young people within the general population, a more individualised approach will be required to ensure that they are able to make successful applications and thrive at medical school.

Recommendation: Medical schools to share best practice on supporting applicants with care experience, young carers, refugees and other groups with small numbers.

Supporting Young Carers

Dr Michael Lambert, Dr Nicola Phillips, Lancaster University

The Office for Students has recognised the difficulties faced by young people aged 14-25 with caring responsibilities when applying for higher education. Considered a 'hidden population' due to a lack of information identifying this group, young adult carers encounter barriers throughout their education including gaining support to access and complete higher education. These barriers are not fully understood in relation to studying medicine, where additional academic and vocational entry requirements make the application process harder to accomplish.

Young adult carers were not identified in Fair Access to Professional Careers or in the Selecting for Excellence Final Report as a group needing additional support to overcome barriers to develop a career in medicine. These documents have provided the main guidance for medical schools in developing widening participation policies and practice. The Medical Schools Council Selection Alliance 2019 report was the first document to suggest young adult carer status be included as a form of identity

eligible for widening participation programmes and contextually lowered offers to support them as an under-represented group. This recommendation emerged as part of efforts to share best practice to widen access to medicine and diversify the medical student population.

At Lancaster Medical School we have extended our categorisation of students from backgrounds traditionally under-represented in medicine by recognising the particular challenges of young carers. The story of one Lancaster Medical School student, Laura*, has been featured as an example of good practice by Barnardo's¹. In addition to advising applicants on the types of admissible evidence to demonstrate young carer status, the information we provide as part of our contextual admissions process also signposts applicants to have their caring responsibilities professionally identified, assessed and supported by local authority or third-party services. These also provide routes into peer support communities for young carers in similar positions, and opportunities to engage with people of their own age, sharing aspirations and experiences.

Concluding her story, Laura spoke about the need for those with caring responsibilities to have their needs recognised earlier when they arise, and their lasting impacts on educational and other journeys. These are particularly evident around the Covid-19 pandemic and will affect future cohorts of applicants wanting to study medicine. There is scope to take our practical experience of engaging with young carers as a 'hidden population' through stronger partnership with other stakeholders, medical schools with comparable or contrasting experiences, along with national regulators to develop a national policy agenda.

*name of young person has been changed to protect their identity.

¹Available from: <https://www.barnardos.org.uk/case-studies/how-we-supported-young-carer-laura-get-started-dream-career>

This report has also highlighted that, despite successes in increasing representation of many ethnic minority groups within medicine, several communities within the UK are still under-represented in medicine. The goal of a medical workforce which is representative of the population is a noble aim, but one that may be almost impossible to achieve, as there may be cultural aspects to a decision to apply to medicine which differ between groups. However, medicine needs to be an option for every person who has the desire and potential to be a good doctor, and the lack of precedent - of applicants from a community, school or family to medicine - should not be a prohibitive factor. Put simply, it is unlikely that there will be equality in motivation to study medicine, but there must be equity of opportunity for every applicant regardless of demographics. The Medical Schools Council Equity, Diversity and Inclusion Alliance continues to work on developing guidance to support medical schools make their environments and processes more inclusive in accordance with the Active inclusion: Challenging exclusions in medical education framework.⁴⁹

As noted in Chapter 2, data analysis, there is difference in conversion rates between application and acceptance on to the course between applicants who are white and applicants from a minoritised ethnicity background. The reasons for this difference are not well understood and merit further investigation. Medical schools should be encouraged to carry out an audit of their application process to evaluate how students from minoritised ethnic groups progress through their system and whether there are interventions they could put in place to improve the application to entrant conversion proportions at their school.

Recommendation: GMC should consider requiring medical schools to audit their application processes on an annual basis to identify if there are improvements they could make to ensure that applicants from minoritised ethnic communities are not disadvantaged in making an application to their medical school.

49 Active inclusion: Challenging exclusions in medical education. Medical Schools Council, 2021. Available from: <https://www.medschools.ac.uk/media/2918/active-inclusion-challenging-exclusions-in-medical-education.pdf>

These demographic characteristics do not exist in isolation. The experiences of individuals are shaped by the intersection of multiple attributes, which may compound in their effects. These characteristics cannot be viewed in isolation due to their interactions with one another, and patterns are seen within combinations of attributes. For example, the experience of disadvantage faced by a Caribbean woman from a lower socioeconomic background will be different from a White man from a similar socioeconomic background, despite similarities in their economic capital and the low application rates to medicine from both groups respectively. Exploration of the qualitative experiences of these clusters will help organisations to better support individual applicants.

Recommendation: MSC to contribute towards developing the evidence base on how intersectionality impacts medical school applications.

Recommendation: MSC to develop targeted outreach for demographic clusters with particularly low participation in medicine.

Within the expansion context, medical schools must ensure that they have robust contextual admissions procedures and routes into study, otherwise the progress made in improving widening participation over the last 10 years may be diluted. A previous paper by Garrud demonstrated that in order to equalise the proportions of less advantaged sociodemographic groups gaining a place in medical school, a two-grade reduction would be required (e.g. ABB grades at A level)⁵⁰. Many medical schools currently adopt this two-grade reduction for contextual applicants.

Current contextual admissions practices among medical schools vary widely in their specifications, consideration, and adjustments within the application process. Among these practices are two medical schools which are currently using a ‘contextualise everyone’ approach, one of which has reported findings publicly.⁵¹

50 Garrud, P. Help and hindrance in widening participation: commissioned research report. Medical Schools Council, 2014. Available from: <https://www.medschools.ac.uk/media/2446/selecting-for-excellence-research-dr-paul-garrud.pdf>

51 Chan P, Anthony A, Quinlan K et al. Equity with equality? Contextualising everyone can widen participation in medical school admissions. *Med Teach*. 2024 Jul;46(7):931-938.

The approach follows research which has demonstrated that educational attainment at medical school is mediated not only by individual prior educational attainment, but also secondary school average performance, i.e. achievement of the same grades at a lower performing school predicts better outcomes in medical school exams.⁵² This demonstrates an innovative way of considering applications to medicine on the basis that disadvantage is often not a binary variable but rather a continuous spectrum. However, whilst accounting for educational disadvantage, these methods do not adjust on the basis of socioeconomic or other individual circumstances.

Recommendation: Medical schools should explore the feasibility of adopting contextual admissions on a more graded approach to account for different levels of disadvantage.

Novel Approach to Contextual Admissions

Dr Philip Chan, Kent and Medway Medical School (KMMS)

Kent and Medway Medical School is a new medical school with an explicit mission to innovate in widening participation (WP) to medicine. We tried to 'square the circle' of fairness in admissions, by contextualising everyone¹, rather than defining applicants as 'WP' or 'not WP'. We noted that schooling is a major predictor of subsequent performance in medical school (and in all higher education courses) in an unexpected way; that applicants with similar attainment from less well-performing schools would do better in university than those from better performing schools. We therefore used publicly available data to contextualise every school leaver applicant against their school average attainment in order to shortlist for interview.

The data would be the percentage of AAB (in qualifying subjects) for post A level

52 Kumwenda B, Cleland JA, Walker K, et al. The relationship between school type and academic performance at medical school: a national, multi-cohort study *BMJ Open*. 2017;7:e016291.

applicants, and the Attainment 8 metric (using results in 8 defined GCSE subjects) for pre-A level applicants.

KMMS has interviewed 37% and admitted 38% widening participation applicants over the last 4 years using this approach, which is well above the sector average and our own internal targets. We emphasise that our system is blind in that we do not collect and do not use data relating to conventional WP characteristics from any applicant. We believe that, using a Rawlesian framework of justice, that this is preferable to the conventional approach, which defines disadvantaged applicants, and then treats them more favourably in an attempt to correct for disadvantage. We also believe that our system is less susceptible to gaming and other advantage seeking behaviours.

¹Chan, P., Anthony, A., Quinlan, K., et al. Equity with equality? Contextualising everyone can widen participation in medical school admissions. *Med Teach.* 2023; 46(7), 931–938.

The majority of contextualising processes involve an adjustment in scores prior to interview, without modification of the interview score itself. Since interview scores are not made available outside an institution itself, it remains unclear whether there are differences in performance between widening participation and traditional applicants. Whilst interviews are designed to measure non-academic attributes such as empathy, commitment and teamwork, these results may be confounded by measures of confidence and articulation which come from practice and a degree of social privilege inadvertently disadvantaging students from less privileged backgrounds.⁵³

Recommendation: MSC to build the evidence base on interview performance for students from widening participation backgrounds.

53 Leduc JM, Rioux R, Gagnon R, et al. Impact of sociodemographic characteristics of applicants in multiple mini-interviews. *Med Teach.* 2017 Mar;39(3):285-294.

Part of the reason for the variation in contextual admissions practice is the lack of evidence on what works best in achieving adequate representation whilst also ensuring equitable chances of success for such entrants. In 2014, the Selection Alliance recommended that contextual admissions data be collected within UKMED to assess the long-term impact of this intervention, but unfortunately this is yet to be implemented. Data on admissions through contextual routes are also not routinely collected by HESA. Given MSC's aims to maintain and increase participation of under-represented groups within medicine through the next 10 years of medical school expansion, it is imperative that measures are put in place to track the progress of individuals entering through a contextual admissions process. Adding a contextual admissions flag to the HESA data collection will ensure complete and accurate data are submitted by all universities.

Recommendation: HESA should consider routinely collecting data on entrants through a contextual admissions process.

Recommendation: MSC to explore the feasibility of tracking contextual admissions via the Higher Education Access Tracker (HEAT).

Furthermore, reliance on science A level grades (or Scottish Highers) may become a hindrance with the intention to double medical school places by 2031. According to data from the Department for Education, in 2023 there were just over 17,000 students in England achieving A* or A in Chemistry and Biology respectively. With the majority of medical schools requiring an A grade in one of these subjects, an unrealistic proportion of these students would need to progress to medical school in order to meet these requirements (without the use of contextual admissions).

Experience from successful graduate-entry programmes that recruit graduates of non-STEM subjects has demonstrated that a scientific background is not a prerequisite for being able to complete the medical course. There is also currently one medical school in the UK which does not require science at A level for its undergraduate programme.

Recommendation: Medical schools should review their entry criteria in the context of expansion of medical school places, to explore opportunities to widen the potential pool of applicants.

Students from widening participation backgrounds who successfully enter medical school are also ideally placed to inspire and inform those from similar communities. Several medical schools have incorporated work on outreach projects into their curricula (through student-selected components). Medical schools should encourage and facilitate student-led widening participation groups to perform this work along with more formal provision and provide appropriate financial support and/or remuneration where needed. These groups have the added benefit of improving sense of belonging within medical school for the medical students themselves.

National Medical School Widening Participation Forum Student Conference

Professor Nana Sartania, University of Glasgow

Established in 2015, the Forum aims to provide a platform for academics, admissions tutors, outreach practitioners, medical students, and resident doctors to address inequalities in social, cultural, and economic capital faced by applicants and students from widening participation (WP) backgrounds. The Forum was designed not only to facilitate the sharing of best practices among staff but also to serve as an outlet for students to present their ideas, connect with like-minded peers from other institutions, and establish valuable collaborations. These interactions enrich students' academic experiences and help them develop transferable skills such as presentation, negotiation in collaborative research, and public speaking.

In 2018, the Forum secured funding from the Medical Schools Council to host the first student conference aimed at promoting student collaboration, sharing experiences, and discussing strategies to overcome barriers at every stage of the journey to becoming a doctor. This inaugural conference in London set a precedent for future events, fostering student enthusiasm. It has since become an anticipated annual event that attracts students and staff working in this field from a wide geographic region.

Students are encouraged to deliver oral or poster presentations, which are competitively judged by the Forum's academic committee, with prizes awarded.

This process helps students learn how to prepare academic presentations but also allows them to enhance their CVs.

To date, the Forum organised six conferences, benefiting well over 400 students from WP backgrounds. Looking ahead, we aim to make future conferences hybrid to increase reach and participation. Feedback below from the current president of student sub-committee highlights the benefits:

“Reflecting on my experience at the 6th annual NMSWP conference at the University of Nottingham, I can confidently say that it was an incredibly beneficial and transformative event for a student like me coming from a WP background. The conference provided a unique platform to build my portfolio, offering numerous opportunities to grow both personally and professionally.

The workshops allowed me to network with like-minded individuals who share a passion for making medical education more inclusive; they equipped me with the motivation and knowledge to recognise that help and support are available for students like me, which is both comforting and empowering. One of the highlights of the conference was attending the keynote sessions, where the speakers’ stories resonated with me and reinforced the idea that our unique backgrounds and challenges can be leveraged to make a positive impact in the medical field.

Since attending the conference, I have taken concrete steps to contribute to widening participation at my own university. I have applied to join my medical school’s Widening Access to Medical School (WAMS) committee, with the aim of bringing back and implementing the valuable insights I gained from the conference. I hope to help improve our strategies for widening participation and support more students from diverse backgrounds to pursue and succeed in medical careers.”

Recommendation: Medical schools should facilitate the work of student-led widening participation groups in addition to their own outreach provision.

Recommendation: MSC should set up a student advisory group of representatives from medical schools throughout the UK to oversee and advise its own outreach activities.

It is crucial that this work to raise awareness of and desire to enter medicine as a career is continued over the next ten years to support government plans to expand the number of medical students in England, Scotland, Wales and Northern Ireland. Medicine remains a popular subject choice for young people in the UK, but perhaps not at the level needed to facilitate planned expansion. In addition, the planned expansion of medical school places will need to have a focus on selecting students from under-doctored areas. These areas are often educationally and socially deprived as well as under-doctored and schools will need to actively engage with local communities and with students from an early age to ensure ambitions can be met to recruit from these areas.

Recommendation: MSC and medical schools to work with stakeholders to promote medicine as a career option to primary and younger secondary school age pupils, especially within relatively under-doctored and under-represented communities.

Targets

Phenomenal progress has been made in the last ten years to widen access to and participation in medicine, brought about by a collaborative effort between committed individuals, organisations, and universities. Granular data on applicant socioeconomic status which is externally verifiable are not widely available or possible on a large scale – universities must therefore use proxy measures, which are based on either geographic, educational or individual level data. In the Selecting for Excellence Final Report POLAR (participation of local areas) was used to set the targets. POLAR uses data provided by HESA; the most complete data set available at the time and used by a large proportion of the higher education sector.

POLAR maps UK postcodes based on their participation in higher education and organises these into quintiles – quintile 1 are postcodes with the lowest rates of participation in higher education and quintile 5 are postcodes with the highest. Since the publication of the Selecting for Excellence Final report the validity of POLAR in predicting socioeconomic disadvantage has been widely questioned. The assumption that an individual's disadvantage can be predicted by that of the local population around them has been demonstrated to be flawed⁵⁴, and furthermore is subject to gaming the system when used as an individual measure of eligibility for outreach and contextual admissions. A report by the Sutton Trust found that POLAR has a weak correlation with income deprivation and has a significant bias against students from minoritised ethnic backgrounds and those living in London (among others).⁵⁵

IMD (Index of Multiple Deprivation), and the equivalents within the devolved nations, provide a more accurate proxy measure of socioeconomic disadvantage than POLAR whilst having the same ease of access, as it also requires only the applicant's postcode. Therefore MSC has decided that the targets in this report will use IMD rather than POLAR. IMD is an aggregate measure which considers seven indicators which encompass employment, education, health and crime. The geographical areas used in IMD are also smaller which provides more precision, and as a result the correlation with parental income is slightly stronger². IMD has therefore been used in preference to POLAR for setting targets for the next 10 years.

To expand recruitment of students living in lower quintile areas, medical schools will need to expand the pool of existing applicants. Not only are there fewer applicants from disadvantaged groups (as seen in the previous chapter), but they are also less likely to meet the traditional medical school grade offers of three As at A level. Demographic changes in the UK population over the coming decades will compound this issue.

The report from the Sutton Trust found that eligibility for free school meals (FSM) was the single most accurate predictor of socioeconomic disadvantage currently available. Since the original Selecting for Excellence report in 2014, UCAS has

54 Harrison, N., & McCaig, C. An ecological fallacy in higher education policy: the use, over-use and misuse of 'low participation neighbourhoods'. *Journal of Further and Higher Education*. 2015; 39(6), 793-817.

55 Jerrim, J. *Measuring Disadvantage*. Sutton Trust, 2021. Available from: <https://www.suttontrust.com/our-research/measuring-disadvantage-higher-education-polar-fsm/>

made changes to the way it collects FSM data from applicants. From 2025, students eligible for FSM will have their UCAS fee waived, meaning data collected in the future will be more complete. However, these data will still not be collected for Scottish schools. In the future MSC will consider setting targets based on FSM.

The table below outlines the targets set for the next decade, which move closer to an equal distribution of medical school entrants among IMD quintiles.

Table 11: Targets for IMD Quintiles 1 and 2 for 2032.

IMD Quintile	2021-2022 figure	2034 target
1	14%	16%
2	15%	17%
3	17%	
4	21%	
5	33%	

Whilst these targets may not appear particularly ambitious, it is important to note that it will be incredibly challenging for medical schools to maintain the progress which has already been made in the context of expansion of medical school places, given the numbers of applications and attainment rates of different groups highlighted in this report. MSC therefore feels that a 2% increase in Quintiles 1 and 2 is appropriately realistic in this context.

Whilst efforts continue to support and promote medical careers to those at the extremes of disadvantage, there exists a middle group of applicants who are relatively less disadvantaged but are by no means privileged in circumstances (e.g. IMD quintile 3). MSC aims to actively monitor access and participation rates in this group and will seek to put interventions in place should they be adversely affected.

In addition to targets relating to socioeconomic disadvantage, MSC is committed to increasing representation of people from minoritised ethnic backgrounds in medicine, with a target of doubling the proportion of medical students from Black Caribbean backgrounds (currently 0.5%) by 2034 in line with the population in England and Wales.⁵⁶

Recommendation: GMC to consider implementing a regular national survey of undergraduate students to monitor their experiences.

56 Population of England and Wales. UK Government, 2022. Available from: <https://www.ethnicity-facts-figures.service.gov.uk/uk-population-by-ethnicity/national-and-regional-populations/population-of-england-and-wales/latest/#by-ethnicity-5-groups>

Appendices

Appendix 1: Glossary

Appendix 2: Resource List

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Appendix 1: Glossary

Attainment 8

A measure of pupils' average grade across a set of eight GCSE subjects.

Competition ratio

The number of applicants for every one available place.

Contextual admissions

Adjustments to eligibility requirements, application scoring or grade requirements according to an individual's experience of disadvantage.

Entrance rate

The number of entrants divided by the number of applicants, expressed as a percentage.

Free school meals

A statutory benefit scheme for which school-aged children from families on low income are eligible.

Outreach

Activities designed to provide information and support to potential applicants to higher education

Progress 8

An indicator of pupil progress from the end of primary school to the end of year 11.

Socioeconomic background

A combined measure of a person's own and family access to economic resources and social position.

Widening participation

A policy agenda of ensuring that the higher education population is representative of the general population.

Appendix 2: Resource List

Good practice documents	
Access to Higher Education Diploma: Subject Descriptor for Medicine	https://www.qaa.ac.uk/docs/qaa/access-to-he/access-to-he-diploma-subject-descriptor-medicine.pdf?sfvrsn=b0d4ca81_26
A Journey to Medicine Outreach Guidance	https://www.medschools.ac.uk/media/1205/msc-a-journey-to-medicine-outreach-guidance.pdf
A Journey to Medicine Student Success Guidance	https://www.medschools.ac.uk/media/1204/msc-a-jouney-to-medicine-student-success-guidance.pdf
Indicators of good practice in contextual admissions 2018	https://www.medschools.ac.uk/media/2413/good-practice-in-contextual-admissions.pdf
Reports and data	
Implementing Selecting for Excellence: A progress update (2016)	https://www.medschools.ac.uk/media/1207/selecting-for-excellence-2016-update-msc.pdf
MSC Selection Alliance Annual Report 2023	https://www.medschools.ac.uk/media/3125/selection-alliance-update-2023.pdf
Selecting for Excellence Final Report	https://www.medschools.ac.uk/media/1203/selecting-for-excellence-final-report.pdf
GMC applicant and entrant profile reports	https://www.gmc-uk.org/about/what-we-do-and-why/data-and-research/national-training-surveys-reports
MSC Summer Schools Report 2022	https://www.medschools.ac.uk/media/3122/msc-summer-school-report-2022.pdf
MSC Selection Alliance Annual Report 2023- An update on the Medical Schools Council's work in selection and widening participation	https://www.medschools.ac.uk/news/selection-alliance-2023-report-published
UKMED	https://www.ukmed.ac.uk/about/
UKWPMED	https://www.birmingham.ac.uk/university/colleges/mds/outreach-widening-participation/ukwpmed
Information for participants, teachers and career advisors	
Can you go to medical school if you have...? A guide for prospective medical school applicants with disabilities or long-term health conditions	https://www.medschools.ac.uk/media/2948/a-guide-for-prospective-medical-school-applicants-with-disabilities.pdf
Careers in Healthcare learning packages	https://studyinghealthcare.ac.uk/learning-packages/learning-packages-leeds/
Dr You myth-busting website	https://studyinghealthcare.ac.uk/learning-packages/dr-you/
Entry Requirements Comparison Tool	https://www.medschools.ac.uk/studying-medicine/how-to-apply-to-medical-school-in-the-uk/entry-requirements
Health Careers NHS website	https://www.healthcareers.nhs.uk/
Interview Prep website	http://www.mscinterviewprep.co.uk/

MSC info sheets homepage	https://www.medschools.ac.uk/studying-medicine/outreach-and-support/resources-for-teachers-and-students
NHS talent academic work experience website	https://nhstalentacademy.org.uk/work-experience/
Passport to Medicine: What must I do to become a medical student	https://www.cardiff.ac.uk/__data/assets/pdf_file/0005/2494940/Passport-to-Medicine.pdf
Professionalism for applicants to medicine	https://studyinghealthcare.ac.uk/wp-content/uploads/2021/04/Professionalism-for-applicants-to-medicine-1.pdf
Statement on the core values and attributes needed to study medicine	https://www.medschools.ac.uk/media/2542/statement-on-core-values-to-study-medicine.pdf
Guidance on relevant experience for applying to medical school	https://www.medschools.ac.uk/media/2331/relevant-experience-for-applying-to-medical-school.pdf
Studying Healthcare	https://studyinghealthcare.ac.uk/
The Midlands Medical Schools Conference	https://studyinghealthcare.ac.uk/learning-packages/the-midlands-medical-schools-conference/
Teacher and Careers advisor conferences	https://www.medschools.ac.uk/studying-medicine/outreach-and-support/teacher-and-careers-adviser-conferences
Outreach resources	
Primary School	
Being a GP- Primary School Activity Resources	https://www.healthsciences.leeds.ac.uk/teachers/primary-school-activities/being-a-gp/
Secondary School	
BSMS Virtual work experience	https://bsmsoutreach.thinkific.com/courses/VWE
How to run a mock MMI	https://studyinghealthcare.ac.uk/wp-content/uploads/2024/04/how-to-run-a-mock-mmi.pdf
MSC Summer Schools	https://www.medschools.ac.uk/our-work/selection/msc-summer-schools
MSC YouTube channel including teaching and career advisor webinars	https://www.youtube.com/@medicalschoollcouncil
Observe GP	https://www.rcgp.org.uk/workexperience
Preparing for an online MMI: guidance for applicants	https://www.medschools.ac.uk/media/2811/applicant-guidance-online-mmis-2020-final.pdf
RCGP Reflective Diary	https://www.rcgp.org.uk/getmedia/02dcaf12-9cf9-4494-86db-745d422d76e8/RCGP-reflective-diary-June-2019.pdf

Appendix 3: Data Analysis Methods

Acknowledgement

Source - UK Medical Education Database (“UKMED”) P196 extract generated on 3/4/2024, with additional data extract comprising postal outcodes generated 30/8/2024. Approved for publication on 30 September 2024. We are grateful to UKMED for the use of these data. However, UKMED bears no responsibility for their analysis or interpretation. The data include information derived from that collected by the University and Colleges Admissions Service (“UCAS”) and provided to the GMC (“UCAS Data”). Source: UCAS 2013-2022 Copyright UCAS Limited. UCAS Limited makes no warranty as to the accuracy of the UCAS Data, cannot accept responsibility for any inferences or conclusions derived by third parties from data or other information supplied by it.

Following application to the UK Medical Education Database (UKMED – ukmed.ac.uk) and approval, a deidentified dataset was supplied for analysis in the University of Dundee Health Informatics Centre (HIC) Safe Haven.

The data extract comprised all applicants to medicine courses in the UK over the ten-year period, 2013 – 2022, including the majority of the information from UCAS, and some derived geographical indicators, such as the Index of Multiple Deprivation. Individual postcodes were truncated to the postal outcode (Postal District i.e. first 3 or 4 characters). These data were aggregated into five 2-year periods, namely 2013-4, 2015-6, 2017-8, 2019-20, and 2021-2.

Statistical disclosure controls were applied to reporting the following results (as required by UKMED contributors), comprising numbers rounded to nearest 5 (<5 to 0), suppression of percentages based on $n < 22.5$, and averages based on $n < 7$. Suppressed fields are marked S in the tables.

Simple overall analyses looked at the numbers applying and accepted to medicine and the basic demography of those applicants, drawn from the GMC Progression Reports (GMC, 2024).

Subsequent analyses included only the UK domiciled school/college leavers. In particular, the inclusion criteria were:

- Applied via UCAS main scheme
- Aged 17-19 on application
- Course type was to a Gateway (GY) or Standard-entry (SEM) course

Excluded courses:

- St Andrews gateway year course – not in UKMED as not via UCAS
- Bradford gateway year course – very few students on the course enter medicine and agreement between Bradford and Leeds no longer stands
- Brunel standard-entry course – course was delayed so 0 entrants over this period despite applicants
- Liverpool gateway year course - course is for mature students, therefore no entrants aged 17-19

NB This means there are 16 gateway year courses in the analyses, not the 19 currently in operation.

Data about the 17-19 year old applicant population were analysed from the UKMED dataset. Data about entrants were based on the UCAS Acceptance field, hence there may be minor differences between these numbers and those registered as first year students in HESA data.

Data on all medical school applicants were taken from the GMC's Applicant Profiles 2007-2022 progression report (edt.gmc-uk.org).

Information about the base 18-year-old population was taken from the Office for National Statistics (ONS) mid-year estimates for the years 2013-2022 (ONS, 2024) and from the ONS nomis service : these are based on the national censuses conducted in 2011 and 2021 (2022 in Scotland), adjusted for known births, deaths, migration, moves within UK, and special populations (such as students, military).

Postal outcodes (equivalent to the postal district) were matched to local authority/unitary authority (LTLA) areas using an ONS lookup database supplied by Chris Bell (doogal.ac.uk). This lookup was based on the 2023 LTLAs in the UK, incorporating a number of amalgamations of prior administrative areas in

England. The majority of postal districts matched uniquely to a single LTLA; in the case of postal districts that overlapped two or more LTLAs, the matching to each was weighted by reciprocal of the number of LTLAs (e.g. 0.5, 0.33) so that the numbers of applicants were distributed across the different overlapping LTLAs equally.

Disadvantage was analysed primarily using area-based measures – POLAR and IMD. This was supplemented in examining the intersection of ethnicity with deprivation by using SOC 2010, a standard occupational classification (self-reported parental/guardian occupation).

Analyses of applicant and entrants was carried out within the HIC Safe Haven using R. Analyses of aggregated applicant and entrant frequencies as proportions of the relevant 18-year-old populations were carried out external to the HIC Safe Haven using Microsoft Excel. Mapping was carried out using Microsoft Power BI.

Descriptive methods summarised the information in terms of frequencies and percentages, reported in tables and graphs. Inferential approaches used chi square, negative binomial regression for applicant counts, and binary logistic regression, for entrant analysis. Inferential statistics set alpha = 0.05.

Information about individual schools and colleges (inc. Further Education – FE) that had 16-18 yr old provision (e.g. for A levels, Scottish Highers, International Baccalaureate, BTEC) was obtained using three sources: the HEAT database (Higher Education Access Tracker, 2024), the UK Register of Learning Providers (UKRLP, 2024), and the National Statistics Compare School and College Performance in England service (UK Government, 2024).

Missing data were treated as missing at random. Notes about the proportion of missing data are reported by section in the Results.

Ethical review was carried out by the University of Nottingham Faculty of Medicine and Health Sciences Research Ethics Committee (Reference No: FMHS 182-0424), deemed satisfactory and given a favourable research ethics opinion.

Appendix 4: Supplementary Tables

Table 1: Applicants and entrants to standard-entry and gateway year courses by ethnicity (low level).

Ethnicity		Aggregated UCAS years				
		2013-14	2015-16	2017-18	2019-20	2021-22
Asian - Bangladeshi	Number of Applicants	455	470	580	845	1185
	Applicant proportion (%)	2.3	2.7	3	3.5	3.9
	Number of Entrants	130	165	205	315	410
	Entrant proportion (%)	1.4	1.8	2.1	2.7	3.2
	Acceptance rate (%)	28.6	35.1	35.3	37.3	34.6
Asian - Chinese	Number of Applicants	430	400	370	445	515
	Applicant proportion (%)	2.2	2.3	1.9	1.9	1.7
	Number of Entrants	200	225	215	240	275
	Entrant proportion (%)	2.1	2.5	2.2	2.1	2.1
	Acceptance rate (%)	46.5	56.3	58.1	53.9	53.4
Asian - Indian	Number of Applicants	2035	1985	2255	3020	4110
	Applicant proportion (%)	10.3	11.5	11.8	12.6	13.4
	Number of Entrants	1020	1040	1170	1495	1970
	Entrant proportion (%)	10.9	11.7	12.2	12.9	15.2
	Acceptance rate (%)	50.1	52.4	51.9	49.5	47.9
Asian - Other Asian background	Number of Applicants	1115	1050	1265	1715	2395
	Applicant proportion (%)	5.7	6.1	6.6	7.1	7.8
	Number of Entrants	445	430	515	665	895
	Entrant proportion (%)	4.8	4.8	5.4	5.7	6.9
	Acceptance rate (%)	39.9	41	40.7	38.8	37.4
Asian - Pakistani	Number of Applicants	1360	1445	1830	2710	3835
	Applicant proportion (%)	6.9	8.4	9.6	11.3	12.5
	Number of Entrants	485	545	655	1005	1305
	Entrant proportion (%)	5.2	6.1	6.8	8.7	10.1
	Acceptance rate (%)	35.7	37.7	35.8	37.1	34
Black - African	Number of Applicants	1125	1030	1390	2010	2820
	Applicant proportion (%)	5.7	6	7.3	8.4	9.2
	Number of Entrants	240	325	415	645	810
	Entrant proportion (%)	2.6	3.6	4.3	5.6	6.3
	Acceptance rate (%)	21.3	31.6	29.9	32.1	28.7
Black - Caribbean	Number of Applicants	85	90	95	105	140
	Applicant proportion (%)	0.4	0.5	0.5	0.4	0.5
	Number of Entrants	20	35	40	35	50
	Entrant proportion (%)	S	0.4	0.4	0.3	0.4
	Acceptance rate (%)	S	38.9	42.1	33.3	35.7
Black - Other black background	Number of Applicants	40	40	55	90	90
	Applicant proportion (%)	0.2	0.2	0.3	0.4	0.3
	Number of Entrants	5	15	15	25	25
	Entrant proportion (%)	S	S	S	0.2	0.2
	Acceptance rate (%)	S	S	S	27.8	27.8

Mixed - Other mixed background	Number of Applicants	235	255	290	375	460
	Applicant proportion (%)	1.2	1.5	1.5	1.6	1.5
	Number of Entrants	95	125	125	175	175
	Entrant proportion (%)	1	1.4	1.3	1.5	1.4
	Acceptance rate (%)	40.4	49	43.1	46.7	38
Mixed - White and Asian	Number of Applicants	500	455	490	665	840
	Applicant proportion (%)	2.5	2.6	2.6	2.8	2.7
	Number of Entrants	260	260	280	370	400
	Entrant proportion (%)	2.8	2.9	2.9	3.2	3.1
	Acceptance rate (%)	52	57.1	57.1	55.6	47.6
Mixed - White and Black African	Number of Applicants	80	95	95	175	190
	Applicant proportion (%)	0.4	0.6	0.5	0.7	0.6
	Number of Entrants	30	40	35	75	70
	Entrant proportion (%)	0.3	0.4	0.4	0.6	0.5
	Acceptance rate (%)	37.5	42.1	36.8	42.9	36.8
Mixed - White and Black Caribbean	Number of Applicants	80	80	85	120	130
	Applicant proportion (%)	0.4	0.5	0.4	0.5	0.4
	Number of Entrants	35	40	35	50	45
	Entrant proportion (%)	0.4	0.4	0.4	0.4	0.3
	Acceptance rate (%)	43.8	50	41.2	41.7	34.6
Other ethnic background	Number of Applicants	585	610	755	1040	1590
	Applicant proportion (%)	3	3.5	4	4.3	5.2
	Number of Entrants	210	260	305	395	535
	Entrant proportion (%)	2.2	2.9	3.2	3.4	4.1
	Acceptance rate (%)	35.9	42.6	40.4	38	33.6
White	Number of Applicants	11565	9255	9490	10700	12360
	Applicant proportion (%)	58.7	53.6	49.8	44.6	40.3
	Number of Entrants	6180	5420	5570	6080	5985
	Entrant proportion (%)	66.1	60.7	58.1	52.5	46.2
	Acceptance rate (%)	53.4	58.6	58.7	56.8	48.4

Table 2: Applicants and entrants to standard-entry and gateway year courses by IMD.

IMD		Aggregated UCAS years				
		2013-14	2015-16	2017-18	2019-20	2021-22
Q1	Number of Applicants	2025	2075	2780	3965	5635
	Applicant proportion (%)	10.2	11.9	14.4	16.4	18.2
	Number of Entrants	595	735	985	1420	1865
	Entrant proportion (%)	6.3	8.2	10.2	12.2	14.3
	Acceptance rate (%)	29.4	35.4	35.4	35.8	33.1
Q2	Number of Applicants	2870	2490	3010	4220	5365
	Applicant proportion (%)	14.4	14.3	15.6	17.4	17.3
	Number of Entrants	1090	1020	1205	1650	1950
	Entrant proportion (%)	11.6	11.3	12.4	14.1	14.9
	Acceptance rate (%)	38	41	40	39.1	36.3
Q3	Number of Applicants	3510	3150	3395	4225	5500
	Applicant proportion (%)	17.7	18.1	17.6	17.4	17.7
	Number of Entrants	1605	1535	1685	1985	2205
	Entrant proportion (%)	17	17	17.4	17	16.9
	Acceptance rate (%)	45.7	48.7	49.6	47	40.1
Q4	Number of Applicants	4625	3975	4275	5005	6115
	Applicant proportion (%)	23.3	22.8	22.2	20.7	19.7
	Number of Entrants	2330	2205	2320	2620	2740
	Entrant proportion (%)	24.7	24.5	23.9	22.5	21
	Acceptance rate (%)	50.4	55.5	54.3	52.3	44.8
Q5	Number of Applicants	6840	5755	5805	6810	8390
	Applicant proportion (%)	34.4	33	30.1	28.1	27.1
	Number of Entrants	3815	3520	3505	3990	4315
	Entrant proportion (%)	40.4	39	36.1	34.2	33
	Acceptance rate (%)	55.8	61.2	60.4	58.6	51.4

Table 3: Applicants per 1000 18-year-olds in 2013-14 and 2021-22 by local authority district.

Local Authority District	2013-2014		2021-2022	
	Applicants per 1000 18-year-olds	Relative Rank	Applicants per 1000 18-year-olds	Relative Rank
Aberdeen City	17.7	150	27.3	127
Aberdeenshire	19.6	126	30.8	105
Adur	8.8	311	19.2	227
Amber Valley	20.6	109	23.3	178
Angus	31.4	32	36.3	71
Antrim and Newtownabbey	20.7	107	26.0	145
Ards and North Down	21.3	101	23.3	179
Argyll and Bute	12.6	243	24.1	170
Armagh City, Banbridge and Craigavon	26.2	64	25.1	158
Arun	13.6	218	16.5	256
Ashfield	8.1	322	11.1	329
Ashford	13.6	217	20.2	211
Babergh	24.3	76	29.5	117
Barking and Dagenham	12.4	245	26.5	136
Barnet	45.7	6	60.6	12
Barnsley	13.0	231	12.5	308
Basildon	9.0	309	21.5	196
Basingstoke and Deane	17.3	159	26.4	138
Bassetlaw	12.4	244	15.0	273
Bath and North East Somerset	9.6	297	8.5	347
Bedford	15.8	185	32.9	91
Belfast	30.2	36	39.2	53
Bexley	13.4	224	30.2	111
Birmingham	17.1	163	36.8	68
Blaby	34.0	22	74.7	5
Blackburn with Darwen	12.2	250	17.9	244
Blackpool	11.6	258	12.1	313
Blaenau Gwent	6.2	338	7.2	352
Bolsover	10.4	282	14.6	277
Bolton	15.6	187	24.1	169
Boston	20.9	104	27.8	125
Bournemouth, Christchurch and Poole	13.8	213	18.3	240
Bracknell Forest	13.5	221	21.9	193
Bradford	16.9	166	27.3	128
Braintree	11.5	261	13.6	295
Breckland	11.1	269	10.8	332
Brent	33.1	26	44.2	35
Brentwood	17.2	160	22.0	192
Bridgend	19.1	134	26.4	139

Brighton and Hove	10.3	283	12.0	317
Bristol, City of	20.0	121	23.9	172
Broadland	17.3	157	24.5	163
Bromley	27.8	50	40.6	45
Bromsgrove	38.7	14	55.2	18
Broxbourne	10.6	276	13.2	299
Broxtowe	23.4	83	44.4	34
Buckinghamshire	31.5	31	49.0	24
Burnley	3.9	357	14.4	280
Bury	16.2	175	30.6	108
Caerphilly	23.9	80	38.1	60
Calderdale	20.1	117	33.6	86
Cambridge	20.4	113	24.0	171
Camden	27.5	53	33.1	90
Cannock Chase	2.2	359	6.0	357
Canterbury	8.1	321	8.5	348
Cardiff	19.6	125	29.1	120
Carmarthenshire	18.4	142	25.9	149
Castle Point	6.5	333	13.2	298
Causeway Coast and Glens	28.4	44	38.2	58
Central Bedfordshire	19.5	129	34.0	82
Ceredigion	7.9	324	13.0	300
Charnwood	17.4	156	25.9	150
Chelmsford	14.8	200	23.1	184
Cheltenham	18.1	147	15.9	265
Cherwell	21.4	98	32.1	94
Cheshire East	31.8	30	40.2	49
Cheshire West and Chester	19.6	128	23.6	174
Chesterfield	6.3	337	9.5	340
Chichester	26.1	66	22.6	187
Chorley	21.1	102	30.7	107
City of Edinburgh	20.6	110	25.6	154
City of London	111.5	1	208.9	1
Clackmannanshire	16.8	168	17.8	246
Colchester	12.9	234	17.6	248
Conwy	14.5	203	20.0	215
Cornwall	12.6	240	14.8	274
Cotswold	27.3	57	38.9	54
County Durham	10.2	286	12.6	306
Coventry	6.5	335	11.9	321
Crawley	6.1	339	10.2	338
Croydon	13.6	216	22.5	188
Cumberland	6.9	328	11.3	328
Dacorum	12.1	252	18.4	235
Darlington	13.2	227	13.6	294
Dartford	24.4	75	35.9	74

Denbighshire	13.0	232	19.5	223
Derby	6.5	334	14.2	282
Derbyshire Dales	28.1	46	26.2	143
Derry City and Strabane	28.2	45	29.7	115
Doncaster	10.4	278	13.8	289
Dorset	15.6	189	17.9	243
Dover	12.8	236	15.8	266
Dudley	8.1	323	16.6	254
Dumfries and Galloway	16.0	177	26.0	146
Dundee City	16.3	172	12.1	315
Ealing	27.0	59	38.1	62
East Ayrshire	20.0	120	40.5	48
East Cambridgeshire	12.7	239	14.1	283
East Devon	30.1	37	27.1	130
East Dunbartonshire	27.7	52	56.6	14
East Hampshire	18.3	143	18.6	233
East Hertfordshire	14.4	207	19.4	226
East Lindsey	11.5	262	17.5	249
East Lothian	18.7	139	23.6	175
East Renfrewshire	32.6	27	69.4	6
East Riding of Yorkshire	12.3	246	23.1	183
East Staffordshire	5.8	345	12.8	303
East Suffolk	11.8	257	19.2	228
Eastbourne	5.8	343	9.3	342
Eastleigh	21.4	99	38.4	56
Elmbridge	29.4	42	38.2	59
Enfield	23.8	82	38.8	55
Epping Forest	36.6	17	65.0	9
Epsom and Ewell	25.9	67	44.6	33
Erewash	13.8	212	18.3	238
Exeter	10.1	289	9.1	345
Falkirk	10.6	277	15.8	267
Fareham	12.1	251	11.7	322
Fenland	5.3	349	10.3	337
Fermanagh and Omagh	18.7	138	19.5	224
Fife	15.0	197	20.7	205
Flintshire	10.0	291	24.3	167
Folkestone and Hythe	10.0	290	18.1	242
Forest of Dean	11.5	265	16.7	251
Fylde	25.3	71	22.2	190
Gateshead	10.3	284	14.5	278
Gedling	20.9	103	36.4	70
Glasgow City	18.0	148	30.3	109
Gloucester	5.8	344	11.7	324
Gosport	1.4	360	11.9	318
Gravesham	13.2	225	25.9	151

Great Yarmouth	4.2	354	6.8	354
Greenwich	14.9	198	32.5	92
Guildford	39.0	13	35.3	78
Gwynedd	18.1	146	23.7	173
Hackney	17.5	153	26.8	134
Halton	9.9	294	9.4	341
Hammersmith and Fulham	22.8	85	38.3	57
Harborough	33.5	24	42.6	38
Haringey	12.9	235	19.7	220
Harlow	4.0	355	8.1	350
Harrow	39.2	12	55.5	16
Hart	27.9	48	17.1	250
Hartlepool	10.9	273	16.5	257
Hastings	4.0	356	9.1	344
Havant	6.5	336	10.1	339
Havering	15.5	190	32.5	93
Herefordshire, County of	14.5	202	19.4	225
Hertsmere	37.1	16	48.1	26
High Peak	10.4	279	12.1	314
Highland	13.0	233	23.5	177
Hillingdon	40.1	9	64.0	10
Hinckley and Bosworth	17.2	161	33.4	87
Horsham	15.5	191	16.7	252
Hounslow	27.5	54	42.7	37
Huntingdonshire	13.7	214	21.3	197
Hyndburn	9.1	307	25.4	156
Inverclyde	13.5	219	27.0	132
Ipswich	11.1	268	13.9	288
Isle of Anglesey	11.5	263	13.6	292
Isle of Wight	13.2	228	6.9	353
Isles of Scilly	0.0	361	0.0	361
Islington	19.6	127	30.0	113
Kensington and Chelsea	36.4	18	49.5	23
King's Lynn and West Norfolk	12.2	248	12.0	316
Kingston upon Hull, City of	3.7	358	10.8	334
Kingston upon Thames	40.1	10	56.4	15
Kirklees	18.4	141	24.9	159
Knowsley	12.8	237	14.7	275
Lambeth	25.3	70	31.7	99
Lancaster	16.0	178	11.0	331
Leeds	15.6	188	24.5	162
Leicester	7.2	326	12.9	302
Lewes	33.8	23	41.9	41
Lewisham	24.3	77	33.3	88
Lichfield	22.7	87	40.1	50
Lincoln	11.0	271	12.5	309

Lisburn and Castlereagh	53.6	3	58.5	13
Liverpool	12.6	242	17.9	245
Luton	5.9	342	16.2	261
Maidstone	15.9	181	26.5	137
Maldon	9.6	296	14.6	276
Malvern Hills	22.7	86	23.2	181
Manchester	23.9	81	38.0	63
Mansfield	7.0	327	11.5	325
Medway	5.5	347	12.2	311
Melton	22.3	89	24.1	168
Merthyr Tydfil	4.5	352	7.9	351
Merton	42.6	8	53.8	19
Mid and East Antrim	20.2	115	29.5	118
Mid Devon	16.3	174	22.8	185
Mid Suffolk	17.5	154	16.4	259
Mid Sussex	22.0	93	27.0	131
Mid Ulster	29.5	41	35.0	80
Middlesbrough	12.2	249	18.4	237
Midlothian	22.3	90	43.0	36
Milton Keynes	16.5	170	37.2	67
Mole Valley	31.2	33	35.9	75
Monmouthshire	19.8	124	18.9	231
Moray	10.1	288	22.8	186
Na h-Eileanan Siar	13.5	220	4.0	360
Neath Port Talbot	8.8	313	11.1	330
New Forest	18.9	136	21.6	194
Newark and Sherwood	12.0	253	16.1	262
Newcastle upon Tyne	20.4	111	23.2	182
Newcastle-under-Lyme	10.4	281	19.5	222
Newham	16.9	167	25.9	152
Newport	17.0	164	42.0	39
Newry, Mourne and Down	23.0	84	21.0	203
North Ayrshire	15.6	186	23.3	180
North Devon	17.9	149	21.3	198
North East Derbyshire	21.6	95	27.1	129
North East Lincolnshire	5.6	346	14.0	286
North Hertfordshire	11.9	255	21.1	201
North Kesteven	12.7	238	10.5	336
North Lanarkshire	9.5	300	22.1	191
North Lincolnshire	11.5	260	16.6	255
North Norfolk	11.1	270	5.9	358
North Northamptonshire	10.8	275	20.1	214
North Somerset	15.9	179	18.3	239
North Tyneside	22.6	88	28.3	123
North Warwickshire	17.6	151	40.6	46
North West Leicestershire	13.2	226	20.1	213

North Yorkshire	27.1	58	31.1	102
Northumberland	16.3	173	21.3	199
Norwich	6.8	331	10.7	335
Nottingham	13.1	229	18.7	232
Nuneaton and Bedworth	9.5	299	26.2	141
Oadby and Wigston	16.8	169	28.2	124
Oldham	20.0	123	32.0	97
Orkney Islands	5.9	341	13.7	291
Oxford	11.5	266	12.4	310
Pembrokeshire	8.4	319	19.8	217
Pendle	14.3	208	30.9	103
Perth and Kinross	28.4	43	36.1	72
Peterborough	19.3	133	28.5	122
Plymouth	8.1	320	14.1	285
Portsmouth	9.6	298	11.9	319
Powys	17.5	155	25.4	155
Preston	14.8	199	19.2	229
Reading	21.5	97	27.8	126
Redbridge	49.7	4	78.5	3
Redcar and Cleveland	8.9	310	15.1	271
Redditch	4.2	353	5.5	359
Reigate and Banstead	28.0	47	40.6	44
Renfrewshire	20.8	105	29.8	114
Rhondda Cynon Taf	9.2	306	14.5	279
Ribble Valley	30.8	34	63.4	11
Richmond upon Thames	47.5	5	68.6	7
Rochdale	11.9	254	20.4	207
Rochford	11.6	259	26.5	135
Rosendale	27.5	55	66.5	8
Rother	13.4	222	24.4	165
Rotherham	9.3	304	19.7	219
Rugby	24.6	73	41.0	43
Runnymede	22.1	91	25.6	153
Rushcliffe	20.1	118	30.1	112
Rushmoor	5.4	348	11.4	327
Rutland	14.5	204	6.5	355
Salford	12.6	241	18.6	234
Sandwell	12.3	247	32.0	95
Scottish Borders	20.2	116	26.8	133
Sefton	10.2	285	13.8	290
Sevenoaks	34.4	21	48.7	25
Sheffield	14.1	210	20.2	210
Shetland Islands	14.0	211	31.7	100
Shropshire	14.7	201	20.2	212
Slough	18.8	137	32.0	96
Solihull	31.8	29	52.5	21

Somerset	13.7	215	16.0	263
South Ayrshire	15.9	183	30.9	104
South Cambridgeshire	25.8	68	35.4	76
South Derbyshire	26.5	61	51.5	22
South Gloucestershire	17.1	162	26.2	144
South Hams	33.2	25	36.6	69
South Holland	9.3	305	11.5	326
South Kesteven	17.6	152	13.4	296
South Lanarkshire	15.3	193	24.7	161
South Norfolk	15.0	195	22.4	189
South Oxfordshire	32.5	28	37.4	66
South Ribble	14.3	209	23.5	176
South Staffordshire	30.2	35	55.4	17
South Tyneside	11.5	264	14.1	284
Southampton	9.5	303	14.2	281
Southend-on-Sea	8.5	316	18.2	241
Southwark	20.1	119	26.0	148
Spelthorne	22.0	92	33.7	85
St Albans	24.3	78	33.3	89
St. Helens	18.3	144	20.6	206
Stafford	20.7	108	37.7	64
Staffordshire Moorlands	20.0	122	36.1	73
Stevenage	6.8	329	13.6	293
Stirling	18.2	145	26.0	147
Stockport	19.5	131	31.9	98
Stockton-on-Tees	11.3	267	15.9	264
Stoke-on-Trent	6.8	330	13.9	287
Stratford-on-Avon	26.2	65	35.4	77
Stroud	20.7	106	30.3	110
Sunderland	10.0	292	15.6	269
Surrey Heath	21.6	96	39.4	52
Sutton	44.2	7	78.7	2
Swale	8.6	315	18.9	230
Swansea	15.4	192	24.8	160
Swindon	9.5	302	12.6	307
Tameside	11.0	272	20.2	208
Tamworth	4.8	351	6.1	356
Tandridge	38.1	15	47.4	29
Teignbridge	20.4	112	21.1	200
Telford and Wrekin	6.5	332	12.2	312
Tendring	15.0	196	13.3	297
Test Valley	19.4	132	31.5	101
Tewkesbury	26.8	60	38.1	61
Thanet	5.0	350	15.1	272
Three Rivers	57.8	2	76.0	4
Thurrock	10.0	293	25.3	157

Tonbridge and Malling	27.8	51	48.0	27
Torbay	10.4	280	9.2	343
Torfaen	8.8	312	9.0	346
Torridge	14.4	206	20.7	204
Tower Hamlets	15.2	194	24.3	166
Trafford	24.5	74	47.5	28
Tunbridge Wells	16.1	176	17.7	247
Uttlesford	35.8	19	53.2	20
Vale of Glamorgan	29.5	39	40.5	47
Vale of White Horse	20.4	114	20.2	209
Wakefield	9.8	295	15.2	270
Walsall	9.1	308	21.5	195
Waltham Forest	24.1	79	44.9	31
Wandsworth	34.6	20	41.7	42
Warrington	10.8	274	12.9	301
Warwick	39.4	11	41.9	40
Watford	26.3	63	45.4	30
Waverley	17.3	158	19.8	218
Wealden	21.3	100	26.2	142
Welwyn Hatfield	19.5	130	33.9	84
West Berkshire	15.9	180	18.4	236
West Devon	26.4	62	44.7	32
West Dunbartonshire	10.2	287	34.0	81
West Lancashire	27.4	56	29.3	119
West Lindsey	15.8	184	24.4	164
West Lothian	16.9	165	26.3	140
West Northamptonshire	8.5	318	19.7	221
West Oxfordshire	13.1	230	21.1	202
West Suffolk	11.9	256	12.7	305
Westminster	25.8	69	34.0	83
Westmorland and Furness	14.5	205	15.7	268
Wigan	6.1	340	8.4	349
Wiltshire	16.4	171	20.0	216
Winchester	24.8	72	30.7	106
Windsor and Maidenhead	21.9	94	35.3	79
Wirral	18.6	140	28.6	121
Woking	29.5	40	37.5	65
Wokingham	30.1	38	40.0	51
Wolverhampton	8.7	314	16.4	258
Worcester	9.5	301	11.7	323
Worthing	8.5	317	11.9	320
Wrexham	7.3	325	12.7	304
Wychavon	27.8	49	29.6	116
Wyre	19.0	135	16.7	253
Wyre Forest	15.9	182	16.3	260
York	13.4	223	10.8	333

**The Medical Schools Council is the
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