



A Journey to Medicine Outreach Guidance

Medical Schools Council | Selecting for Excellence

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Acknowledgements

A Journey to Medicine: Outreach Guidance has been produced by Ceri Nursaw (Nursaw Associates) working on behalf of the Medical Schools Council as part of Selecting for Excellence.

First thanks must go to the Selecting for Excellence Executive Group for supporting the development of this guidance and their comments. Thank you to all the medical schools that supported and contributed to the guidance. We received so many excellent case studies and we are sorry we could not include them all.

Thank you to the Office for Fair Access for supporting this work and having the foresight to see the opportunities.

Finally, the author wishes to thank Clare Owen from the Medical Schools Council for her clear vision, support, advice and good humour.



Contents

1. Executive summary and top ten tips

This guidance is designed to support medical schools to build and grow their outreach activity. It sets out an individual's journey to medicine. It follows an individual's engagement in outreach according to when it takes place in their learning or life-experience. It starts with primary school-age children and moves through to mature learners.

This guidance builds on best practice in medical schools across the UK. However, it recognises that more needs to be done if we are to ensure that the medical profession is more representative of society. It seeks to address the real challenges that exist for medical schools in setting up outreach. These challenges include:

→ Carrying out outreach activities with primary school-age children

Medical school staff may not have the training and expertise to engage with children from this age group and will need the support of the primary school. It is often difficult to identify primary schools and design appropriate activities.

→ Providing regular and sustained intervention from a young age

It is difficult to maintain contact with young people as they move through school and provide appropriate and meaningful activities.

→ Ensuring that there is a breadth of coverage

Outreach often focuses on the medical school's local area, meaning those students from cities or rural areas without a medical school may miss out on outreach opportunities. Collaboration between schools has helped in some areas to address this issue.

→ Providing up to date and appropriate advice and guidance on the range of options available to young people considering a medical degree and career

Website resources are being developed to support this.

→ Supporting adults and mature learners to consider medicine

It can be hard to identify potential mature learners and support their application to study.

→ Appropriate evaluation of outreach allowing medical schools to understand the impact their programmes are making

It can be hard to track students who have taken part in outreach schemes and understand the impact on the wider medical community.

This guidance is designed to address some of these challenges. However, outreach, widening participation, and access more generally will remain a difficult area and medical schools (along with the wider education community) need to look for continuous improvement in their processes and programmes.

Through *A Journey to Medicine* we have established the top ten tips for an outreach programme.

Top ten tips:

1. Build a programme that follows *A Journey to Medicine*: from introductory to developmental to consolidation activities, which follows an individual's life or learning experience.
2. Use the skills, expertise, knowledge and resources of your university's central outreach team, whether that is for training medical students, organising activities or for developing promotional materials.
3. Medical students acting as ambassadors are often the best people to lead activity and their work should be integrated into the medical school's wider programme. Try to choose ambassadors who reflect the social composition of the people you are working with, to support the sense that university is 'for people like me'.
4. If working with primary schools then consider those which feed secondary schools which the medical school or university partner with on more intensive activities. This allows the work at secondary school to reinforce the students' experience at primary school.
5. Support young people's subject choices for Scottish Nationals, GCSE and post-16, helping them to make the appropriate decisions and build their understanding and confidence in their ability and suitability for a career in the health service.
6. You should support post-16 students to develop the confidence, skills and knowledge to apply and make the transition to university as effectively as possible. There are many elements of admissions processes which can seem daunting to some students, therefore it is important that there are programmes in place to support their applications.
7. Build programmes to help, support and advise teachers, parents and carers. They are highly influential in a young person's decision-making process.
8. Build a culture within the medical school that provides leadership and management support to coordinated outreach activities.
9. Ensure evaluation is valued, sought out and seen as essential to good management. Seek out information in order to learn how to manage and deliver programmes and services better, and thereby improve impact and benefits.
10. Outreach is only one part of the student lifecycle, admissions, transition to university, student support and future career should also be considered.

This guidance forms just one part of a series of measures undertaken by the Medical Schools Council. There will also be improved online resources providing information on medicine courses across the UK, guidance for students and their teachers with information on outreach programmes and a bank of outreach resources available for medical schools to use. To see the breadth of information and resources available look at www.medschools.ac.uk.

2. Introduction

A Journey to Medicine: Outreach Guidance has been designed to help medical schools to further develop and grow their widening participation outreach work. It gives advice to medical schools on how to provide the most effective engagement with young people and adults and examples of best practice. It is designed to be flexible so that medical schools can use the guidance and examples to enhance the outreach activities they already provide.

Medicine is a very popular career choice and there is fierce competition for places at university. Studying medicine at university requires significant academic ability as well as an aptitude to relate to patients. Medical schools have worked hard so that they can attract the right candidates and to establish admissions processes which are fair to all. Yet it remains that more needs to be done to ensure that the medical profession is representative of the society it serves, and that medical students are able to learn in a diverse environment. Medical schools are committed to ensuring that excellent candidates are able to access medical courses no matter what their background.

The *State of the Nation* report from the Social Mobility and Child Poverty Commission paints a stark picture of the situation in the UK, calling for action to 'adopt radical new approaches if poverty is to be beaten, mobility improved and if Britain is to avoid becoming a permanently divided society'. The Commission has described this as the '2020 challenge'. The Commission describes a **'higher education system that is expanding but where thousands of young people with high potential from low income families are still denied access to university'**. It calls for a 'new national effort' from employers, schools, colleges, universities, parents and charities to ensure that child poverty does not increase and becomes a thing of

the past. Medical schools and their partners need to respond as narrow social groups still dominate medicine (as in other professional roles). Two fifths of doctors attended non-selective state schools and one third were privately educated; this reinforces the progress medical schools have to make.

To address the challenges, Health Minister Dr Dan Poulter convened a summit on widening participation in medicine, which coincided with emerging plans from the Medical Schools Council to tackle the issue. As part of Selecting for Excellence the Medical Schools Council established a series of workstreams, one of which is to look at what steps medical schools can take to widen participation. This guidance is one of the outcomes from that workstream.

Medical students are the doctors of tomorrow and it is important we ensure that the brightest and best feel and are able to apply to study medicine. We believe this guidance will benefit future medical students, doctors and their patients. The medical schools are determined to make a difference to social mobility in the UK.

Thank you to the individuals and organisations who helped us produce this guidance – we hope it will be a useful resource for medical schools, and all those involved in medical education and training.

3. Who is this guidance for?

a. Medical schools

The guidance will support and guide medical schools in their work to widen access to medicine. It has been written for those within medical schools who are leading or organising outreach activity and those who manage or resource it.

For those delivering outreach it provides advice and guidance on how to run a comprehensive outreach programme and includes examples of best practice within the sector.

For leaders and managers the guidance will support the management of outreach and the further development of best practice. It provides a useful tool to benchmark current activity. It also provides information on how managers can lead the programme within universities.

b. People involved in the National Health Service and postgraduate medical education

The guidance will provide an overview to those working in the National Health Service and postgraduate medical education of the work that medical schools are doing with primary and secondary schools and colleges.

Staff and supporters will be able to identify areas in which they can work with medical schools to provide greater opportunities and added value to the programmes on offer.

c. People and organisations involved in widening participation and access

This guidance is also aimed at those in the wider community who support widening participation outreach and access.

Those who lead and deliver university-wide programmes will be able to understand how medical schools can support wider outreach and provide specialist programmes.

For other organisations involved they will be able to identify opportunities for engagement and for working in partnership with medical schools.

Prospective medical students and their teachers may also find this guidance of use. However, this is not its primary audience. Further advice and support for those interested in studying medicine (or their teachers and advisers) is available on the Medical School Council website (www.medschools.ac.uk).

4. The scope of the guidance

There are many definitions of widening participation outreach and under-represented groups.

We have defined widening participation outreach as:

‘any activity that involves raising aspirations and attainment and encouraging students from under-represented groups to apply to higher education’. OFFA 2010/07

We have taken widening participation in the context of undergraduate medical education to focus on improving the diversity of students by socio-economic background. Over the last ten years medicine has made steps to tackle the problems faced by other cohorts, such as disabled students who wish to study medicine.¹ Evidence collected by the Medical Schools Council shows that currently socio-economic background is the key issue that medicine needs to address.² Whilst certain ethnicities are under represented in the medical student cohort it is the Medical Schools Council’s view that this is linked to socio-economic background and, therefore, if medical schools focus on this issue then the demographics should improve. The Medical Schools Council will monitor and evaluate this to ensure that this is the case.

We have defined ‘under-represented’ groups as those who have one or more of the following characteristics. They are:

- From lower socio-economic groups and neighbourhoods in which relatively few people enter higher education
- From lower income groups
- Individuals who have been in local authority care

One of the most challenging aspects of outreach is targeting the right individuals. Most universities will already have mechanisms in place for targeting primary and secondary schools or individuals. Secondary schools and colleges are often identified based on their examination performance, levels of students with free school meals or progression to higher education statistics. This information is available from

the Department of Education in England, or from the Welsh or Scottish governments. Young people are often targeted if they live in areas of low progression to higher education or come from families which have low incomes or lack of higher education experience. This information will often be available through postcode software, from the primary or secondary schools or through individual applications. Some groups are harder to target, such as young people in care.

Children and Young People in Care

Children and young people in care are a group which is particularly hard to reach. For these groups it is suggested you use and partner with local agencies. For example, for young people in care all local authorities will have a virtual head teacher and children in care council.

Outreach is only one element of a broader widening participation strategy and student lifecycle, which also includes student success (retention, degree success and progression). These elements are not included here, however, they will be the subject of further reports from the Medical Schools Council.

The guidance focuses on outreach activity that is designed to engage and encourage individuals to think about, aspire to and make a successful application to medicine in the UK. Medical schools should consider how the guidance set out in this document fits with their own outreach activities to identify areas where

1 http://www.gmc-uk.org/static/documents/content/Gateways_to_the_professions_1010.pdf

2 <http://www.medschools.ac.uk/Publications/Documents/MSC-Selecting-for-Excellence-End-of-year-report.pdf>

they might be able to strengthen their overall provision of outreach.

The guidance is primarily structured chronologically - *A Journey to Medicine*. This follows an individual's engagement in outreach according to when it takes place in their learning or life-experience. It starts with

primary school-age children and moves through to mature learners. Each section outlines the aims of the activities, the type of activities that can be provided, evaluation methodologies and areas for further consideration. It also provides case studies of current best practice.

University of Sheffield Medical School Sheffield Outreach and Access to Medicine Scheme (SOAMS)

What is it?

SOAMS is a comprehensive programme of activities and support in medicine and healthcare for young people from under-represented groups running from Year 9 to Year 13

Who is it for?

Applicants come from schools and colleges based in Sheffield and the surrounding regions. Applicants are prioritised holistically for acceptance to SOAMS on the basis of a 'basket of indicators':

- First generation to higher education
- IMD score of under 15,000/POLAR data indicating low participation neighbourhood
- Parents working in non-professional level occupations (NsSEC 4-8)
- Registered disability
- Care experienced
- Prior achievement in science and maths
- Predicted ability to progress to appropriate university level study
- An interest in medicine/ health care careers (younger cohort Phase 1 applicants may have more general interest in medicine/science)
- Personal circumstances that may limit awareness, aspirations and achievement

Each year 100 students are selected for Phase One.

What does it do?

Each year, up to 100 students are selected from registered schools to participate in Phase One of SOAMS at the start of Year 9. They continue on the scheme until the end of Year 11 when up to 30 are selected to progress to Phase Two activities in Year 12 and Year 13. Additional opportunities are provided each year for other Year 12 applicants who have not previously been on SOAMS to join Phase Two directly.

Each year students participate in a minimum of four interactive activities at the University as part of a curriculum designed to build knowledge and experience incrementally. Activities are progressive and have a vocational focus on healthcare and science. They include generic sessions familiarising young people and their parents with higher education, information sessions about finance and application, half-day team building and problem solving workshops, laboratory-based workshops, online e-mentoring by current medical students, debates around medical ethics, a medical careers conference, Year 11 and post-16 study

and revision support, a comprehensive four-day residential summer school and occupational placement in conjunction with Sheffield Teaching Hospitals.

Participants who successfully complete Phase Two of the scheme, which runs throughout Year 12 and 13, are offered a guaranteed interview at the University of Sheffield's Medical School, subject to achieving satisfactory AS level results and demonstrating commitment to SOAMS. Students who pass their interview generally benefit from an adjusted offer to study medicine at the University of Sheffield.

Guidance is given in making strong UCAS applications to medicine and other allied courses. Links have recently been established to tutors on allied courses to medicine at the University of Sheffield and at Sheffield Hallam University to give timely information advice and guidance to students choosing to pursue other health and science related options.

Current medical, healthcare and biosciences undergraduates routinely work with participants as valuable role models, engendering the ethos of, 'If I can do this, so can you'. Many ex SOAMS students now work as mentors.

What is the impact?

SOAMS runs an annual destinations study (and has been doing so since 2008). Information is gathered with the consent of participants and involves interrogating their own CRM systems (to confirm who is studying at The University of Sheffield and on which courses) and ethically approved telephone surveys (to find out destinations elsewhere by institution and course).

Data are gathered from participants within one year of their 18th birthday and provides useful information to track SOAMS cohorts into higher education, or other destinations as one measure of the success of the scheme.

Since 2003 the University of Sheffield has seen 39 students graduate in medicine with a further 78 currently studying medicine. Within Sheffield a further 21 have graduated from other courses with the same number (21) currently studying courses other than medicine.

From a destination study for other universities 20 have progressed to study medicine with a further 187 studying other courses.

5. Introductory activities

This is the start of the journey to medicine. Introductory activities take place in primary school between the ages of seven and 11.

Aspiring to participate in higher education and medicine is a necessary precursor to achieving successful entry to medical school. Therefore, the role and contribution that medical schools make to raising aspirations to study is central to widening participation and access. Many medical schools engage with primary schools but sometimes it is overlooked and not part of a wider outreach programme with limited considered targeting of schools. We would encourage all medical schools to ensure they have a coordinated primary school programme as part of their outreach activity.

At this stage of the journey it is an introduction to medicine and what it involves. It is about helping young people explore their interests, challenging stereotypes and jargon busting.

Therefore, within this phase you should be aiming to:

- Provide an introduction to higher education and medicine
- Introduce medical staff and students to the young people to challenge stereotypes
- Support young people to develop and explore their interests, introducing them to the range of possibilities
- Encourage young people to understand the link between hard work and opportunities
- Develop an awareness in the young people of qualifications and route(s) to becoming a doctor

- Engage with parents and carers to dispel myths, allay fears and to motivate them to support their child's progression to higher education effectively
- Collaborate with others to utilise resources more effectively and thus engage with a greater range of schools as part of broader programmes.

Many of the activities within this age group should be lively and fun and, where possible, tied into other initiatives within their primary school.

Medical students acting as ambassadors are often the best people to lead activity, which can include demonstrations, campus tours and mentoring. Some medical schools formally recognise this work by medical students as part of their educational development. In many cases the ambassadors are chosen to reflect the social composition of the school students, to support the sense that university is 'for people like me'. Universities will provide training for ambassadors, which will cover key aspects such as child protection. Additional elements will need to be included for medical student ambassadors relating specifically to medicine, such as:

- What young people can see as part of their visit
- How to respond to challenging medicine-related or ethical questions.

St George's, University of London Primary Practice After School Club

What is it?

The Primary Practice After School Club is an aspiration raising activity which offers students in Year 5 and 6 (aged 9–11) the opportunity to learn more about medicine and healthcare by taking part in practical activities and developing new skills such as basic first aid and sign language.

Who is it for?

State primary schools based in Wandsworth and Merton are asked to identify 10–12 students in each school

who are from a low socio-economic background, are in care, have a disability or are eligible for free school meals. All students and their parents/carers are made aware and must be able to commit to attend all six weeks of the scheme.

In 2013–2014, 11 primary schools were involved.

What does it do?

Linked to national curriculum objectives, the programme is centred round a scenario designed to develop students' scientific knowledge, awareness of the range of careers in healthcare, and enhance their confidence and team working skills. Siblings and parents/carers are encouraged to participate by way of an activity book to be completed at home.

In groups of three, specially trained student ambassadors are assigned to a school and facilitate the club over the six-week period. Each club takes place once a week in school, after lessons have finished, and is supervised by a member of school staff.

Over the first five weeks, students work through a problem-based learning scenario, following the story of a young boy called Sam who breaks his arm. The story is delivered using audio recordings. After each instalment of the story, student ambassadors and participants discuss and work through a tutorial to clarify the story so far, contribute personal experiences, tackle the problem presented and make predictions on diagnosis and treatment. This is followed by a practical activity associated with the healthcare professions introduced in the story including when and how to put a patient in the recovery position, the basics of medical triage and analysing and interpreting scans.

The final week is a graduation at the University with parents and carers attending a presentation and final awards ceremony.

This is a multiple intervention programme with students invited to attend a Summer School in Year 7 and 8 and a university application information, advice and guidance event in Year 12.

Additional interventions in Years 9 to 12 are in development, including identifying new ways of engaging with the students using social media, newsletters and online mentoring.

What is the impact?

Students, parents/carers, school coordinators, and student ambassadors are all invited to complete post-event evaluation. Feedback from all parties is consistently positive year on year.

Over the last six years (2009–2014)

- 100% (327) of parents/carers who completed an evaluation believed their son/daughter benefited from attending the scheme
- Of the over 500 students who completed an evaluation form:
 - 99% indicated they enjoyed the scheme 'very much' or 'a lot'
 - 100% thought the activities taught them new things
 - 79% indicated they would like to go to university when they are older, 1% said they wouldn't, and 20% were unsure
 - 36% indicated they would like a job in medicine and healthcare when they're older, 10% said they wouldn't, and 44% were unsure

As one school coordinator stated:

St George's, University of London
Primary Practice After School Club

'Engaging children's interest in human structures and functions in a lively, practical way and linking to first aid was very useful. The homework book consolidated learning. You could see the pride on their faces as they were presented with their certificate and stethoscopes.'

Whilst the engagement of medical students can alleviate some costs, engaging with primary school children can be resource-intensive due to the number of primary schools that can be involved and the design and organisation of the activity. In order to get value for money it is often most effective to partner with the broader widening participation efforts of the university, other medical schools and other key stakeholders which share your aims and objectives (such as the NHS Trusts). Central outreach teams have skills, knowledge, expertise and resources which can significantly enhance the medical schools' programmes. With other medical schools you can share resources and activities (for example, roadshow materials) and with the NHS Trusts you can link with their outreach programmes to strengthen and extend their activity. In this way, for example, the individual contact with primary schools, the training of medical students, the campus visits and the creation of resources can all be shared with others.

At this stage in the journey the activities are often provided locally. It is advantageous to consider primary schools which feed secondary schools which the medical school or university partner with on more intensive activities. This allows the work at secondary school to reinforce the students' experience at primary school.

Activities include:

Roadshows

This is about bringing the medical school to primary schools. Typically, a team of staff and student ambassadors visit local schools and undertake a series

of fun, hands-on activities that introduce primary school students to the different dimensions of medicine, university life and recreate the excitement and vibrancy of a university campus. Often university staff also deliver a curriculum enrichment session to help pupils with topics related to their study and medicine.

Campus visits

Campus visits are a good opportunity for the young people to meet current students, academics and other staff. Typically, at this age visits involve quizzes and interactive activities. Often they are run in conjunction with the university's outreach team.

Higher education experience days

These days are fun-based with plenty of opportunity for hands-on activity but they also provide a thought-provoking introduction to higher education. A typical day includes a tour of the campus, a chance to meet and work with current medical students, a hands-on session in medicine and group work.

Demonstrations

Demonstrations are delivered to the whole primary school, lasting 30 to 40 minutes. Due to the age of the school students involved it is important that these demonstrations are very visual and exciting.

Workshops

Often offered locally, these are hands-on medical and science sessions for primary school students. The workshops explore different medical aspects with a class, reinforcing transferable skills such as investigation and cooperation.

Hull York Medical School Emergency Room

What is it?

Emergency Room is an event for students in Years 7 and 8. Lucy is a virtual patient and is the victim of a road traffic accident and the students are tasked with saving her life.

Who is it for?

It is for Year 7 and 8 students who have been identified as high achieving by their school. Priority is given to young people who are eligible to receive free school meals, have no history of higher education in the immediate family (excluding siblings) or who are living in, or experienced a period of time living in, local authority care.

What does it do?

Lucy has been brought into the emergency department by ambulance following a road traffic accident. She is 24 years old and of average height and build. At the scene of the accident she complained of pain in her chest, abdomen and lower back. She was experiencing some difficulty in breathing. She also has a nasty gash on her left thigh, which is still bleeding. On initial observation she looks very pale and feels cold and clammy to the touch, her pulse is fast and thready (a pulse which is very fine and scarcely perceptible).

Emergency Room is supported by medical student guides, academics and by digitised material accompanying the students at three stations which focus on Lucy's injuries. Students have to work out the kind of tests that might be necessary to treat her. The situation is used as context and stimulus with the intention of exciting the students by the urgency to 'save Lucy's life'. Students only have ten minutes in each area. This gives a point to learning about the heart, abdomen and brain. At each station the latest information on Lucy's condition is updated and after the final station the teams will have minutes to decide a treatment plan.

What is the impact?

Feedback following the event has consistently showed that over 80% of the students stated that their interest in the subject had grown and over 90% said the event improved their understanding of the subject.

Student ambassadors

Student ambassadors are current medical students who act as a link between the medical school and young people. They use their own experiences to give people interested in medicine an idea of what it is like to be a student. Student ambassadors can lead campus tours, organise fun interactive activities, attend schools and share their experiences with others.

Evaluate and encourage

In order to evaluate you should ensure that the methodologies are age appropriate and use:

- Activity evaluations
- Phased surveys of attitudinal change amongst participants
- Feedback based on the professional judgement of the teacher

We would encourage all medical schools when designing and delivering introductory activities to consider:

- Are the marketing resources of the university being used in a complementary way to the aspiration-raising activities of the medical school?
- How integrated are the medical school programmes with the wider university's widening participation work?
- Is the medical school fully utilising the talents of the medical school students to act as ambassadors and facilitators? Are the medical school students part of a coordinated programme of activity?
- How can these introductory activities feed into the next stage of the journey to medicine (developmental and eventually consolidation activities)?

6. Developmental activities

Developmental activities take place in secondary school between the ages of 11 and 16. This is about understanding what medicine is like at university and as a career, and what is required to study it (knowledge provision). It will include supporting subject choices for Scottish Nationals, GCSE and post-16 qualifications and building confidence in ability and suitability.

This is an important phase and often gets overlooked. Work throughout secondary school can support young people to consider their options and make the right choices (particularly in the case of subjects studied). This is an important time to nurture their interest and enjoyment in the subject, support their academic achievement and build confidence. We would encourage all medical schools to develop a comprehensive programme at this stage and develop meaningful partnerships with schools providing strategic and coordinated activity. This should be focused on those schools which have low progression to medicine (and higher education) and high numbers of students from a widening participation background.

Within this phase you should be aiming to:

- Continue to build confidence, motivation and aspirations
- Develop an understanding of the subject and qualification choices needed for medicine
- Support positive attitudes to learning
- Provide medicine-related curriculum enrichment to stretch skills and abilities
- Offer subject-specific activities to increase understanding
- Provide advice and information so the young people can make informed choices and decisions regarding medicine or a health-related career.
- Work with parents and carers so they can support their young people

Brighton and Sussex Medical School BrightMed

What is it?

BrightMed (Brighton and Sussex's Medical School's outreach programme) is a rolling five-year programme which works with students from Year 8 through to the end of Year 13. It identifies and supports young people from a widening participation background with the potential to become tomorrow's doctors.

Who is it for?

All state secondary schools in Sussex are contacted each year and asked to nominate students from their gifted and talented cohort who have expressed a strong desire to study medicine or who excel in science. Criteria for selection include first generation into higher education and from a low social-economic group background.

BrightMed aims to recruit 50 Year 8 students each year.

What does it do?

Students are recruited in Year 8 and begin the programme in Year 9. Year 9 and 10 students each have six activity days during the academic year, Year 11 students four days and Year 12 students five days plus a week-long residential. Year 13 students are offered UCAS personal statement feedback in late September, and mock interviews upon request.

BrightMed aims to increase participants' awareness of careers in medicine and the demands of the undergraduate medical degree. The programme aims to raise the aspirations of the students so they fulfill their academic potential and achieve success with both their compulsory and post-16 education.

BrightMed provides advice, hands-on experience and practical exercises to enable students to make informed decisions concerning their future education, and the confidence to submit strong applications to study medicine at Brighton-Sussex Medical School or other medical schools in the UK.

BrightMed is delivered by a mix of faculty, clinicians and students (acting as teaching mentors), with teaching focusing on six themes running throughout each year group: being a doctor/medical student; applying to study medicine; ethics; clinical skills; the human body; and personal development.

Alongside the core programme is BrightMed 12 x 3 and the BrightMed Roadshow. BrightMed 12 x 3 is an intensive three-day event for Year 12 students who have not joined BrightMed and it features key elements of the core programme. The BrightMed Roadshow is delivered using the same sessions but takes place over three days in several towns outside of Sussex. Its goal is to reach out to students who do not have immediate access to a medical school.

What is the impact?

Since 2006, 743 students have been recruited onto the main BrightMed programme and it is currently working with 197 students.

In total 141 BrightMed students have remained on the course until Year 13. Of those who have applied to study medicine and have met academic criteria 81 have had at least one interview, with 42 receiving offers to study medicine. A further 26 have gone on to study science or healthcare-related undergraduate degrees.

Of the 14 students who took part in the 2010 BrightMed London Road Show, 13 received interviews for medicine and 12 had offers.

Activities include:**Visits**

Visits to campus for this age group often involve presentations from current medical students, academics and support staff, covering all aspects of student life at medical school.

Summer schools

Summer schools provide an insight into life as a medical student. They provide a mixture of academic lectures and study sessions, university preparation and careers guidance. Academic excursions and a full and varied social programme often complement the classroom and campus-based activities. Typically they are residential, providing a fully immersive experience for school and college students to grow and develop both in and outside the classroom.

Options support

These sessions are designed to support school students in making an informed decision when they choose their subjects for further study, such as Scottish Nationals, GCSEs and (often more importantly) their Highers, Advanced Highers, AS and A Level subject choices. Medical schools may consider the individual subjects but sometimes, also the combination and timing of the examinations and school students need to be aware of any impact to their application. These sessions can be delivered as part of the secondary school or college fairs and events, within a broader engagement programme or as one-off events.

Newcastle University Medical School Teachers and Advisers Session

What is it?

The Teacher and Advisers Session runs every year and provides teachers and advisers from local and regional schools with the information they need to be able to advise their students about applying to medicine and dentistry.

Who is it for?

The session is for anyone who advises students regarding progression from across the region. Schools who serve low participation neighbourhoods are particularly targeted, but all schools are invited.

What does it do?

Many students are still not receiving the right information and guidance about applying to medicine from their teachers and school advisers. The session aims to give these parties the correct information as well as hints and tips about the application process that they can pass back to their potential medics at school or college. The session covers the application process, the admissions process at Newcastle and what Newcastle Medical School is looking for at interview. General advice is also given that is applicable to applying to all medical schools. There is also an open question session for medical school staff to take questions from the audience. At the end, there is the opportunity for networking and information is given about other outreach events that the schools and colleges can engage with.

What is the impact?

Over the last two years over 50 teachers have attended the sessions. Very positive feedback has been received. Interest in other events at the University has increased from the schools and colleges who have attended the event. The sessions have helped teachers and schools advisers have a contact at Newcastle University and they often get in touch for advice. The teachers and school advisers have said they find the event extremely helpful, particularly in relation to advising widening participation applicants.

Workshops

The workshops should be designed to ensure that the school and college students engage in discussion and activity around a medicine-based subject. They should be integrated within the school curriculum, and where possible, build on work done by the teachers in school. As in the introductory phase they should be hands-on and interactive.

Masterclasses

Masterclasses give school and college students opportunities to experience teaching and learning in different higher education settings, and access to world-class resources and learning environments. They should raise aspirations and attainment and stretch and challenge gifted and talented students. Based on the school curriculum medicine-related subjects are

introduced to the students. Most masterclasses are two hours long and held on university campus.

Mentoring (including online)

Mentoring puts young people in touch with a trained mentor who can answer questions about education and careers and provide personal advice to guide them in the right direction. It can be face-to-face, but within the medical community online mentoring (sometimes called e-mentoring) is very popular. Many medical schools use Bright Journals (provided by the Brightside Trust) which provides an online platform to support e-mentoring and has an associated website with resources about university, finance and careers.

Student ambassadors

Interaction with medical student ambassadors has been

proven to be one of the most effective ways of raising aspirations and encouraging young people to consider applying to university (Austin and Hatt (2005)). They can be involved in many activities including online and face-to-face mentoring, delivering subject-specific workshops, representing the medical school at higher education fairs and parents' evenings and running after school clubs.

Evaluate and encourage

In order to evaluate you should use:

- Activity evaluations
- Attitudinal surveys
- School and college student attainment and performance information (for example, actual versus predicted)
- Feedback based on the professional judgement of the teacher
- Narratives, showing how individuals have engaged with the programme and their subsequent achievements.

We would encourage all medical schools when designing and delivering developmental activities to consider:

- How is the 'student experience' of medical education at the university most effectively communicated to under-represented groups?
- How to build up an effective working relationship with secondary schools and teachers?
- How the programme supports young people and secondary schools to make informed choices in terms of subjects and qualifications?
- How can the developmental activity feed into the next stage on the journey to medicine and consolidation activities?
- How can evaluation be built into the programmes effectively?

7. Consolidation Activities

Consolidation activities take place beyond the age of 16 years. It is about supporting individual learners to make successful applications to medicine (where appropriate). It supports school and college students to develop the confidence, skills and knowledge to apply and make the transition as effectively as possible. It includes work to support mature students consider medicine. It also includes events for parents/carers and teachers/advisers.

Many medical schools provide consolidation programmes. However, there are many parts of the UK which do not have access to this support, often schools and colleges which are located in more isolated rural areas away from urban centres. The recent State of the Nation report demonstrated the large regional variations in entry to higher education for young people on free school meals. In London, 40% of young people on free school meals go on to higher education yet the figure is less than 10% in other areas such as West Berkshire, North East Lincolnshire, Barnsley, Kingston Upon Hull, Nottinghamshire, Southampton and North Somerset. Some medical schools collaborate to ensure that there is greater geographical coverage and we would encourage other medical schools to consider this. Reach Scotland is a good example, with all the medical schools working together to support all secondary schools and colleges in Scotland which meet their widening participation criteria (see case study).

We also wish to encourage medical schools to ensure that they understand the impact on the individual student by tracking the progress of the participants, whether to the host university or elsewhere. This will enable the medical school to understand the wider impact of its programme. Sheffield Medical School

works hard to track all its participants, conducting an annual destinations study to understand institution and course of past participants (see case study). We anticipate that the national roll-out of the Higher Education Access Tracker (HEAT), which allows universities and colleges to measure the progress of participants in widening participation outreach, will further support medical schools in this work.

Within this phase you should be aiming to:

- Support the preparation for higher education including what a medical degree entails and how to access it
- Ensure school and college students are aware of wider options and professions allied to medicine
- Provide medicine-related curriculum support which provides challenge and stretch
- Offer support to students to make an application to medical school including in writing personal statements and preparing for interviews and admissions tests
- Advise and guide staff within secondary schools and colleges and parents/carers on the medical application process

University of Birmingham Medical School Routes to the Professions: Medicine

What is it?

Routes to the Professions: Medicine is a programme of activities for Year 12–13 students which aims to improve the knowledge, understanding and progression of under-represented groups into courses and careers in medicine. It provides students with opportunities to develop non-academic skills and capabilities that are important for the medical profession, such as communication and reflection skills, guidance on seeking work experience and practice interview techniques.

Who is it for?

Routes to the Professions: Medicine is aimed at Year 12–13 students from partner state schools in the region who have the academic potential for studying for and undertaking a career in medicine. Places on the programme are limited and priority is given to students who meet the following criteria: first generation in their family to go to university, have parents in non-professional occupations, have a minimum of eight GCSEs with a minimum of AABB from English, Maths and science; predicted AS level/A level grades ABB including Biology and Chemistry.

What does it do?

Students join the Routes to the Professions: Medicine programme in December of Year 12 by attending an introductory day at the Medical School. The day offers the opportunity for the students to find out more about applying and getting into medical school, attend a lecture in a university setting and find out more about life as a medical student from current students.

Students on the programme are matched with a current undergraduate medical student who will support and mentor them through the rest of the Routes to the Professions: Medicine programme. The mentor, via a secure and moderated online mentoring platform, supports the student by helping them to: understand more about the demands of the medical course; seek work experience; write a UCAS application and personal statement and improve their interview techniques. Students also have the opportunity to shadow their mentor for a day to find out more about what is really like to be a medical student.

Students on the programme have guidance to find appropriate work experience placements and some students who show particular commitment to the programme can apply for a work-shadowing placement in the Medical School arranged by the programme.

A post-placement reflection and options day is held in September of Year 13, which comprises two half-day workshops. The first workshop helps students to reflect on their work and other experiences to support their UCAS personal statements and medical school interviews. The second workshop helps the students to consider their options if they do not get into medical school and provides information about alternative routes into medicine and other health-related careers and courses. The students are also given information about applying to the University of Birmingham via the widening participation Access to Birmingham admissions programme. Finally, the students have the option to attend a medical mock interview session at which they can find out more about medical interviews, attend a practice interview(s) and receive tips on how to be successful.

What is the impact?

All students on the programme agreed that their understanding of the qualifications and entry requirements to study medicine had increased and 92% of students agreed that it had increased their understanding of the application process. 92% of students agreed that the programme had helped them decide to apply to study medicine and they all agreed that it had motivated them to work hard to get the grades they require.

The students particularly enjoyed working with their mentors, commenting, 'I really liked meeting the mentors and having the chance to ask them questions about university life and studying medicine.' and 'Talking to the mentors was useful as we got to understand how they found the course and what they did to get in.'

Participants also enjoyed experiencing the type of teaching they might encounter at medical school, commenting, 'The medical lecture enabled me to gain a much deeper understanding of the way the normal routine runs for a typical medical student and I know what to expect in lectures.' and 'The lecture gave me a real feel of what a lecture is like and I really enjoyed it.'

Activities include:

Study skills support

Study skills support provides school and college students with an understanding of the work that is expected of university students and how they can improve their skills for current study. Areas covered can include note-taking, critical thinking, reading for study, research methods, revision and examination techniques and writing skills.

Masterclasses

In addition to the type of masterclasses that you may run for 11–16 year olds, for this age group masterclasses are a great opportunity for students to learn more about higher education and experience a subject they may be interested in studying at degree level. It will help to ease their transition between sixth form and university-level learning.

Application support

The focus of application support is to prepare and advise students during the final stages of the application process. The personal statement is a critical area. This can be further supported by workshops on aptitude tests and interview skills.

Workshops on subjects such as preparing for aptitude tests and interview skills

Interviews are an important part of the application process to medicine. These workshops enable the students to participate in role-plays to help them improve answers to questions and share techniques that they can use in medical school interviews. Students will gain an insight into the core skills required to articulate their viewpoints in a pressured environment successfully. These workshops should focus upon developing the confidence and intellectual tenacity required to tackle some of the key questions that might be asked during interview, in addition to addressing debates surrounding some of the most pertinent issues within medicine at the moment.

Many medical schools use aptitude tests such as BMAT (BioMedical Admissions Test) and UKCAT (UK Clinical Aptitude Test). Preparing for test workshops should aim to introduce students to what an aptitude test looks like, equip students with the relevant skills and support their preparation.

Attention should be paid to the needs of adults seeking to return to learning and they will need particular support in the application process.

Mentoring (including online)

Mentoring by undergraduate medical students for this age group provides invaluable assistance and support during a critical time, when school and college students are assessing their options and preparing UCAS applications.

Shadowing

Often taking place during a whole day, student shadowing provides individuals interested in studying medicine the opportunity to learn from undergraduate medical students. During the shadowing school and college students will attend a lecture, tutorial or practical session and visit university facilities, such as the sports centre or library. Throughout the day, the young people will be able to talk to current medical students to find out what university and studying medicine is really like. Care needs to be taken as to what the young people are exposed to and the appropriate consents should be given.

Summer schools

Summer schools typically provide young people with a five-day residential experience at university and a range of subject streams from which to choose. Students often live in a traditional hall of residence, attend academic sessions each morning, and enjoy a fun and varied personal development and social programme. This provides students with an insight into medicine and an experience of university life. At this stage advice on applications to medicine, and support with revision for examinations should be included.

University of Cambridge School of Clinical Medicine Cambridge Sutton Trust Summer School in Medicine

What is it?

The Cambridge Sutton Trust Summer School in Medicine is a five-day residential event for targeted students in Year 12. The residential is designed to provide a realistic idea of what it would be like to study medicine at Cambridge, and university life in general.

Who is it for?

The Summer School targets students in Year 12 who have the academic potential to go on to university, but who may be unsure about doing so. The Summer School prioritises students at schools and colleges with below national average performance at A Level and GCSE, students with no parental history of university, students living in neighbourhoods with low progression to higher education and students in the care of the local authority. The Summer School works with 36 students each year, with over 800 applications in both 2013 and 2014.

What does it do?

The week involves lecture sessions, classes and practical laboratory work, as well as a day in the University's clinical school. Through these sessions, participants work with University lecturers, clinicians and undergraduate students, with the opportunity to talk informally about life at university and transition from school or college.

Participants tend to come from across the UK (travel is fully funded) and do not know other students on the course at the start of the week. Under the supervision and encouragement of an undergraduate ambassador, participants get to know others on the course and discuss the plans and objectives for the week. The undergraduate ambassadors are current medicine students, many of whom share similar schooling and personal experiences to the participants and are in a strong position to relate to the participants and share their insights from moving from school to studying medicine at university.

The course involves a structured academic timetable, which runs from 9am–5pm. The sessions cover different aspects of the undergraduate course, such as anatomy, physiology, histology and ethics, and introduce participants to techniques and material not covered in most school curricula. The Summer School makes use of the expertise of its contributors and, through lectures, introduces students to medical research. The course encourages participants to reflect on their interests in medicine and connects these interests and scientific skills to the university application process through a talk at the end of the week.

In addition to the academic course, students take part in a social programme of activities, including meals, societies, sports, tours and games nights. They stay together in one of the Cambridge Colleges (halls of residence), fully supervised by student ambassadors and Admissions Office staff.

What is the impact?

The feedback from participants is very positive, with all participants in 2013 confirming that it made them feel more confident approaching admissions. Anecdotal evidence indicates that students value the opportunity to find out what medicine as a university course involves, and that this first-hand understanding helps them to confirm or alter their subsequent application decisions.

Internal tracking of participants' subsequent applications to Cambridge shows that significant numbers go on to apply to the University. Typically, 40% of participants across the Summer Schools go on to apply to Cambridge; around 30% of those are made offers.

Research conducted on behalf of the Sutton Trust suggests that participants in the Summer Schools are considerably more likely to apply to and end up at leading universities than students who did not participate in the scheme, but who had similar academic and socio-economic profiles.

Work experience

Selecting for Excellence has recommended that work experience providers in the health service should commit to prioritising work experience opportunities in medicine for students from a lower socio-economic background. Health Education England is progressing this recommendation. Many medical schools have linked with their local Trusts and GP surgeries to provide opportunities for students. Often this entails current medical students supporting and providing shadowing opportunities.

Teacher/Adviser conferences

The conferences are aimed at staff with a responsibility for supporting their students' progression to higher education within their institution or organisation. They enable teachers and advisers to keep up to date with changes within medical admissions, so they are able to provide the most relevant and current advice and guidance to students.

Engagement with colleges, community learning facilities and local lifelong learning provision

Engaging with mature learners is very challenging, as they can be very disparate. Working with other organisations and education providers (including the university's lifelong learning provision) is the most effective way of ensuring that mature learners see medicine (if appropriate) as an option. Regular contact with other providers and a point of contact within the medical school will enable individuals to be identified and given bespoke advice and guidance.

Evaluate and encourage

In order to evaluate you should use:

- School and college student attainment and performance data (actual versus predicted)
- Higher education progression information for individual students and secondary schools or colleges (if the programme is focused on teachers)
- Feedback based on the professional judgement of the teacher
- Individual narratives

We would encourage all medical schools when designing and delivering consolidation activities to consider:

- How can aspiration-raising lead to an effective two-way dialogue between the medical school and the prospective student?
- Building programmes to engage with mature students, through partnership with the university's adult learning unit or further education colleges.
- How can you support students who decide medicine is not for them?
- Is there a comprehensive evaluation in place to understand the impact on all participants?
- How does this programme relate to introductory and developmental activity?

8. Bringing it all together and creating a culture of outreach

In order to bring all the outreach together and make the greatest impact it is essential to create a culture of outreach. The leadership and culture within medical schools make a difference to the outreach activity undertaken and the impact it has.

Providing leadership and management support to outreach activity will:

- Improve performance and impact
- Provide a wider context and understanding
- Enable a shared vision and objectives which marry with the wider medical school
- Provide innovative programmes
- Develop stronger relationships and partnerships with other parts of the medical school, university and the wider health community, for example, NHS Trusts
- Build greater capacity and share resource with other areas and other faculties of the university.

University of Leeds School of Medicine Management of Outreach

The Medical School's strategic approach to outreach is part of the University's strategic plan and the education engagement strategy and framework. There is a strategic plan at a faculty level and this, alongside the operational activity, is developed through a planning and monitoring process.

Medical School outreach with schools and colleges is managed on a day-to-day basis by the Health Sciences Cluster team. The team comprises of 2.1 FTE staff with management support provided from the central Educational Engagement unit. The team reports into a board chaired by the Pro-Dean for the Faculty of Medicine and Health with representatives from Medicine, Dentistry, Healthcare, Admissions, Marketing and Educational Engagement. The team also works closely with the University's Lifelong Learning Centre and other teams across Educational Engagement (e.g. Reach for Excellence and Access to Leeds). Progress against the strategy is managed, monitored and reported on by the Educational Engagement Management Team, which is part of the Student Education Service in turn reporting to the University's senior management team.

Outreach is monitored at a faculty level through faculty committees and at a university level through recruitment, widening participation and student education specific committees as well as those concerned with admissions, fair access and student number planning. Representation is via the Pro-Dean for Medicine and Health and the Head of Educational Engagement with reports from the cluster and the Director of Admissions. The role of the committees across the institution includes short and long term planning, development of policy, identification and management of risk, deciding on activity the cluster will provide, monitoring budgets and evaluating this on a regular basis.

Outside the committee structure, information is pulled together so that progress against the University's strategic goals is monitored via regular reviews at an institutional and faculty level.

The strong relationship between the central team and the medical school has meant that the university's talent-spotting scheme, Reach for Excellence, and the contextual admissions programme, Access to Leeds has supported students progressing to medicine. Each year approximately 1,200 students apply to programmes in medicine and health through Access to Leeds.

Outreach programmes are most effective when they provide support that is closely aligned to the needs of the student and complement the other experiences in that individual's learning journey. Coordinating the activity within the medical school, and within the wider university will build credibility externally and enable a

more strategic response. It is, therefore, important that medical schools work closely with other partners both within the university (such as the widening participation or outreach teams) and with external organisations (such as schools and colleges, the NHS Trusts and charities).

Reach Scotland

What is it?

Reach Scotland is a national widening participation project that aims to raise the awareness of and to encourage, support and prepare secondary school pupils wishing to pursue a professional degree including medicine. It is managed and delivered by five partner universities; the Universities of Aberdeen, Dundee, Edinburgh, Glasgow and St Andrews, which each have a responsibility for a particular area of Scotland.

Who is it for?

Reach works with young people in S4–S6 (equivalent to Years 10–13) from schools where the number of students who progress to higher education is on or below the national average for Scotland (35%). Students attending one of the target schools with the interest, potential and ability to study medicine can take part.

During 2013–2014 the universities worked with 179 schools and over 3,000 students across the Scottish regions that have an interest in these high-demand professional courses.

What does it do?

Each university coordinates activity within an area of Scotland and engages with all eligible schools.

Young people have opportunities to experience medicine and university life and are supported through the application process. Reach runs in-school awareness raising and information workshops, on campus events to explore university and medical school life, events providing experience required for application to medical school and opportunities for further work experience in partnerships with local GPs.

If a Reach student decides to apply to medical school they are supported through the full process by having access to UCAS and personal statement workshops, UKCAT support, interview preparation workshops and mock Multiple Mini-Interviews. Reach provides one-to-one bespoke support on an individual student basis.

Due the geographic distances to be covered, universities have adopted a range of techniques to ensure no student who is eligible and could benefit from the programme is left out. The techniques adopted include asking secondary schools to work in clusters so students can be brought together for events and activities and distance learning (in conjunction with face-to-face contact such as attendance at the summer school).

Upon successful completion of the Reach programme students are awarded a profile that will be sent to admissions officers in the medical school to which they are applying. Admissions officers may take this

Reach Scotland

profile into account. The experiences students gain throughout the Reach project will also ensure they are well prepared for the application and admissions procedures and the transition to University study.

What is the impact?

Evaluation has shown that students and staff within schools are better informed about the admissions process. At the beginning of the project the individual universities negotiated admission targets for applicants from disadvantaged areas with the Scottish Funding Council. The medical schools have seen applications and enrolment from students at the target schools increase since Reach began:

- In Glasgow entrants to medicine from the 96 target schools have increased from 12.9% in 2010 to 29.2% in 2013
- Aberdeen has seen applications increase by 24% from 2011 to 2013 for students from relevant postcodes
- 86% of Edinburgh applicants were offered a place at another partner university in 2013
- Entrants from target postcodes in St Andrews increased from 10.4% in 2010 to 15.3% in 2012
- Entrants from target postcodes in Dundee increased from 7.6% in 2010 to 10.7% in 2013

Over the next twelve months, Reach will establish a single national target using an updated baseline position and work further towards strengthening admission agreements nationally.

Integral to the leadership and management of outreach is evaluation and a culture where evaluation is valued, sought out and seen as essential to good management. Without such a culture, evaluation will be seen as peripheral to project delivery. Managers and staff need to seek out information in order to learn how to better manage and deliver programmes and services, and thereby improve impact and benefits. To help medical schools in this many universities are developing their own evaluation frameworks and OFFA and HEFCE are to develop a national evaluation framework of common measures and effective evaluation practice. This will help in evaluating individual programmes and provide comparable data and evidence that can be used at a national level to inform both policy and practice.

When you think about your culture we encourage you to consider:

- How integrated the outreach team is in the wider medical school?
- How can the lessons learnt from outreach to be shared with the wider community?
- How is outreach resourced, managed and evaluated?
- How outreach policy is part of the wider decision-making process of the medical school, faculty and wider university.

9. Further Reading

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