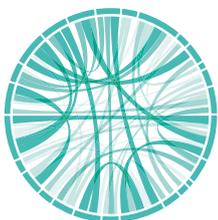




MSC Summer Schools Annual Report

Funded by Health Education England

2019 - 2020



msc Medical
Schools
Council
Selection Alliance

NHS
Health Education England

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1. Introduction

This report evaluates the targeting and impact of the MSC Summer Schools that have taken place during 2019 and 2020. Longitudinal evaluation is underway to examine the final outcomes for the students that took part – however, this information will not be available until 2022 for the first cohort.

The report includes:

- An analysis of the summer school participants' characteristics (for both 2019 and 2020)
- An analysis of the effectiveness of targeting cold spots and areas of multiple deprivation (for both 2019 and 2020)
- An evaluation of the students' attitudinal change before and after the summer school (2020)
- An in-depth exploration of students' views through semi-structured interviews (2020)
- The results and findings of an IT Accessibility Survey undertaken prior to the delivery of the summer school to inform the move to online (2020)

The report is split into four chapters, with the findings summarised in the Executive Summary.

2. Executive summary

The MSC Summer Schools provide an insight into medicine and healthcare courses alongside information and advice on how to apply. The aim has been to target students who are underrepresented in medicine in order to widen participation and support greater diversity.

Findings

Due to the Covid-19 pandemic, in 2020 the summer school hosts moved from residential provision to online delivery. As a result, the hosts had to reconsider their programme design and develop new arrangements for both the platform used to deliver the programme and their method of engagement in a relatively short period of time. Four of the five summer schools made this shift. Against a target of 560 students, the MSC recruited 735 students to the summer schools. The target was exceeded by 175 students, a percentage increase of 31.25%.

The eligibility criteria for the summer schools are tightly defined, ensuring that through a basket of measures the MSC targets the most underrepresented students and those that would benefit the most from this intensive support. The criteria used to select students to the summer schools are more robust than those commonly used to define widening participation students as they look at an individual's circumstances rather than solely using geographic measures which are more liable to produce false positives. All the students on the programme met the tightly defined criteria.

Overall, the programme focused on the most disadvantaged and on those facing the greatest challenges and difficulties in accessing both higher education and medicine.

Against a target of 560 students, the MSC recruited 735 students to the summer schools.

The programme focused on the most disadvantaged and on those facing the greatest challenges and difficulties in accessing both higher education and medicine.

The attitudinal gain survey and interviews demonstrate that there has been a significant impact on the students participating in the summer schools.

We found that:

- Over 61% of participants were from cold spots.
- More than half (57.65%) were from the most disadvantaged IMD quintiles and nearly half (45.48%) were from the lowest POLAR 4 quintiles.
- 37.2% qualified for Free School Meals (or other support measures) against a national average of 17.7%.
- 11 students have been or are in local authority care. This compares to only 10 students entering medicine in 2017 from a care background.
- There was greater representation of students from a minority ethnic background compared to the national population or the composition of medical students.
- 38 students are young carers.
- Nearly half (47.2%) have parents with no experience of higher education.

Against all measures, the MSC has recruited students who are most underrepresented in medicine and higher education. When the summer school participants are compared to medical school applicants and students in POLAR 4 and IMD, the MSC has recruited a more socially diverse group, representing the areas of lowest higher education participation rates and the most deprived communities.

Importantly, the attitudinal gain survey and interviews demonstrate that there has been a significant impact on the students participating in the summer schools.

The attitudinal gain survey found that:

- The students felt more confident in applying their thoughts and ideas (up 12%).

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- There has been a substantial increase in their understanding of the careers available in healthcare and a positive response to studying healthcare at university.
- The students felt more comfortable in a university environment. This is positive given the move to online delivery.

Year 11 summer schools have the greatest impact in preparing students to develop the skills and attributes they will need as a doctor. The Year 11 summer schools saw the greatest increase in confidence in applying and presenting thoughts to others, and in understanding the importance of communication, teamwork and empathy in medicine.

Year 12 summer schools support students in considering future career paths. The Year 12 summer schools saw the greatest shift in students considering studying healthcare.

The interviews found that:

- The students were overwhelmingly positive about the summer school experience.
- The students' confidence and understanding of the process of applying to study medicine were significantly raised.
- The medical student ambassadors made applying to study medicine feel more realistic and accessible.
- The inclusion of practising doctors gave insight into medicine.
- There were some sessions that did not replicate well online, for example, those that rely on eye contact or usually involve physical interaction.
- Online delivery was an advantage to those students that are shyer or less confident. Students were able to get involved and ask questions via chat functions.

Bandura's theory of self-efficacy:

1. Enactive mastery
2. Vicarious experience
3. Social persuasion
4. Positive physical and emotional states

The findings from the interviews align to the four principles of Bandura's theory of self-efficacy – enactive mastery (eg practicing tests), vicarious experience (eg hearing from clinicians and medical students), social persuasion (students felt safe to develop capabilities) and positive physical and emotional states (reducing stress and increasing positive mood).

As part of the move to online delivery the MSC undertook a survey of the students' IT capability. It found that the majority of students were satisfied with their internet, have access to a computer and a suitable location to work. However, it was clear that there was a small cohort of students that were struggling, and who may need further support.

The IT Accessibility Survey found:

- 98% of students have access to a computer.
- The majority of students have a smart phone (95.7%).
- Only 0.9% of students report only having a smartphone device. These students reported satisfaction with their internet connection.
- High levels of satisfaction with their internet connection (only 2.6% unsatisfied).
- Those that were unsatisfied with their internet connection had four or more sharing.
- 78.1% would access the summer school in their own bedroom.
- Only 1.4% described their location of study as unsuitable or highly unsuitable.
- Nearly 60% report having responsibilities at home.
- 9am-3pm is the best time for online learning. However, 30.2% describe either before 9am or after 7pm as the best time.

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Recommendations

The following recommendations were made:

Data collection

- The collection of gender and ethnicity data as standard.
- All summer schools should encourage the completion of the Learning Gain questionnaire.

Targeting

- To continue to target those who are or have been in local authority care.
- To continue to focus on the cold spots and further extending the reach.

Design of the summer schools

- There needs to be further consideration of the different outcomes from Year 11 and Year 12 summer schools.
- The summer schools should have a continued focus on other healthcare careers.
- Consider the format of the summer schools if online, including running shorter days over a longer period of time.
- Continue to ensure that clinicians and medical students are present within any summer school.
- Explore with the hosts how to increase support Bandura's fourth principle of self-efficacy – positive physical and emotional states.

Online provision

- Review online sessions that usually require eye contact and physical interaction.
- Whilst the majority of students can access provision on a computer or a tablet, there are a very small number of students who only have access via a smartphone. Summer school hosts should ensure that these students are taken into account.
- Larger numbers accessing the internet has caused difficulty for some students.

Consideration should be given to the timing of live events.

- Students described noise and distractions as causing difficulty. Advice should be given to students alongside their parents/carers on how to support them (especially during live sessions). Consideration should be given to where students can find quiet spaces (for example at school or college).
- Events should be held during a time that works for the students. Nearly a third report before 9am or after 7pm as the best time to work online.

Background

The Medical Schools Council is awarded funding from Health Education England to run residential summer schools.

The objectives of the MSC Summer Schools are to:

- Deliver a high-quality summer school programme which provides accurate, up-to-date advice on medicine and healthcare across England.
- Work with young people from geographical areas that have limited access to medicine-related outreach (the 'cold spots').
- Offer an England-wide approach with accessible summer school provision across the country.
- Develop a sustainable programme that will continue beyond this funding period by supporting individual medical schools to co-create and adopt best practice.

Summer schools in 2019 and 2020

During 2019 the MSC ran a series of residential summer schools for 350 students.



The summer schools were run by:

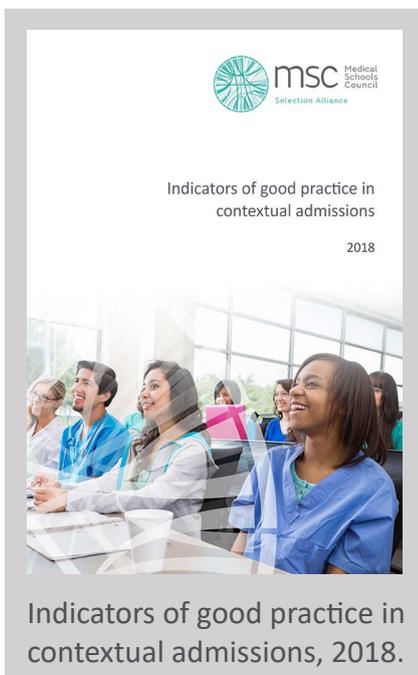
- Exeter Medical School
- Imperial Medical School
- Keele Medical School
- Manchester Medical School

Alongside these summer schools, the MSC offered funding for students to gain places at a number of other pre-existing summer schools across England.

During 2020 the MSC ran a series of online summer schools for students in Year 11 and Year 12. Our target was to reach 280 students who were from a disadvantaged or underrepresented background.

The summer schools that ran were hosted and organised by:

- Brighton and Sussex Medical School in partnership with Kent and Medway Medical School (2020)
- Exeter Medical School (2019 and 2020)
- Imperial Medical School (2019 and 2020)
- Keele Medical School (2019)
- Leicester Medical School (2020)
- Manchester Medical School (2020)



We targeted and then prioritised students who were from a cold spot area (that is from an area where there is limited engagement by medical schools). However, to be eligible for the programme students had to be from a widening participation background. To determine this we consulted with universities and medical schools and followed the MSC's [Indicators of good practice in contextual admissions](#).

Eligibility criteria

To meet the criteria students must be in (or have been in) local authority care, or meet a minimum of two of the following criteria:

- Studying in a school that achieved below the national average Attainment 8 score at GCSE or had attended such a school to the age of 16.
- From a school with a high percentage of students receiving free school meals.
- Living in a geographical area with low levels of progression onto higher education.
- The student is a young carer.
- From a family where the parents do not have a university degree from the UK or abroad.
- In receipt of or eligible for free school meals or the 16-19 Bursary Fund or Discretionary Learner Support or Means Tested Benefit.
- Estranged from parents or guardians and/or be an asylum seeker or refugee.

In addition, we required the students to have:

- The potential to study medicine and be capable of achieving the minimum grades required for entry (whether that is for standard entry programmes or programmes with a gateway year).
- An interest in STEM subjects (science, technology, engineering and mathematics) and be considering studying science in their post-16 studies and medicine post-18.

Programme features

Whilst each summer school had its own distinctive nature they all operated within a common framework. The summer schools had:



- Preparation for work experience (building on the work from the Health Education England funded national pilot led by Leeds Medical School), including how to maximise and reflect on the experience.
- Engagement from a range of medical schools.
- A simulated experience of what it is like to study medicine (including a range of teaching methods), not only to consider the choice of medical school but also to aid their transition from sixth form study to university.
- A focus on the values and behaviours doctors and medical students must develop.
- Dedicated sessions that focused on shortage specialties, particularly general practice.
- Confidence and social capital building activities (including meeting academics and medics).
- Opportunity for students to discuss their options and seek advice.
- An overview of the range of medical careers available (including other healthcare and non-patient focused options).
- Application and admissions advice and support, including preparation for interviews and admissions tests.
- Social activities for the students to build a community and network amongst like-minded people.

Participant characteristics

This section provides an analysis of the summer school participants' characteristics for 2019 and 2020. We analysed the participants against a series of socioeconomic and educational categories to evaluate the success of the programme in targeting students from underrepresented groups.

Headlines

- We recruited 735 students to the summer schools. We exceeded the target by 175 students, a percentage increase of 31.25%.
- 37.48% of students were from Year 11, the remainder from Year 12.
- Over 61% of participants were from the cold spots.
- More than half (57.65%) were from the most disadvantaged IMD quintiles and nearly half (45.48%) were from the lowest POLAR 4 quintiles.
- When the summer school participants are compared to medical school applicants and students in POLAR 4 we have recruited a more socially diverse group, representing the areas of lowest higher education participation rates.
- When the summer school participants are compared to medical school students in IMD we have recruited a more socially diverse group from the most deprived areas.
- 37.2% qualified for Free School Meals (or other support measures) against a national average of 17.7%.
- 11 students have been or are in local authority care. This compares to only 10 students entering medicine in 2017 from a care background.
- There was greater representation of students from a minority ethnic background compared to the national population or the composition of medical students.
- 38 students are young carers.
- Nearly half (47.2%) have parents with no experience of higher education.

Recommendations

- The collection of gender and ethnicity data as standard.
- To continue to target those who are or have been in local authority care.
- To continue to focus on the cold spots and further extending our reach.

Methodology

We analysed the participants against a series of socioeconomic and educational categories. All students were eligible for the programme, and so met the definition of being from underrepresented or disadvantaged backgrounds.

The data was collected by the hosts through a combination of:

- Information provided by the student.
- Confirmation and further information provided by the teacher.
- Review of school data.

We did not require hosts to collect as standard gender or ethnicity data. We have included that information where the data was available. For 2021 we will require this data as standard.

The participant data is aggregated for 2019 and 2020.

Analysis

Numbers participating

During 2019 and 2020, with the following summer schools, our target was to engage 560 students.¹ We have exceeded the target by 175 students, a percentage increase of 31.25%.

Medical school	Target	Number
BSMS/KMMS	70	56
Exeter	140	148
Imperial	120	162
Keele	70	57
Leicester	100	251
Manchester	70	61
Total	560	735

Table 1: Number of participants in the summer schools, 2019 and 2020

For those that provided a date of birth (587), 37.48% were from Year 11, and 62.52% from Year 12.

¹ The remaining 70 students were part of 'buy out' summer schools operating across England.

Engagement in the cold spots

One of the objectives of the summer schools was to increase engagement in the cold spots. The cold spots are defined as those areas in which secondary schools have limited engagement with medical schools (that is at less than 50%). This was also extended to include 'cold schools' that do not engage with medical schools.

It was recognised that there were significant difficulties in engaging with the cold spots. Schools are cold for a reason, for example, they have a remote location, face challenging circumstances or have low academic performance. The programme, therefore, prioritised cold spots but was not exclusive to these areas.

From Figure 1 we can see that the hosts were able to target those in the cold spots. Imperial, working in and around London with limited cold spots also focused on cold schools.

Cold Spot Engagement heat map

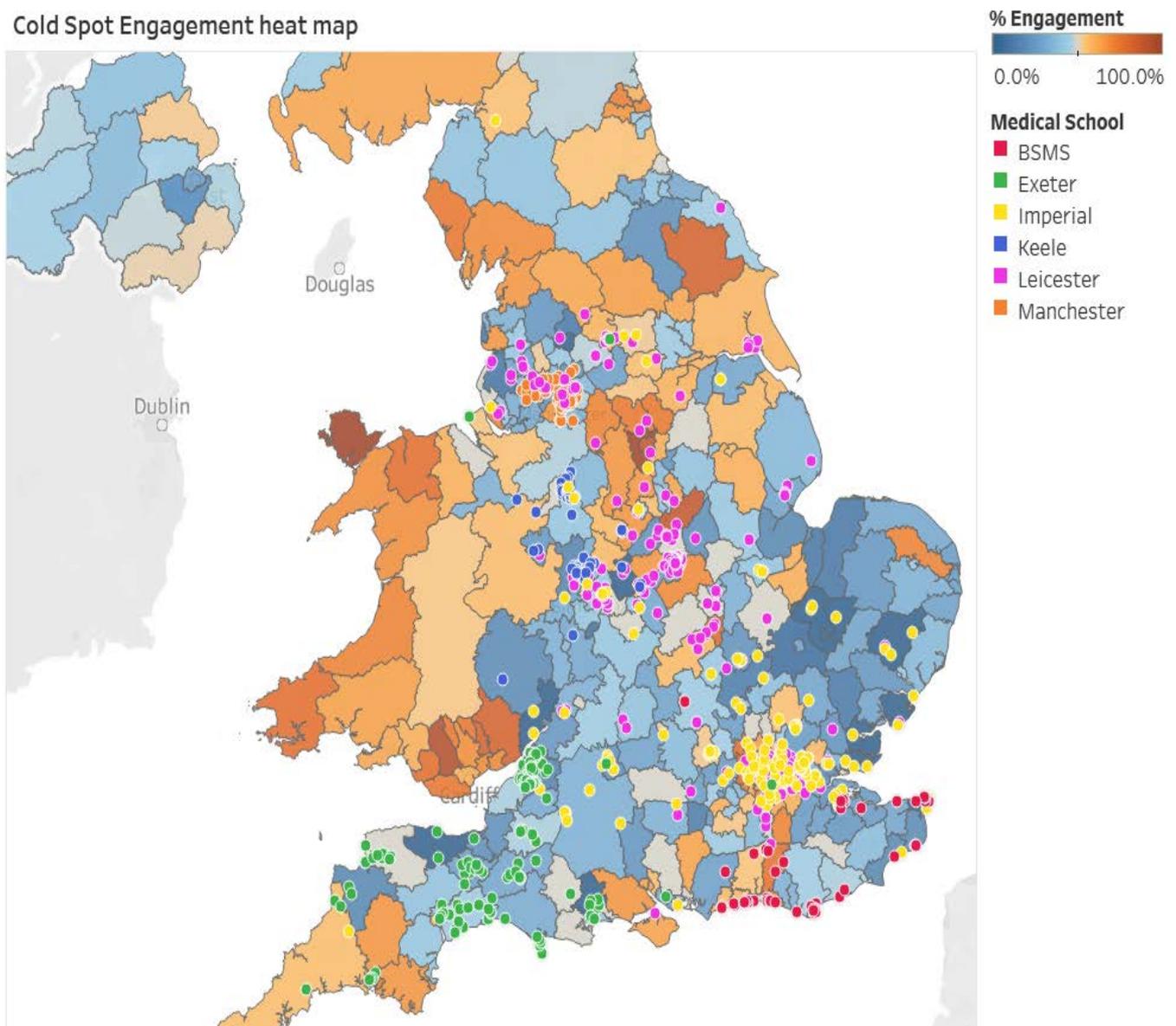


Figure 1: Participant location and cold spot engagement, 2017

	Percentage	Number
Non-cold spot	38.25%	280
Cold spot	61.75%	452

Table 2: Number of participants from cold spots

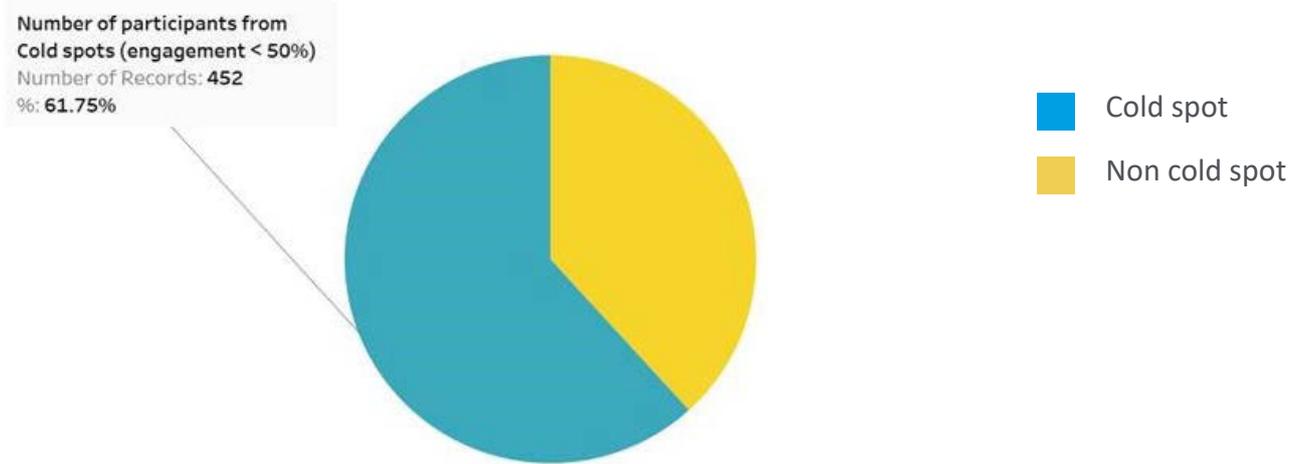


Figure 2: Number of participants from cold spots

From Figure 2 and Table 2 we can see that over 60% of participants were from a cold spot (452 students). This shows that our prioritisation and targeting has worked.

From Figure 3 we can see that there was a large proportion (61.75%) from the cold spot areas.

A full list of local authority area engagement is included in Annex 1.

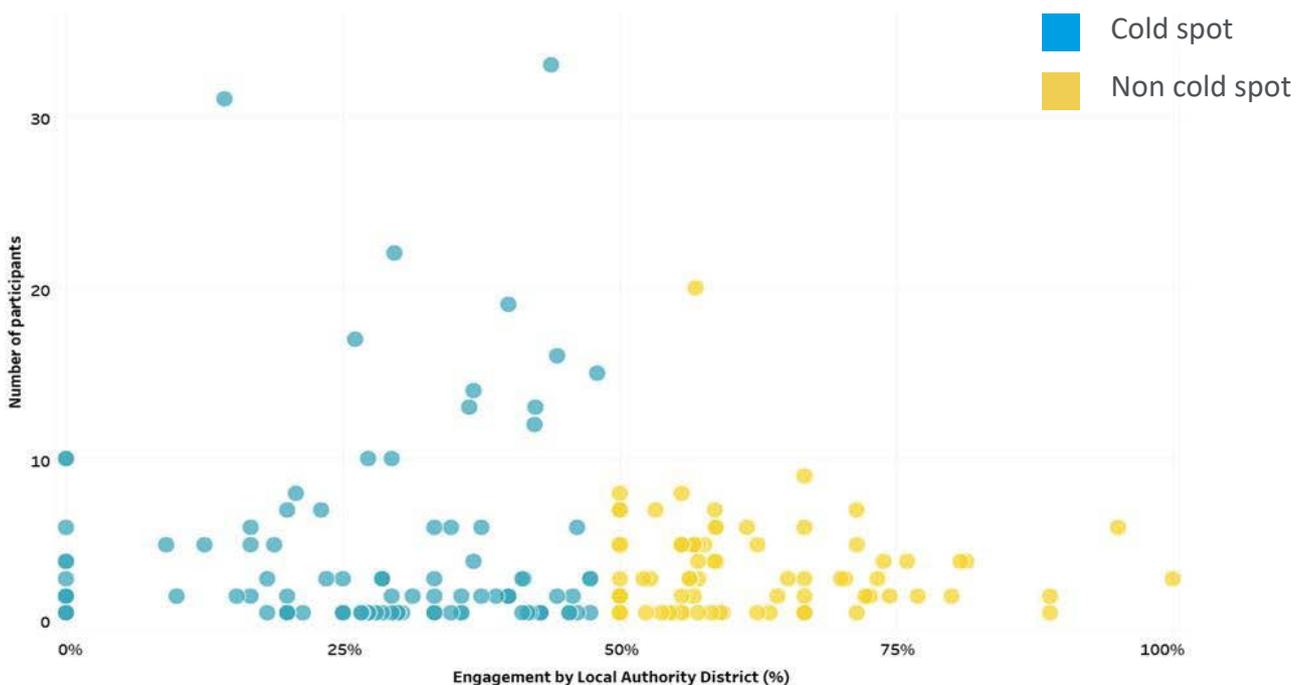


Figure 3: Schools within cold spot areas

Targeting areas of disadvantage

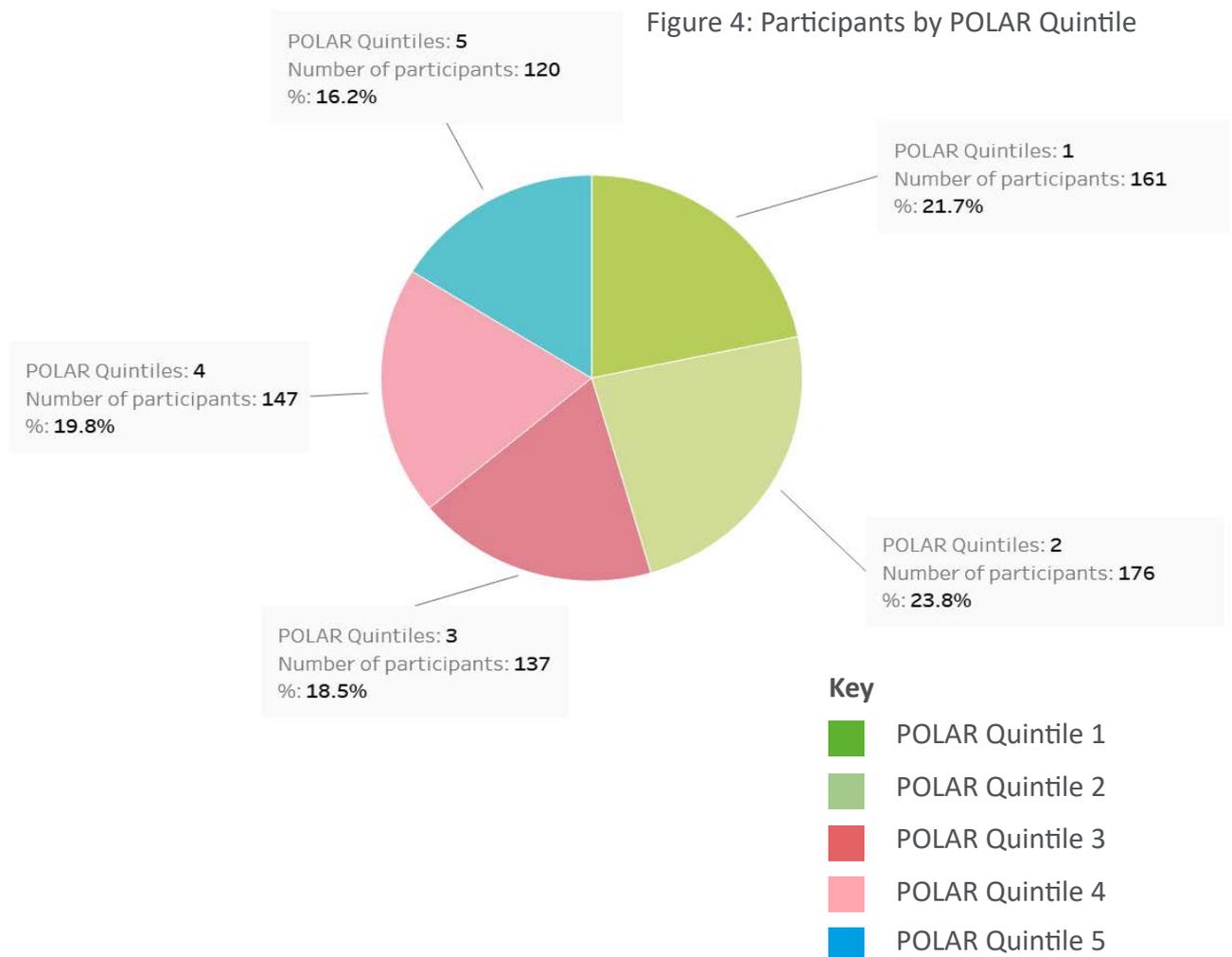
We reviewed the participant's school location based on two key measures indicating areas of disadvantage – POLAR 4 and the Index of Multiple Deprivation (IMD).

POLAR

POLAR 4 is used in higher education. POLAR 4 is a classification of areas across the UK based on the proportion of young people who participate in higher education. It looks at how likely young people are to participate in higher education across the UK and shows how this varies by area. It should be noted that POLAR 4 is not necessarily a measure of social disadvantage. Postcodes vary in size across the UK and they also have varying levels of affluence within them. Therefore, a student in quintile five may still be a widening participation student when other criteria are looked at.

POLAR 4 classifies local areas into quintiles - quintile one shows the lowest rate of participation, and quintile five shows the highest rate of participation.

In total 337 students came from the areas with the lowest rates of participation, amounting to almost half of the students at 45.48%.



POLAR 4 Quintile	Percentage	Number
1	21.70%	161
2	23.80%	176
3	18.50%	137
4	19.80%	147
5	16.20%	120

Table 3: Number of participants by POLAR 4 Quintile

Demographic	Measure values	%	Summer school %
1 - Lowest rate of participation	860	7.9%	21.70%
2	1240	11.4%	23.80%
3	1750	16.0%	18.50%
4	2495	22.8%	19.80%
5 - Highest rate of participation	4580	41.9%	16.20%

Table 4: Applicants to medicine in 2018² compared to summer school participants in POLAR 4.

Demographic	Measure values	%	Summer school %
1 - Lowest rate of participation	300	5.7%	21.70%
2	540	10.3%	23.80%
3	755	14.4%	18.50%
4	1140	21.7%	19.80%
5 - Highest rate of participation	2515	47.9%	16.20%

Table 5: Entrants to medicine in 2017³ compared to summer school participants in POLAR 4.

When we compare the summer school participants against medical school applicants and students we can see we have targeted a more socially diverse group. We have targeted participants who are from the lowest areas of higher education participation.

Both POLAR 4 quintiles 1 and 2 represent some of the hardest to reach areas for higher education, and in particular for a high tariff/aspirational subject such as medicine.

From our mapping we have been able to see that there is a good spread across England. This is reflected in the analysis undertaken when using the Index of Multiple Deprivation data.

2 Notes on applicant data: UK domicile, under 21 yrs old, excludes Buckingham, applicant could apply to more than 1 course, Ns are rounded to nearest 5 and %s are calculated using the rounded data.

3 Notes: Most recent data is from 2017 for HESA, UK domicile, under 21 years old, excludes Buckingham, Ns are rounded to nearest 5 and %s are calculated using the rounded data.

POLAR map

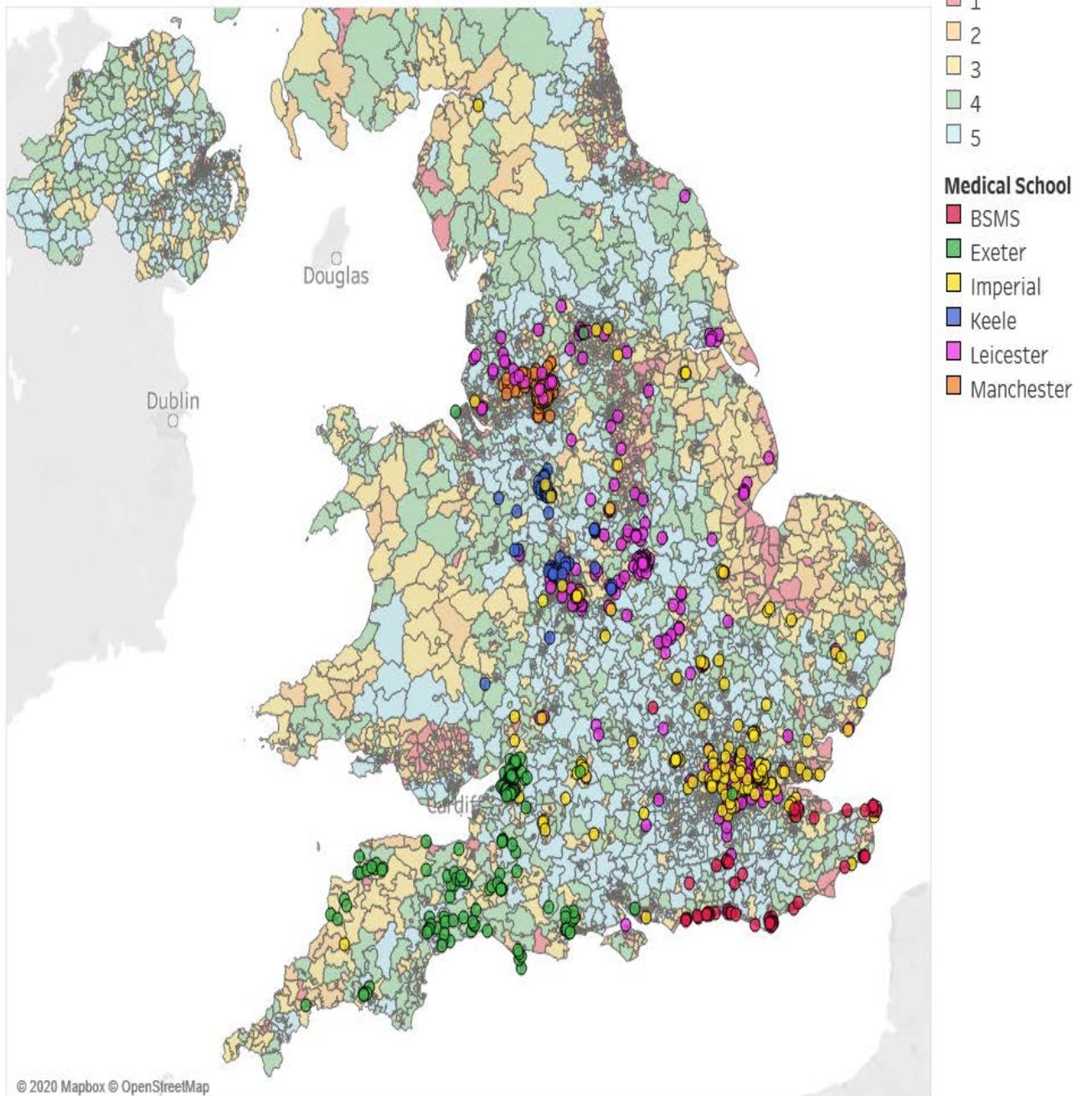


Figure 5: POLAR 4 mapping

Index of Multiple Deprivation

The Index of Multiple Deprivation (IMD) is the official measure of relative deprivation for small areas in England. IMD Quintile 1 indicates the most disadvantaged areas, with IMD Quintile 5 representing the most affluent.

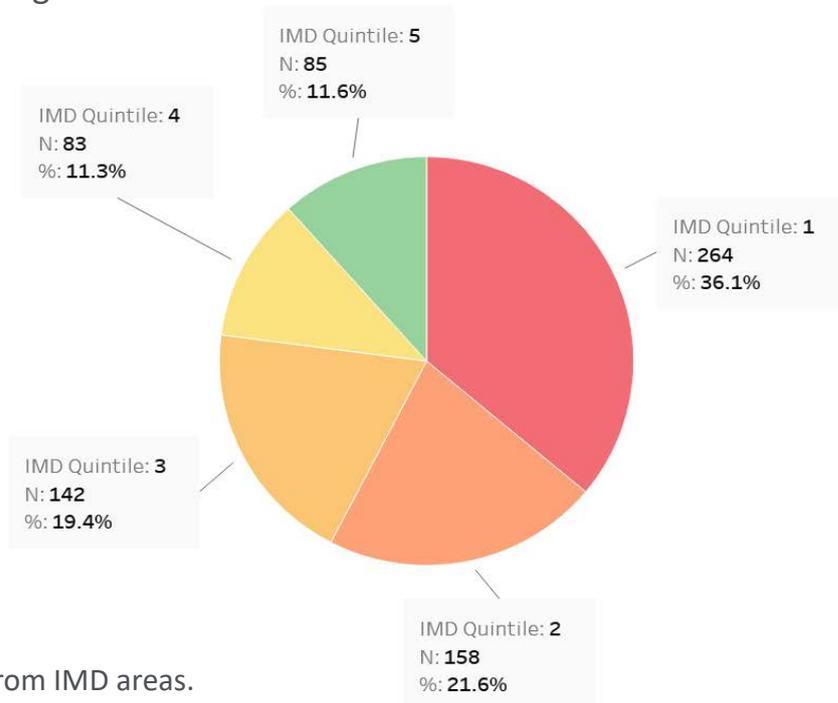


Figure 6: Participants from IMD areas.

	IMD Quintile ⁴	%	N
■	IMD Quintile 1	36.07%	264
■	IMD Quintile 2	21.58%	158
■	IMD Quintile 3	19.40%	142
■	IMD Quintile 4	11.34%	83
■	IMD Quintile 5	11.61%	85

Table 6: Number of participants from IMD areas

Demographic	Measure values	Medical student %	Summer school %
1 - Most deprived	615	11.7%	36.07%
2	660	12.6%	21.58%
3	890	17.0%	19.40%
4	1270	24.2%	11.34%
5 - Least deprived	1815	34.6%	11.61%

Table 7: Summer school participants compared to medical students using IMD data.⁵

⁴ Note - 10 postcodes could not be mapped and have been excluded.

⁵ No applicant data is available at the moment. It should be available in the future.

When we compare the summer school participants against medical school students we can see we have targeted a more socially diverse group. We have targeted participants who are from the areas of greatest deprivation.

In total we had over 57.65% from the most disadvantaged IMD quintiles.

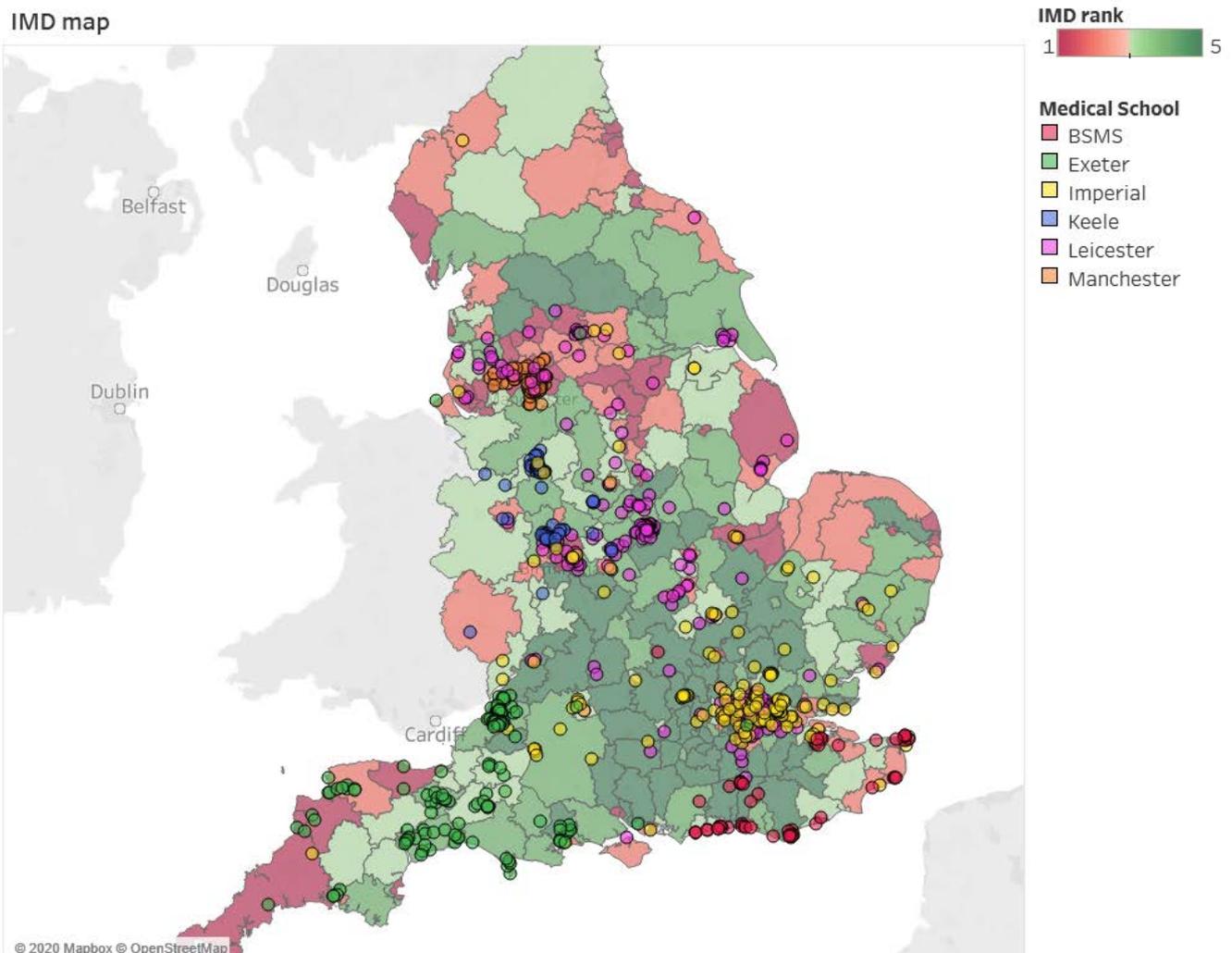


Figure 7: Participant location and IMD rank.

We analysed the different summer school participants by IMD. There have been different approaches in terms of the geographical focus area of each medical school. Keele, BSMS/KMMS, Manchester and Exeter have focused very closely on their local geographical areas. Leicester and Imperial whilst targeting more students locally have attracted students from a wider swathe of the country.

Exeter

IMD map

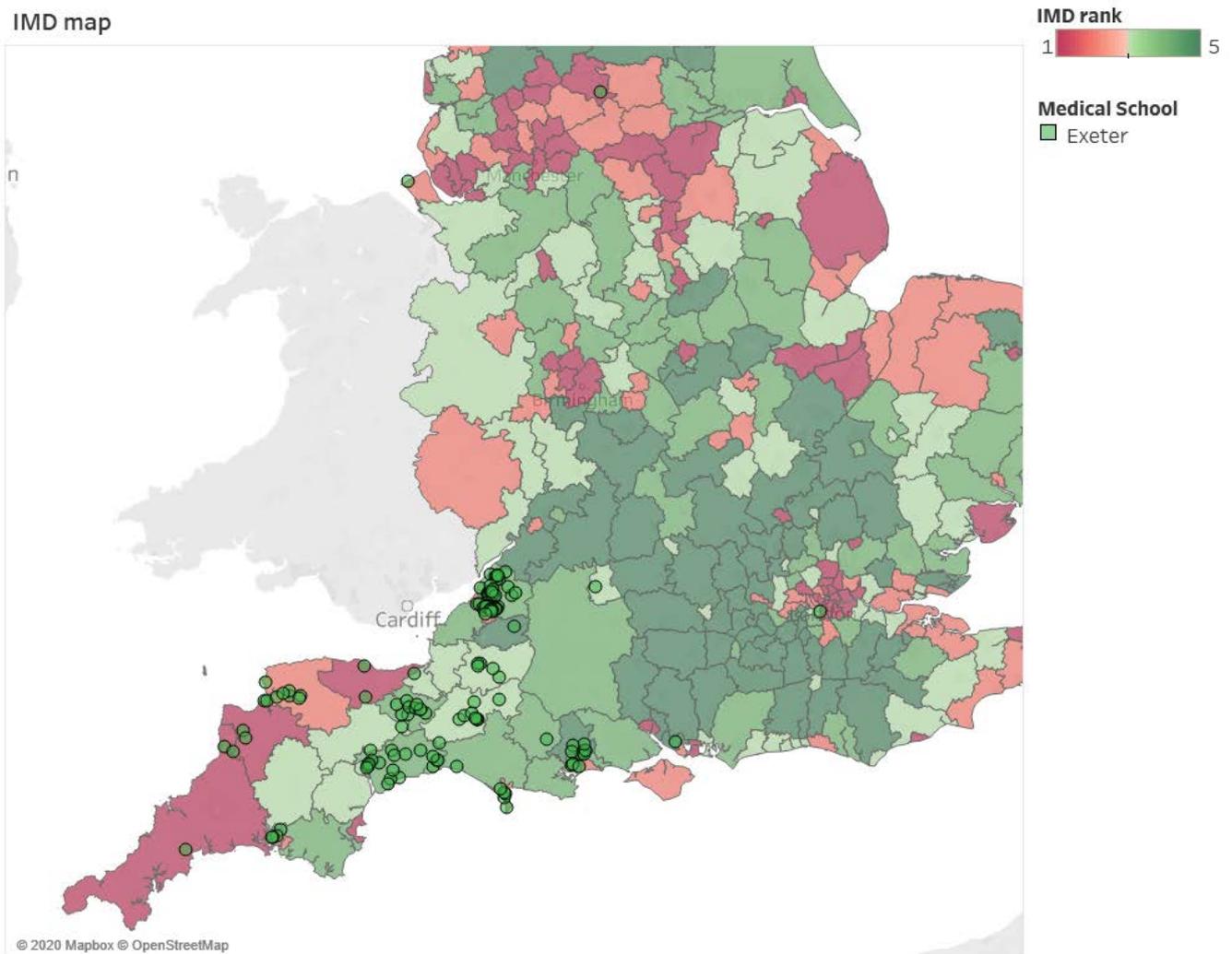


Figure 8: Participant location and IMD rank (Exeter)

	IMD Quintile					Total
	1	2	3	4	5	
Number of participants	6	43	33	23	40	145
%	4.1%	29.7%	22.8%	15.9%	27.6%	100.0%

Table 8: Exeter participants by IMD Quintile.

Imperial

With a national spread, Imperial was able to focus on the most deprived areas of the UK.

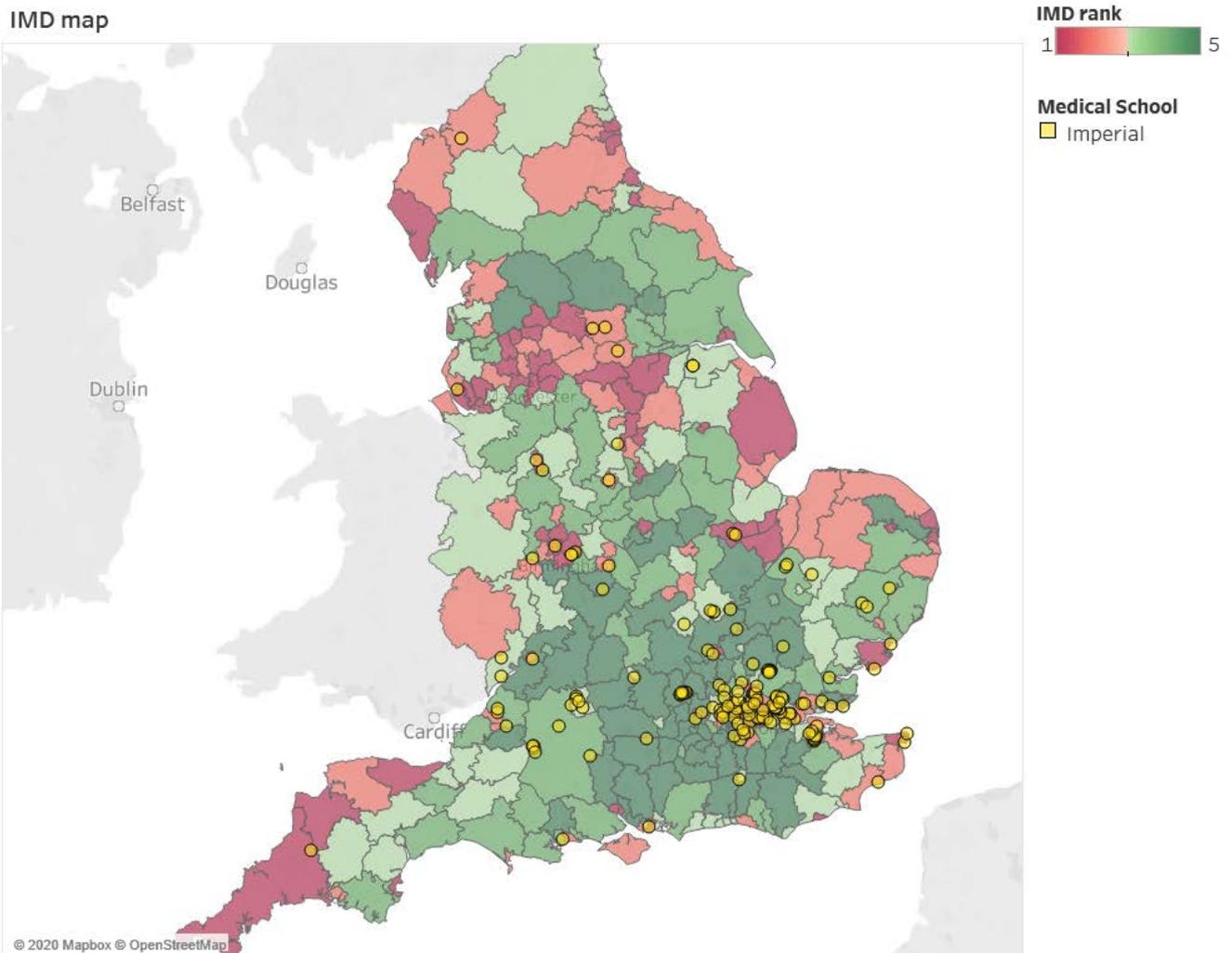


Figure 9: Participant location and IMD rank (Imperial)

	IMD Quintile					Total
	1	2	3	4	5	
Number of participants	51	34	40	15	22	162
%	31.5%	21.0%	24.7%	9.3%	13.6%	100.0%

Table 9: Imperial participants by IMD Quintile.

Keele

Keele closely targeted particular schools and colleges. Keele had the second greatest proportion of students from the most deprived IMD quintile at nearly 65%.

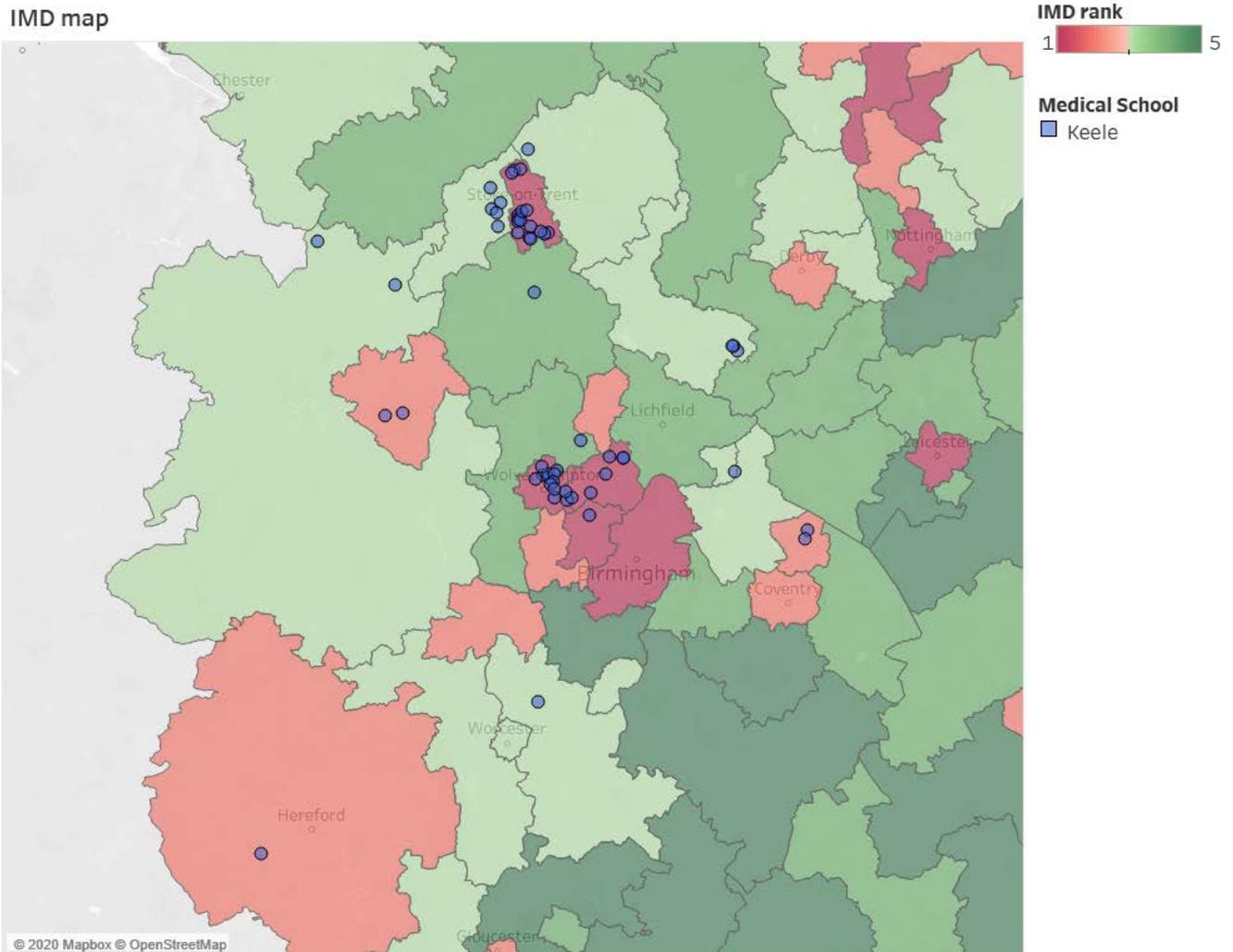


Figure 10: Participant location and IMD rank (Keele)

	IMD Quintile					
	1	2	3	4	5	Total
Number of participants	37	5	13	2	0	57
%	64.9%	8.8%	22.8%	3.5%	0%	100.0%

Table 10: Keele participants by IMD Quintile.

BSMS/ KMMS

BSMS and KMMS targeted their intervention along the South Coast, and focused on our cold spots.

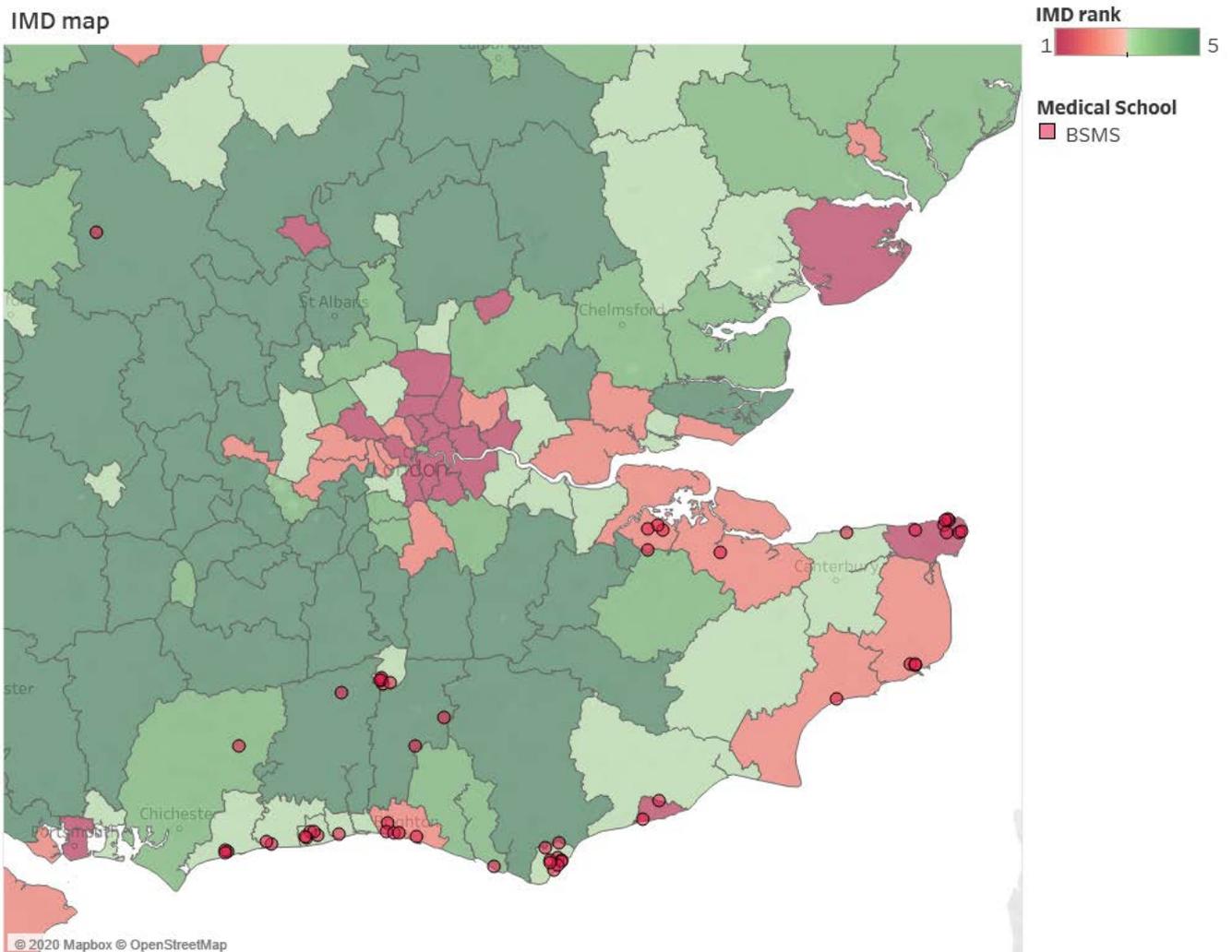


Figure 11: Participant location and IMD rank (BSMS/KMMS)

	IMD Quintile					
	1	2	3	4	5	Total
Number of participants	9	14	27	2	4	56
%	16.1%	25.0%	48.2%	3.6%	7.1%	100.0%

Table 11: BSMS/KMMS participants by IMD Quintile.

Leicester

Leicester had a national recruitment profile with over 65% of its participants coming from the two most deprived quintiles.

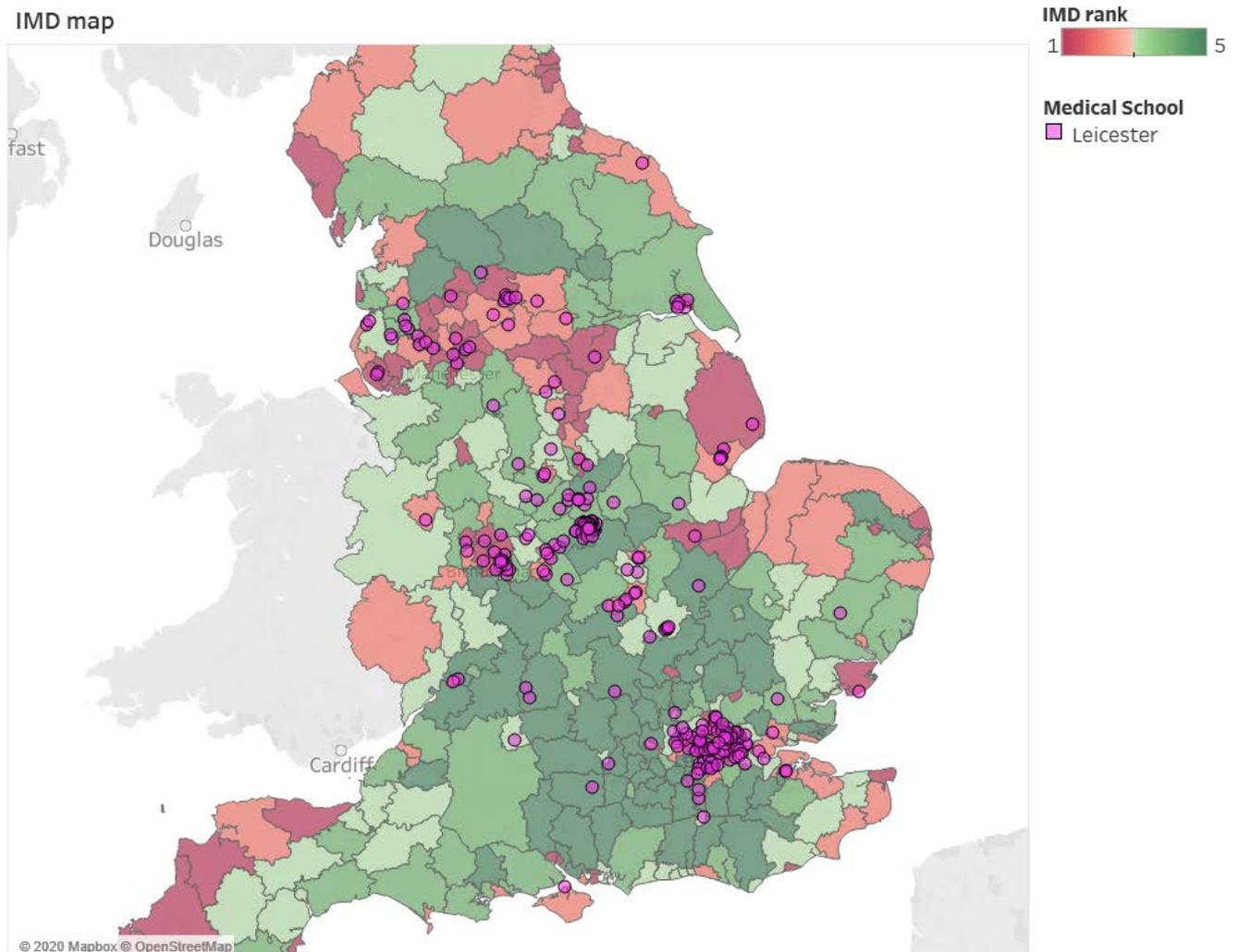


Figure 12: Participant location and IMD rank (Leicester)

	IMD Quintile					
	1	2	3	4	5	Total
Number of participants	113	52	28	39	19	251
%	45.0%	20.7%	11.2%	15.5%	7.6%	100.0%

Table 12: Leicester participants by IMD Quintile.

Manchester

Manchester closely targeted particular schools and colleges. Manchester had the greatest proportion of students from the most deprived IMD quintile at over 78%.

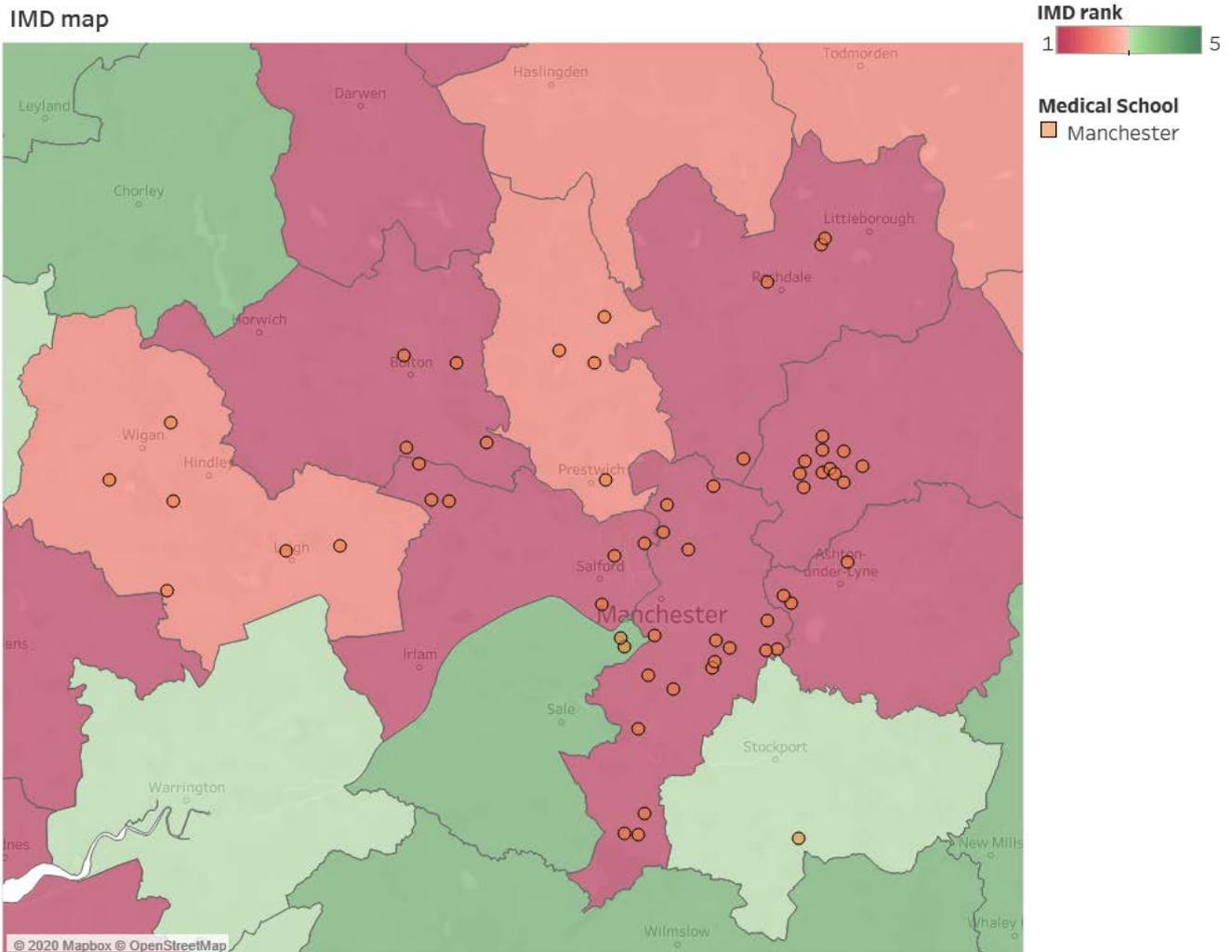


Figure 13: Participant location and IMD rank (Manchester)

	IMD Quintile					Total
	1	2	3	4	5	
Number of participants	48	10	1	2	0	61
%	78.7	16.4%	1.6%	3.3%	0%	100.0%

Table 13: Manchester participants by IMD Quintile.

Free school meals

To gather information on the students' socioeconomic background we asked them about their entitlement to various income support measures, including whether they were in receipt of or eligible for free school meals, the 16-19 Bursary Fund, Discretionary Learner Support or Means Tested Benefit.

From our recorded figures 37.2% qualified for one of these support measures. The national average for free school meals is 17.7%. Whilst it should be noted that we have recorded other measures this demonstrates that the targeting has identified those from lower socioeconomic groups.

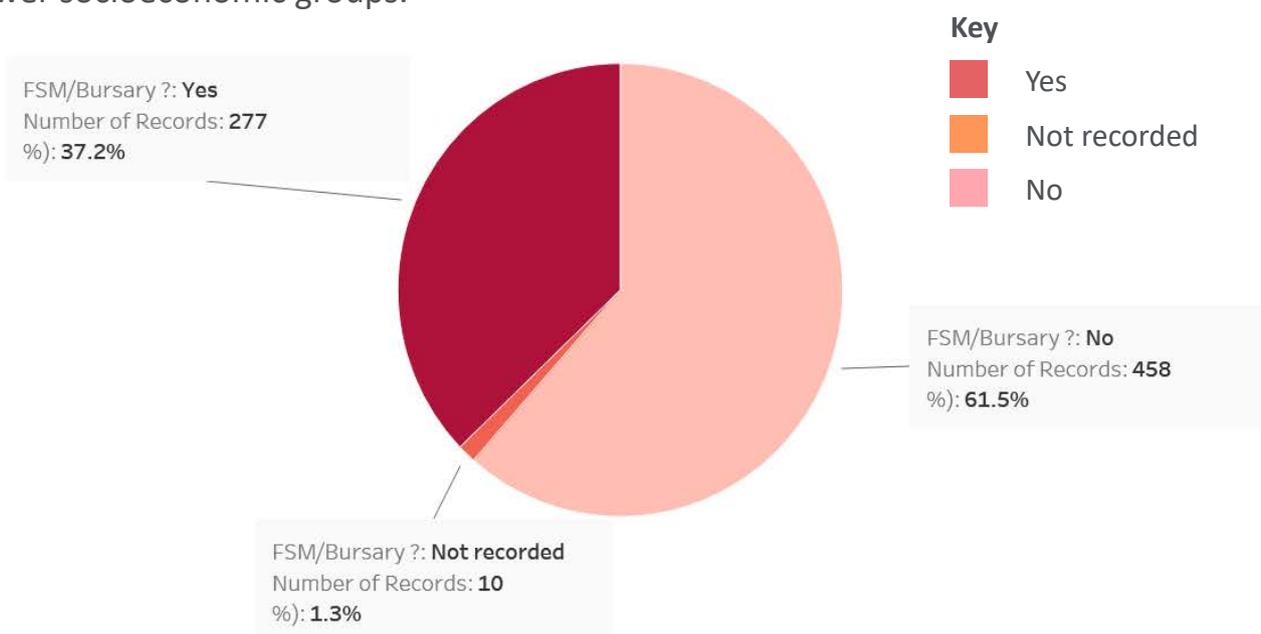


Figure 14: Participants recording FSM or other income measures

FSM/Bursary?	%	N
No	61.50%	458
Yes	37.20%	277
Not recorded	1.30%	10

Table 14: Participants with FSM or eligible for other measures

Local authority care

It was important to ensure that we were targeting the most disadvantaged students and those least likely to apply to study medicine. Currently, only 6% of care leavers study at university. From the HESA data we see that only 10 students who had been or were in local authority care entered medicine in 2017.

We are pleased to see that 11 students who were or are in local authority care attended the MSC Summer Schools programme. However, we recognise that more needs to be done to support this group.

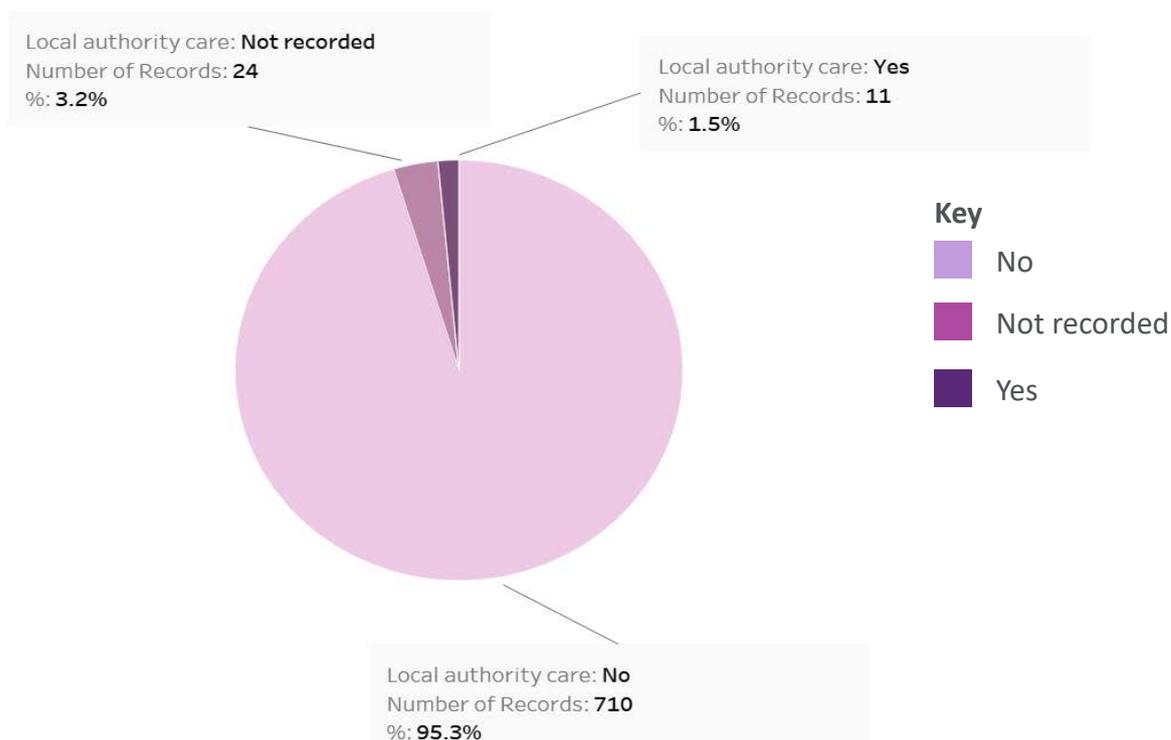


Figure 15: Participants recording having been in or being in local authority care.

Local authority care?	%	N
No	95.30%	710
Yes	1.50%	11
Not recorded	3.20%	24

Table 15: Participants recording having been in or being in local authority care.

Ethnicity

We did not require the summer school hosts to collect data on ethnicity. This will be a standard requirement during 2021.

However, we did have ethnicity data from 236 participants (32.11%). From those recorded we see a greater minority ethnic representation from both the general population and for students within medicine (apart from Asian or Asian British-Indian). We have 37.71% participants who are white, compared to 17.80% of participants who are Black, African, Carribean or Black British. This may be due to the number of students from London participating. We will explore this further.

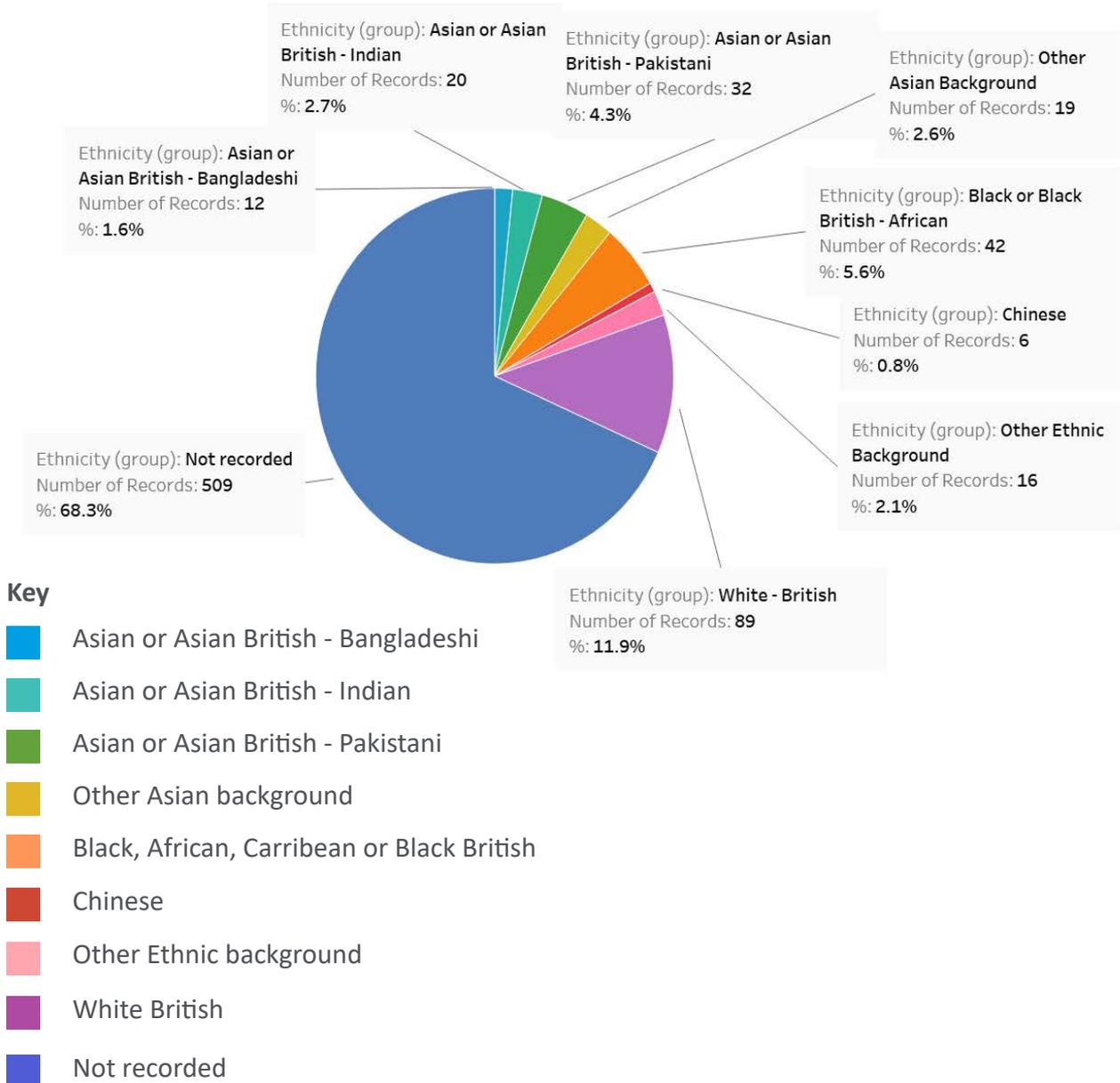


Figure 16: Composition of participants by ethnicity.

Ethnicity (grouped)	%	N	% from recorded	% at medical school	% UK 18-24 population
Asian or Asian British - Bangladeshi	1.60%	12	5.08	1.4	1.1
Asian or Asian British - Indian	2.70%	20	8.47	10.3	3.0
Asian or Asian British - Pakistani	4.30%	32	13.56	5.1	2.6
Other Asian background	2.60%	19	8.05	5.3	1.8
Black, African, Carribean or Black British	5.60%	42	17.80	3.0	2.1
Chinese	0.80%	6	2.54	-	-
Other Ethnic Background	2.10%	16	6.78	-	-
White British	11.90%	89	37.71	41.8	75.8

Table 16: Composition of participants by ethnicity.

Estranged from parents

Seven students recorded that they were estranged from their parents or guardians.

Estranged from parents/guardians	%	N
No	73.30%	546
Yes	0.90%	7
Not recorded	25.80%	192

Table 17: Participants estranged from parents/guardians.

Refugee or asylum seeker

Four students recorded that they were refugees or asylum seekers.

Refugee or asylum seeker	%	N
No	39.30%	293
Yes	0.50%	4
Not recorded	60.10%	448

Table 18: Participants who are a refugee or asylum seeker.

Young carer

Thirty eight students recorded that they are a young carer.

Young carer	%	N
No	93.30%	695
Yes	5.10%	38
Not recorded	1.60%	12

Table 19: Participants who are a young carer.

Parental engagement in higher education

Whether your parents attended higher education is a predictor of whether or not you will attend higher education. We gathered this information from the student's application. Nearly half of the participants had parents who had not attended higher education.

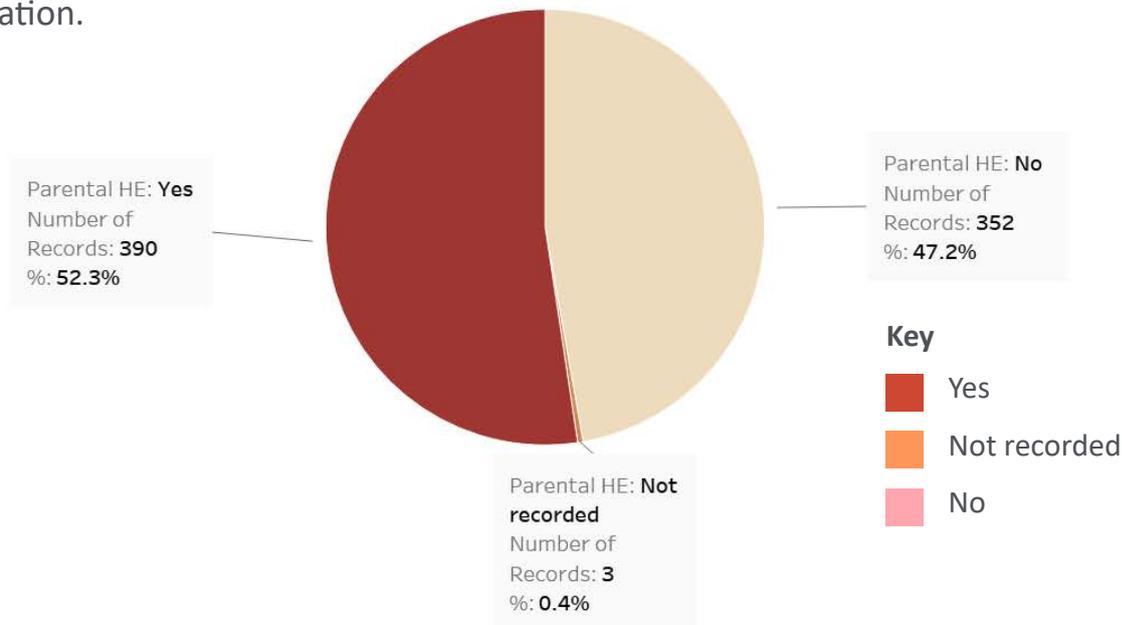


Figure 17: Parental engagement in higher education.

Parental engagement in higher education	%	N
No	47.20%	352
Yes	52.30%	390
Not recorded	0.40%	3

Table 20: Parental engagement in higher education.

Attitudinal change

Students were sent a questionnaire before and after the summer schools. The change in their responses provides us with an indication of the attitudinal shift following the summer school.

We have only included the results from 2020 summer school. The 2019 results are available. We received responses from students attending Imperial, Leicester and BSMS/KMMS summer schools. We received no responses from students on the Exeter summer school.

This section is authored by David Wilkinson, Learning Gain.

Headlines

- The greatest change was in students feeling more confident in applying their thoughts and ideas after the summer school (up 12%).
- There has been a substantial increase in the understanding of the careers available in healthcare and a positive response to studying healthcare at university.
- Following the summer school students said they felt more comfortable in a university environment. This is positive given the move to online delivery.
- Year 11 summer schools have the greatest impact in preparing students to develop the skills and attributes they will need as a doctor. Year 11 summer schools saw the greatest increase in students' confidence in applying and presenting their thoughts to others, and in understanding the importance of communication, teamwork and empathy in medicine.
- Year 12 summer schools support students in considering future career paths. The Year 12 summer schools saw the greatest shift in students considering studying healthcare.

Recommendations

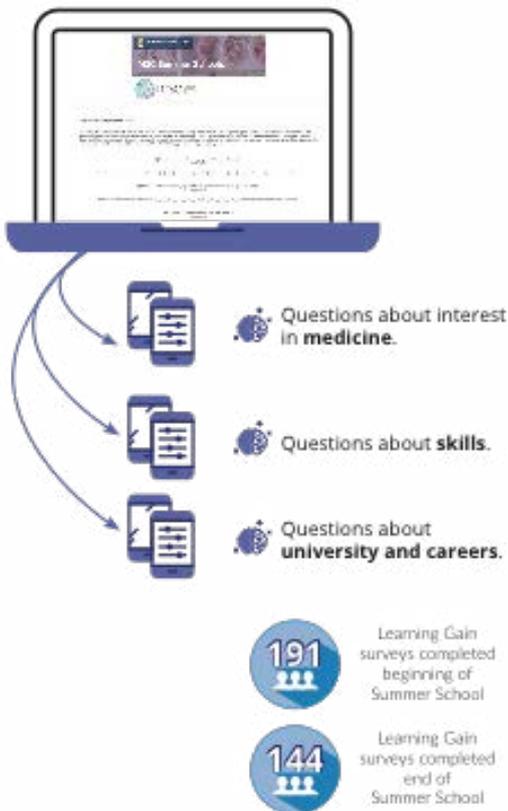
- There needs to be further consideration of the different outcomes from Year 11 and Year 12 summer schools.
- The summer schools should have a continued focus on other healthcare careers.
- All summer schools should encourage the completion of the Learning Gain questionnaire.



USING THE LEARNING GAIN TOOL TO EXPLORE IMPACT ON THE MSC SUMMER SCHOOLS PROGRAMME 2020

How the Learning Gain Tool was used on the MSC Summer School Programme

As part of their participation in the MSC Summer School Programme, students were asked to respond to a series of 14 before and after questions or statements. These questions were administered via the use of the online Learning Gain Tool®. Participants on the Summer School Programme were provided with a weblink in order to register on the system and to respond to the questions. The bank of questions were linked to skills, views, and knowledge in a number of areas linked to medicine and healthcare. Questions were developed by Research Toolkit and the Summer School programme team and have been adapted from other similar outreach and widening participation interventions.



Learning Gain Tool

The Research Toolkit Learning Gain Tool®, is an interactive resource capable of assessing and measuring impact of educational interventions. It uses pre and post-activity data to explore impact from the perspective of the activity participant, school or stakeholder representative. This tool has been used across a number of outreach programmes and is also used by other widening participation providers regionally and nationally to identify effect, impact and distance travelled of educational interventions.



About the data

Data were collected from 191 participants at the beginning of the programme, and 144 at the end of the programme. Participant data were combined to produce an average across the 14 question or statement areas. At the beginning of the programme this resulted in the production of a 'temperature reading' of attitude, perceived skill and understanding. The same process was used for the data collected at the end of the programme. The difference in average values (pre and post programme) produces a distance travelled or 'learning gain' value.

Percentage increases

For the purposes of transparency we include the numeric change in average value - from the beginning of the programme to the end of the programme (see **FIGURE 1** Learning Gain statement analysis: MSC Summer School Programme). For example, the change in value of question 2 (*I have an interest in studying healthcare (other than medicine) at university*) moves from an average of 5.86 to 6.48 by the end of the programme. To clarify this movement we have converted the change to a percentage figure; using the beginning of the programme as a base this represents a 10% increase at the end of the programme.



USING THE LEARNING GAIN TOOL TO EXPLORE IMPACT ON THE MSC SUMMER SCHOOLS PROGRAMME 2020

Overall analysis

Across all questions, the greatest change was recorded in relation to Q6 - *I feel confident presenting my thoughts and ideas to others* (see **FIGURE 2**: Learning Gain statements ranked by largest gain). Given this shift in confidence suggests that the content of the Summer Schools provided participants with the opportunity to develop and enhance these crucial skills for those interested in pursuing a career in healthcare and/or medicine.



Participants also reported substantial increase in understanding of the different careers available in health by the end of the Summer School programme - Q14 (*I understand the different careers available in health*). This may also have led to equally positive views on the potential of studying alternatives to medicine by the end of the Summer School - Q2 (*I have an interest in studying healthcare (other than medicine) at university*). Confidence to apply to study medicine was generally enhanced as a result of the Summer School programme - Q3 (*I feel confident in applying to medicine*).



Perceptions linked to university life received positive movement across the Summer School period. There was a strong gain in terms of university environment - Q12 (*I feel comfortable in a university environment*); and a continued strong belief from participants in being able to succeed at university - Q13 (*I think I would succeed at University*).

In terms of interest in studying medicine, this received a very small decrease by the end of the programme. This could be due to a number of reasons. These include the fact that the 'score' at the beginning of the Summer School was extremely positive (averaging 9.28 out of a maximum of 10). In addition, this particular result may be linked to a more honest reflection from participants, once the realities of a career in this area have become known as a result of participating in Summer School activities.



USING THE LEARNING GAIN TOOL TO EXPLORE IMPACT ON THE MSC SUMMER SCHOOLS PROGRAMME 2020

Learning Gain Tool responses:	Pre	Post
MSC 2020 Imperial College London	61	57
MSC 2020 University of Leicester	87	61
MSC 2020 BSMS & Kent Medway Medical School	42	26
Total	190	144

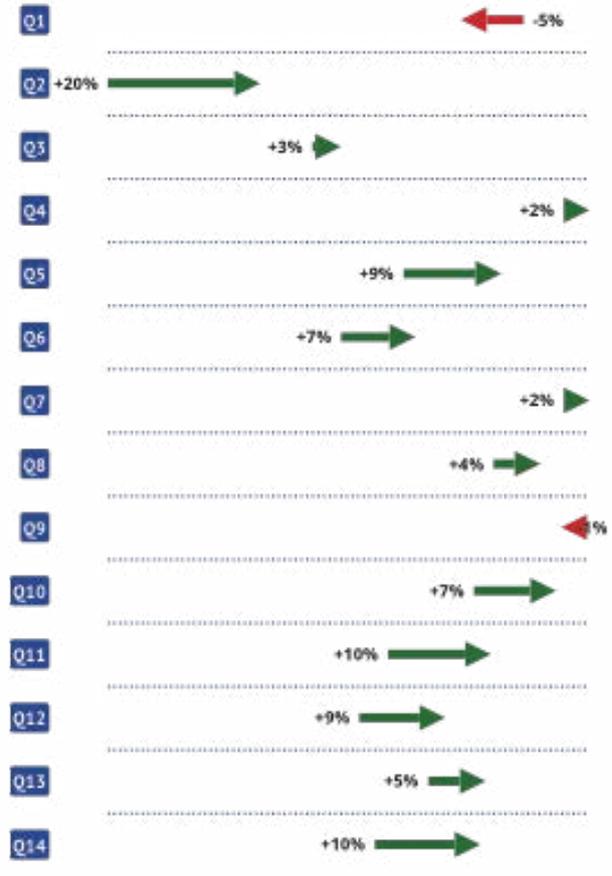
Learning Gain Tool statements:	Imperial			Leicester			BSMS & Kent		
	Pre	Post	%	Pre	Post	%	Pre	Post	%
Q1 I have an interest in studying medicine at university?	8.98	9	0.2%	9.6	9.52	-1%	9.02	8.54	-5%
Q2 I have an interest in studying healthcare (other than medicine) at university.	6.57	6.75	3%	5.39	6	11%	5.83	7	20%
Q3 I feel confident in applying to medicine.	7.38	8.46	15%	7.01	7.7	10%	7.4	7.62	3%
Q4 I understand the importance of communication skills in a healthcare setting.	8.9	9.54	7%	9.52	9.72	2%	9.33	9.5	2%
Q5 I feel confident interacting with a wide variety of people.	7.8	8.82	13%	8.68	9.18	6%	8.1	8.85	9%
Q6 I feel confident presenting my thoughts and ideas to others.	7.38	8.63	17%	7.79	8.57	10%	7.62	8.19	8%
Q7 I understand the importance of teamwork in a healthcare setting.	8.97	9.63	7%	9.64	9.74	1%	9.33	9.5	2%
Q8 I can work with other people to achieve specific goals.	8.7	9.14	5%	9.14	9.31	2%	8.79	9.15	4%
Q9 I understand the role of empathy in a healthcare setting.	9.05	9.54	5%	9.57	9.62	1%	9.36	9.31	-1%
Q10 I can understand other people's feelings.	8.49	8.95	5%	9.17	9.21	0.4%	8.64	9.27	7%
Q11 I know my own strengths and areas I need to develop to ensure I am successful.	8.08	8.77	9%	8.28	8.72	5%	7.98	8.77	10%
Q12 I feel comfortable in a university environment.	7.51	8.42	12%	7.78	8.49	9%	7.76	8.42	9%
Q13 I think I would succeed at University.	8.36	8.93	7%	8.61	8.9	3%	8.29	8.73	5%
Q14 I understand the different careers available in health.	7.74	8.89	15%	8.2	8.9	9%	7.88	8.69	10%



USING THE LEARNING GAIN TOOL TO EXPLORE IMPACT ON THE MSC SUMMER SCHOOLS PROGRAMME 2020



IMPERIAL LEARNING GAIN DATA



BRIGHTON/KENT LEARNING GAIN DATA



USING THE LEARNING GAIN TOOL TO EXPLORE IMPACT ON THE MSC SUMMER SCHOOLS PROGRAMME 2020



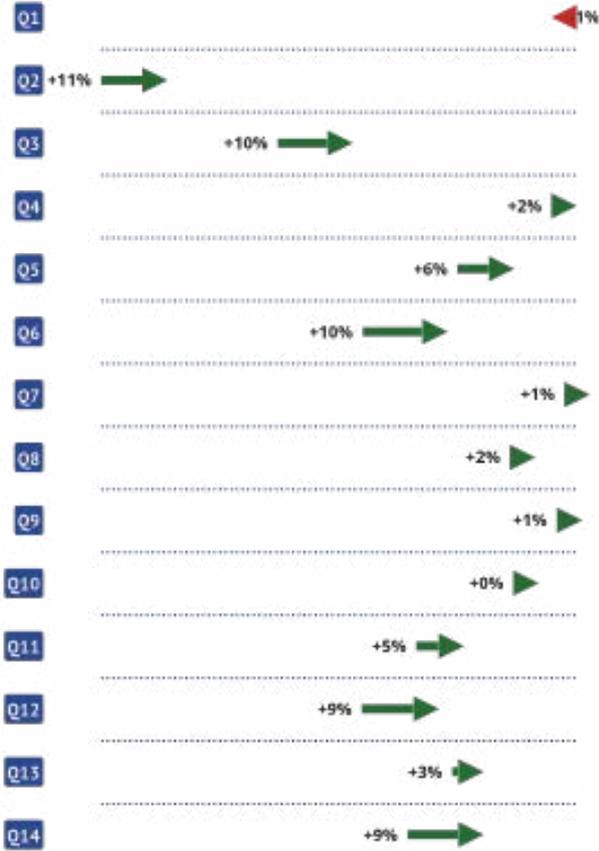
IMPERIAL LEARNING GAIN DATA



BRIGHTON/KENT LEARNING GAIN DATA



USING THE LEARNING GAIN TOOL TO EXPLORE IMPACT ON THE MSC SUMMER SCHOOLS PROGRAMME 2020



LEICESTER LEARNING GAIN DATA

Interviews

To explore the impact of the summer schools, semi-structured interviews were conducted with some of the students who attended. The interviews evaluated the students' experiences and were based around addressing the three key objectives of the summer schools:

1. Understanding of medicine, including the values and attributes needed to study medicine
2. Understanding of the medicine application process
3. Confidence in moving towards higher education

This section is authored by Aysun Ocak, a third year medical student at the University of Southampton.

Headlines

- The students were overwhelmingly positive about the summer school experience.
- The students' confidence and understanding of the process of applying to study medicine were significantly raised.
- The medical student ambassadors made applying to medicine feel more realistic and accessible.
- The inclusion of practicing doctors gave insight into medicine.
- There were some sessions that did not replicate well online, for example, those that rely on eye contact or usually involve physical interaction.
- Online delivery was an advantage to those students that are shyer or less confident. Students were able to get involved and ask questions via chat functions.
- The findings align to the four principles Bandura's theory of self-efficacy – enactive mastery (eg practicing tests), vicarious experience (eg hearing from clinicians and medical students), social persuasion (students felt safe to develop capabilities) and positive physical and emotional states (reducing stress and increasing mood).

Recommendations

- Consider the format of the summer schools if online including running shorter days over a longer period of time.
- Ensure that clinicians and medical students are standard within any summer school.
- Review online sessions that usually require eye contact and physical interaction.
- Explore with the hosts how to increase support of Bandura's fourth principle of self-efficacy – positive physical and emotional states.

Introduction

To explore the impact of the summer schools, semi-structured interviews were conducted with some of the students who attended. The interviews evaluated the students' experience and were based around addressing the three key objectives of the summer schools:



1. Understanding of medicine, including the values and attributes needed to study medicine
2. Understanding of the medicine application process
3. Confidence in moving towards higher education

The interviews allowed detailed exploration into the sessions that participants found most impactful. They asked what they felt was missing from the events and explored the impact that the summer schools had on their understanding of medicine. The interview framework is presented in Annex 2.

In total 13 summer school students were interviewed: 6 from Imperial, 3 from Brighton and Sussex Medical School (BSMS), 3 from Leicester and 1 from Exeter. From the feedback gathered it is clear that the summer schools were well received, as the majority of students' comments were exceptionally positive. The students who attended thought that all or most of the aims they had for the summer school and reasons for attending had been met.

"I just found it really informative and helpful and I'd recommend it to anybody who is unsure about medicine"

Year 11 student

"I just found it really informative and helpful and I'd recommend it to anybody who is unsure about medicine" (Year 11 student)

The feedback showed that the students' confidence and understanding of applying to medical school were significantly raised and those who attended were extremely grateful for such opportunity.

"I'd just say it was a great opportunity, it was great, BSMS has so many admission experts, people of expertise" (Year 12 student)

“I was just really grateful for the opportunity so I was glad to get this experience to understand what’s required to get into medicine and what I should be doing at this stage right now” (Year 11 student)

Understanding of medicine

Most students who attended the summer school had some understanding of medicine but were aiming to acquire clarity on studying medicine and the application process through the summer schools. As one student said, *“There wasn’t a lot I didn’t know as in terms of getting into medicine I had researched a bit”* however after attending the summer school students reported that they were able to find out more in-depth information about the application process and gain insight into medicine, hence increasing their confidence in applying and moving towards higher education.

Hearing from doctors for the first time gave them a realistic insight into medicine, including what to expect in their future careers.

The presentations by guest speakers, in which there were opportunities to hear from doctors, were particularly popular with students. They reported that hearing from doctors for the first time gave them a realistic insight into medicine, including what to expect in their future careers. The students also valued having access to relatable role models.

When asked which session students to found most useful, many stated it was *My Life in Medicine*:

“I think My Life in Medicine, because you get to hear the experiences of those who are already consultants and surgeons, so you kind of get a picture of what you’re aiming for” (Year 11 student)

“The My Life in Medicine, we got the chance to ask questions ourselves, it was nice to hear about different areas” (Year 11 student)

“The My Life in Medicine talks because it provided really insightful things like how to balance work life, what problems they face” (Year 11 student)

“The My Life to Medicine talks were very useful because it was nice to hear about professionals' journeys on becoming what they are today” (Year 11 student)

Understanding of the application process

The admissions practice included sessions on MMIs, BMAT and UCAT as well as feedback on example personal statements.

The admissions practices during the summer schools were valuable to all students. The admissions practice included sessions on MMIs, BMAT and UCAT as well as feedback on example personal statements. These formative experiences allowed students to build self-confidence and awareness of what is required, helping them to feel prepared for applying to university.

“Before I wasn’t sure what BMAT and UCAT even were. Now I definitely know because we’ve done loads of practice questions and looked at what they actually are and what they involve. So, I definitely learnt about that” (Year 11 student)

“Having that opportunity to answer MMI questions was really, really useful because there’s not many ways to get practice for MMIs” (Year 12 student)

“I really liked how at the end on the final day, we each had an hour session that was dedicated to us and there they explained the kind of interviews that would occur during applications. We each had an hour of three mock interviews and I think it was really eye opening how many different types of questions could occur and what they could ask you in an interview” (Year 12 student)

Confidence in moving towards higher education

The knowledge provided by the medical student mentors about the application process was also highly valued by students. Hearing about their experiences of applying to medicine and studying it at university

made the application process seem more “realistic” and accessible whilst reassuring students that they have a “chance” of successfully applying to study medicine.

The mentors provided support in addition to enhancing learning by assisting with the summer school events., This included acting as patients for history taking, interviewing students for MMI practice and partaking in conversations in smaller breakout sessions. When asked, students agreed that mentors really enhanced the summer school experience.

"The best thing was the mentor groups, they were very helpful. They were very friendly which made it better to participate in the group work"

Year 11 student

"I was assigned a mentor and we could contact them through an online platform, they were approachable at any time" (Year 12 student)

"The best thing was the mentor groups, they were very helpful. They were very friendly which made it better to participate in the group work" (Year 11 student)

By assigning mentors, each student was able to build a trusting relationship in which they could comfortably ask all of their questions and resolve their worries about moving towards higher education.

"I used to worry about financial side of it and the pastoral side of it. Having had all of these meetings and talks has cleared it out for me a lot" (Year 11 student)

Virtual learning

The overall finding from the interviews was that hosting the summer school online worked well. Most students found the summer schools moving online disappointing but were very understanding of the situation. The most challenging part of online delivery were the technical issues that arose:

"There were times the connectivity disrupted the flow of the days, it wasn't great sometimes" (Year 12 student)

"At one time the whole session crashed and we couldn't carry on for the next half an hour and that was quite

unfortunate as it interrupted the presentations given by students” (Year 12 student)

However, all the issues mentioned were resolved quickly and efficiently.

Some students reported that certain tasks were not necessary to have online and didn't replicate well.

Some students reported that certain tasks were not necessary to have online and didn't replicate well. Reasons given for this were not being able to have eye contact during role-play and the lack of physical interaction with other people; this was especially relevant for the history taking session.

“The most challenging thing was not being able to properly interact with my mentor group and my mentor herself” (Year 11 student)

“The most challenging parts would be, while it was still engaging, it lacks where I'm not actually seeing these people and they're not talking to us individually, more talking to a screen” (Year 11 student)

However, taking advantage of online resources such as PowerPoint collaboration was well received by students, as they found these sessions to be interactive and felt part of a team.

Those students who describe themselves as shy and nervous found the online summer schools were to their advantage in interacting, or as one student said, *“I was less shy to ask questions”*. They were able to get more involved than they thought they would have in person by asking questions over the chat forums:

“I think I preferred it online than in person because I get quite nervous. But I like how they like to include other students, they don't have to talk if they don't want to but they still include other people” (Year 11 student)

Conclusions

The response from the interview participants was overwhelmingly positive and they really valued

Most students said that they would prefer the summer school in person, however to enable an inclusive environment for those who are more nervous about asking questions in person, medical schools should consider some online intervention going forward such as online chat forums.

the opportunity to meet medical students, hear from doctors and to become more familiar with the application process. These findings clearly align to Bandura's theory of self-efficacy, which has four main principles - enactive mastery, vicarious experience, social persuasion and positive physical and emotional states.

When relating the principles to the evaluation of the summer school it can be seen that enactive mastery was seen through the skills obtained from practicing MMIs and aptitude tests; vicarious experience was achieved through hearing from guest speakers and medical students and social persuasion was evident through the summer schools creating an environment where students felt safe to develop capabilities, which led to increased confidence. An improvement for future summer schools could be targeting sessions to address the fourth principle, focusing on looking after your physical and mental health as an essential criterion of being a doctor and a medical student. A natural consequence of practice and familiarisation of a task can be reduced stress and anxiety around that topic, which was an outcome of the summer schools. However, clearly addressing and supporting positive physical and mental health in students could be a valuable addition to the sessions delivered.

Most students said that they would prefer the summer school in person, however to enable an inclusive environment for those who are more nervous about asking questions in person, medical schools should consider some online intervention going forward such as online chat forums. Students who attended the summer schools found having guest speakers and gaining an insight into medicine was their favourite session, as most of the students who attended had never had the opportunity to speak to someone within the medical field. Students also found having a friendly mentor made the experience better as they felt that everyone was being included in all sessions. To improve student experience, summer schools could consider having shorter days, as some found days to be too

long and tiring and would have preferred to have the summer school run over five days rather than four. Students enjoyed the role-play sessions such as history taking however, they found that this was difficult to do over an online platform where effective communication, such as making eye contact, was difficult.

In conclusion, the summer school provided greater understanding and reassurance for the pupils in preparing them to apply to medical school, increasing their confidence in the process. With the inclusion of approachable medical students and guest speakers, pupils felt that applying and getting into medical school has become a “*realistic*” goal.

IT Accessibility Survey

The IT Accessibility Survey was undertaken by students after being confirmed a place on the summer school and prior to the start of the programme. The data provided was used to inform the shift to online delivery following the outbreak of the Covid-19 pandemic in 2020.

Headlines

- The majority of students were satisfied with their internet, have access to a computer and a suitable location to work.
- 98% of students have access to a computer.
- The majority of students have a smart phone (95.7%).
- Only 0.9% of students report only having a smartphone device. The students reported satisfaction with their internet connection.
- Students reported high levels of satisfaction with their internet connection (only 2.6% unsatisfied).
- Those that were unsatisfied with their internet connection had four or more sharing the connection.
- 78.1% would access the summer school in their own bedroom.
- Only 1.4% described their location of study as unsuitable or highly unsuitable.
- Nearly 60% report having responsibilities at home.
- 9am-3pm is the best time for online learning. However, 30.2% describe either before 9am or after 7pm as the best time for online learning.

Recommendations

- Whilst the majority of students can access provision on a computer or a tablet, there are a very small number of students who only have access to the sessions via a smartphone. We should ensure that these students are taken into account.
- Larger numbers accessing the internet has caused difficulty for some students. Consideration should be given to the timing of live events.
- Students described noise and distractions as causing difficulty. Advice should be given to students alongside their parents/carers on how to support them (especially during live sessions). Consideration should be given to where students can find quiet spaces (for example at school or college).
- Events should be held during a time that works for the students. Nearly a third report before 9am or after 7pm as the best time to work online.

Introduction

The IT Accessibility survey was undertaken by students after being confirmed a place on the summer school and prior to the start of the programme. The survey took place during lockdown, with schools closed.

There were 351 respondents, from Imperial, BSMS/KMMS and Leicester. The students were in Year 11 and Year 12. All respondents were 'widening participation' students meeting the eligibility criteria.

Students attending the Imperial programme were in Year 11. Students attending the BSMS/KMMS and Leicester summer schools were in year 12.

IT Equipment

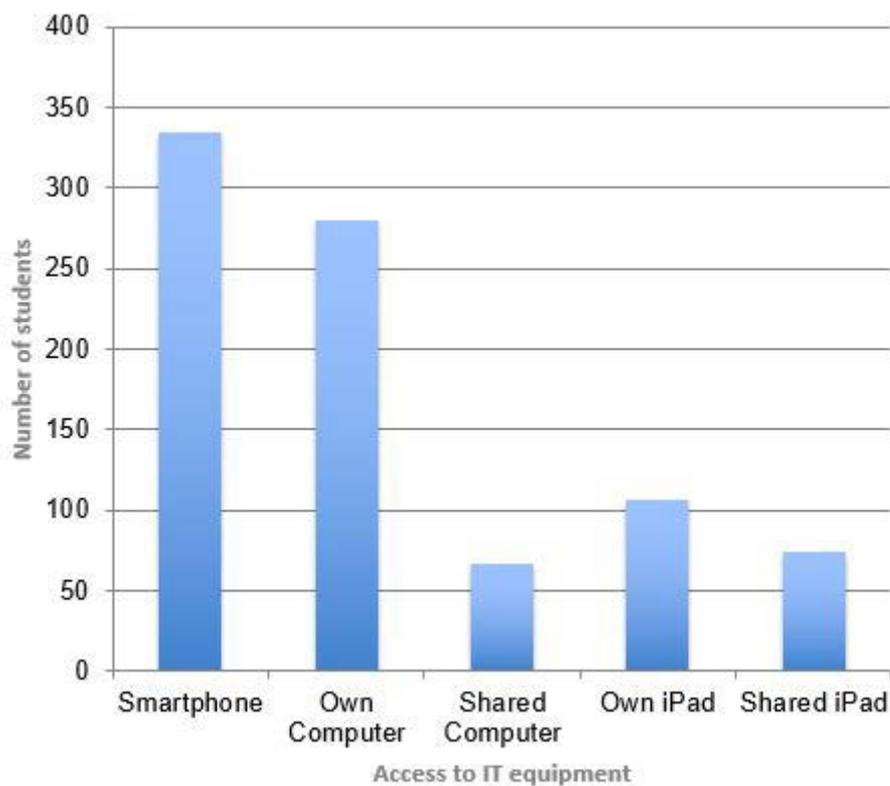


Figure 18: Access to IT equipment

Smart phone

- 334 (95.2%) have their own smart phone.
- 6 report sharing a smartphone, of these 1 has access to their own computer, 5 have access to a shared computer.
- 11 report no smartphone, of these 8 report access to their own computer, 1 has access to a shared computer and 2 have their own iPad/tablet.

Computer

280 (79.8%) have their own computer. Of those that do not:

- 3 have access only to a smartphone. They were neutral, fairly and very satisfied with the internet, they all planned to access the summer school from a shared bedroom and found it average, suitable or very suitable as a location.
- 64 have access to a shared computer/laptop.
- 1 has a smartphone and own iPad/tablet.
- 1 has a smartphone and a shared iPad/tablet.
- 2 have access to own iPad/tablet.

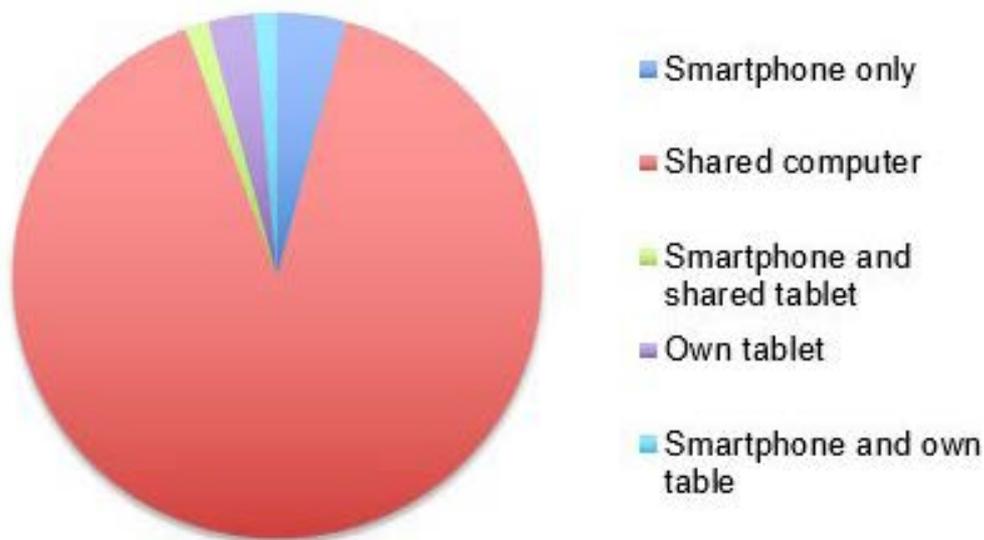


Figure 19: IT equipment for those that do not have a computer.

Shared computer

67 have a shared computer/laptop. Of those that share (no duplicates):

- 2 also have their own computer laptop.
- 15 have access to their own iPad/tablet.
- 15 have access to a shared iPad/tablet.

iPad/Tablet

- 107 (30.5%) have access to their own iPad/tablet.
- 74 have access to a shared iPad.

Internet connection

We asked how satisfied the students were that their internet access is able to do what they want it to do.

- 116 very satisfied.
- 188 fairly satisfied.
- 38 neutral.
- 6 unsatisfied.
- 3 very unsatisfied.

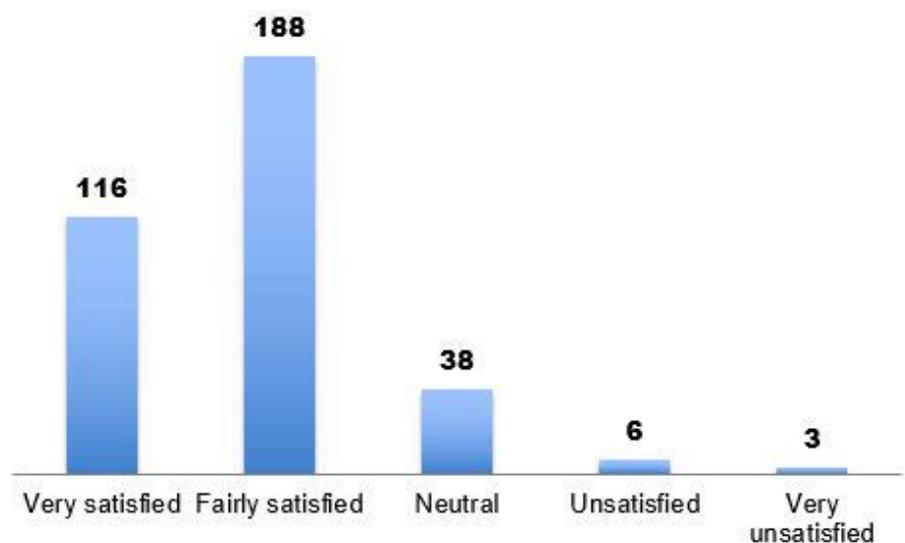


Figure 20: How satisfied are you that your internet access is able to do what you want it to do

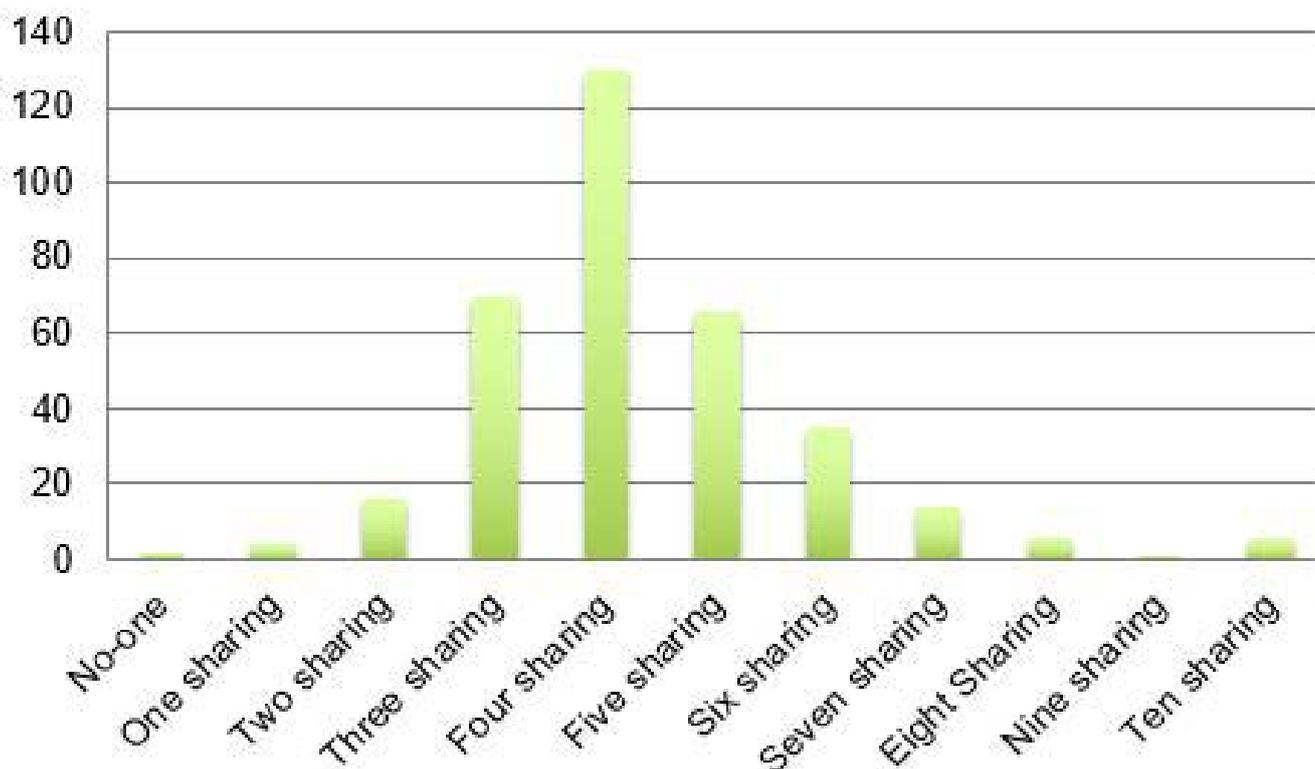


Figure 21: Numbers sharing the Internet connection.

- No one sharing - 2 had no-one sharing (very satisfied and neutral)
- One sharing - 4 had one sharing (fairly satisfied = 3 and neutral = 1)
- Two sharing - 16 had two sharing (very satisfied = 8, fairly satisfied = 7, neutral = 1)
- Three sharing - 70 had three sharing (very satisfied = 21, fairly satisfied = 44, neutral = 5)
- Four sharing - 130 have four sharing (very satisfied = 49, fairly satisfied = 68, neutral = 11, very unsatisfied = 2)
- Five sharing - 66 have five sharing (very satisfied = 19, fairly satisfied = 34, neutral = 10, unsatisfied = 2, very unsatisfied = 1)
- Six sharing - 35 have six sharing (very satisfied = 8, fairly satisfied = 23, neutral = 2, unsatisfied = 2)
- Seven sharing - 14 have seven sharing (very satisfied = 2, fairly satisfied = 9, neutral = 2, unsatisfied = 1)
- Eight sharing - 6 have eight sharing (very satisfied = 1, fairly satisfied = 1, neutral = 4)
- Nine sharing - 1 have nine sharing (fairly satisfied)
- Ten sharing - 6 have 10 sharing (very satisfied = 2, fairly satisfied = 1, neutral = 2,

unsatisfied = 1)

- 1 unknown but is very satisfied

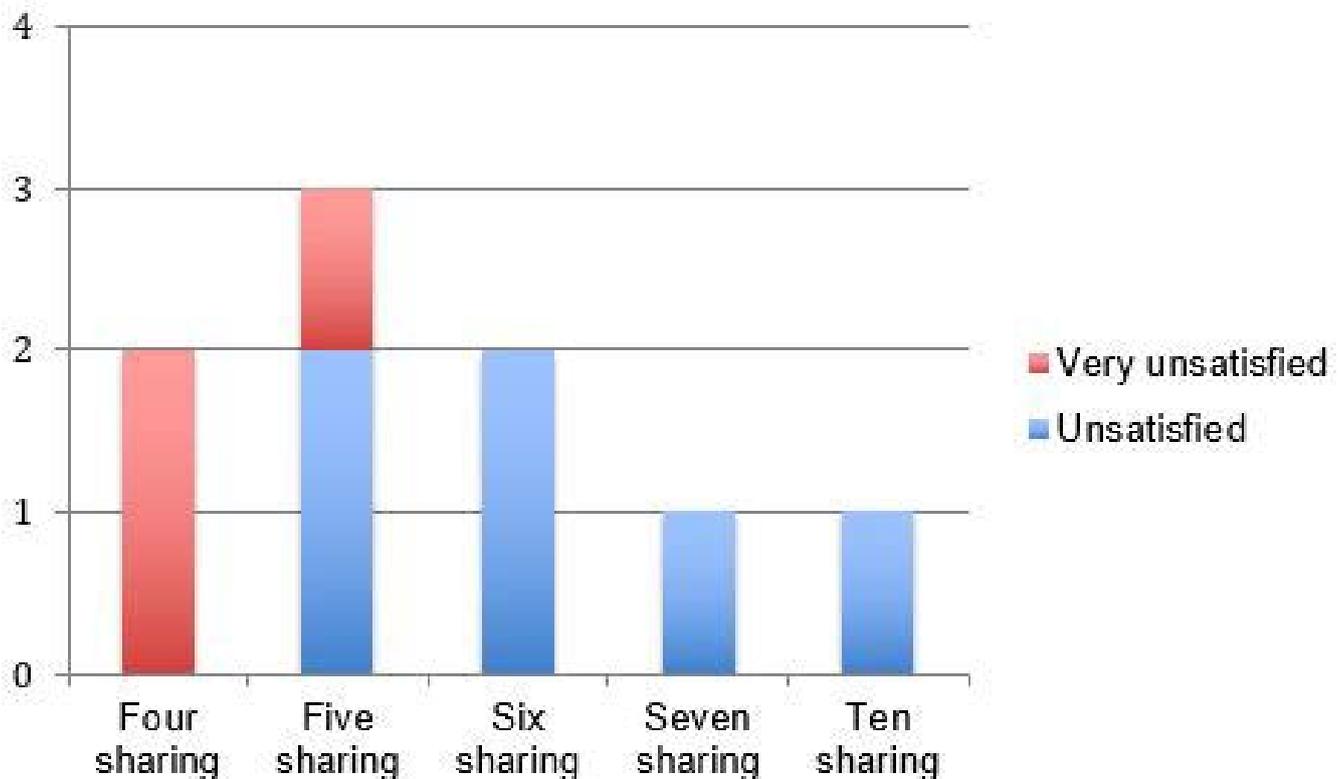


Figure 22: Unsatisfaction and numbers sharing the Internet connection.

Unsatisfaction with the Internet appears when there are four or more sharing.

Of those unsatisfied there were between 5-10 sharing an internet connection – an average of 6.5.

Of those very unsatisfied there were between 4-5 sharing an internet connection.

Nine were unsatisfied or very unsatisfied with their internet access. They were sharing with 4-10 others – an average of 5.8. Five of them described the noise as being distracting at home, and seven of the nine said they were caring for siblings. Three of them did not have their own computer, but shared one.

Location of accessing summer school

We asked the students where they planned to access the summer school (multiple answers) and the response was:

- 56 shared bedroom
- 50 kitchen
- 274 own bedroom
- 85 lounge
- 20 study room

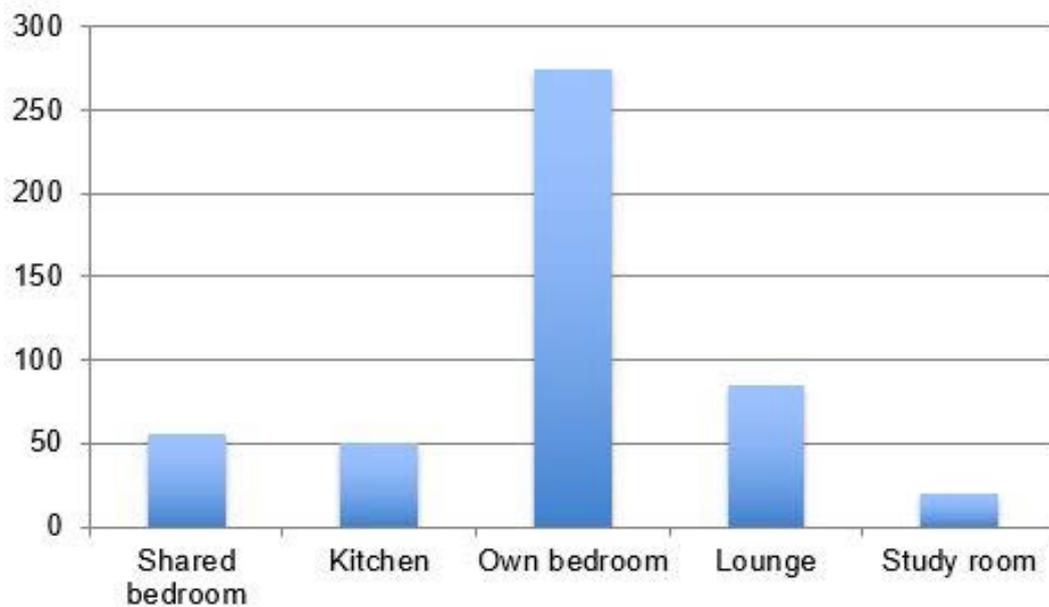


Figure 23: Location of access to summer school (multi-responses)

We asked how suitable the location for study was:

- Very suitable = 133
- Suitable = 156
- Average = 57
- Unsuitable = 3 (own bedroom/lounge, shared bedroom, lounge)
- Highly unsuitable = 2 (both had own bedroom and lounge)

Five described their location to access the online summer school as unsuitable or highly unsuitable. Three of the five were also unsatisfied with the internet. Three describe caring responsibilities. The locations were:

- 1 own bedroom and lounge
- 1 shared bedroom

- 1 shared bedroom and lounge
- 2 own bedroom and lounge

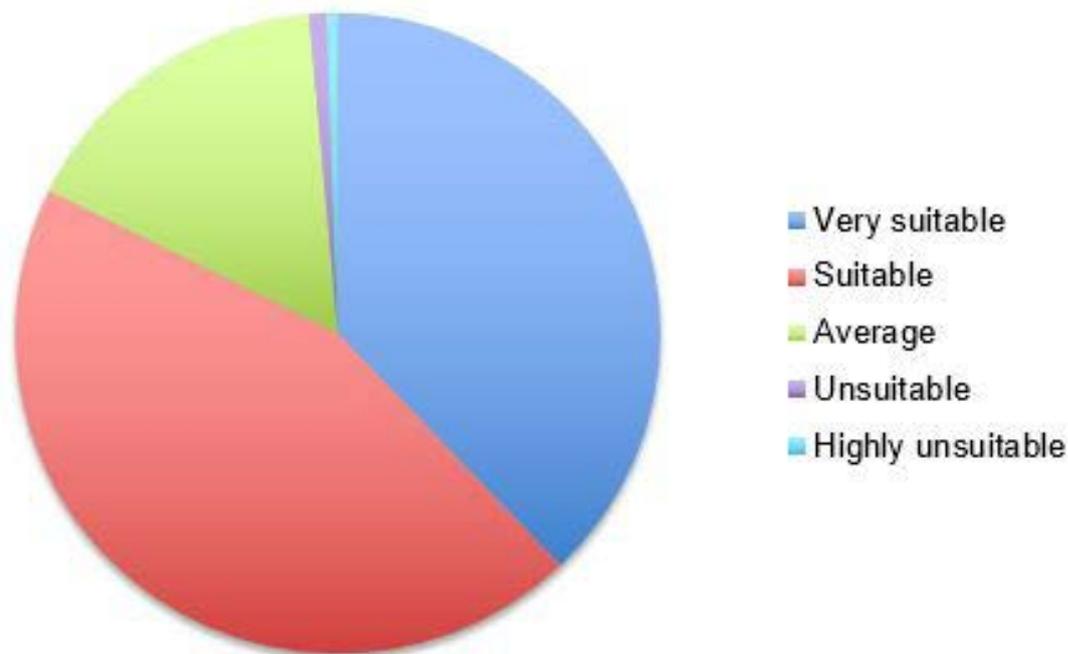


Figure 24: Suitability of location to access the summer school.

Home responsibilities

We asked the students about their home responsibilities. They were able to give multiple answers. In total 210 (59.8%) describe home responsibilities:

- Caring responsibilities = 30
- Chores = 5
- Home-schooling = 9
- Home-schooling siblings = 23
- Work (voluntary or paid) = 68
- Looking after siblings = 75

There was some inconsistency of definition across the summer schools. We have, therefore, kept the categories given to the students – however, there may be some overlap, for example, home schooling and home schooling siblings. We found that just over a fifth (21.4%) were looking after siblings.

We asked the students if they were facing any particular difficulties. They described:

- Distractions and not being able to concentrate (10)
- Difficulty concentrating with the noise (9)
- Access to computer/lack of resources (8)
- Balancing home and academic workloads and time management (6)
- Motivation (5)
- Absorbing the material (3)
- Lack of understanding from parents (1)
- Anxiety (1)

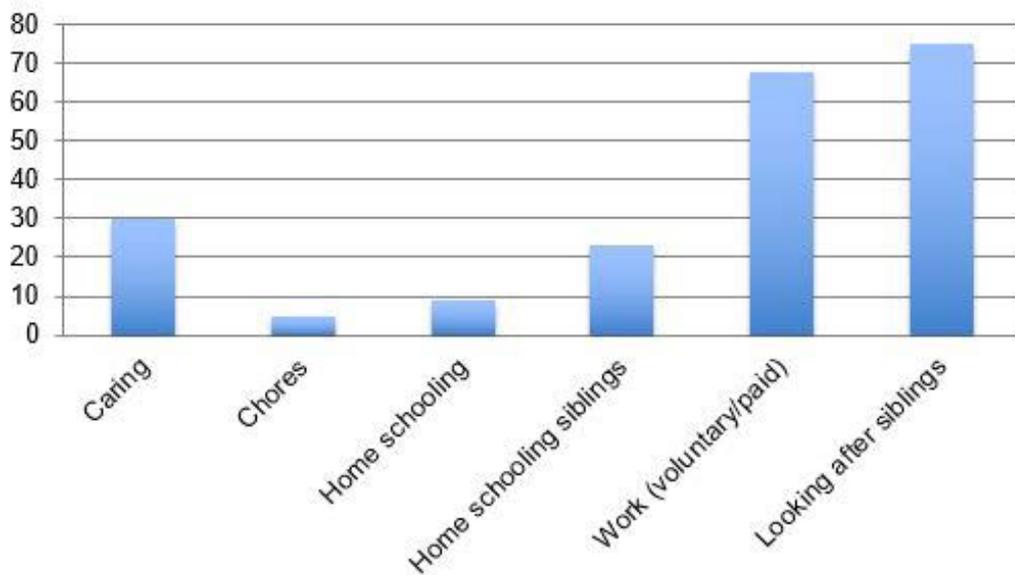


Figure 25: Home responsibilities

As part of the summer school we offered some live sessions and so we wanted to gauge the best time of day to work online (students gave multiple responses):

- Before 9am = 39
- 9am-12noon =217
- 12noon-3pm = 233
- 3pm-7pm =132
- After 7pm = 67

30.2% describe before 9am or after 7pm as the best time of day to work online.

We asked how many hours they would wish to attend the summer school each day:

- 2 hours = 50
- 3 hours = 161
- 5 hours = 98
- 7 hours = 41

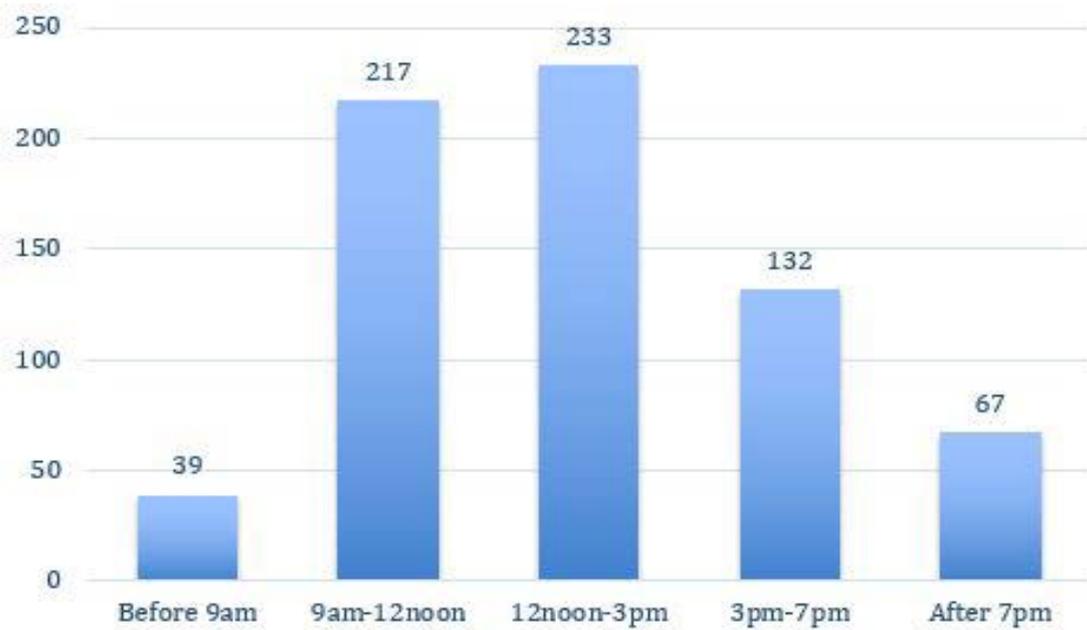


Figure 26: Best time of the day to work online



Figure 27: Preferred number of hours online

Annex 1

Local authority engagement

Local authority	%	N
Burnley	0%	1
East Cambridgeshire	0%	2
East Dorset	0%	10
Forest Heath	0%	1
Forest of Dean	0%	2
Harlow	0%	6
Maldon	0%	1
Mid Suffolk	0%	4
North Warwickshire	0%	2
Rochford	0%	2
Tamworth	0%	1
Tendring	0%	3
Thanet	0%	10
West Somerset	0%	2
Weymouth and Portland	0%	4
Poole	9%	5
West Lancashire	10%	2
Central Bedfordshire	13%	5
South Gloucestershire	14%	31
South Staffordshire	15%	2
Folkestone and Hythe	17%	2
Thurrock	17%	6
Torridge	17%	5
Dover	18%	3
Herefordshire, County of	18%	1
Rochdale	19%	5
Gravesham	20%	1
Hastings	20%	1
Melton	20%	1
North West Leicestershire	20%	2
Sedgemoor	20%	1
Swindon	20%	7
Bedford	21%	8
Chelmsford	21%	1

Salford	23%	7
Telford and Wrekin	24%	3
Blaby	25%	3
Sevenoaks	25%	1
Swale	25%	1
Windsor and Maidenhead	25%	1
Medway	26%	17
Wokingham	27%	1
Kirklees	27%	1
Chichester	27%	1
Dartford	27%	1
Taunton Deane	27%	10
Dudley	28%	1
Boston	29%	3
Chorley	29%	3
Gloucester	29%	3
Uttlesford	29%	1
Canterbury	29%	1
North Lincolnshire	29%	2
South Somerset	29%	10
Bristol, City of	30%	22
Fareham	30%	1
Rugby	30%	1
Wychavon	30%	1
Bath and North East Somerset	30%	1
West Dorset	31%	2
Basildon	33%	3
Basingstoke and Deane	33%	2
Kensington and Chelsea	33%	1
Lewes	33%	1
Oadby and Wigston	33%	1
Stockport	35%	1
Wigan	35%	6
East Lindsey	36%	2
Southend-on-Sea	36%	1
Staffordshire Moorlands	36%	1
Havering	36%	13

Bury	37%	4
Oldham	37%	14
Walsall	38%	6
Watford	38%	2
Slough	39%	2
Corby	40%	2
Mid Devon	40%	2
Stoke-on-Trent	40%	19
West Oxfordshire	40%	2
Peterborough	41%	3
Portsmouth	41%	1
Coventry	41%	3
Stafford	42%	1
Hackney	42%	1
Greenwich	42%	12
Birmingham	42%	13
Knowsley	43%	1
Milton Keynes	43%	1
Preston	43%	1
South Kesteven	43%	1
Leicester	44%	33
Aylesbury Vale	44%	2
East Devon	44%	16
Scarborough	46%	1
Nottingham	46%	2
Mendip	46%	6
Rother	46%	1
Calderdale	47%	1
Derby	47%	3
Tameside	47%	3
Wolverhampton	48%	15
Adur	50%	1
Charnwood	50%	7
Eastbourne	50%	8
Huntingdonshire	50%	1
Kettering	50%	2
Kingston upon Hull, City of	50%	5
Lewisham	50%	2

Newcastle-under-Lyme	50%	5
North Devon	50%	7
North Dorset	50%	1
Reigate and Banstead	50%	2
Sefton	50%	2
Solihull	50%	3
Warwick	50%	1
Sandwell	52%	3
Oxford	52%	1
Leeds	53%	3
Wycombe	53%	7
Wirral	54%	1
Horsham	55%	1
Tower Hamlets	55%	1
Bolton	56%	8
Carlisle	56%	1
East Hertfordshire	56%	1
Lambeth	56%	5
Nuneaton and Bedworth	56%	5
Worthing	56%	5
Islington	56%	3
Cornwall	56%	3
Shropshire	57%	2
Westminster	57%	5
Barnet	57%	5
Manchester	57%	20
Arun	57%	5
East Staffordshire	57%	4
Exeter	57%	3
South Northamptonshire	57%	1
Waltham Forest	58%	5
Camden	58%	1
Enfield	59%	7
Newham	59%	4
Bradford	59%	6
Bexley	59%	6
Northampton	59%	4
Doncaster	59%	1

Bromley	59%	1
Croydon	62%	6
Brent	63%	5
Craven	63%	1
Ealing	60%	3
	67%	3
Isle of Wight	64%	1
Hertsmere	64%	2
Hammersmith and Fulham	65%	3
Amber Valley	67%	1
Barking and Dagenham	67%	9
Derbyshire Dales	67%	1
Hinckley and Bosworth	67%	3
South Derbyshire	67%	1
Trafford	67%	2
Wakefield	56%	1
	78%	1
Wealden	68%	1
Wiltshire	68%	6
Haringey	70%	3
Hounslow	70%	3
Brighton and Hove	71%	5
Crawley	71%	7
High Peak	71%	1
Wandsworth	72%	2
Liverpool	73%	2
Harrow	73%	2
Merton	73%	3
Plymouth	74%	4
Sheffield	74%	2
Southwark	76%	4
Mid Sussex	77%	2
Wellingborough	80%	2
Hillingdon	81%	4
Sutton	81%	4
Epsom and Ewell	89%	2
Rushcliffe	89%	1
Redbridge	95%	6
North East Derbyshire	100%	3

Annex 2

Interview questions

- What did you enjoy most about the summer school?
- What were the things you wanted to find out from the summer school?
- Since the summer school, has your understanding changed of what it is like to be a medical student?
- Following the summer school, if you were to make any changes, what would they be to your medicine application, interview, BMAT/UCAT preparation?
- Do you feel confident in going to university since attending the summer school?
- Which sessions did you find were most useful?
- Did you find anything was missing from the summer school?
- Has the summer school made any difference to your thoughts about applying to study medicine?
- Did you find the summer school was helpful in preparing you to apply to study medicine?
- Is there anything that could be done to improve your experience of the summer school?
- What was the best thing about attending the summer school online and what was the most challenging?