Gateways to the Veterinary Profession: Perceptions of Veterinary Careers

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The Institute for Employment Studies

The Institute for Employment Studies is an independent, apolitical, international centre of research and consultancy in public employment policy and organisational human resource issues. It works closely with employers in the manufacturing, service and public sectors, government departments, agencies, and professional and employee bodies. For over 35 years the Institute has been a focus of knowledge and practical experience in employment and training policy, the operation of labour markets and human resource planning and development. IES is a not-for-profit organisation which has over 60 multidisciplinary staff and international associates. IES expertise is available to all organisations through research, consultancy, publications and the Internet.

IES aims to help bring about sustainable improvements in employment policy and human resource management. IES achieves this by increasing the understanding and improving the practice of key decision makers in policy bodies and employing organisations.

Acknowledgements

IES would particularly like to thank staff and students at the schools and colleges we visited, for making our researchers feel so welcome, and the admissions tutors and careers advisers who gave up their time to be interviewed.

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- Gwen Leeming for preparing the report for production.

Contents

1 Introduction

1.1 Background

The Royal College of Veterinary Surgeons (RCVS) commissioned the Institute for Employment Studies (IES) to carry out research into perceptions of entry to the veterinary profession. This research is intended to be part of the wider 'Gateways to the Profession' project, which is concerned with both widening access and removing entry barriers to certain professions. The main focus of the Langlands report is entry of graduates to the professions. In the case of the veterinary profession, however, the choice to enter the profession is usually made at the point of entry to university; a veterinary degree is the passport into the profession. Although veterinary schools currently have no difficulty in filling their places with highly academically qualified students, there is a concern that some potential applicants, who would be well-suited to the profession, are not opting for veterinary studies. RCVS would like to find out how and why students decide whether or not to apply to veterinary school.

The research carried out by IES has been funded by the Department for Education and Science (DfES), as part of a collaborative project involving the RCVS, the Department for the Environment, Food and Rural Affairs (DEFRA), and six of the seven veterinary schools in the UK. The aim of the research was to provide a comprehensive picture of:

- students' perceptions of the veterinary profession
- the careers guidance students receive, and who provides it
- how students react to any careers material that they encounter about the veterinary profession
- perceptions of Science teachers and careers advisers about the veterinary profession, and about the types of people who are best suited to become veterinary surgeons
- beliefs held by students, teachers and careers advisers about entry requirements for an undergraduate veterinary degree

- the messages being given to prospective students by veterinary schools, for example via prospectuses and open days.

1.2 Approach

There were several strands of activity, described below.

- A review of careers web-sites examined what sort of advice young people are receiving if they access on-line careers guidance. The ease of accessing material about the veterinary profession (for example, search terms used) was also tested.
- A review of university information available to prospective students examined university prospectuses to see how the veterinary profession is portrayed and what the entry requirements are. In addition, as part of the interviews with admissions tutors described below, IES researchers aimed to find out:
  - whether open days are held for those thinking about a veterinary career and, if they are, more about the format of the day
  - whether the university has any initiatives already in place (*eg* under the aegis of 'widening participation') for potential veterinary students, such as accreditation of vocational qualifications or foundation year programmes for promising students who do not meet the current entry requirements.
- Questions were placed on a 'student omnibus' survey of secondary school students, run by Ipsos MORI.
- Focus groups with Science A-level students used a semi-structured discussion guide to explore:
  - students' choice of A-level subjects
  - students' career plans and plans for higher education, particularly the subject they intend to study at university and whether or not they have considered the veterinary profession
  - whether students have seen any careers material on becoming a veterinary surgeon, and if so, where and what they thought of the material
  - whether students have sought or been given any careers advice about the veterinary profession, and from whom, and how good they found the advice
  - students' understanding of what veterinary surgeons do, and their perceptions of what an undergraduate veterinary course would be like.
- Focus groups with students in Years 10 and 11 targeted students who are thinking about studying at least one Science A-level (with the caveat that they may not yet have made up their minds) and covered:

- whether students have made any decisions about their A-level subjects and if so, why they opted for their chosen subjects
- any thoughts students have about their careers and any plans they have for higher education
- whether or not they have ever considered becoming a veterinary surgeon
- whether they know anyone (*eg* a family member) who is a veterinary surgeon. and what they think veterinary surgeons do
- whether they have seen any careers material on becoming a veterinary surgeon, and if so, where, and what did they think of the material
- whether they have sought or been given any careers advice about the veterinary profession, and from whom, and how good they found the advice
- their perceptions of what an undergraduate veterinary course would be like, in terms of entry requirements, course content and ease/difficulty.

- Interviews with Science teachers covered:
  - their views about whether any of the content of the Science syllabus is relevant to veterinary careers
  - whether they ever give careers advice to students, and if so, what type of advice, and does it include advice about the veterinary profession
  - the types of student who ask about a veterinary career, *eg* gender, ethnicity, background, educational attainment level
  - whether they have a perception of the type of person who would do well in veterinary studies, and the type of person who would make a good veterinary surgeon
  - to whom/where they refer students whose careers questions they cannot answer
  - whether they have seen any careers material on the veterinary profession, and if so what they thought of it
  - whether they know where the veterinary schools are, and their entry requirements in terms of subjects and grades.
- Interviews with careers advisers (note that the term 'careers adviser' covers both advisers provided by services such as Connexions, and teachers with a careers brief within the school/college) covered:
  - whether they ever give careers advice about the veterinary profession to students, and if so, what is the nature of their advice and what materials do they have available

- the types of student who ask about a veterinary career, *eg* gender, ethnicity, background, educational attainment level
- if they have a perception of the type of person who would do well in veterinary studies, and the type of person who would make a good veterinary surgeon
- to whom/where do they refer students whose veterinary careers questions they cannot answer
- what they think of any careers material they use or have seen on the veterinary profession
- whether they know where the veterinary schools are, and their entry requirements in terms of subjects and grades.

In addition, we asked for any examples of the veterinary careers material they currently give to enquirers.

- Telephone interviews with admissions tutors in the seven universities offering a veterinary degree covered:
  - the nature of the marketing material available to prospective students (for example prospectuses, university and departmental visit days, any material prepared for distribution to schools and sixth form colleges)
  - the advice that is given to students about required A-level subjects and grades, the required content of the UCAS personal statement, and any requirements for relevant work experience
  - any available data regarding the ratio of: students expressing initial interest to applicants; applicants to offers; offers to places
  - the basis on which applicants are turned down
  - whether students who narrowly fail to meet their offer grades are likely to be accepted, and on what basis
  - any available data on the profile of students, in terms of gender, ethnicity, background, educational attainment, home addresses, and whether this profile differs significantly from the profile of applicants.

1.3 Timescale

The research carried out by IES started at the beginning of November 2006. Fieldwork finished on 22 May 2007, after which this report was written for the consideration of the project steering group.

1.4 This report

This report presents the results of the research carried out by IES. Chapter 2 summarises what we did, Chapters 3 to 8 contain the findings and Chapter 9 presents our conclusions.

2 Summary of Fieldwork Carried Out

2.1 Student omnibus survey

Each year, Ipsos MORI Social Research Institute conducts an omnibus school-based study of 11 to 16 year-olds. This is entitled the 'Survey of Secondary School Pupils.' It examines young people's views, experiences and aspirations relating to a plethora of different subjects. These subjects range from family and health issues to crime, policing and the way in which the country is run.

On behalf of the Institute for Employment Studies, Ipsos MORI included two questions in the 2007 edition of their survey relevant to the current RCVS study. Specifically, these questions asked students whether they would consider working with animals and whether they were considering studying at least one Science subject at A-level.

2.2 Sampling of local authorities

There are 154 local education authorities in England, 32 unitary councils in Scotland, 22 unitary councils in Wales, and 26 district/borough/city councils in Northern Ireland – 234 in all. In order to approach local authority areas to access students, teachers and careers advisers, IES, in consultation with the RCVS, selected a five per cent sample of these (twelve in all – six in England and two from each of the other countries). Selections were based on geographical spread, urban/rural classification, socio-economic groupings and ethnic mix.

The data sources used to inform the selection of councils were:

- 2001 Census data for England and Wales from the Office for National Statistics (ONS)
- 2001 Census data for Scotland from the General Register Office for Scotland (GRO)
- 2001 Census data for Northern Ireland from the Northern Ireland Statistics and Research Agency (NISRA)

- 2004 Rural and Urban Classification Data for England and Wales from ONS
- 2005 Agricultural Census Data for England and Wales from DEFRA
- 2005 Agricultural Census Data for Scotland from the Scottish Executive
- 2005 Agricultural Census Data for Northern Ireland from the Department of Agriculture and Rural Development.

The areas selected are intended to provide a degree of geographical spread, as well as variation in urban/rural mix, ethnicity, and socio-economic status (this has been gauged by levels of educational attainment, levels of unemployment amongst the economically active population, and socio-economic status of population as judged by nature of employment).

Within each area, IES researchers examined local authority data to find out about the location and nature of secondary schools and sixth form colleges, and selected appropriate educational establishments (with back-up choices) to approach. As the project has a widening participation focus, private sector education providers were not included.

2.2.1 England

- **North Cornwall, Cornwall and the Isles of Scilly** – North Cornwall has a mix of rural and urban areas with a relatively high level of agriculture, including animal farming, compared to both Cornwall and England as a whole. This council has lower levels of educational attainment when compared to both the South West and England as a whole. The council has levels of unemployment higher than that for the South West and similar to the national level. The area has around 2,500 students.
- **Teesdale, Durham County** – Teesdale is included as it is predominantly rural including animal farming, and provides representation for the North East. It has a relatively low level of educational attainment and a level of unemployment that is slightly lower than that for England as a whole.
- **London Borough of Camden, London** – this borough is included to provide some representation for London in the sample. The borough is highly urban and has a mix of ethnicities and socio-economic groups.
- **Trafford, Greater Manchester** – this borough is a mix of rural and urban. Parts of this borough border the Cheshire plain, an area of dairy farming. The borough has some ethnic diversity. The borough has a higher level of educational attainment when compared to the North West and England as a whole.
- **Birmingham** – a highly urban area with a high ethnic and socio-economic mix, which provides representation in the sample for the Midlands.

- **Norfolk** – Norfolk has a rural/urban mix with agriculture including animal farming. It has a lower level of educational attainment than the national picture, and is geographically distinct from the other areas above.

2.2.2 Scotland

- **Dundee City** – this is an urban council with an ethnically diverse population when compared to Scotland as a whole. It has higher levels of unemployment and lower levels of educational attainment when compared to Scotland as a whole.
- **Dumfries and Galloway** – this rural council is selected as it has agriculture involving animal farming, but is similar to Dundee City in that it has lower levels of educational attainment and a slightly higher level of unemployment when compared to Scotland as a whole.

2.2.3 Northern Ireland

- **Castlereagh** – this is an urban council with nearly 3,000 students, some ethnic diversity, and with a higher level of educational attainment and a lower level of unemployment when compared with Northern Ireland as a whole.
- **Omagh –** this is a rural council and is an area in which animal farming takes place. It has some ethnic diversity and a low level of educational attainment, in terms of both the proportion of the population with no qualifications and the proportion with high-level qualifications.

2.2.4 Wales

- **Gwynedd –** this rural area has animal farming. It is similar to the national picture with regards to unemployment and educational attainment.
- **Swansea –** this urban area is geographically distant from Gwynedd and has some ethnic diversity. Educational attainment and unemployment are better than the national picture.

2.3 Focus groups with students

Ten focus groups, incorporating 91 students, were held in schools across seven of the chosen LEA areas. These areas were Trafford, Durham, Norfolk and Cornwall in England; Dumfries in Scotland; Gwynedd in Wales; and Omagh in Northern Ireland. In Durham and Gwynedd IES researchers talked to both A-level and GCSE students in separate groups. In all other areas, they met A-level students only (Scottish Higher students in Dumfries). The size of each focus group ranged from seven to ten participants.

Unfortunately it proved impossible to access students in Dundee, Swansea, Castlereagh, Birmingham and Camden, despite repeated efforts. Where unable to visits schools or colleges, IES researchers endeavoured to at least secure telephone interviews with teachers and/or careers advisers.

The discussion guides used for the focus groups were agreed with the RCVS.

2.4 Interviews with teachers and careers advisers

Interviews were conducted with twelve careers advisers, eleven science teachers (five of whom taught Chemistry and six of whom taught Biology) and two heads of sixth form, from across 11 of the 12 local authority areas. Swansea was the only area in which IES researchers were unable to access either a careers adviser or a teacher. The discussion guides used for the interviews were agreed with the RCVS. Wherever possible, the interviews were conducted face-to-face; otherwise, interviews were carried out via the telephone.

2.5 Interviews with veterinary school admissions tutors

Telephone interviews were secured with the admissions tutor in all seven of the veterinary schools in the UK. The discussion guide used for the interviews was agreed with the RCVS.

3 Students' Views: The Student Omnibus Survey

3.1 Background

Each year, Ipsos MORI Social Research Institute conducts an omnibus school-based study of 11 to 16 year-olds. This is entitled the 'Survey of Secondary School Pupils'. It examines young people's views, experiences and aspirations relating to a plethora of different subjects. These subjects range from family and health issues to crime, policing and the way in which the country is run.

On behalf of IES and the RCVS research project, Ipsos MORI included two questions in the 2007 edition of their survey relevant to the current RCVS study. Specifically, these questions asked students whether they would consider working with animals and whether they were considering studying at least one Science subject at A-level.

3.1.1 Methodology

Initially, a nationally representative sample of 300 state secondary and middle schools from across England and Wales, was drawn-up. As Ipsos MORI note, this '*included LEA, voluntary aided/controlled and foundation schools, but excluded special schools and sixth form colleges'*. Of these 300 schools, exactly 100 agreed to participate in the survey, giving a response rate of 33 per cent. At each of these schools, one curriculum year (from Year 7 to Year 11) was randomly selected to be surveyed. Data were ultimately collected from a total of 2,417 students.

Each participating school was visited by an Ipsos MORI researcher. These visits took place between January and March 2007. The researcher explained the purpose of the survey to students and reassured them about any confidentiality issues. He/she then distributed self-completion questionnaires to the students and assisted with completion of these where necessary.

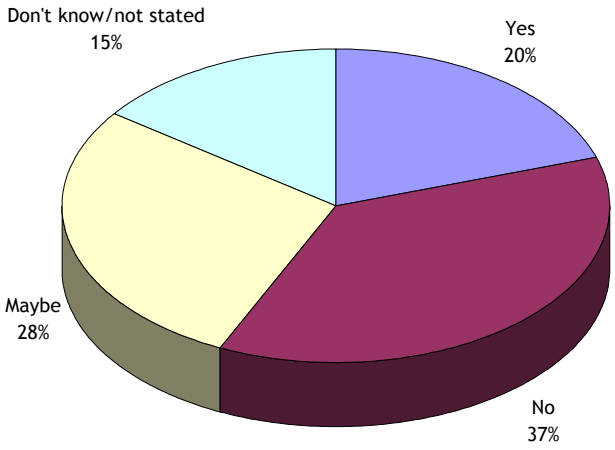
Ipsos Mori emphasise that the survey results are based on a sample only (rather than the entire population) and are therefore subject to sampling tolerances. Furthermore,

the sample included maintained schools only with no representation from the private sector.

3.1.2 Students' thoughts about working with animals

The first of the two questions the students were asked was: '*Would you consider working with animals as a job or career, for example as a vet?*' Almost half (48 per cent) responded that they either definitely would or maybe would. A full breakdown of responses is given in Figure 3.1.

Figure 3.1: Would you consider working with animals as a job or career, for example as a vet?



Source: Ipsos MORI, 2007

Responses to this question differed in many ways between different demographic groups. With regard to gender, slightly more female (25 per cent) than male students (16 per cent) said that they would definitely consider working with animals. Similarly, fewer female (33 per cent) than male students (40 per cent) said that they definitely would *not* consider a career of this type. With regard to ethnicity, white students (22 per cent) were more likely to say they would definitely consider working with animals than black and minority ethnic (BME) students (ten per cent).

Younger students were more positive overall about working with animals, with 25 per cent from Years 7 and 8 saying that they would definitely consider this type of career compared with 20 per cent across all years. Similarly, 47 per cent of students in Years 9 to 11 responded that they definitely would *not* consider working with animals, compared with 25 per cent in Years 7 and 8. Across all years, however, those with two working parents were found to be more likely to say they would *not* consider working with animals than those with only one working parent, although differences here were slight (39 per cent compared with 34 per cent respectively).

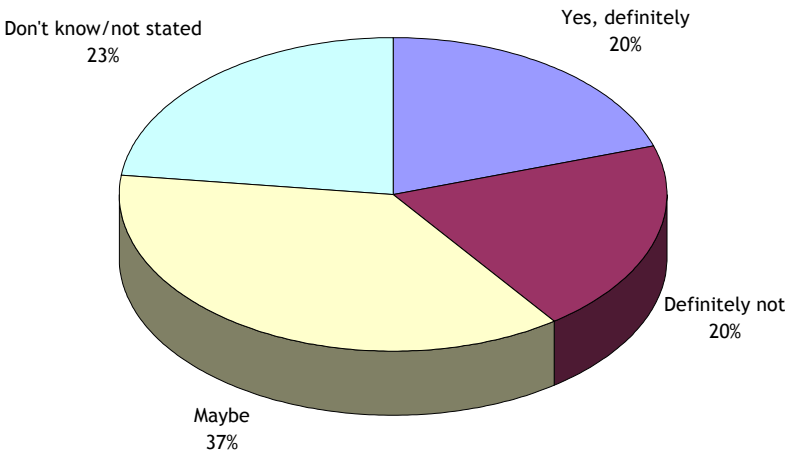
Some response differences were also found between geographic locations. However, in general, there were no major differences between responses from rural and urban

areas. The regions in which the highest proportions of students would definitely consider working with animals were Wales and the North East of England. The areas in which the highest proportions of students would definitely *not* consider working with animals were London and Yorkshire and Humberside.

3.1.3 Students' thoughts about studying Science

The second question students were asked was: '*After your GCSEs, do you think you will go on to study one or more Science subjects (Biology, Chemistry, Physics) at A-level*?' Most of those surveyed appeared to be undecided about this matter, with 37 per cent responding '*maybe*' and a further 23 per cent either not giving an answer or stating that they did not know. A full breakdown of responses is given in **F**igure 3.2.

Figure 3.2: After your GCSEs, do you think you will go on to study one or more Science subjects (Biology, Chemistry, Physics) at A-level?



Source: Ipsos MORI, 2007

Again, there were some differences in responses to this question by demographic group. As Ipsos MORI note, *'perhaps unsurprisingly because of the school stage which they are at, younger pupils are most likely to be unsure about whether or not they will go on to study one or more science subjects at A-level'*. Forty-one per cent of those in Year 7 to 9 responded 'maybe' to this question, compared to only 30 per cent in Years 10 and 11. Older students tended to have made a definite decision, with 22 per cent of those in Years 10 and 11 planning to definitely study a Science and 30 per cent definitely not to (compared with 19 per cent and 15 per cent respectively for those in the youngest three years).

Slightly more male students (21 per cent) were definitely intending to study one or more Science subjects than female students (18 per cent). Differences between ethnic groups were more pronounced, with 26 per cent of students from the BME group intending to study a Science compared with only 18 per cent of white students.

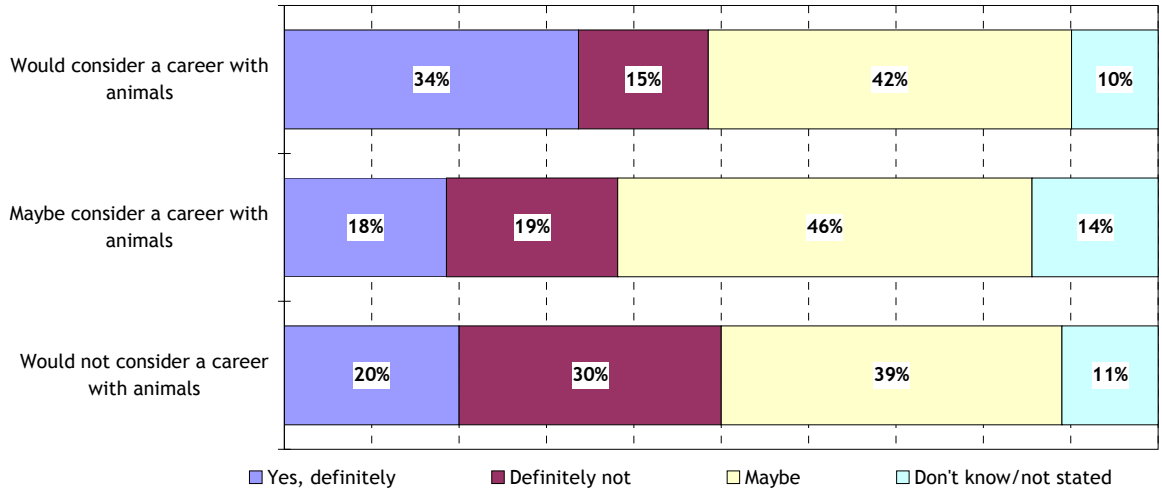
Science was found to be particularly popular amongst Asian students, with 31 per cent of these planning to study it at A-level.

Most likely to report that they had *no* intention to study Science at A-level were those from single parent households (24 per cent), those living in rural areas (24 per cent) and those from the South East of England and from Yorkshire and Humberside (24 per cent and 31 per cent respectively).

3.1.4 Comparing responses to the two questions

Figure 3.3 shows how students responses to the question about their likelihood of working with animals compared with their responses to the question about their likelihood of pursuing at least one Science subject at A-level. As Ipsos MORI note: '*Importantly, those pupils who would consider working with animals as a career or job, for example as a vet, are more likely to feel that they will definitely or maybe go on to study one or more Science subjects at A-level (76 per cent compared with 59 per cent)'.*

Figure 3.3: Intention to study Science at A-level, compared to views about working with animals



Source: Ipsos MORI, 2007

Nonetheless, there were found to be some demographic inconsistencies between the students most likely to consider working with animals and those intending to study Science at A-level. Most notably, female students and white students were the most likely to consider animal-related careers, male students and those from BME backgrounds were the most likely to show a preference for studying Science.

4 Students' Views: Focus Groups

4.1 Student profile

Ten focus groups, incorporating 91 students, were held in schools across seven LEA areas. These areas were Trafford, Durham, Norfolk and Cornwall in England; Dumfries in Scotland; Gwynedd in Wales; and Omagh in Northern Ireland. In Durham and Gwynedd we talked to both A-level and GCSE students in separate groups. In all other areas, we met A-level students only (Scottish Higher students in Dumfries). The size of each focus group ranged from seven to ten participants.

All participating students were studying science subjects at the time of our discussions. All students in the GCSE groups were studying three separate Science subjects, and all the A-level/Scottish Higher students were studying Chemistry or Biology or both.

A total of 39 male and 52 female students attended the focus groups. They ranged in age from 14 to 18, with a median age of 17. Eighty-four of the 91 students stated their ethnic origin as 'White'. There was one student from each of the ethnic groups Asian, Chinese and Mixed, and two from each of the groups Black and Arab.

Thirty-seven of the 91 students gave their religion as 'Christian', while three responded 'Muslim' and one 'Sikh'. Forty-four participants stated that they had no religion, and six declined to give this information.

The students were asked a range of open questions about their experiences of owning and working with animals; their knowledge of veterinary work and perceptions of veterinary careers; and their access to and use of information regarding relevant degree courses and employment options. Students were encouraged to contribute as fully as possible to the discussions, even if they had no personal interest in becoming vets.

4.2 Experience of animals and animal work

The majority of students in our focus groups owned one or more small animals as family pets. The most common pets were dogs, cats, rabbits and fish. The only LEA area in which a minority of students owned pets was Trafford. Several students who attended schools in rural areas also had their own horses or ponies, which they fed and groomed. A small number reported that they went horse riding, or had done in the past, while one student had been involved in equine showcasing events.

There tended to be one or two students at each school who had had some experience of farm work, through having lived, stayed or worked on a farm. They had generally carried out tasks such as feeding, mucking out and moving the animals. Two had helped milk cows and another two had observed and assisted with lambing. The students appeared to have largely enjoyed these activities, though they often described them as '*hard work*'.

A number of students had had contact with animals in other capacities: for example through part-time jobs at pet shops, doing work experience at dog kennels, and taking part in ecology field trips.

4.3 Knowledge of veterinary practice

Very few students in the focus groups had personal acquaintances who were vets. However, most students (with the notable exception of those in Trafford) had visited a veterinary surgery at one time or another in order to have a pet attended to. They tended not to have formed lasting impressions of these visits, but such opinion as existed was quite varied. Some remembered the practices they had visited as being clean and efficient with friendly staff, while others recalled surgeries being untidy, smelly, or unwelcoming. Several students made comments at this point about the high costs of veterinary care.

A total of seven students across all the case study groups had done work experience at a veterinary practice, and all came from schools in largely rural areas. They had been given varying degrees of responsibility and involvement at these placements, ranging from basic observation and shadowing, through preparation and administration of injections, to hands-on surgical work. For four out of the seven students, the experience had confirmed their interest in pursuing a veterinary career.

When questioned about the type of activities that veterinary work involves, students displayed a reasonable breadth of knowledge, though this often related primarily to small animal or farm work. Some of the activities most frequently mentioned were vaccinations, surgical work, medication, birthing, neutering and putting animals down. However, a small number of students – often those who had expressed an interest in veterinary careers – identified less conventional aspects of veterinary work, such as laboratory analysis, disease testing and control, dietary advice, artificial

insemination, abattoir inspection, and the checking of quarantined animals from overseas.

4.4 Perceptions of veterinary careers

Most of the students in our focus groups, including those who had no interest in studying veterinary science, said that they believed veterinary medicine was a 'good' career, and that vets were respected people, especially in the eyes of those who keep animals and who rely on their services. They commented that these people will place a lot of trust in their vets, whose skills may mean the difference between life and death for a well-loved pet or valued farm animal. The fact that vets must be well qualified, undergo lengthy training, work long hours and can command high salaries, were also identified as reasons for their high social standing. The majority of students thought that being a vet would be a personally rewarding career.

There was an amount of discussion surrounding the comparative status of vets and doctors. Some students saw veterinary science as 'superior' to conventional medicine in this regard. They mentioned that vets must have in-depth knowledge of the anatomy of many different animals, whereas doctors need only learn about humans. They also commented that diagnosis may be harder in an animal, because it cannot communicate anything of its condition to you; that vets must act as dentists as well as doctors; and that animals are more likely to die under anaesthetic, thus increasing the burden of responsibility and risk of failure.

Conversely, a number of students suggested that it is doctors who have the higher social standing, because many people would say that human lives are more valuable than those of animals. One participant commented that vets simply do not get the same public profile as doctors, and indeed few students could recall instances of vets appearing in the media. Another student, who had done some research into veterinary science courses, claimed that newly qualified vets earned only '*half the amount*' of doctors at the same stage of their career.

Up to half of the focus group students at each school expressed a possible interest in working with animals in some capacity, with around half a dozen across the sample as a whole stating a definite intention to study veterinary science at university. These students had generally held their aspirations from a young age, had grown up around animals, and were attracted to the variety and challenge of veterinary work. Some of the related areas of interest discussed were marine biology, conservation, zoology, and work abroad with reptiles or wild animals.

Two students in different groups mentioned that they were open to the possibility of becoming either a veterinary surgeon or a veterinary nurse, depending on the grades they achieved at A-level. One of these students commented that she preferred the idea of veterinary nursing, as it was a more caring and less medically-orientated role.

Several students with a tentative interest in animal-related careers were also considering studying Medicine. When probed as to why a veterinary career might be more appealing than working as a doctor, they mentioned that they might have more compassion for sick animals than for humans, as animals are unable to help themselves and suffer without outwardly complaining.

A small number of students mentioned that they had at some time considered veterinary medicine as a career, but had since decided against it. Sometimes this was because they had latterly identified a specialist area of animal-related work (as per the examples given above) that they wished to pursue instead. Others tended to have been deterred by the A-level grade requirements set down by universities. One student was particularly disappointed that her lower-than-expected Chemistry GCSE grade had prevented her from studying the subject at A-level and halted her long-held hopes of applying to veterinary school.

Finally, students were asked to think about the downsides of being a vet, and, if applicable, the reasons why they personally would not want to pursue a veterinary career.

Students frequently raised the point that there is stiff competition for places at veterinary schools; that the qualification process is lengthy and difficult; and that graduates are not necessarily guaranteed a job at the end of their studies. They argued that to study Veterinary Science effectively places you on a one-track career path, and that if you subsequently cannot get a job as a vet then there are few meaningful alternatives open to you. Some mentioned that they did not want to '*get their hopes up*' by committing themselves to this path when they were not sure it would end in success.

Another common theme was that students did not think they would cope well with the responsibilities inherent in being a vet, especially the strong expectations from clients to restore their animals to health. Many commented that they would find it emotionally difficult to put down a sick animal and to see the unhappiness this brought to its owners. More generally, they talked about the intensive nature of veterinary work, the anti-social hours, and the fact that vets cannot have 'off days', as reasons why they did not consider this an appealing career.

Some of the students envisaged personal risks in being a vet, such as being attacked, injured or infected by animals in their care. Two students mentioned that they had allergies that would make working with animals difficult. Several also claimed that they would be too squeamish to carry out certain aspects of veterinary work, such as performing operations or assisting with births.

A number of students commented that this was simply not an area of interest for them: some because they disliked or were scared of animals, and others because they had already decided on a different career. A common response at the school in

Trafford, where most participants came from minority ethnic groups, was that parental expectations were high for their offspring to enter the medical profession.

4.5 Opinions on university and careers information

With the exception of those students who intended to apply to veterinary school, few participants were aware of which UK universities offered courses in veterinary science. However, most students believed that applicants would probably need three grade As at A-level in order to be considered. They thought that Chemistry, Biology and Maths might be the best subjects to have studied.

Students generally recognised that they would be expected to demonstrate work experience in a relevant area, and thought that the extent and nature of this experience might be used to choose between applicants of comparable academic ability. As a rule, any aspiring vets in the focus groups had already obtained at least some of the requisite number of weeks' work experience. Most others felt that they would not have sufficient quantity or quality of experience to cite on an application to veterinary school.

From a hypothetical point of view, students largely felt that it would not be difficult for them to obtain animal-related work experience. Those attending school in rural areas mentioned that there were plenty of potential openings in the locality, including veterinary surgeries, kennels, stables, pet shops and animal charities. Most students said they would be happy to approach these places with work experience requests, and believed they would be accepted as long as they could show they had serious intentions. At the same time, they acknowledged that it would help to '*know the right people*'.

Students at schools in urban areas tended to be a little more negative about work experience options, believing that their young age and inexperience would count against them if they were to ask for a placement. One Trafford-based student had applied for work experience with an animal charity, but turned it down when told that she would only be given basic tasks, such as dog-walking.

In general, only the students with express interest in becoming vets had sought out careers material relating to veterinary science. One reported having looked for information on the RCVS and UCAS websites, which, he said, told him everything he needed to know. Another had consulted the relevant university prospectuses, but was less positive about their content: she felt that they understated the grade and work experience requirements for veterinary science courses.

None of the students reported having attended a school careers talk by a vet, although one had visited a local careers fair at which Cambridge University's veterinary school had a stall. Most had not heard of the 'taster' career workshops run by different veterinary schools; however, one student reported that her brother had attended the

Nottingham University workshop and that this had helped confirm his intention to study Veterinary Science.

Whilst the majority of students were aware that 'Access' courses were available in relation to certain degree subjects, none had heard of these being relevant to Veterinary Science. A small number of students (largely those who were concerned about their A-level science grades) said that this might make them reconsider applying to study to be a vet.

5 Veterinary Careers Information

5.1 Sources of information

An early trawl through the Internet by an IES researcher revealed a variety of sources of information easily available. Useful websites included:

- British Veterinary Association (www.bva.co.uk)
- British Veterinary Nursing Association (www.bvna.org.uk)
- Royal College of Veterinary Surgeons (www.rcvs.org.uk).

The British Veterinary Association website is mainly provided for those already within the veterinary profession, although it does have a section giving information to those interested in working with animals (as well as links to other useful websites such as the British Veterinary Nursing Association).

A range of private organisations also have information available about becoming a vet. For example the Calder Veterinary group offers online information which is written in an accessible and easy to understand style.

Charitable organisations, such as The People's Dispensary for Sick Animals, also provides information about the full range of careers available to those who wish to work with animals.

The How2become (www.how2become.co.uk) website sells a CD detailing information regarding the training required of those wishing to become a vet; the CD also contains information concerning the various careers open to those who complete the training.

Learn Direct (www.learndirect.co.uk) has comprehensive information concerning the process of qualifying to be a veterinary surgeon and gives information about what the job entails. Working with Animals (www.workwithanimals.com) also has some information about becoming a vet, but is more focused upon kennel work.

The BBC (www.bbc.co.uk/cbbc/wild/working/) provides a lot of easy-to-access information about becoming a veterinary nurse including a photo case-book, game

and written information directed at those who are at school and considering their options.

5.2 Search terms used

'Vet courses', 'Working as a vet', 'Training to be a vet', 'Vet qualifications', 'Becoming a vet' and 'Working with animals' were all successful in finding relevant web-sites, suggesting that a prospective student with access to the Internet should have no difficulty in finding out about veterinary careers. Having found out which universities offer veterinary courses via the above search terms, it is then very straightforward to enter the name of the university and send for, or download, prospectuses and other relevant material. Lack of Internet access at home should not prevent any interested student from accessing information, as all secondary schools and sixth form colleges have computers with Internet access available to students.

5.3 Assessment of web-sites

The most likely web-sites that potential students are likely to 'hit' when carrying out searches are the BVA and RCVS sites. The BVA site has a useful downloadable presentation called 'A guide to careers in the veterinary profession' which has images of vets at work and information about what it is like to work in the profession. This is an informative resource but there are two aspects that may give the wrong impression to enquirers. Firstly, one slide gives salary information that is out-of-date (2003). Secondly, another slide states that 'realistically you need to have or be predicted to achieve straight As at A-level'. This statement is not accurate and may put off some enquirers at an early stage. However, the BVA web-site contains a link to the RCVS web-site, in which the grade requirements are accurately described. Neither site, however, mentions the options available to potential students from widening participation backgrounds who may be able to enter veterinary school with somewhat lower grades.

The BVA and RCVS web-sites both have information about being a veterinary nurse, and have links to the BVNA web-site; here, enquirers can find out about the entry requirements and qualification paths open to potential veterinary nurses.

As mentioned above, there is an attractive and informative section on the CBBC area of the BBC website (www.bbc.co.uk/cbbc/wild/working/) about careers with animals, including becoming a vet or a veterinary nurse. The entry requirement for veterinary school are described correctly, although the newest school, Nottingham, is omitted from the list – and again there is no mention of the widening participation options.

In general, the web-sites visited were consistent in their portrayal of the profession, and used words and images to show the different options available to vets. The people portrayed were both male and female, mostly fairly young, and almost exclusively white.

6 Views of Teachers and Careers Advisers

6.1 Interviewee characteristics

In total, interviews were conducted with twelve careers advisers, eleven Science teachers (five of whom taught Chemistry and six of whom taught Biology) and two heads of sixth form, from across 11 of the 12 selected areas; only Swansea was not covered, despite repeated efforts. Except where noted, the responses of these three groups did not differ significantly from each other.

The schools in which these staff worked ranged from mixed ability to generally high ability. They included: a school in Birmingham where approximately 90 per cent were from ethnic minorities (mainly Pakistani); a school in Central London with a high proportion of Jewish and Asian students; a school in Greater London with a high proportion of Afro-Caribbean and Turkish students; and a school in Trafford with a large number of Asian students. The remainder were predominantly white.

Although great care was taken to ensure that the case study areas covered the entire urban to rural spectrum, some of those interviewed commented that these distinctions were not necessarily very meaningful. For example, one school was located on the outskirts of a city but its students were '*bussed in*' from all directions and thus came from a mixture of city and country backgrounds (including some from farms). One head of sixth form commented that, despite living in a largely rural area, most of his students '*lived like townies*' and were very unengaged with nature!

All careers advisers in England were employed by Connexions and either worked exclusively at one or two schools, or else combined work in one school with work in the local community. Elsewhere in the UK, careers advisers were employed by one specific school.

6.2 Veterinary Science within the school Science curriculum

All Science teachers were asked whether any of the curricula they taught contained any material relevant to Veterinary Science.

Those who taught Chemistry felt there was very little of direct relevance in either the GCSE or A-level syllabuses. Some mentioned that the A-level syllabus contained a fair amount of material on medical drugs and biochemistry but that this almost always pertained to humans rather than animals. Most felt that the curriculum was full enough without there being any room for specialist areas – '*something else would have to go*'.

Those who taught Biology also mentioned that their curricula tended to focus on humans rather than animals. However several mentioned some topics of indirect relevance, such as animal behaviour, animal classification, intensive farming, ethics, agriculture, and conservation issues. Again it was explained that what is taught is dictated by the exam syllabus and that there is insufficient time to cover anything else. However one teacher said that she believed students with a strong interest in animals tended to find out more about them by themselves (*eg* by watching Discovery Channel documentaries).

6.3 Frequency of queries about working with animals

Frequency of queries about working with animals in general ranged from very low to fairly high. Those reporting the most student interest came from a high ability girls' school in Central London (possibly because girls in general show greater interest in animals than boys?) and a mixed comprehensive in Scotland. The latter had a local college with a popular 'Animal Care' course (preparing students for jobs such as working in kennels) and had a long history of sending students onto this.

As for queries about veterinary science in particular, some reported '*a flurry of interest in the younger years'*. For example, a careers adviser reported that there were a fair number of queries in Year 10 when students chose their work experience placements. Similarly, a Chemistry teacher reported that parents had sometimes enquired about grade requirements for veterinary science at Year 9 parents' evenings.

However this interest was unanimously said to '*tail off as students get a more realistic picture of what being a vet really involves'*. So much so, in fact, that serious queries from those at the point of choosing A-level subjects or higher were fairly infrequent. Many advisers received less than one such query a year. Most knew of only a tiny handful of students who had ultimately gone on to attend veterinary schools in the entire span of their careers.

In comparison, most of those interviewed said that they received a much larger number of queries about studying Medicine. In general, frequency of queries about Veterinary Science courses was thought to be roughly on a par with that of queries about Pharmacy and Dentistry. For example, at one high-achieving Irish school, the careers department is '*truly inundated with queries about medicine'*. Of 40 to 45 studying Chemistry A-level each year here, around 20 go on to medical schools yet only one or two to veterinary or dental schools.

It appears, however, that teachers and advisers are not always necessarily good sources of information about their students' career plans. In two schools there were interested students, both in Year 12, of whom staff did not appear to be aware. This suggests that many potential veterinary students are independent in finding out information for themselves and may not discuss their ideas with their teachers or advisers first. This was supported by the findings of the student focus groups conducted by IES researchers.

6.4 How queries about Veterinary Science are handled

For a large number of those interviewed, the first step upon hearing a student was interested in the veterinary profession would be to set them up with some relevant work experience. Many stated that they preferred for students to gain first-hand impressions of what the career was like rather than simply to pass on their own limited and possibly biased knowledge.

One careers adviser from a rural comprehensive school mentioned that she would ensure students realised they may need to sit the BMAT for entry to veterinary school, as she had found many were not aware of this. Only one interviewee said that she gave students advice about different career options open to vets, saying that she would make students aware that vets may choose to work in research or advisory roles rather than general practice.

Very few said that they referred students to specific information leaflets. Instead they were much more likely to send them directly to the veterinary schools' own websites. Interestingly, a number of schools apparently only tend to stock hard-copy prospectuses from relatively local universities as their students generally opt to stay close to home (sometimes for financial reasons, although not always). This was particularly true in the North and outside of England.

6.5 Opinions on existing careers material

Most interviewees commented that they had received very little careers material about veterinary science, particularly in comparison to other careers. '*There is lots on teaching, the army, the police… why not vets*?' said one adviser. Some could recall a leaflet or two having been sent at some point but could not comment on specific details from memory. A few were not aware of any existing literature at all.

Only two were able to offer comment on the available careers material, both expressing a particular preference for the series 'Key Clips'. They praised these leaflets for suggesting relevant websites to visit, discussing entry requirements, giving a balanced view of the veterinary profession (explicitly presenting good points and bad points), and suggesting related careers. One also said he had found the RCVS website helpful.

Almost all careers advisers reported that they regularly used careers software packages and questionnaires, the most popular of which were Discourse, Odyssey, Kudos and Centigrade. Less popular were Fast Tomato and Adult Directions. As far as those interviewed were aware, both 'vet' and 'veterinary nurse' are suggested as a career options on all of these.

6.6 Knowledge about Veterinary Science

As a general rule, the more academically focused a school was, the more its teachers and advisers knew about entry to the veterinary profession and the more confident they were in their knowledge. Certainly they were more likely to be able to name the UK veterinary schools. Some knew of one or two (sometimes due to a personal connection) and others none at all. Those in Scotland tended only to know of the Scottish ones. The number of veterinary schools was often overestimated and some expressed surprise that there were so few. Several however pointed out that they could very easily look this information up if needed (*eg* on the UCAS website).

As for grades requirements, all said they believed these would be extremely high. Some of the higher achieving schools were obviously quite used to contacting universities directly to check these and to query individual cases (*eg* to check that a particular combination of A-levels was suitable). Two teachers mentioned a booklet by Brian Heap. This gives details of grades required by particular university courses, whether certain subject combinations are preferred, the ratio of applications to place, *etc*. all based on the previous year's application cohort.

Interestingly, one inner city Connexions worker who worked in the community as well as being attached to a school, felt that his knowledge had been '*diluted*' over recent years. This was due to the increasingly wide focus of his job and greater government attention on the NEET (Not in Education, Employment or Training) group. Because so much of his time is now spent trying to motivate NEETs, he now knows much less about high-level careers and is no longer able to talk confidently without literature.

A small minority perceived that they had no real need to know a great deal about Veterinary Science as it was so unusual for them to come across a student with sufficient academic ability to pursue it (*'We only get a very small number of really bright students trickling through and it's rare to get anyone with straight As in the Sciences'*).

6.7 Thoughts on students unlikely to meet entry requirements

There was a general feeling that, once they have reached the point of selecting A-levels, most students realise whether entry to veterinary school is a realistic goal for them. It is unusual to have to steer away a student at this stage who is very unlikely to meet the entry requirements. It may sometimes be necessary however to dissuade

younger students and virtually all stated that they would do this if required. Usually it was felt that to do so would be in the best interests of the student concerned and that it would be unfair '*to build their hopes up'*.

Several interviewees mentioned that there is a large academic gap between Veterinary Science and the obvious alternatives. Students who fall narrowly short of the grade requirements are not likely to want to be a veterinary nurse for example (although those who are much less academic might). A few suggested related degrees as alternatives, such as Zoology or Equine Science. One careers adviser said that, as a last resort, he might suggest doing a more general Science degree first and then a Veterinary Science course, although noted that this would take around nine years to complete.

One Chemistry teacher appeared to not quite appreciate the intensity of competition for admission to the profession and stated that '*there is the clearing system and students can always do resits*'. He also said he might advise a less able candidate to perhaps apply to two or three veterinary courses and three or four alternative courses as a back-up.

6.8 Work experience

Again, the more academic schools generally showed greater awareness of the work experience requirement for entry to veterinary schools. They appreciated the importance of demonstrating '*sustained commitment over a long period, not just a one-off token week*'. They were also more likely to realise that a variety of experiences is preferable, *eg* some with large farm animals and some with domestic pets. One such school had a database of past students able to offer work experience, including several vets.

Staff at the more mixed ability schools sometimes did not realise up to six weeks were required and, even if they did, often felt this was a lot. Some said that only two weeks were allotted for work experience each year and that students may be reluctant to give up time outside of these because they need to take paid jobs. Some admitted that they tended to think of vets as predominantly working with small animals. Curiously, this did not appear to be related to how rural or urban their surroundings were.

Only in one area (Birmingham) was it felt that students were limited in work experience opportunities due to urban location. The adviser interviewed mentioned an excellent animal centre at Leamington Spa offering work experience but said that this would involve a journey of 20 miles or so – '*not really feasible*'. In contrast, an adviser in Central London felt that her students had many opportunities to work with animals and mentioned particularly strong links with the local Kentish Town city farm where many had done work experience.

6.9 Careers evenings

Around half of schools were reported to have some form of careers evening, usually taking place annually. In one case this was a city-wide event rather than specific to the individual school. The focus was more often on entry to higher education rather than ultimate careers, with representatives visiting from different university courses. One school in Ireland however invited representatives from different professions, including a vet. '*Although the number of students who approach his stand is fairly small*,' said the school's careers adviser, '*he is able to offer good realistic advice and has been able to help students with setting up work experience in the past*'.

Aside from this, representation of the veterinary profession at such events was found to be fairly poor. Reasons interviewees suggested for this were: lack of personal contacts with relevant individuals (often a database of parents or past pupils is used and this may well not include a vet); lack of a space at the venue (meaning priority is given to more popular careers); and, in one case, difficulty of attracting representatives to a relatively inaccessible area (North Norfolk).

6.10 Thoughts on students well-suited to Veterinary Science

A small minority of careers advisers (although not teachers) said that they were reluctant to '*hold any preconceptions'* about the types of students best suited to particular careers. They did not see it as their role to steer students towards or away from certain areas, preferring for them to develop their own ideas.

The remainder, however, almost all mentioned that potential vets would need to be very academically able, well-motivated, highly committed to the profession, and '*willing to get their hands dirty*.' One commented that '*they would need to be a good all-rounder – many forget about the people skills involved in addition to the animal work*'. Some felt that having a rural background, and thus familiarity with many different animals, would be helpful. One mentioned that being physically strong would be an advantage. Another said she thought it would be beneficial for veterinary schools to use aptitude tests for entry – as physiotherapy departments do – so that potential could be identified rather than '*everything resting on grades*'.

6.11 Motives for studying Veterinary Science

It was unanimously believed that those opting to study Veterinary Science were motivated primarily by a love of animals and, often, strong feelings about animal welfare. These factors were overwhelmingly thought to be of much greater importance than either the high status of the profession or the high earnings it can potentially generate. Some felt this was in direct contrast to Medicine where students were more likely to be drawn to the latter two factors. A few commented that interested students tended to be from agricultural backgrounds and that becoming a

vet was thus '*a natural progression'* for them. Students were generally thought to have been dedicated to the idea from a young age and females were reported to have shown greater interest overall than males.

6.12 Reasons for not pursuing Veterinary Science

In general, it was believed that medicine is a much higher profile profession than Veterinary Science and is thus perhaps a '*more obvious choice*' to students as they have greater familiarity with it. Interestingly, this was thought to be just as true in rural as in urban areas. Some felt that the veterinary profession was not portrayed nearly as positively on television as medicine and that media influences had an important role to play. Others thought that students may – not necessarily correctly – consider Veterinary Science to be '*messier*' and '*dirtier*' than medicine.

At one very multi-racial school it was commented that, '*some students' cultures may not give high importance to animal welfare*'. At another school with a high proportion of Asian students it was explained that '*being a vet is often not seen as a* real *profession by students and their parents*'. There is often an expectation amongst Asian families that the children will go on to study Medicine, Pharmacy or Dentistry. Often they already have relatives in these fields. However, parental pressure to follow particular careers was also mentioned at some of the predominantly white schools, so is not entirely culture-specific. '*Family pressure can be strong*,' said one adviser, '*especially if (a student is) the first person in the family to go to university, which is often the case*'.

It became clear that in Scotland, Wales, Northern Ireland and, to a lesser extent, the North of England, students tend to go to their local universities, in some cases so that they can save money by continuing to live with parents. In Scotland in particular there is a strong tradition of doing this. A careers adviser in Dundee commented that this could be a barrier to his students pursuing Veterinary Science. As there is no veterinary school in Dundee, students would need to relocate. It would take a particularly committed student to do this and the financial burden may be considered high. Furthermore, they would probably be reluctant to attend an English university as this would mean being charged for tuition.

On a more general note, several teachers (although not so much careers advisers) expressed concern about the very low numbers of students now opting to study Science at A-level. Some appeared quite frustrated by very able students – who possibly would have made good vets or other high-level professionals – choosing instead to pursue '*softer options*' such as Media Studies or Photography.

7 Information from Veterinary Schools

7.1 University information

All of the universities that offer a degree in either Veterinary Medicine or Veterinary Science make an extensive amount of information available (in either downloadable or paper based formats) for prospective students. This information includes the grades required to be considered for a place, the course format and further related information, and the types of careers available to individuals upon completion of their course. The nature of subject means that some of the information is going to be technical in nature; in general however the information provided by the universities was accessible and easy to understand.

Veterinary Medicine is highly competitive within the UK and all of the university websites are explicit about requiring high grades (ranging from AAA to ABB, with Chemistry usually being essential) in order for individuals to gain a place on their course. The web-sites are also explicit about how much work is required in order to pass the course and also make it clear that much of the holiday time that the students will have will need to be taken up with work experience. This may discourage some students who need to be gainfully employed during holidays in order to finance their studies.

In terms of the images contained within each university prospectus, although overall they were ethnically mixed, on the veterinary pages there were no overt images of traditionally under represented groups; for example within the RVC prospectus the only images of individuals from BME communities appeared on the 'Widening Participation' and 'Student Life' pages.

All of the universities state that experience of working with animals is either required or suggested for entry to the veterinary course. This may have particular implications for applicants who live in an inner city area and therefore have less access to such work experience, or those who are on low incomes and find it necessary to find paid employment while they are not in education. Much of the work experience offered to

school leavers within the veterinary profession is either unpaid or offers a nominal income.

7.2 Access courses

A number of the universities offer access courses to students who are interested in undertaking a veterinary qualification but are not predicted to gain the necessary qualifications at A-level to begin the degree immediately. The Veterinary Gateway Course (RVC) and the Certificate in Health Science (Lincoln and Nottingham University) both offer students access to a one year course which upon completion could see their entry to the veterinary degree. All of the courses require the passing of A-levels (generally three, including Chemistry, at grade C or above) and state that the student must be the first individual within their family to consider attending university, or come from an area that has low rates of university attendance. The Nottingham University web-site, for example, states that 'The Lincoln Certificate course is specifically aimed at learners from under-represented groups to encourage their progression into the veterinary profession, so that it better reflects the communities it serves.' (Nottingham.ac.uk/vet/about.php). Information about all of the access courses available is provided through the individual university prospects and websites.

7.3 Widening participation policies

All of the universities have in place widening participation policies. The aims of these are to increase participation in higher education among groups with traditionally low levels, while at the same time increasing awareness among these groups of career opportunities within specific subject areas. For all of the universities, the information concerning their policies is available within their web-site and prospectus.

The policies are similar in nature across the universities and include working with local schools and communities, providing summer schools to interested pupils, and undertaking shadowing programmes between school leavers and current graduate students. The widening participation teams also carry out research in the area; for example Glasgow University is exploring how psychometric testing can be used to identify personality traits that would make a child particularly suited to a career in health care.

The University of Glasgow also runs the Vets2be project (which works as a partnership between the university and Glasgow City Council Education Department). The stated aim of this project is to raise awareness of veterinary careers among academically able pupils from community schools within the city. The project aims to offer ongoing support to pupils who have shown both ability and interest in training to be a vet. The project gives such individuals support which includes talks by professionals and 'on the job' visits.

7.4 Open days

All of the veterinary schools and colleges offer open days that give students the opportunity to visit the university and have a taste of what studying would be like. For example the University of Bristol School Pages – a section of the website that gives information specifically for school age pupils about becoming a vet (www.vetschool.bris.ac.uk/schools/) – suggests 'VetQuest'. This is a one-day workshop specifically for students in Years 11 and 12 who are considering a veterinary career.

7.5 Course information

Table 7.1: Course information

University	A-levels required	A-levels preferred	Preferred grades	Access course available	Subjects required	BTEC accepted	Widening participation policy
Bristol	2	3	AAA-AAB	No	Biology and Chemistry	Yes	Yes
Cambridge	3	3	AAA	No	Biology or Chemistry or Physics or Maths	N/A	Yes
Edinburgh	3	3	AAB	No	Chemistry (A) and Biology or either Physics or Maths	No	Yes
Glasgow	3	3	AAB	No	Chemistry (A) and Biology or Physics or Maths	No	Yes
Liverpool	3.5	3.5	AAB	No	Biology and other Sciences	Yes	Yes
Nottingham	3	3	AAB	Certificate in Health Science at Lincoln University	Chemistry, Biology and third subject	N/A	Yes
Royal Veterinary College	3	3	AAA-AAB	Veterinary Gateway Course	Chemistry, Biology and third subject	N/A	Yes

8 Admissions Tutors

8.1 The interviewees

Telephone interviews were conducted by a senior researcher at IES with all seven of the UK's veterinary schools in order to supplement and explore in further detail the more general information available about veterinary schools. In all seven schools, the researcher spoke to the Admissions Tutor for the school (variously described as Admissions Tutor, Head of Admissions, Admissions Sub-Dean, Convenor of Veterinary Pool Admissions and Director of Admissions). In one university, the Director of Academic Support and Administration was also interviewed.

Findings are described below, firstly overall and then by university.

8.2 Overall findings

8.2.1 Pre-application activities

The importance of pre-entry activities of institutions is ascribed to increasing competition between veterinary schools. All undertake activities to encourage applications and support successful applications, for example making individuals aware of what they need get in (especially subjects to be studied at A-level and the range and amount of work experience needed).

There is an increasing focus on Widening Participation (especially links with local schools and low participation/achieving schools). There is some flexibility with entry requirements and/or pre-entry activity to encourage application and support successful applications (eg help with forms and help accessing work experience).

There appears to be increasing competition amongst the veterinary schools despite the large numbers of applicants for places. In some schools the numbers of applications outnumber places by more than ten to one, yet schools feel these figures can be misleading as students are likely to apply to other veterinary schools (although UCAS allows for a maximum of four). Some of the schools have increased their student

numbers or have introduced new courses which may be intensifying the competition particularly for those whose intake has remained static. The increased competition for students appears to be increasing the importance of pre-entry activities. Schools are engaging in activities to reach potential applicants and also to develop a relationship with actual applicants as early as possible in the process to promote their own courses:

> *'We are determined to get in there early and to give applicants a good experience of (school).'*

Early work can involve managing expectations and preparing potential applicants for what would be required of them in the application process. This is often facilitated through open days. All of the schools hold open days where students meet with staff and current students and are shown what it is like to study at veterinary school, and they appear to be highly regarded by potential students. The open days also serve a very useful function in preparing applicants, particularly in terms of setting out the minimum academic and work experience requirements and how to evidence these, but also in setting out the qualities that the schools will be looking for in applicants. This generally ensures that by the time individuals apply for a course, they have few, if any, misconceptions about the veterinary profession. Despite these pre-application activities, some of the veterinary schools are concerned that perceptions persist that it is difficult to get on to a course and that this may be putting off some potential applicants to veterinary medicine:

> *'They seem to think it is more difficult than it is… they say things like – you are the most difficult faculty to get into, more difficult than medicine.'*

It is believed that these misconceptions are perpetuated by parents, teachers and careers advisers. Open days can help the schools appear more accessible but students may be put off much earlier in the process of choosing a university course.

Early work can also involve getting able individuals to consider a career in veterinary medicine, particularly those who are under-represented in the profession, and much of this work is directed at local 'feeder' schools, and is set within institution-wide widening participation activity. Some of the widening participation initiatives go further and support individuals in making applications and gaining the necessary amount and range of work experience, this may involve the institution itself providing the placement. Other initiatives support individuals in developing the Science knowledge required for a full course in Veterinary Medicine through intensive study programmes. These entry or bridging courses may have a lower academic entry requirement than the full course, consider applicants with vocational qualifications or take those with 'the wrong A-levels' (though still high achievers). They may also have additional eligibility requirements focused on family income, familial experience of higher education, age and previous school attended.

8.2.2 Application screening

Minimum academic requirements (cut-off) are often as an initial screen. There is an issue about re-sits, with the bar typically being set higher where resits are accepted. The general view is that high grades are needed due to the academic content and intensity of the course. There is some flexibility for those who do not achieve their predicted grades, depending on spaces available.

There is some evidence of firstly increasing flexibility with regard to the Science subjects required, and secondly a move away from requiring all subjects to be Sciences. There is a general view that well-rounded individuals are required for the profession.

Most of the schools have a minimum academic requirement and this often operates as a first sift or screening device enabling those who meet the criteria to move to the next phase of the selection process, and so this part of the process is not competitive. Generally the schools use the predicted grades at level three (*ie* GCE A-levels and Scottish Highers) sometimes alongside the achieved grades at level 2 (*ie* GCSE). However, there are concerns about the possibility that secondary schools/colleges may approach making predictions differently with some giving more optimistic grades than others perhaps would:

> *'Some schools are more honest in their predictions and this could put students at a disadvantage as there is no flexibility in the minimum academic criteria.'*

Indeed one school is so concerned about this that they only use actual grades achieved at level two (*ie* GCSEs) as an indicator of academic ability, rather than predicted grades. The potential for an inconsistent approach amongst secondary schools/colleges has also been cited as the reason for not taking into account AS levels in assessing academic ability as *'some schools don't cash them in'*. In one school there appeared to be some flexibility in the academic requirement in this early stage of the selection process. Here the school report aspect of the UCAS form is used to provide context for predicted grades that fall just beyond the normal accepted range (perhaps explaining mitigating circumstances for lower than expected predicted grades) and applicants from poor performing schools or from a low participation area are discussed to determine whether they might have achieved higher predictions had they attended a different school.

For some schools the minimum academic requirement may also involve students registering for BMAT; however, other schools do not use BMAT in their screening or selection process at all. There is some feeling that these kinds of tests may not show aptitude for Veterinary Science, and that they can be prepared for.

Although most schools have a rigid minimum academic requirement to progress to further stages of the selection process, this tends to be primarily focused at grade with a secondary focus on subject. Some schools require a high grade in Chemistry and/or Biology but increasingly schools are flexible or not prescriptive about the third subject as they feel requiring only Science subjects can be too restricting:

'It must be in an academic subject, not cooking or PE but music, art or history… individuals should be allowed to pursue an interest.'

Indeed one school have monitored the qualifications of their applicants and entrants and found that having three Science A-levels carries no advantage either in likelihood of being offered a place or in terms of performance in the first year of study.

Schools differ in their approach to the treatment of vocational entry qualifications and of mature students. In many, Access qualifications are not accepted as the schools feel unconfident about the quality and precise content of these courses, particularly coverage of sciences, and have found that Access students struggle with the veterinary science course. However, one school has recently developed a list of approved Access courses to tackle this issue, and has made offers to applicants with Access course qualifications for the first time this year:

'It cannot be just any Access course, it needs to have appropriate topics and to have some form of formal exam.'

BTEC National Diplomas were considered by some schools, but again care would be taken to explore the coverage of the qualification and that the individual passed at a high level (three distinctions):

'We would need to equate what was studied to what would be covered in an A-level, in terms of subject and depth.'

Generally mature applicants are required to have the same qualifications as younger applicants, and no accommodation is made for them. This may explain the low numbers of mature entrants to veterinary study: *'it is difficult for them to get the science qualifications'.*

It is generally felt that the high grades required of applicants by the schools are justified due to the intensive nature of the courses and to be able to cope with the transition to studying in a veterinary school:

'It is five years and it is heavy going from the start. The course involves very academic subjects right from the beginning. We need students who can learn, we do not have the time to teach them how to be a good undergraduate. They need to hit the ground running.'

'You have to have reasonably high criteria otherwise they would struggle with the course.'

'High achievers cope well…the programme is very difficult, and is biased towards Chemistry and Biology in the first two years.'

'We have learned from the experience of the medical school who have correlated successful students with entry criteria.'

Although minimum academic criteria are applied rigidly at the screening stage, there was evidence that schools could be more flexible about grades prior to enrolment. Indeed there appeared to be some flexibility for those who do not achieve their

predicted grades but *'were a near miss'*, depending on the number of places available (taking into account how the overall recruitment process is going). Schools would take into account contextual factors such as ill-health or bereavement if someone did not do as well as expected in their exams and would also take into account how well the individual did in the selection process (often returning to interview scores etc). It should be noted that the number of these cases tend to be small.

8.2.3 Work experience

The importance of work experience is stressed, as it provides insight into profession and tests motivation. Sometimes there is a minimum work experience requirement, at other times the stress is on quality not quantity. Work experience is evidenced in various ways including use of a work experience questionnaire. There is an acknowledgement that accessing work experience can be difficult, particularly experience on farms, and this can be taken into account.

In addition to academic requirements, all of the schools require applicants to have some work experience, beyond that of looking after their own animals. Some of the schools set minimum work experience requirements, both in terms of range and amount. This ranges from one week in veterinary practice and one week in a different animal environment, to ten weeks including four weeks in veterinary practice (across at least two different practices) and six weeks animal experience (to include one week at a farm, one week working with horses and one week working with small animals). There was some concern that the work experience requirement could be seen as a 'tick box' exercise and that students were focused on amassing the quantity of experience rather than making the most of their experiences, and this was driving some schools to not state the precise amount of work experience required:

> *'They are so aware of the importance of doing work experience so they are doing weeks and weeks of it in veterinary practices, in stables, in kennels, in catteries, in dairies.'*

> *'They need to have taken it* [the work experience] *in, learned from it, bought into it, it must not be a tick box.'*

Many schools also acknowledge that accessing work experience could be difficult for some groups of students, particularly those living in metropolitan/inner city areas or for those from families with lower incomes:

> *'It can be expensive to get work experience for example arranging a placement, travelling to and from work.'*

> *'Some work every Wednesday and Saturday in a veterinary practice whilst others are fighting to get work experience.'*

In assessing work experience, generally the schools would take into consideration an applicant's personal situation, and whether they had taken reasonable steps to try to

get work experience. Some schools, as noted above, are providing assistance with accessing work experience.

Evidence of work experience can be taken from an applicant's personal statement on the UCAS form. Other schools have moved away from using the personal statement, using instead their own questionnaire to gather information about skills, attributes and work experience. For example, one school has introduced a work experience questionnaire to gather details of start and finish dates, and contact details, and to allow for easier assessment as they felt the personal statement was no longer considered effective:

> *'We feel using the personal statement is unfair as some people get help at school with their statement…you can buy statements on line, many statements are similar so they are no longer personal.'*

Work experience is considered to be particularly important in changing perceptions, testing an individual's commitment to the profession and also building real understanding of the practicalities of being a vet. So the broader the range of experiences/exposure the better:

> *'If you watched it* (being a vet) *on TV you would think it was all cute and cuddly, so we insist that students experience it at first hand, going to abattoirs, seeing crying owners etc.'*

8.2.4 Interviews

The universities generally involve practising vets in the interview process.

The key indicators of good applicant are considered to be good communication skills, knowledge/ understanding of the profession (including topical issues), motivation, and a strong academic profile.

All of the schools have an interview stage in their selection process, and offer decisions are generally made on the basis of interview performance. Individuals who have met the minimum academic requirements, are assessed to have the required work experience and who score well against other criteria are invited to interview. Indeed, some of the schools described a process of a number of assessors independently scoring application forms against a set of given criteria. These criteria can include motivation, communication skills, extra-curricular activities, animal handling, organisational skills, team working skills, initiative and caring/empathy; and generally are evidenced by the personal statement (although as noted earlier, some schools are moving to using their own questionnaire).

One school interviews almost all of their applicants but generally schools interview about half of their applicant pool (the top scoring individuals). This is very time-consuming but is felt to be effective (as evidenced by high participation rates). Interviews are usually conducted by a panel that will involve senior academic staff,

teaching staff and practising vets. One school involves an animal in the interview process to see how well an individual interacts with the animal. Interviews generally follow a formal process but try to make applicants feel relaxed. Questions tend to focus on:

- understanding of science/application of scientific knowledge
- work experience, and what they have learned from the experience
- understanding of the veterinary world/knowledge of the profession
- understanding of topical issues
- ethics and animal welfare
- motivation for wanting to become a vet
- extra-curricular activities/hobbies.

Applicants are also assessed in terms of their communication skills.

> *'We turn away many able applicants at interview, we try and get the very best and than means academically sound with good communication skills, someone who has explored the profession and shows they are keen and motivated…someone with empathy and understanding and sparks of motivation. We need to find out if they really want to be a vet rather than this is what their mum or dad wants them to be.'*

> *'We talk to them to get beyond rote learning, to see how they think and get beyond their* (interview) *preparation.'*

Some of the schools have moved beyond the panel interview to offer a different interview experience. For example, one school has a short interview, followed by a practical assessment to assess numeracy and dexterity, and a group exercise to assess team working skills. Another operates a speed dating system of a series of mini (five minute) interviews over the course of an hour. Each mini session involves a different activity or focus.

8.2.5 Enrolment profile

Disabled students are represented across the veterinary schools but there was no evidence of students with physical disabilities (due to fitness to practise requirements and health and safety issues). Disabilities include deafness, dyslexia, diabetes and a heart condition. If necessary, accommodation is made, particularly for exams.

There appear to be no issues of students not wanting to work with certain animals/animal products.

The schools generally noted a high proportion of female applicants and entrants, and that the vast majority of their intake were young. Schools appeared to have very few

applicants from black and minority ethnic backgrounds, particularly UK domiciled students. One school reported that their faculty had the lowest representation of black and minority ethnic students of the whole university.

The schools do have disabled students on their courses and tend to have mechanisms in place to support any special needs these students have in terms of teaching and assessment. This could involve allowing for extra time in exams, providing a scribe, enabling students to record lectures, lecturers wearing neck microphones when teaching, and putting lecture notes online. Indeed, one school provides all students with a laptop and all lecture notes are provided online. However, the disabilities discussed tended to centre around hearing impairment, dyslexia and diabetes. There appeared to be no evidence of students with physical disabilities on veterinary courses which may be due to the fitness to practise requirement and general health and safety concerns:

> *'It would not be fair for someone to do the course but then not be allowed to practise.'*
>
> *'Veterinary Medicine is regarded as a practical subject and individuals need to be able to handle animals safely.'*

Generally applicants are required to detail any special needs they might have in the early stages of the application process. One school noted that students with a disability may need a medical certificate indicating it would be appropriate for them to come on a Veterinary Science course before they could be accepted. It would appear that cases are reviewed on an individual basis.

None of the schools had encountered any cultural issues around working with certain animals or animal products. They tended to feel that students were made fully aware at the start of the course of the requirement to work with all animals (common domestic species), so this is not an issue.

8.3 Bristol

- This year, there were 1053 applications for 103 HEFCE places; in addition, the university has 17 places for full fee payers.
- UCAS application forms are assessed by an Admissions Committee which looks at GCSE results and predicted grades at level three, the school report (for mitigating circumstances) and the personal statement, particularly for details of work experience.
- The veterinary school requires AAB (to include Chemistry and Biology and any other academic subject) but applicants from identified Widening Participation backgrounds may be given a lower offer to take account of differential achievement rates of some schools. Vocational qualifications are considered by the veterinary school, and are accepted if at an appropriate level and with relevant content. However applicants with vocational qualifications may be required to have A-level

Chemistry. The veterinary school does not use BMAT scores in its assessment of applicants as they have no evidence that BMAT adds any extra information.

- Work experience is considered to be particularly important as it gives students a good insight into the profession. Students are well aware of the need for work experience.
- The course is tough and heavy-going, involving very academic subjects, so high entry grades are needed.
- Approximately half of applicants are interviewed. They are interviewed by a two-person panel including a practising vet where possible.
- Eighty per cent of the intake are female, broadly reflecting the gender split in applications.
- The veterinary school has no problem with retention. They have found that Access students struggled in the past, so do not generally accept such qualifications without additional A-levels, although they may revisit this policy.
- A new pre-veterinary year (year 0) is planned to start in 2008, to get those without A-levels (*ie* those with alternative qualifications) or with the wrong A-levels up to scratch on sciences. This is not for low achievers; it is an intensive year bringing together Medicine and Dentistry students and now Veterinary students. The plan is to take a small number (five) of Veterinary students; if they pass the pre-vet year, they will automatically gain progression to the five-year course. It can act as a bridge to the main course, but does not offer a guaranteed place.
- The veterinary school offers a 'VetQuest' weekend aimed at those choosing A-level subjects. There is a weekend of talks, tours and advice on how to apply to the school. In addition, the university recently ran a day for around 80 careers advisers and teachers from local schools; this included presentations from admissions tutors responsible for entry to professional courses. The veterinary school participated in this day, which was very well-received.

8.4 Cambridge

- The intake is approximately 70 students per year.
- The university has a collegiate system although there is a central admissions process. Interviews are on a college basis, after which all the colleges come together for a veterinary pool meeting to discuss admissions as a whole; applicants may therefore be offered a place by a different college from the one to which they originally applied.

- Entry requirements are consistent across the colleges, and clinicians and other lecturers from the veterinary school are involved in the interview process in all colleges.
- Before interview, applicants are assessed on the basis of GCSEs, A-level predictions and BMAT score with a moderation for school attended.
- The majority of applicants are interviewed, and interviews are seen as a good way to judge future potential and motivation to be a vet. Usually, each applicant has two interviews, a science interview and a personal interview, with the interview usually having a panel of two interviewers.
- The typical offer is AAA (including Chemistry and one other Science, but most applicants have 3 Sciences, and a significant number have a fourth A-level). All applicants are required to take the BMAT.
- Work experience is not considered essential but applicants are expected to have a realistic idea of what being a vet involves. However, some applicants have no real concept of what a being a vet means in practical terms; these would be at risk of dropping out and therefore would be less likely to be offered a place.
- As in the other veterinary schools, most applicants are women.

8.5 Edinburgh

- The University has an intake of approximately 100 veterinary students per year into the five Year BVM&S Programme and approximately 40 to 70 into the 4 Year Graduate Entry Programme. It is a highly-rated course with good retention rates.
- There are stringent academic requirements (applicants are screened for a minimum standard of AAABB Highers, BB Advanced Highers, AAB A-levels, Upper Second Class Degree, GPA of 3.4) including no re-sits. An A grade in Chemistry is required, also applicants must have Biology A-level and one of Maths or Physics, and at least GCSE or Standard Grade Physics. Vocational qualifications and access courses are not accepted. The high standard is required to cope with the transition to studying at the Vet School and also to cope with the course itself, which demands a fundamental understanding of science.
- The University operates a successful summer school programme focusing on under-represented groups in HE involving intensive programmes in chemistry, biology, maths and physics. It can provide individuals with an additional chance to enter the Vet School, as successful completion of the summer school can be set as an additional entry requirement.
- The vital importance of work experience is stressed in the selection process, but the Vet School is not prescriptive about amount (there are concerns about 'just ticking the box'). The Vet School is looking for individuals to have been exposed to a broad

range of animal (including farming) and veterinary work experience, but takes into account applicants' opportunity to access work experience. Work experience is identified through the personal statement on UCAS form, separately submitted work experience references and at interview.

- Other important selection criteria include motivation/commitment, career exploration, communication skills, understanding of the veterinary and animal world, and extra-curricular interests (the Vet School is looking for the well-rounded individual). These attributes are identified through the personal statement, academic reference and at interview.
- If candidates fail to reach their offer grades, extenuating factors can be taken into account (on a case-by-case basis).
- Successful widening participation out-reach work is happening in local schools with a tailored open day on offer, advice evenings, together with support with accessing work experience (including some work experience provision) and with advice on completing the application form. This is a wider university initiative and is not part of the Gateways programme.

8.6 Glasgow

- The school receives approximately 900 applicants, around 200 of whom are interviewed.
- Applications are screened for minimum academic qualifications (AAB including Chemistry and Biology at grade A, although three Sciences are not needed). The school feels high grades are required to cope with the academically demanding programme and the high level of Biology and Chemistry content. No accommodation is made for mature students, who have to have the same A-level requirements.
- Application forms are scored (by three members of the Admissions Committee) on work experience, motivation, extra-curricular activities and communication skills. Top scoring applicants are invited for interview, at which they are interviewed by a panel of three (including a practising vet).
- The university is looking for range of work experience – *ie* working with large and small animals, and non domestic animals – and wants to know what individuals have learned from the work experience.
- The majority of the intake is female. There are very few BME applicants, and none from the UK (some are from overseas).
- There is a low drop out rate and support systems are good.

- There is a successful outreach programme, called GOALS. The programme involves working with young people in local schools to get them interested in studying Veterinary Science. There have been students at the school from the programme.

8.7 Liverpool

- The school received approximately 1,200 applications for 2007 entry, of which 500 applicants were interviewed (approximately 40 per cent).
- The veterinary school feels there is a misconception (spread by parents and schools) that getting into veterinary school is difficult. This puts people off, and the school is trying to combat this.
- There are relatively few male applicants and the majority of students are female. The school believes this is because it is seen as a female profession with not enough pay.
- There is a minimum academic requirement based on predicted grades (AAB at A-level including Biology and one other Science); applicants failing this standard are rejected at this stage. There is some flexibility for those who fail to meet the conditional offer but scored highly at interview, if places are available.
- There has been a recent move to accept Access students but only if these are on a list of approved Access courses, deemed to have appropriate content and a formal examination. The veterinary school will look at students from the London Gateway programme but does not guarantee a place.
- Minimum work experience is a requirement (ten weeks across veterinary practices, farms, stables, small animals etc.), although there is some flexibility with the work experience requirement. The school can take into account difficulties in getting work experience if this minimum criterion is not met. Work experience is evidenced through an additional questionnaire sent to applicants. The school is moving away from using the UCAS personal statement, feeling that it is no longer 'personal', reliable or sufficiently distinctive.
- The school operates a 'speed dating' system of interviews – nine mini interviews/ activities lasting five minutes each, across an hour. This involves academic staff, alumni and vets in practice. Interviewees are scored on different aspects including communication, knowledge of the profession and suitability for the course. Offer decisions are then made on the basis of interview scores.
- The school is working to support access to work experience for applicants who may find this more difficult to achieve, by developing a list of local veterinary practices, and will support applicants in getting placements.

8.8 Royal Veterinary College

- The College feels that people tend to choose Veterinary Science at a very early age; it is not something they just decide to do at the application stage.
- In addition to the five year Veterinary Medicine Programme, the College offers a four-year accelerated programme for graduates and a six year Combined BSc/BVetMed programme. Graduate entry is particularly competitive.
- UCAS forms are screened for a minimum academic entry requirement of ABB (including Biology and Chemistry) at A-level and five GCSEs at A grade including A in Double Science or Biology and Chemistry if taken separately. A minimum grade B is required in English, Maths and Physics if taken separately (though there can be some flexibility here with regard to GCSE grades). Also there is a minimum work experience requirement of one week in a veterinary practice and one week in a different animal environment (eg a farm), evidenced via the personal statement. Applicants must also take the BMAT (BMAT has been used for the last three years).
- Mature students are required to meet the same entry standards although there can be some flexibility with GCSE grades. The College does not currently accept applications from those with Access qualifications.
- The best applicants after screening are interviewed. One of the key aims of the interview is to assess communication skills which are considered essential. There are two rounds of interviews – the first for top students, the second for borderline and graduate entry students. The interview panel consists of two academic staff and, sometimes, one practitioner. Interviewees are scored and this is used to determine whether an offer is made. The BMAT score may also be taken into account.
- Most entrants are female and straight from school. There are few mature entrants because of the stringent entry requirements although there is a significant graduate entry.
- The College also runs a Gateway programme (which started in 2005). It is a one-year programme that has a lower academic entry requirement (CCC) and is aimed at young people attending non selective state schools from low income families and families with no experience of higher education. Successful completion guarantees a place on the main programme. Two other universities with veterinary schools also consider students from this programme. The intake was 20 students last year, 30 this year.

8.9 Nottingham

- The veterinary school received over 1200 applications for approximately 124 places on both their five year course and six year course (which is designed for students without a Science background) for entry in 2007.

- The standard offer is AAB at A-level with As required for Chemistry and Biology. A third Science is not needed. However, students do need the high entry grades in order to cope with the course. Distinction at BTEC, or 70 per cent in an Access qualification, would be accepted, but for the six year course only. BMAT is not required. There is some flexibility in grades for those that come from a 'widening participation' background in that their offer is still AAB, but it may not specify for A grades to be in both Biology and Chemistry.
- The veterinary school has introduced, for this year, a new preliminary year designed for able students who do not have the required Science qualifications but have high academic achievement in non Science or vocational subjects, or have extensive experience. For example, entrants are required to have a minimum of five grade As at GCSE and grades AAB at A-level in any subject (but to include only one of Chemistry or Biology), a 2.1 degree in any subject, DDD at BTEC National Diploma, or Distinction at HND/HNC. Successful completion of the preliminary year allows for direct entry onto the main five-year programme. The preliminary year covers basic Science subjects of animal biology, chemistry and animal care and behaviour and facilitates the development of animal handling/husbandry skills.
- All applicants fill in an on-line questionnaire, and the admissions team also looks at the UCAS form and GCSE (or the most recent exam) results. However, predicted grades are not used as experience from the Medical School had found these are often invalid. The personal statement and online questionnaire is also used to look for evidence about work experience (a minimum of six weeks is required). Precise work experience is not stipulated but a range is preferred; any difficulty in accessing a wide range of work experience (*eg* by inner city applicants) is taken into account.
- There is a structured interview process consisting of a 20 minute interview with two people and an animal, a 20 minute practical assessment and a 20 minute group assessment. University staff, external veterinary professionals and current students are involved in interviewing and assessing candidates. Applicants are ranked and offers are made to the top students irrespective of background or predicted academic attainment.
- The course is very practical and animal-intensive, and a major part of the course is delivered in small group settings so appears to be attracting students with different perspectives on learning. So far, the veterinary school has successfully attracted applicants from widening participation backgrounds, graduates, men, and those with disabilities such as dyslexia. The preliminary year in particular attracts such applicants and also has students who have changed careers. Over one-third of students currently on the main five-year course are considered to be from a 'widening participation' group, according to the university's criteria, and for the new preliminary year, about half are expected to be from these groups.

- There is also a widening participation one-year certificate course delivered at University of Lincoln aimed at those wishing to study Medicine or Veterinary Science; there are places for ten students a year interested in becoming a vet. Students who achieve at least 60 per cent on the certificate get guaranteed entry to the first year of the five-year course. The certificate course won the Times Higher Education Widening Participation Initiative of the Year (2006)Award.
- The veterinary school has monitored its process of selection and has found that students from a widening participation background are not disadvantaged; in fact, it is common that they outperform others. They have also found a gender difference across the selection process with males tending to do less well than females at interview, but this is balanced through higher attainment in the practical task. There is no gender difference seen in the team working test.
- The veterinary school holds four interactive open days a year which are heavily oversubscribed. It also participates in local schemes with schools to attract applicants, and undertakes local and national marketing, publicity and out-reach work, for example sending marketing materials to schools, careers advisers and youth clubs , encouraging current students to visit schools and hosting visits by youth groups such as Brownies and Scouts.
- The veterinary school believes there are misconceptions to overcome, less about the nature of veterinary careers rather about getting into a veterinary school. People think that students have to have straight A grades and that entry is very difficult; this perception is partly fed by careers advisers. There is also a misconception that family experience is needed, or a private school education. Fears about the cost of study may also be putting off potential applicants.

9 Conclusions

The following broad conclusions have been reached by IES researchers, based on the evidence gathered over the past six months.

- Although interest in working with animals is high among younger students, by the time students reach the stage of choosing their A-level subjects this enthusiasm has generally declined. Students who opt for Veterinary Science, however, appear to retain or even develop their interest in animals as they become older.
- Girls tend to be more interested in working with animals than boys, although they are, on average, less likely to opt to study Science at A-level. All of the universities with veterinary schools report that they have a much higher percentage of female applicants and female students than male.
- BME students are more likely to opt for Science subjects at A-level than their white counterparts, but much less likely to want to work with animals or study Veterinary Science. Very few students at the veterinary schools are from a BME background. There is some evidence that students from BME backgrounds are discouraged from working with animals for cultural reasons, or because being a vet is not seen as a 'proper profession'. White students, however, generally regarded the veterinary profession as having high status.
- The Science curriculum for GCSE and A-level tends to have a human, rather than an animal, focus. This may mean that there are limited opportunities for Science teachers to impart knowledge, or have discussions, about aspects of Science that are related to the veterinary profession.
- Careers advisers and teachers tend to perpetuate the misconception that Veterinary Science is very hard to get into. In fact, although it is competitive and requires good grades at A-level, most of the veterinary schools do not insist on three grade As or three Science subjects. Most will also accept students who narrowly miss their predicted or conditional offer grades. Some also have programmes to enable students from 'widening participation' backgrounds to gain a place with grades that are lower than those normally required. Careers advisers, teachers and

students are not necessarily aware of these opportunities, and there is limited evidence that some may be discouraging students who could become vets.

- There is some evidence that students in some geographical areas, or from financially-challenged backgrounds, may find it difficult to fulfil the schools' requirements for relevant work experience. Most schools are willing to make allowances, but again it appears that not all advisers and students know this.
- Financial constraints also appear to act as a potential deterrent in those areas of the UK where students tend to go to universities very close to home; the lack of a local veterinary school may mean that some students are prevented from applying.
- Knowledge about veterinary careers and entry requirements among teachers and careers advisers is patchy, with some being very well informed and others much less so. Although careers material is widely available on the Internet, there is very little, in comparison with other professions, by way of leaflets, pamphlets *etc*. In some schools, only prospectuses of local universities are available, which may give some students an incomplete picture of the opportunities available to study Veterinary Science.
- Students who are very interested in becoming a vet, and who have made an effort to research the profession, seem to have had no difficulty in finding out what they need to know. Veterinary schools report that the majority of applicants have a good understanding of what it is like to be a vet.
- There is some evidence that the student profile of the newest UK veterinary school differs somewhat from those of the other six. In particular, there appear to be more students from 'widening participation' backgrounds, slightly more men, and more mature students. This university, perhaps because its veterinary school is new, is making considerable efforts to market its courses; its marketing materials might be of particular interest to the next stage of this project.