BiGGAR Economics

The Economic Contribution of the Veterinary Sector to the UK

A report to

VETERINARY POLICY RESEARCH FOUNDATION

January 2026

BiGGAR Economics

Contents

Technical Foreword

This economic analysis aims to determine the contribution of 'the veterinary sector' to the UK economy and the population's wellbeing.

The Veterinary Sector

The 'veterinary sector' includes veterinary surgeons (i.e. registered members of the Royal College of Veterinary Surgeons (RCVS)), referred to as 'vets', and a wide range of professionals who are referred to as 'the veterinary team' or similar. Specifically, these include veterinary nurses (referred to as 'veterinary nurses', and including those registered with the RCVS), animal care assistants, veterinary technicians, clinical animal behaviourists, animal physiotherapists, animal dentists, clinical farriers, bovine tuberculosis testers, livestock artificial inseminators, ultrasonographers for pregnancy detection, suitably qualified persons (SQPs) for certain medicine dispensing, foot trimmers, administrative staff in practices and others involved in animal care, as well as veterinary researchers.

Methodological Considerations

The Counterfactual

Throughout this report, assessing the impact that is attributable to vets of different sectors has been achieved by considering the counterfactual. If there was no veterinary involvement in the sub-sector what would the impact be? For example, without veterinary care the number of pets in the UK would likely be significantly lower. These assumptions are discussed in Section 3.3.

Avoiding double counting

Throughout the report, several areas present a risk of double accounting given overlap within related veterinary industries. To avoid overestimating the veterinary sector's contribution, care has been taken to ensure that each source of value is counted only once. Where activities span multiple industries, the economic impact has been attributed to the most appropriate sector with adjustments made to exclude duplication or overlapping contributions. For example, the value of the pet insurance industry has been included, not the value of insurance payouts.

Animal Welfare

It is important to emphasise from the outset that animal welfare is fundamental to the work of the veterinary industry and is therefore considered an intrinsic component to all of the impacts discussed in the report. In cases where animal welfare has a specific economic dimension, such as in farm assurance schemes in the agricultural sector, this is highlighted in the relevant section.

1. Executive Summary

The veterinary sector underpins all activities where animals are involved, with critical roles in animal health and welfare, animal production and food safety, public health and human wellbeing.

In 2023, there were around 30,000 active veterinary surgeons (vets) and 23,500 veterinary nurses in the UK. While the majority work in veterinary practices, they also work in government, industry, commerce, charities and academia. This report also includes the work of the wider veterinary team, including animal care assistants, veterinary technicians, clinical animal behaviourists, animal physiotherapists, animal dentists, clinical farriers, bovine tuberculosis testers, livestock artificial inseminators, ultrasonographers for pregnancy detection, suitably qualified persons (SQPs) for certain medicine dispensing, foot trimmers, administrative staff in practices and others involved in animal care and veterinary researchers.

In addition to working in **veterinary practices**, the veterinary sector supports a range of sub-sectors, including:

- **Animal production and food safety:** the veterinary sector monitors animal health, prevents and treats a range of animal diseases, supports farmer education and wellbeing and ensures that animal food products entering the food system are safe for human consumption;
- **International trade:** official veterinarians enable exports and protect UK biosecurity by certifying that live animals and animal products leaving or entering the UK are free from disease or meet other relevant requirements to protect human and animal health;
- **Public health:** the veterinary sector monitors the emergence of potentially zoonotic diseases, such as highly pathogenic avian influenza, that could lead to high levels of human and/or animal deaths and significant economic consequences, and play a role in antimicrobial stewardship;
- **Pets and domestic animals:** the veterinary sector is essential for the health and wellbeing of pets and domestic animals, reducing morbidity and mortality and supporting a larger healthy pet population;
- **Sport, working animals and zoos:** the veterinary team ensures high welfare standards, prevents disease, and is essential to the sustainability and continued appeal of these animal activities;
- **Veterinary education and research, and veterinary pharmaceuticals:** universities and colleges provide education to student vets, veterinary nurses, and auxillary professions. They also undertake research on animal health alongside specialist institutes, industry and sometimes clinical practice. The veterinary pharmaceuticals sector provides vaccines and medications to support animal health.

Key Results

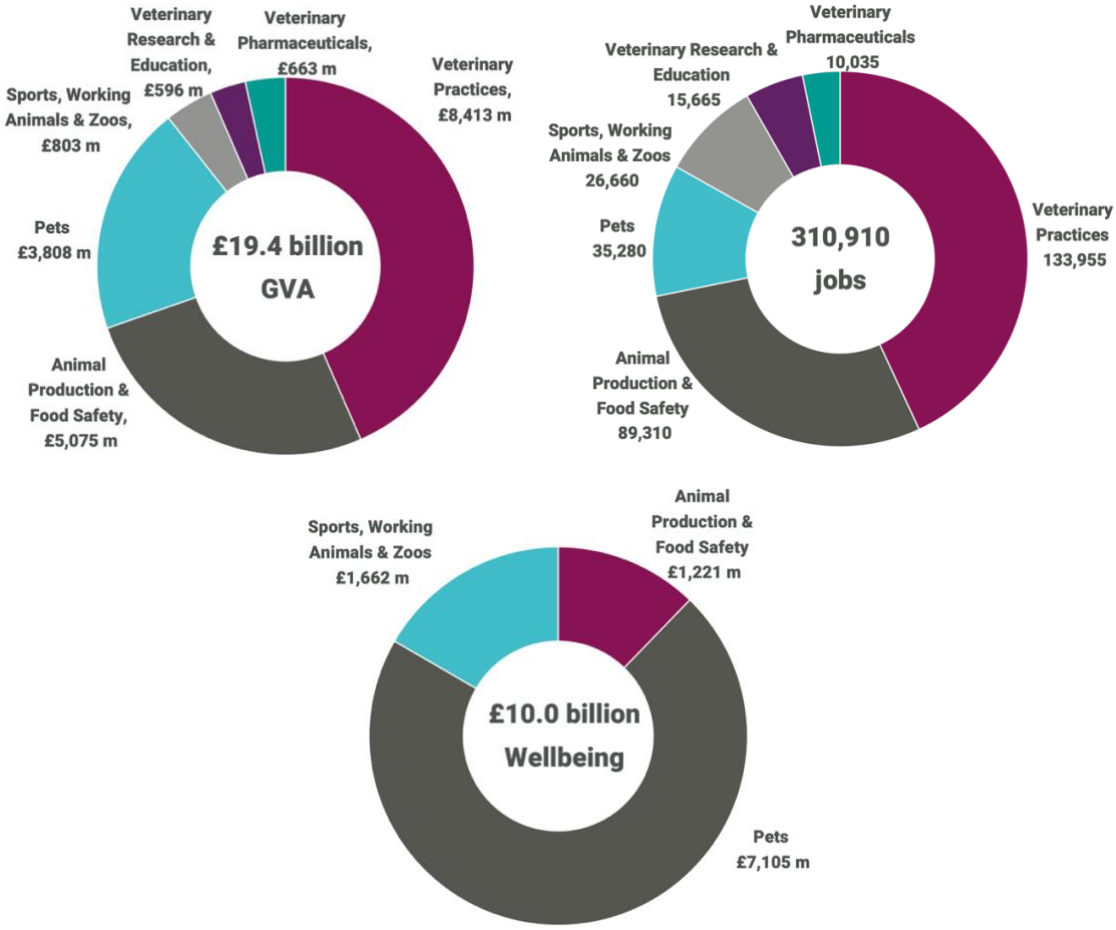
Taken together, it was estimated that the contribution of these sectors was £32.7 billion Gross Value Added (GVA) and 674,470 jobs in the UK economy. In the absence of the veterinary team, some of these sectors could not exist whilst others would be much smaller. The overall impact of the veterinary sector on these sectors was estimated to be **£19.4 billion GVA** and **310,910 jobs**.

The veterinary team also supports **higher human wellbeing** (e.g. from healthier pets, lower healthcare costs, visiting zoos, farmer support). This effect was valued at **£10.0 billion**.

The veterinary team also supports **£4.5 billion in exports** and **£9.7 billion in imports**.

In addition, the sector also prevents epidemic outbreaks of disease, which could have devastating economic costs, potentially leading to the **culling of 1.9 million animals** and resulting in **£1.6 billion in losses** (from the National Risk Register) and also **potentially huge negative economic impacts** from infectious human diseases.

Figure 1-1: Total Economic Impact of Veterinary Sector, by Source



1.1 Veterinary Practices

The **majority of vets work in veterinary practices**, mainly companion animal practice (58.9%), followed by mixed practices (9.9%), equine practices (6.3%) and farm practices (4.2%) with others working for government, industry and vet schools. Veterinary practices are also supported by veterinary nurses, animal care assistants and a number of other professionals.

Veterinary practices have experienced significant changes including increasing numbers of pets, higher demand for some services, and challenges in recruitment associated with Brexit. At the same time, there has been an increase in market concentration as large companies buy individual practices.

In 2023, the sector had a turnover of £6.9 billion, and when the direct, indirect (supply chain) and induced (staff spending) effects are combined, it was estimated that the economic impact was **£8.4 billion GVA and 133,955 jobs**.

1.2 Animal Production and Food Safety

One of the veterinary sector's most critical roles is to **support health in the animal agriculture sector**, which has an impact of £9.1 billion GVA and 271,850 jobs.

By monitoring and treating diseases, through vaccinations, anti-parasiticides and other treatments, veterinary teams, including vet techs, specialist hoof trimmers and other aniciliary professionals, support high levels of production and productivity in the animal agriculture sector. They help prevent disease and assist in national disease screening programmes and in reproduction and breeding. Without them, there would be a higher incidence of disease and lower welfare standards, undermining trust in the sector and leading to significantly lower production volumes. Taking a share of the productivity associated with animal agriculture, it was estimated that the economic impact of the veterinary sector in the UK would be **£1.8 billion GVA and 37,865 jobs**.

In addition, veterinary teams support increased welfare among farmers in the animal production sector, by improving animal health (which improves farmer wellbeing) and by acting as a source of social support for farmers, who often have high levels of loneliness. The associated increase in wellbeing attributable to the veterinary sector was valued at **£1.2 billion**.

The veterinary sector also **prevents outbreaks of diseases** that may become epidemics. These can have devastating consequences, with an outbreak of Foot-and-Mouth disease in 2001 requiring the culling of over six million animals, costing the equivalent of £13.8 billion in 2024 terms and leading to years of export restrictions.

Vets contribute to **surveillance systems** to identify these diseases, with the government, including the Animal and Plant Health Agency (APHA), leading the rapid

response to prevent an epidemic through quarantining, culling, cleaning and control zones. An assessment of diseases based on the National Risk Register suggests, for example, that an outbreak of Foot-and-Mouth disease could require up to **1.9 million animals to be culled**, leading to **£1.6 billion in losses** and **reducing exports by at least £426 million**. These contingency values, whilst potentially huge, are difficult to predict and of uncertain size, so are **not included in the GVA impact estimate.**

In addition, Official Veterinarians (OVs) and specially trained Meat Hygiene Inspectors in the food processing sector monitor animal welfare and health in abattoirs. This ensures that animal products entering **the food chain are fit for human consumption**. This is crucial to the food processing sector, which has a value of **£3.3 billion GVA and 51,445 jobs**.

1.3 International Trade

The veterinary team is also important in the **trade in live animals and animal-based products**. Live animals, such as dogs, cats, horses and chicks, need to be issued with appropriate Health Certificates, which can require vaccinations and quarantine in some cases. Vets also need to certify that relevant animal products are safe for consumption and all products of animal origin meet animal and public health requirements.

In total, they support **£4.5 billion in exports** and also ensure that **£9.7 billion of imports** to the UK are safe and do not introduce diseases. The economic impacts of international trade are part of the animal production and food safety impacts and so are not separately identified in the impacts by sub-sector in Section 1.8.

1.4 Public Health

Some diseases such as **avian influenza** have the **potential to become zoonotic, transferring from animals to humans**. Zoonotic diseases represent 60% of all existing infectious diseases in humans and **75% of new or emerging diseases**. This arguably includes the Covid-19 pandemic, which led to excess mortality in the UK of over 150,000 between 2020 and 2022 and cost the UK Government at least £311 billion.

The veterinary sector is key to the One Health approach, which considers the interconnectedness of humans, animals and the environment, and is central to preventing the emergence of zoonotic diseases. The veterinary sector ensures that animal diseases such as rabies do not enter the UK at the border, and monitors health in domestic and wild animal populations to inform public health policy through the data they collect. It also ensures that antibiotics are not overprescribed in animals, helping to counter antimicrobial resistance, in animals and humans.

The potential negative economic impacts of infectious human diseases can be huge, impacting significantly on all sectors of the economy. However, they are of a different nature to the positive economic contributions that the veterinary sector

makes to the sub-sectors considered in this report and so are **not included in the GVA impact estimate**.

1.5 Pets and Domestic Animals

There are more than 28 million pets in the UK, mainly dogs and cats. They are central to many people's lives, bringing enormous value. It was estimated that spending by owners, including on pet food, accessories, services and insurance, generates economic activity worth £6.9 billion GVA and 73,335 jobs. In addition, pets bring an estimated £16.4 billion worth of wellbeing benefits to owners, and due to increased physical activity and reduced doctors' visits they save the NHS an estimated £3.4 billion each year.

Owners place great trust in vets and the wider clinical team, who are at the centre of pet health care. They receive support from the moment they get a pet, including on vaccinations, nutrition, behaviour and end of life. Vets, veterinary nurses and veterinary care assistants (VCAs) support animals to live longer, healthier lives and give owners the confidence to buy a pet, resulting in **higher pet ownership overall** (the pet population was assumed to be over a third lower without the veterinary sector), and higher spending.

Therefore, it was estimated the veterinary sector contributes **£3.8 billion GVA and 35,280 jobs.** It also **supports £5.9 billion in wellbeing benefits** and **£1.2 billion in healthcare savings**.

1.6 Sports, Working Animals and Zoos

Healthy animals and freedom from infectious diseases are essentials for the sustained operation of sports horse industries. In addition horse racing and riding create economic impacts through people watching and betting on events, as well as wellbeing impacts for the people who participate in the sport or attend live events. It was estimated that the economic impact was £1.8 billion GVA and 52,740 jobs, with wellbeing impacts of £1.8 billion.

The veterinary team **ensures high welfare standards are maintained**, and that animals are fit and healthy, including for international movement for breeding and performance purposes. It was estimated that the economic contribution of vets and ancillary professions, such as farriers, to these sports was worth **£356.3 million GVA and 10,545 jobs**, while the **wellbeing impact was £594.1 million**. Taking part in horse riding and regular attendance at horse racing also contributes to improved wellbeing, and the vet sector contributed to an estimated **wellbeing impact was £594 million**.

Similarly, **the veterinary sector underpins animal shows and events** such as the Royal Highland Show, which have an estimated economic impact of £53.9 million GVA and 1,355 jobs. These events, which can attract hundreds of thousands of visitors, also have an estimated **wellbeing effect of £45.0 million**.

These events bring biosecurity hazards, which the veterinary sector is critical in managing. The veterinary team also maintains welfare standards during transport, and are onsite for any incidents that might occur. It was therefore estimated that the contribution of the veterinary sector was worth **£10.8 million GVA and 270 jobs**, as well as **£9.0 million in wellbeing benefits**.

The veterinary sector also supports assistance animals, such as guide dogs, which meaningfully increase the wellbeing of their users. By supporting higher welfare, these animals live longer lives. The contribution of the veterinary sector to **increased wellbeing** was estimated to be worth **£19.2 million**. The sector also supports horses and dogs in justice roles, by **improving health and extending lifespans**, where their contribution was valued at **£50.9 million GVA**.

Zoos are major visitor attractions with an estimated **32 million visitors** each year, while also acting as centres for animal research and conservation. It was estimated that they generate an economic impact of £725.6 million GVA and 23,995 jobs, and that the **wellbeing impact associated with visitors and volunteers was worth £2.1 billion**.

Vets, animal keepers and animal scientists play a key role in ensuring that animals remain in good health at zoos, extending their lifespans, and contributing to breeding programmes. The international movement of zoo animals, facilitated by official veterinarians, is an important part of species conservation. It was therefore estimated that the economic impact associated with the veterinary sector to the zoo sector is **£362.8 million** GVA and **11,995 jobs**, with a **wellbeing effect of £1.0 billion**.

1.7 Veterinary Education and Research, and Veterinary Pharmaceuticals

Vets are **highly trained professionals**, who must undertake a five- or six- year course of study at one of 9 accredited vet schools, with rigorous teaching in scientific foundations, animal health and clinical skills. While the oldest were established over 200 years ago, shortages of vets have led to a number of new vet schools being established across the country.

These vet schools are a significant source of employment and bring in an estimated £74 million in tuition fees from international students, who are attracted by the high quality of educational provision and transferability of qualifications. It was estimated that total tuition fees are worth £158.8 million, generating economic activity of **£190.7 million GVA and 5,490 jobs**. Student spending supported a further **£115.1 million GVA and 3,940 jobs**.

The veterinary sector also supports the training and education for around 4,575 aspiring veterinary paraprofessionals taking place at UK colleges, this includes training and education for those becoming meat inspectors, equine dental technicians, farriers, and other professions. It was estimated that the total funding

for veterinary paraprofessionals was £26.5 million, generating economic activity of **£31.8 million GVA and 915 jobs**.

In addition, the UK has **world leading veterinary research**, carried out in universities, research institutes and government laboratories. This includes research into improving pet and livestock health, as well as into animal genetics, infectious diseases and veterinary practice. This contributed **£258.3 million GVA and 5,325 jobs**.

The UK's research and high-quality regulatory environment underpins **the veterinary pharmaceutical sector**, with a number of international companies having bases of operations in the UK. Vets are responsible for technical advice and marketing support, regulatory compliance and have a substantial role in product distribution. The economic impact of the veterinary pharmaceuticals sector generates an estimated **£662.6 million GVA** and **10,035 jobs.**

1.8 Economic Impact and Wellbeing By Sub-sector

Table 1-1: Economic Impact of the Veterinary Sector, GVA (£m)

	Total Impact	Vet Share	Vet Impact
Direct Veterinary Practices	4,230.0	100%	4,230.0
Veterinary Practices Supply Chain	1,400.5	100%	1,400.5
Veterinary Practices Staff Spending	2,782.5	100%	2,782.5
Total Veterinary Practices	**8,413.0**	**-**	**8,413.0**
Animal Agriculture	9,074.4	19%	1,746.0
Food Manufacturing	3,329.0	100%	3,329.0
Total Food Production	**12,403.4**	**-**	**5,075.0**
Pet Insurance	1,829.3	100%	1,829.3
Pet Food	3,881.8	36%	1,397.5
Pet Accessories	433.6	36%	156.1
Pet Services	763.4	36%	274.8
Animal Charities	753.1	20%	150.6
Pets Total	**7,661.3**	**-**	**3,808.3**
Horse Racing	1,360.7	20%	272.1
Gambling	420.7	20%	84.1
Sports sub-total	***1,781.4***	**-**	***356.3***
Shows and Events	53.9	20%	10.8
Justice Animals	254.3	20%	50.9
Assistance Animals	109.6	20%	21.9
Zoos	725.6	50%	362.8
Sports, Working Animals and Zoos Total	**2,924.6**	**-**	**802.6**
Veterinary Education	190.7	100%	190.7
Student Spending	115.1	100%	115.1
Veterinary Paraprofessionals	31.8	100%	31.8
Veterinary Research	258.3	100%	258.3
Research and Education Total	**595.9**	**-**	**595.9**
Veterinary Pharmaceuticals	**662.6**	**100%**	**662.6**
Total	**32,661.0**	**-**	**19,357.5**

Table 1-2: Economic Impact of the Veterinary Sector, Employment

	Total Impact	Vet Share	Vet Impact
Direct Veterinary Practices	86,875	100%	86,875
Indirect Veterinary Practices	20,580	100%	20,580
Induced Veterinary Practices	26,500	100%	26,500
Total Veterinary Practices	**133,955**	**-**	**133,955**
Animal Agriculture	271,850	14%	37,865
Food Manufacturing	51,445	100%	51,445
Total Food Production	**323,295**	**-**	**89,310**
Pet Insurance	7,355	100%	7,355
Pet Food	32,345	36%	11,645
Pet Accessories	11,785	36%	4,245
Pet Services	21,845	36%	7,865
Animal Charities	20,865	20%	4,175
Pets Total	**94,200**	**-**	**35,280**
Horse Racing	46,510	20%	9,300
Gambling	6,230	20%	1,245
Sports sub-total	***52,740***	***-***	***10,545***
Shows and Events	1,355	20%	270
Justice Animals	8,115	20%	1,625
Assistance Animals	11,115	20%	2,225
Zoos	23,995	50%	11,995
Sports, Working Animals and Zoos Total	**97,320**	**-**	**26,660**
Veterinary Education	5,490	100%	5,490
Student Spending	3,940	100%	3,940
Veterinary Paraprofessionals	915	100%	915
Veterinary Research	5,325	100%	5,325
Research and Education Total	**15,665**	**-**	**15,665**
Veterinary Pharmaceuticals	**10,035**	**100%**	**10,035**
Total	**674,470**	**-**	**310,910**

Table 1-3: Value of Wellbeing Impact of the Veterinary Sector (£m)

	Total Impact	Vet Share	Vet Impact
Farmer Wellbeing	2,305.7	53%	1,221.2
Pets	16,366.1	36%	5,891.8
Healthcare Savings from Pets	3,371.2	36%	1,213.6
Assistance Animals	96.1	20%	19.2
Horseriding	1,510.3	36%	543.7
Horse Racing	251.9	20%	50.4
Shows and Events	45.0	20%	9.0
Zoos (Visitors)	2,073.0	50%	1,036.5
Zoos (Volunteers)	6.4	50%	3 .2
Total	**26,025.6**	**-**	**9,988.6**

2. Introduction

BiGGAR Economics was commissioned by the Veterinary Policy Research Foundation (VPRF) to assess the economic contribution of the veterinary sector in the UK.

2.1 Study Objectives

While many people throughout the UK have an understanding of the role that the veterinary sector plays through its provision of clinical services for animals, this covers only a part of its role in the economy.

Therefore, this study aims to explain and quantify the role of vets and the wider veterinary team in different areas of the economy, across veterinary practices, food production and security, pet insurance and accessories, sports and working animals, agriculture, veterinary research and education, as well as veterinary pharmaceuticals. It also seeks to quantify the wellbeing impact that the veterinary sector supports.

2.2 Veterinary Policy Research Foundation

This work has been undertaken on behalf of the VPRF, which is a Not For Profit registered company that supports the parliamentary activities of Lord Trees, the only vet in the House of Lords. The organisation aims to inform, advise and influence the UK Government in matters related to the veterinary sector, and its main activity is funding a parliamentary intern.

The VPRF is funded by donations from organisations, including the Royal College of Veterinary Surgeons (RCVS), the British Veterinary Association (BVA), veterinary practices, veterinary schools and others.

2.3 Report Structure

The report is structured as follows:

- Chapter 3 provides the approach and methodology for estimating impacts;
- Chapter 4 discusses the role of the veterinary team in ensuring overall animal health and welfare;
- Chapter 5 estimates the economic impact associated with veterinary practices;
- Chapter 6 considers the role of the veterinary sector in animal production and food safety;
- Chapter 7 assesses the contribution of the veterinary sector to international trade in live animals and animal products;

- Chapter 8 discusses the role that the veterinary sector play in public health, including the prevention of disease transmission from animals to humans;
- Chapter 9 assesses the veterinary share of the economic impact associated with pets, including their wellbeing impact;
- Chapter 10 considers the economic impact of animals in sports, including horse racing, working animals such as guide dogs, and zoos; and
- Chapter 11 considers the role of the veterinary sector in education and research and in veterinary pharmaceuticals.

3. Approach and Methodology

A wide-ranging approach has been taken to identify areas where the veterinary sector contributes, and the impact in these sub-sectors has been assessed using a robust methodology.

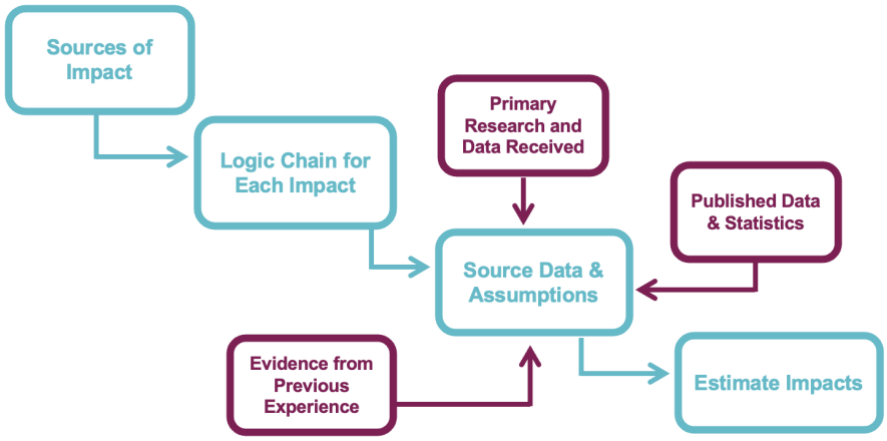
3.1 Approach

The first step in assessing the economic impact of the veterinary sector was an in-depth scoping exercise to identify a long-list of sub-sectors where the veterinary team plays a role, which includes most sub-sectors that involve animals. From this point, the following approach was taken to assess the economic contribution of the veterinary sector:

- Describe the sub-sector, using a range of sources, including government and industry reports;
- Quantify the economic impact of the sub-sector, including total employment and economic impact, as well as the supply chain and staff spending impacts. This was based on a range of government data (discussed in Section 3.2.1);
- Consider if there are any wider impacts associated with these sub-sectors, for example, wellbeing impacts and contingency evaluations (discussed in Sections 3.2.2 and 3.2.3);
- Explain the veterinary team's role in supporting the sub-sector, based on government reports, consultation and other sources; and
- Assess the impact that is attributable to the veterinary team by considering the counterfactual, where there is no veterinary team involvement in the sub-sector.

A simplified diagram showing the approach taken is shown in Figure 3-1.

Figure 3-1: Study Approach



Source: BiGGAR Economics

3.2 Methodology

3.2.1 Economic Impact

The economic impact analysis has been based on a standard input output methodology that has been developed by BiGGAR Economics and used extensively previously in a range of sectors, including research, agriculture, higher education and renewable energy. This has been applied to understand the total contribution of sub-sectors supported by the veterinary sector.

In general, economic impacts will be presented in terms of:

- Gross Value Added (GVA), a measure of economic output that includes staff costs and profits;
- Headcount jobs, a measure of employment.

For many of the sub-sectors, the following economic impacts have been captured:

- Direct impacts: this is the direct economic impact of a sector, for example direct employment and direct GVA;
- Indirect impacts: this is the supply chain spending impact of a sector, which is captured by applying economic multipliers; and
- Induced impacts: this is the staff spending impact of a sector, which is captured by applying economic multipliers.

A number of key sources have been used to assess the economic contribution of the veterinary sector, including:

- Office for National Statistics (ONS, 2025), Annual Business Survey (ABS) 2023, which provides data on turnover and GVA in different sectors. As a result, it is possible to estimate GVA from a given level of turnover;

- ONS (2025), Business Register and Employment Survey (BRES) 2023, which provides data on employment in different sectors. Combined with the ABS it is possible to estimate turnover and GVA per employee; and
- ONS (2025), Input Output Tables 2022, which provides data on linkages between sectors of the economy, allowing the wider economic impact of spending to be captured.

In some instances (e.g. agriculture, public health) a more tailored approach to estimating economic impacts has been applied to understand the role that the veterinary team makes to the sub-sector, and this methodology is discussed in the relevant sections of the report.

Unless stated otherwise, the impacts are for the year 2024.

3.2.2 Wellbeing

The economic activity supported by the veterinary sector, in terms of the GVA and jobs it creates, does not capture its full societal value. Wellbeing offers an additional way to quantify the benefits that the veterinary sector brings to society.

Wellbeing impacts have been captured through the use of Wellbeing Adjusted Life Years (WELLBYs), an HM Treasury recommended approach for estimating such benefits. A WELLBY enables an evaluation of impacts that are traditionally difficult to quantify in economic terms but nevertheless bring significant value to people's lives.

As defined by HM Treasury[1]: "A WELLBY equates to a one-point change in life satisfaction on a 0-10 scale, per person per year." Therefore, if a project or an activity increased the life satisfaction of one person for a period of a year, this would be considered an increase of one WELLBY. Equivalently, if ten people experienced life satisfaction increases of 0.1 for a period of a year (or indeed 0.2 for only half a year) this would also represent one WELLBY.

There are a number of wellbeing benefits relevant to the veterinary sector, including the activities of the veterinary team in support of:

- farmer wellbeing;
- pet ownership;
- assistance animals; and
- animal shows, events, and attractions.

The overall wellbeing benefit to society of a specific activity can be evaluated by using academic research to gauge the likely wellbeing impact of engaging in the activity. Then, through knowing the total number of people engaging in that activity across society, an estimate of the total WELLBYs can be made.

[1] HM Treasury (July 2021), Wellbeing Guidance for Appraisal: Supplementary Green Book Guidance

Further, one WELLBY, which represents a one-unit change in life satisfaction per year, has been assigned by the HM Treasury a monetary value of £16,000 in 2024 prices. This enables an overall value of the wellbeing impact to be obtained.

Where it was not possible to estimate the wellbeing impacts associated with an impact, alternative methods were used to quantify non-market goods and services. For example, to estimate the value people place on their of pets, people's willingness to pay (WTP) for a hypothetical change in the quality or availability of a good or service (their pet) was measured.

3.2.3 Contingency Valuation

Where it is not possible to reliably quantify either the economic or wellbeing impact, a contingency valuation was applied, as a way of estimating the value of non-market goods and services.

For example, it has been used to assess impacts where veterinary teams reduce the chances of an event occurring, for example, an outbreak of Foot-and-Mouth disease. It would not be appropriate to include the economic impact associated with an event that is unlikely to occur and therefore the assessment has quantified these where possible and discussed qualitatively how veterinary teams reduce risk.

3.3 The Counterfactual

A critical element of this report is estimating the counterfactual – what would happen to each of the estimated sub-sector impacts if there were no veterinary sector. Since all the sub-sectors operate differently, and the role of veterinary teams varies within each sector, the proportion of the overall impact attributable to the veterinary sector varies. This section outlines the assumptions for each counterfactual as well as the reasoning behind them and Table 3-1 provides a summary of the counterfactuals, highlighting where in the report the assumption is used.

All impacts associated directly with the veterinary sector, including those from veterinary practices, education, research and veterinary pharmaceuticals, would not exist without the profession itself. Therefore, 100% of the economic impacts are solely attributable to the veterinary sector, encompassing direct spending, supply chain spending, and staff/student spending.

In the case of animal agriculture, where veterinary teams reduce the incidence of disease, it was assumed that they support increased productivity. In the case of intensive farming systems, where there is a higher incidence of disease due to closer proximity (e.g. pigs, poultry, and dairy), it was assumed that the veterinary sector supports 25% of the impacts. In extensive farming systems (e.g. sheep and cattle), where disease incidence is lower, and salmon farming, where veterinary teams play a smaller but pivotal role, it was assumed that 10% of the value can be attributed to the veterinary sector.

Veterinary teams also support higher farmer wellbeing. It was assumed that 50% of wellbeing impact that arises through supporting better animal welfare would be attributable to veterinary teams. Similarly, veterinary teams reduce farmer loneliness, and without them it was assumed that loneliness would be 25% higher.

The veterinary sector also plays a crucial role in the processing of animal products, ensuring meat products entering the food system are free from disease. Therefore, it was assumed that 100% of these impacts would be attributable to the veterinary sector.

The assumption driving the proportion of the impacts attributable to veterinary teams in the pet sector rests on what would happen to the pet population in their absence. Pets are likely to become less attractive to own (assumed 20% reduction in pets) and also have shorter lifespans (assumed 20% reduction), resulting in an assumed overall reduction in pet ownership of 36%. Accordingly, this would result in reductions in all pet related sectors. Therefore, across nearly all pet related goods and services, 36% of the impacts are assumed attributable to the veterinary sector. An exception is insurance, which would not exist at all and therefore 100% of the impacts from this sector are attributable to the veterinary sector. For animal charities 20% of the impacts are assumed attributable to the veterinary sector, based on an estimate of the contribution of vets and associated professionals relative to overall employment at animal charities.

Within the sports and working animals sector, as the veterinary sector reduces the incidence of disease and lameness and ensures that high welfare standards are maintained, these sectors would otherwise be smaller. For horse racing, betting, shows and events, assistance animals and animals in justice roles, it was assumed that the impacts would be 20% lower, without veterinary teams. For horse riding, this is assumed to be 36%, in line with the assumptions on pets. For zoos, due to the critical role of vets and ancilliary professions in zoos, in supporting animal health, upholding welfare standards and maintaining access to international zoo networks, the assumption is higher at 50%.

Table 3-1 Counterfactual Assumptions by Sector

Sector	Sub-Sector	Counterfactual (% attributable to veterinary sector)	Section
Veterinary Practices		100%	Section 5
Animal Production	Intensive Systems (e.g. pigs, poultry and dairy)	25%	Section 6.2
	Extensive Systems (e.g. sheep and cattle)	10%	Section 6.2
	Salmon Farming	10%	Section 6.2
Food Processing	Abattoirs	100%	Section 6.3
Farmer Wellbeing	Animal Welfare Related	50%	Section 6.6
	Loneliness	100%	Section 6.6
Pets and Domestic Animals	Value of Pet Ownership	36%	Section 9.2
	Pet Insurance	100%	Section 9.2
	Pet Food	36%	Section 9.4
	Pet Services	36%	Section 9.5
	Pet Accessories	36%	Section 9.6
	Animal Charities	20%	Section 9.7
Sport, Working Animals and Zoos	Horse Racing	20%	Section 10.1
	Betting	20%	Section 10.2
	Shows and Events	20%	Section 10.3
	Horseriding	36%	Section 10.4
	Justice Roles	20%	Section 10.5
	Assistance Animals	20%	Section 10.6
	Zoos	50%	Section 10.7
Education, Research and Pharmaceuticals	Education and Training	100%	Section 11.1
	Veterinary Research	100%	Section 11.2
	Veterinary Pharmaceuticals	100%	Section 11.4

Source: BiGGAR Economics Assumptions

4. The Role of the Veterinary Sector

The core role of the veterinary sector is to ensure animal health and welfare, which contributes to the UK economy and the wellbeing of its people.

4.1 What Does the Veterinary Team Do?

The veterinary sector includes veterinary surgeons (i.e. registered members of the Royal College of Veterinary Surgeons, RCVS) and the wider veterinary team, including veterinary nurses, animal care assistants, veterinary technicians, clinical animal behaviourists, animal physiotherapists, animal dentists, clinical farriers, bovine tuberculosis testers, livestock artificial inseminators, ultrasonographers for pregnancy detection, suitably qualified persons (SQPs) for certain medicine dispensing, foot trimmers, administrative staff in practices and others involved in animal care and veterinary researchers.

4.1.1 Number of Vets and Veterinary Nurses

Veterinary surgeons (referred to as vets) and veterinary nurses (referred to as veterinary nurses) are qualified professionals who have undergone several years of training. They provide diagnosis, healthcare and advice in relation to animal health.

In 2024 there were 37,801 RCVS registered vets in the UK, of which 30,138 were UK-practising. In addition, there were 3,531 members practising internationally, 3,732 non-practising members, and 326 members practising in the Republic of Ireland. In 2024, there were around 900 net additions to the register (new additions and restorations minus removals).

In addition to vets, there were 23,540 veterinary nurses registered with RCVS, who were typically employed by veterinary practices and performed a range of supporting roles. In 2024, there were around 1,235 net additions to the register.

4.1.2 Employment Type for Vets

As shown in Figure 4-1, the majority of vets work in companion animal practices (58.3%), where they treat animals such as cats, dogs and other companion animals. This figure has increased from 48.9% of vets in 2010.

Around a fifth (20.4%) of vets work in farm, equine and mixed practices, which has declined from a third (33.5%) since 2010. The main driver has been a decline in mixed practices, which treat several different species, for example, companion animals and farm animals. After these types of practice, the most common areas of

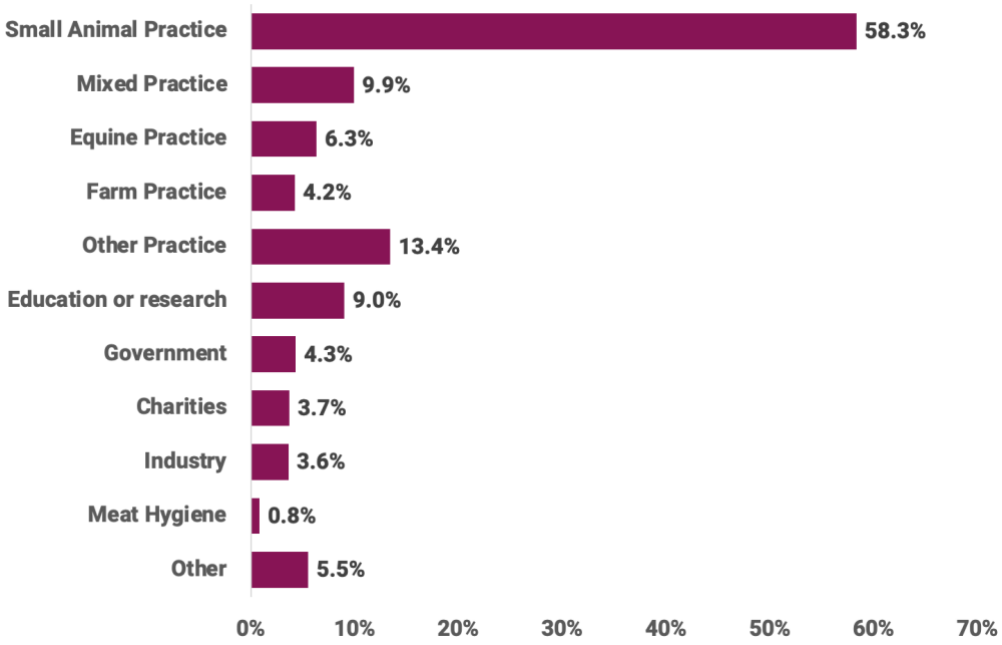
work for vets includes other types of practices (13.4%), such as referral practices/consultancy and tele-medicine.

The economic impact of veterinary practices is considered in Chapter 5, while the impact associated with pets, which are typically treated at companion animal practices, is considered in Chapter 9. The impact associated with sports and working animals, particularly horses treated by equine practices, is considered in Chapter 10.

In addition, around 9.0% of vets work in education and research, typically in veterinary schools that educate the next generation or carry out research that informs practice, and some of these vets also work for practices. The economic impact associated with education and research is considered in Chapter 11.

Many vets also work in the government (4.3%), where they advise on policy, monitor animal health at a higher level and respond to crises. Along with vets at mixed and farm practices and those that work at abattoirs (0.8%) they are heavily involved in supporting animal agriculture and public health as well as international trade. These are discussed in Chapters 6, 7 and 8.

Figure 4-1: Areas of Work for Vets, 2024



Source: IES Report for the RCVS (2024), The 2024 Survey of the Veterinary Profession. Note, the total sums to greater than 100% as some vets work in more than one capacity.

Vets are typically supported by a team that involves a wide range of different roles, including veterinary nurses, animal care assistants, veterinary technicians, animal physiotherapists, meat inspectors and administrative staff.

4.1.3 Geographical Location

As shown in Figure 4-2, vets and veterinary nurses at veterinary practices, are geographically spread throughout the UK, broadly reflecting population size. The

largest numbers are in the south-east of England (which has the largest population of any region) and lowest number in Northern Ireland (which has the lowest population). In addition, higher numbers of vets are found in areas associated with animal agriculture, such as Scotland.

Figure 4-2: Veterinary Sector by Geography (Practices only)

Source: RCVS (2025), Facts 2024. Note, the geographical breakdown provided by RCVS doesn't match exactly with the International Territorial Level (ITL) regions.

4.2 Animal Welfare

Historically, the UK has been at the forefront of policy, advocacy and scientific development in animal welfare. The UK was the first country in the world to enact animal welfare legislation - the Cruel Treatment of Cattle Act in 1822 - which criminalised the cruel treatment of cattle, horses, and sheep. The central piece of legislation today is the Animal Welfare Act 2006, which places a duty of care on all animal owners and keepers[2]. It can be argued that animal welfare is a key component of a modern, responsible society, with the societal value extending to public health, economic stability, and environmental sustainability.

Vets are fundamental to promoting high welfare standards and every vet in the UK takes a professional oath to prioritise animal welfare[3]. Vets are often the primary professionals who advise on these legal standards and their work spans clinical care and public education, covering a wide range of animals from pets to farm animals. The BVA publishes policy papers and campaigns on animal welfare issues, from responsible pet ownership to the humane treatment of animals in research and

[2] Defra/APHA, Updated May 2024, Advice and Guidance on Protecting Animal Welfare
[3] RCVS, Code of Professional Conduct for Veterinary Surgeons

transport. By promoting a deeper public understanding of animal needs and sentience, vets contribute to a broader societal commitment to animal welfare.

As a key component to the work of veterinary teams, animal welfare is taken as being intrinsic to each of the impacts discussed in this report. Where it has particular economic impact, such as in farm assurance schemes in the agricultural sector, it is highlighted in the relevant section.

4.3 Disease Control

Vets are fundamental to preventing, controlling and managing the spread of diseases in domestic animals, farmed livestock and wildlife. This not only has important implications for animal welfare, farming, food production and safety and international trade but also for human health.

In the last three decades, 75% of new diseases in humans have originated in animals[4], including H1N1 ('swine') Influenza. These emerging zoonotic diseases represent a national and global health risk because there is limited natural immunity to these diseases. Vets have a critical role in detecting these diseases and working with public health officials to prevent them from spreading to the human population.

Vets have two key roles – prevention of disease and management of outbreaks. Their responsibilities span from national and international public health to herd/flock health and individual animal care.

Prevention is the most effective form of disease control and vets aim to eradicate, prevent or reduce the risk of disease occurrence predominantly through vaccination, surveillance and biosecurity planning. If an animal disease outbreak occurs, vets are at the forefront of the response, using diagnostics and implementing control measures to contain and eradicate the disease.

As is evidenced throughout this report, disease control has a critical multifaceted impact across key sectors of society in the UK. Table 4-1 highlights where the impacts are considered in this report.

[4] UK Parliament, Postnote January 2022 Research Briefing, Preventing emerging zoonoses

Table 4-1: Where the Impact of Disease Control is Considered in this Report

Disease classification by prevalence	Examples	Impact	Where in this report
Endemic Constantly present in a specific geographical area or at a population level.	In **farm animals** E.g. Mastitis in cows, orf in sheep, coccidiosis in poultry In **wild animals** E.g. bovine tuberculosis in badgers. With the potential to cross to domestic animals and/or humans	Consistent low-level impact on agricultural production and animal welfare, as well as human health.	Chapter 6 Farm Productivity Chapter 8 Public Health
Epidemic Sudden, widespread outbreak in a specific population or region, increased above what is normally expected. Without adequate prevention measures endemic diseases can become epidemics.	In **farmed animals** E.g. Foot-and-Mouth disease, Bluetongue, avian influenza In **food** E.g. Campylobacter	Agricultural production Trade Human health	Chapter 6 Animal Production and Food Safety Chapter 7 International Trade Chapter 8 Public Health
Pandemic An endemic or epidemic zoonotic disease that spreads across multiple countries, affecting a large number of people, with sustained human to human transmission.	Transmission from wild or domestic animals to **humans** E.g. HIV/AIDS, possibility of avian influenza.	Human health	Chapter 8 Public Health

4.4 Wellbeing

Wellbeing is relevant to the veterinary industry in two main ways. Firstly, the clinical veterinary industry ensures optimal animal health, increasing the wellbeing benefits that animals provide to people across the UK. Secondly, the veterinary team supports activities, such as animal sports and zoos, which bring wellbeing benefits to people attending or participating in them directly.

4.4.1 How the Veterinary Team Supports National Wellbeing

Animals contribute to human wellbeing in several significant ways. This includes:

- Farmers and others who work directly with animals, whose wellbeing is directly affected by the health of their animals.
- Pet owners, a large group who place a high value on their pets.
- Individuals who use assistance animals, with animals helping and supporting people with their mental and physical health.
- Participants and spectators of animal shows, events, and attractions, who derive wellbeing benefits from their involvement.

Without the veterinary team supporting healthy animals, many of these wellbeing benefits would be diminished. This report, therefore, assesses the overall contribution of the veterinary sector to these wellbeing benefits by evaluating what would happen in the absence of veterinary services.

5. Veterinary Practices

While veterinary professionals work across several sectors, the majority work in veterinary practices.

5.1 Structure of Veterinary Practices

5.1.1 The Veterinary Practice

Members of the veterinary team work in various areas, with a significant proportion working in clinical practice. Practices often focus on either companion animals, such as cats and dogs (companion animal practice), horses (equine practice), farm animals such as cows, sheep, pigs and poultry (farm practice) or a mixture (mixed practice).

Across clinical practices vets are usually the lead healthcare providers, offering diagnoses, treatment plans, prescribing drugs and undertaking surgery. They are supported by qualified veterinary nurses, who have various roles including administering treatments, monitoring patients and doing minor procedures, and many other members of the veterinary team. There are also administrative staff, who ensure the smooth running of the practice, including dealing with insurance claims.

Typically animal owners primarily visit a First Opinion Practice (FOP), who provide routine and non-specialised care. More advanced diagnostics and treatment are often provided by specialist referral practices.

5.1.2 Historical Evolution

Historically, the majority of veterinary practices supported the health of livestock with a secondary focus on companion animals, such as cats and dogs. These practices were typically independently owned by a single vet or by a partnership.

As the number of companion animals has increased, so has the share of companion animal practices, with around 58% of vets working in companion animal only practices, an increase from 45% in 2006. Over the same period, the share of vets working in mixed practices has decreased from 25% to 10%[5].

Over this period, the share of veterinary practices that are owned by large veterinary groups (LVGs) has increased from 2% in 2006 to around 60% in 2024. In some cases these corporations have sought vertical integration, including ownership of referral practices, laboratories and crematoria. The Competition and Markets Authority is currently conducting a review into whether there is evidence of Adverse Effect on Competition (AEC) in any part of the veterinary sector .

[5] RCVS (2025), Facts Series

At the same time a number of changes have taken place in the wider veterinary sector, including:

- An increase in the number of pets in the UK, with the number of dogs increasing by over 50% since 2011[6];
- Increased demand for sophisticated medical treatments and 24-hour availability of this;
- An increased regulatory workload associated with the UK's withdrawal from the EU, particularly the provision of Export and Animal Health Certificates (EHCs, AHCs); and
- A reduction in the number of vets from outside of the UK due to visa restrictions, with new registrations at the RCVS from European countries falling from a peak of around 1,300 in 2018/19 to 545 in 2023/24.

5.2 Direct Economic Impact

The direct economic impact of the veterinary practices sector, which includes practices and hospitals, is captured in the Office for National Statistics' (ONS) Annual Business Survey (ABS), which provides information on turnover and GVA. In 2023, the turnover of the veterinary practices sector was £6.9 billion, while the associated GVA was £4.2 billion.

Table 5-1: Turnover and GVA in the Veterinary Practices Sector

	Value (£bn)
Turnover	6.9
Supplier Expenditure	2.7
Direct GVA	**4.2**

Source: ONS (2025), Annual Business Survey 2023

Similarly, the ONS captures employment data as part of the Business Register and Employment Survey (BRES). Adjusting to include Northern Ireland it was estimated that there were 86,875 employees in the veterinary practices sector in 2023. Combining this with data from the RCVS, it was estimated that there were 28,735 vets, 23,220 veterinary nurses, with a further 6,830 student veterinary nurses[7] and 26,215 other staff (e.g. administration).

[6] UK Pet Food (2025), Historical Pet Population Data

[7] IES report for the RCVS (2025), Survey of the Veterinary Profession 2024, Table 20

Table 5-2: Employment in Veterinary Practices Sector

	Value
Veterinary Surgeons	28,735
Veterinary Nurses	23,220
Student Veterinary Nurses	6,830
Other Staff	26,215
Direct Employment	**86,875**

Source: BiGGAR Economics Analysis of ONS (2025), Business Register and Employment Survey 2023 and RCVS (2025), RCVS Facts 2024.

5.3 Supply Chain Expenditure

Veterinary practices require goods and services to run their day-to-day operations, this can include making purchases of pharmaceutical products, which are then administered to animals or the purchase of electricity and gas to light and heat their premises. Spending on these goods and services comprise a veterinary practice's supply chain expenditure.

The businesses that provide these inputs (e.g. pharmaceutical manufacturers, utility companies, etc.) also employ staff and generate economic impact as a result. Supply chain expenditure therefore captures the indirect economic impact and associated economic activity that is supported due to the purchases made by veterinary practices.

In 2023, the total supply chain expenditure of the veterinary practices sector was equal to £2.7 billion. Data on supply chain expenditure in the previous year is provided by the Input Output Tables, which quantifies inter-relationships between different sectors, and this was scaled up for 2023.

From this, expenditure which is considered elsewhere (including spending on veterinary services and veterinary pharmaceuticals) was excluded, resulting in spending of £1.5 billion. Applying turnover/GVA and turnover/employee ratios from the ABS and BRES, as well as input-output multipliers, it was estimated that this generated an economic impact of £1.4 billion GVA and 20,580 jobs.

Table 5-3: Veterinary Practices Sector Supply Chain Spending

	Value (£bn)
Supplier Expenditure (£bn)	2.7
Excluding Double Counting* (£bn)	1.5
Total GVA (£bn)	**1.4**
Total Employment	**20,580**

*This includes spending on other veterinary practices, veterinary pharmaceuticals and pet food.

5.4 Staff Spending Impact

The ABS also reported the total employment costs associated with the veterinary practices sector were £3.0 billion in 2023. After subtracting Value Added Tax (VAT), it was estimated that the total expenditure would be £2.8 billion.

Applying ratios and multipliers for the appropriate sectors, it was estimated that the economic impact would be £2.8 billion GVA and 26,500 jobs.

Table 5-4: Staff Spending in the Veterinary Practices Sector

	Value (£bn)
Total Employment Costs (£bn)	2.8
Total GVA (£bn)	**2.8**
Total Employment	**26,500**

5.5 Veterinary Practices Summary

The majority of vets in the UK work in clinical practice, particularly companion animal practice, treating the growing number of pets. This sector has in recent years been characterised by a changing ownership structure, as conglomerates buy independent veterinary practices, veterinary hospitals and crematoria.

Combining the direct, indirect and induced economic impacts of the veterinary practices sector, it was estimated that the economic contribution was **£8.4 billion GVA and 133,955 jobs**.

Table 5-5: Turnover and GVA in the Veterinary Practices Sector

	GVA (£bn)	Employment
Direct	4.2	86,875
Supply Chain	1.4	20,580
Staff Spending	2.8	26,500
Total (Attributable to Veterinary Sector)	**8.4**	**133,955**

6. Animal Production and Food Safety

Veterinary services are intrinsic to the production of food in the UK. They underpin livestock production systems and food security, and ensure that consumers have safe, high-quality food of animal origin, such as meat, fish and dairy.

The production of animals for food in the UK is characterised by widespread availability of safe, high quality products, produced in the UK at a low price. After a healthy life on farm, animals are sold, transported and slaughtered (or food is produced as dairy or eggs), then processed, packed and stored before retailing as food products.

Over the past 100 years animal production in the UK has undergone major changes. There has been a shift from small-scale, extensive farming to large-scale, intensive systems, resulting in a substantial increase in production and productivity. This chapter explains how the veterinary team has contributed to this, their role on farms today, their specific contribution to food processing and food safety and their contribution to controlling animal disease. It also includes the contribution that has been made to addressing climate change and farmer wellbeing through involvement in food production.

6.1 The Value of the Agri-food Sector

In 2023, the agri-food sector (excluding fishing and aquaculture, which is considered in Section 6.2.6) accounted for a total estimated Gross Value Added (GVA) of £153.2bn or 6.2% of national GVA[8].

Although the agricultural sector, which includes both crops and animal agriculture, only contributed 8.9% to this value chain (£13.7bn), as shown in Table 6-1, agriculture is the main foundational activity that underpins food production. It is the essential first step in the entire food chain, producing the basic, unprocessed commodities that support processing, manufacturing, distribution, and retail.

Vets have distinctive roles in different parts of the food chain, supporting the farming of animals to increase productivity (Section 6.2), preventing the outbreak of diseases

[8] Defra (July 2025), Accredited Official Statistics Chapter 14: The Food Chain

(Section 6.4.3), and ensuring that food entering the supply chain is fit for human consumption (Section 6.3).

While the veterinary sector supports the whole food chain, the analysis has conservatively focused on animal production and food safety in processing.

Table 6-1: UK GVA from Agriculture and Food and Drink, 2023

		GVA (£bn)	% of Total GVA for Agriculture and Food and Drink
Agriculture		13.7	8.9
Food and Drink	Manufacturing	37.1	24
	Wholesaling	16.9	11
	Retailing	40.2	26
	Non-Residential Catering	45.2	30
Total		**153.2**	**100**

Source: Defra (2025), Agriculture in the United Kingdom 2024 – Chapter 14: The Food Chain

6.2 Animal Production

In 2024, there were 9.4 million cattle, of which 1.8 million were dairy cows, as well as 31.0 million sheep and 4.7 million pigs. Table 6-2 shows the livestock population alongside the number of livestock produced in 2024. For example, there were a total 40 million laying hens and 1.08 billion broilers were produced for slaughter.

Table 6-2: UK Livestock Numbers in 2024

	Livestock population (millions)	Livestock production (millions)
Cattle	9.2	2.7
Dairy Herd	1.8	-
Beef Suckler Herd	1.3	-
Sheep	20.9	11.4
Poultry	40.0	1080.0
Pigs	4.7	10.8

Sources: Defra (2025), Agriculture in the United Kingdom 2024; Defra (2025) UK Poultry and Poultry Meat Statistics – May 2024 (updated Feb 2025); Defra (2025) Monthly UK statistics on cattle, sheep and pig slaughter and meat production notice (data to November 2025); Defra (2025) Livestock popolations in the UK at 1 December 2024 (updated Dec 2025)

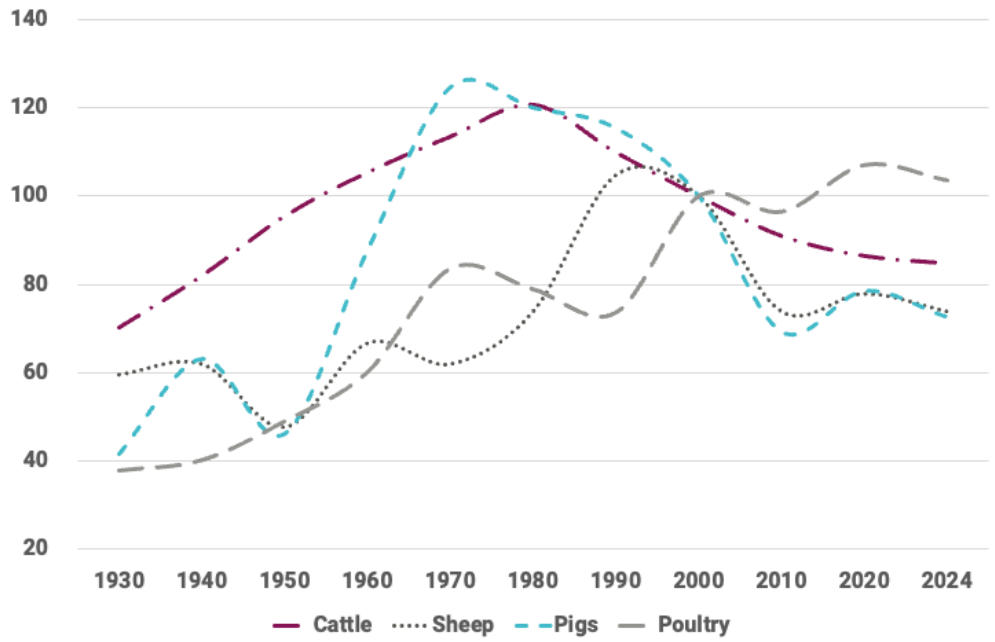
At the beginning of the 20th century farms in the UK were generally extensive and mixed – growing a variety of animals and crops. Over the past 100 years many farms

have moved away from these mixed production systems to focus on a single type of production; in 2023 only 7% of all farms in England were mixed farms[9].

Livestock numbers in the UK increased rapidly after the second World War due to government policy, such as the 1947 and 1957 Agriculture Acts, to increase the quantity and efficiency of food production and reduce reliance on imported food, driven further by the introduction of the Common Agricultural Policy in 1973. As a result the UK produces a high proportion of its own food, increasing food security.

Figure 6-1 shows how livestock numbers have changed over the past century. Numbers of cattle, sheep and pigs peaked towards the end of the last century and then began to decline, due to changes in profitability and disease outbreaks - with Bovine Spongiform Encephalopathy emerging in 1986, an outbreak of swine fever in 2000 and Foot-and-Mouth disease in 2001.

Figure 6-1: Trends in Numbers of Livestock in the UK, 1930-2024 (2000 = 100)



Source: House of Commons Library (2019), Agriculture - Historic Statistics. Defra (2025), Agriculture in the United Kingdom 2024

While there has been a general decline in the number of livestock since the 1990s and 2000s, this has been accompanied by big increases in productivity, with the average yield increasing significantly. For example, from 2012 until 2022, average litter size of pigs increased by 3.5 pigs, and birth weight increased by 30g per pig[10]. In 1960, laying hens averaged 230 eggs per cycle whereas today's commercial flocks average 430[11]; and broiler chickens have been bred to grow up to five times faster

[9] Defra (September 2024), Research and Analysis Farming Evidence – Key Statistics
[10] Driver, A, 2023. Pig World: Balanced breeding programmes can increase litter sizes, birth weights and piglet survival rates
[11] Bailey N, 2023. The breeding perspective on the current crisis in the egg sector

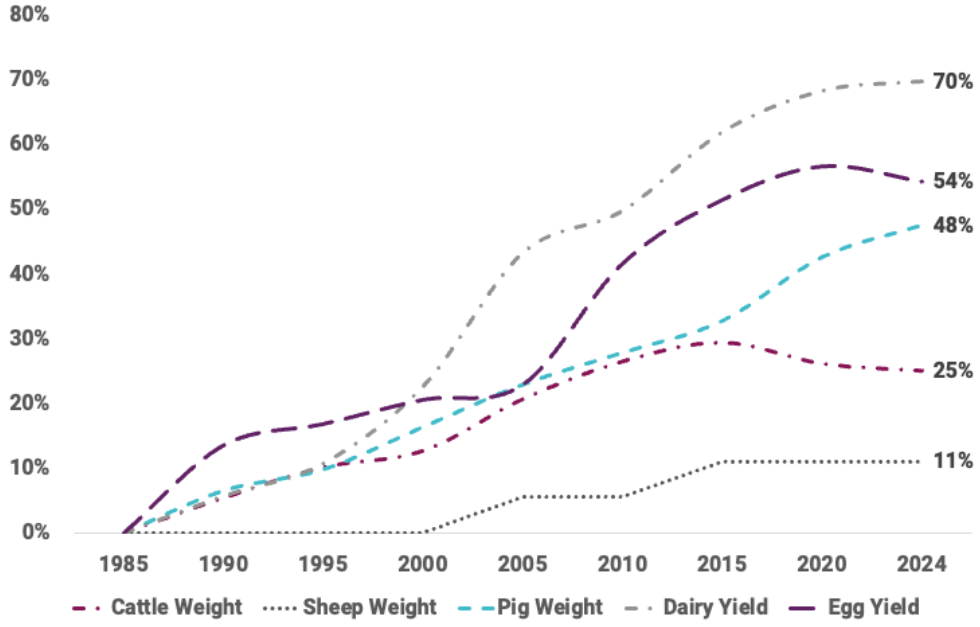
than in the 1950s[12]. Similarly the yield per dairy cow has increased fourfold since the 1930s[13]. Increased productivity is also evidenced by data showing that Total Factor Productivity (TFP) in all of UK agriculture has increased by 80% since 1953, and by 50% since 1973[14].

This is attributable to a number of factors including larger, more specialised farms and changes in the wider market. Restructuring and resizing of farms provided the necessary physical platform to increase productivity, and adoption of these expensive changes was incentivised by government policies and market forces. Whilst these physical, societal and economic factors enabled productivity gains to be implemented, productivity itself was driven by three interconnected factors:

1. Improvements in animal health and welfare, and in nutrition;
2. Improvements in genetics and selective breeding; and
3. Mechanisation, automation and use of data analysis in precision farming .

These developments have enabled substantial reductions in the cost of animal products for consumers, making nutritious food more affordable than historically.

Figure 6-2: Change in Yield since 1985



Source: Defra (2025), Agriculture in the United Kingdom 2024

[12] Bennett C E, Thomas R, Williams M, Zalasiewicz J, Edgeworth M, Miller H, Coles B, Foster A, Burton E J, Marume U, 2018. The broiler chicken as a signal of a human reconfigured biosphere

[13] Simm, G., Pollot, G., Mrode, R., Houston, R., Marshall, K., 2020. Genetic Improvement of Farmed Animals

[14] House of Commons Library (2019), Agriculture - Historic Statistics.

6.2.2 The Role of Veterinary Services in Animal Agriculture

The contributions of vets and auxillary professions (especially technical staff involved in breeding) to animal production are historic, cumulative and on-going.

Vets have been integral to the increase in agricultural productivity over the last century through their input into improved animal health and welfare. Their work has ensured that the genetic and technological gains achieved in livestock production are not cancelled out by losses to disease.

Notably, their interventions have enabled production in controlled indoor environments, with disease control enabling large numbers of animals to be housed in a confined space. Indoor production of poultry and pigs increased as antibiotics and vaccines facilitated raising larger numbers of livestock in controlled environments, while the discovery and use of vitamin D along with artificial lighting made it possible to keep poultry in confinement year-round[15,16]. The largest poultry farms in the UK now house more than 1 million birds[17]. For these systems to function the animals must be as disease free as possible and veterinary input is critical for ensuring the economic viability, efficiency, animal welfare, and food safety of these high-density operations.

Recognising that prevention is more effective than cure, the role of the veterinary sector has evolved from reactive treatment of animal diseases to proactive health and fertility management of highly productive systems. It is now well understood that better health and welfare of livestock are the fundamental drivers of efficiency and productivity, can lower greenhouse gas emissions, as well as being important ethical concerns.

Veterinary services have become an essential component of all animal production systems. Vets deliver continuous veterinary healthcare to their clients, mostly health and fertility management on a day-to-day basis. Herd and flock animal health planning is a core element in agricultural production systems with a focus on preventative measures like vaccination, parasite control, and biosecurity to keep animals healthy and productive. Disease control is discussed in more detail in Section 6.4. Fertility management is vital, especially in the dairy industry, where artificial insemination (AI) technicians and vets play a fundamental role in ensuring cows get in calf and culls due to infertility are minimised.

The intrinsic involvement of the veterinary team in animal production systems is also evidenced by an increase in veterinary activity on farms during the last century[18], the

[15] Deluca H F (January 2014), History of the discovery of vitamin D and its active metabolites

[16] Adhikari R, White D, House, J. D. Kim, W. K. (January 2020), Effects of additional dosage of vitamin D3, vitamin D2, and 25-hydroxyvitamin D3 on calcium and phosphorus utilization, egg quality and bone mineralization in laying hens. Poultry Science Volume 99, Issue 1, January 2020, Pages 364-373

[17] Large Scale Agriculture (October 2018), Consolidation Trend in the UK's Poultry Farming

[18] Woods A,. (2011), A historical synopsis of farm animal disease and public policy in twentieth century Britain

value consumers and producers place on animal welfare[19] and the strong health focus of government agricultural support.

6.2.3 Public Support for Agriculture

Animal health and welfare, which is a devolved matter, is coordinated across the UK for the purposes of trade (discussed in Chapter 7), and disease control. It is viewed as a key component of agricultural policy and animal health plans may be required for farmers to receive public funding.

For example, the Department for Environment, Food & Rural Affairs (Defra) Animal Health and Welfare Pathway[20] supports farmers in England to deliver continual improvement in farm animal health and welfare by implementing higher welfare systems and practices (e.g. better stockmanship in handling animals, upgrading housing, improving pain management during dehorning and castration) and improving biosecurity and health screening to help manage endemic diseases such as Bovine Viral Diarrhoea (BVD) in cattle and Porcine Reproductive and Respiratory Syndrome (PRRS) in pigs.

In Wales animal health and welfare plans are a requirement for Universal Payment under the Sustainable Farming Scheme[21], and similar animal health plans are required to receive agricultural support payments in Scotland[22].

6.2.4 Farm Assurance Schemes

UK farm assurance schemes play an integral role in supporting the implementation of high animal health and welfare standards and enabling customers to make sustainable and ethically informed choices about the food products they buy.

Vets carry out important and wide-ranging roles in the development, implementation, and continuous review of farm assurance scheme standards. Farms that are part of assurance schemes like RSPCA Assured, Quality Meat Scotland (QMS) and Red Tractor require regular veterinary visits to verify compliance with welfare standards, for example in housing, feeding, and handling; Red Tractor notably requires a herd health plan written and reviewed by a vet. This partnership not only helps farmers demonstrate compliance but also raises the bar for animal welfare and best practices, which reinforces confidence among processors and consumers.

6.2.5 Economic Impact of Improved Productivity

In 2024, the turnover of farmers associated with meat, dairy and eggs was £19.0 billion, with the largest turnover associated with dairy (£6.3 billion) and beef cattle (£4.1 billion).

[19] Farm Animal Welfare Council (October 2009), Farm Animal Welfare in Great Britain: Past, Present and Future

[20] Defra (2025), Policy Paper: Animal Health and Welfare Pathway

[21] Welsh Government (July 2025), Sustainable Farming Scheme: Annex 11: Animal Health Improvement Cycle

[22] Scottish Government (April 2025), The Whole Farm Plan – What you need to do in 2025

Table 6-3: Turnover from Animal Agriculture (£bn), 2024

	Value
Beef Cattle	4.1
Sheep	1.8
Poultry	3.5
Pigs	1.8
Dairy	6.3
Eggs	1.4
Total	**19.0**

Source: Defra (2025), Agriculture in the United Kingdom 2024

While there is no definitive UK-wide breakdown of employment by farm type, it was estimated that there are 261,000 people employed in animal agriculture out of the 452,940 who work in all farming, which includes arable agriculture[23]. Compared to England, this accounts for a greater share of employment in Wales and Northern Ireland and to a lesser extent Scotland, due to the land available.

Similarly, there is no breakdown of GVA for each farm type, so it was assumed that productivity in the animal agriculture sector would be similar to the overall sector (or 43% of turnover would be GVA). On this basis, it was estimated that the economic impact of agriculture would be £8.1 billion GVA and 261,00 jobs.

The role of the veterinary sector in animal agriculture was then considered to determine the share of production that could be attributed to them.

While there have been a number of changes in production, including increased use of automation and genetics, without the veterinary sector the increase in production and productivity would likely have been curtailed. Vets have contributed to improved fertility, high welfare standards, and improved nutrition as well as reducing the incidence of both endemic and epidemic diseases (discussed in Section 6.4).

Therefore, a share of the value associated with each of the different types of animal production has been attributed to the veterinary sector. For more intensive systems (e.g. pigs, poultry and dairy) where there is an increased risk of disease due to the close proximity of animals it has been assumed that 25% of the productivity gains are attributable to the veterinary sector. For more extensive systems (e.g. sheep and beef cattle) it has been assumed that 10% of the value can be attributed to the veterinary sector.

As a result, the total economic impact associated with the veterinary sector has been estimated as **£1.7 billion GVA and 36,780 jobs**.

[23] Defra (2025), Agriculture in the United Kingdom 2024

Table 6-4: Economic Impact of Animal Agriculture

	Total Impact		Attributable to Veterinary Sector	
	GVA (£bn)	Employment	GVA (£bn)	Employment
Dairy	2,704	42,670	676	10,670
Poultry	1,517	18,560	379	4,640
Eggs	580		145	
Pig	789	9,970	197	2,490
Beef	1,776	189,800	178	18,980
Sheep	755		76	
Total	**8,121**	**261,000**	**1,651**	**36,780**

6.2.6 Salmon Farming

Fish farming is an important source of animal production in the UK, particularly Scottish salmon, which accounts for the majority of production. In 2024, Scotland produced 192,000 tonnes of salmon[24]. Scotland has over 200 active salmon farms, many of them located in remote and rural areas, supporting communities with a source of employment and income.

In 2025, BiGGAR Economics was commissioned by Salmon Scotland to estimate the economic impact of salmon farming based on information provided by Scottish salmon producers, including Bakkafrost Scotland, Mowi Scotland, Scottish Sea Farms, Loch Duart and Cooke Aquaculture. Using a similar methodology to this report (taking into account direct, indirect and induced impacts), the study found that Scottish salmon farming contributed £953.2 million GVA and 10,850 jobs in Scotland in 2024[25].

The production of salmon is a multi-stage process starting from the breeding and fertilisation of salmon eggs, proceeding to the farming stage where the majority of the lifecycle of the salmon takes place in high-density fish pens in the sea. Subsequently, once they reach maturity, they are harvested, processed and distributed for sale. Salmon farming, alongside other forms of fish farming, is an intensive form of animal production and higher densities are correlated with increased incidence of diseases and parasites, such as sea lice[26]. Sea lice is one of the largest challenges of salmon farmers with sea lice contributing to fish mortality as well as spoiling the quality of produce (resulting in it being unsellable).

Veterinary teams play an important role in the breeding, fertilisation and farming of salmon ensuring aquaculture systems are sustainable and minimising any

[24] Scottish Government (2025), Scottish Fish Farm Production Survey 2024
[25] Salmon Scotland (2025), The Economic Impact of Scottish Salmon Farming
[26] Boerlage, A., et al. (2024), Sea lice management measures for farmed Atlantic salmon (Salmo salar) in Scotland: Costs and effectiveness. *Aquaculture, 580*, 740274

environmental impact. They advise on the appropriate usage of vaccines and medications, which ensures a high degree of animal health and welfare and allows famers to operate their farms commercially by reducing fish mortality and infection rates[27]. In recent years, lice have developed increasing resistance against vaccines and medicinal delousing measures, necessitating alternative methods including the use of cleaner-fish and mechanical delousing procedures[28].

The contribution of the veterinary sector is assumed to be 10%; this is less than other agriculture production sectors due to a larger availability of non-medicinal options of dealing with lice. Therefore, the impact of the veterinary sector has been estimated to be **£95.3 million GVA and 1,085 jobs**.

Table 6-5: Economic Impact of Animal Production

	GVA (£m)	Employment
Aquaculture	953.2	10,850
Attributable to Veterinary Sector	**95.3**	**1,085**

6.3 Food Processing

6.3.1 The Abattoir Sector

Abattoirs are a vital part of the UK food system, where animals raised for meat, such as cattle, pigs, sheep and chicken, are slaughtered and processed.

Typically, farmers will transport their livestock to the abattoir, where they will be processed, stunned and humanely slaughtered. Skilled operatives using specialised machinery will then process the animals, resulting in cuts of meat as well as valuable by-products such as skins. These are then chilled or frozen and sent on to customers.

The sector has traditionally been characterised by a mixture of small processors, who serve smaller farms and butchers, and larger facilities that are more likely to supply larger companies, such as supermarkets. However, in recent years the number of small abattoirs has been in decline due to high costs and workforce challenges (including vet shortages), leading to longer journey times for farmers and consolidation[29].

In 2023, the latest year for which data is available, the total revenue of the abattoir sector was £18.0 billion, with GVA of £3.3 billion[30] and estimated employment of

[27] WVA (2024), WVA Position Statement on the Role of Veterinarians in Aquatic Animal Health
[28] Boerlage, A., et al. (2024), Sea lice management measures for farmed Atlantic salmon (Salmo salar) in Scotland: Costs and effectiveness. *Aquaculture, 580*, 740274
[29] Sustainable Food Trust (2025), Abattoir Users Survey 2025
[30] ONS (2025), ABS 2023

51,450[31]. Given the important role of vets and their teams, it was assumed that the impact would be 100% attributable.

Table 6-6: Economic Impact of the Abattoir Sector

	Value
Turnover (£bn)	18.0
GVA (£bn)	3.3
Employment	51,445

6.3.2 The Role of Veterinary Services in the Abattoir Sector

As abattoirs are the key point when animals enter the food supply chain, Official Veterinarians must be present on-site to ensure food safety and maintain animal welfare standards.

Official Veterinarians are generally senior figures within an abattoir, providing leadership for a team of Meat Hygiene Inspectors, ensuring that abattoirs follow regulations, including around preservation, and assessing documentation on animals to ensure that all of the necessary information is present.

Before an animal can be slaughtered, it must first be inspected by the Official Veterinarian for signs of disease or injury. Following slaughter, they also check the carcass for any signs of abnormality that may make the animal unfit for human consumption. For example, Official Veterinarians work to identify post-mortem lesions that may indicate infections such as bovine tuberculosis. If necessary, meat may be tested for the presence of pathogens or other contaminants. This is a critical step in disease surveillance, as this may be the first indication that an animal is sick with a disease that could have potentially devastating consequences.

Official Veterinarians have a role in monitoring welfare standards, so that animal distress and suffering is minimised during slaughter. This includes reviewing the mandatory CCTV footage and reporting any welfare breaches.

Ultimately, they are responsible for application of the health mark that signifies meat is fit for human consumption and the meat can be placed on the market.

Given the central role played by Official Veterinarians in supporting the abattoir sector, it is reasonable to attribute a high proportion of the economic impact of the abattoir sector to the veterinary sector.

[31] ONS (2025), BRES 2023

Official Veterinarians are a category of private vet that has been authorised by the Animal and Plant Health Agency to undertake work on behalf of the UK Government. To qualify vets must hold a relevant Official Controls Qualification (Veterinary), be registered with the RCVS and continuously validate their credentials.

As will be discussed throughout the report, Official Veterinarians play a number of roles, particularly in relation to supporting the health and welfare of agricultural animals, preventing disease, ensuring food safety and controlling the import and export of animals and animal products.

6.4 Control of Animal Disease

As discussed, disease is increasingly an area of concern for farmers, including both endemic diseases, which are present at low levels in animal populations (e.g. mastitis), and epidemic diseases, which can spread quickly from animal to animal and from farm to farm. Vets are at the front line of preventing and treating diseases, as well as preventing the outbreak of epidemics.

6.4.1 Endemic Disease

Endemic diseases are those that are persistently present in animal populations, which can lead to increased illness, lower productivity and increased costs (e.g. in the form of medicines). It is estimated that endemic diseases cost farmers £290-710 million annually, as well as significantly reducing animal welfare as animals suffer from pain and infection.

Common diseases that affect cattle, and which can have productivity, welfare, commercial and trade implications include:

- Bovine Respiratory Disease (BRD) – a complex pneumonia mainly affecting calves, associated with various infectious agents coupled with management factors;
- Bovine Viral Diarrhoea (BVD) – a contagious viral disease, that often centres on persistently infected individuals;
- Bovine tuberculosis (bTB) – an infectious respiratory disease, which currently requires culling. Badgers can act as a reservoir for the disease, resulting in new infections in cow populations even if they have been designated officially TB free.
- Mastitis – a painful infection of a dairy cow's udder, which significantly impairs milk production.

Among pigs the most prevalent disease is Porcine Reproductivity and Respiratory Syndrome (PRRS), which affects the immune system, resulting in reproductive problems in sows and respiratory problems in piglets. It is estimated that this leads

to a £40-million productivity loss in the UK. Other diseases include respiratory diseases such as influenza and intestinal diseases.

Among sheep the most harmful diseases tend to be parasites, including worms and sheep scab, which affects the skin. Among poultry, a number of respiratory (e.g. infectious bronchitis) and intestinal diseases (e.g. coccidiosis) can result in mortality and/or reduced growth. In high density poultry farms these diseases can spread very quickly and be economically significant.

While these are some of the most common diseases that affect livestock, there are a range of maladies that each require a tailored approach to diagnostics and treatment, typically led by a vet.

In addition to medical treatment, vets may give advice on management practices, such as controlling the environment and avoiding the conditions (e.g. damp, dirty) which make animals more susceptible to infections. For example, dairy cows are more likely to develop mastitis in dirty cubicles, or where milking machinery is not properly maintained.

Biosecurity procedures are also important, ensuring that people wash or don clean clothing when entering facilities, controlling vehicle entry and otherwise reducing channels for disease transmission. This is particularly important in high density agriculture such as pig and poultry farming.

Increasingly, the veterinary sector and farmers take a more holistic approach to animal health, considering areas such as nutrition (as better nourished animals will be less susceptible to disease) and the wider environment, for example, proximity to wildlife reservoirs such as badgers, which can spread disease.

Prevention also includes mass or strategic vaccination of animals by vets, helping to prevent Marek's Disease and infectious bronchitis (chickens), toxoplasmosis and enzootic abortion of ewes (sheep), PRRS and porcine circovirus disease (pigs) and bovine viral diarrhoea (cows). It is particularly important that animals are vaccinated when young, or else that pregnant animals are vaccinated and can pass on antibodies to their young.

Typically, vets have a role in the design of vaccination programmes and will suggest those that are most appropriate to the herd or flock. They will also provide training for farm staff and advice on ensuring that vaccines are handled properly to maintain their effectiveness.

In addition, vets will routinely monitor herd health in preventative programmes to ensure that animals are in good health — especially important for diseases that are not always obvious. An example is the National Johnes Management Plan, entirely veterinary led and delivered to over 90% of all dairy herds.

Throughout all these procedures and interventions, vets are supported in farm practice by veterinary technicians, TB testers, AI technicians, ultrasonographers (for pregnancy testing), bovine foot trimmers and other members of the veterinary team.

6.4.2 Epidemic Disease

As defined by the Centre for Disease Control (CDC)[32], an endemic disease is consistently present in a specific geographical area or at a population level. This is referred to as the baseline level of the disease and in the absence of intervention, and assuming that the level is not high enough to deplete the pool of susceptible persons, the disease may continue to occur at this level indefinitely. An epidemic refers to an increase, often sudden, in the number of cases of a disease above what is normally expected in a specific population and area.

Over time these diseases are made more likely by two main factors:

- increasing stocking densities of livestock, particularly in developing countries that may have less robust biosecurity protocols. This can create the ideal conditions for pathogens to spread or mutate and become more contagious; and
- globalisation, meaning that pathogens are able to spread more quickly and potentially diseased animal products may be exported.

Epidemic diseases have the potential to significantly damage human or animal health, or the economy. Some of these are known as 'notifiable diseases' and may be included on the National Risk Register, such as the four diseases listed in Table 6-7. Typically, either there are no vaccination programmes or other treatment options available or these are not permitted for the disease.

Table 6-7: Some examples of Notifiable Diseases

	Description
Foot-and-Mouth Disease	This is a highly infectious viral animal disease with significant economic impact, affecting several types of animal including cattle, pigs, sheep, deer and goats. It is easily spread through direct contact with infected animals, with secretions of infected animals, with products of infected animals (meat, milk, hair), clothing, contact with contaminated equipment, vehicles and feed. A National Audit Office report to Parliament on the handling of the 2001 Foot-and-Mouth outbreak showed that the outbreak cost the public sector over £5.2 billion and the private sector more than £8.6 billion (in 2023/24 prices)[33] and resulted in the culling of over 6 million animals.
African Swine Fever	This is a highly contagious haemorrhagic viral disease that affects pigs and wild boar but does not infect humans. Acute forms affect multiple organ systems and have fatality rates as high as 100%.

[32] Centers for Disease Control and Prevention Archive. Introduction to Epidemiology Section 11: Epidemic Disease Occurance

[33] National Audit Office (2025), Resilience to animal diseases.

	Description
	The virus remains stable in the environment for several weeks and in frozen products such as meat for many months. It can be spread by direct contact with infected live or dead pigs, their secretions, pork products, contaminated feed, and non-living objects such as shoes, clothes and vehicles. There have been recent outbreaks in countries across Asia and Europe, resulting in the culling of millions of pigs. Wild boar populations act as reservoirs.
Highly Pathogenic Avian Influenza	This is a highly infectious influenza causing significant morbidity and mortality in susceptible avian species. Avian influenza is primarily a disease of birds but can be transmissible to humans and other mammals through prolonged, direct contact with infected birds or contaminated material (discussed in Chapter 8). The economic consequences for poultry farms can be devastating, resulting in mass death and culling, with the wild bird population acting as a reservoir, while also experiencing significant fatalities.
African Horse Sickness	This is a vector-borne animal disease that is spread by midges and affects horses, donkeys, zebras and mules. It can be fatal in 90% of cases, but does not affect humans. There have been no cases in the UK to date, with the majority of outbreaks occurring in Sub-Saharan Africa where the zebra acts as a reservoir.

Vets play a pivotal role in the identification and treatment of these diseases. In their normal practice visits to farms, private vets act as the frontline of surveillance for detection of new infectious disease outbreaks. They also advise farmers on biosecurity measures to prevent the spread of diseases.

If an instance of any of these diseases is suspected, there is a legal obligation to notify the Animal and Plant Health Agency (APHA) in Great Britain or the Department of Agriculture, Environment and Rural Affairs in Northern Ireland. APHA is a UK-wide agency with 2,200 employees that is responsible for identifying and controlling endemic and exotic diseases in animals, plants and bees, and surveillance of new emerging diseases. Its responsibilities include undertaking scientific research on prevention and treatment, facilitating trade in animals and plants, protecting endangered wildlife and regulating the safe disposable of animal by-products.

In the event of suspicion of a new infectious disease outbreak, APHA vets will instigate a series of actions to identify, control and stamp out the disease. The following steps would be taken in the event of an outbreak[34][35]:

- identification of the disease by an APHA Veterinary Inspector – testing will take place urgently at a highly secure laboratory;

[34] Defra (2025), Foot-and-Mouth disease control strategy for Great Britain

[35] Scottish Government (2022), Exotic animal disease contingency framework plan

- a strict quarantine will be imposed, with no animals, people, vehicles or anything else being allowed to leave the premises, and a Temporary Control Zone will be put in place around the premises;
- at this stage an outbreak may be declared at a conference of the four national UK Chief Veterinary Officers. Following this relevant parties will be informed via an Amber Teleconference;
- generally at this stage animals at the infected premises will be valued and then humanely euthanised to prevent the continued spread of the virus. The remains will then be disposed of;
- preliminary cleansing and disinfection will take place, overseen by APHA agents, including cleansing of the premises, vehicles and equipment;
- secondary cleansing will take place at a later stage, including the disinfection of manure, feed, and slurry;
- extensive tracing, including developing a detailed history of the animals to understand the source of the infection. Sources may include new animals added to the herd, wildlife populations (e.g. badgers) or humans/vehicles carrying traces of the disease;
- if necessary, additional quarantine procedures will be put in place at other sites that are suspected of having the disease; and
- an official control zone will be established, as well as a wider surveillance zone, with movement restrictions and testing to ensure that the disease cannot spread further. For vector-born diseases (e.g. spread by midges) these zones can be very wide, with a radius for African horse sickness of up to 150km.

Once the secondary cleansing has been undertaken, controlled restocking of the farm can take place. During this period, new animals will be monitored to ensure that they do not have the disease.

Vets at APHA play a critical role in ensuring that the appropriate procedures are undertaken, and that this is done in the most humane way (e.g. culling of animals). Private vets may play a role in advising the farmer at the infected premise, or in the wider area, particularly about appropriate biosecurity protocols.

6.4.3 Economic Impact of Preventing Epidemic Diseases

As discussed, epidemic diseases can have potentially devastating economic consequences. Scenarios developed as part of the National Risk Register provide an indication of the potential impact of an outbreak of one of the four diseases identified in Table 6-7, which are discussed below and assigned a risk rating of 1-5.

As no counterfactual exists (where vets take no steps to prevent diseases), it is not possible to determine how big a role that vets play in preventing the outbreak of these diseases. However, given the frequent incidences of pathogenic diseases requiring APHA's involvement, it would be reasonable to expect that this level would be higher without vets.

If one of these outbreaks were to occur, there would be significant disruption to animal production, with widespread culling and export restrictions.

Table 6-8: National Risk Register

	Scenario	Likelihood
Foot-and-Mouth Disease	1.9 million animals culled, and up to 9 months export restrictions	Category 2 (0.2-1.0%)
African Swine Fever	4 months quarantine, followed by 9 months export restrictions. 780,000 animals culled*.	Category 3 (1.0-5.0%)
Avian Influenza	250 large premises affected in a 6-8 month period, with 6-8 million birds killed or culled. Up to 2 months export restrictions	Category 3 (1.0-5.0%)
African Horse Sickness	6 months to address crisis, with a further 2 years of export restrictions	Category 1 (<0.2%)

Source: HM Government (2025) National Risk Register 2025 edition. *BiGGAR Economics Assumption, based on reduction in cattle numbers associated with Foot-and-Mouth disease.

To estimate the economic impact associated with a reduced incidence of notifiable diseases in Table 6-7, it was assumed that without the intervention of the veterinary sector there would be a reduction in exports and an increase in animal deaths.

To estimate the impact associated with reduced exports, annual export data associated with meat products and live animals (mainly horses) was collected[36] and converted into monthly figures. This was then multiplied by the number of months that there would be export restrictions.

On this basis, it was estimated that the export losses associated with each outbreak would range from £71 million for poultry, due to the short-term nature of assumed export restrictions, to £855 million for horses, due to the long-term export restrictions.

Table 6-9: Avoided Economic Losses Associated with Lower Exports (£m)

	Annual Export Value	Export Losses from Outbreak
Foot-and-Mouth Disease	568	426
African Swine Fever	252	273
Avian Influenza	423	71
African Horse Sickness	342	855

Source: BiGGAR Economics Analysis

In addition to export losses, there would be losses associated with animals dying from disease and culling. These animals' deaths would likely be compensated by the

[36] HM Treasury (2025), Trade info 2024

government (as otherwise farmers would have an incentive not to report diseases), and therefore this would represent a cost to the public.

Given the average cost of each animal and the number of animals affected, it was estimated that the total economic impact associated with an outbreak of Foot-and-Mouth disease would be up to £1.6 billion for cattle, due to the high average cost of each animal and the size of the cattle population in the UK, or £307 million for African swine fever and £178 million for avian influenza.

These contingent evaluations are not considered within the overall economic contribution of the veterinary sector. However, they may be a significant contributor to the overall success of each of these sectors.

Table 6-10: Avoided Economic Losses Associated with Culling and deaths (£m)

	Value per Animal* (£)	Affected animals (millions)	Animal Losses from Culling
Foot-and-Mouth Disease	868	1.9	1,648
African Swine Fever	391	0.8	307
Avian Influenza	25	7.0	178

Source: BiGGAR Economics Analysis. *Defra (2024), Farming evidence – key statistics.

6.5 Environment and Climate Change

As the world population continues to grow and the number of people that can afford to eat animal products increases, global consumption of animal-derived food is expected to double between 2008 and 2050. However, with increasing recognition that animal agriculture can be a significant contributor to environmental degradation, climate change and habitat loss, changes in animal production and farming practices are necessary to increase efficiency of agriculture and mitigate environmental impact. Reducing waste and disease, managing resource use, and mitigating environmental impacts like greenhouse gas (GHG) emissions can be managed through disease prevention, improved animal health and welfare, and advice on husbandry, nutrition, and land management. The veterinary sector help make farms more productive, efficient, and environmentally sustainable.

6.5.1 Sustainable Use of Resources

Healthy livestock are produced more efficiently, require fewer resources, minimise carbon emmissions per unit of productivity and hence have a reduced environmental footprint. This is mainly achieved through on-farm preventative healthcare discussed at 6.2 and disease control discussed at 6.4. Veterinary advisors also provide genetic and nutritional advice which includes ensuring animals are getting the correct diet for their stage of life, which improves feed conversion efficiency — a key metric for sustainability. Vets are also helping to use data-driven solutions to improve sustainable farming practices – using health records, production metrics and disease surveillance to identify areas for improvement.

Vets also help guide responsible use of medicines and parasiticides to reduce environmental contamination through animal waste. By focusing on preventative health and evidence-based treatments, vets help minimise the amount of pharmaceutical products and zoonotic pathogens from animal faeces that enter the wider ecosystem, particularly important in protecting water and soil systems.

6.5.2 Reduction in Methane

Ruminant farming is associated with climatic and environmental issues. There is huge scope to sustainably manage the livestock agricultural industry to reduce methane emissions through the adaptation of existing systems for higher productivity gains. Enhancing the health status of herds and flocks through endemic disease control strategies can increase productivity and reduce GHG emission intensity[37]. It has been suggested that implementing disease control measures including improving nutrition, biosecurity, vaccination and colostrum management could reduce GHG emissions from the cattle sector by 6% in the UK[38].

Feed additives that reduce methane production from ruminal archaea are another effective mitigation strategy, and since methane production is a heritable trait, selective breeding can be used to breed naturally low-emitting animals[39].

6.6 Farmer Education, Wellbeing and Resilient Communities

6.6.1 Knowledge Transfer

As discussed at 6.2, vets guide farmers in developing and implementing herd and flock health planning. These plans teach farmers about biosecurity, vaccination schedules, parasite control, and nutrition. The veterinary team also provides education and information to farmers via formal training courses, meetings and information sheets, as well as through informal one-to-one contact during visits.

By shifting the focus from treating individual sick animals to preventing disease in the entire group, vets empower farmers to make proactive decisions that improve long-term profitability. Through their advice, vets help farmers understand the hidden costs of disease, such as reduced milk yield, slower growth rates, and lower fertility. Vets teach farmers how to monitor key performance indicators (KPIs) and use these data to identify inefficiencies. This education contributes to a more productive, sustainable and profitable enterprise. For example, a study in Scotland found that for every £1 spent on veterinary services, farmers generated £26.52 in output[40].

---

[37] Shuttleworth F and Lord Trees. (Last updated March 2025) UK Net Zero, Methane and Rumimants Fact File

[38] Bartley, D. J., Skuce, P. J., Zadoks, R. N., MacLeod, M. (2016) Endemic sheep and cattle diseases and greenhouse gas emissions

[39] Jenkins J et al (May 2024) Climate Xchange. Breeding for reduced methane emissions in livestock

[40] Scottish Government Agriculture and Rural Economy Directorate (2020) Veterinary profession's value to Scotland: preliminary economic assessment

Vets are also involved in training paraprofessionals. For example, all AI technicians, must be trained by a qualified vet.

6.6.2 Farmer Wellbeing

The farming community has a lower average mental wellbeing than the UK population, with over one-third of the community likely experiencing depression[41]. Key issues that drive this low wellbeing include a lack of control, particularly over finances and public perceptions of farming, and challenging working conditions that can lead to isolation and loneliness[42].

Vets have a significant positive impact on farmer wellbeing by acting as a crucial source of support and helping to reduce the financial stress caused by animal illness and disease. Typically, a farmer will see their vet far more frequently than their doctor, fostering a trusted professional relationship. Regular farm visits provide an opportunity for farmers to talk to someone who understands their unique challenges. This interaction serves as a key social connection in isolated rural communities, with the vet often becoming a trusted advisor and confidante who helps combat loneliness and isolation.

There is a strong association between the welfare of livestock and farmer wellbeing, with changes in livestock welfare relative to other farms being linked to changes in symptoms of anxiety, depression, and psychological distress, as well as reports of poor life satisfaction in farmers[43]. A worsening in farm welfare has been linked to reduced life satisfaction, equating to a wellbeing impact of 0.5 WELLBYs[44]. If all 261,000 people working in farming were to experience poor animal welfare at their work, then the distress to the farming community would be equivalent to 130,449 WELLBYs, worth £2.3 billion. Under the assumption that the veterinary sector prevent at least 50% of this loss, this suggests the veterinary sector is responsible for preventing a loss of 75,249 WELLBYs from poor animal welfare, worth £1.0 billion.

Additionally, since the veterinary sector play a role in supporting social connection, there are likely benefits from reduced loneliness. A reduction from moderate to mild in loneliness has a wellbeing impact worth 0.7 WELLBYs[45]. One in four farming people occasionally feel lonely, sometimes (14%), or often/always lonely (4%). it was assumed that loneliness would be 25% higher without veterinary teams, suggesting

[41] The Big Farming Survey: The health and wellbeing of the farming community in England and Wales in the 2020s, Royal Agricultural Benevolent Institution (RABI), 2021.

[42] Garner, I. W., McFeeters, D., Guy, A., Hopley, R., & Galbraith, N. (2025). Understanding farmer mental health and wellbeing in a volatile, isolating, and misunderstood industry. *Journal of Rural Studies*, *118*, 103648.

[43] Steen, N. A., Muri, K., & Torske, M. O. (2024). Exploring longitudinal associations between farmer wellbeing and the welfare of their livestock. The HUNT Study, Norway. *Preventive Veterinary Medicine*, *233*, 106361.

[44] Steen, Muri, & Torske (2024) carry out estimations of the effect of changes in farm welfare and life satisfaction using a dichotomised variable showing effects that last at least two years. Their results are estimated to have a life satisfaction effect of at least a 0.5.

[45] Peytrignet, S., Garforth-Bles,S. Keohane. K. (2020) Loneliness monetisation report. Analysis for the Department for Digital, Culture, Media & Sport.

they are responsible for reduced loneliness benefits totalling 8,221 WELLBYs, worth £131 million.

Overall, the veterinary sector brings a total of 73,471 WELLBYs to farmers, worth **£1.2 billion**.

Table 6-11: Wellbeing Impact on Farmers

	WELLBYs	Wellbeing Benefit (£m)
Animal Welfare Related	130,449	2,306
Loneliness	8,221	131
Total	**138,720**	**2,305.7**
Attributable to Veterinary Sector	**73,471**	**1,221.2**

6.6.3 Community Resilience

Vets help rural communities withstand shocks and maintain stability. In the face of a major disease outbreak like Foot-and-Mouth disease, vets are the first line of defence. Official Veterinarians and farm vets work with government agencies to conduct surveillance, enforce biosecurity, and contain outbreaks. Their rapid response prevents widespread economic devastation, as an uncontrolled outbreak could collapse the entire livestock sector, causing significant job losses and rural depopulation.

By safeguarding the health of farm animals, vets directly protect the primary assets and income source for farmers and their families. This helps provide some stability and a reliable income stream for farmers and has a positive ripple effect throughout the local economy, supporting local businesses like feed suppliers, hauliers, and abattoirs. Overall, this makes the community more resilient against economic volatility.

6.7 Food Production and Food Safety Summary

Veterinary services in the UK's food production sector are fundamental to its high-quality standards, high welfare, large scale production and food safety.

Agriculture forms the basis for the UK's £153.2 billion agri-food sector, with animal agriculture generating an estimated £9.1 billion GVA and supporting 271,850 jobs. The sector has grown significantly more productive over time as farmers have specialised. Vets and associated professionals are key, ensuring that animals are in good health, through regular check ups, vaccinations and medical care, and increasing productivity. We estimate that without this contribution the sector would be around 20% smaller, equivalent to **£1.7 billion GVA and 37,865 jobs**.

As discussed, the veterinary team is also an integral part of the food processing sector, and this key role we estimate generates **£3.3 billion GVA and 51,445 jobs**.

Table 6-12: Economic Impact of Animal Production

	GVA (£m)	Employment
Animal Agriculture Total	9,074.4	271,850
Attributable to Veterinary Sector	**1,746.0**	**37,865**
Food Processing Total	3,329.0	51,445
Attributable to Veterinary Sector	**3,329.0**	**51,445**

Vets also support wider initiatives in the animal production sector, including by assuring welfare standards (e.g. the Red Tractor scheme), increasing agricultural sustainability, reducing methane emissions and transferring knowledge to farmers. Vets' vital role in supporting communities and farmer wellbeing, a profession that often has poor mental health, increases wellbeing and this was estimated to be worth £1.2 billion in wellbeing benefits.

One of the most serious and important roles that vets have is in reducing the incidence of disease, particularly outbreaks of highly infectious and economically damaging diseases, such as Foot-and-Mouth disease, African swine fever and avian influenza. Vets monitor animal health, acting as the front line in the disease surveillance system, while vets in APHA lead the response to an outbreak, ensuring that proper protocols are followed and that an epidemic doesn't begin. This would be devastating, requiring the culling of millions of animals and affecting exports. An outbreak of Foot-and-Mouth disease in 2001 cost an estimated £13.8 billion.

These contingency values, whilst potentially huge, are difficult to predict and of uncertain size, so are not included in the overall GVA impact estimate for the veterinary sector.

7. International Trade

Vets carry out surveillance and enforcement required to certify the trade in animals and animal products across the UK's borders.

As a country with trade ties with Europe and elsewhere in the world, the UK has significant imports and exports of animals and animal products, of which the largest are live animals, meat products, dairy and eggs.

Since the UK's withdrawal from the European Union (EU), frequently known as Brexit, vets have played an increasingly important part in ensuring that the UK is able to continue to export animals and animal products to the EU and in protecting UK biosecurity risks arising from EU and non-EU imports.

The movement of dogs and cats as companion animals travelling with their owners, previously regulated under the Pet Travel Scheme and since Brexit under other regulations, is dependent on veterinary oversight for the issue of health certificates and administration of vaccinations. As these animals are not destined for sale, they are not counted in the trade valuation of exports but the vital role vets play in the movement of hundreds of thousands of these companion animals contributes to practice income (covered in Section 5.2) and human wellbeing.

The value of exports is captured elsewhere, within the economic value of animal agriculture (Section 6.2) and horse racing (Section 10.1).

7.1 Imports and Exports of Live Animals

In 2024, there were total exports of live animals from the UK of £605 million, as well as imports of £681 million[46].

The largest source of trade in live animals is associated with the import and export of horses (£493 million and £342 million respectively), of which the horse racing sector accounts for 89% of imports and 83% of exports. These are animals being sold to other countries and/or for breeding purposes. It does not include animals that are taking part in races outside of the UK.

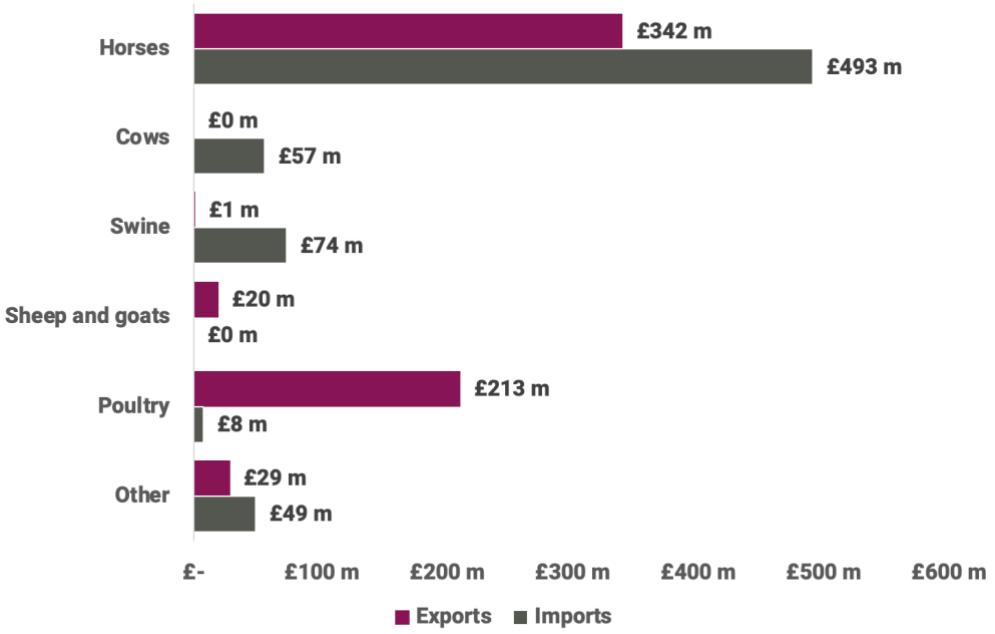
The largest destination for exports for all horses are Ireland (70%) and France (19%). While the majority of horses exported from the UK go to the EU (59%, mainly Ireland and France), significant numbers also go to the United States of America (USA, 13%) and Australia (10%), as well as the Middle East, Hong Kong and Japan.

[46] HM Treasury (2025), Trade Info.

The second largest source of live exports are poultry, accounting for £213 million in 2024, which mainly consists of day-old chicks as well as turkey poults. These are predominantly exported to Europe (57%), as well as the Middle East and South Africa. Most of these chicks are of high genetic worth and constitute the foundation breeding stock to produce commercial broilers and egg-layers, worth up to £3,000 per chick.

In addition, the UK imports £57 million of cows (mainly for breeding) and £74 million in swine (mainly for breeding). Other sources of imports include primates from Belgium (around £13 million).

Figure 7-1: Imports and Exports of Live Animals, 2024



Source: HM Treasury (2025), Trade Info

7.1.1 Trade in Horses

The UK is a large exporter of horses, particularly race horses, to EU and elsewhere in the world. Since Brexit the UK has been treated as a 'third country', requiring horses to meet more stringent certification requirements for EU export.

For example, the horse must undergo blood tests and vaccinations to receive an EHC for every journey to the EU and be isolated for a minimum period in establishments under veterinary supervision. A final clinical inspection must take place shortly before the animal travels, and the horse's identity must be verified against its microchip and passport. This is also the case if the horse is entering/leaving the UK temporarily to take part in a race, though this would not be counted as part of the trade statistics.

While the EU is the UK's primary trade partner, the UK also has trading links with countries such as the USA and Australia, which also have strict biosecurity controls. Official Veterinarians play a key role in this process, carrying out specific tests and

vaccinations, and providing the necessary documentation. For both the USA and Australia, Official Veterinarians must provide sign-off that the horses are fit to travel, and coordinate with relevant authorities in each country.

For horses being imported into the UK, Official Veterinarians play a role in ensuring that the animal is healthy and has all official documentation, and may carry out additional checks, such as blood tests. An Official Vet from the exporting country will typically provide an export health certificate attesting compliance with the relevant import requirements. Other animals being imported to the UK require similar checks, and for primates, which are typically imported for laboratory testing, the UK must demonstrate its commitment to animal welfare (animal welfare in research is discussed in Section 11.2.2).

7.1.2 Trade in Poultry

The UK exports large numbers of day-old chicks and turkey poults to the EU and elsewhere, valued at £213 million in 2024. This is due to its world-class genetic research, resulting in high quality poultry that has high feed conversion efficiency and robust health, and its strict biosecurity controls.

Official Veterinarians are crucial to maintaining these high standards, with constant monitoring of parent flocks and routine disease surveillance. This has been supported by the innovation of compartmentalisation, where unique populations (e.g. flock farms and hatcheries) are able to maintain their disease-free status, even in areas where there may be an outbreak of contagious diseases, such as avian influenza.

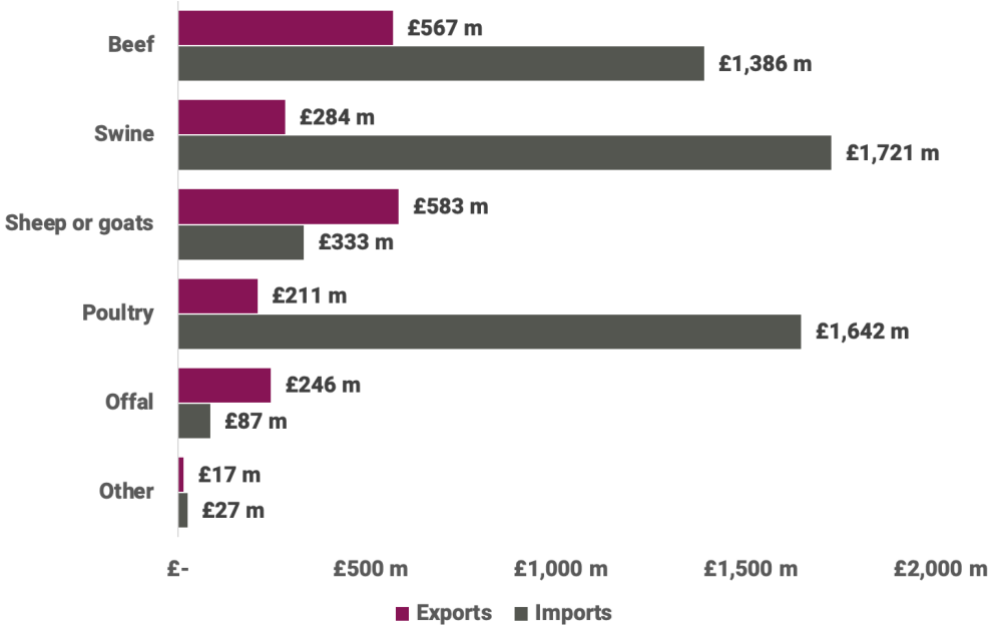
When exporting, Official Veterinarians must provide documentation, such as an EHC, to prove that the chicks and poults meet the requirements of the importing country. They also ensure that the chicks are fit to travel and that travel conditions meet welfare standards.

7.2 Imports and Exports of Animal Products

In 2024, the UK exported £1.9 billion worth of meat products, mainly beef, pork and lamb, mainly to the EU (76%). It also imported £5.2 billion of meat products, with the EU also being the biggest source of imports (87%)[47].

[47] HM Treasury (2025), Trade Info

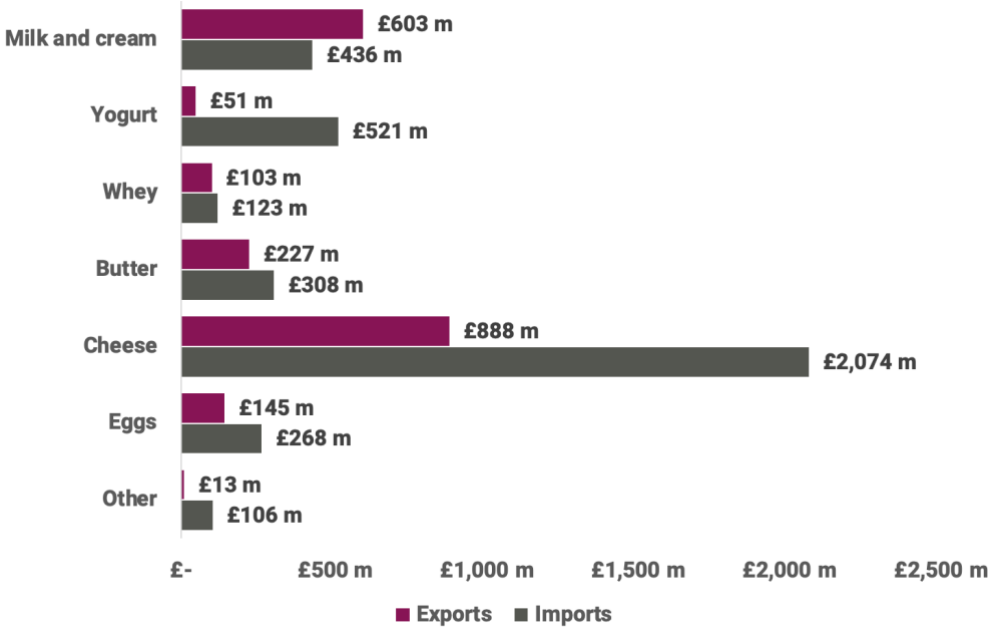
Figure 7-2: Imports and Exports of Meat Products, 2024



Source: HM Treasury (2025), Trade Info

Similarly, the UK exported £2.0 billion worth of dairy and eggs (mainly cheese, milk and cream) in 2024, predominantly to the EU (73%) and imported £3.8 billion worth of dairy and eggs (mainly cheese, yogurt, and milk and cream), almost all of which came from the EU (96%).

Figure 7-3: Imports and Exports of Dairy and Eggs, 2024



Source: HM Treasury (2025), Trade Info

7.2.1 Role of Vets in the Import and Export of Animal Products

Vets play a critical role in ensuring that the animal products exported are free from disease and, where applicable, fit for human consumption, through routine monitoring for disease (Section 6.2 and Section 6.4). In addition, Official Veterinarians have a legally mandated role in ensuring that animal products are safe and that they meet the requirements of importing countries.

For most Products of Animal Origin for human consumption Official Veterinarians must provide an EHC, which certifies that they meet relevant health requirements. These include both animal and public health requirements including disease freedom as well as compliance with Maximum Residue Limits for pharmaceuticals, pesticides and other contaminants. Official Veterinarians also carry out auditing of meat plants and other establishments to ensure they comply with regulations.

For imports of animal products, Official Veterinarians will verify certification and physically check the meat products, which may include sampling, to ensure that they are safe to enter the country. If the Official Veterinarian thinks they pose a risk to safety (e.g. because the cold chain has been broken) they can order that the products be destroyed.

7.3 International Trade Summary

Official Veterinarians are extremely important to the UK's imports/exports of live animals and meat and animal products.

Live animals need to be issued with EHCs, which can require vaccinations and quarantine in some cases. This includes the exports of horses and live chicks, which are based on high welfare standards and good breeding programmes, which make them desired across the EU and the world.

Vets also need to certify food products of animal origin as fit for human consumption, which requires high health and welfare standards in abattoirs and sign off from Official Veterinarians. In total, the veterinary sector support **£4.5 billion in exports.** They also help to ensure that imports to the UK do not introduce diseases, and that animal products imports are fit for consumption. They support **£9.7 billion of imports** into the UK.

Table 7-1: Total Imports and Exports (£m)

	Exports	Imports
Live Animals	605	681
Meat Products	1,908	5,196
Dairy and Eggs	2,030	3,837
Total	**4,543**	**9,714**

Exports are part of the economic activity considered in other sections (in particular food production, considered in Chapter 6) and so the total economic impact from exporting are not separately identified in the summary tables in Chapter 1 (to avoid double counting). The economic activity associated with imports occurs mainly in the producing countries and so the value of imports (other than that caputured within the food production value chain in the UK, considered in Chapter 6) is also excluded from the total economic impact in the UK.

8. Public Health

Vets are at the frontline of surveillance and prevention of zoonotic diseases that have the potential to spread from animals to humans.

The majority of emerging diseases originate in animals, so veterinary expertise is an important foundation to global health security in humans. An estimated 60% of all existing human infectious diseases and 75% of new or emerging infectious diseases have an animal origin[48], and these are a major threat to public health globally.

Vets operate at the front line in surveillance, reducing the risk of disease in animal populations and in combatting outbreaks. They diagnose and report zoonotic diseases, triggering a public health response before an epidemic or pandemic can occur. They also manage endemic diseases in animal populations through vaccination, biosecurity protocols, and health planning – reducing the animal reservoir that poses a risk to humans.

A worldwide approach is required as diseases from animals can originate from anywhere. Vets make crucial contributions to the "One Health" concept that advocates for a unified approach against zoonoses involving both human and veterinary medicine.

8.1 Zoonotic Diseases

Zoonoses are defined as diseases that are transmitted from animals to humans, and these have the potential to be fatal and/or highly transmissible.

A number of zoonotic diseases have led to significant human fatalaties. These include: the 1918 flu pandemic, an avian influenza that is likely to have come from wild birds and may have been 'mixed' in agricultural pigs that killed at least 50 million people[49]; Ebola, a disease in West Africa with a very high mortality rate, likely to have originated from the consumption of primate meat infected by fruit bats; and a range of other infectious diseases, such as HIV/AIDS, and rabies.

The recent example of a pandemic that may have had an animal source is Covid-19, a novel coronavirus that may have originated from bats via an animal such as a pangolin. An alternative origin is from a lab leak of a human modified virus. Whatever its origin, from early 2020 the disease led to widespread fatalities, with an estimated 14.9 million people dying across the globe as a result of the disease[50].

[48] World Heath Organisation , October 2023. One Health: Key facts
[49] Worobey et al. (2019), The origins of the great pandemic
[50] World Health Organization (2023), Global excess death associated with Covid-19

In response to the pandemic, the UK Government imposed lockdowns that particularly affected sectors such as hospitality and travel, as well as developing support schemes for those affected, such as the Coronavirus Job Retention Scheme (known as the furlough scheme). Overall, it has been estimated that Covid-19 in the UK:

- led to over 150,000 excess deaths between 2020 and 2022[51] [52] [53];
- resulted in a reduction in Gross Domestic Product (GDP) in 2020 alone of £269 billion, or 10.0% of GDP[54]; and
- directly cost the public purse at least £311 billion[55].

The recent experience from Covid-19 shows that preventing the emergence of pandemics can save countless lives and severe economic disruption.

The National Risk Register places the risk of a pandemic at 4 out of 5 (2-25% likelihood) with a catastrophic impact (5 out of 5). This is expected to be an influenza-like illness but may use different routes of transmission. While this is likely to arise elsewhere in the world, vets and other health professionals must work to prevent the outbreak of a pandemic in the UK.

8.2 One Health

One Health is a worldwide collaborative approach in which multiple sectors work together to achieve better public health outcomes, and this is considered essential for addressing major global challenges.

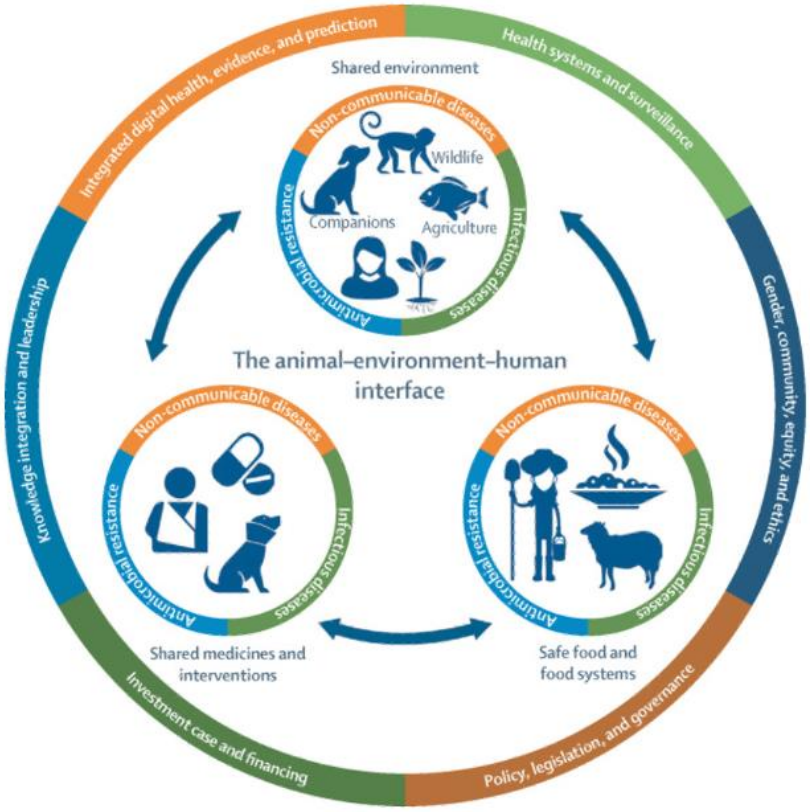
One Health recognises that the health and wellbeing of people, animals and the environment are inextricably linked and that threats to any one of these three areas - human, animal, or environmental - can directly compromise the others. The One Health approach requires professional collaboration across different disciplines, including vets, doctors and public health officials, environmental scientists, ecologists, agricultural experts and policy makers.

Vets provide frontline disease surveillance and their role is indispensable in this multifaceted strategy. As an example, One Health means that a vet investigating a disease on a farm will share information with a public health official who is treating human cases, while an environmental scientist may investigate the role of water contamination in the spread of the pathogen.

[51] ONS (2022), Excess deaths in England and Wales: March 2020 to June 2022
[52] Scottish Government (2023), Excess during the coronavirus (Covid-19) pandemic in Scotland
[53] NISRA (2023), Excess mortality and Covid-18 related deaths in Northern Ireland: March 2020 to December 2022
[54] ONS (2025), Quarterly National Accounts
[55] House of Commons Library (2023), Public spending during the Covid-19 pandemic

Figure 8-1: illustrates this multidisciplinary approach and shows that combatting infectious diseases and tackling antibiotic resistance are particularly relevant to the One Health approach.

Figure 8-1: One Health Approach to Public Health



Source: Veterinary Schools Council

8.2.1 The Role of Vets in One Health

The veterinary team plays a critical role in the One Health concept, serving as the essential professional link between animal health, human health, and the environment; acting as public health sentinels that identify and monitor animal reservoirs of disease. Their role is crucial in recognising, diagnosing and immediately reporting unusual diseases. The early detection of a pathogen is the first, most critical step in preventing it from spreading to the human population and causing an epidemic or pandemic. Vets collect, manage and analyse data to detect trends in animal health and identify high risk locations or practices. They contribute to national databases such as the Animal Disease Surveillance System and report to the World Organisation for Animal Health (WOAH).

Vets are involved in the Human Animal Infections and Risk Surveillance (HAIRS) group which identifies and assesses emerging infection risks to human health from zoonotic infections and makes recommendations for risk mitigation. Veterinary epidemiologists help to identify factors such as disease characteristics, transmission routes, host immunity, and environmental conditions to inform management strategies.

Vets are the primary professional gatekeepers responsible for preventing exotic diseases from entering the UK. Their contribution is crucial and spans border enforcement, national surveillance, emergency preparedness, and expert advisory roles. Official Vets stationed at ports, airports, and border inspection posts inspect imported livestock, pets, and products of animal origin to ensure compliance with strict health certifications, quarantine requirements, and traceability regulations. For diseases like rabies and African swine fever, vets verify vaccination records and health status and are the main reason the UK remains free of terrestrial rabies.

Vets also provide an active surveillance network throughout the UK by examining thousands of animals annually in clinical practice, looking for unusual symptoms that could indicate a foreign pathogen. This constant vigilance is essential for early detection and they are legally required to report any suspected case of a notifiable disease (such as rabies, Foot-and-Mouth disease and highly pathogenic avian influenza) immediately to APHA. This rapid reporting mechanism is the single most important factor in enabling effective, large-scale containment.

They have a similar surveillance role in respect to non-statutory reporting of endemic diseases in pets and livestock. This information helps public health agencies map high-risk geographical areas and target educational campaigns.

Vets are also essential in managing zoonotic infections in pets. The veterinary team helps to control these endemic diseases and advises on safe practices for interactions between humans and animals.

The contribution the veterinary team makes to endemic disease control through on-farm health and welfare management and food safety was explored in Chapter 6.

8.2.2 Antimicrobial Resistance

The ability to treat bacterial infections with antibiotics is a crucial element of both human and animal healthcare. The inappropriate use of antibiotics in both human and animal medicine can cause resistance to antibiotics that are crucial for the treatment of certain diseases. This resistance, and particularly the development of simultaneous resistance to several antibiotics, can severely restrict the ability to treat infections. Antimicrobial resistance (AMR) is considered by the World Health Organisation to be one of the top 10 global public health threats facing humanity[56]. It is already contributing to an estimated 35,200 deaths each year in the UK and treating AMR infections costs the NHS in England an estimated £180 million per year[57].

While most AMR arises from human usage, antibiotic-resistant bacteria can spread through bacterial populations from animals to humans (e.g. from direct contact, the environment and/or via the food chain) and from humans to animals.

[56] WHO (November 2023), Antimicrobial Resistance: key facts

[57] House of Commons. Committee of Public Accounts, Thirtieth Report of Session 2024-25. Antimicrobial resistance: addressing the risks

As part of the One Health strategy for tackling AMR in people, animals and the environment, the medical and veterinary professions have been tasked with reducing inappropriate prescriptions of antibiotics. Reducing the need for antibiotics is a major focus across all sectors of UK agriculture, although use has been most prevalent in poultry and pigs. Antibiotic usage for growth promotion in animals has been banned in the UK and across the EU since 2006, routine antibiotics are banned in all situations and antibiotics for use in animals must be prescribed by a veterinary surgeon. The Responsible use of Medicines in Agriculture Alliance (RUMA)[58] is committed to supporting a One Health approach and there has been substantial progress in reducing antibiotic use in animals in the past 10 years, with sales of veterinary antibiotics for use in food-producing animals dropping by 57% between 2014-2024[59].

The UK Government classifies AMR as a chronic risk – a long-term, gradually emerging challenge that erodes an economy, society, or security. The government spent over £560 million on its AMR programme from 2020–21 to 2023–24. This preventive health spending is intended to have a significant positive effect on government finances in the long term saving direct treatment costs and reducing hospital stays.

8.3 Public Health Summary

Zoonotic diseases, which originate in animals and transfer to humans, account for 60% of all existing infectious human diseases and 75% of new or emerging diseases.

They represent a serious threat to global public health, with examples including the 1918 flu pandemic, Ebola and HIV/AIDS. The most prominent recent example of a pandemic that may have had an animal origin is Covid-19, which led to over 150,000 excess deaths in the UK between 2000 and 2022, reduced GDP by 10% in 2020, and cost the public finances £311 billion. The most significant current threat to public health is considered to be highly pathogenic avian influenza.

The One Health approach, which considers the interconnectedness of humans, animals and the environment, is central to preventing the emergence of zoonotic diseases. Within this approach, vets help ensure that diseases such as rabies do not enter the UK. Along with other health professionals, vets have a key role in reducing the risk of AMR by limiting the use of antibiotics in animals.

The negative economic impacts of infectious human diseases can be huge, impacting significantly on all sectors of the economy. The role of the veterinary sector in reducing threats to public health is therefore crucially important to the resilience of the UK economy. However, the avoidance of negative economic

[58] An alliance of 26 organisations, including the British Veterinary Association, representing supply chains from farm to fork. It provides leadership to the UK livestock industry encouraging efforts to improve the responsible use of veterinary medicines while ensuring optimum animal health and welfare.
[59] UK Veterinary Medicines Directorate (November, 2025), Veterinary Antimicrobial Resistance and Sales Surveillance 2024. UK-VARS 2024 Highlights

impacts is of a different nature to the positive economic contributions that the veterinary sector makes to the sub-sectors considered in this report and so the public health benefits are not included in the total headline GVA, employment and wellbeing impacts summarised in Chapter 1.

9. Pets and Domestic Animals

Pets provide a range of benefits to owners, and their spending on pet products generates economic impacts.

Pets play an important role in people's lives with around 17.2 million households in the UK (60% of the total) owning at least one pet[60]. On the whole, pets are valued by their owners because they offer companionship, encourage physical activity, help reduce stress, and facilitate social connection.

The welfare of pets is an important part of realising these benefits and veterinary services are fundamental to ensuring pets live long and healthy lives. This supports a larger, healthier pet population, which brings benefits to owners and enables the growth of pet-related sub-sectors. The veterinary sector also plays a direct role in these sub-sectors, which generate significant economic impacts. This section estimates these benefits and examines the role of the veterinary sector in supporting them.

9.1 Pets in the UK

9.1.1 The UK Pet Population

Understanding the size of the UK pet population is key to estimating the economic and wellbeing benefit of pets.

Current estimates show that cats and dogs are by far the most popular pets, with populations of around 10.8 million and 10.6 million, respectively. Other popular pets, include indoor birds, fowl, rabbits, horses and ponies, tortoises and turtles, guinea pigs, hamsters, and snakes. The population of the ten most popular pets is 28.3 million (see Table 9-1).

Pet ownership is a relatively recent phenomenon, with a clear cultural shift from historically owning animals to meet functional purposes to owning pets for pleasure.[61] Dogs, for example, have long been part of human societies, but their roles were primarily utilitarian, such as hunting, guarding, and herding. It wasn't until the Victorian era that the modern concept of the dog as a house pet and family companion took hold. Since then, the UK pet population has steadily risen, driving demand for services and products that support pet health.

[60] UK Pet Food 2024 Annual Report, UK Pet Food.

[61] Howell, P., From Hounds to House Pets: A History of Dogs in England, English Heritage.

Aside from a notable increase in pet ownership during the Covid-19 pandemic the pet population has remained relatively stable in the UK for the last couple of decades[62].

Table 9-1: UK Pet Population

Type of Pet	Population (millions)
Cats	10.8
Dogs	10.6
Indoor Birds	1.5
Domestic Fowl	1.3
Rabbits	0.8
Tortoises and Turtles	0.7
Horses and Ponies	0.7
Guinea Pigs	0.7
Hamsters	0.6
Snakes	0.6
Other	2.9
Total	**28.3**

Source: PDSA Animal Wellbeing Report 2024; Top Ten Pets 2024 – UK Pet Food 2024 Annual Report

9.1.2 Pet Ownership Without Vets

To understand the role of the veterinary sector in ensuring benefits to owners and the economy, it is essential to estimate the size of the pet population in its absence.

It has been assumed that without access to vets, the UK's pet population would be far smaller, as both the appeal of pet ownership and animal lifespans would be significantly reduced. As such, many of the benefits associated with pet ownership would not be realised.

Reduced attractiveness of pet ownership: The veterinary sector enables owners to get treatment for their pets when they are sick, as well as help to prevent pets getting various illnesses in the first place. Without veterinary services owners would therefore have to do their best to prevent and cure sickness themselves, or otherwise endure their pet being sicker and for a longer period of time. Pet ownership would be more stressful for many and would likely reduce the attractiveness of owning a pet, resulting in lower pet ownership. Whilst noting the possibility that for some people pet ownership might become more attractive were there no veterinary sector, owing to lower pet care costs, it is likely that pet ownership would on the whole decrease.

[62] Murray, J. K., Gruffydd-Jones, T. J., Roberts, M. A., & Browne, W. J. (2015). Assessing changes in the UK pet cat and dog populations: numbers and household ownership. *Veterinary Record*, *177*(10), 259-259. PAW PDSA Animal Welfare Report 2023, PDSA

Within the UK, although there have been increases in both pet ownership and veterinary care expenditure, it is difficult to unpick the extent to which increases in veterinary care have led to greater pet ownership versus pet ownership driving increased veterinary care. Animal welfare charities have cited financial pressures leading to increase abandonment and requests for euthanasia[63] [64], which suggests that in the absence of affordable pet care, people would find it difficult to own pets.

While there is no clear evidence to help determine the UK's pet population in the absence of the veterinary sector, pet owners are unmistakably reliant on it and value it. As such, barring significant cultural shifts in animal welfare standards, without the veterinary team it is assumed that there would be 20% fewer pets in the UK.

Reduced pet longevity: Without veterinary services, pet health will be significantly compromised as diseases go untreated, leading to poorer welfare and a lower quality of life for the pet and higher rates of mortality.

Over the past four decades the life expectancy of dogs has doubled, and housecats now live twice as long as their feral counterparts[65] with veterinary care contributing to this increase. Whilst life expectancy varies by breed, the life expectancy of a UK companion dog is between 11 and 12 years[66]. Dogs without owners have much shorter lifespans, with the difference due to a lack of veterinary care, higher rates of disease and puppy mortality, as well as malnutrition and environmental factors.

For example, a large study of 40,000 dogs shows that sterilizing, on average, will increase a pet's lifespan by about 18%[67]. This suggests that in the absence of veterinary services there could be a reduction in pet life of upwards of 20%.

It is possible that some owners would simply replace their pets more frequently, but given the emotional bond that owners form with their animals it is likely that there would be a reduction in pet ownership. On balance, it has been assumed there would be a 20% reduction in life span across pets.

Overall reduction in pet ownership: With the likelihood of pets being both less attractive to own (assumed 20% reduction in pets) and having shorter lifespans (assumed 20% reduction), the overall reduction in pet ownership is assumed to be 36% lower without the veterinary sector (a 20% reduction on a total that is 20% smaller giving an overall reduction of 36%).

[63] PDSA (2024), PAW PDSA Animal Welfare Report 2023.
[64] RSPCA (2024), The Kindness Index 2023.
[65] "Dog life expectancy has doubled in the past 4 decades, and housecats now live twice as long as their feral counterparts"
[66] Teng, K. T. Y., Brodbelt, D. C., Pegram, C., Church, D. B., & O'Neill, D. G. (2022). Life tables of annual life expectancy and mortality for companion dogs in the United Kingdom. Scientific Reports, 12(1), 6415.
[67] Hoffman JM, Creevy KE, Promislow DEL. Reproductive capability is associated with lifespan and cause of death in companion dogs. PLoS One. 2013;8(4):e61082.

9.2 The Value of Pets

Pets occupy a unique and cherished place in many households, often considered an integral part of the family. The deep emotional bonds that are formed with pets suggest that they provide immense value.

9.2.1 Evidence for the Wellbeing Benefits of Pets

One way to think about the value of pets to society is through assessing the impact that owning a pet has on a person's wellbeing. It is commonly believed that pets benefit people by offering companionship, increasing opportunities for exercise and social connection, and reducing stress and anxiety.

While some studies support this belief, the evidence of a generalised pet wellbeing effect is inconclusive.[68] For example, a systematic review from 2021 that looked across 54 different articles found mixed evidence for pet ownership benefitting mental health, with only 17 articles finding a clear positive effect, and the remainder having either a mixed impact, no impact, or even a negative impact – often studies finding a negative effect went unpublished[69].

While pet ownership can certainly be good for some people, there is little clear evidence that pet owners as a group are healthier, happier, or live longer than those without animals in their lives.

9.2.2 Willingness To Pay Studies

Nevertheless, pets play an important role in the lives of those that have them, as is clear from contingent valuation studies that examine the willingness to pay to reduce the mortality risk of dogs and cats.

For example, a 2019 study[70] asked a sample of dog owners to make trade-offs in mortality risk from a canine vaccine for pet dogs and estimated the value of a statistical dog life to be $10,000. Similarly, a 2025 study[71] assessed cat owners' willingness to pay to reduce the risk of premature death of outdoor cats, estimating the value of a statistical cat life to be $8,000. Although pets might not directly increase a person's wellbeing, these valuation studies nevertheless suggest that dogs and cats, and by assumption other pets, bring significant value to people's lives.

[68] Herzog, H. (2011). The impact of pets on human health and psychological well-being: fact, fiction, or hypothesis?. Current directions in psychological science, 20(4), 236-239.
[69] Scoresby, K. J., et al. (2021). Pet ownership and quality of life: A systematic review of the literature. Veterinary Sciences, 8(12), 332.
[70] Carlson, D., Haeder, S., Jenkins-Smith, H., Ripberger, J., Silva, C., & Weimer, D. (2019). Monetizing bowser: A contingent valuation of the statistical value of dog life. *Journal of Benefit-Cost Analysis*, *11*(1), 131-149.
[71] King, D., & Tsigaris, P. (2025). The Value of a Statistical Life of a Cat: Owner Demographics and Management Practices Impacting Willingness to Pay for Welfare Measures. *Journal of Applied Animal Welfare Science*, 1-13.

Additionally, pets have been suggested to reduce people's need for medical care, for example, reduced visits to the General Practitioner. This may be due to a range of factors, such as higher levels of physical activity and lower levels of stress, anxiety and depression. It was estimated that reduced use of the UK health service due to pet ownership was worth up to £2.45 billion per year.[72]

One way of reconciling the wellbeing and valuation studies, whilst simultaneously highlighting the essential role that veterinary services play in supporting pet ownership, is that the role of pets is complex, and owners experience significant stress when their pets are ill. As such, whilst in general having a pet versus not having a pet may not make much difference to overall wellbeing, having a sick pet compared to a healthy pet is likely to cause considerable stress and anxiety.

9.2.3 Estimating the Value of Pets in the UK

Drawing on the valuations above, after accounting for inflation and converting to UK prices, it is suggested that one dog life is valued at £9,000 and one cat life at £6,000. Given dogs live on average 11.2 years[73] and cats 14 years[74] this suggests a per year value for dogs of £804 and for cats £429. Given there are 10.8 million cats and 10.6 million dogs in the UK as outlined in section 9.1.1, this suggests that cats and dogs in the UK are in total worth £160 billion to their owners alone, which equates to £13.1 billion each year.

However, there are also at least 6.9 million other animals that are kept as pets in the UK, which includes birds, rabbits, horses, hamsters, and snakes (see Table 9-1). While there are no studies that offer comparable valuations to dogs and cats for these other pets, similar or lower per year values to dogs and cats are assumed. This impact was valued at £3.2 billion, and when this was combined with the value of cats and dogs, the annual value of pet ownership was estimated to be **£16.4 billion**.

There are also the estimated cost savings to the NHS, which were valued at 2.45 billion in 2016[75]. Accounting for inflation, this amounts to £3.4 billion per year.

9.2.4 The Role of Vets in Pet Health

For most people with pets, veterinary practices are at the centre of their animal's healthcare. They are generally trusted and provide advice and support from the moment people get their pet. This covers everything from vaccinations to nutrition, behaviour and end of life decisions.

In summary, it has been assumed that as a result of the health care provided by the veterinary team, animals live longer, healthier lives and this increases pet ownership overall. As outlined in Section 9.1.2, it was assumed that the pet population would be

[72] Hall, S., Dolling, L., Bristow, K., Fuller, T., & Mills, D. S. (2016). *Companion Animal Economics: The Economic Impact of Companion Animals in the UK.* CABI.
[73] Royal Veterinary College – Dog Fact Sheet
[74] Royal Veterinary College – Cat Fact Sheet
[75] Hall, S., Dolling, L., Bristow, K., Fuller, T., & Mills, D. S. (2016). *Companion Animal Economics: The Economic Impact of Companion Animals in the UK.* CABI.

36% smaller without this input. Taking 36% of the annual value of pet ownership is equivalent to £5.9 billion, while cost savings to the NHS are worth £1.2 billion.

Table 9-2: Wellbeing Impact of Pets

	Total (£m)	Attributable to Veterinary Sector (£m)
Value to Owners	16,366.1	5,891.8
NHS Cost Savings	3,371.2	1,213.6
Total	**19,737.3**	**7,105.4**

9.3 Pet Insurance

9.3.1 Overview of Pet Insurance

Pet insurance protects pet owners and their pets against the possibility of costly health expenditures. Insurance provides pet owners with a form of risk sharing agreement, which reduces the potential for sudden, unexpected costs.

A survey by the Competition and Markets Authority (CMA)[76] in their *How People Purchase Veterinary Services* report, found that 56% of pet owners had pet insurance to cover the costs of more complex, non-routine treatments. The CMA also found in the same report that 81% of the respondents had taken up insurance policies to "ease worries about unexpected costs".

While pet insurance is one of the ways pet owners can safeguard themselves against unexpected medical treatments for their pets, health care plans are also another form of service often offered by veterinary practices to cover more routine and preventative services (e.g. deworming, vaccinations, etc).

9.3.2 Role of Vets in Pet Insurance

Veterinary services are a necessary component in the pet insurance market as they provide the service that policies are designed to cover. Pet insurance exists to protect owners against unexpected cost of veterinary treatment by pooling risk across policyholders. When an insured event occurs, the insurer covers the cost of treatment. Without veterinary practices there would be no service to fund.

While there is some third party insurance that covers events such as damage to property, in practice this is a relatively small part of insurance and tends to be combined with the cost of covering health care. Therefore, the impact of pet insurance has been wholly attributed to the veterinary sector.

9.3.3 Economic Impact of Pet Insurance sector

According to the Association of British Insurers (ABI), 4.4 million pet owners took up pet insurance in 2023[77]. The ABI estimated that the pet insurance sector had a

[76] CMA (2025). How people purchase veterinary services
[77] CMA (2025). How people purchase veterinary services.

turnover of £1.75 billion in 2023, which covers income to the sector after paying out on policies.

Applying economic ratios and multipliers to the total turnover of the pet insurance sector it was estimated that this supported **£1.8 billion GVA and 7,355 jobs**, which is all attributable to the veterinary sector.

Table 9-3: Economic Impact of Pet Insurance

	GVA (£bn)	Employment
Total	1.8	7,355
Attributable to Veterinary Sector	**1.8**	**7,355**

9.4 Manufacture of Pet Food

9.4.1 Overview of the Pet Food Manufacturing Sector

Millions of pet owners rely on pet food to keep their animals healthy. Most consumers will buy their pet food online or in person at general shops, such as supermarkets, or pet specific retail stores, such as Pets at Home. These stores in turn buy the pet food from pet food manufacturing companies.

The pet food manufacturing sector is regulated by over 50 pieces of legislation[78], which covers the whole supply chain including feed, animal by-products, animal health and welfare, and food safety controls. This is regulated and overseen primarily by the Food Standards Agency (FSA), Department for Environment, Food & Rural Affairs (Defra) and APHA. The main trade body acting on behalf of the sector is UK Pet Food, which advocates and represents the interests of the sector.

9.4.2 The Role of Vets in Pet Food Manufacturing

Veterinary professionals working within the manufacturing of pet food take on advisory and consultative roles, helping companies to substantiate health claims, advise on recipe formulation, and provide regulatory support. These roles closely overlap with other professions including feed scientists and nutritionists. In addition, veterinary practices are an important distribution channel for pet food manufacturers, often selling pet food or recommending brands depending on the needs of the animal.

As discussed in Section 9.1.2, vets support improved health, which leads to longer, healthier lives and results in an increased pet population. It has been assumed that the ownership of pets would be 36% smaller without vets, which would result in a decrease in demand for pet food.

[78] UK Pet Food. (2025). Legislation and Compliance.

9.4.3 Economic Impact of Pet Food Manufacturing

The size of the pet food manufacturing market is captured by the SIC code 10920 'manufacture of prepared pet foods' which had a total revenue of £13.5 billion and direct GVA of £1.0 billion[79] and employed a total of 10,650 people[80] in 2023.

Applying indirect and induced multipliers (adjusted to account for the share of spending on agricultural products, which have been captured elsewhere), it was estimated that the total impact was £3.9 billion GVA and 32,345 jobs.

Applying a 36% reduction in the size of the pet food market, it was estimated that the contribution of veterinary services would be **£1.4 billion GVA and 11,645 jobs**.

Table 9-4: Economic Impact of Pet Food Manufacturing

	GVA (£bn)	Employment
Direct	1.0	10,650
Total	3.9	32,250
Attributable to Veterinary Sector	**1.4**	**11,645**

9.5 Pet Services

Pet services encompass a range of smaller sub-sectors, including pet grooming, training, dog walking, and cremation.

The veterinary team has a role in advising pet owners on appropriate services (for example when their dog may need to go to the groomer) and supporting a larger pet population.

Based on publicly available information, it was estimated that this sector had a total turnover of £742.6 million, including grooming, walking, training and crematoria.

[79] ONS. (2025). Annual Business Survey 2023

[80] ONS. (2025). Business Register and Employment Survey - 2023.

Table 9-5: Turnover of Pet Services

	Value (£m)
Grooming[81]	420.0
Walking[82]	141.2
Training[83]	98.9
Crematoria[84]	82.5
Total	**742.6**

Applying appropriate economic ratios and multipliers it was estimated that the total economic impact of this sector is £763.4 million GVA and 21,845 jobs. Applying a 36% reduction in the size of the pet services market, it was estimated that the contribution of vets would be **£274.8 million GVA and 7,865 jobs**.

Table 9-6: Economic Impact of Pet Services

	GVA (£m)	Employment
Total	763.4	21,845
Attributable to Veterinary Sector	**274.8**	**7,865**

9.6 Pet Accessories

Pet accessories encompass the different physical products (excluding food and medicinal products) that pet owners purchase because they need or wish to improve the lives of their pets. This can range from products such as clothing, to bedding and carriers, furniture and grooming tools.

The veterinary team plays a role in the pet accessories sector, where in some cases practices are located within retail units. This role may include providing advice to consumers and companies. The main contribution is related to the larger pet population supported by the veterinary sector.

Based on information about the pet accessories market, it was estimated that total turnover was £1 billion[85]. Applying appropriate economic ratios and multipliers, it was estimated that the total economic impact is £433.6 million GVA and 11,785 jobs.

[81] GlobalPETS (2023), Transitioning the UK grooming industry into maturity: is it time?
[82] Grandview Research (2025), UK Pet Sitting Market Size and Outlook 2030
[83] Cognitive Market Research (2025), Dog Training Services Market Report 2025 (Global Edition)
[84] Business Awards (2025), Compassionate Pet Cremation - 2025 Overview and Statistics
[85] GlobalPETS (2020), Trends in booming UK pet accessories sales

Applying a 36% reduction in the size of the pet accessories market, it was estimated that the contribution of vets would be **£156.1 million GVA and 4,245 jobs**.

Table 9-7: Economic Impact of Pet Accessories

	GVA (£m)	Employment
Total	433.6	11,785
Attributable to Veterinary Sector	**156.1**	**4,245**

9.7 Animal Charities

Britain has a long history of animal charities, with the Royal Society for the Prevention of Cruelty to Animals (RSPCA) founded in 1924, and they continue to play an important role in animal welfare. Typically these charities are focused on improving animal welfare by providing veterinary services, treating and rehoming animals, running shelters and campaigning for stronger animal welfare laws.

The largest charities with a national focus in the UK include RSPCA, Scottish Society for the Prevention of Cruelty to Animals (SSPCA), PDSA, Blue Cross, Dogs Trust, Battersea Dogs and Cats Home and Woodgreen. A number focus on improving international animal welfare, including the Donkey Sanctuary, 4Paws and World Animal Protection.

Based on the annual reports of the charities considered above that have a domestic focus (since their impact will take place primarily in the UK), it was found that they have a total annual income of £686.6 million, half of which came from legacies. Animal charities are the second largest beneficiary of UK legacies (16% in 2024, with health charities being the largest at 39%)[86].

These charities employ 9,520 staff with staff costs of £337.4 million, although they are supported by thousands of additional volunteers in a range of settings, including charity shops, kennels and veterinary practices.

While the charities selected represent the majority of the sector's annual income, there are likely to be many small charities that are not included. To account for this, it was assumed that the impact of other charities would be an additional 20% of the total. On this basis, the direct impact would be £404.9 million GVA and 11,420 jobs.

Applying economic multipliers for the appropriate sectors (and making a 20% adjustment for impacts captured elsewhere in the analysis) it was estimated that the total economic impact associated with the animal charities sector would be £753.1 million GVA and 20,865 jobs.

[86] https://www.legacyfutures.com/resources/data-dashboard/

The veterinary sector plays a key role in these animal charities, where many vets and auxiliary staff volunteer or work. Based on the 2024 survey of veterinary professions[87], which found 3.7% work for charities and trusts, and data on the total number of vets from the RCVS, it was estimated that there were 1,115 vets working in the sector, which would represent 9.8% of the total sector employment.

These vets (and other members of the vet team) provide services such as health checks and treatments on animals that have been abandoned or whose owners cannot afford payment, reducing animal suffering and ensuring that animals can be rehomed. Vet teams are complemented by a wide range of workers and volunteer, including those working in charity shops, shelters and administration.

On this basis, it was assumed that 20% of impact would be attributable to the vet sector, with an economic impact **of £150.6 million GVA and 4,175 jobs**.

Table 9-8: Economic Impact of Animal Charities

	GVA (£m)	Employment
Total	753.1	20,865
Attributable to Veterinary Sector	**150.6**	**4,175**

9.8 Economic Impact of Pets Summary

The veterinary sector play a crucial role in supporting owners through the journey of pet ownership, from providing vaccinations in their first weeks to medication and support throughout their life. By making pets healthier and expanding their lifespans, vets make pet ownership more attractive and so lead to a larger pet population. It was assumed that without the veterinary sector the UK pet population would be 36% smaller.

There are more than 28 million pets in the UK, mainly dogs and cats, with 17.2 million households having a pet. They are important parts of their owners' lives, providing companionship, promoting physical activity and facilitating social connection.

To support their pets; health and happiness, owners spend significant sums to insure them against injury and illness, supply them with food and provide them with accessories and services, such as grooming and walking. It was estimated that these sectors generated overall £7.7 billion GVA and 94,200 jobs. Considering the role that the veterinary sector plays in supporting a larger pet population, it was estimated that their contribution was **£3.8 billion GVA and 35,280 jobs**.

[87] IES Report for the RCVS (2024), The 2024 Survey of the Veterinary Profession.

Table 9-9: Economic Impact of Pets

	GVA (£m)	Employment
Pet Insurance	1,829.3	7,355
Pet Food	3,881.8	32,345
Pet Accessories	433.6	11,785
Pet Services	763.4	21,845
Animal Charities	753.1	20,865
Total	**7,661.3**	**94,200**
Attributable to Veterinary Sector	**3,808.3**	**35,280**

It was estimated that pets increase their owners' wellbeing by £16.4 billion, of which vets account for an estimated £5.9 billion. Pets also reduce healthcare costs by an estimated £3.4 billion due to improved physical activity and wellness, with the veterinary sector accounting for £1.2 billion. In total therefore, the wider wellbeing impacts associated with pets, which arise from people's willingness to pay for their pets, and the savings to the NHS from increased physical activity among pet owners, was valued at £19.7 billion. Of this, it was estimated that the impact attributable to the veterinary sector would be **£7.1 billion**.

Table 9-10: Wellbeing Impact of Pets

	Value (£m)
Value to Owners	16,366.1
NHS Cost Savings	3,371.2
Total	**19,737.3**
Attributable to Veterinary Sector	**7,105.4**

10. Sport, Working Animals and Zoos

The veterinary sector ensures that animals are working under appropriate conditions to promote high welfare standards and good health.

Animals, particularly dogs and horses, have working roles across a range of activities, including in justice roles (e.g. drug detection), assistance roles (e.g. guide dogs) and sports (e.g. horse racing and riding). The veterinary sector supports their overall good health, preventing them from becoming injured and pursuing breeding best practice.

10.1 Horse Racing

10.1.1 Overview of Horse Racing in the UK

British horse racing has a long history dating back to the first century AD, with modern British horse racing tracing back to King Charles II when he began racing horses against each other at Newmarket in the 1660s. Today, British horse racing is a significant sport, drawing in over 25 million online viewers and almost 4.8 million attendees in 2024[88].

Some of the major British horse racing events include the Royal Ascot, The Grand National, Cheltenham Festival, and Epsom Derby with their cultural and economic influence reaching far beyond the United Kingdom, attracting attendees from all over the world and generating televised views in the hundreds of millions globally.

Horse racing in the UK is governed by several organisations:

- **British Horseracing Authority (BHA):** the BHA is the primary body responsible for the governance, administration and regulation of horse racing and the wider horse racing industry in Britain.
- **Point-to-Point Authority (PPA):** responsible for the administration, promotion and development of point-to-point racing (typically the steeplechase). It functions under the delegated authority of the BHA;
- **Arabian Racing Organisation (ARO);** The Arabian Racing Organisation works with permission from the BHA to regulate, plan, publish, promote and represent Arabian horse racing;
- **Pony Racing Authority (PRA):** the PRA governs the sport at the grass roots Point-to-Point level as well as the Racecourse series.

[88] RCA. (2025). British Racecourses Confirm 2024 Annual Attendance Figures.

While the events are the most visible manifestation of the sector, with over 50 racecourses in the UK, these are supported by a wider industry that includes over 500 training yards and over 600 breeding operations, and a significant national and international trade in horses[89].

10.1.2 Role of Vets in Horse Racing

While a legal requirement for vets to be present in horse racing events does not exist in UK law, the BHA has General Instructions that require vets to be present at the racecourse as a minimum requirement for racecourses to hold a BHA licence.

The role of a Racecourse Veterinary Surgeon, as stated by the BHA, is to:

- provide veterinary care, before, during, and after the race;
- arrange transport of injured horses in line with animal welfare legislation;
- carry out humane euthanasia when necessary; and
- support anti-doping procedures;

Vets at races ensure that the industry is complying with general UK animal welfare legislation, as well as providing health services to ensure high welfare standards at the races. Animals also need to be checked before the race, with a vet providing a sign off that they are fit to take part.

Additionally, vets and their team will also play a role as part of the horse racing team. They are present to perform activities such as vaccinations and health check-ups, and support the health of animals from breeding and training through to race day.

Horse racing has faced protest and disruption from animal rights protest groups such as from Animal Aid and Animal Rising over concerns about animal welfare. The veterinary team is crucial to maintaining high welfare standards, maintaining freedom from infectious disease, minimising injuries and giving prompt treatment when they arise. These and other veterinary services are crucial to maintaining the social contract with the UK public. In their absence, it is likely that concerns over animal welfare in horse racing would heighten, reducing viewer numbers, attendance and sponsorships, with some marginal race tracks forced to close.

Additionally in the absence of the veterinary sector it is likely that incidence of diseases and lameness would increase. In particular, with horse races potentially acting as spreader events for some equine diseases, there are significant biosecurity concerns. Veterinary teams help to address these challenges, as well as preventing the import of the devastating African Horse Sickness (discussed in Section 6.4). Without veterinary services it is likely that fewer horses would take part, contributing to lower attendance.

10.1.3 Economic Impact of Horse Racing

The horse racing sector generates income from a range of sources, including attendance at over 50 racecourses across the UK, spending on hospitality, retail and

[89] BHA (2023), Written Evidence submitted to Parliament

food, as well as the gambling levy, media rights to broadcast, and sponsorships. According to sector studies the horse racing industry in the UK supports 20,000 direct jobs and generates a total revenue of £1.47 billion[90].

Applying appropriate economic ratios and multipliers, it was estimated that the economic impact of the sector was £1.4 billion GVA and 46,510 jobs.

Vets and associated veterinary professionals contribute to improved welfare in the sport, which helps to address ethical concerns, as well as reducing the incidence of animal disease and lameness. It was assumed that without their involvement the horse racing sector would be 20% smaller. Therefore, the share that can be attributed to them is equal to **£272.1 million GVA and 9,300 jobs**.

Table 10-1: Economic Impact of Horse Racing

	GVA (£m)	Employment
Horse Racing	1,360.7	46,510
Attributable to Veterinary Sector	**272.1**	**9,300**

10.1.4 Wellbeing Effects of Attending Horse Racing

Watching a live sporting event can enhance an individual's wellbeing, through generating emotional experiences, heightening social connection, and reducing stress. Research has shown that those who attend live sporting events are more satisfied with their lives overall[91]. Research has estimated that the annual effect is an increase in life satisfaction of 0.171 units on a 0 to 10 scale. Converting this to a weekly effect, this gives a per attendance wellbeing benefit of 0.0033 WELLBYs (e.g. someone going to one event would get a weekly boost equivalent to 0.0033 WELLBYs), which is comparable to the wellbeing benefit of attending music events, museums, and other art and cultural events[92].

With an annual attendance of horse racing events of 4.8 million in 2024, this suggests that watching horse racing brings an estimated 15,784 WELLBYs, worth £251.9 million.

Assuming that without vets and their teams the horse racing sector would be 20% smaller, due to lower animal welfare and increased disease/lameness, the wellbeing that could be attributed to the veterinary sector would amount to 3,157 WELLBYs, worth **£50.4 million**.

[90] UK Parliament. (2023). Horseracing industry: Government support and recent developments.
[91] Keyes, H., Gradidge, S., Gibson, N., Harvey, A., Roeloffs, S., Zawisza, M., & Forwood, S. (2023). Attending live sporting events predicts subjective wellbeing and reduces loneliness. *Frontiers in public health, 10,* 989706.
[92] Wheatley, D., & Bickerton, C. (2019). Measuring changes in subjective well-being from engagement in the arts, culture and sport. *Journal of Cultural Economics, 43,* 421-442.

Table 10-2: Wellbeing Impact of Horse Racing

	WELLBYs	Wellbeing Benefit (£m)
Horse Racing	15,784	251.9
Attributable to Veterinary Sector	**3,157**	**50.4**

10.2 Betting Sector

10.2.1 Overview of Horse Betting

Horse race betting is one of the most popular forms of gambling[93] due to the high participation rate of horse racing fans in this gambling activity, with nearly half of horse racing fans having placed a bet on a race online[94]. Betting on horses can take place both physically (on course) at the races or online with 'on course' bets accounting for 6.7% of the bets placed on horse races in 2023[95].

While there is a high participation of horse racing fans in horse race betting, it is not characterised by significant rates of 'problem gambling'[96]. It was found that those placing bets on horse races tended to be characterised by seeking excitement from winning, experiencing tension, competing and seeking challenges as well as monetary gains[97]. The BHA further stated that one of the particular appeals of horse betting is the skill-based element as well as it being a leisure activity[98].

10.2.2 Role of the Veterinary Team in Horse Betting

As discussed in Section 10.1, vets are required to be on site at BHA-approved races and the veterinary team play a role through the whole process of breeding and training. Without their involvement it is likely that there would be a reduction in the size of the horse racing sector, as it becomes less appealing to horse racing fans. It has been assumed that most horse racing fans would not bet on alternatives, such as football.

10.2.3 Economic Impact of Horse Betting

In 2023, £3.4 billion of bets were placed on horse races, with a gambling yield (revenue to bookmakers etc.) of £478 million which is 3% of the gambling and betting sector's total yield of £15.6 billion[99]. The gambling and betting sector generates £5.7 billion GVA and 78,000 jobs[100].

[93] Public Health England (2018), Gambling-related harms evidence: Quantitative analysis of gambling involvement and gambling-related harms among the general population in England.
[94] YouGov. (2024). Gambling and sports in the UK - a deep dive.
[95] Gambling Commission. (2025). Industry Statistics - July 2025.
[96] BHA (2023). Written evidence submitted to Parliament.
[97] Wang, R., et al. (2025). Relative risk of gambling products within Great Britain: findings from a rapid literature review and secondary analysis project.
[98] BHA (2023). Written evidence submitted to Parliament.
[99] Gambling Commission. (2025). Industry Statistics - July 2025.
[100] ONS (2025), Annual Business Survey 2023

Table 10-3: Direct Economic Impact of Horse Betting

	Yield (£m)	GVA (£m)	Employment
Gambling and Betting	15,630	5,685	78,000
Horse Betting	478	174	2,385

On this basis, it was estimated that the total contribution of horse betting was £173.9 million GVA and 2,385 jobs. Applying appropriate economic multipliers, it was estimated that horse betting's total impact was £420.7 million GVA and 6,230 jobs.

Applying the 20% reduction in activity discussed in Section 10.1, it was therefore estimated that the economic impact attributed to the veterinary sector would be **£84.1 million GVA and 1,245 jobs**.

Table 10-4: Economic Impact of Horse Betting

	GVA (£m)	Employment
Total	420.7	6,230
Attributable to Veterinary Sector	**84.1**	**1,245**

10.3 Shows and Events

10.3.1 Overview of Shows and Events

Across the UK there are numerous animal-focused shows and events that the general public takes part in.

This includes dog and cat shows, cross-country riding and show jumping, as well as agricultural shows. Some of these events will be smaller scale community events, whilst other larger events will be commercial in nature and attract hundreds of thousands of spectators. Whilst no overall attendee numbers for these types of events have been located, examples of some of the biggest shows and events are shown in Table 10-5. These have economic and wellbeing benefits.

Table 10-5: Attendance Numbers for Various Animal Shows and Events

Event	Attendees
Royal Highland Show	200,000
Badminton Horse Trials	200,000
Crufts	150,000
Dogfest Shows	150,000
Horse of the Year Show	60,000
All About Dogs Shows	60,000
Paws in the Park	38,000

10.3.2 Role of the Veterinary Sector in Shows and Events

Shows and events in the UK have an obligation to follow general Animal Welfare legislation. Guidance from the UK Government on rural and agricultural shows state that organisers will be responsible for setting health and welfare standards at their shows. At several major shows and events governing bodies such as British Eventing require an experienced vet to be present throughout the course of the event.

Vets provide two key services: preventing the spread of disease and ensuring that animals are fit and capable of taking part. Given the large number of animals being brought from across the country, there is a significant risk of contagion, which can have significant economic consequences. Therefore, vets are generally required to ensure that animals are healthy before taking part in events.

For shows and events with an athletic component (such as horse trials and dog agility shows), vets perform checks to ensure that the animals are fit, and are on hand to deal with any veterinary emergencies that may arise.

10.3.3 Economic Impact of Shows and Events

Shows and events play an important role in rural Britain with the Association of Show and Agricultural Organisations stating that between spring and summer around 400 days of events occur. These shows bring in cultural and economic benefits to these regions by drawing in people from urban areas to reconnect with rural populations[101]. Shows and events generate revenues from different sources including from ticket sales, memberships, sponsorship and other types of earnings.

Ticket prices for animal shows can vary significantly from free events to those costing in excess of £100. As comprehensive data on ticket prices is not available it was assumed that the average price would be £50. Multiplying this by the number of attendees in Table 10-5 the turnover associated with the veterinary sector would be £42.9 million. This is likely to be an underestimate the total economic impact, since there are many smaller shows.

[101] UK Parliament. (2022). The importance of agricultural and country shows to rural Britain.

Table 10-6: Income Associated with Events and Shows

	Value
Attendees	858,000
Ticket Price (£)	50
Turnover (£m)	42.9

Applying sector-appropriate economic ratios and multipliers, it was estimated that these shows and events generate an economic impact of £53.9 million GVA and 1,355 jobs.

Without veterinary services, there would be a greater risk to pet owners and farmers from bringing their animals to these events, including risk of injury and risk of disease. This would translate into smaller numbers of animals and make the shows less attractive for visitors. Therefore, it has been assumed that attendance would be 20% lower. On this basis, the economic impact of the veterinary sector would be **£10.8 million GVA and 270 jobs**.

Table 10-7: Economic Impact of Events and Shows

	GVA (£m)	Employment
Total	53.9	1,355
Attributable to Veterinary Sector	**10.8**	**270**

10.3.4 Wellbeing Effects of Events and Shows

Much like watching a live sporting event, animal shows and events can enhance an individual's wellbeing. Under the assumption, as per 10.1.4, that there is a per attendance wellbeing benefit of 0.0033 WELLBYs, the events outlined in Table 10-5 amount to 2,822 WELLBYs, worth £45.0 million.

Applying the same logic as for the economic impact, it was assumed that the wellbeing that can be attributed to the veterinary sector would be worth **£9.0 million**.

Table 10-8: Wellbeing Impact of Events and Shows

	WELLBYs	Wellbeing Benefit (£m)
Total	2,822	45.0
Attributable to Veterinary Sector	**564**	**9.0**

10.4 Horse Riding

Participating in sports improves individual wellbeing through health benefits, boosted confidence, and social connection. This holds true for sports involving animals, such as horse riding, where participants experience similar wellbeing benefits.

There were 1,820,000 people riding horses at least once a month in the UK in 2023. With a wellbeing benefit of 0.052, based on research illustrating the wellbeing benefits of participating in sport[102], the overall wellbeing benefit of participants is estimated to be 94,640 WELLBYs, worth £1.5 billion.

Without the veterinary sector, it is assumed that horses will live shorter, less healthy lives leading to a lower population of pet horses. Assuming that this effect would be similar in scale to the overall reduction in the pet population, it was assumed that 36% of the wellbeing benefit could be attributed to the veterinary sector. Therefore, the effect of the veterinary sector would be **£543.7 million**.

Table 10-9: Wellbeing Impact of Horse Riding

	WELLBYs	Wellbeing Benefit (£m)
Total	94,640	1,510.3
Attributable to Veterinary Sector	**34,070**	**543.7**

10.5 Animals in Justice Roles

10.5.1 Overview of Animals working in Justice Roles

The UK military and police forces have as a primary purpose the provision of the public good of security and defence services. Canine and equine units in the military and police forces contribute towards advancing these objectives.

Canine units in both the military and police forces serve offensive roles such as to apprehend suspects, visual deterrence, and as an option for sub-lethal force. Canine units are also highly valued for their visual, auditory and olfactory advantages, which are used for search and detection for money, people, weapons, drugs, explosives, etc.

Police equine units have similar functions for security and are used for crowd control, particularly in areas unsuitable for motorised vehicles, as well as providing higher vantage points while policing. For the military, equine units have as a primary role to conduct ceremonial duties.

[102] Fujiwara et al. (2014) demonstrate that those who participate regularly in sports are more satisfied with their lives. The overall annual effect is 0.052 units of life satisfaction.

10.5.2 Role of Veterinary Services in Justice Units

Veterinary services have an important role in ensuring the operational effectiveness of canine and equine units in the military and police forces.

Before and after animal units are deployed, vets perform routine procedures that include physical health examinations, maintenance of health records and the administration of medications to ensure that the working animals are fit for the field. While in the field, the veterinary team can provide emergency care services in the case of severe injury experienced by one of the working animals.

Within the military, vets also have an additional role through the Royal Veterinary Army Corps ('RAVC'), which is the military's veterinary regiment that provides knowledge and expertise in procurement, training, maintenance and input on the state of working animals within the forces[103].

An absence of veterinary services in the military and police forces would lead to a decline in the overall health and recovery rates of working animals. This would have, as a consequence, a reduction in the effectiveness of working animals to perform their roles while in the field.

10.5.3 The Economic Impact of Animals in Justice Roles

Given that the economic benefit of justice animals is a public good, it is not traded on a private market. Public goods are usually provided by governments as there is a lack of a price incentive, effective coordination mechanism, or a number of negative externalities which arise from its provision by the private market. Security and defence are traditionally considered to be a public good which, in the case of the United Kingdom, is provided by the national and sub-national authorities.

Valuing the economic benefit of security and defence requires a different approach than how it would be valued in the private market. The value of justice animals can be estimated to be at least what the United Kingdom and delegated authorities are willing to pay to continue having these units operational. While not always publicly available, budgeting decisions in the public sector require a justification for the expenditure of public funds to determine if the benefits outweigh the costs of the expenditure. Therefore, it is assumed that the value provided by canine and equine units is at least the monetary cost of maintaining these units in operation.

Using a range of publicly available sources including Freedom of Information (FOI) requests, government publications and journalistic articles, estimates as to the likely cost of the UK's equine and canine units can be established to determine total unit costs. It was assumed, based on a 2019 FOI request[104] that the average unit cost per dog was £43,000 with around one staff member per two dogs, and the average cost per horse was £72,000 with around two staff members per horse.

[103] British Army (2025). Royal Army Veterinary Corps.

[104] Information Services Branch Information Compliance and Record Management Unit (2019), Freedom of Information Request Reference No: GSA/1296/19

Based on a range of data sources, particularly FOIs, it was assumed that there were 2,500 dogs being used by the police or military, and 650 horses. It was therefore estimated that the direct cost of canine and equine units in the United Kingdom was £195.8 million, and that 3,640 people are directly employed in training and supporting these animals.

Applying appropriate economic ratios and multipliers, it was assumed that the total economic impact would be £254.3 million GVA and 8,115 jobs. it was assumed that the contribution of vets would be 20%, and therefore economic impact attributable to them would be **£50.9 million GVA and 1,625 jobs**.

Table 10-10: Economic Impact of Justice Animals

	GVA (£m)	Employment
Total	254.3	8,115
Attributable to Veterinary Sector	**50.9**	**1,625**

10.6 Assistance Animals

10.6.1 Overview of Assistance Animals

Assistance animals undergo specialised training programmes to help individuals with disabilities or long-term medical conditions. While assistance animals can encompass a number of different animals, the primary species trained as assistance animals in the UK are dogs.

The main body representing the assistance dog sector in the United Kingdom is Assistance Dogs UK (ADUK)[105], which has a wide range of membership organisations that train dogs to assist people in a number of different settings including for those with visual impairment, auditory assistance, with dementia, medical alerts, PTSD, etc.

The European Guide Dog Federation performed a survey and found that there were 5,722 dog teams working in the UK in 2023[106]. ADUK train 1,350 puppies to become guide dogs and over 7,000 people rely on trained dogs from one of their members[107]. This contrasts with the over 16 million people with a disability in the United Kingdom[108].

The assistance dogs' sector is primarily led by charities who rely entirely on donations, fundraising, and grants to provide their services who will then provide these assistance dogs to those in need at a low or zero cost basis. This has however

[105] Assistance Dogs UK. (2025). Our Goals and Work
[106] European Guide Dog Federation. (2023). 2023 Survey on Assistance Dogs in Europe.
[107] Guide Dogs UK. (2025). Home page.
[108] UK Parliament. (2024). UK disability statistics: Prevalence and life experiences.

led to long waiting lists with an already lengthy process in matching assistance dogs to new owners[109].

While there is no statutory legislation to certify that a dog is a legal assistance dog, organisations that train assistance dogs will issue certificates to demonstrate that they have been trained by an accredited organisation. In the United Kingdom assistance dogs are considered to be distinct from emotional support dogs and therapy dogs.

10.6.2 Role of Veterinary Services in Assistance Animals

The role of veterinary services in the assistance dog sector is very similar to the role they have for dogs as pets with their main functions including performing annual check-ups, vaccinations, parasite prevention, and dental care. Regular veterinary check-ups ensure that assistance dogs are in good health which enables them to perform their tasks effectively.

Some charities will perform breeding activities in house, which is likely to have some degree of input from vets as this can lead to improved behavioural outcomes. Vets may also play important roles in the early development stages of dogs.

10.6.3 Wellbeing Effects of Assistance Animals

From a wellbeing perspective, assistance animals have the potential to substantially improve the quality of life of those that use them, enabling people to navigate the world in ways they previously might not have been able to.

Assistance dogs have been shown to have a large impact on quality of life (assumed here 0.5 WELLBYs[110]), as have therapets (assumed here 0.4 WELLBYs[111]). Given the numbers of people that use assistance dogs and therapets, the overall wellbeing benefit of assistance dogs and therapets is estimated to be 6,020 WELLBYs, worth £96.1 million.

As the veterinary team contribute to improved health and breeding, they enable guide dogs to live longer and ensure that more puppies reach the end of their training. On this basis, it was assumed that without the veterinary team the number of guide dogs would be 20% lower. Therefore, of the total wellbeing benefit from assistance dogs and therapets, the veterinary sector is responsible for 1,204 WELLBYs, worth **£19.2 million**.

[109] The Card Project. (2025). The Cost of an Assistance Dog in the UK

[110] Hall and MacMichael (2017) show that a service dog has an impact of about 15 units on a 16 item Quality of Life indicator, which represents a substantial improvement. Disability has one of the largest impacts on life satisfaction.

[111] Nimer and Lundahl (2007) show an average wellbeing effect of 0.4.

Table 10-11: Wellbeing Impact of Assistance Animals

	WELLBYs	Wellbeing Benefit (£m)
Total	6,020	96.1
Attributable to Veterinary Sector	**1,204**	**19.2**

10.6.4 Economic Impact of Assistance Animals

The value of assistance animals is primarily related to their wellbeing impact as they are provided at low or no cost, but there will be an economic impact associated with their training.

The cost of training a guidance dog is estimated to be £102,000 per dog[112], which is usually spread across the 10-year lifetime of a dog. Based on 7,000 guide dogs and 1,350 puppies, it was therefore estimated that the annual expenditure on raising dogs was £85.2 million.

Applying ratios and multipliers for the appropriate economic sectors, it was estimated that the total economic impact was £109.6 million GVA and 11,115 jobs. Applying a 20% share that can be attributed to the role of the veterinary team, it was estimated that the economic impact of the veterinary sector was **£21.9 million GVA and 2,225 jobs**.

Table 10-12: Economic Impact of Assistance Dog Training

	GVA (£m)	Employment
Total	109.6	11,115
Attributable to Veterinary Sector	**21.9**	**2,225**

10.7 Zoos

Zoos house exotic and sometimes endangered species in protected enclosures, usually aiming to replicate the look and feel of their natural habitat.

The multiple remits of zoos is reflected in the criteria applicants must meet when applying for a zoo licence in the United Kingdom, these include to[113]:

- help educate people about biodiversity;
- be suitable for the types of animals being kept;
- have a high standard of animal care;
- do as much as possible to stop any animals from escaping; and
- stop pests and vermin from getting into the zoo.

[112] Guide Dogs UK. (2025). Home page.

[113] https://www.gov.uk/find-licences/zoo-licence

Additionally, zoos are also required to perform at least one of the following criteria:

- conservation or research training;
- sharing conservation information;
- captive animal breeding; or
- helping repopulate or reintroduce species into the wild.

One of the primary benefits of zoos is as a destination for tourism and recreation. In the United Kingdom and Ireland, zoos attracted more than 32 million visitors in 2024[114]. They provide entertainment and education as well as leisure value to visitors, which is captured through ticket sales and memberships as well as expenditure taking place within zoos (e.g. gift shops and food sales).

Zoos provide public benefits to society and the economy through conservation of species, advancing scientific research and funding conservation programmes abroad. Local and national government as well as charities and international organisations (e.g. British and Irish Association of Zoos and Aquaria 'BIAZA') provide funding, grants and donations to support these public goods. This funding is usually tied to a zoo's ability to uphold its organisational purpose and remit.

Other public benefits zoos provide to society and the economy include their provision of education facilities and instructors for those training to become zoologists and vets, who benefit from the direct access to rare and exotic animals. Universities and technical colleges can partner with zoos to allow their students to obtain firsthand experience with the animals. Zoos are also important institutions for scientific research in the subjects of "veterinary, welfare, reproduction, and understanding social behaviour of animals and humans".[115]

Zoos also provide a source of jobs and employment for people skilled to work with animals, with BIAZA stating that 11,000 are employed across its members (encompassing both the United Kingdom and Ireland) and over 4,700 volunteers in 2019[116]. These jobs can include roles such as nutritionists, animal welfare, zoo researchers, horticulturalist, zookeeper, aquarist, curators, etc[117].

10.7.1 The Role of the Veterinary Team in Zoos

From a statutory perspective according to the UK Zoo Licensing Act of 1981[118] zoos are required to provide "a high standard of animal husbandry with a developed programme of preventative and curative veterinary care and nutrition" this is further elaborated from the guidance provided by the Secretary of State's Standards of Modern Zoo Practice[119], which states that "a comprehensive programme of care must be established and maintained under the supervision of a veterinary surgeon

[114] The British and Irish Association of Zoos and Aquariums - https://biaza.org.uk/
[115] Spooner, S., Walker, S. L., Dowell, S., & Moss, A. (2023). The value of zoos for species and society: The need for a new model. *Biological Conservation, 279*, 109925.
[116] BIAZA. (2020). BIAZA reveals the economic impact of member zoo and aquariums.
[117] BIAZA. (2022). Blog: do you want to work for a zoo or aquarium?
[118] Zoo Licensing Act 1981, Section 3, Part VII.
[119] Secretary of State's Standards of Modern Zoo Practice.

who is familiar with current practice in the care of zoo animals, particularly in the types maintained in the collection". While this does not oblige zoos always to have vets on staff it does establish a statutory requirement for the provision of regular veterinary care.

From a functional perspective, vets play a key role in all of the core activities zoos are expected to deliver as an organisation. The Secretary of State's Standards for Modern Zoo Practice provides guidance on the typical responsibilities of the veterinary team at a zoo, which include:

- routine inspections of the collection;
- directing or carrying out treatment of all sick animals;
- administration of vaccines, worming and other aspects of preventative medicine;
- health monitoring of animals including submission of blood and other samples for laboratory examination;
- safe and proper collection, preparation and dispatch of diagnostic and other samples;
- training of zoo personnel in health and hygiene;
- ensuring that post-mortem examinations of animals are carried out where necessary;
- supervision of quarantine premises and other tasks required by law or as part of good zoo veterinary practice;
- the nutrition and design of diets;
- planning and exhibit design; and
- the establishment of written procedures to be followed in the event of the accidental use of dangerous drugs.

Without veterinary care, there would be a significant risk of poor welfare standards and increased animal mortality, with animals in captivity generally living longer than those in the wild. This would have a number of poor outcomes for the sector, including reducing the effectiveness of conservation efforts, reducing public support for zoos and making them less attractive for visitors, which would be expected to contribute to a reduction in overall economic activity and may lead some zoos to be shut down.

At the international level, zoos without access to veterinary services would experience increased challenges to participate in organisations such as BIAZA, which coordinate conservation and research programmes. This would also put access to funds from international organisations at risk, as zoos would not be able to demonstrate their ability to uphold high welfare standards and pursue conservation and research objectives. Furthermore, without veterinary certification and the ability to perform medical procedures (e.g. provision of anaesthesia), the exchange and transport of animals between institutions would become impossible.

Overall, the absence of veterinary services would present a significant challenge to the ability to maintain a legal status as well as the operational viability of zoos to provide core recreation, conservation, research and educational services. There is a high likelihood that revenue would significantly diminish due to potential forced

closures or voluntary winding down as the business model becomes unviable. It is likely that zoos would also lose significant funding from international organisations and charities as well as experience a reduction in ticket sales and memberships from the general public.

10.7.2 Economic Impact of Zoos

To estimate the economic impact of zoos in the United Kingdom, it was necessary to determine the number of zoos actively operating from a number of sources including BIAZA membership, lists of licensed zoos in the UK and other publicly available sources. It was then necessary to gather publicly available financial information from their financial accounts, and apply conservative assumptions for those without public information.

According to BIAZA, there were 420 licensed zoos in the UK in 2020[120]. The financial accounts of zoos with published data were reviewed to obtain total sums on turnover, staff costs and employment figures, with sector wide conservative assumptions applied to the zoos with no publicly available information.

Many zoos operate as charities, with BIAZA stating that 42% of its members are registered charities. As charities are not run for profit, GVA was estimated from staff costs. This approach is likely to underestimate the total economic benefits from zoos, as it excludes profits from commercial zoos.

Based on this methodology, the UK zoo sector in 2023 was estimated to generate approximately £714.2 million in turnover and employ 10,600 people. It was estimated that this generates an economic impact of £725.6 million GVA and 23,995 jobs.

Given the important role that the veterinary team plays in supporting animal health, upholding welfare standards and maintaining access to international zoo networks, it has been assumed that without high quality veterinary care the sector would be 50% smaller. On this basis, the economic impact attributed to the veterinary sector was estimated to be **£362.8 million GVA and 11,995 jobs**.

Table 10-13: Economic Impact of Zoos

	GVA (£m)	Employment
Direct	293.8	10,600
Total	725.6	23,995
Attributable to Veterinary Sector	**362.8**	**11,995**

10.7.3 The Wellbeing Benefits of Zoos

Zoos have individual and societal wellbeing benefits, with visitors having positive emotional experiences from connecting with animals, as well as reduced stress and

[120] BIAZA. (2020). BIAZA reveals the economic impact of member zoos and aquariums.

heightened connection. More widely zoos help advance care and understanding for the natural world.

While there is no research on the specific wellbeing benefits of zoos, wellbeing is considered an essential aim of zoos[121]. Zoos have been shown to:

- reduce biological markers for distress[122];
- make visitors more knowledgeable about conservation issues;
- improve human attitudes toward conservation; and
- act for the benefit of biodiversity[123].

It has been shown that regularly engaging with cultural activities, such as museums, art exhibitions, and historical sites, where there is a comparable knowledge benefit and connection to wider societal concerns, leads to wellbeing gains. For example, regularly visiting a museum brings a life satisfaction benefit that equates to a per attendance wellbeing benefit of 0.0041 WELLBYs[124]. Applying this benefit to zoos, which had 32 million visitors[125], the overall wellbeing benefit from zoo visits is estimated to be worth 129,905 WELLBYs, worth £2.1 billion.

Additionally, many people volunteer at zoos, which is an important source of wellbeing and meaning. Whilst there are no official numbers of volunteers across zoos, Chester Zoo, which is the UK's largest zoo with 2 million visitors each year, supports 250 regular volunteers[126]. Assuming that this is representative, that would suggest that around 4,000 people volunteer at zoos.

With regular volunteering bringing 0.1 WELLBYs per volunteer[127], the total wellbeing benefit to volunteers at zoos is estimated to be worth 400 WELLBYs, worth £6 million. This brings the total wellbeing benefit of zoos to 130,305 WELLBYs, worth £2.1 billion.

Without veterinary services, zoos would have higher rates of sickness among their animals, lower animal welfare, and poorer breeding outcomes. This would not only

[121] Rose, P. E., & Riley, L. M. (2022). Expanding the role of the future zoo: Wellbeing should become the fifth aim for modern zoos. *Frontiers in Psychology, 13,* 1018722.
[122] Coolman, A. A., Niedbalski, A., Powell, D. M., Kozlowski, C. P., Franklin, A. D., & Deem, S. L. (2020). Changes in human health parameters associated with an immersive exhibit experience at a zoological institution. *PLoS One, 15*, e0231383.
[123] McNally, X., Webb, T. L., Smith, C., Moss, A., & Gibson‐Miller, J. (2025). A meta‐analysis of the effect of visiting zoos and aquariums on visitors' conservation knowledge, beliefs, and behavior. *Conservation Biology*, 39, e14237.
[124] Wheatley & Blackerton (2019) show that regularly visiting museums brings an annual life satisfaction benefit of 0.031 on a 1 to 7 scale, which converts to 0.049 on 0 to 10 scale. Assuming a visit takes place once a month, which is likely to be an overestimate, implies a per visit value of 0.049/12 = 0.041.
[125] The British and Irish Association of Zoos and Aquariums - https://biaza.org.uk/
[126] https://www.chesterzoo.org/support-our-charity/volunteer
[127] Lawton, R. N., Gramatki, I., Watt, W., & Fujiwara, D. (2021). Does volunteering make us happier, or are happier people more likely to volunteer? Addressing the problem of reverse causality when estimating the wellbeing impacts of volunteering. *Journal of Happiness Studies, 22,* 599-624.

make them less attractive places to visit but may even make them difficult to operate.

Applying the same 50% assumption that was used in Section 10.7.2, it was therefore estimated that the wellbeing impact attributable to the veterinary sector would be worth **£1.0 billion**.

Table 10-14: Wellbeing Impact of Zoos

	WELLBYs	Wellbeing Benefit (£m)
Visitors	129,905	2,073.0
Volunteers	400	6.4
Total	**130,305**	**2,079.4**
Attributable to Veterinary Sector	**65,152**	**1,039.7**

10.8 Sports, Working Animals and Zoos Summary

Animals provide a source of entertainment through races, shows and zoos, as well as providing support to humans in a range of capacities.

Horse racing is one of the UK's most popular sports, with 25 million people watching races online and 4.8 million live attendees and is part of the social calendar, with events such as the Grand National. Millions of people also bet on horse races each year, while others ride horses for leisure. The economic impact of sports was estimated to be £1.8 billion GVA and 52,740 jobs.

The veterinary team supports these activities by providing fitness checks for animals, contributing their expert knowledge to breeding and training programmes, and providing emergency care as part of races and events. Without vets, it was assumed that the economic impact associated with sports would be about 20% smaller, due to poorer health, higher risk of injury and reduced access to international breeding programmes. On this basis, the impact of vets would be £356.3 million GVA and 10,545 jobs.

In addition, animals are the centre of a number of events and shows such as the Royal Highland Show, where thousands attend. Vets ensure that animals don't spread disease at these events, providing surety to farmers as well as horse and dog owners.

The veterinary team also support animals in justice roles (such as sniffer dogs and police horses), and assistance animals (such as guide dogs). Significant resources are invested in these animals to ensure that they can carry out their official functions, and vets keep them in good health so that they can contribute across their lives.

Zoos are major visitor attractions, attracting 32 million visitors each year, that also act as centres for research and conservation. It was estimated that they generate an economic impact of £725.6 million GVA and 23,995 jobs, and that the wellbeing impact associated with visitors and volunteers was worth £2.1 billion.

Without veterinary teams, it is likely that animal health at zoos would be significantly impaired and animal lifespans reduced. In addition, without high health and welfare standards the UK would not be able to participate in international animal exchanges and breeding programmes, making zoos unable to attract high profile animals and reducing their attractiveness to visitors. It was therefore estimated that the economic impact associated with vets is £363 million GVA and 12,000 jobs. The wellbeing effect would be £1.0 billion.

Combining sports, working animals and zoos, it was estimated that they contributed £2.9 billion GVA and 97,320 jobs. It was estimated that without the veterinary sector this would be smaller by **£802.2 million GVA and 26,600 jobs**.

Table 10-15: Economic Impact of Sports, Working Animals and Zoos

	GVA (£m)	Employment
Hores Racing	1,360.7	46,510
Horse Betting	420.7	6,230
Sports sub-total	*1,781.4*	*52,740*
Attributable to Veterinary Sector	***356.3***	***10,545***
Events and Shows	53.9	1,355
Animals in Justice Roles	254.3	8,115
Assistance Animals	109.6	11,115
Zoos	725.6	23,995
Total	**2,924.8**	**97,320**
Attributable to Veterinary Sector	**802.6**	**26,660**

These activities also improve people's lives, through attending live sporting events, events and shows and zoos as well as taking part in horse riding and volunteering. Assistance animals also improve wellbeing, by enabling their owners to function better in society. It was estimated that the wellbeing effect is worth £4.0 billion, of which **£1.7 billion** has been attributed to the veterinary sector.

Table 10-16: Wellbeing Impact of Sports, Working Animals and Zoos (£m)

	Wellbeing	Attributable to Veterinary Sector
Horse Racing	251.9	50.4
Horseriding	1,510.2	543.7
Sports sub-total	*1,762.1*	*594.1*
Events and Shows	45.0	9.0
Assistance Animals	96.1	19.2
Zoos (Visitors)	2,073.0	1,036.5
Zoos (Volunteers)	6.4	3.2
Total	**3,982.6**	**1,662.0**

11. Veterinary Education, Research and Pharmaceuticals

The veterinary sector is reliant on high quality training and research, which takes place in universities, research institutes, industry and to some extent in clinical practices.

All vets (MRCVSs) must train at a university, and the UK has a number of high quality, internationally recognised vet schools within universities. This not only provides education for domestic and international veterinary students, but are also a source of employment for existing vets.

There are a large number of qualifications for allied professions, which constitute the veterinary team. Veterinary nurses, registered with the RCVS (although the term is not legally protected), achieve qualifications in university or colleges. The Further Education sector also provides a whole range of courses with various qualifications for those who support veterinary practice and related activities.

Veterinary research is conducted in universities (mainly but not exclusively in those which have veterinary schools), in research institutes, in industry and to some extent in veterinary clinical practices.

11.1 Education and Training

11.1.1 Vet Schools

To train to become a vet in the UK requires a five- or six-year course of study at one of the country's vet schools, which must be accredited by the RCVS.

Vet schools in the UK are some of the oldest and most prestigious in the world, with the Royal Veterinary College set up in London in 1791 and the Royal (Dick) School of Veterinary Studies set up in Edinburgh in 1823. Over time, more veterinary schools were established, including at Glasgow and Liverpool, and these were gradually integrated with neighbouring universities. Initially vet schools were focused on horses, which had military applications, and farm animals, but increasingly have focused on companion animals.

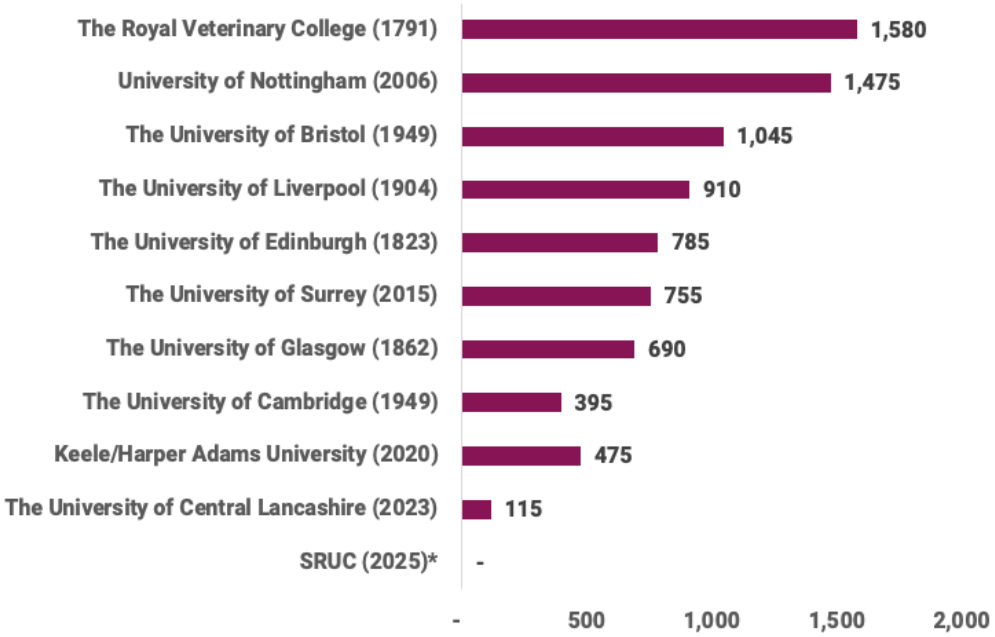
Following the Loveday Report, two more vet schools were opened in 1949, and after a significant break, four more vet schools were founded in the 2000s. The University of Lancashire accepted its first vet students in 2023, Scotland's Rural College (SRUC)

vet school in 2025, with both currently awaiting accreditation by the RCVS. New vet schools were founded in the 2020s in response to a perceived shortage of qualified vets, following recruitment challenges after the UK's withdrawal from the EU, and an increase in the number of pets.

In 2023/24, there were over 8,000 undergraduate vet students in the UK, and over 2,000 undergraduate vet nurse students (often at different institutions to the vet students), alongside many other related courses at various Higher Education facilities. There were an additional 1,940 postgraduate students at vet schools, of which 420 were full-time, suggesting that many students combined their studies with work[128].

There is no single degree that serves all animal health and care careers. Students seeking to become veterinary surgeons complete a veterinary medicine or veterinary science degree. Some pursuing work with animals may pursue other qualifications such as veterinary nursing or animal physiotheraphy/rehabilitation. Those seeking roles in animal-care and management may study degrees in animal behaviour, management, wildlife conservation and zoology. Students interested in laboratory work may study veterinary biosciences or pathology, while those seeking to work in food production may complete degrees in livestock science.

Figure 11-1: Vet Schools by Full Time Undergraduate Students, 2023/24



Source: HESA (2025), HE Student Enrolments by HE Provider and subject of study. *Awaiting accreditation.

Typically, degrees in veterinary science combine formal teaching in core areas, such as pre-clinical sciences, animal husbandry, clinical skills (including surgery and medicine), public health and non-clinical skills such as communication. They often include significant focus on practical application, with students doing laboratory

[128] HESA (2025), HE Student Enrolments by HE Provider and subject of study.

work and completing placements in practices, where they can gain hands-on experience.

This training is led by qualified vets, who have significant experience in practice, and this is a large source of employment for vets.

Of those training full-time to become a vet in 2023/24, around three-quarters (76%) were from the UK, with 3% from the European Union and 21% from non-UK and non-EU. The overseas students typically pay significantly higher tuition fees than UK nationals, and it was estimated, based on median annual tuition fee for international students of £42,700 (these range from around £35,000 to over £60,000) that they paid a total of £73.7 million in tuition fees in 2023/24.

While the share of students from different countries is not broken down by nationality, at the Royal Veterinary College, which predominantly trains vet students and accounts for 46% of the sector's non-UK students, over half of non-UK students were from either the USA or Canada. Importantly, vet qualifications obtained in the UK may be recognised for partial or full accreditation by appropriate authorities in the US, Canada and some other countries.

11.1.2 Training of Veterinary Paraprofessionals

Those seeking to become a veterinary surgeon or veterinary nurse are required to complete an RCVS-accredited qualification, however, there are a number of other allied professions where training is provided, but not with RCVS accreditation.

Veterinary Paraprofessionals (VPPs) are defined by the World Organisation of Animal Health (WOAH) as people who are authorised by a veterinary statutory body to perform specific tasks under the direction of a veterinarian. WOAH expects VPPs to receive training at a certificate, diploma or degree level from training institutions accredited by the relevant body in a territory[129].

In the UK, the RCVS regulates veterinary surgeons and veterinary nurses. However, there have been recent expressions of interest by other professional groups including meat inspectors and animal behaviourists to be accredited by the RCVS[130]. It is likely that other professional groups such as farriers, equine dental technicians and others may express interest in being regulated by the RCVS.

Becoming a VPP can take different routes depending on the specific profession, however, they are all likely to require input from a veterinarian. Becoming a farrier requires completing a four-year apprenticeship with on the job training and periods of study at a college approved by the Farriers Registration Council[131]. Becoming a meat inspector can be achieved through college courses, apprenticeships, or training with a professional body[132]. One of the requirements to become an equine dental

[129] WOAH (2018), OIE Competency Guidelines for Veterinary Paraprofessionals.
[130] RCVS (2019), RCVS Council opens the path for paraprofessional regulation.
[131] National Careers Service (NA), Farrier.
[132] National Careers Service (NA), Food manufacturing inspector.

technician is working under the supervision of an Equine Dental Technician or a vet who performs a high amount of dental work[133].

In 2023/24 there were an estimated 4,577 Veterinary Paraprofessional students studying courses at UK colleges[134]. For many Colleges in the UK, tuition is free, therefore, income to colleges was estimated on a funding per student basis with the average funding estimated to be £5,787 per college student across the UK[135], resulting in a total veterinary paraprofessional funding of £26.5 million across the UK.

The economic impact was estimated based on the economic ratios and multipliers for the tertiary education sector. On this basis, it was estimated that the economic impact of VPP education supported £31.8 million GVA and 915 jobs.

Table 11-1 Economic Impact of Veterinary Paraprofessionals Education

	GVA (£m)	Employment
Total	31.8	915
Attributable to Veterinary Sector	**31.8**	**915**

11.1.3 Economic Impact of Veterinary Education

In 2023/24, there were 8,225 full-time undergraduate vet students, of which 1,975 were international students, and 2,090 undergraduate veterinary nurses, of which 90 were international.

In that year, the annual average tuition fee for undergraduate (UG) home students for both vet and veterinary nurse degrees was £9,250[136]. As a result, the tuition fees associated with home students was estimated to be £76.3 million. In addition, the international fees associated with vets and vet nurses (based on average annual fees of £18,000[137]), was estimated to be £75.3 million.

There were also tuition fees associated with postgraduate (PG) studies, where there were around 500 full-time students in 2023/24. Applying an average tuition fee of around £12,750 for home PG vet students (£5,100 for veterinary nurses) and £25,500 for international PG vet students (£6,300 for veterinary nurses), the total PG tuition was estimated to be £7.2 million.

[133] BAEDT (NA), Frequently Asked Questions.
[134] UK Government (2025), enrolement for Subject. StatsWales (2025), Learning activities at further education institutions by subject 2023-24. NISRA (2025), Further Education Activity in Northern Ireland 2023-24. Scottish Funding Council (2025), College Statistics Background Table 2023-24.
[135] Estimated based on a range of sources, including average income per student at Coleg Gwent and Belfast Metropolitan College, the IFS's annual report on education spending, and Scottish Colleges' key facts series.
[136] Note, students at Scottish universities are treated slightly differently from the rest of the UK.
[137] https://www.rvc.ac.uk/study/fees-and-funding/fees#panel-tuition-fees-for-postgraduate-taught-and-research-students

Therefore, the total cost was estimated to be £151.6 million.

Table 11-2: Vet School Tuition Fees 2023/24 (£m)

	Veterinary Surgeons	Veterinary Nurses	Total
Home (UG)	57.8	18.5	76.3
International (UG)	73.7	1.6	75.3
Postgraduate	6.8	0.4	7.2
Total	**138.2**	**20.5**	**158.8**

To estimate the annual economic impact associated with vet schools, the total income was divided by the average GVA/turnover ratio and turnover per employee ratios for the higher education sector, based on the ABS and BRES. Economic multipliers were then applied to estimate indirect and induced impacts.

On this basis, the economic impact of vet schools was estimated to be **£190.7 million GVA and 5,490 jobs**.

Table 11-3: Economic Impact of Education at Vet Schools

	GVA (£m)	Employment
Total	190.7	5,490
Attributable to Veterinary Sector	**190.7**	**5,490**

11.1.4 Economic Impact of Student Spending

In addition to the direct impact associated with educating vet students and veterinary nurse students, they will generate economic impacts through their spending in the wider economy, which supports turnover and employment in local businesses.

To estimate the impact with student spending it was necessary to consider their spending patterns and what type of accommodation they live. Using data from the student and income expenditure survey[138] and adjusting for inflation, it was assumed that students spent £15,000 per year. It was assumed that 18% of students live at home[139] and incur lower costs on housing etc. In 2023/24, there were around 10,300 UG students and around 500 PG students.

Collectively, it was assumed that these students spent £131.2 million each year. After applying economic ratios and multipliers it was estimated that this generates a total economic impact of **£115.1 million GVA and 3,940 jobs**.

[138] Department of Education (2023), Student income and expenditure survey: 2021 to 2022
[139] HES (2024), Full-time students by term-time accommodation 2023-24, Chart 4

Table 11-4: Economic Impact of Spending by Vet School Students

	GVA (£m)	Employment
Total	115.1	3,940
Attributable to Veterinary Sector	**115.1**	**3,940**

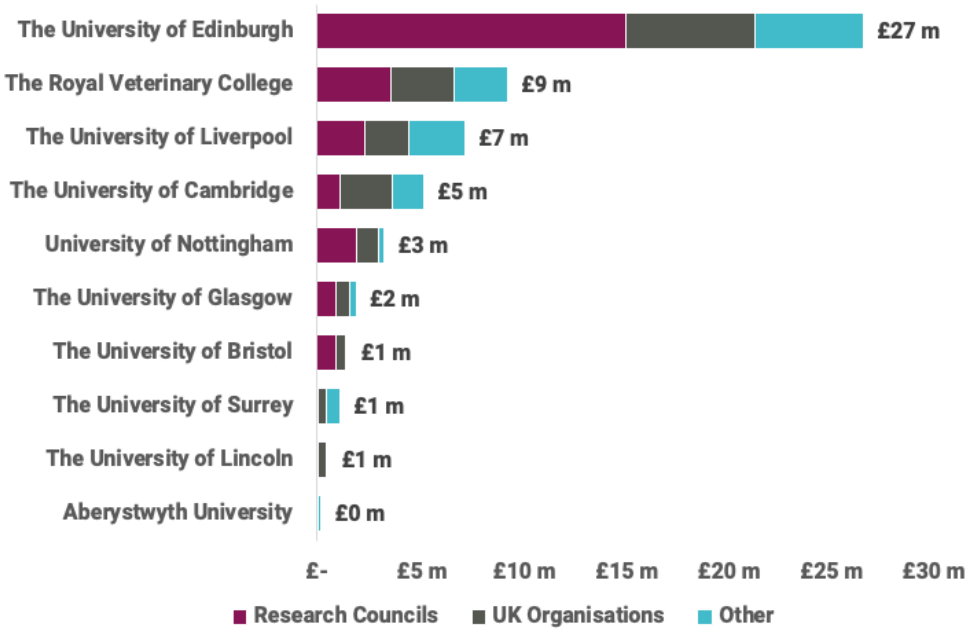
11.2 Veterinary Research

As well as providing education, vet schools, related universities and research institutes also undertake research that supports animal health, and agriculture, including developing new treatments, monitoring infectious diseases and genetics.

In 2023/24, universities received £57.0 million in turnover associated with veterinary research, from a range of sources including research councils (mainly the Biotechnology and Biological Services Research Council, or BBSRC), as well as EU and non-EU sources. The University of Edinburgh is responsible for almost half of this income (£27 million), mainly due to the Roslin Institute, which is based at the University's Easter Bush Campus and co-located with the Royal Dick School of Veterinary Studies as well as SRUC. This is the largest cluster of animal science related expertise in Europe.

In addition to the University of Edinburgh, there is significant research income associated with the Royal Veterinary College (£9 million) as well as the University of Liverpool (£7 million) and the University of Cambridge (£5 million).

Figure 11-2: Veterinary Research Income by Source and University, 2023/24



Source: HESA (2025), Research grants and contracts – breakdown by source of income and HESA cost centre

Veterinary research is also done outside of university ecosystems through government agencies and private research institutions. Research institutes that conduct veterinary research include the Pirbright Insitute, which in 2024 reported an income of £44.7 million[140] and the Moredun Research Institute, which reported an income of £16.6 million, also in 2024[141].

Another crucial site of research, as well as disease control, is APHA's Weybridge site in Surrey. The site has a number of laboratories, which do research on areas of major focus, such as AMR and avian influenza, with scientists also testing vaccines and conducting post-mortems. In addition, emergency responses to disease are co-ordinated from Weybridge, and this also acts as a National/International Reference Laboratory for a number of diseases, such as avian influenza and bovine tuberculosis. There are over 1,000 people located on-site, out of a total 3,282 staff, and staff costs for APHA are equal to £173.4 million[142].

The research undertaken at these institutions covers a range of topics and is informed by the One Health principle. Areas of focus include:

- Agriculture, including how to improve the productivity of animal agriculture systems through improved monitoring;
- infectious diseases, particularly focused on diseases that affect livestock and zoonotic diseases such as avian influenza;
- new treatments, including diagnostic tests and novel compounds;
- veterinary practice, including developing best practice in diagnosing and treating a range of common diseases; and
- genetic research, which includes breeding more disease-resistant animals and animals that have desirable characteristics for agricultural purposes (e.g. faster growth).

11.2.1 Economic Impact of Veterinary Research

To estimate the annual economic impact associated with veterinary research, the total income associated with research was divided by the average GVA/turnover ratio and turnover per employee ratios for the higher education sector, based on the ABS and BRES. For Weybridge, the average staff costs per employee were used as the basis for GVA. Economic multipliers were then applied to estimate indirect and induced impacts.

On this basis, the economic impact of research was estimated to be **£258.3 million GVA and 5,325 jobs**.

[140] The Pirbright Institute (2024), Annual Report and Accounts for the year ended 31 March 2024
[141] OSCR (2025), Moredun Research Institute. Available at: https://www.oscr.org.uk/about-charities/search-the-register/charity-details?number=SC022353. [accessed: 25 November 2025].
[142] APHA (2025), Annual Report and Accounts 2024/25

Table 11-5: Economic Impact of Research

	GVA (£m)	Employment
Total	258.3	5,325
Attributable to Veterinary Sector	**258.3**	**5,325**

11.2.2 Animals in Research

In addition to research undertaken by veterinary researchers, animals are used in significant numbers of experiments and Named Veterinary Surgeons (NVS) play a role in ensuring that these laboratories meet high welfare standards.

In 2023, there were 2.64 million procedures involving animals in the UK[143], of which 1.43 million were experimental procedures (the rest were for breeding). The majority of these cases (52%) were for basic research, which aims to expand knowledge of how living organisms function. In addition, 24% of research was applied (e.g. disease prevention) and 22% was regulatory (e.g. evaluating the safety and effectiveness of pharmaceuticals)[144]. This research is key in developing greater scientific understanding and developing new treatments for medical conditions.

This type of research is built around the 3 Rs framework, and as a result the number of animals used in procedures (mainly mice, fish and rats) has decreased since 2016[145]. The three Rs are as follows:

- Replacement: using non-animal methods where possible, including computer models, cell cultures and lab-on-a-chip technology;
- Reduction: minimising the number of animals necessary;
- Refinement: focusing on reducing suffering and distress among animals, and improving their overall welfare.

Each facility that undertakes animal research must, by law, have a Named Veterinary Surgeon (NVS), who ensures that they meet strict welfare standards and that any experiments are done humanely. They are monitored by the Animals in Science Regulation Unit (ASRU), which is overseen by the Home Office. At the end of 2023, it had around 11,500 personal licences in force, 134 establishment licences and 1,870 project licences[146].

The organisation employs a number of inspectors (it had 17 staff in 2023), who are required to be registered veterinary or medical professionals, with biomedical expertise. They ensure compliance with the regulations, investigate breaches and if necessary undertake enforcement action, which may include repealing a licence.

[143] Home Office (2025), Annual Statistics of Scientific Procedures on Living Animals: Great Britain 2024
[144] Ibid
[145] Ibid
[146] ASRUS (2024), Annual Report 2023

11.3 Research and Education Summary

Vets, supported by veterinary nurses, are highly trained professionals, who must undertake a long course at one of nine registered vet schools, with rigorous teaching in scientific foundations, animal health and clinical skills. While the oldest were established over 200 years ago, shortages of vets have led to a number of new vet schools across the country, including in Surrey, Lancashire, the Midlands and Scotland.

These vet schools are a significant source of employment for vets, and bring in an estimated £74 million in tuition fees from foreign vet students, who are attracted by the high quality of educational provision and transferability of qualifications. It was estimated that total tuition fees are worth £159 million, generating economic activity of £190.7 million GVA and 5,490 jobs. Student spending supported a further £115.1 million GVA and 3,940 jobs.

Training and education for veterinary paraprofessionals was estimated to contribute an additional £31.8 million GVA and 915 jobs.

In addition, the UK has high quality veterinary research, with a significant cluster at the University of Edinburgh's Easter Bush Campus (the Roslin Institute), research institutes at Moredun and Pirbright and at government laboratories such as Weybridge, and at vet schools. This includes research into improving pet and livestock health, as well as animal genetics and veterinary practice. In 2023, this contributed £258.3 million GVA and 5,325 jobs.

The combined economic impact of research and education was therefore estimated to be **£596 million GVA and 15,665 jobs**, which was all attributable to the veterinary sector.

Table 11-6: Economic Impact of Research and Education

	GVA (£m)	Employment
Veterinary Education	190.7	5,490
Student Spending	115.1	3,940
Veterinary Paraprofessionals	31.8	915
Veterinary Research	258.3	5,325
Total	**595.9**	**15,665**
Attributable to Veterinary Sector	**595.9**	**15,665**

11.4 Veterinary Pharmaceuticals

The UK is a leading player in the veterinary pharmaceuticals sector, as it is in the wider pharmaceutical sector, and as such it generates significant economic activity and high quality employment.

The sector is highly innovative, and the UK's advanced research capabilities are a key attraction for global animal health companies. This includes researching and identifying promising compounds that may have therapeutic properties as well as assisting in product testing.

Bringing products to market in the UK is supported by a high quality regulatory system, overseen and led by the Veterinary Medicines Directorate (VMD), which regulates companies, who spend significant amounts developing products, and who submit dossiers of evidence for independent scientific oversight by the VMD, before they receive a licence that allows them to sell products. Pharmaceuticals must undergo additional testing if they are in agricultural species, to ensure food products from treated animals are safe for human consumption. Once products have undergone appropriate testing and regulatory assessment, they receive Marketing Authorisation, which permits the company to sell the product.

The manufacture and distribution of products is also very technically advanced, requiring high levels of quality control, use of new technologies such as biologics that are used for vaccines (such as the mRNA Covid-19 vaccines) and mastery of cold storage supply chain.

Products that are sold by companies include vaccines (particularly important for agriculture), antibiotics, parasiticides, analgesics (pain management) and anaesthetics. In addition, many companies have specialist feed products, which may include anti-parasitics and other active compounds.

Products are aimed at both the agricultural and companion animal sectors, with the latter accounting for a growing share of the market, as pet ownership and the complexity of treatment grows, and the sector is expected to continue growing. When NOAH, the body that represents the veterinary pharmaceuticals sector, was established in 1986, the share of animal medicines used for livestock was over 70%, while the share used in companion animals has now increased from 30% in 1986 to 63%[147].

Companies that have significant operations in the UK include Zoetis, one of the world's largest manufacturers of veterinary pharmaceuticals, Elanco, MSD Animal Health (part of Merck) and Boehringer Ingelheim. In addition, a number of companies are UK-headquartered, including Norbrook Laboratories, Dechra Pharmaceuticals, Animalcare Group and ECO Animal Health Group.

[147] NOAH, Industry Facts and Figures

11.4.1 Role of the Veterinary Team in Veterinary Pharmaceuticals

As the most important professionals in the animal health care system in the UK, vets are crucial to the veterinary pharmaceutical sector, but are supported in provision of some veterinary drugs by pharmacists and Suitably Qualified Persons (SQPs).

They are trusted by pet owners and farmers, and are often the only people who can prescribe drugs, meaning that they are the main distribution channel and gatekeepers. For example, 79.5% of products are classified as Prescription Only Medicine (POM) – Veterinarian (including all products for food-producing animals) and a further 13.4% classified as POM – Veterinarian, Pharmacist, SQP[148]. As discussed in Section 8.2.2, vets increasingly focus on tackling antimicrobial resistance through careful prescription.

Veterinary teams also play important roles within veterinary pharmaceutical companies, across research, testing and regulation. They are essential as part of the research team into any new veterinary vaccine or pharmaceutical. Data supporting the application for a Marketing Authorisation (licence) has to be generated from trials in living animals, which must be veterinary supervised, and the clinical/medical changes confirmed by a vet. The final safety testing requires live animal testing, all veterinary supervised. So the resulting product, often worth multi-millions, is only possible with veterinary input. Because animal testing is also needed for most human medicines, a veterinary surgeon is a prerequisite member of the team to control the animals during testing. Without the vets, the products would not exist.

They also act in commercial and sales roles, ensuring that products fit into clinical workflows and in marketing products to other vets. This ensures that best practice spreads and effective new treatments can get to farmers and pet owners.

In addition, pharmaceutical companies often have strong links to vet schools and universities who undertake basic and applied research that leads to the development of pharmaceutical products, as well as new health interventions such as diagnostic tools and other therapies. For example, Zoetis has a strategic relationship with the University of Surrey to take cutting edge developments in human health and apply them to animal health.

11.4.2 Economic Impact of Veterinary Pharmaceuticals

According to NOAH, the veterinary pharmaceutical sector has a turnover of more than £1 billion, and employs more than 4,000 people in high-skilled, high-value jobs.

Applying economic ratios and multipliers for the appropriate economic sectors, it was estimated that the economic impact of the sector (including supply chain spending and staff spending) would be **£662.6 million GVA and 10,035 jobs**. Given the central role of the veterinary team in distributing and researching veterinary pharmaceuticals, it was assumed that 100% of the impact would be attributable.

[148] NOAH, Industry Facts and Figures

Table 11-7: Economic Impact of Veterinary Pharmaceuticals

	GVA (£m)	Employment
Total	662.6	10,035
Attributable to Veterinary Sector	**662.6**	**10,035**

BiGGAR Economics

BiGGAR Economics, Shandwick House,
67 Shandwick Place, Edinburgh, Scotland EH2 4SD

info@biggareconomics.co.uk

biggareconomics.co.uk

Proudly employee owned.

We are a Living Wage Employer

CYBER ESSENTIALS CERTIFIED