

# Global State of Pet Care 

 Stats, Facts and Trends

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[^0]Section One
Global Trends in the Pet Population

## What you need to know

Pet ownership is rising globally, particularly in millennial households, which tend to be smaller families and have children later in life.


Expanding middle class is driving pet population growth in emerging markets.

Pet ownership leads to improved human health outcomes for people including better heart health, lower levels of depression and anxiety, and more.


## Pet Ownership

The ownership of cats and dogs has been steadily increasing across the globe, including in emerging economies.

How many pets are there in the world?

The population of pets in major markets includes:


[^1][^2]The population of pets in other markets includes:


Sources:4,5,6,7,8,9,10,11,12,13,14,15,16,17,18
Country

## How many people own a pet?

Billions of households around the world are unified by a common theme - pet ownership. Sharing your home with a pet is a common language that cuts across country and culture.

- More than half of the global population is estimated to have a pet at home. ${ }^{19}$
- Families in the U.S., EU and China alone have over half a billion dogs and cats.
- In the U.S., 70 percent of households owned a pet as of 2021 compared to 68 percent in 2016. ${ }^{20}$
- Globally, dogs are the most popular pet, present in around one in three homes worldwide. Almost a quarter of pet owners have a cat. ${ }^{21}$

[^3]
#### Abstract

The evidence is clear - pet populations worldwide are rising and there is little indication it will slow down anytime soon.




Why is pet ownership on the rise?

Demographic changes, rising income levels and the Covid-19 pandemic have driven more people to adopt pets.

- More than two million people adopted a pet during the UK's pandemic lockdowns, while in Australia over a million pets were adopted during the height of the pandemic. ${ }^{22,23}$
- China's pet population rose $113 \%$ between 20142019, ${ }^{24}$ coinciding with relaxation of ownership restrictions and a falling birth rate.
- Rising levels of disposable income in key markets is also being spent on acquiring and caring for pets.
"There has been a huge change in the culture of pet ownership, and this will also occur in emerging markets -South-East / South Asia, Central Asia, Sub-Saharan Africa, Eastern Europe."

Dr Shane Ryan, Veterinarian and Past President, World Small Animal Veterinary Association

- Pets play increasingly important roles in singleperson households, in families without children and for couples whose children have grown up and left the family home.

Read our 'Impact of Covid-19' case study to see how the pandemic has increased pet ownership levels in Australia.

$\mathbf{2}$ million people adopted a pet during the UK's pandemic lockdowns. ${ }^{22}$

## What are the emerging markets for pet ownership?

Growth is most evident in those countries which are witnessing the expansion of the "middle class", which is also contributing to shifting attitudes and the emergence of a new "pet culture" based around the increased humanisation of pets and increased number of pets kept for companionship alone.

In China, a relaxation of pet ownership regulations and a falling birth rate are additional contributors to an increase in pet ownership. Pet ownership increased 113\% between 2014 and 2019, and by 2024, experts estimate China will have the most pets in the world. ${ }^{25}$ Elsewhere in Asia, pet ownership in South Korea grew from 5 million pets to 7.5 million between 2014 and 2018, representing 50\% growth. ${ }^{26}$
> "Pet ownership has a lot to do with disposable income. Because of that, fast-advancing countries, like the Asian countries, but also Eastern Europe will certainly see further increase of pet ownership."

> Dr. Wolfgang Dohne, Veterinarian and Senior Vice President, Federation of European Companion Animal Veterinary Associations

## What age groups are driving pet population growth?

Trends in pet ownership are closely linked to global demographic changes.

- Millennials, adults between their early 20s and late 30 s, represent a growing constituency of pet owners as they are more likely to have children later in life, work from home or in hybrid formats and have a higher income and level of education. ${ }^{27}$
- In the United States, millennials now account for a third of all pet owners, the largest proportion of any generation. ${ }^{28}$
- Half of the dogs and cats adopted in urban China were by people born in the 1990s. ${ }^{29}$
- In the UK, 35\% of millennials report owning a pet or planning on adding one in the near future. ${ }^{30}$
- Older age groups are also increasingly likely to have pets for the companionship and health benefits that companion animals can provide.

Early analysis also shows that Gen Z, despite their young age, represents a growing segment of pet owners (14\% in the U.S.) and may accelerate the 'pet boom.'31
"The really emerging demographic is the millennial couple first-time pet owners. Before having a child, they're going to adopt a pet. That's the training wheels for them to become parents."

Alex Douzet, CEO, Pumpkin Pet Insurance, U.S.
"We know that the cat population [in Brazil] is growing three times faster than dogs. We have a lot of big cities here in Brazil, people living in apartments, delaying having children, they don't have children as soon as they get married."

Leonardo Brandao, DVM, Pet Health Industry Regional Manager, Brazil

[^4]What challenges can the growing pet population create?

More people are recognising and enjoying the positive benefits of companion animals but this also brings animal health issues to the fore.

- A growing pet population means a greater need for veterinary care. Almost half of all clinics reported an increase in their caseloads in a recent 91 -country survey. ${ }^{32}$
- This places greater strain on veterinarian and their practices, which recent surveys show is taking a significant toll on veterinary mental health. Read the 'Global Trends in Veterinary Care’ section to learn more.
- Increased demand also creates the risk of irresponsible breeding practices to increase supply.

Pet abandonments are also a continuing challenge. Up to eight million animals enter rescue shelters every year

## Up to 8 million animals enter rescue shelters every year in the U.S.

in the U.S., with about half of these eventually euthanised. ${ }^{33}$ However, industry data found that fears of a 'pet abandonment' crisis following the pandemic pet boom has not come to fruition. Rehoming levels were actually down in 2021 vs 2019, both in real figures and as a proportion of animal populations. ${ }^{34}$


[^5]


#### Abstract

Studies have shown time and time again - pet ownership leads to better health outcomes for people. This is the One Health power of pets.


## What health benefits do pets provide to people?

Pet ownership provides a range of therapeutic, physiological, psychological, and psychosocial benefits to owners. ${ }^{35}$ These include:

- Decreased blood pressure.
- Reduced risk of heart attacks.
- Increased physical activity.
- Increased sensory stimulation, emotional support.
- A stronger sense of physical and psychological well-being.

Pet ownership has also been strongly linked with a reduction in healthcare costs in the U.S., contributing to fewer visits to doctors and improved general health. ${ }^{36}$

Studies have also shown that these benefits remain even when adjusted for demographic, socioeconomic factors, education, medication use, etc., ${ }^{37}$ showing that the link between pet ownership and better health is persistent and strong. Healthy pets contribute to our health. That is the 'One Health' power of pets.
"Pets are healthier and well cared for because their status has changed... as we're more attuned to our own wellness, it translates to those we love around us."

Dr Siraya Chunekamrai, President, World Small Animal Veterinary Association

## Healthy pets contribute to our health. That is the ‘One Health'

 power of pets.[^6]
## (?) Why do pets improve our health?

Researchers attribute the clear link between pet ownership and improved health to:38

- Increased levels of outdoor physical activity that often accompany pet ownership (e.g. regular dog walking).
- The sustained mental health benefits brought on by pet companionship.
- Greater exposure to germs that can 'favourably alter the gut microbiome of an owner'.

This is why the American Heart Association has stated that dog ownership "may have some causal role in reducing cardiovascular disease risk" and "may be reasonable for reduction in cardiovascular disease risk". ${ }^{39}$

39 https://www.ahajournals.org/doi/10.1161/CIR.0b013e31829201el

## Case Study The Impact of Covid-19

The Covid-19 pandemic has had a significant impact on pet ownership, as shown in recent research by Animal Medicines Australia. There has been a steady rise in pet ownership in the country, with the number of Australian households owning pets having increased from 61 percent in 2019, to 69 percent in 2021. This means the total number of pets in Australia has increased from 28.5 million in 2019 to 30.4 million in 2021.

Millions of Australians decided to adopt a pet during the pandemic, adding more than a million dogs to the total pet population, rising from 5.1 million owned dogs in 2019 to 6.34 million in 2021. The pandemic has been a key motivator for pet ownership, with 19 percent of dogs and 24 percent of all cats owned by Australians acquired since the beginning of the pandemic.

New owners stated that owning a new pet during the pandemic was not a spontaneous decision, however, but that pandemic restrictions had helped to "on-board" a pet that they had previously wanted, such as through greater time spent at home, for instance.

Source: https://animalmedicinesaustralia.org.au/report/pets-and-the-pan-demic-a-social-research-snapshot-of-pets-and-people-in-the-covid-19-era-2/

Section Two
Global Trends in Pet Health

## What you need to know

Pets are living longer than ever. Life expectancy has risen by as much as $230 \%$ for pets in some nations.

Life expectancy is rising due to greater levels of vaccination, veterinary care, and improved awareness of the needs of pets.

Pet owners are investing more in care than ever before, but tools such as insurance could help where cost is a barrier.

Developing markets face unique challenges for pet care as freeroaming or 'community' animals may lack a formal owner.

Pet insurance is small but growing market with close to 4 million pets covered in 2021, an increase of $28 \%$ over 2020.

# Lifespan of Pets 

Pets are living significantly longer, healthier lives compared to just a decade or two ago. This means 'senior care' and illnesses related to age are a greater priority to owners and veterinary practices.

## How is the life expectancy of pets changing?

- Average life expectancy of U.S. dogs increased from 10.5 years to 11.8 years between 2002 and 2016, an increase of $11.4 \% .^{40}$
- In Japan, dogs live 50\% longer today than they did in the 1980s, while cats' average life expectancy grew by $230 \%$ in the same period. ${ }^{41}$
- One estimate found that overall, 'Dog life expectancy has doubled in the past 4 decades, and housecats now live twice as long as their feral counterpart.'42
"What has increased is the preventative care - we have gone from treating individual conditions when they occur to preventing them in the first place."

Dr. Wolfgang Dohne, Veterinarian and Senior Vice President, Federation of European Companion Animal Veterinary Associations

## Why are pets living longer?

Each pet is different; however, researchers have identified key factors that are driving the overall increase in life expectancy such as:

- Owners gaining a greater understanding and awareness of pet health needs.
- Higher levels of vaccination, better nutrition and a shift to raising more animals primarily indoors has reduced medical issues. ${ }^{43}$
- Regular veterinary visits and preventative care; U.S. dogs visit the veterinarian, on average, 1.5 per year and cats visit 0.7 times, ${ }^{44}$ while investment in care is continually growing. ${ }^{45}$
- Improved pharmaceutical products that are convenient for owners to administer and offer broader protection against threats such as parasites.

[^7]
## Burden of Disease

Illness and parasites remain the primary threat to the health and well-being of pets. Control relies upon early detection, proper medicine use and regular veterinary care.

## What is the risk of zoonoses transfer from pets?

Although the risk of disease transfer from pets to people remains very low in most countries, diseases like rabies remain a persistent threat in developing markets.

Rabies remains responsible for around 59,000 human deaths every year, with half of these in children under the age of $15 .{ }^{50}$ Dogs account for about 99 percent of all rabies transmissions to humans, with the overall annual cost of rabies estimated at about $\$ 8.6$ billion each year. ${ }^{51}$ India is the most affected country, accounting for about 20,000 rabies death each year. ${ }^{52}$ Read our section on 'Pet Health in Developing Markets' to learn more.

## Despite this, the incidence of infectious zoonotic diseases from pets remains very low in most developed

## "Six out of 10 infectious diseases are zoonotic but fortunately, of all the zoonotic diseases, very few come from dogs and cats."

Dr Siraya Chunekamrai, President, World Small Animal Veterinary Association
markets. Data from the U.S. Centers for Disease Control and Prevention (CDC) suggests that very few zoonotic outbreaks originate in dogs and cats. ${ }^{53}$

## What is the risk of parasites to pets?

Fleas, ticks and worms remain a common and continual issue for many pets:


Heartworm prevalence can be as high as 28\% in dog populations, while testing in cats found 19\% with evidence of an active or previous infection. ${ }^{54}$


85\% of dog parks visited in U.S. metropolitan cities had at least one dog test positive for intestinal parasites. Overall, 20\% of tested dogs in the parks were positive. ${ }^{55}$


A UK study found $28.1 \%$ of randomly selected cats and 14.4\% of dogs had fleas. ${ }^{56}$

Some of these parasites (e.g giardia) are zoonotic and can be unintentionally transferred to the owner, which is why control of parasites improves 'household health'. Parasite prevention typically requires a regular parasiticide and consistent diagnostic testing (e.g. annually) to ensure any potential issues are detected early and minimize risk to the pet.

[^8]How does a longer lifespan affect the overall health of a pet?

An ageing population of pets is also bringing about new, unique health needs.

Much like in people, the risk of health problems such as cancer, liver disease, diabetes, senility and joint disease grow later in life. To counter these risks, veterinarians typically recommend: ${ }^{57}$

- Increased veterinary care.
- Focus on prevention and early intervention.
- Specialized diet and nutrition.
- Continued vaccination and parasite control.
- Maintaining mobility.
- Mental stimulation.

Monitoring tools and diagnostics are helping identify new risk factors for disease that allow veterinarians to take earlier preventative action.

For instance, 'Big Data' tools can use aggregated diagnostic records across millions of animals to help identify subtle health changes that suggest onset of chronic illnesses. Small animal veterinarians use these insights with patients to anticipate health issues, which is helping extend a pet's lifespan.

"We have done vaccination for many decades, but now have pet health plans, which a lot of clinics offer."

Dr. Wolfgang Dohne, Veterinarian and Senior Vice President, Federation of European Companion Animal Veterinary Associations

[^9]


#### Abstract

Consumer spending on healthcare and treatments for companion animals has increased, in recent decades particularly as the "humanisation" of pets grows.


## How much are consumers spending on their pets?

The pet industry is a major global sector. In the United States alone, consumers spent an estimated $\$ 123.6$ billion in 2021 on pets and pet-related products. ${ }^{58}$ Market analysts at Morgan Stanley estimate this may rise to \$275 billion by 2037. ${ }^{59}$

In Australia, AUS\$30.7 billion was spent on dogs and cats in 2021, with the bulk of spending going towards pet foods, veterinary services and healthcare products. ${ }^{60}$

Spending specifically on veterinary care is growing alongside the wider sector as well. In the UK, the annual expenditure on veterinary and other pet services rose from $£ 2.6$ billion in 2015 to $£ 4$ billion in 2020, a 54\% increase in just five years. ${ }^{61}$

In the United States, a survey of pet owners revealed that only approximately $40 \%$ dog and cat owners visit the veterinarian once a year. ${ }^{62}$ Veterinary associations recommend all animals see a veterinarian regularly (annually or more), therefore there is an opportunity for greater investments in veterinary care in many areas.


Estimated U.S. consumer spending on pets and pet-related products

[^10]
## How big is the pet health market?

- In the U.S. alone, pet owners \$123.6 billion on their pets in 2021 with $\$ 34.3$ billion going towards veterinary care and products (not including over the counter medicines). ${ }^{63}$
- Over 50\% of animal health products sold in 2021 were for pets, a switch from just 4 years prior (2017) when livestock products were the majority. ${ }^{64}$
- In the E.U. pet owners spend close to $€ 22$ billion on pet food each year with an average annual growth rate of $2.8 \%{ }^{65}$

However, many pets - sometimes more than 50\% still do not see a veterinarian annually as indicated in owner surveys. ${ }^{66}$ Recent data from the 'Human-Animal Bond Research Institute' (HABRI) shows that there may be an opportunity to address this issue by better communicating with owners on the value of their pet. For
instance, HABRI has found that when owners understand the human-animal-bond better, they are more likely to take better care of their pet, bring them to the veterinarian regularly, etc. ${ }^{67}$
> "Money is the biggest challenge that vets face the world over. If your choice is between feeding your family and taking the dog to the vet, there's no discussion."

Dr Lawson Cairns, Veterinarian, South Africa
 How many pet owners take out insurance?

While a few countries have achieved notable growth, uptake of pet insurance remains generally low in both developed and emerging markets.

- Only 4.4 million pets were insured in the U.S. and Canada at the end of 2021. Although this is a 27.7\% increase over 2020, it represents a fraction of the $150 \mathrm{M}+$ dogs and cats in the countries. ${ }^{68}$
- Leaders in insurance include Sweden where experts estimate as many as $90 \%$ of dogs are covered ${ }^{69}$ and the UK where insurance companies process $£ 2.2 \mathrm{M}$ in claims per day. ${ }^{70}$
- Cornell University Researchers found that when owners are presented information on cost and disease risk, they are more likely to purchase insurance. ${ }^{71}$

The American Veterinary Medical Association has noted that "having pet health insurance makes it more likely that owners will follow their veterinarian's recommendations." ${ }^{72}$
"We're going to see the market develop to a place where $\mathbf{1 0 - 1 5 \%}$ of pets are insured in [the U.S.]."

Alex Douzet, CEO, Pumpkin Pet Insurance, U.S.

[^11]
## Pet Health in Developing and Emerging Markets

Pet health in developing and emerging markets faces unique challenges from different ownership patterns when compared to typical developed contexts.

## What health threats do pets face in developing countries?

Free-roaming and community-owned dogs are common in some developing regions, with anecdotal evidence that only an estimated five percent of dogs have "owners" in developing nations, compared to the vast majority in developed nations. ${ }^{73}$

This creates key preventable disease challenges in developing countries include rabies, leptospirosis and leishmaniasis. Lack of formal ownership can also lead to indiscriminate breeding and additional health burdens.
> "In a lot of developing and lower income countries, they have had more focus on livestock and production animal veterinary medicine, less for companion animals."

> Dr Shane Ryan, Veterinarian and Past President, World Small Animal Veterinary Association
veterinary sector. This means even pet owners that seek out care may struggle to find an available small animal veterinarian in their area.

Regulatory and trade barriers for new health products and commodities like pet foods are also common, preventing some products from entering markets where they are most needed.

Complex and differing regulatory processes in different countries, for instance, coupled with markets where regulations are currently underdeveloped, can often disincentivise companies from registering new products that would help improve pet health. A lack of expertise is another prevailing barrier, with insufficient numbers of veterinary professionals in developing markets.
"Another issue is access to veterinary pharmaceuticals. Often these markets are small - it's not a regulatory easy thing to do to get these medicines licensed in some countries."

Dr Shane Ryan, Veterinarian and Past President, World Small Animal Veterinary Association

Income can be a key barrier to veterinary care and treatment in developing regions. Less disposable income leads to less ability to access and afford veterinary care, which in turn may stunt the growth of the

Section Three

## Global Trends in Veterinary Care

## What you need to know



Access to veterinarians vary widely across markets. 0 ver 100,000 veterinarians are active in the U.S., however in a nation like Kenya, the total may only be in the hundreds.

In developed nations, most veterinarians serve small animals. However, developing markets focus on livestock and may lack the expertise for proper pet care.

Veterinary caseloads are growing, increasing the burden on veterinary well-being. Burnout and stress are on the rise across the profession.

Medicine access was reported as an issue for $75 \%$ of veterinary associations, which hampered their ability to meet patient needs and provide quality service.

Vaccine hesitancy exists in pet health with some evidence suggesting a notable prevalence, however more research is necessary.

Telemedicine use is rising in veterinary clinics, particularly in the wake of the Covid-19 pandemic, and surveys show $60 \%+$ of pet owners are willing to pay for this service.


## Access to veterinarians and

 veterinary expertise varies enormously around the world according to both availability and affordability.


Source ${ }^{75}$

What percentage of veterinarians are available for small animals?

Surveys indicate that the number of veterinarians for small animals represent the bulk of veterinarians in developed markets:

- In the UK, $52.6 \%$ of people working in the veterinary sector are at a small animal practice compared to just 3.2\% working with farm animals. ${ }^{76}$
- Three-quarters of private U.S. veterinarians work predominantly or exclusively with pets. ${ }^{77}$
- Across Europe, 67 percent of veterinarians, on average, work predominantly or exclusively in small animal practice. ${ }^{78}$

However, even with the veterinary profession trending towards small animals, veterinarian shortages are growing, which makes access to care difficult (See below).
"We have to consider that in Latin America, you have a very important part of the population of dogs, you don't know if they have owners or receive any care."

Edival Santos, DVM, Pet Health Industry Regional Manager, Brazil

[^12]
## Access to small animal veterinarians across the developing world is an even greater issue. In Zimba-

 bwe, there are only around 340 veterinarians serving the entire country, whilst Mauritania - the $28^{\text {th }}$ largest country in the world in terms of size - has only 127 working veterinary professionals. ${ }^{79}$ Of these veterinarians, only a fraction would focus on small animals.Across the continent of Africa in 2009, there were some 46 veterinary training institutions. However, these had a disproportionate focus on livestock practice, reflecting the differing views and cultures around pets worldwide. ${ }^{80}$

## Is there a shortage of veterinarians for pets?

Yes. Despite rising numbers of in small animal veterinarians, it is not keeping pace with the record number of pets being adopted.

- In the U.S., 41,000 veterinarians will be needed in 2030 to meet pet care needs, however the profession is on pace to fall 15,000 short of this number, according to a study by Mars Veterinary Health. ${ }^{81}$
- The British Veterinary Association reports a "veterinary workforce crisis" and "storm of shortages" in the UK after a 68\% drop in veterinarians registering to come and work in the UK in the wake of Brexit. ${ }^{82}$
- The Australian Veterinary Association has said more veterinarians are "urgently needed" to fill shortfalls in the wake of the 'pandemic puppy boom'. ${ }^{83}$

> Veterinary associations are warning of a 'workforce crisis', 'storm of shortages' and an 'urgent need' for more veterinarians to meet demand.

The result is rapidly rising veterinary caseloads. Almost half of practices worldwide reported an increase in a 91-country survey by the World Small Animal Veterinary Association. ${ }^{84}$


# Almost half of practices worldwide reported an increase in caseloads since the start of the pandemic in a 91-country survey 

[^13]
## What do shortages mean for the mental and physical well-being of

 veterinarians?A veterinary workforce that does not keep pace with a rising pet populations ultimately puts intense strain on the individual veterinarian and their support staff. Individuals may need to care for more animals, may have less time per appointment, etc., which can affect their relationship with clients and their personal mental health.


Rates of burnout 'displayed a substantial increase' from 2020 to 2021 during the Covid pandemic and associated pet adoption boom. ${ }^{85}$


Stress levels are rising amongst veterinarians, which is contributing to mental health issues occurring at levels higher than the general population, including suicide. ${ }^{86,87}$


The UK Royal College of Veterinary Surgeons found a majority of veterinary surgeons report experiencing conflict "between their personal well-being and their professional roles." ${ }^{38}$
"In 2018, WSAVA launched a survey on wellness. A 36\% on the stress scale pre-pandemic became 64\%. What follows is a drop in job satisfaction and plans to leave the workforce. This impacts mostly younger and female veterinarians."

Dr Siraya Chunekamrai, President, World Small Animal Veterinary Association

Even before the Covid-19 pandemic, only 48\% of UK veterinarians told the Royal College of Veterinary Surgeons that they "would still opt for the veterinary profession if they could start their career over again." ${ }^{89}$ This issue has grown since then and addressing it will be critical to the long-term health of veterinarians and their patients.

[^14]> In both developed and developing countries, there are several limitations which are holding back access to medicines.


## Are veterinary medicines reaching pets in need?

In a survey conducted by the World Small Animal Veterinary Association (WSAVA), three-quarters of veterinary associations surveyed indicated that access to veterinary medical products hampered their ability to meet the needs of their patients and provide quality service. ${ }^{90}$

Major reasons cited for lack of access to medicines included the regulatory environment in respondents' countries, as well as manufacturer related issues, such as lack of interest due to smaller market sizes and subsequently higher product costs in those markets.

The Covid-19 pandemic also impacted access to medicines, despite veterinary practices in many countries being listed as "essential" services and exempt from many closures affecting other industries. ${ }^{91}$

A quarter of pet owners said in 2020 the pandemic had made it harder to access medicines that were needed for their pets ${ }^{92}$ despite many countries' efforts to safeguard veterinary service. More than one in 10 pets, or 13 percent, missed essential, routine treatments, according to a global pet owner survey. ${ }^{93}$

# $13 \%$ of pets missed essential, routine treatments in 2020. 

Although the initial challenges from Covid have abated, the growing 'pandemic pet boom' has created a new set of issues related to veterinary shortages and the ability to access care, which is covered in-depth in Section 3: Trends in Veterinary Care.

[^15]
## Is there a 'vaccine hesitancy' movement within pet health?

Even prior to the Covid-19 pandemic, vaccine hesitancy was on the rise among pet owners, hindering progress on pet health.

- In the UK, approximately a quarter of pet owners said their dog did not have a primary course of vaccinations when young, despite vaccinations preventing a range of common diseases. ${ }^{94}$
- Veterinarians in developed nations like the U.S. and Australia have anecdotally reported an increase in animal vaccine refusal due to hesitancy or anti-vaccination attitudes prior to the Covid-19 pandemic. ${ }^{95}$
- Respondents in a survey of U.S. and Canadian veterinarians said the human vaccine hesitancy movement has 'resulted in an increase in the number of owners declining or express concern about rabies and core vaccinations. ${ }^{96}$

More reliable, systemic data is essential to evaluate whether vaccine hesitancy is growing amongst pet owners, particularly in the wake of Covid-19.

> Close to 25\% of UK pet owners said their dog did not have a primary course of vaccinations.


[^16]
# Innovation in Veterinary Care 


#### Abstract

Emerging innovations in pet health care highlight the potential for further improving pet health, welfare, and livelihoods. These innovations range from new vaccines, diagnostics and treatments to new services and products that are more affordable, convenient and accurate.


## What are some of the latest veterinary breakthroughs for pets?

- Gene therapy treatments for cancer, which accounts for more than a quarter of all deaths in pedigree dogs in the UK. ${ }^{97}$
- Predictive technologies, that use data generated from diagnostics and monitoring tools to create life-long health plans for pets that anticipate issues that may arise.
- Tools to reduce the need for antibiotics, such as vaccines, and monoclonal antibodies, which can help reduce the risk of antimicrobial resistance. ${ }^{98}$
- Innovative pet technology, including wearables such as high-tech collars and tracking systems, with the market forecast to be worth some \$20 billion by 2027.99
- Greater variety of pet nutrition options, including single-serve, balanced meals which can be tailored towards the specific needs of the pet.
"We have to become smarter when it comes to the use of antimicrobials we will see more alternatives to the use of antibiotics and possibly other treatment forms."

Dr. Wolfgang Dohne, Veterinarian and Senior Vice President, Federation of European Companion Animal Veterinary Associations

The market for pet food and care products continues to grow around the world. In Europe, the market is worth an estimated $€ 22$ billion a year, with pet health products valued at an additional €2.1 billion, and the industry employing around 300,000 people in total. ${ }^{100}$

[^17]
## Is telemedicine use increasing?

The Covid-19 pandemic saw more veterinary practices offering telemedicine:

- A HealthforAnimals survey conducted in fall 2020 found almost half ( $47 \%$ ) of pet owners stated their veterinarian offered digital/remote consultations, up from 20 per cent prior to the pandemic.
- The HealthforAnimals survey found $75 \%$ of owners who had a telemedicine consultation said they were 'satisfied' or 'extremely satisfied' with the service.
- A survey published in the Journal of American Veterinary Medical Association confirmed these findings, finding that 'telemedicine substantially increased' during the pandemic. ${ }^{101}$

What are the hurdles to telemedicine?

A global pet owner survey conducted during the Covid-19 pandemic also found that almost two-thirds, or 60 percent, of all pet owners would be willing to pay for veterinary advice or consultation through telemedicine services. ${ }^{102}$

Despite this, many expect telemedicine use to recede in the wake of the Covid-19 pandemic. ${ }^{103}$ One of the main challenges is continued regulatory and legal uncertainty in providing veterinary care via telemedicine platforms.

- In Brazil, a draft bill to legislate for veterinary telemedicine was shelved in 2020, despite the challenges of the Covid-19 pandemic in providing traditional veterinary services and creating longterm uncertainty about its use. ${ }^{104}$
- A U.S. veterinarian survey found that some respondents "reported concerns regarding legal issues" around telemedicine, indicating the regulatory issues.
 What are the hurdles to telemedicine?


## Chapter Four

## Securing a Healthy Future

## What you need to know

Policy related to pets is growing. Countries like Australia are liberalizing rental laws to make it easier to own a pet, while the UK has passed legislation aimed at welfare.

Public investment in veterinary services remains low, which risks creating a shortage in providers as pet populations increase.

Veterinary shortages are here. Veterinary groups in countries across the world are calling attention to a 'perfect storm' of insufficient veterinarians and rising pet population.

Innovation is needed to support both veterinary practice operations and pet care, but regulations may slow delivery.


# Policy and Regulation 

As pet ownership continues to rise throughout the world, there is growing scrutiny on and expectation for pet-related legislation and policies to be reviewed and updated.

## How are governments reacting to growing pet populations?

Some governments have made dedicated efforts to respond to the rise in pet ownership. For example, in response to a growing need for veterinarians:

- Brazil has opened state-run pet hospitals, whilst in other emerging markets, such as South Africa, there are no public clinics to meet demand. ${ }^{106}$
- Australia has adopted new laws making it easier for those renting properties to own pets. ${ }^{107}$ In England, the government has developed a 'Model Tenancy Agreement' that landlords can adopt, which facilitates pet ownership, however use remains voluntary and more is needed to encourage uptake by landlords. ${ }^{108}$

Legislative efforts have also targeted practices that are harmful to pet health and welfare. For instance, in the UK, new legislation aims to improve existing standards of pet breeding. Other laws have officially recognized animal 'sentience' in a bid to promote further pet welfare by ensure pets "taken into account" when developing policy. ${ }^{109}$ In Spain, judges are also obliged to consider "eats as sentient beings" when deciding domestic proceedings such as divorce. ${ }^{110}$

Some have noted that laws that change the legal status of pets could create unintended consequences and challenging legal issues in some markets, for instance around liability and insurance requirements. This may ultimately increase costs of ownership.
"In Brazil, in a lot of cities, there are public pet hospitals so people can get care and the price and tax is very low. This helps families with a lower income. The government is also trying to improve the number of veterinary hospitals."

Leonardo Brandao, DVM, Pet Health Industry Regional Manager, Brazil

[^18]
## What policies could support better pet health?

Government efforts such as coordinated strategies for disease control and coordinated neutering of stray populations to promote better animal health, particularly in developing regions, can improve the health of pets.

However, healthy pets also need 'healthy advocates' to provide this care. Policies that support the people around the pet can ultimately help their overall health.
"There should be much more attention to the human-animal bond in the education of veterinarians, and they should have a human-animal bond centered practice."

Marie-Jose Enders-Slegers, President, International Association of Human-Animal Interaction Organizations


Recognition of the human-animal bond as a path to strengthen public health.


Coordinated strategies for disease control and coordinated neutering of stray populations to promote better animal health, particularly in developing regions.

These can include:


Greater public investment to recruit people to join the field of veterinary medicine.


Increased access and promotion of mental health resources for veterinarians.

## What could help improve veterinary medicine?

- Developing more responsive and consistent regulation, allowing manufacturers to respond to new disease threats without having to repeat safety assessments for existing technologies in each new market.
- Updating regulations to keep pace with emerging areas of innovation, such as genetic treatments and digital technologies, which do not have the same characteristics as traditional pharmaceutical products.
- Developing new regulatory approaches through regulatory harmonization or considering new approvals by trusted trading partners as a criteria for fast-tracking a product assessment.


# Veterinary Expertise 

As pet populations grow, so must the number of veterinarians and veterinary professionals. We are not meeting this demand today and the problem will grow in the future if left unaddressed.

## Will countries meet the demand for small animal veterinarians?

Veterinarian shortages are already on the rise across much of the world and the problem seems unlikely to abate soon.

- A survey by Mars Veterinary Health found that in the U.S. "it would take more than 30 years of graduates to meet the 10-year industry need for credentialed veterinary technicians." As a result, Mars estimates that over 75 million pets may not have access to care by 2030. ${ }^{111}$
- This feeling is echoed in markets like the UK where the British Veterinary Association has raised the alarm about a 'veterinary workforce crisis'.112
- The Veterinary Council of Ireland has said Brexit and pet ownership increases have created a "perfect storm" where practices are struggling to recruit staff as pet populations skyrocket. ${ }^{113}$
- Across the ocean in Canada, the College of Veterinarians in Ontario has reported "increasingly fewer veterinarians for the jobs that [are] available...coupled with a real big upsurged during the pandemic of pet owners." ${ }^{114}$

It is clear that for developed markets, trends point to growth in the veterinary profession, but not nearly enough to meet the future needs of the pet health sector. Solutions are complex with some pointing to hurdles as diverse as student debt in the United States, a lack of work-life balance in the veterinary culture, and insufficient outreach to underrepresented communities in the profession. ${ }^{115}$

# 75 million U.S. pets may not have access to care by 2030. 

[^19]The shortages of small animal veterinarians is also acute in low-income countries. These regions are also experiencing greater challenges in animal health, and the conditions and pressure facing veterinarians is often worse than in developed markets. These include:

- Questions over the cost of training versus the income potential of working in an underdeveloped pet health sector.
- Fewer resources and less demand because of a greater market for livestock veterinarians, and greater emphasis upon livestock practice, in developing countries.
- Inability to access newer medicines and innovations due to regulatory requirements that keep companies from accessing the market. ${ }^{116}$
"We should advocate for the importance of companion animals. Currently they're not seen as economically important."

Dr Siraya Chunekamrai, President, World Small Animal Veterinary Association

## Spotlight on innovations in pet health

How veterinarians deliver care for pets, and the kinds of illnesses and diseases they can treat, is rapidly changing.

Artificial intelligence and machine learning is powering tools that help veterinarians deliver increasingly rapid and accurate diagnoses of diseases in pets and allow for earlier treatment, which offers greater chance of success and lower impact on animal welfare.
'Big data' tools can leverage the accumulated diagnostic profiles of countless animals to pinpoint new risk factors for illnesses like cancer and facilitate better preventative action.

As pets grow older, they are also facing new challenges. But new technologies and treatments that are either entering the market or on the horizon can help veterinarians and pet owners adapt. Cutting-edge gene therapy treatments, for instance, could allow vets to address the list of cancers that are common in older pets.

More information on innovation in veterinary care can be found at: HealthforAnimals.org/InnovationReport
www.healthforanimals.org


[^0]:    This report is produced by HealthforAnimals, the global animal health association, and was informed by interviews with experts in the pet world. We thank the following people for their participation: Alex Douzet, Dana Brooks, Edival Santos, Lawson Cairns, Leonardo Brandao, Marie-Jose Enders, Siraya Chunkekamrai, Shane Ryan and Wolfgang Dohne. The information in this reportfocuses on dogs and cats as these are the overwhelming majority of pets, although other animals such as horses, birds and fish can be pets as well.

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