All Actuaries Summit

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11-13 June 2025, Sydney

Pet Insurance – Understanding the Product, Pricing and Issues

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Presented to the Actuaries Institute
2025 All-Actuaries Summit
11-13 June 2025

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1 Introduction

With the growing closeness of people to animals relegating them to the status of family and fondly called "fur-babies" there has been a growing desire to improve the health and prolong the life of pets. This trend has led to the increasing popularity of pet insurance, allowing owners to provide high-quality medical care without prohibitive out-of-pocket costs. As veterinary medicine advances, pet insurance plays an increasingly central role in supporting animal welfare.

Pet Insurance is attractive to me due to the fact that the market is relatively new and rapidly changing. It is a growing market with few players. I felt there was a gap in actuarial analysis with not much published. This paper is written as a resource as an introduction into pet insurance, some of the interesting characteristics of both the pet and pet insurance market, the pricing factors used and some of the learning from foreign jurisdictions. This paper is written as a resource to help understand the peculiarities in the market and provide a source document to help in your own journey with pet insurance

What I learnt through this process is that

- as actuaries we (as all humans) are prone to anchor on the world immediately around us. We
 need to look outside Australia. I learnt that by researching across the world there is a lot of useful
 data to inform our analysis.
- The shorter life cycle of pets mean they age faster and as a result the challenge of increasing premiums
- When insurance comes into a market it has the effect of increasing the costs in that market. In pet insurance this has given greater opportunity to provide life saving care but it comes at a cost.

2 Background

The pet insurance market in Australia remains underdeveloped relative to its potential. In 2019, it was estimated at approximately \$490 million in premium terms. Hollard, through its white-labelled PetSure business, held a dominant market share of around 85-90% at the time.

Penetration of policies into Australian pets was estimated at 6%¹ in 2019 in 2022 it was estimated at 17%²This contrasts with the more mature international markets such as Sweden and the UK have achieved penetration rates of 30% and 23% respectively³. With the rise in pet ownership and increasing recognition of pets as integral family members, interest in pet insurance is expected to continue to grow to a projected similarly mature market potential estimated at \$2.5 billion.

¹ (Thomas, 2018)

² (Animal Medicines Australia, 2022)

³ (National Association of Insurance Commissioners, 2019)

3 Market Overview

3.1 Market Size and Growth

It is estimated that the current Australian pet insurance market is \$1.6b⁴ with historical growth in the high teens. It is anticipated to grow at rate of 17.5% over the next few years.

The average premium reported by dog owners who have insurance is \$916 per household in 2022⁶. Premiums are also rising at a high inflation rate of 5-10% pa over the past 15 years⁷ driven by increases in veterinary costs and also expansion of human like medical treatments into the pet sphere.

3.2 Competitors

3.2.1 Hollard/Petsure

Hollard was the first insurer to offer specialised insurance for dogs and cats in Australia. Petsecure, PetSure's oldest proprietary brand, commenced operations in Australia in 1999⁸. Hollard sells over 24 pet insurance brands covering health insurance, supermarkets and pet product retail

Petsure have heavily invested in technologies which has made it easier for policyholders to claim (including e-claiming at veterinary practices) which can be used by other players⁹. Though in 2023 ASIC put a stop order on Petsure and Hollard products in relation to Design and Distribution Obligation in regards to its Target Market Determination which did not identify that the target market should be able pay claims up front before getting a reimbursement. (This is very different to other insurances in Australia requiring an insured to pay large amounts upfront, during a time of distress, without certainty of recovery or indemnity from the insurer and an opportunity for improvement across the industry).

Petsure dominated the market in 2020 with it's estimated market share at the time between 85-90%¹⁰ it is now believed to have dropped to 80% with the entry of the new entrants. The market has changed over the last 5 years with the emergence of new entrants. While the barriers to entry into this market are relatively low as the product largely works on reimbursing veterinary bills, meaningful scale comes from white label distribution partnerships including health insurers, supermarkets and pet product suppliers.

Based on a sample of brands that distribute pet insurance (shown in the following table) Petsure has 60% by number.

⁴ (Horizon Grandview Research, n.d.)

⁵ (Horizon Grandview Research, n.d.)

⁶ (Animal Medicines Australia, 2022)

⁷ (Trupanion, n.d.)

^{8 (}Thomas, 2018)

⁹ (Thomas, 2018)

¹⁰ (Pryor & Kay, 2020)

Table 3.2A: Share of Distribution of Partners of Pet Insurance

Underwriter	Brands	Percentage
Auto & General Insurance Company Limited	2	5%
Guild Insurance Limited	2	5%
Pacific International Insurance Pty Ltd	9	23%
Petsure	24	60%
RACQ Insurance Limited	2	5%
Sovereign Insurance Australia Pty Ltd	1	3%
Total	40	100%

3.2.2 PetCover

Sovereign Insurance who underwrite Pet Cover merged with Petplan in 2021¹¹. Besides cats and dogs, they uniquely underwrite a broader spread of exotic animals including horses, reptiles(snakes and lizards), turtles, birds and small mammals(rabbits, ferrets, guinea pigs, goats, rats, mice, pigs, sheep).

Petcover(originally through Petplan) worked with veterinarians, breeders, charities and pet shops.

3.2.3 RACQ

RACQ is a state based motoring mutual organisation. It mainly writes business directly either online or through its branches. One offering is embedded in its Home Contents policy and a more comprehensive standalone product which is summarised in the following table¹². The pet insurance illness and injury product has been a part of the Home Contents policy for many years. This no doubt allows good cross selling opportunities for upgrading to the more comprehensive product. RACQ also underwrites the policy branded and sold by the Western Australian RAC.

Table 3.2B: RACQ Pet Insurance Products Comparison

	Pet Cover with your RACQ Contents Insurance	RACQ Pet Insurance
Claim Amount	Claim up to \$750 for each separate incident	Claim up to \$12,000 a year with up to 80% back on approved vet costs
Cover for injury or illness	✓	✓
Boarding costs	×	✓ Up to \$1,000 (no excess) for unexpected hospital stays
Optional Extra: Tender Loving Care Package	×	✓ Up to \$100 a year for certain treatments e.g. vaccinations. Read more
Excess	\$50 excess for each claim	Choose your own excess - \$0, \$100 or \$200
No. of Pets	Cover for up to 2 pets	Cover for up to 4 pets
Discounts available	×	

¹¹ (Petcover, 2025)

¹² (RACQ, 2020)

3.2.4 Guild

Guild insurance is pharmacy member owned insurance company. Guild insurance have a product designed with vets for vets called Vets Choice and also a white label product with a supermarket chain.

3.2.5 Pacific International

Pacific International over the last 5 years has also developed a significant and growing presence in the pet insurance market. It sells its products primarily through online distributors including Knose.

3.2.6 Auto and General

Auto and General are more commonly known by their personal insurance brand Budget in Australia. They currently underwrite their own product and one white label banking partner.

3.2.7 Trupanion

Trupanion is a USA based pet insurer and entered the Australian market via an arrangement with Petsure/Hollard. Though not an insurer in Australia it is a player to be watch given their size in the USA.

3.3 Pet Market Context

3.3.1 Pet Market Size and Characteristics

Almost two-thirds of Australian households have a pet. A 2022 survey¹³ estimates in Australia there were 6.4 million dogs, 5.3 million cats, 11.3 million fish, 3.9 million birds, 901,000 small mammals, 538,000 reptiles and 377,800 'other' pets.

Pet ownership rates are higher in Australia than many other countries around the world. The statistics from the United States, for example, indicate that only 57% of American households have pets, while only 40% of households in the United Kingdom are estimated to have pets¹⁴.

Table 3.3A: Pet Market Size¹⁵

Pet Ownership in Australia, 2022					
Househo penetrat (%)		Total owner households ('000s)	Animals per household (average)	Total pet animals ('000s)	
Dogs	47.8	4,831.1	1.3	6,375.6	
Cats	33.3	3,365.0	1.6	5,333.2	
Fish	12.1	1,223.8	9.2	11,278.2	
Birds	10.5	1,064.7	3.7	3,926.8	
Small mammals	3.7	376.7	2.4	901.0	
Reptiles	3.1	315.7	1.7	538.3	
Other pets	0.8	85.1	4.4	377.8	
Pet owners	68.7	6,946.1		28,730.8	
Non- owners	30.9	3,124.0			

¹³ (Animal Medicines Australia, 2022)

¹⁴ (Animal Medicines Australia, 2019)

¹⁵ (Animal Medicines Australia, 2022)

Of pet owners 53% have one pet while 47% have 2 or more pets¹⁶ with 2% of owners with 10 or more pets as shown in the chart below.

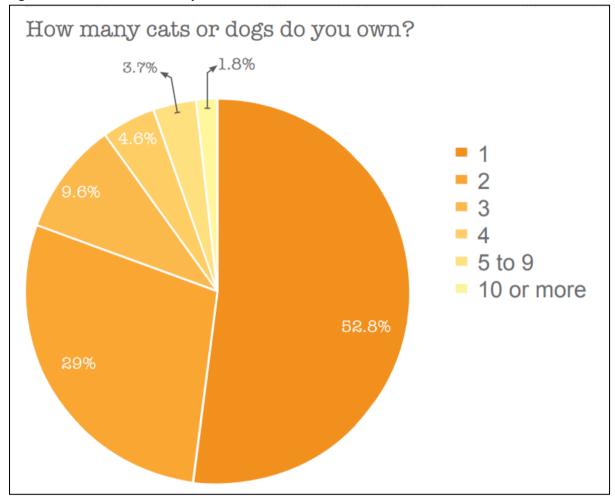


Figure 3.3B: Number of Pets by Household

Dogs and cats remain the primary focus of pet insurance due to the higher costs associated with their care and the strength of the emotional bond with owners. Trends show increasing popularity of mixed breeds and designer cross-breeds, with declining registrations of traditional purebred dogs.

In 2019 for dogs¹⁷ pure-breed dogs represented 40%, mixed breeds from 46% and designer breeds 14%.

The most popular pure breeds are Labrador Retrievers, Border Collies, German Shepherds, Staffordshire Bull Terriers, Chihuahuas and Golden Retrievers. The most popular designer breeds are 'malshis' (Maltese crossed with Shih Tzu) and 'cavoodles' (Cavalier King Charles Spaniel crossed with Poodles)¹⁸.

¹⁶ (Petplan, 2016)

¹⁷ (Animal Medicines Australia, 2019)

¹⁸ (Animal Medicines Australia, 2019)

Most Australia cats are mixed breed (71%)¹⁹. Around a quarter of pet cats (24%)²⁰ are pure breeds, and an additional 5% are considered 'designer breeds' by their owners. Frequently cited breeds including Ragdoll, Burmese, Siamese, British Shorthair, Persian, Bengal, Russian Blue and Maine Coon²¹.

A third²² of people who consider their cats pure/designer breeds struggled to name the exact breeds suggesting that cat breed would be an unreliable rating category.

Cats tend to live longer than dogs with a minimum expected lifespan of 15 years as opposed to 10-13 years for dogs²³. Many cats have been known to live for over 20 years.

3.3.2 Pet Sourcing

Pets are sourced from a variety of channels. Dogs are sourced from²⁴ family/friends/ neighbours (27%), shelters (25%), inherited from others (6%) and found as strays (3%). Cats are sourced from shelters (35%) or strays (15%). Pure and designer breed cats are much more likely to have come from a breeder (45% vs. 3% for mixed-breed cats). Pure and designer breed cats were more likely to have been insured (26% vs. 17% for mixed-breed cats).

3.3.3 Pet Affinity

The term 'fur baby' has been used to describe our pet affinity, with both the Oxford English and Macquarie Dictionaries including the term in 2015²⁵. The following billboard at Sydney's Townhall station taken in 2019 demonstrates how this has entered the vernacular.



Figure 3.3C: Furbaby Poster Advertisement Town Hall Station 2019

¹⁹ (Animal Medicines Australia, 2019)

²⁰ (Animal Medicines Australia, 2019)

²¹ (Animal Medicines Australia, 2019)

²² (Animal Medicines Australia, 2019)

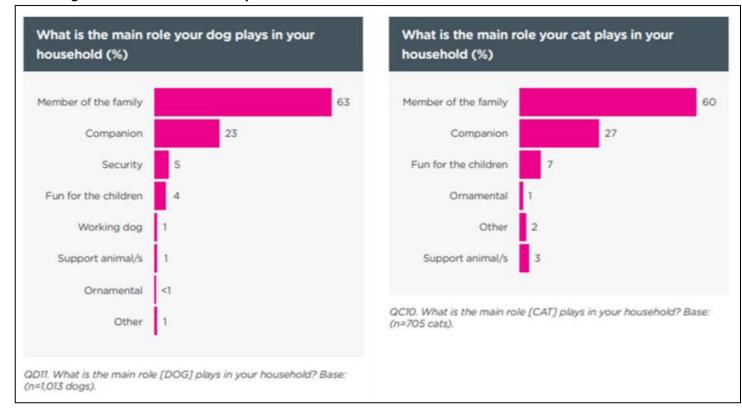
²³ (Canstar, 2017)

²⁴ (Animal Medicines Australia, 2019)

²⁵ (Vet Voice, 2017)

Pets are an important part of people's lives, survey data shows over $60\%^{26}$ of dog and cat owners refer to their pet as a member of the family. In terms of insurance the mindset is not that you are insuring an asset, but more that you are protecting a member of the family.

Figure 3.3D: Number of Pets by Household²⁷



²⁶ (Animal Medicines Australia, 2019)

²⁷ (Animal Medicines Australia, 2019)

3.3.4 Pet Ownership Demographics

The following table shows the characteristics of pet owners and non-owners²⁸. Dominant biases in pet ownership are seen in families with teen children, younger adults, rural households and those employed. Women and families with children are the most likely to have a pet²⁹. The average pet-loving household has four or more people, is located in a rural or regional area and has a mortgage on a free-standing home³⁰. Couple and singles without children who rent in urban areas are the least likely to have a pet³¹.

Figure 3.3E: Characteristics of Owners vs Non-Owners³²

Pet-owners - 61% nationally, are more likely to be (n=1,223)	Non-owners - 39% nationally, are more likely to be (n=786)
77% - Families with children aged 6 years or older 82% - In particular, families with children aged 12-17 years	45% - Empty-nester singles/couples whose children have all left home
70% - Gen Z (18-24 years) 66% - Gen X (40-54 years)	59% - Pre-Boom (70 years or older)
70% - Rural households	46% - Urban or inner city households
70% - Those that are paying off a mortgage	45% - Those that are renting
69% - Those living in larger, free-standing houses	61% - Those living in apartments or units
67% - Three-person households 76% - Households of four or more people	52% - Solo households 44% - Two-person households
67% - Those who are employed by others 71% - In particular, casual employees	51% - Retirees
65% - Households with incomes of \$50,000 or more	46% - Households with incomes of less than \$50,000
64% - Women	42 % - Men
63% - Those not from CALD* backgrounds	43% - Those with at least one parent born overseas 42% - Those from CALD* backgrounds
Culturally and linguistically diverse: At least one parent born overse. Australia within the last decade, and/or identify as Aboriginal or Torr	eas, usually speak a language other than English at home, migrated to res Strait Islander.

²⁸ (Animal Medicines Australia, 2019)

²⁹ (Animal Medicines Australia, 2019)

³⁰ (Animal Medicines Australia, 2019)

³¹ (Animal Medicines Australia, 2019)

³² (Animal Medicines Australia, 2019)

4 Product Structure

4.1 Product Overview and Segmentation

The pet insurance market has matured from a one-size-fits-all model to more segmented offerings. Products now cater to different budgets, pet ages, and health needs. Modular policy structures allow consumers to select levels of reimbursement (typically 70%, 80%, or 90%), opt for or against excesses, and add coverage features like wellness programs. A number of providers offer policies for kittens and puppies for up to 1 year.

4.2 Product Plans

Pet insurance policies typically cover:

- **Accident only** covers vet costs where your pet is involved in an accident. This covers physical injuries caused by an accident, such as broken bones, flesh wounds or even snake bites.
- Accident and illness covers vet costs for accidents as well as illnesses.
- Accident and illness plus routine and preventative care covers routine vaccinations, dental
 cleaning and worming treatments as well as vet costs for accidents and illnesses. May also include
 some optional extras.

Pet insurance allows you to claim back a part (or in some cases all) of your vet bill – up to an annual limit. While these cover surgery, hospitalisation and medicines, in many cases dental care, vaccinations and preventative treatment isn't included ³³. Your policy may also include de-sexing, microchipping and annual vaccinations. Some providers may also cover certain non-routine dental procedures³⁴.

Lifelong cover depends on acceptance by the insurer and as long as you continue to renew your policy, your pet will be covered for eligible Vet Expenses for life. You can apply for Illness Cover as long as your pet is over 8 weeks old and younger than say 9 years³⁵. There is typically no upper age limit to qualify for Accidental Injury cover³⁶.

Actuarially, the lifetime cover offerings create a 'tail' of pets requiring ongoing treatment that grows over time. For example, a 2yr old dog requiring ongoing treatment for cancer is highly likely to renew for life following diagnoses. This creates the situation where a portion of the future claims cost for that pet are known, with reasonable certainty, at the start of the policy period.

Insurers need to be mindful of how to adequately price for this 'tail' in a competitive market.

³³ (CHOICE, 2019)

^{34 (}iSelect, 29/4/2020)

^{35 (}BUPA, 2018)

³⁶ (BUPA, 2018)

4.3 Wellness Options

Additional options ("routine care", "wellness cover" or "tender loving care" 37) include extra cover for

- dental illness
- alternative treatments, which can include physiotherapy and hydrotherapy.

In the BUPA policy³⁸ Routine Care option covers routine health checks and vaccination visits.

4.4 Exclusions

4.4.1 Pre-Existing Conditions

A typical definition of a Pre-existing condition would be any condition³⁹ or symptom or signs of that condition occurring or existing in any form prior to the taking out a policy or during the waiting period. Including but not limited to:

- any cruciate ligament condition;
- a recurring condition;
- any skin condition;
- latent infectious conditions that manifest within a known incubation period indicating clear evidence that the condition had existed prior to taking out the policy;
- any condition in remission at the time of the insurance application;
- any seasonal condition;
- Conditions currently or previously being controlled by medication(s); and whether or not diagnosed or treated by a Vet.

For example, if your pet shows first signs of cancer prior to insurance or within the Waiting Period, then cancer will be considered as Pre-existing and all expenses incurred for cancer will not be covered ⁴⁰.

Policies can be quite strict on, for example whether a pre-existing condition can be covered, what hereditary conditions are excluded, and breed-specific illness exclusion.

4.4.2 Bilateral Condition

A bilateral Condition⁴¹ means any condition affecting body parts of which the pet has at least two, one each side of the body (e.g. ears, eyes, knees, cruciate ligaments). When applying a Benefit Limit or exclusion, a Bilateral Condition will be considered a single Condition. An example of a Bilateral Condition would be, if your pet displays clinical signs of a cruciate ligament Condition in the left leg prior to insurance or during the Waiting Period (a Pre-existing Condition), Vet Expenses for a subsequent cruciate ligament Condition in the right leg will not be covered⁴².

³⁷ (Graham, CHOICE: How to find the best pet insurance policy, 2019)

^{38 (}BUPA, 2018)

³⁹ (BUPA, 2018)

⁴⁰ (BUPA, 2018)

⁴¹ (BUPA, 2018)

⁴² (BUPA, 2018)

4.4.3 Typical Exclusions

Exclusions in the BUPA policy 43 include pregnancy, elective procedures, pet foods/diets, grooming and pre-existing medical conditions .

Allergic reactions, bone fractures, tick paralysis, elbow dysplasia, euthanasia, dentistry and specific breed illness are all areas that differ per policy, with most policies having some illnesses that are still not covered even if the animal is vaccinated against it.

Routine preventative treatments: vaccinations, desexing and parasite control, aren't usually covered.

Some typical exclusions are⁴⁴:

- Illness or injury from Pre-existing conditions that your pet experienced before you took out the insurance or during the waiting period
- Bilateral conditions (pre-existing conditions that affect a body part that has a 'left' and 'right' version, such as eyes, ears, hips and legs)
- Vet costs for elective treatments (like orthodontics or de-sexing) or routine care (Grooming, Food and diet products and services.) (unless specific additional cover is purchased for this)
- Treatment for any illnesses that occur during the policy's waiting period
- Treatment for diseases for which there is a known vaccine (such as kennel cough). (Some policies may pay if your pet has been vaccinated, but others may not.)
- Behavioural problems
- Pregnancy, Delivery, Whelping
- Cosmetic Surgery Declawing, tail docking, ear cropping

For Accident and Injury Cover⁴⁵ exclusions include:

- a Pre-existing Condition, a Related Condition or a Condition arising within the applicable Waiting Period;
- patella luxations (dislocating kneecap),
- hip dysplasia,
- ingestion of a foreign object,
- skin mites,
- elbow dysplasia,
- fractured teeth,
- toxicity (other than that resulting from a confirmed snake bite) and
- intervertebral disc disease (IVDD)

Illness Cover exclusions include⁴⁶:

- excluded pet under 8 weeks old or over 9 years of age when Cover first commenced.
- Pets over 9 years of age will not qualify for Illness Cover where there has been a break, lapse or change in the level of Cover after reaching the age of 9.
- a Pre-existing Condition, a Related Condition or a Condition arising within the applicable Waiting Period;

⁴³ (BUPA, 2018)

^{44 (}Moneysmart.gov.au, 2019)

⁴⁵ (BUPA, 2018)

⁴⁶ (BUPA, 2018)

- an Illness caused by endoparasites (such as worms) or ectoparasites (such as ticks and fleas, with the exception of skin and ear mites),
- for dogs: infectious canine hepatitis (canine adenovirus), parvovirus, canine distemper, parainfluenza, canine influenza and all forms of kennel cough;
- for cats: panleukopaenia, chlamydia, leukaemia (FeLV), Feline Immuno Deficiency Virus (FIV) and Feline Infectious Peritonitis (FIP), viral rhinotracheitis, calicivirus, herpes virus and all forms of cat flu;
- any declared pandemic disease that causes widespread Illness affecting dogs or cats;
- more than one (1) incident of swallowing a foreign object that causes a blockage or obstruction requiring surgical or endoscopic removal per Policy Period;
- disposal, burial or cremation of a deceased Pet

4.5 If you can't care for animal

It's also worth ensuring that you are aware of whether your policy includes hospitalisation, after-hours services and emergency boarding fees if you find yourself hospitalised and unable to care for your pet⁴⁷.

4.6 Premium Payment

Insurance coverage is paid for through primarily monthly premiums though annual and other payment frequencies are often available.

4.7 Benefit Limits

For the BUPA policy⁴⁸ benefit limits do not accumulate across Policy Periods.

Maximum monetary limits also apply to the benefits payable in any one Policy Period.

The policy benefits will expire at the end of each Policy Period.

4.7.1 Specific Sub Limits

Policies set sub-limits for treatment of tick paralysis, dental illness, cruciate ligament injury and emergency boarding. Treatment costs vary between animal and breed. For example, treatment for tick paralysis – a common and serious ailment among animals in the bush – might cost up to several thousand dollars if emergency hospitalisation is required. ⁴⁹. The BUPA policy has the following limits sublimits:

- Cruciate ligament conditions, up to \$2,600 annually
- Consultations and vet visits, up to \$300 annually
- Tick paralysis, with a \$1,500 sublimit
- Emergency boarding, with a \$1,500 sublimit
- Optional \$200 Routine Care with \$80 sublimit (on middle cover)
- \$1,000 upgrade for alternative treatment (on highest cover)
- \$500 sublimit for skin conditions (on highest cover)

4.7.2 Number of Sub-events

Some policies don't pay if your pet swallows something they shouldn't have. In some policies, your pet is only covered once per year, per event. So they may only be allowed to swallow one foreign object per year⁵⁰.

⁴⁷ (iSelect, 29/4/2020)

⁴⁸ (BUPA, 2018)

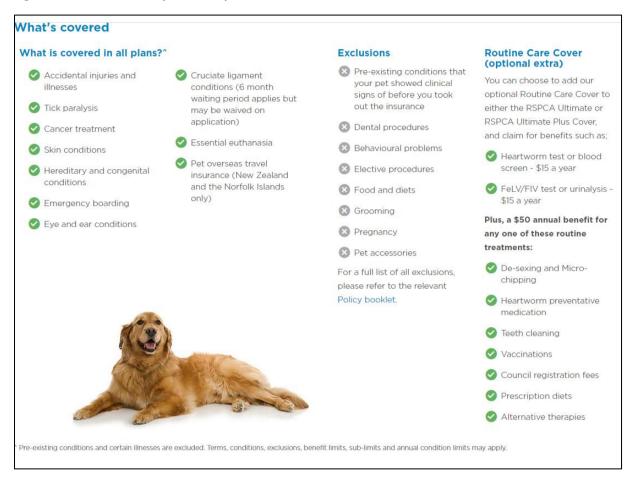
⁴⁹ (Market Intelligence Articles, 2016)

⁵⁰ (Market Intelligence Articles, 2016)

4.7.3 RSPCA Policy

The following provides a good summary of what a typical policy covers⁵¹:

Figure 4.7A: RSPCA Policy Summary



20

⁵¹ (RSPCA, 2020)

4.8 Product Comparison

Pet Insurance policies tend to have a minimum age and a maximum new business entry age. The minimum age is designed to allow for pre-existing conditions to emerge. A maximum age is generally set to avoid the illnesses that are associated with age which avoids charging very high premiums to reflect the risk. The following tables show the distribution of minimum and maximum ages⁵².

4.8.1 Minimum Age

Most brands have an 8 week minimum age.

Table 4.8A: Distribution of Partners by Minimum age

Minimum Age	Brands
0 weeks	1
1 week	1
6 weeks	3
8 weeks	26
Total	31

4.8.2 Maximum Age

Most brands have an 8 year maximum age. The reason for this is that an 8 year old animal is considered old and similarly to humans accumulates illnesses with age. Once your pet reaches the age limit you generally can't find cover with other insurers, so you are locked into your current insurer.

The two levels of maximum age indicate the brands have more than one product which have different age limits. The products with the higher age limit are more oriented around accident covers and covers that significantly cap the limit per condition.

Table 4.8B: Distribution of Partners by Maximum age

Maximum Age	Brands
9 years	1
8 years/No max	3
8 years/15 years	4
8 years/14 years	1
8 years/11 years	2
8 years	15
7 years/No max	1
6 years/8 years	1
15 years	1
13 years	2
Grand Total	31

-

⁵² (CHOICE, 2025)

4.8.3 Waiting Period

Waiting periods are a key characteristic of pet insurance policies ranging from 14 to 30 days. Waivers of waiting period can be obtained via a examination form signed by a vet.

Over time, industry waiting periods have reduced due to competition and as pet insurance penetration has increased (i.e. shorter waiting periods when transferring insurers, having served a wait period).

Table 4.8C: Distribution of Partners by Waiting Period

Waiting Period	Brands
14	3
21	9
30	17
20/30	1
21/28/30	1
Total	0

These waiting periods generally apply to illness while waiting periods for accidental injuries tend to be waived. Dental and Crucial Ligament conditions typically have longer waiting periods of 6 months. Variations on waiting periods exist with

- Trupanion have a waiting period for injuries of 5 days
- Guild's Vets Choice product covering accidental injuries without a waiting period except for those in Table 4.8D
- Auto and General have a 2 day waiting period for accidents and snake bite with 30 days for illness and tick paralysis (Table 4.8E)
- PD Pet Insurance have a 180 day waiting period for Liability, Dental Illness and Cruciate Ligament(s) / Patella Luxation(s), and Hereditary Conditions (Table 4.8F)
- Petcover have a 12 month waiting period for brachycephalic obstructive airway syndrome (BOAS)
 (Table 4.8G)

Table 4.8D: Vets Choice Waiting Periods⁵³

Accidental Injury	Waiting Period
Anaphylactic Shock	Nil
Burn or Electrocution	Nil
Motor Vehicle Accident	Nil
Snake Bite Toxicity	Nil
All Other Accidental Injuries	21 days

Table 4.8E: Auto and General Budget Waiting Periods⁵⁴

		•	•	
First	t period of cover waiting	periods:		
•	Accidental injuries	2 days	2 days	2 days
•	Illnesses	30 days	30 days	30 days
•	Tick paralysis	30 days	30 days	30 days
•	Snake attack	2 days	2 days	2 days
•	Cruciate ligament conditions	6 months	6 months	6 months
•	Optional Routine Care^^^	×	No waiting period applies	No waiting period applies

Table 4.8F: Pd Pet Insurance Waiting Periods

Coverage	Waiting Period
Illness, Poisoning, Intervertebral disc disease, Ingestion of a foreign object,	21 Days
Third Party Liability	180 Days
Cruciate Ligament(s) / Patella Luxation(s), and Hereditary Conditions	180 Days
Dental Illness	180 Days

Table 4.8G: Petcover Waiting Periods

PLANS	Entry
Waiting period for Injury	No waiting period
Waiting period for Illness	21 days
Waiting period for brachycephalic obstructive airway syndrome BOAS)	12 months (365 days)

4.8.4 Excess and Copayment

There are two types of excess. One is a copayment percentage and the other is a fixed excess level. The copayment percentage generally comes first and is applied to the total vet bill. For example an 80% copayment means that the claimant wears 20% of the cost before the application of an excess which typically would be \$0, \$100, or \$200.

The purpose of the deductible and coinsurance level is to discourage owners from bringing their cat or dog to the veterinarian for unnecessary ailments because there will always be an out of pocket cost.

The combination of excess and copayment is no doubt complicated for customers and is highlighted in most product disclosure statements through examples.

The excess is the cost of making a claim, which you might pay once for each condition, each year. In the BUPA policy⁵⁵ the Excess is deducted from your benefit for each Condition treated during the Policy Period that is not related to any other Condition treated during the same Policy Period.

Plans generally cover 80% of the cost of eligible vet bills with ranges from 60% to 100%. With most players having a fixed level of 80%.

Table 4.8H: Copayment Options by Brand

Copayment Options	Number
	of Brands
80%	11
90%	1
100% up to 8yrs/80% 8-10yrs/65% overOption for 70%/80%/90% on 3 products	1
60/75/80%	4
65/80/85%	1
70/80/90%	5
75/80/85%	1
75/80/90%	1
80% up to 8 yrs/65% over	1
80/100%	1
80/90%	1
80/90/100%	1
80%/90% up to 8 yrs/65% over 8 yrs	1
90%/100% up to 8 yrs/65% over 8 yrs	1
Grand Total	31

•

⁵⁵ (BUPA, 2018)

The bulk of players have either a nil excess and thus rely only on the copayment percentage while others have 3 or more levels of excess. A nil excess is evident in the bulk of players.

Excess options range generally from \$0, \$50, \$100, \$200 with

- Coles having a single \$200 excess
- Petcover has fixed excesses \$175 for dogs and \$150 for cats.
- Trupanion has a fully variable excess from \$0 to \$1000 increasing in \$10 increments.

Table 4.8I: Excess Options by Brand

Excess Options	Number of
	Brands
\$0	7
\$200	1
\$0/\$100/\$200	6
\$0/\$100/\$200/\$500	2
\$0/\$100/\$250	1
\$0/\$150/\$200/\$300/\$500	1
\$0/\$200	1
\$0/\$250/\$500	3
\$0/\$50/\$100	2
\$0/\$50/\$100/\$200	1
\$0/\$75/\$150	1
\$0/100/\$125/\$150/\$200/\$450/\$900	1
\$100/\$200	1
\$100/\$200/\$300	1
\$200/\$350/\$500	1
\$0 to \$1000	1
Grand Total	31

4.8.5 Annual Limit

The annual limit for pet policies is generally between \$5k and \$30k with \$10k and \$12k being dominant.

- Petbarn has no annual limit but has per condition limits ranging from \$500 to \$1,200
- Trupanion has no annual limit
- Some products have an annual limit for the policy and a limit per condition ranging from \$500 to \$2,000.

Table 4.8J: Annual Limit Options by Brand

Annual Limit	Number of Brands
\$10/\$12/\$15k	1
\$10/\$17.5/\$30k	1
\$10/\$20/\$30k	1
\$10/\$25/\$30k	1
\$11/\$20k	1
\$12/\$15/\$25k	1
\$12/\$15k	1
\$12/\$20k	1
\$12k	6
\$14k	1
\$15/\$20k	1
\$15/\$30k	1
\$20/\$30k	2
\$30k	1
\$5-\$6.8/\$9-\$11.1/\$15k	1
\$5/\$10/\$15k	2
\$5/\$10/\$20k	1
\$5/\$10/\$24/\$30k	1
\$5/\$10/\$25k	1
\$5/\$7/\$9/\$10/\$15/\$20k	1
\$6/\$30k	1
\$7.5/\$12.5/\$25k	1
No annual limit	2
Grand Total	31

4.8.6 Payment Method

All products tend to offer monthly instalments and an auto renewal.

4.8.7 Other product benefits

Third party liability is available on Guild (\$100,000) and PetCover(\$3m/\$5m).

Some products have emergency boarding of between \$500 and \$2000.

PetCover tends to offers coverage for

- Advertising & reward costs (\$1,000/\$2000),
- Theft or Straying, (\$1,500/\$2000)
- Death from Illness or injury(\$1,500/\$2000)
- Holiday cancellation (dogs \$1000, cats \$500)

5 Marketing

5.1 Segment Awareness

Due to the low relatively low penetration of pet insurance and the fact that it is a growing segment many pet insurers spend a lot on advertising as a means to increase consumer awareness of both the industry's and the company's product offerings⁵⁶.

5.2 Retention Rate

It must also be understood that customers generally stay with the one insurer as this guarantees coverage of their preexisting conditions. This indicated by high retention rates. Trupanion, for example, had maintained an average monthly retention rate in excess of over 98.0% from 2010 to 2016⁵⁷.

5.3 Education

Many pet owners don't appreciate the potential size of veterinary bills. One opportunity is to educate owners of the potential costs over the lifetime of the pet and perhaps the number of veterinary visits. There is also the issue that the cost of the veterinary intervention may make it impossible for the owner to save the pet due to the inability to finance it.

The pet owner really needs to ask themselves⁵⁸:

- What's my financial situation? Can I afford the premiums? Can I afford a large, unexpected veterinary bill? Am I a good saver?
- How strong is the bond to my pet? Am I willing to go into debt to save my pet?
- What's my tolerance for taking a risk with the health of my pet?

5.4 Acquisition Markets

Insurers target acquisition points such as breeders, shelters, and veterinary clinics. Additionally, partnerships with supermarkets, specialty stores, and online pet supply retailers help reach consumers at the time of pet-related purchases. Online advertising and search engine optimization play a growing role in acquisition, as digital channels account for a growing share of customer engagement.

⁵⁶ (Curran, May 2018)

⁵⁷ (Curran, May 2018)

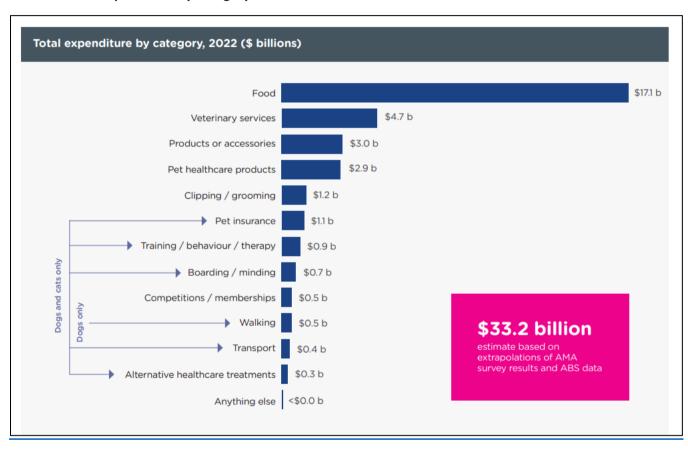
^{58 (}McConnell & Drent, 2010)

5.5 Pet Affinity

Owners see the pets as a member of the family. From a marketing perspective, marketing that invokes thoughts like "Why wouldn't you protect your whole family?" are likely to be successful. This emotional and family-like attachment seems to be the most effective way to invoke customers to break current barriers that stop them from investing in pet insurance⁵⁹.

The following table shows the expenditure on pets in Australia⁶⁰. Pet Insurance expenditure in 2022 was \$1.1b. Assuming a pet insurance loss ratio of 55% premiums could be estimate at \$0.6b. The fact that there is \$4.7b in veterinary services shows that the coverage by insurance only represents 13% of the total vet costs showing great market opportunity.

Table 5.5A Pet Expenditure by Category



⁵⁹ (Jenkins, Link, & Sokolowich, 2016)

⁶⁰ (Animal Medicines Australia, 2022)

The following table shows the distribution of vet expenditure for 2019 in Australia by pet type 61 . Dog and cat owners represent \$2.5b of the \$2.6b or 95% of all vet costs. Of this market dog owners represent 69% of all vet expenditure.

Table 5.5B Veterinary Expenditure by Pet Type

Total household expenditure on veterinary services	Dog Owners	Cat Owners	Fish Owners	Bird Owners	Small mammals Owners	Reptiles Owners	Total*
National total, 2019 (\$m)	\$1,810 m	\$678 m	\$25 m	\$52 m	\$35 m	\$15 m	\$2,616 m
Change since 2016 (\$m)	+ \$439 m	- \$51 m	- \$4 m	+ \$7 m	+ \$16 m	+ \$6 m	+ \$414 m
Change since 2016 (%)	+32%	-7%	-12%	+15%	+79%	+73%	+19%

The following table shows the rate at which owners visit the vet by pet type⁶². 84% of dog owners have visited a vet in a year compared to 68% of cat owners. The regularity of interaction with a vet shows the importance of promotion through veterinary clinics.

Table 5.5C Veterinary Expenditure by Household and Pet type

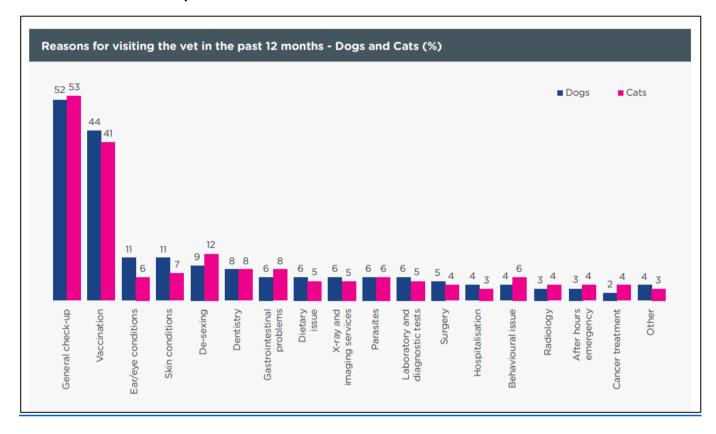
Average household expenditure on veterinary services	Dog Owners	Cat Owners	Fish Owners	Bird Owners	Small mammals Owners	Reptiles Owners
Visited a vet in the past year (%)	84%	68%	13%	27%	41%	28%
^ Sample size for vet visits (n=)	n=806	n=539	n=213	n=171	n=42	n=40
Average household spend among those who visited the vet (\$)	\$546	\$371	\$185	\$215	\$324	\$271

⁶¹ (Pryor & Kay, 2020)

⁶² (Pryor & Kay, 2020)

The table below⁶³ shows that check-ups and vaccinations were dominant reasons to visit a vet in the last 12 months which are non critical events which would allow a non stressed environment for marketing of pet insurance.

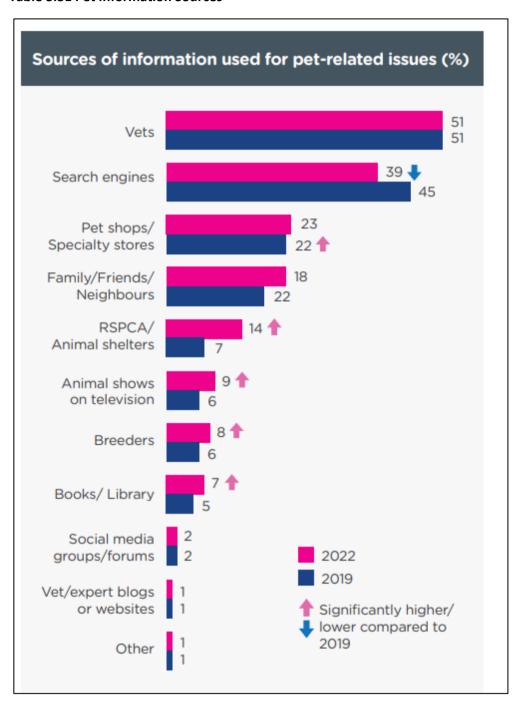
Table 5.5D Veterinary Visit Reasons



⁶³ (Animal Medicines Australia, 2022)

The following table shows where people sourced information for pet related issues⁶⁴ that could help with marketing decisions. Vets, search engines and Pet shops dominate how information is sourced.

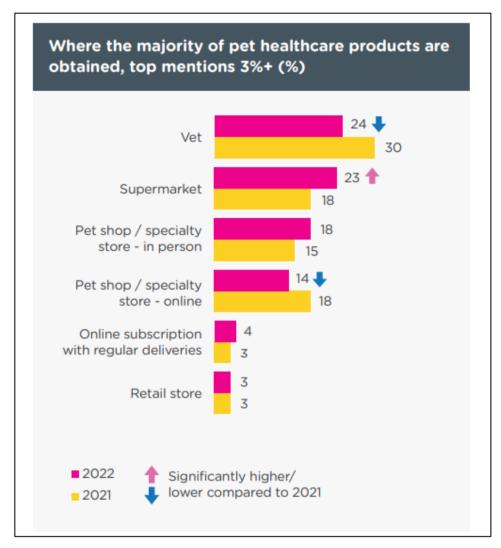
Table 5.5E Pet Information Sources



⁶⁴ (Animal Medicines Australia, 2022)

In terms of the purchase of pet healthcare products we can see that pet shops, pet specialty shops and the supermarket are popular⁶⁵. This would suggest that marketing within supermarket distribution and online is a nature affinity. Pet shop and pet specialty stores are also an obvious marketing location.





⁶⁵ (Animal Medicines Australia, 2022)

5.6 Source of New Business

It is important to look at the source of where people acquire their pets as this is the first opportunity to introduce pet insurance. According to Petplan⁶⁶

- 94% of people buy or pay for their pets.
- 20.9% pay adoption fees from shelters
- 55.4% purchase from breeders
- 8.4% from pet shops
- 8% were from friends and family
- 5.3% were from advertisements
- 1.2% purchased their pet through a veterinary practice
- 0.9% said they purchased their pet from 'other'.

Employee Benefits

In the USA the fastest growing form of distribution is through an employee benefit package. Coverage may be sponsored in part by the employer or entirely employee paid. Special employee pricing is sometimes offered with group discounts. According to Nationwide, 50% of Fortune 500 companies offered pet insurance as an employee benefit in 2017⁶⁷.

5.7 Marketing to Veterinary Practices

5.7.1 Why is Pet Insurance Important to Vets?

Increased insurance use in veterinary practices can have a dramatic impact on practice volume, revenues and quality of medicine. According to Australian Vet Association⁶⁸.

- Owners with pet health insurance are often in a better position to afford complex procedures and emergency treatments; they also tend to be more engaged in their pet's veterinary care on a dayto-day basis. They are more likely to opt for preventive care which is better for their pets in the long-term. Insurance is a well-established tool that consumers can use to manage their financial risk.
- The cost of veterinary services can be of concern for many clients. Insurance against veterinary treatment costs for illness and accident may provide a means for some clients to finance veterinary fees. This may result in more appropriate and comprehensive veterinary care for patients.

Pet insurance is becoming an important part of the financial viability of veterinary practices. Pet insurance increases the practice's turnover with fewer bad debt cases. It takes away the cost pressure and allows vets to provide the best care for their patients. The ability for a vet to offer treatment options that best help the injured animal and that meet the cost constraints of the pet owner is a key reason why vets like pet insurance and may thus help prevent suicides in vets which is exhibited at higher rates than the general population⁶⁹.

⁶⁷ (National Association of Insurance Commissioners, 2019)

⁶⁶ (Petplan, 2016)

⁶⁸ (Australian Veterinary Association, 2015)

⁶⁹ (Australian Veterinary Association, 2025)

5.7.2 Vet Recommendation

A recommendation of a vet is highly regarded and can influence the decision of an owner to buy pet insurance. Two surveys provide different indications to the importance of vet recommendations:

- A survey of 1,000 pet owners⁷⁰ indicated that 20% were likely or extremely likely to purchase pet insurance if their veterinarian recommended it. A subsegment (younger, better-educated, more affluent urban/suburban pet owners) that spends most on their pets indicated that 41% would purchase pet insurance if recommended by their veterinarian.
- US research has shown 50% more pet owners said they would purchase pet health insurance if their veterinarians actively recommend it⁷¹.

Research from both the veterinary profession demonstrates that insured clients are better, more proactive clients that go the extra mile in seeking the best health care available⁷². Insured clients visit more often, are open to more advanced treatment, and spend more on medical services⁷³.

Research showed that the company's clients with pet health insurance on average⁷⁴:

- Had 41% higher stop-treatment levels
- Scheduled 40% more veterinary visits
- Spent twice as much on veterinary care over the life of their pet

5.7.3 Vet Incentives

Incentives can have an impact on insurance penetration. Incentives published in a 2020 presentation provided the following insight into Vets Choice offering⁷⁵:

- Overrider of 10% premiums to the Australian Vets Association
- 8% of the referral premium is paid to the referring vet for the life of the policy
- 5% of retained premiums is paid into a charitable pool
- 25% discount for Vet practice staff
- Online claims lodgement for customers no need for vet practice staff to do this

Making pet insurance an employee benefit is also a good strategy. It also provides a perfect answer when the client asks a staff member, "Which company do you use?" In the NAPHIA research, pet owners said they were 71% more likely to purchase pet insurance in the veterinary practice insured staff pets⁷⁶.

30-day no-cost trial policies are also a tool that is used to boost sales in the USA.

⁷⁰ (Volk & Merle, 2006)

⁷¹ (North American Pet Health Insurance Association, 2017)

⁷² (Volk & Merle, 2006)

⁷³ (Volk & Merle, 2006)

⁷⁴ (Volk & Merle, 2006)

⁷⁵ (Pryor & Kay, 2020)

⁷⁶ (North American Pet Health Insurance Association, 2017)

5.8 Cross Marketing against Pet Products

Pet products that are popularly bought online are flea, worming and tick treatments and dietary supplements⁷⁷. This could give some idea for targeting websites that sell these products or to offer some incentive aligned with these offering such as discounting with purchase of product.

Table 5.8A Online Pet Related Purchases

Healthcare items purchased online (%)	2019 (n=173)	2022 (n=309)
Flea treatments	82	65 🛧
Worming treatments	76	65 🛧
Tick treatments	59	56
Dietary supplements	14	25 👢
Other	5	7
Otner NB: Arrows indicate a significantly 2021 result.		,
F5. What pet healthcare products owners who have purchased healt		

5.9 Marketing Discounts Online

Most products offer a multi-pet discount. A number of players offer a 5% discount for subsequent pets.

⁷⁷ (Animal Medicines Australia, 2022)

5.10 Consumer Motivations and Barriers

5.10.1 Why do owners buy Pet Insurance?

Pet owners buy Pet Insurance as they think their pets will be healthier and have a better quality of life and also they will be better able to predict their finances and have less conflict within their families when deciding on whether to care for a sick animal. ⁷⁸.

The benefits of pet insurance include^{79 80}:

- Protecting finances of the owner against unexpected medical costs
- May make it easier for veterinarians to provide your pet with optimal care
- Assists pet owners in helping their pets live a healthier and longer life and increase a pet's quality
 of life.
- Satisfies the desire to be a responsible pet owner. Taking care like any other family member.
- Gives pet owner an opportunity to seek medical treatment as soon as possible
- May help pet owners from having to make a financial decision to end a pet's life due to their
 inability to pay for the needed treatments (sometimes referred to as 'economic euthanasia' by
 the veterinary profession)

5.10.2 Nature of People with Pet Insurance

The following graph shows the demographics of pet insurance customers in Australia⁸¹ from a Roy Morgan study in 2018. The dominant drivers for pet insurance purchases tend to be: being employed, women are slight more likely, higher incomes, with a mortgage and with children. The results are similar to the results based on pet ownership. They estimated that 7.1% of dogs and 3.8% of cats were insured.

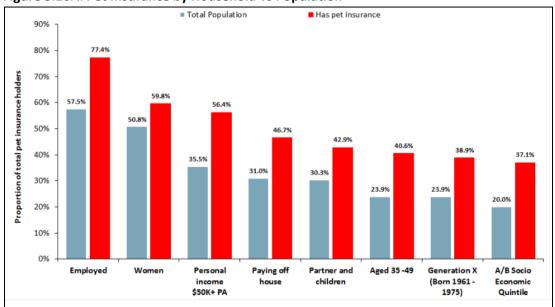


Figure 5.10A: Pet Insurance by Household vs Population82

⁷⁸ (Jenkins, Link, & Sokolowich, 2016)

^{79 (}Jenkins, Link, & Sokolowich, 2016)

^{80 (}Registered Nurses' Association of Ontario)

^{81 (}Pryor & Kay, 2020)

^{82 (}Pryor & Kay, 2020)

43% of dog owners won't take out pet insurance as they see it as expensive while 25% of Australia pet owners have not looked into or know about pet insurance. There is thus opportunity to expand the market through advertising⁸³.

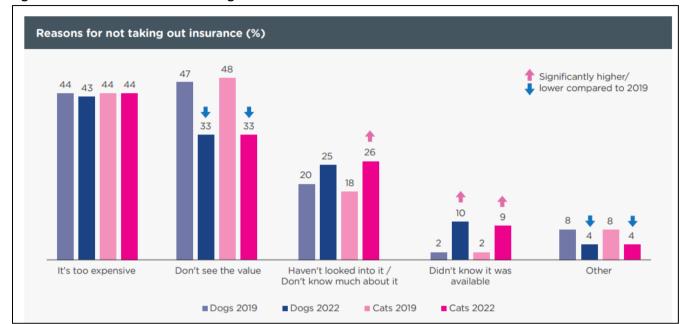


Figure 5.10B: Reasons for Not Taking Pet Insurance⁸⁴

5.10.3 Barriers to Growth

A number of reasons have been put forward as to the slow take up of pet insurance85:

- Veterinary services have historically been not very costly. This was challenged over time with the
 medical advances and the evolution of veterinary medicine from primarily an agricultural, foodanimal driven profession to being majority companion animal profession. Fees were low, and
 veterinarians were poorly paid compared to others in the medical professions. Also vets tended
 to price discriminately and compassionately based on ability to pay. This meant the risk of a
 major veterinary expenses was small. With low risk, there was little need for insurance.
- Historically pet owners were less inclined toward intensive medical procedures. Many farm dogs
 received little or no veterinary care beyond required rabies vaccination. As pets began to be
 treated as members of the family, things changed. People became more willing to spend more on
 their pets care and thus costs increased leading to the opportunity to insure against these large
 costs.
- 24-hour emergency care, specialty clinics and more advanced medical care are relatively recent phenomena. These increases in available treatment options increase the cost to pet owners. The increasing financial cost of care now provides a greater opportunity for pet insurance.
- Veterinarians have been reluctant or passive advocates of pet health insurance. Few historically
 had actively educated or recommended insurance to their clients. Without a recommendation
 from a vet many people would not consider pet insurance.

^{83 (}Pryor & Kay, 2020)

^{84 (}Animal Medicines Australia, 2022)

⁸⁵ (Volk & Merle, 2006)

 Pet insurance has been a relatively small industry, with limited promotional dollars to build awareness in the market. Most insurance companies have relied on distribution of materials at veterinary clinics, public relations, affiliations with clubs or shelters, or—more recently—an Internet presence to reach pet owners.

6 International Market Insights

The first "pet insurance" policy was issued in 1890 in Sweden and focused on horses and livestock⁸⁶. In 1924, the first policy covering a dog was issued in Sweden⁸⁷.

In 1947, the first pet insurance policy was issued in the United Kingdom (UK) (National Association of Insurance Commissioners, 2019).

In Sweden and the UK, modern pet insurance policies are designed with the ability to cover pet medical costs and liability to third parties for the action of pets⁸⁸.

Sweden has a requirement that dog owners maintain liability coverage and, as a result, 60% to 70% of pet owners retain pet insurance⁸⁹.

The first pet policy in the U.S. was issued in 1982 by Veterinary Pet Insurance (VPI)⁹⁰.

The proportion of pets insured in 2016 was estimated as ⁹¹ 1% in the US, 25% in the United Kingdom and 45% in Sweden

⁸⁶ (National Association of Insurance Commissioners, 2019)

⁸⁷ (National Association of Insurance Commissioners, 2019)

⁸⁸ (National Association of Insurance Commissioners, 2019)

^{89 (}National Association of Insurance Commissioners, 2019)

⁹⁰ (National Association of Insurance Commissioners, 2019)

^{91 (}Jenkins, Link, & Sokolowich, 2016)

6.1 US Pet Market

In 2017 the USA had fewer than 2% of dogs and 0.5% of cats insured 92.

In 2016 in the USA the main competitors were Healthypaws, Petplan, Trupanion, Petsbest and Petfirst⁹³. Pet Insurance products in the US market generally do not cover liability, pre-existing conditions, inhumane treatment and chronic or ongoing conditions for some pets⁹⁴. Rating factors used in the market include type of pet, state, age of pet, type of coverage, deductible rate, reimbursement rate and discounts. For most companies, rates do not go up after a claim is made⁹⁵.

There are 3 main products⁹⁶:

- Accident Only Covering most physical ailments covered such as Foreign body injection, Lacerations, Motor vehicle accidents, Ligament tears, Poisoning, etc. as defined per policy
- Accident and Illness Covering Accident Only benefits plus illnesses such as cancer, infections, digestive problems, etc., Provides treatments like laboratory tests, X-rays, surgeries and hospitalizations⁹⁷.
- Insurance with Embedded Wellness Comprehensive plan covering the above including vaccinations, annual checkups, early screening diagnostics, consultations for proper nutrition, dental care, microchips, flea and heartworm preventative medication, genetic certification etc⁹⁸.

The US pet insurance market is dominated by dogs (84%)⁹⁹. Embedded Wellness insurance makes up a 97% of all coverages while Accident Only is the remaining 3%¹⁰⁰. The take up of wellness options are estimated at 12%¹⁰¹. The average age of insured pets 4.52 years with the average age of newly added pets being 2.65 years¹⁰². Embedded Wellness policies are 3 times the price for Accident Only policies¹⁰³. The average premium for accident and illness plans was approximately \$516, while the average premium for accident only plans was approximately \$181 per pet in the U.S. in 2017¹⁰⁴.

Presenting the data from another study¹⁰⁵ below given an accident only penetration of 3.1%, Accident and illness at 95.6% and embedded wellness coverages at 1.3%.

⁹² (Kelly, October 2, 2019)

^{93 (}Jenkins, Link, & Sokolowich, 2016)

^{94 (}Jenkins, Link, & Sokolowich, 2016)

^{95 (}Jenkins, Link, & Sokolowich, 2016)

^{96 (}Jenkins, Link, & Sokolowich, 2016)

⁹⁷ (Curran, May 2018)

⁹⁸ (Curran, May 2018)

^{99 (}Jenkins, Link, & Sokolowich, 2016)

¹⁰⁰ (Jenkins, Link, & Sokolowich, 2016)

¹⁰¹ (Bennett, 2016)

^{102 (}Jenkins, Link, & Sokolowich, 2016)

^{103 (}Jenkins, Link, & Sokolowich, 2016)

¹⁰⁴ (National Association of Insurance Commissioners, 2019)

¹⁰⁵ (Curran, May 2018)

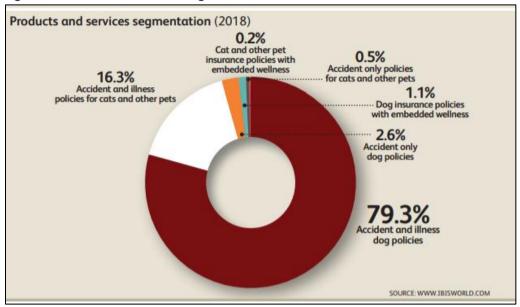


Figure 6.1A: USA Pet Product Segmentation

A summary of the nature of coverage in the USA market is as follows 106:

- Plans have varying deductibles, copayments and limits. Limits may be annual, lifetime, per procedure, per incident or a combination.
- In most cases, pet owners must pay the vet directly and wait to be reimbursed by the insurer.
- There are waiting periods for injury, illness and orthopaedic care. There are longer waiting periods orthopaedics or cruciate ligament events. There is pre-coverage exams required in many cases.
- Many carriers exclude coverage for pets less than 8 weeks old or older than twelve years. Pets must be below the maximum age limits to begin coverage.
- Exclusions exist for preexisting conditions. Some may even exclude coverage in renewal policies
 for conditions diagnosed or treated in prior coverage periods. Many policies also exclude
 coverage for congenital and heredity conditions, such as hip dysplasia, heart defects, cataracts
 and diabetes.
- Other typical exclusions may include: preventive treatment or wellness care; dental care; vaccinations; flea prevention; spaying or castration; behavioural training/therapy or treatment; procedures, services or supplements for condition not covered by the policy; experimental and/or investigative treatment that is not within the standard of care; diagnosis, treatment, tests or procedures associated with breeding etc.

A summary of the rating factors used¹⁰⁷:

<u>Geographic Area</u> – Rates vary by state and often within the state down to counties or ZIP code.
 Generally, the rates will be higher in urban areas due to higher costs of veterinary services and other socioeconomic factors.

¹⁰⁶ (National Association of Insurance Commissioners, 2019)

¹⁰⁷ (National Association of Insurance Commissioners, 2019)

- <u>Deductibles</u> typically range from \$50 to \$250. Higher deductibles receive significant discounts. Deductibles are typically provided by insurers on a per incident or an annual basis. Coverage typically costs more with an annual deductible because it tends to result in a higher cost for the insurer and lower cost for the insured. Coverage with an annual deductible routinely costs 4% to 6% more than a per incident deductible plan.
- <u>Policy limits</u> are the maximum dollar amount an insurer will pay for claims. Policy limits are normally expressed on a per incident basis, as well as an aggregate policy term basis. Insurers also use maximum lifetime limits (i.e., for the life of the pet).
- **Species** Most pet insurance carriers offer insurance for dogs and cats. Only one insurer offers coverage for other types of animals, such as birds and reptiles, under its exotics policy.
- Age A few insurers use the age at which the pet was initially enrolled for insurance, either in addition to or in lieu of the pet's current age. Use of initial enrolment age allows an insurer to guard against adverse selection—e.g., an older pet in failing health being insured for the first time. If the exact age of a pet is not known, the insurer may ask the insured to obtain an estimate from the pet's veterinarian. At least one insurer uses four different age curves for dogs depending on their weight. Typically, the heavier the dog, the steeper the age curve.
- <u>Breed</u> There are more than 100 dog breeds and around 50 cat breeds. Most insurers group the breeds into 10 or 12 rating categories, with each category assigned a rating factor. Smaller dogs and mixed breeds are frequently in the lower rating categories, while larger pure-breed dogs are assigned to the higher rating categories. Dogs in the highest rated category can cost 50% to 75% more than the lowest rated group. The cat breed factor curve will usually be significantly flatter with loading up to 50%. This reflects the fact that the breeds are significantly more homogeneous for cats than dogs in terms of size, build and other characteristics.
- Multi-Pet Many insurers offer a multi-pet discount of 5-10% because of the reduced administrative expenses per pet for a multi-pet policy.
- **Group Marketing** Many insurers offer a group marketing discount of 5-10%, also known as an association or affiliation discount. Marketing discounts recognize cost efficiencies of partnering with different types of organizations in promoting the insurer's product. Typical partners include corporate groups (i.e., group benefit plans), affinity groups and veterinary clinics.
- **Discounts** used by some insurers include:
 - o Policy term (i.e., pro rata factor if other than one year)
 - Waiting period length (discount for longer periods)
 - o Renewal discount
 - o Claim-free discount
 - Pet gender (i.e., females rated about 5% less than males)
 - Spay/neuter discount
 - Wellness plan discount
 - Predictive test discount
 - o Exam fee coverage (discount for exclusion).
 - o Microchip/identification tattoo discount.
 - Service or therapy dog discount (or surcharge).
 - Military discount
 - Animal health employee discount
 - Shelter adoptee discount
 - Automated clearing house (ACH) payment discount.
 - Premium paid-in-full discount (i.e., no instalment plan used).
 - Online enrolment/paperless policy administration discount

6.2 UK Pet Market

In the United Kingdom, where the market penetration rate is about 25% for companion animals 108.

There are two main types of pet insurance policy¹⁰⁹ annual policies and lifetime policies.

- Annual policies cover conditions that arise within the policy term. When a policy is renewed, a
 condition that has been claimed for in the previous 12 months may still be covered by the new
 policy if the time or money limit specified in the old policy has not been reached.
- Lifetime policies provide continuous cover for ongoing conditions throughout the pet's lifetime (so long as the policy is renewed periodically.) So if a claim is made for a particular condition in the first year, the consumer may be able to claim for that same condition in later years. The insurer cannot usually amend the basic cover provided by the policy.

The following table shows the products available in the UK¹¹⁰

Figure 6.2A: Types of Coverage UK

Type of Coverage	Limit Liability Per Coverage	Type of Coverage Defined
"Accident only": Very Basic Coverage	Yes, fixed sum of money per injury to pay for treatment (ex. \$1,000 per injury)	Some policies have a time limit for the treatment If pet needs veterinary treatment after an accident, but not the have an illness.
"Per condition with a time limit": Basic Coverage	Yes, Often imposes a maximum payout, if treatment reaches the maximum amount, the customer pays the overage (ex. Coverage up to \$4,000 for up to a year)	One of the cheapest coverages It will pay for vet fees for accidents and illnesses, but only for a maximum of 12 months after the insured pet has been diagnosed
"Per condition, no time limit": Mid- Level Coverage	Yes, maximum payout set per policy and per condition (ex. \$5,000 per condition for as long as the pet has the current condition)	Do not impose a time limit for how long the treatment lasts Coverage last as long as you renew every 12 months Re-occurring Illinois or injury will not be covered by this type of policy
"Lifetime": High- Level Coverage	Yes, High limit liability set per year. (ex. Maximum payout of \$10,000 per year so long as the policy is renewed)	Most expensive You still have to renew the policy each year and some insurers can refuse to renew the coverage Most comprehensive policy, will sometimes cover extras like dental fees

¹⁰⁸ (Kelly, October 2, 2019)

¹⁰⁹ (Financial Ombudsman Service UK, 2019)

¹¹⁰ (Jenkins, Link, & Sokolowich, 2016)

6.3 Swedish Pet Market

The Swedish pet insurance market is the oldest in the world established in 1890 for livestock and then in 1924 for dogs¹¹¹ and has a high market penetration.

Agria dominated the market in 2019 with a 55% market share, followed by Folksam with 21%, then IF Skadeförsäkring and Sveland, with 9% each¹¹².

Agria also quote much higher penetration rates than quoted in other sources. It suggested the market had very high insurance-market-penetration rates of 90% for dogs with a rate roughly 60% for horses and 50% for cats 113 .

Part of the reason for the high penetration is cited as

- cultural "Swedes are a more cautious people. "We insure everything here, from our kids to our laptops," she said. "It's basically part of our culture."
- in part to enduring, well-established business practices. Agria, for instance, long has had a close marketing relationship with Swedish kennel clubs, which often recommend that buyers take out its insurance policies for puppies¹¹⁵.

Exclusions:

- Insurers in Sweden are allowed to refuse coverage for older animals, meaning most customers are locked into a policy for their pet's lifetime¹¹⁶.
- Typical exclusions from insurance policies include umbilical hernia, hooked tail, mood disorders and dental conditions caused by bad hygiene¹¹⁷.
- On a breed-specific basis, English or French bulldogs, Boston terriers and pugs typically are not
 covered for conditions affecting the trachea, soft palate, nostrils or constrictions in the throat¹¹⁸.

Claims Handling

- Pet owners have the option to pay for coverage upfront and apply for a reimbursement, or let the clinic handle the administration¹¹⁹.
- In some practices customers can opt to pay a fee of around 200 krona (US\$20) to cover the clinic taking care of the paperwork¹²⁰.

¹¹¹ (National Association of Insurance Commissioners, 2019)

¹¹² (Kelly, October 2, 2019)

¹¹³ (Kelly, October 2, 2019)

¹¹⁴ (Kelly, October 2, 2019)

¹¹⁵ (Kelly, October 2, 2019)

¹¹⁶ (Kelly, October 2, 2019)

¹¹⁷ (Kelly, October 2, 2019)

¹¹⁸ (Kelly, October 2, 2019)

¹¹⁹ (Kelly, October 2, 2019)

¹²⁰ (Kelly, October 2, 2019)

6.3.1 Agria Product Wording Features

Agria is a market leader in Swedish Pet Insurance and I have tried to highlight some of the more interesting policy features here 121.

Core Policy Features

- **Caesarean Sections**: Covered only for bitches over 20 months old.
- ❖ Medical Scans: MRI, CT, and scintigraphy require prior approval for reimbursement.
- Neutering:
 - Spaying: Covered only for specific medical conditions (e.g. diabetes, uterine disease, trauma).
 - Castration: Covered for conditions such as prostate disorders, hernias, testicular issues.
- Plastic Surgery: Not covered for Boston Terriers, Bulldogs, or Pugs.
- **❖** Breed-Specific Exclusions:
 - Shar-Peis: No cover for eye, ear, or skin treatments.
 - Brachycephalic breeds (e.g. Bulldogs, Pugs): No cover for respiratory or throat surgeries.

Add-On Cover Options

* Rehabilitation Cover

 Includes swimming, massage, stretching, treadmill for joint/muscle/nerve conditions or injury. Up to 4 months per injury

Medicine Add-On

 Up to SEK 6,000/year for prescription meds, immunotherapy, inhalers, and insulin syringes.

Travel or Incapacitated

- Kennel Boarding:
 - o 75% reimbursement from day 3 if owner is incapacitated or deceased (up to 60 days).
 - o Travel costs up to SEK 500.

• Travel-Related Cover:

- o **Trip Cancellation:** 75% of costs if dog becomes acutely ill before departure.
- o Trip Interruption: 75% of return travel costs if dog at home becomes critically ill.
- Extended Stay: Covers meals/accommodation from day 3 and 75% of extra return travel if dog becomes ill while travelling.

Life Insurance

- Eligibility: Not available for dogs aged 6+ (or 4+ for some breeds).
- Policy End Ages: Based on breed: ends at 8, 10, or 12 years.
- **Sum Insured Reductions:** Starts reducing by 20% per year from age 5/7/9 depending on breed, minimum SEK 5,000.Max cover from age 7/9/11 capped at SEK 10,000.

Utility Insurance

 Similar terms as Life cover. Pays out if dog permanently loses utility as a working dog due to illness or injury.

❖ Breeding Insurance

- Veterinary Care:
 - o Covers fertility tests (if insured before 4 months old).
 - o Covers second caesarean.
- Loss of Breeding Suitability:

-

^{121 (}Agria, 2021)

- o **Neutering:** If done for reimbursable medical reasons.
- o **Sterility:** Full payout if dog is sterile.
- Breeding Hygiene Issues: Genetic/hereditary conditions confirmed in dog or relatives.

• Puppy Cover:

- Weak Puppies: Vet treatment within 24 hours of birth.
- o **General Cover:** From 5–12 weeks old, until transferred to a new owner.

7 Underwriting Considerations

7.1 Pricing Factors

Common rating factors for Pet Insurance include:

- breed of pet
- deductible level
- coinsurance level
- age
- gender
- size (dogs only)
- indoor vs. outdoor (cats only)
- whether or not the pet has been spayed or neutered.

7.2 Breed

Larger breeds of dogs are more susceptible to develop physical ailments compared to smaller breeds with common ailments including hip dysplasia, obesity, arthritis, and a weak immune system¹²². Dangerous, aggressive and powerful breeds such as Rottweilers and Pit Bulls are at increased chance of a claim when compared to other breeds of dogs because they can easily become injured and potential liability claims.

There is correlation of certain parasites with breed. In the USA large breed dogs, including German Shepherds, Golden Retrievers, Pit Bulls and Labrador Retrievers were more likely to have ticks than small breed dogs which may be due to a more active outdoor lifestyle of large breed dogs¹²³.

The above indicated that there is the possibility of having different question sets dependent on the type of dog.

Size of dog is also an important factor as costs vary based on side. Small dogs are less expensive across spaying and neutering, x-rays, and hospitalization treatments than large dogs¹²⁴.

The following graphic is a useful visualisation of the mix in the Cat and Dog market which is likely to give a bit of insight into what the Australian portfolio could look like¹²⁵.

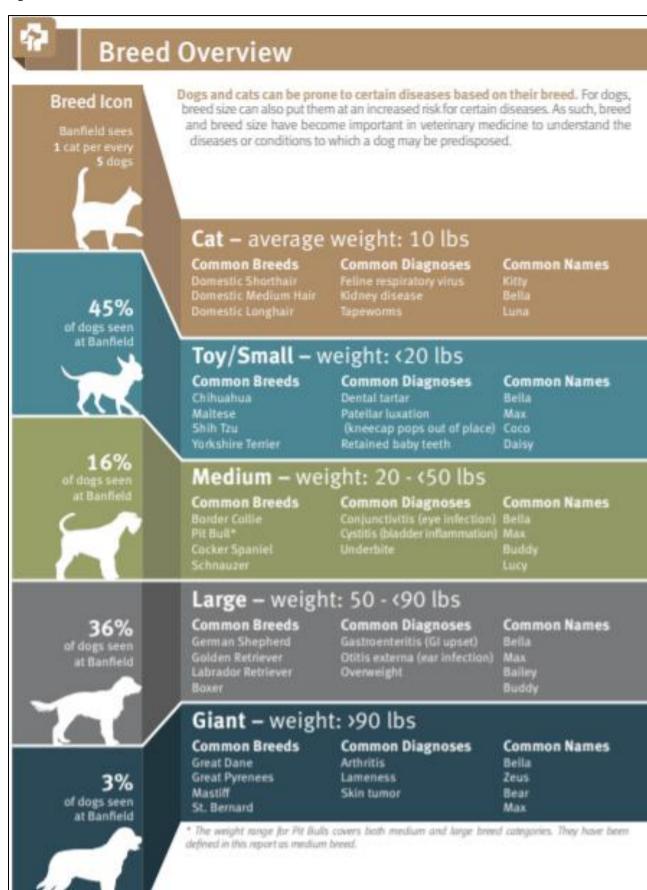
^{122 (}Donovan, McManus, Richardson, & Westwater, 2013)

^{123 (}Banfield Pet Hospital, 2016)

^{124 (}Donovan, McManus, Richardson, & Westwater, 2013)

^{125 (}Banfield Pet Hospital, 2016)

Figure 7.2A: Pet Market Breakdown USA



7.3 Pure/Designer/Mixed Breed Variations

Whether a dog is a pure breed, a designed breed or a mixed bread can have an impact on how many claims they have. Purebred dogs have worse experience that cross breeds. Purebreds are more likely to have 126 seen a vet in the past year (89% vs. 81%) and also had multiple visits (56% vs. 44%) Designer breeds were much more likely to have 127 been treated for surgery (34% vs. 10%) and also had insurance claims for diagnostic tests (22% vs. 6%)

7.4 Nature of Problems with Dogs

Genetic diversity has been greatly reduced within modern breeds because of breeding practices that include 128:

- closed stud books
- structured inbreeding and
- reproductive dominance of popular sires
- selection pressure within breeds towards phenotypic exaggeration driven by breed standards

Each breed has its specific problems. The example below of the Cavalier King Charles spaniel has a significant heart problem compared to other breeds. While a pug has eye, ear, skin, upper respiratory problems and also reproduction problems in females¹²⁹.

The following two graphics show he general causes of illness in each breed. It demonstrates the biases in susceptibility to different health conditions.

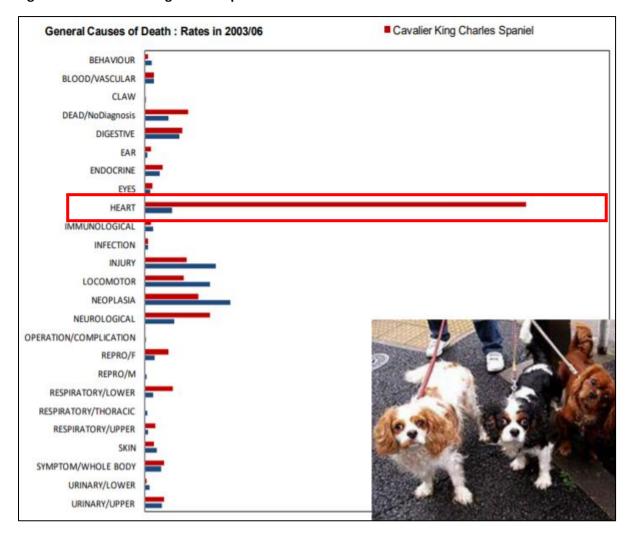
^{126 (}Animal Medicines Australia, 2019)

¹²⁷ (Animal Medicines Australia, 2019)

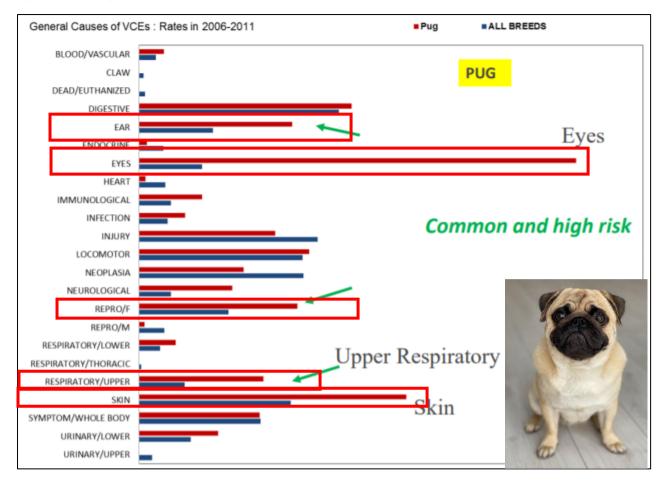
¹²⁸ (O'Neill, Church, McGreevy, Thomson, & Brodbelt, 2014)

¹²⁹ (Bonnett, 2016)









The importance of breed can be shown by digging deeper into particular condition. The following shows upper respiratory problem breeds against the average¹³⁰.

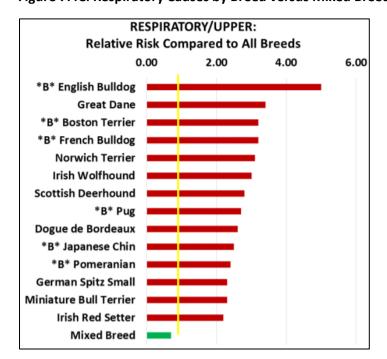


Figure 7.4C: Respiratory Causes by Breed versus Mixed Breed

Also different breeds die at different ages as the graph below shows the median age of death¹³¹. The differences in propensity to certain illnesses coupled with different in life expectancy emphasises the need to rate by breed.

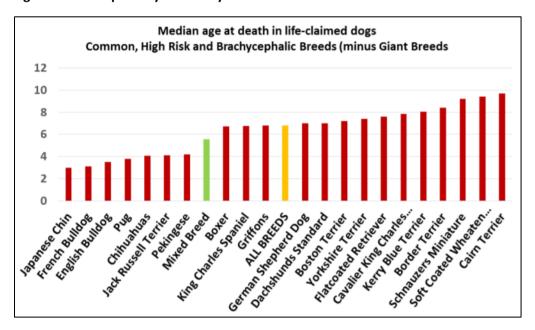


Figure 7.4D: Respiratory Causes by Breed versus Mixed Breed

¹³⁰ (Bonnett, 2016)

¹³¹ (Bonnett, 2016)

Marketing price quoting in the Australian market¹³² allowed an analysis of breed as a factor. The following table shows the rough breed grouping for one player in the Australian market.

Table 7.4E Grouping by Breed in Australia

Example Breeds

Low Risk	Medium Risk	High Risk	Highest Risk
Australian Shepherd	American Pit Bull Terrier	American Bulldog	Australian Bulldog
Chihuahua	Australian Cattle Dog	Chow Chow	Boxer
Fox Terrier Smooth	Australian Silky Terrier	Corgi	British Bulldog
Jack Russell Terrier	Australian Terrier	Dalmatian	Bull Terrier
Pomeranian	Beagle	Dobermann	Bullmastiff
	Bloodhound	Labrador	French Bulldog
	Border Collie		Great Dane
	Borzoi		Irish Wolfhound
	Bull Arab		Mastiff
	Cavalier King Charles Spaniel		Rottweiler
	Cocker Spaniel		Shar-Pei
	Dachshund		St Bernard
	Dingo		
	French Poodle		
	German Shepherd		
	Golden Retriever		
	Greyhound		
	Labradoodle		
	Maltese		
	Pug		
	Staffordshire Bull Terrier		
	Stumpy Tail Cattle Dogs		

The average loadings appear in the following table:

Table 7.4F: Loadings by Breed Group in Australia

Breed Category	Average Loading
Low Risk	0%
Medium Risk	27%
High Risk	51%
Highest Risk	76%

^{132 (}Yat Consulting, 2020)

7.5 **Pet Age**

Similar to humans, pets accumulate health issues with increase age. Thus the probability of a claim increases with age. The average age of insured pets in the United States is 3.5 years old 133.

Dogs have a shorter life that humans and their stages of life cane be summarised in the following table ¹³⁴. Dogs tend to live to around 20 years with older dogs aging faster than smaller ones.

Table 7.5A Cat and Dog Life Stages

Table 3:	Cat and	Dog	Stages	in Life	(Years)	
I GOIC O.	Cut ullu		Seabes		(10013)	

Stages	Cat Age	Small Dog Age	Medium Dog Age	Large Dog Age
Pediatric	0-1	0-1	0-1	0-1
Adult	2-10	2-10	2-9	2-8
Senior	11-20	11-20	10-20	9-20

It could be expected that certain conditions increase in frequency with age these include 135 drugs and medication, emergency care, euthanasia, hospitalization, and other surgeries. Other conditions decrease with age spaying or neutering and deworming.

An analysis of a sample of quotes 136 shows that age is a rating factor in Australia for one player. No age rating is applied to accident only policies. Age loadings are as follows:

Table 7.5B Age Loadings Australia

Age	Average
	Loading
0	0%
1	2%
2	4%
3	7%
4	10%
5	21%
6	32%
7	43%
8	54%

¹³³ (Donovan, McManus, Richardson, & Westwater, 2013)

^{134 (}Donovan, McManus, Richardson, & Westwater, 2013)

^{135 (}Donovan, McManus, Richardson, & Westwater, 2013)

^{136 (}Yat Consulting, 2020)

7.6 Microchipping and Desexing

Spaying and neutering changes pricing if this one-time procedures have already been performed. Thus a reduced source of future claim. Spaying and neutering is also likely to also result in less claims due to injuries from fights as a result of mating. The surgical costs are different for each gender as spaying a female is more expensive than neutering a male¹³⁷.

Desexing pets has a number of benefits which impact the risk from an insurance perspective ¹³⁸:

- De-sexed animals generally live longer and have healthier lives
- Reduced risk of cancer and other diseases affecting the reproductive organs
- Risks Reduced risk of pregnancy complications

Less likely to run away, wander, seek a mate and get into fights or get injured. The following tables shows that in Australia 81% of dogs and 89% of cats are desexed 139.

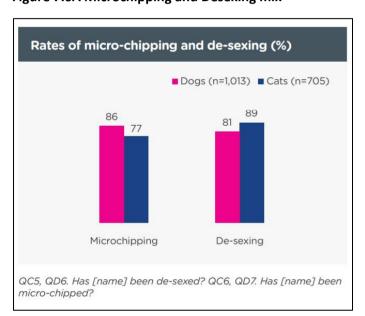


Figure 7.6A Microchipping and Desexing mix

7.7 Factors relating to the owner

Uniquely RACQ uses the pet owners age to as a rating factor¹⁴⁰. This is perhaps linked to the fact that older owners are at home with their pets more or alternatively doing less risky activities. Though the owner's lifestyle could affect how well the animal is treated¹⁴¹. Examples include:

- if the owner travels a lot and leaves the pet on its own, the pet may be prone to more issues.
- if the owner cares for their pet as if it is their own child, then incidence rates could decrease.
- a fit owner may have a fit dog while an obese owner may have an obese dog.

¹³⁷ (Donovan, McManus, Richardson, & Westwater, 2013)

¹³⁸ (Animal Medicines Australia, 2019)

¹³⁹ (Animal Medicines Australia, 2019)

¹⁴⁰ (Graham, CHOICE: How to find the best pet insurance policy, 2019)

¹⁴¹ (Donovan, McManus, Richardson, & Westwater, 2013)

7.8 Indoor/Outdoor

Indoor vs Outdoor animals are likely to have different performance¹⁴². An outdoor cat is more likely to need treatment to ticks, fleas, or other bugs than an indoor cat since the level of exposure is much greater. Thus outdoor cats may need more physical examinations, flea or tick products, drugs and medication, and emergency care.

7.9 Location

The residential location of a pet is an important rating factor. This is driven by a propensity of certain condition in certain climates (eg skin conditions, tick bites in bush areas) and costs in more expensive areas.

We could assume that the cost of a veterinary practice in a city location would have higher rental and salary costs, the local clientele would be wealthier and demand higher care, and the availability of more high end specialist medical services in the city versus suburban or regional areas.

A US study¹⁴³ found that dog premiums by state ranged from \$24 per month in Arkansas to \$38 per month in New York. That is a 60% loading from the lowest to the higher. For cat premiums it ranged from \$17 per month in Arkansas to \$28 per month in New York. That is a 64% loading from the lowest to the higher.

Geography is an important rating factor due not only to socioeconomic factors and the cost of veterinary treatment. One example in the US is heartworm disease which shows a distinct geographic trend, with states in the Southeast having the highest prevalence of positive tests¹⁴⁴. The causal factor here is that mosquitos play an important role in the heartworm life cycle and the presence of wildlife carriers. Mosquitos tend to be more active in warmer humid environments. The odds of a dog contracting heartworm disease in Mississippi or Lousiana are around 170 times those of contracting the disease in Nevada, the state with the lowest prevalence of the disease¹⁴⁵.

Heartworm in Puerto Rico Puerto Rico is ranked among the top five states and territories for heartworm disease in dogs which may be due to the tropical climate which provide the right environment for disease transmission year round¹⁴⁶. Puerto Rico is also ranked among the top five states and territories for otitis externa, ticks, roundworms, hookworms and whipworms in dogs and cats¹⁴⁷. Conversely, for reasons unknown, Puerto Rico ranked the lowest for prevalence of diabetes and dental disease¹⁴⁸.

¹⁴² (Donovan, McManus, Richardson, & Westwater, 2013)

¹⁴³ (Jenkins, Link, & Sokolowich, 2016)

^{144 (}Banfield Pet Hospital, 2016)

¹⁴⁵ (Banfield Pet Hospital, 2016)

^{146 (}Banfield Pet Hospital, 2016)

¹⁴⁷ (Banfield Pet Hospital, 2016)

¹⁴⁸ (Banfield Pet Hospital, 2016)

2015 Heartworm Disease | Dog
Cases (per 10,000)

WA

MT

NV

III

Figure 7.9A Geographical Cases of Heartworm in the USA

Fleas also appear to exhibit geographic clustering. In 2015, Louisiana, Alabama and Florida were among the top five states and territories with the greatest prevalence of fleas in cats and dogs ¹⁴⁹.



Figure 7.9B Geographical Cases of Fleas in the USA

The geographic clustering also occurs for other conditions such as Otitis externa (infection or inflammation of the outer ear canal).



Figure 7.9C Geographical Cases of Otitis externa in the USA

^{149 (}Banfield Pet Hospital, 2016)

7.10 Preventative Care

Preventative care is important in limiting future costs. We see this in human care and the same principle is present in animal care. The following areas could be considered when assessing pet health:

7.10.1 Diabetes

Twice-a-year examinations help veterinarians detect clinical signs of diabetes mellitus early and reduce complications associated with the disease¹⁵⁰. Keeping cats from becoming overweight or obese through proper exercise, nutrition and dietary management can reduce the risk of diabetes mellitus and other serious diseases¹⁵¹.

7.10.2 Heartworm

Heartworm tests for dogs, including dogs receiving year-round preventive medication, should be performed annually¹⁵². Year-round preventives should be given as either a monthly medication (topical or pill) or twice-yearly injection for dogs¹⁵³. Cats in heartworm endemic areas should receive a monthly preventive medication¹⁵⁴.

7.10.3 Dental

Regular dental maintenance can prevent bigger problems. An annual dental check-up and clean is as important for picking up minor problems, such as early-stage gingivitis or a tartar build-up, and deal with them before they worsen and become uncomfortable.¹⁵⁵

^{150 (}Banfield Pet Hospital, 2016)

^{151 (}Banfield Pet Hospital, 2016)

^{152 (}Banfield Pet Hospital, 2016)

^{153 (}Banfield Pet Hospital, 2016)

^{154 (}Banfield Pet Hospital, 2016)

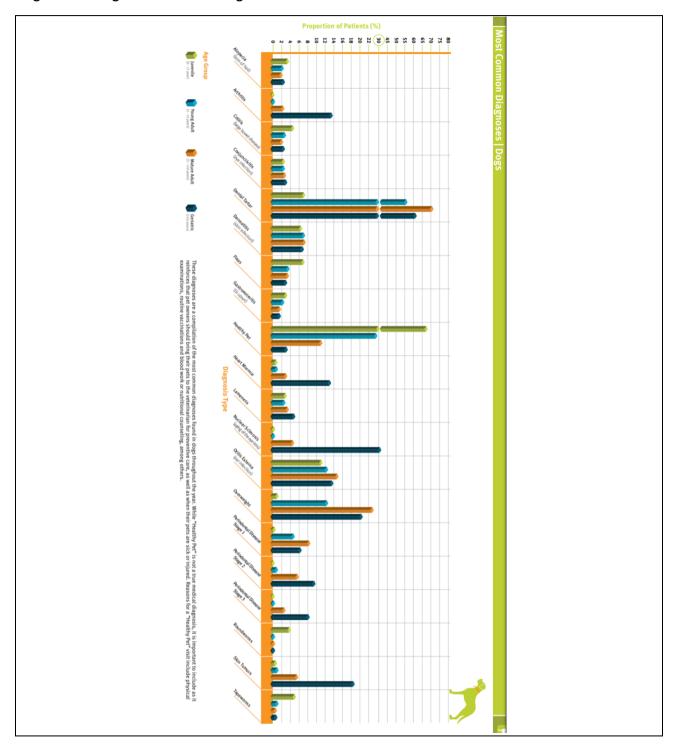
¹⁵⁵ (iSelect, 2020)

8 Claims

8.1 Types of Claims

The following two graphics show the type of claims dogs and cats are exposed to 156.

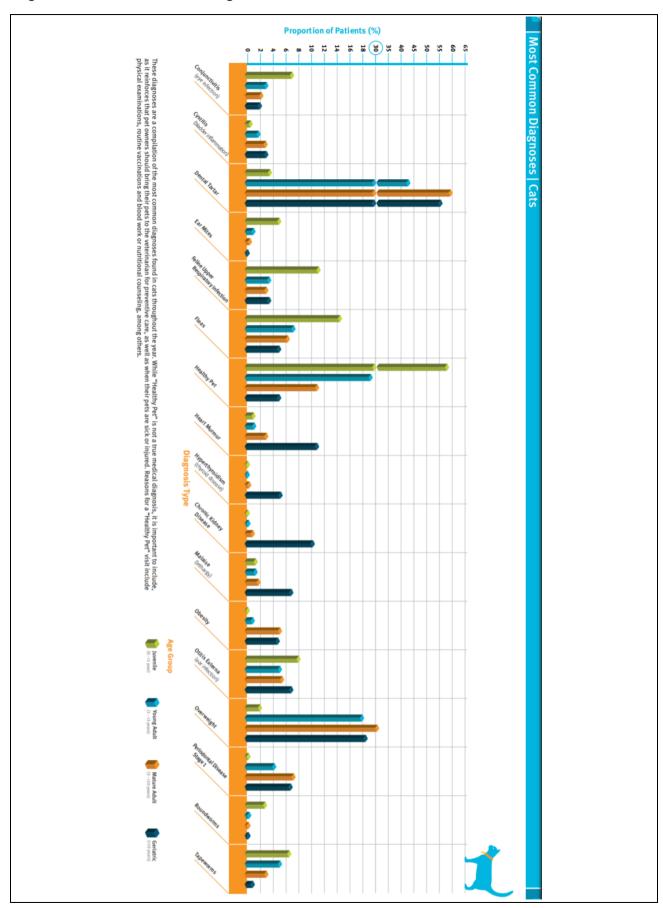
Figure 8.1A Dog Most Common Diagnoses



^{156 (}Banfield Pet Hospital, 2016)

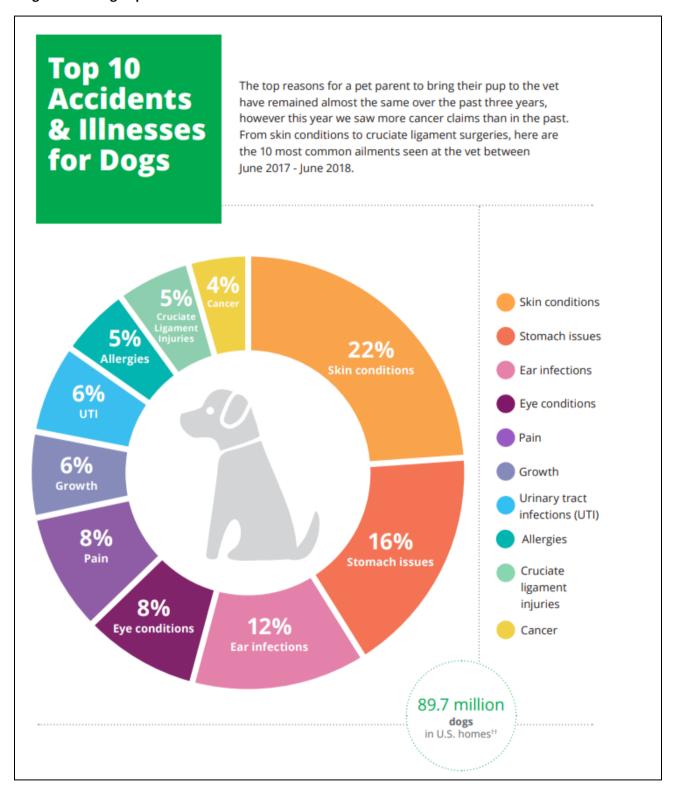
59

Figure 8.1B Cat Most Common Diagnoses



As a contrast to the above the following chart provides an overview of the top 10 accidents and illness for dogs in the USA¹⁵⁷ with skin, stomach and ear being the most prevalent.

Figure 8.1C Dog Top 10 Accident and Illnesses

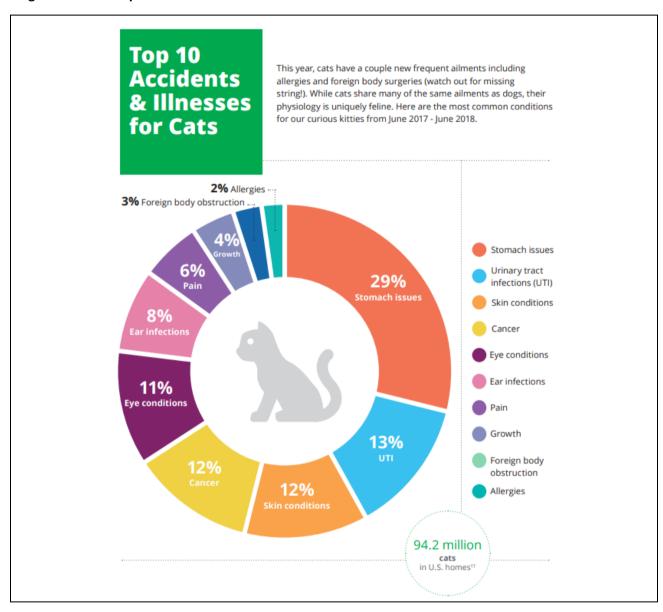


¹⁵⁷ (Healthypaws Pet Insurance and Foundation, 2018)

Statistics show that about half of dogs who have had one cruciate ligament will have the same affliction in the other knee¹⁵⁸. In the USA vet cost for cruciate ligaments is up to US\$13,400¹⁵⁹. Due to the fact that crucial ligament injuries are generally excluded as pre-existing conditions it is important for pups to get insured before things happen.

The following chart provides an overview of the top accidents and illness for cats in the USA¹⁶⁰ with stomach, UTI, skin and cancer being the most prevalent.

Figure 8.1D Cat Top 10 Accident and Illnesses



¹⁵⁸ (Healthypaws Pet Insurance and Foundation, 2018)

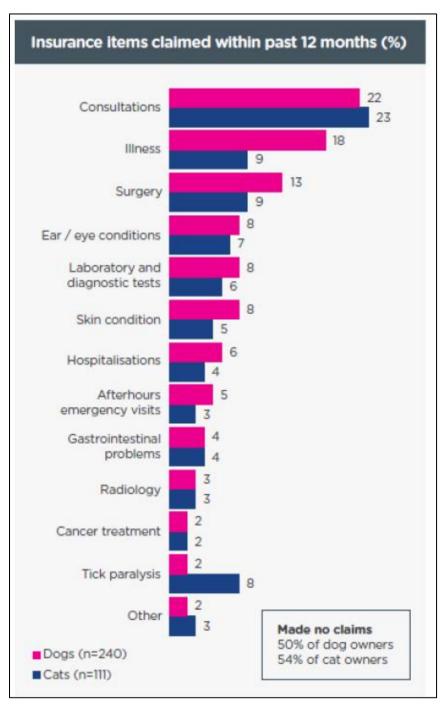
¹⁵⁹ (Healthypaws Pet Insurance and Foundation, 2018)

¹⁶⁰ (Healthypaws Pet Insurance and Foundation, 2018)

8.2 Insured Claim Mix

The mix of claims from an Australian survey 161 is as follows. Notably 50% of dog owners and 54% of cat owners made no claims in the 12 month survey period.





¹⁶¹ (Pryor & Kay, 2020)

8.3 Vet Attendance Rates

The section looks at the overall claim frequency that is observed. In Australia, dog owners visit the vet on average 2.1 times per year with cats at 1.7 per year 162 . The most common reasons tended to be check-ups and vaccinations, followed by general illness or injury, de-sexing and dentistry. The following table shows the reported reasons for visits including dogs being taken in for general illness or injury (24%), dentistry (10%) or surgery (6%), and cats being vaccinated (56%) 163 .

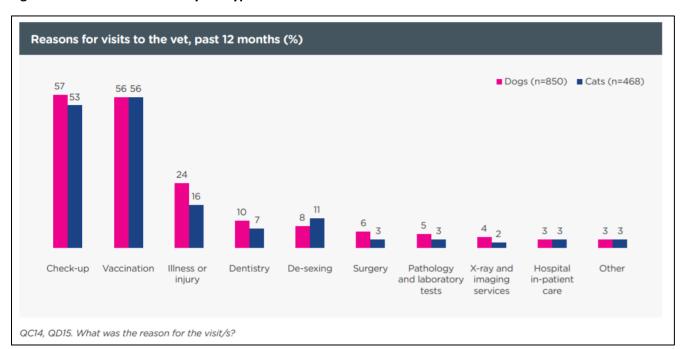


Figure 8.3A Vet visit reasons by Pet type

Some statistics from the Petplan Pet Census report in 2016 indicate the behaviour of attendance at the vets¹⁶⁴:

Figure 8.3B Annual Vet Visits Distribution

Visits to Vet per annum	Proportion
0	6.7%
1	17.6%
2	23.1%
3	16.7%
4	12.0%
5	7.4%
6-10	13.1%
11+	3.2%

¹⁶² (Animal Medicines Australia, 2019)

¹⁶³ (Animal Medicines Australia, 2019)

¹⁶⁴ (Petplan, 2016)

84.8% of people tend to only use the one Vet for their pet. Two thirds of respondents have never changed their vets since having their pet. The most popular reason for changing vets (16.9%) was due to them moving location.

An analysis into claim factors on a USA portfolio¹⁶⁵ found that the first illness was on average 23 months into a policy. Given a first illness the time until a subsequent illness was on average 3.5 months later.

Research from the US suggest that 75% of pet owners make a claim within three years of obtaining pet insurance with 50% of policyholders filing a claim in each year 166.

UK research finds that claims were filed for 30% of dogs insured and 16% of cats insured ¹⁶⁷.

8.4 Anti-selection

There is a natural anti-selection risk for those pets which are insured 168:

- Visiting the vet more often that uninsured owners
- Vets give insured pets more thorough and expensive checkups and treatments
- Claims for multiple pets of the same breed on a single policy

¹⁶⁵ (Pai & Shand, 2004)

¹⁶⁶ (National Association of Insurance Commissioners , 2019)

¹⁶⁷ (National Association of Insurance Commissioners , 2019)

¹⁶⁸ (MunichRe, 2013)

8.5 Average Claim Size for different Accident or Injuries

The following tables are provided to give an indication of the average size and potential size of different claim events to help allow assessment of whether policy limits are appropriate. Cancer, Fractures and Snake bite have high average sizes. Cancer also has the highest claim amount.

Figure 8.5A Claims by Accident or Injury¹⁶⁹

Accident or illness	Average Claim Amount FY 2019	Highest Claim Amount		
Multiple fractures	\$2,066.31	\$13,902.30		
Cancer	\$3,503.74	\$34,183.61		
Gastroenteritis	\$1,319.65	\$21,633.25		
Tick paralysis	\$1,156.87	\$5,293.57		
Snake bite	\$2,133.31	\$20,147.09		
Pneumonia	\$1,610.57	\$7,316.41		
Arthritis	\$688	\$12,460.85		
Diabetes	\$1,952.39	\$16,712.25		
Ear infection	\$883.38	\$14,271.26		
Cataracts	\$1,755.15	\$14,916.84		
Dermatitis	\$832.71	\$24,354.18		
Urinary tract infection	\$814.49	\$12,223.63		
* PetSure claims data from June 2018 – July 2019. Amounts include GST.				

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¹⁶⁹ (RSPCA, 2019)

The follow tables show the top 10 most common types of injuries and conditions by count.

Figure 8.5B Top 10 Most Common Pet Injuries and conditions by Volume¹⁷⁰

Diagnoses	Description	Qty of Claims	Total Claim \$
Otitis Externa	A chronic inflammation of the external ear canal. Characterised by enlarged glands and excess wax production. ¹	3,189	\$441,049.08
Skin Conditions	Can cover anything from yeast infection, impetigo, ringworm, and other skin diseases. ²	2,438	\$312,249.38
Arthritis	Includes degenerative joint disease and osteoarthritis. ³	2,417	\$237,141.29
Cruclate Lig Rupture	A stretch or teer in the fibrous tissue of the knee joint that leads to rupture. 4	1,874	\$1,415,869.28
Conjunctivitis	Inflammation of the conjunctive that can be caused by either allergies or more serious issues. ⁵	1,633	\$163,783.51
Ear Infection	Can be caused by bacteria, yeast, or ear mites, manifesting in lots of scratching and rubbing of the ear. ⁶	1,560	\$207,548.20
Lump	Can be either a fat deposit (lipoma) or something more serious, such as a tumour. ⁷	1,390	\$430,090.10
Dermatitis	An inflammatory skin disease, often associated with allergies. 8	1,373	\$187,406.11
Gastroenteritis	Inflammation of the gastrointestinal tract that can be caused by bacterial or viral infection or parasites. ⁹	1,291	\$392,254.06
Ear Conditions	Any disorder of the ear that can be caused by anything from parasites, trauma, hormone disorders, or other issues. 10	1,205	\$151,215.53

¹⁷⁰ (RSPCA, 2015)

The follow table shows the top 10 most expensive operations.

Figure 8.5C Top 10 Most Expensive Pet Operations by Volume 171

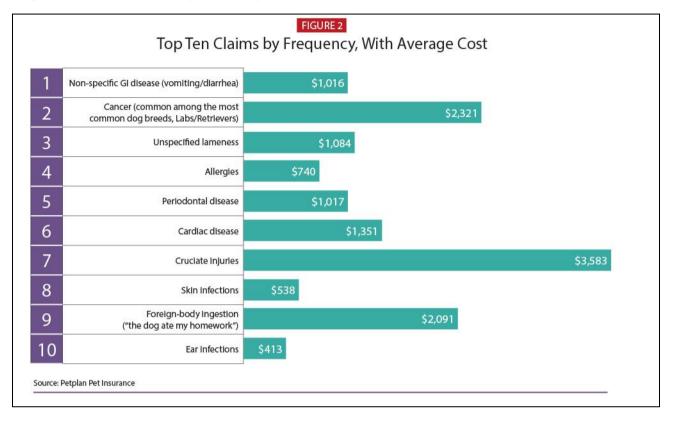
Diagnoses	Average Claim Amount
Oesophageal Perforation	\$7,764.13
Sepsis	\$5,765.84
Cerebellar Hernlation	\$5,673.90
Neoplasm - Parathyrold	\$5,590.17
Urollthiasis - Ureteric	\$4,573.80
Intervertebral Disc Extrusion / Herniation / Prolapse - Cervical	\$4,404.51
Abdominal injury - Presenting Complaint	\$4,364.00
Pericardial Effusion - Idiopathic	\$4,294.40
Physeal Disorder - Premature Physeal Closure	\$3,938.50
intestinal Obstruction - Small Intestine	\$3,931.62

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¹⁷¹ (RSPCA, 2015)

A USA Source from the Academy of Actuaries quotes the following costs. Cruciate Injuries and Cancer are high cost claims.

Figure 8.5D Top 10 Claims by Frequency in the USA¹⁷²



¹⁷² (Malloy, 2018)

8.6 Claim Trends

8.6.1 Pet Medical and Health developments

According to a Munich Re Study¹⁷³

- medical technology and care for animals has improved significantly leading to life expectancy for dogs increased by around 30 percent between 1967 band 1997 with feline mortality improving by well over 30 percent.
- As animals live to older ages they become more exposed to age-related illnesses like diabetes or cancer
- In the UK availability of good food is attributed to the 45 to 50% of all dogs being overweight up from 17% in 2003.
- Pet are now exposed to similar illness to humans in terms of age related illnesses, diabetes and obesity.

8.6.2 Changing Prevalence of Certain Conditions

Increasing conditions:

- Over the 10 years to 2016 Canine diabetes has grown by 6% pa while feline diabetes has growth by 1.7%pa¹⁷⁴.
- Dental disease affects 68 percent of cats and 76 percent of dogs¹⁷⁵. Dental disease has increased at 1.6% pa for dogs and by 1.9% in cats over the last 5 years¹⁷⁶.

Decreasing conditions:

- Heartworm disease over the 5 years to 2016 has decreased by 7.7% pa which is likely due to improved heartworm preventive compliance¹⁷⁷.
- Otitis externa (inflammation of the ear) has decrease by 1.2%pa for dogs over the five years to 2016 and is unchanged in cats¹⁷⁸.
- Flea infestations in dogs have decreased by 1.6% pa over the last 5 years and have remained unchanged in cats¹⁷⁹.
- Ticks have decreased by 1.1% over the past 10 years for dogs¹⁸⁰.

¹⁷³ (MunichRe, 2013)

^{174 (}Banfield Pet Hospital, 2016)

¹⁷⁵ (Banfield Pet Hospital, 2016)

¹⁷⁶ (Banfield Pet Hospital, 2016)

^{177 (}Banfield Pet Hospital, 2016)

¹⁷⁸ (Banfield Pet Hospital, 2016)

^{179 (}Banfield Pet Hospital, 2016)

^{180 (}Banfield Pet Hospital, 2016)

8.7 Claims Inflation

Premiums have been rising consistently due to both

- advancements in medicine with human based treatments and surgeries now being applied to animals and
- increased utilization of care as cats and dogs are viewed as family members owners are becoming more open to these expensive treatments¹⁸¹.

A US study showed 76% of pet owners would spend any amount to keep their pets alive 182.

Veterinary costs and expenditures have risen due to both advancements in medicine and increased use of care. According to industry operator Trupanion¹⁸³, more expensive and sophisticated treatments are rapidly gaining acceptance, including radiation therapy, CT scans, transplants and chemotherapy. Also the recent phenomenon of referral to specialists in private practice, one of the most dramatically growing segments of veterinary medicine¹⁸⁴.

In the US vets have been making a conscious effort to align fees with the real costs of offering quality medical services, including properly compensated doctors ¹⁸⁵.

UK Average claim pay-outs are up 56% since 2010 (6.5% per annum), highlighting ever increasing costs¹⁸⁶.

¹⁸¹ (Curran, May 2018)

¹⁸² (Volk & Merle, 2006)

¹⁸³ (Curran, May 2018)

^{184 (}Volk & Merle, 2006)

¹⁸⁵ (Volk & Merle, 2006)

¹⁸⁶ (ABI Association of British Insurers, 2017)

9 Insurance ratios

9.1 Loss Ratio

The following chart shows the typical components of each premium dollar charged for pet insurance in the USA¹⁸⁷. This chart implies a loss ratio of 60%. Another source quote the loss ratios for Pet Insurance in the US are below the 55%¹⁸⁸ mark. Anecdotal information suggests a similar loss ratio is typical in Australia.

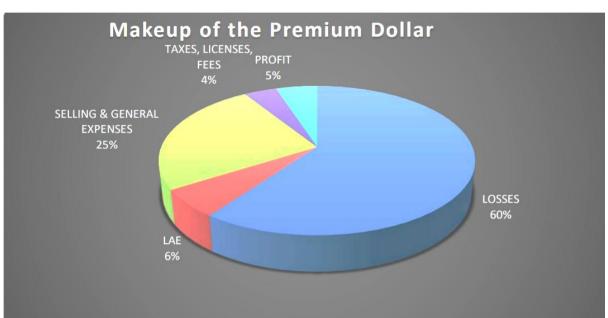


Figure 9.1A: Premium Breakdown

9.2 Commission Rates

Commission rates vary between distributors. The following table was created in 2019 from looking at disclosures in policy booklets for the Australian market. The average commission was 27%.

Table 9	24.	Comm	iccion	Distribution	in	2010
Table 9	.ZA:	COIIIII	HSSIOH	DISTRIBUTION		2017

Commission Rate (%)	Distributors
15-19	2
20-21	3
21-25	6
26-30	3
30-35	3
40-45	1
45-50	1
Total	19

¹⁸⁷ (National Association of Insurance Commissioners, 2019)

¹⁸⁸ (Curran, May 2018)

10 Example Rating Model

The following rating model was sourced from an insurer in the USA. The following is provided to give an indication of the pricing factors and their relative impact.

10.1 Administration Fee

An Initial Admin Fee for the first insured pet on the policy with discounts applied to the fee for Web, Affinity and Employee programs.

10.2 Cat/Dog

There are different rates for cats and dogs. This is evident in the age rating beyond 8 years and through the two way animal sex rating in Table 12.4A.

10.3 Geography

Geography is a factor in the model but the rating model reviewed only had one zone in the rate set chosen. This is perhaps because it is a filing for one state.

10.4 Pet Age

Pet age is a rating factor with cats receiving a loading of 344% at 13 years and dogs 233%.

Table 10.4A: Age rating by Pet type

Ago	Cat	Dog
Age	Factor	Factor
8 weeks to 1 year old	0%	0%
1 year old	11%	11%
2 years old	22%	22%
3 years old	33%	33%
4 years old	44%	44%
5 years old	56%	56%
6 years old	67%	78%
7 years old	89%	100%
8 years old	122%	122%
9 years old	167%	144%
10 years old	200%	167%
11 years old	244%	189%
12 years old	300%	211%
13 years old	344%	233%

10.5 Sex

The sex of the pet makes a difference. Male cats are loaded more heavily than female cats while female dogs are rated slightly higher than male dogs.

Table 10.5A: Sex loading by Pet type

Pet	Sex	Loadings
Cat	Female	0%
Cat	Male	11%
Female		6%
Dog	Male	4%

10.6 Spay/Neuter/Breeding

Interestingly there is no rate differentiation whether a pet is desexed or not. The only variation is whether the female is breeding.

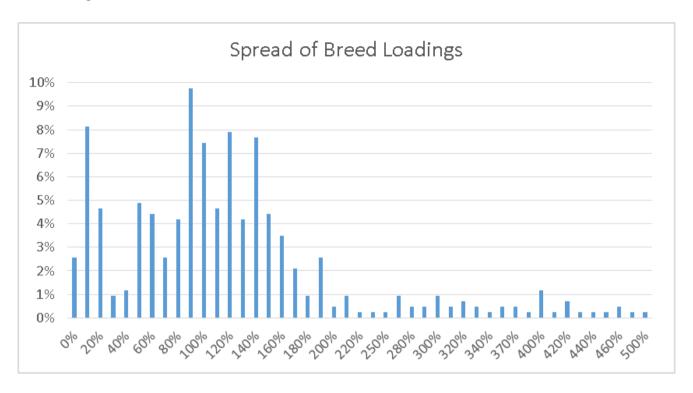
Table 10.6A: Desexing

Status	Loading		
Intact Female	0%		
Intact Female - Breeding	73%		
Intact Male	0%		
Spay/Neutered	0%		

10.7 Breed

Breed is clearly an important rating factor with 431 breeds and loadings ranging from 0 to 500% as shown in the following graph.

Figure 10.7A: Breed



10.8 Working Pets

Working Pets are clearly exposed to more risk than indoor pets. There is a 5% loading for working pets.

10.9 Deductible

Deductibles range from \$0 to \$1000. A discount of 78% applies for a \$1000 excess.

Table 10.9A: Deductible

Deductible	Discount
0	0%
50	-20%
100	-31%
150	-38%
200	-43%
250	-47%
300	-51%
350	-54%
400	-57%
450	-59%
500	-62%
550	-64%
600	-66%
650	-68%
700	-70%
750	-71%
800	-73%
850	-74%
900	-76%
950	-77%
1000	-78%

10.10 Coinsurance

Coinsurance ranged from 50% to 100%. For a 50% share there is a discount of 46%.

Table 10.10A: Coinsurance

Coinsurance	Discount
50%	-46%
60%	-37%
70%	-28%
80%	-19%
90%	-10%
100%	0%

10.11 Other Options

A 20% loading is applied for Veterinarian Exam Fees Coverage

A 13.7% loading for Recovery & Complementary Care – acupuncture, behavioural assessment, chiropractic, homeopathy, hydrotherapy, naturopathy, physical therapy (rehabilitative therapy).

A \$4.95 for Pet Owner Assistance Rider include third party property damage liability, advertising and reward, boarding fees, holiday cancellation costs, and pet cremation or burial.

11 Innovation

11.1 Dog Trackers

GPS Dog Trackers allow you to track down your pet. This is particularly useful for two purposes:

- recovery of a lost pet quickly and potential protect your pet from injury and
- also as a method of tracking the activity of the pet in regards to exercise. A healthy pet potentially could warrant a cheaper premium. Particular with the growing issue of obesity.

Trackers can also track activity, rest, compares your dog's activity to that of others helping owners understand their dog's health and also offer more information to their vet¹⁸⁹.

In the UK, an insurer is offering a 20% discount on pet insurance for dogs wearing GPS collars ¹⁹⁰.

11.2 Pre-Existing Assessment

New Ways to Assess Pets' Conditions Recently, there have been new ways to assess pets' conditions, such as basing it on a short video recording taken on your phone that is uploaded. This may allow more efficient assessment processes for some pre-existing conditions¹⁹¹.

¹⁸⁹ (Bow Wow Meow Pet Insurance, 2018)

¹⁹⁰ (JP Morgan Taylor Fry, 2015)

¹⁹¹ (Konstantinidis, 2024)

12 Fraud

Some examples of pet insurance fraud¹⁹²:

12.1 Identification Issues

An owner of multiple pets may only buy one pet insurance policy. They may try to claim for each pet on the same policy. It is a challenge to identify whether a pet that is presented in practice is the pet that the owner claims is insured. Microchipping is one way of controlling this ¹⁹³.

12.2 Fabricated Claim

Claims made to pay the owner direct after fabricating a claim and using veterinary practice headed paper and forging a veterinary surgeon's signature. Another area of fraud is using the same veterinary documents across multiple insurers. A database of claims images across insurers could be helpful in tackling this area of fraud.

12.3 Pre-existing Conditions

As with most insurance making a claim on something that has happened is a common area of fraud. The waiting period which can be 30 days for some conditions and 6 months for other conditions limit this risk. Where there is no waiting period the time of taking out the policy and the time of the appointment arranged with the vet can be very important to record to avoid insuring claims that had occurred before the policy period.

12.4 Non-Existent Pet

Loss by theft or straying claims made when either this had not happened or the insured did not even have a pet and had taken out a policy with the intention of making a fraudulent claim.

12.5 Staff Fraud

In the UK¹⁹⁴ it was noted claims forms ask for "a vet or authorised person's signature", which makes completing claims in practice less time consuming, as often the responsibility of completing insurance forms is delegated to nurses or other staff members. However, some underwriters will demand only the treating vet signs the form. This can be a challenge if the treating vet is on holiday when the claim was left, or if it was treatment given by a locum vet. This is a fraud control in that the vet is expected to have a higher professional standard than a staff member who may feel they are helping out a customer.

12.6 Overcharging

Where vet expenses are excessive, higher than normal or are not required claim payments. A control in the BUPA policy advises reimbursement will be adjusted and paid based on the reasonable and customary Treatment or fees typically charged for the Treatment of that Condition¹⁹⁵.

¹⁹² (Tottey, 2012)

¹⁹³ (Tottey, 2012)

¹⁹⁴ (Tottey, 2012)

¹⁹⁵ (BUPA, 2018)

13 Data Capture

To ensure policies can be administered, priced and claims managed correctly. The following data items should be captured¹⁹⁶:

- Plan Type
- · Options selected
- Policy Number/Pet Identification Number for each pet
- Chip Number Electronic chip details to identify the right pet. If they have one.
- Birth Date: The date of birth of each insured pet
- Policy Date: The date that each pet was first insured by this particular insurer
- Breed: The breed type for each dog or cat. There are over 280 different breeds. For mixed breeds
 there may need to be a freeform field and whether the breed was assessed by a vet.
- Territory: The postal code region for each dog's owner
- Transaction Date: The date when a dog was treated for an accident related injury, an illness or when death was reported (This date is used in our study to represent the date of accident, illness or death as well as the claim date.)
- Type of Claim: By accident, illness, death, wellness
- Details of Claim:
 - o 70 different types of accidents,
 - 411 different types of illnesses
 - o two causes of death (by accident or by illness)
- Treatment Cost: The actual cost of an individual treatment that occurred at the Transaction Date
- Deductible Paid: The amount of deductible that was paid by the policyholder for an individual treatment that occurred at the Transaction Date
- Coinsurance Paid: The amount of coinsurance that was paid by the policyholder for an individual treatment that occurred at the Transaction Date 2 Claim
- Amount Paid: The amount that the insurer paid to the policyholder for an individual treatment that occurred at the Transaction Date (Note that the Treatment Cost = Deductible Paid + Coinsurance Paid + Claim Amount Paid.)
- Exposure Unit: The total exposure for all insured animals expressed as total number of months.

¹⁹⁶ (Pai & Shand, 2004)

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