trupanion™
2022 Annual Report

TABLE OF CONTENTS

Introduction and Glossary 1
2022 Annual Shareholder Letter 2
- 2022 Financial Performance 2
- Trupanion North American Subscription Business 6
- Our Other Business 9
- New Initiatives 11
- Non-Pet Acquisition Spend 16
- Pet Acquisition Spend 19
- Intrinsic Value Per Share 21
- In Summary 29

2020 Shareholder Letter 34
- 60-Month Strategic Plan (2021 – 2025) 35

INTRODUCTION & GLOSSARY

This letter, like all previous shareholder letters, has been written with the assumption (well, hope, really!) that the reader has consumed the previous letters in sequential order. Attached to this letter is our 2020 letter, which outlined our 60-month plan, month 1 being January 2021 and month 60 being December 2025. If you are an existing owner of Trupanion, or you are seriously considering becoming an owner of Trupanion, I urge you to consume all of our previous letters. If you have read them all before, it is probably still a good idea to re-familiarize yourself with our 60-month plan, which is attached to the end of this document in the form of my 2020 Annual Shareholder Letter. Thank you in advance.

Throughout this letter, I reference ways in which we have earned capital, raised capital and deployed capital. In context of these discussions, here are some terms that you are going to see throughout this year's letter:

Adjusted operating income ("AOI"): Non-GAAP term for the discretionary profit (pre-tax) we earn from our existing pets before we often choose to spend money to acquire new pets or invest in new growth initiatives.
Pet acquisition spend: Our total sales and marketing expense shown on our income statement for our subscription business, minus stock-based compensation expense and a sign-up fee. When divided by the total number of new subscription pets enrolled in a given period, we refer to this as our pet acquisition cost ("PAC"). This is a one-time expense.
Internal rate of return ("IRR"): Calculation used to evaluate the return on an investment over time. Referred commonly throughout this letter in relation to our estimated return on our pet acquisition cost for a single, average pet. Calculated on a trailing twelve-month basis.
Development expense: Expenditures related to new products, partnerships and distribution channels that are pre-revenue and expensed on our income statement.
Non-pet acquisition spend: Combination of development expenses, capital expenditures, acquisitions of new companies and equity investments in initiatives pertaining to our 60-month plan.
Capital Expenditures ("CAPEX"): Capitalized investments, mainly internally-developed software, that are capitalized on our balance sheet and then depreciated over time on the income statement.
Free cash flow: Cash we generate from operations, net of any cash used on capital expenditures.
Investing cash flow: Cash spent or generated relating to investment activities, including acquisitions, fixed-income securities and investments in long-term assets that will deliver value in the future.
Financing cash flow: Cash used or generated to fund the company and its capital, including debt and equity financing, as well as dividends and share repurchases.
Cash generated / used: Sum of our cash flows from operations, investing and financing.
Intrinsic value: Our calculation of how much our business is worth, irrespective of the public markets. Calculated as the sum of 15-years of estimated future cash flows and discounted back to present. Also presented on a per share basis to account for dilution.

TO OUR SHAREHOLDERS

October 26th, 2020, we raised approximately $192 million of capital from Aflac, a strategic partner. With fresh capital and a new 5-year plan in hand, we hit the ground running in 2021. Twenty-four months into our 60-month plan, our annual revenue has grown from $502 million to $905 million. During these 24 months, we have produced $168 million of discretionary profit (our non-GAAP term which refers to adjusted operating income “AOI”). Since the $192 million equity infusion, we have invested $150 million acquiring new subscription pets at strong internal rates of return, as well as an additional $121 million doubling our addressable market for the next few decades.

2020 – 2022 Cash Inflow / (Outflow)	
Capital expenditures	($37)
Development	($12)
Changes in working capital and other	$3
Acquisitions	($64)
Other Investing	($6)
Financing excluding equity infusion	($5)
Total	**($121)**

The $121 million has primarily been invested in pre-revenue development expenses, capital expenditures in the form of capitalized software investments, and the acquisition of three companies. As a result of these investments, we now have enrolled pets in Germany, Switzerland, the Czech Republic, and Slovakia. A partnership agreement, through our strategic alliance with Aflac, has been signed in Japan and the team is working on our go-to-market as I write. We have launched two suites of white label partner products (“Powered by Trupanion”) that are being sold in new and distinct distribution channels to us. In addition, we have created, and are learning to sell, two fully-owned, direct-to-consumer brands with low and medium levels of coverage.

I expect that 2022 will be the high water mark on these outsized investments, with our 2022 cash consumption at $54.1 million. As shown below, in our 9 years as a public company, we are bookended with having net cash outflows in the early years, followed by 5 years of net cash inflows, then 2 more years of cash outflows. 2023 should see a slowdown of our non-pet acquisition spend as we transition from foundation building in our 60-month plan to the early growth stages.

Looking specifically at 2022, total revenue grew 29% over the prior year to $905 million. Adjusted operating income grew 14% year-over-year to $89 million. We deployed $80 million of this discretionary profit within our subscription business at an estimated internal rate of return (IRR) of 30%.

Evaluating these metrics, in a year marked by widespread volatility, revenue growth and IRR were remarkably consistent, while the year-over-year growth of adjusted operating income was disappointing to me. In last year's letter, I highlighted the importance of our adjusted operating income, writing:

> ***"The single most important period-over-period financial metric that I look at is our adjusted operating income.*** **Our Adjusted Operating Income (AOI) - our own self defined non-GAAP term - is a financial metric** ***that we use to manage the business. It represents discretionary profit (pre-tax) we earn from our existing pets before we spend money to acquire new pets or invest in new growth initiatives."***

Adjusted operating income also serves as a proxy for our value creation. Two years ago, when we introduced our 60-month plan, we outlined a path to a stretch goal of 25% year-over-year growth in intrinsic value per share. Our adjusted operating income has grown from $57 million to $89 million over this time, which turns out to be a 25% compounded annual growth rate—BUT it is important to note that our margin compression in 2022 meant that our one-year growth rate was only 14%.

As I have stated in previous shareholder letters, I am happy when we grow intrinsic value per share at 20% year-over-year. I am ecstatic when we grow 25%+. I am disappointed when growth is below 15%. I hold these expectations not because we anticipate world-class execution, but rather because we operate in a very large (and through our acquisitions, doubling) under-penetrated market. We solve a growing problem for pet owners and veterinarians. We have worked decades to create unique moats around the business, and most importantly we have a business model that with the appropriate focus, delivers strong internal rates of return.

In my 2018 letter, I noted the following, which remains true today:

> ***"In short, although execution is hard for any company, we are fortunate to live in a world where we solve a complex problem in a large, under-penetrated market, with a direct-to-consumer monthly recurring revenue business model. These three attributes of our business hide many of our short-term tactical mistakes. In other words, our business model makes us look good!***
>
> ***For me, I am less concerned with wins or losses over a short period of time or in a particular subject. I am more focused on monitoring our progress in pursuit of long-term goals. We're always juggling, always measuring, always learning. Two steps forward and one step back is progress."***

With this in mind, stepping back and taking a multi-year viewpoint, we are on track to achieve most of the goals we set out in our 60-month plan. Our adjusted operating income has grown 56% over the last two years. In this letter, you will hear how we've grown the number of active hospitals in North America to nearly 16,000, that our retention rates remain strong and that our brand continues to grow in a healthy way, with increased conversion rates as well as strong growth of pet owners referring friends and adding pets. You'll hear more about our new brands and new channels to reach, and help, more pet owners, and our progress in doubling our addressable market adding Europe and, fingers crossed, Japan as new territories. By my estimation, our foundational work is two-thirds completed. The next 36 months will see us narrow our focus to the deployment of new pet acquisition spend in a disciplined way across all products, distribution channels, regions, and countries.

With this as a backdrop, I present our key consolidated business metrics on a historical basis:

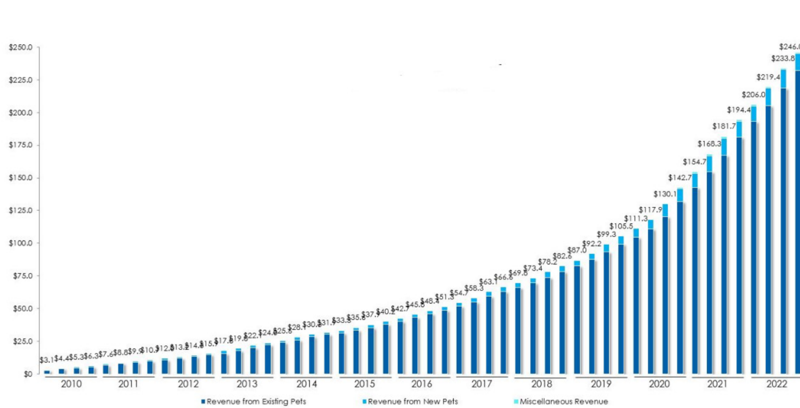
Consolidated	2014	2015	2016	2017	2018	2019	2020	2021	2022
Revenue	**$115,900,000**	**$147,000,000**	**$188,200,000**	**$242,700,000**	**$304,000,000**	**$383,900,000**	**$502,000,000**	**$699,000,000**	**$905,200,000**
YoY Change	38%	27%	28%	29%	25%	26%	31%	39%	29%
Minus paying veterinary invoices	($79,700,000)	($103,100,000)	($133,300,000)	($169,800,000)	($214,000,000)	($270,200,000)	($350,000,000)	($481,500,000)	($645,700,000)
Minus paying variable expenes	($16,000,000)	($18,400,000)	($21,400,000)	($29,300,000)	($37,700,000)	($47,700,000)	($68,500,000)	($106,000,000)	($131,000,000)
Minus paying fixed expense	($19,300,000)	($21,900,000)	($18,800,000)	($20,300,000)	($20,400,000)	($21,700,000)	($26,400,000)	($33,000,000)	($39,200,000)
Discretionary Profit (AOI)	**$900,000**	**$3,600,000**	**$14,800,000**	**$23,400,000**	**$31,900,000**	**$44,200,000**	**$57,100,000**	**$78,500,000**	**$89,300,000**
YoY Change	N/A	310%	317%	58%	36%	39%	29%	37%	14%
Discretionary Profit Margin (AOM)	0.7%	2.4%	7.9%	9.6%	10.5%	11.5%	11.4%	11.2%	9.9%
Capital deployed to acquire new pets (PAC)	**$11,100,000**	**$14,800,000**	**$14,700,000**	**$18,400,000**	**$23,700,000**	**$33,300,000**	**$45,100,000**	**$69,500,000**	**$80,400,000**
YoY Change		34%	0%	25%	29%	41%	35%	54%	16%
Estimated IRR of PAC			**33%**	**43%**	**46%**	**40%**	**41%**	**36%**	**30%**
Cash after new pet aquisition	**($10,200,000)**	**($11,200,000)**	**$100,000**	**$5,000,000**	**$8,200,000**	**$10,900,000**	**$12,000,000**	**$9,000,000**	**$8,900,000**
Capital expenditures - All others	($5,600,000)	($4,900,000)	($1,900,000)	($3,100,000)	($4,370,000)	($5,400,000)	($7,500,000)	($12,400,000)	($17,100,000)
Capital expenditures - Building					($52,530,000)				
Development	$0	$0	$0	$0	$0	$0	$0	($3,700,000)	($7,800,000)
Changes in operating assets and liabilities	$1,100,000	$1,300,000	$5,000,000	$4,900,000	$4,600,000	$5,400,000	$11,200,000	$4,700,000	($8,700,000)
Other	($1,700,000)	($500,000)	($100,000)	($300,000)	($200,000)	($100,000)	($1,600,000)	($2,500,000)	($400,000)
Free Cash Flow	**($16,400,000)**	**($15,300,000)**	**$3,100,000**	**$6,500,000**	**($44,300,000)**	**$10,800,000**	**$14,100,000**	**($4,900,000)**	**($25,100,000)**
Investing cash flows	**$1,900,000**	**($700,000)**	**($300,000)**	**($2,100,000)**	**($7,200,000)**	**($7,200,000)**	**($48,200,000)**	**($2,000,000)**	**($19,600,000)**
Financing cash flows	**$76,000,000**	**$700,000**	**$3,100,000**	**$1,400,000**	**$67,700,000**	**$1,300,000**	**$197,200,000**	**($1,100,000)**	**($7,900,000)**
Effect of Fx	$0	($600,000)	$100,000	$400,000	($800,000)	$400,000	$0	$300,000	($1,500,000)
Cash generated / (Cash used)	**$61,500,000**	**($15,900,000)**	**$6,000,000**	**$6,200,000**	**$15,400,000**	**$5,300,000**	**$163,100,000**	**($7,700,000)**	**($54,100,000)**
Cash & Investments									
Piggy Bank - Insurance Co's	$30,900,000	$38,800,000	$50,200,000	$63,300,000	$78,400,000	$97,900,000	$ 129,000,000	$ 167,800,000	$ 203,600,000
Piggy Bank - Holding Company	$45,500,000	$6,800,000	$6,200,000	$3,800,000	$7,700,000	$6,700,000	$ 112,600,000	$ 58,300,000	$ 36,400,000
New Ins Co Funding							$ -	$ 7,800,000	$ 9,300,000
Building Value					$ 62,000,000	$ 61,700,000	$ 61,000,000	$ 60,400,000	$ 59,200,000
Minus Debt - Holding Company	$ (14,900,000)	$ -	$ (4,800,000)	$ (9,300,000)	$ (12,900,000)	$ (26,100,000)	$ -	$ -	$ (69,500,000)
Cash and building minus debt[1]	**$ 61,500,000**	**$ 45,600,000**	**$ 51,600,000**	**$ 57,800,000**	**$ 135,200,000**	**$ 140,200,000**	**$ 302,600,000**	**$ 294,300,000**	**$ 239,000,000**
Statuatory Capital & Surplus - Insurance Co's	**$ 23,700,000**	**$ 28,100,000**	**$ 32,900,000**	**$ 40,400,000**	**$ 60,100,000**	**$ 78,300,000**	**$ 98,600,000**	**$ 131,700,000**	**$ 171,400,000**
Required Statuatory Capital & Surplus - Insurance Co's[2]	**$ 23,700,000**	**$ 27,800,000**	**$ 29,500,000**	**$ 26,500,000**	**$ 60,000,000**	**$ 62,600,000**	**$ 88,500,000**	**$ 129,300,000**	**$ 158,700,000**

1) The ending cash balance (cash and building minus debt) plus / (minus) the cash generated / (cash used) in a given period will not reconcile to the subsequent year balance due to the decline in our building value period-over-period as a result of depreciation.

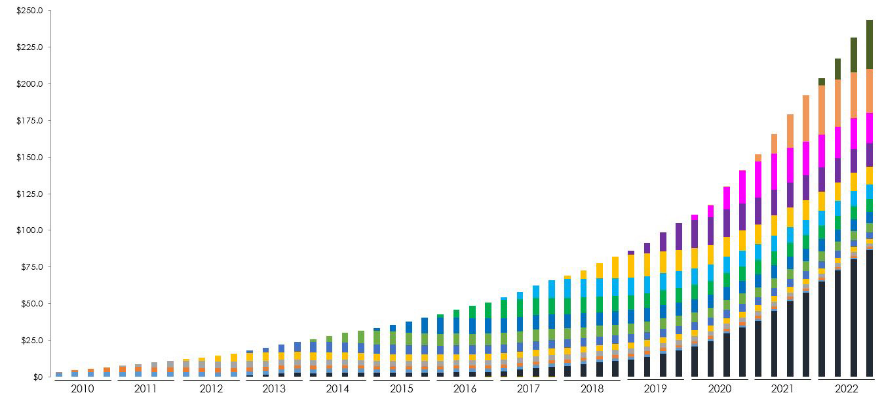
2) Approximate amount required by different departments of insurance; these amounts may change over time.

Those familiar with prior shareholder letters will recognize the following charts. As we've noted before, our business model and large, underpenetrated market makes us look good.

Total Revenue by Quarter ($ in millions)



Quarterly Premium by Policy Start Year Cohorts ($ in millions)



To best understand our 2022 performance in isolation, we need to break the company into 3 sections:

1. *Our core Trupanion direct-to-consumer, monthly subscription business in North America.*
2. *Our other business, which are our business-to-business partner offerings with different margin profiles than our subscription segment.*
3. *New initiatives, which include additional products and distribution channels in North America, as well as international expansion.*

TRUPANION NORTH AMERICA SUBSCRIPTION BUSINESS

Our Trupanion direct-to-consumer, monthly subscription business in North America grew its revenue 20% year-over-year from $495 million to $595 million. Adjusted operating income grew 11% to $79 million. We invested $78 million acquiring approximately 249,000 new pets at an estimated 30% internal rate of return.

Looking at the chart below, you will see that our year-over-year revenue growth has averaged about 25% over the last 9 years. You will also notice that our adjusted operating margin dropped by approximately 110 basis points this year. This was due to challenges we faced to effectively price for the inflationary cost of veterinary care coming out of Covid. While our goal coming into the year was to hit our long-standing adjusted operating margin target of 15% in 2022, we instead achieved 13.3%. This was the first time we have seen margin compression since being a publicly traded company.

> *"Our direct-to-consumer monthly subscription business is the largest component (of our current business) and where most of the value is created… For me, our core monthly subscription business is like 'groundhog month'. The recurring nature of our business model allows for incremental improvements of individual initiatives. Higher ARPU, more active hospitals, improved same store sales, expansion in our adjusted operating margin, reduced churn, and greater member referrals and new pets added are the key metrics that will help us outperform."*
>
> *– Darryl Rawlings, 2019 Shareholder Letter*

Trupanion - North America	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Revenue	**$103,500,000**	**$133,400,000**	**$173,400,000**	**$218,400,000**	**$263,700,000**	**$321,200,000**	**$387,700,000**	**$494,800,000**	**$595,300,000**
YoY Change	35%	29%	30%	26%	21%	22%	21%	28%	20%
Minus paying veterinary invoices	($74,000,000)	($95,200,000)	($124,400,000)	($155,200,000)	($190,500,000)	($231,700,000)	($277,900,000)	($351,900,000)	($432,300,000)
Minus paying variable expenes	($10,900,000)	($14,000,000)	($16,600,000)	($21,100,000)	($24,600,000)	($29,400,000)	($35,400,000)	($48,500,000)	($58,100,000)
Minus paying fixed expense	($17,300,000)	($19,900,000)	($17,300,000)	($18,200,000)	($17,700,000)	($18,200,000)	($20,400,000)	($23,400,000)	($25,800,000)
Discretionary Profit (AOI)	**$1,300,000**	**$4,300,000**	**$15,000,000**	**$23,800,000**	**$31,000,000**	**$41,900,000**	**$54,000,000**	**$71,000,000**	**$79,100,000**
YoY Change		210%	247%	59%	30%	35%	29%	31%	11%
Discretionary Profit Margin (AOM)	*1.3%*	*3.2%*	*8.7%*	*10.9%*	*11.7%*	*13.0%*	*13.9%*	*14.4%*	*13.3%*
Capital deployed to acquire new pets (PAC)	**$10,900,000**	**$14,700,000**	**$14,500,000**	**$18,400,000**	**$23,300,000**	**$32,900,000**	**$44,200,000**	**$68,800,000**	**$77,600,000**
YoY Change		34%	-1%	25%	27%	41%	34%	55%	13%
Estimated IRR of PAC			**33%**	**43%**	**46%**	**40%**	**41%**	**36%**	**30%**
Cash after new pet aquisition	**($9,600,000)**	**($10,400,000)**	**$500,000**	**$5,400,000**	**$7,700,000**	**$9,000,000**	**$9,800,000**	**$2,200,000**	**$1,500,000**
Capital expenditures	($5,300,000)	($500,000)	$17,800,000	$24,900,000	$32,000,000	$2,200,000	($7,500,000)	($11,400,000)	($13,200,000)
Cash generated / (Cash used)	**($16,400,000)**	**($15,300,000)**	**$3,100,000**	**$6,500,000**	**$8,300,000**	**$10,800,000**	**$2,300,000**	**($9,200,000)**	**($11,700,000)**

Multiple factors made hitting a 15% adjusted operating margin more challenging this year. It started several years ago with the decrease in the number of visits per 1,000 enrolled pets during Covid. As a reminder, the combination of invoice size (what veterinarians charge) and the frequency of accident and illness (number of visits per 1,000 pets per month) related to veterinary visits, make up our cost of claims.

The temporary drop in frequency reflected challenges faced by veterinarians as they moved to curbside service, experienced staffing challenges, and had reduced capacity. This meant pet owners who would otherwise visit the veterinarian for non-life-threatening clinical symptoms instead monitored health issues at home, only to visit the veterinarian if their pet's symptoms became worse. As we typically use our historical data to predict future cost of veterinary care, this prolonged drop in frequency had us underestimate the number of visits we should have expected coming out of Covid.

At the same time, this temporary drop in frequency masked rising average invoice size across our existing book. This was easier to overlook at first, especially when relying on backwards looking data, but less so as the rate of inflation in veterinary care accelerated through the year.

The second challenge was the impact of the change in our mix of business. As we continued to price our product at a more granular level, in particular moving to neighborhood pricing, we lowered prices in areas with a lower cost of care and raised prices in higher cost of care areas—always with the goal of providing the same value proposition (71%) to our average cohort. As a result, we saw increased growth in lower priced, and typically lower income areas, and slower growth in higher income, higher cost areas, as our value proposition was priced more accurately to our 71% target. An increase in the percentage of veterinary invoices from these lower cost pets muted our year-over-year blended cost of goods making it less obvious that year-over-year inflation was occurring. Our focus on neighborhood pricing necessitates that we look at our cost of claims in a much more granular way.

The third and final factor was the rapid percentage increase in the number of invoices coming through our software, as well as an increased percentage of veterinary invoices being fully automated during 2022. As we are paying more hospitals directly, on day one of the invoice, it changes our invoice arrival patterns making it more difficult for us to determine when we have received the total number of invoices for a given period. I'll explain.

In any given month, we incur an average number of claims per thousand pets. Generally, this number doesn't fluctuate much month to month (outside of some very minor seasonality) because pets don't get sick or injured more often. We typically receive the majority (but not all of these claims) in the month the claim incident is incurred. We then must make an estimation for the remaining claims we will receive. In insurance talk, we refer to this estimation as "IBNR", or "incurred but not reported".

When we install our software, we speed up the process of receiving claims. Normally this just shifts arrival patterns into the current month, but because we were relying on data from a period of time where claims frequency was temporarily reduced, it caused us to under-estimate our IBNR, or number of invoices we should have expected.

With the combination of these challenges, it is understandable why we had less success in hitting our AOM target, but that does not make it OK. Pricing is a core competency of ours—we pride ourselves on it—and we came away with many learnings. First and foremost, we must take advantage of one of our core moats—our relationships with the veterinary community. Through our territory partners and their associates, we have eyes and ears on the ground and a direct line of communication with veterinarians and their staff. Second, we must use all sources of data, not just historical claims data, to help us predict the future cost of veterinary invoices. Last, and most importantly, we need to segment our business into many more P&L's, with distinct and empowered leaders to give us the appropriate magnification into each area of our business. You'll recall this shift from one to many P&L's was a core strategy in our 60-month plan.

While I am disappointed that we took a step backwards from our margin target this year, as with most anything, these executional challenges are not a zero sum game. If in five years from now, our ability to monitor and predict trends in veterinary care is exponentially ahead of where we'd otherwise have been, then great! While I am disappointed today, I'll be thrilled if we learn our lesson and collectively become a better company because of it.

Relatively speaking, our 110 basis points of margin compression and 170 basis point miss to our target would be, by most standards, considered "little". We however, operate (or try to operate) within very tight guardrails.

As the impacts of inflation took hold and the frequency of visits normalized, our margins began to be impacted, reducing our lifetime value of a pet in the back half of the year. Staying true to our IRR guardrails of 30-40%, we pulled back on our planned pet acquisition spend. On a per pet basis, the contraction in our margin translated into lower lifetime value and lower allowable PAC spend.

Consider the following:

	Lifetime Value of a Pet (LVP)		Pet Acquisition Cost (PAC)	
	$	% YOY	$	% YOY
Q1	$730	7%	$301	8%
Q2	$713	5%	$309	9%
Q3	$673	(3%)	$268	(4%)
Q4	$641	(11%)	$283	(8%)

Our total pet acquisition cost for our Trupanion brand was $78 million in 2022, up from $69 million in 2021, an increase of just 13%. Our calculated internal rate of return—which is determined by our adjusted operating income, retention rates, lifetime value of a pet and average pet acquisition cost—was at the bottom end of our guardrails at 30%. If we had hit our margin target, we would have expected to deploy $78 to $90 million acquiring pets, with less pressure on our internal rate of return.

This is why I am disappointed in our margin performance. Our inability to effectively price coming out of Covid means significantly less capital available to grow our business. As you know, growing our discretionary profit and deploying greater sums at our high internal rates of return, is what drives our value creation. For the benefit of future growth in revenue, adjusted operating income and intrinsic value per share, we would have liked to have deployed more pet acquisition spend in 2022! I'll circle back to this point in a bit.

OUR OTHER BUSINESS

Our other business in 2022 grew revenue 51% year-over-year. Adjusted operating income grew 32% year-over-year to $10 million. The majority of the business in this segment has been driven from a third party which we have partnered with for several years. Earlier in our lifecycle, underwriting this business helped provide scale in our data and fixed expenses. When we originally structured our deal, we didn't fully contemplate the impact of higher growth rates on our required capital.

As insurance revenues grow, so does the need for capital reserves. The amount of capital that is required is greater when growth rates are higher. Historically, we have had our underwriting company(s) put aside approximately 5% of revenue each year. The table to the right shows the approximate amount of money that needs to be put aside if we were to self-fund our capital requirements with zero debt or re-insurance.

Revenue growth*	% of revenue required to self-fund capital requirements**	% of revenue held to meet minimum capital requirements**
10%	1.4%	14%
15%	2.3%	15%
20%	3.2%	16%
25%	4.3%	17%
30%	5.4%	18%
35%	6.7%	19%
40%	8.0%	20%

**The risk-based capital calculation is based off of a three-year average revenue growth rate.*
***Assumes risk-based capital target remains the same year-over-year. Estimated based on 2022 experience. Minimum capital requirements are subject to change.*

As you can see, if growth rates are 25% or less, then holding 5% would eventually build up a surplus of capital (more than we would otherwise need to meet consistent risk-based capital requirements). If growth is 30% or more a year, then 5% would be insufficient, and we would need to transfer money from our holding company(s) piggy bank to our insurance company(s) piggy bank. This has been occurring for several years.

If revenue growth had been 10-15%, this partnership could have been accretive to our cash flow. At their actualized rates of growth, however, this was not an effective way to grow our balance sheet. Partnering with them when their growth is high requires extra money to sit in a dedicated insurance company piggy bank which we cannot easily access.

The rationale for this reserve makes sense given that many companies grow quickly by selling insurance that is underpriced—meaning that they therefore typically have a greater need to access the cash in the piggy bank in order to live up to their member promises.

Over the last three years, we have been required to add approximately $43 million to this piggy bank. After paying for an estimated $27 million in fixed expenses over that same time period, this business generated only $13 million in AOI.

"As we have already said, this segment on its own produces OK results, but I would certainly not describe it as compelling."

– Darryl Rawlings,
2019 Shareholder Letter

Other Revenue - North America	2014	2015	2016	2017	2018	2019	2020	2021	2022
Revenue	**$12,400,000**	**$13,600,000**	**$14,900,000**	**$24,300,000**	**$40,200,000**	**$62,800,000**	**$114,300,000**	**$204,100,000**	**$308,600,000**
YoY Change	67%	9%	10%	63%	65%	56%	82%	79%	51%
Minus paying veterinary invoices	($5,700,000)	($7,900,000)	($8,900,000)	($14,600,000)	($23,500,000)	($38,500,000)	($72,100,000)	($129,600,000)	($212,900,000)
Minus paying variable expenes	($5,200,000)	($4,400,000)	($4,700,000)	($8,200,000)	($13,100,000)	($18,300,000)	($33,100,000)	($57,400,000)	($72,500,000)
Minus paying fixed expense	($2,100,000)	($2,000,000)	($1,500,000)	($2,000,000)	($2,700,000)	($3,600,000)	($6,200,000)	($9,600,000)	($13,400,000)
Discretionary Profit (AOI)	**($600,000)**	**($800,000)**	**($200,000)**	**($500,000)**	**$900,000**	**$2,400,000**	**$3,000,000**	**$7,500,000**	**$9,900,000**
YoY Change		33.3%	-70.0%	97.0%	-305.0%	-157.0%	29.0%	146.0%	32.0%
Discretionary Profit Margin (AOM)	-4.8%	-5.7%	-1.5%	-1.8%	2.3%	3.8%	2.7%	3.7%	3.2%
Capital deployed to acquire new pets (PAC)	$100,000	$100,000	$200,000	$200,000	$400,000	$400,000	**$800,000**	**$500,000**	**$600,000**
YoY Change		-25%	134%	0%	64%	20%	70%	-58%	42%
Cash after new pet aquisition	**($700,000)**	**($900,000)**	**($400,000)**	**($700,000)**	**$500,000**	**$2,000,000**	**$2,200,000**	**$7,000,000**	**$9,300,000**
Other uses of Cash									
Cash generated / (Cash used)							**$2,200,000**	**$7,000,000**	**$9,300,000**

For these reasons, we began working with our third-party partner in 2021 to come up with a mutually agreeable way to move forward. The compromise that we ultimately arrived at was to have our partner agree to keep its existing business with us for a minimum of three years and in exchange, they would move future business to a new underwriter or pay us a higher percentage of revenue for any new business underwritten by us moving forward. This will negatively impact our year-over-year total revenue growth, but will strengthen our balance sheet—not to mention the more immediate benefit of freeing up cash which we can re-invest at higher internal rates of return or use to satisfy regulatory requirements in our higher margin subscription business.

The growth rate in our low margin, B2B business applies to the capital surplus needs for our overall business. Said another way, when our other business drives our overall growth above 30%, it requires more capital reserves for our aggregate business. As the growth of our low margin, B2B business is expected to slow and decline over the next 3-5 years, we expect the opposite to occur. Our capital requirements will switch from a shortfall to a surplus, freeing up growth capital over the next few years.

For illustrative purposes, and based on the above table, if over the next twelve months we were to grow total revenue to $1 billion, we estimate we would need to hold approximately $170 million, compared to the approximate $171 million we held in statutory capital at the end of 2022. As a reminder, our surplus capital requirements are based on a 3-year average revenue growth rate. At this revenue level, we expect to hold sufficient capital to meet our requirements as currently defined and assuming our experience is in line with 2022. Also for illustrative purposes, if we were to grow revenue to $1.1 billion, we estimate we would need to hold approximately $198 million, or approximately $27 million more in statutory capital than what we held at year-end. This additional capital would equate to 2.5% of revenue.

NEW INITIATIVES

Subscription Products North America

In 2022, we launched our worksite benefit program in partnership with Aflac. Through this partnership, employers are able to offer a suite of three pet insurance products to employees as a payroll-deducted voluntary benefit. In the same year, in partnership with pet retailer Chewy, we launched a suite of five products that they began to introduce and sell to Chewy customers.

Lastly, we spent 2022 getting our arms around our two newer insurance products offering low and medium coverage, PHI Direct and Furkin, designed to be sold direct to consumers online. At the writing of this letter, both products are live in Canada with the goal of ensuring we can be disciplined in our approach to pet acquisition to earn a 30% – 40% internal rate of return before further North American expansion.

In totality, the revenue in 2022 from these new products and distribution channels was $1.1 million and we spent approximately $1.3 million on pet acquisition. Our negative internal rate of return shows why we have limited our spend! In 2022, the average LVP of our new subscription pets was just $64, driven by low retention. To optimize our returns, we will need to improve our conversion (i.e. lower PAC) and keep pets longer (increase LVP). With these products in market for just one year, we see a roadmap to doing so. But until we optimize our returns, we will not put our foot on the accelerator. Being disciplined in capital allocation is absolutely critical to building a sustainable business. You can't spend more than you expect to earn sustainably, and you certainly can't make it up with volume!

Other Subscription Products - North America	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Revenue									**$1,100,000**
YoY Change									
Minus paying veterinary invoices									($500,000)
Minus paying variable expenes								($100,000)	($400,000)
Minus paying fixed expense									$0
Discretionary Profit (AOI)								**($100,000)**	**$100,000**
YoY Change									-200%
Discretionary Profit Margin (AOM)									11%
Capital deployed to acquire new pets (PAC)							**$100,000**	**$200,000**	**$1,300,000**
YoY Change								69%	433%
Estimated IRR of PAC									**-68%**
Cash after new pet aquisition							**($100,000)**	**($300,000)**	**($1,700,000)**
Capital expenditures								($1,000,000)	($3,900,000)
Development								($2,800,000)	($5,200,000)
Cash generated / (Cash used)							**($100,000)**	**($4,100,000)**	**($10,800,000)**

Note: In the above view, we have isolated PAC spend to variable spend tied to these products. Starting salaries of approximately $0.5 million have been excluded from the above as the products are sub-scale. Cash after new pet acquisition is inclusive of the approximate $0.5 million in spend for starting salaries as it was a use of cash in the periods presented.

A quick note about scale.

Across all of these products in our 60-month plan, we will be targeting a 15% adjusted operating margin at scale. But how do we define scale, and when do we expect these businesses to achieve it?

Recall from my inaugural 2014 Annual Shareholder Letter our prior definition of scale:

> ***"In the next five years, we plan to achieve scale, which we define as 650,000-750,000 pets. At scale, our target is to have 5% fixed expenses and a 15% discretionary margin from our subscription business (before sales and marketing), with our discretionary income funding all our growth, including our capital requirements."***

At that point in our history, with our outsized fixed expenses, we were restricted in the use of IRR as a method to measuring the effectiveness of our capital deployment. Instead, we relied on PAC to LVP, but noted the limitations of this approach long-term. Also from our 2014 Shareholder Letter:

> ***"Internally, we think the PAC/LVP ratio is a little overstated as it uses the average contribution dollar and omits the cost of our fixed overhead. It is useful to show the potential before we are fully at scale and that is why we report it, BUT it is flawed because it does not account for the cash required to operate our fixed expenses. For these reasons, we are most concerned with the internal rate of return (IRR) for incrementally adding an average pet."***

As we think about capital deployment for our new businesses and products, we intend to deploy a similar approach, omitting the costs of fixed overhead while these businesses are sub-scale. In essence, we'll once again leverage LVP: PAC to help guide our spend.

And also true to how we've managed the business historically, we'll have guardrails in place to ensure we are on track to deliver scale within a "reasonable" timeframe. As with anything, the big question is what is considered "reasonable"?

Certainly it would be reasonable to expect we're able to achieve scale much quicker and more efficiently than that of our core business. Recall from our 2020 Annual Shareholder Letter:

> ***"Our ability to operate at scale means that we are now able to support the development of new brands and accelerate their growth curve—which also allows the broader Trupanion family to grow."***

With this in mind, we think about scale in a couple of different ways:

- By number of pets. By the time we reach approximately 10,000 – 15,000 total enrolled pets in each of our new products, we would expect to achieve scale.
- By time spent relative to cash burn. We are fortunate that our large, underpenetrated market affords us a long runway for growth. We're happy to grow slower and invest at a more measured pace—similar to our approach in Australia. If the rate of burn is at a fraction of our AOI (think less than half a percent), we can invest for years ahead of achieving scale. Of course, it is our hope that our current structure will allow us to get to scale quicker than if these businesses were run independently. The more cash we burn, the quicker we must achieve scale to ensure a return on our investment.

Once scale is achieved, and adjusted operating margins approximate 15%, we will use our target IRR to back into our desired PAC spend for a pet.

International Business

In our 60-month plan, we outlined our goal to double our addressable market (defined by number of veterinary hospitals) by the end of 2030. In terms of our strategy, it is simple: we will look to geographies where we can leverage our moats and our vet-centric approach to solve the problem faced by so many pet owners – how to budget for unexpected veterinary costs.

A little over 24 months into our 60-month plan, I am excited to say that we have laid the groundwork for the doubling of our addressable market. Our international business made especially good strides in 2022 with the purchase of two small, like-minded marketing companies that provide pet insurance in cooperation with veterinarians. As these are currently organized as marketing companies writing their business through a 3rd party insurance underwriter, the revenue and adjusted operating margins will look different than that of our traditional subscription business. In the next 18 to 24 months, we intend to get our own underwriter licensed in Continental Europe, at which point we would recognize 100% of revenue on our P&L instead of the approximate 30% of revenue we report today.

At the end of 2022, we had approximately 29,000 pets enrolled in Germany, Switzerland, the Czech Republic, and Slovakia. By the end of this year, we expect to be live in several more European countries and we will have grown our addressable market (calculated by veterinary hospitals) from 28,000 at the start of 2022 to over 50,000.

In addition to our European efforts, we have two joint ventures in Asia. A 50/50 partnership in Australia with Petsure and a similar arrangement in Japan with Aflac. Australia had approximately 3,300 pets at the end of 2022 and the Aflac joint venture in Japan is still being developed. If we are successful in moving forward with our partnership in Japan, we'll add another 10,000 plus veterinary hospitals to our addressable market. As joint ventures, the revenue, adjusted operated income, pet acquisition spend, and profit and loss won't be reported in our GAAP financials the same way as our typical subscription business. Nonetheless, we are pleased with the progress being made in bringing the Trupanion brand, and the quality of member experience it is known for, to the Australian market and look forward to seeing the continued expansion in the years ahead.

International	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Revenue									**$200,000**
YoY Change									
Minus paying veterinary invoices									$0
Minus paying variable expenes									($100,000)
Minus paying fixed expense									$0
Discretionary Profit (AOI)									**$100,000**
YoY Change									
Discretionary Profit Margin (AOM)									54%
Capital deployed to acquire new pets (PAC)									**$400,000**
YoY Change									
Estimated IRR of PAC									
Cash after new pet aquisition									**($300,000)**
Development								($400,000)	($2,100,000)
Investing Cash Flows						($200,000)		($200,000)	($16,100,000)
Cash generated / (Cash used)						**($200,000)**		**($600,000)**	**($18,500,000)**

In totality, we have invested approximately $19 million in our international efforts, with the bulk of that spend occurring in 2022. It is my expectation that 2022 will be the biggest year of investment in our international expansion, with non-pet acquisition spend tailing off to under $10 million, in aggregate, in 2023 and through 2024.

NON-PET ACQUISITION SPEND

Non-Pet Acquisition Spend vs Pet Acquisition Spend

Throughout this letter, I have referred to our pet acquisition spend, which has totaled approximately $150 million over the last two years, and our non-pet acquisition spend, which has totaled $121 million since the Aflac equity infusion (also occurring a little over two years ago). With our pet acquisition spend, we have demonstrated consistent and repeatable evidence of our ability to deploy (invest) greater sums of capital year-over-year at consistently high rates of return. Said another way, we have a high degree of confidence that when we deploy capital to acquire new pets, we are increasing our intrinsic value per share. The more we deploy, assuming we remain within our 30% – 40% IRR guardrails, the more value we create.

I have considerably less visibility on the internal rates of return we may or may not earn from our non-pet acquisition spend. Let me dig into this a bit.

Non-Pet Acquisition Spend, Area 1

Of the $121 million in non-pet acquisition spend, the biggest percentage was invested in a software company we purchased for approximately $48 million (or approximately 40% of all non-pet acquisition spend). At the time of the acquisition, this software company had approximately $7 million of revenue, earned by providing software solutions (SAAS) via a monthly recurring revenue business model to companies like Trupanion, and $1 million in positive cash flow. Through the acquisition, we gained over 40 full-time team members, predominately developers, and access to another 60+ contract developers, with experience creating software to sell products in multiple countries and languages. Our expectation going into the acquisition was that we would have our Trupanion product up and running on a next generation software platform, "Vision", going into 2022. A bonus of the deal was our expectation that the company's existing revenues would largely cover the development costs. This was intended to be a strategic and net neutral purchase.

In 2021, when some of our partner initiatives became a reality, we used this platform to launch them—eventually coming to market in 2022. Both Aflac and Chewy were launched on the new platform—which was a good step forward. However, their prioritization over and above our core business caused us to be behind both in time and budget on the migration of Trupanion's existing North American business to Vision.

We now expect the build to be completed in 2023, over a year behind schedule, and significantly over-budget. By the time we come to market on the platform, we will have invested approximately $22 million more in capitalized software investments than we initially budgeted for.

Over the coming decade, this may turn out to be a great investment with returns manifesting in lower operating expenses, better member and partner communications and services, and ease of entry into new products, channels and markets. In short, we hope that it will set us up to be the definitive global player. Currently, it has proved more expensive and slower than we initially anticipated. Time will tell!

Non-Pet Acquisition Spend, Area 2

In our international expansion, we have invested approximately $16 million in two acquisitions in Europe. In the case of international expansion, we are fortunate to have our North American experience to help guide us and it is our plan to implement Trupanion's unique distribution strategy, centered on Territory Partners and veterinarians.

Our goal is to have continental Europe, Japan and Australia running at operational scale within about five years of coming to market, but as I mentioned earlier, this timeline may be a little longer or shorter depending on our level of cash burn. If we are able to deliver on this rough timeline, it would be well ahead of the 20 years it took us to achieve scale in North America. As a reminder, at operational scale, our adjusted operating margin is approximately 15% of revenue. We will need to be exceptionally diligent and focused to achieve this goal but we have a good plan to get us there.

Non-Pet Acquisition Spend, Area 3

Development expenses, which are the expenditures related to new products, partnerships and distribution channels that are pre-revenue, have consumed approximately $12 million over the last two years. These include our worksite benefits, online partners such as Chewy, and our new lower coverage brands. We believe these products and partnerships have strong potential to increase the acceptance of higher-quality pet insurance and offer the industry greater transparency. If successful, they are structurally designed such that our new pet acquisition spend will hit our internal rate of returns within a few years post-launch. While I have strong conviction in the teams' abilities to manage to our guardrails, it is more difficult for me to predict the time and likelihood of these areas becoming a meaningful part of our overall business.

Non-Pet Acquisition Spend, Areas 4 & 5

Two other areas where we have made investments are with our pet food initiative and our perpetually powered GPS pet tag. In total, we have invested approximately $14 million in these two areas over the last 5 years. The biggest investment was in equity of a small therapeutic pet food company working to develop a portion controlled, direct-to-consumer monthly subscription wellness food. If successful, over time we will have actuarial data to demonstrate the cost savings of feeding pets a healthy diet and can pass these savings along to members feeding our diets to their pets. It is our plan to have these wellness diets sold exclusively through partnering veterinarians and their staff. This opportunity is very large if we get it right. Pet owners spend 2x more on wellness diets than veterinary visits!

At this stage, our food partner has spent 4 years developing this new food. In January of this year, I personally attended the first pre-production manufacturing of this non-kibble formulation in Nebraska. Fingers crossed that like my earlier WD-40 example of innovation (2016 shareholder letter), we end up with a new product that is difficult to emulate and that will significantly improve the health of the pets we love so much.

Staying with the WD-40 example, it takes time to get the right formulation, and we've been humbled by the delays in bringing a worthy, high-quality product to market. I am, however, encouraged by the discipline we've approached the investment with, which I believe is appropriate given the size of the market we are addressing.

We are not limited to a winner-takes-all approach in our hypothesis that a good healthy diet actuarially deserves lower monthly cost of health insurance. In our view, any monthly subscription food (needs to be a monthly subscription so we will be assured that the pet is eating the food as their primary diet) where we can measure lower health costs compared to our average member will be able to earn a justifiable discount. We plan to introduce this concept to our members in the next 12 to 18 months and test our ability to sell top-quality, breed-specific kibble from a well-established and veterinary respected brand directly to our members—ultimately adding the cost of the food to their existing monthly charge. I expect many learnings from this effort!

Efforts on our GPS tag have stalled as we wait for technology to catch up with our intent—this means our patent-pending working prototype device will need to reduce in size and cost before we develop this further.

As was first laid out when we released our 60-month plan a couple years back, we have a lot to be excited about. With incremental growth levers like our international endeavors, we are playing within our wheelhouse, and with others, such as food, we will learn more about our company's ability to innovate in ways that make our members and their pets lives even better. Our international initiatives alone double the number of veterinary hospitals in our addressable market. The expansion of products and distribution channels have the potential to double it once again.

For these reasons, we feel that the collective $121 million investment we have made over the past two years with shareholders' money to be well thought out. I don't expect every investment will work, but in no single investment have we bet the farm either! Relatively speaking, we've made a handful of smaller bets that will undoubtedly provide us the opportunity to learn, innovate and become a much bigger, more defensible company as a result.

PET ACQUISITION SPEND

In 2022, we invested $80 million acquiring new pets, up from $69 million in the prior year. This small increase was only a 16% year-over-year growth rate and far below our 5-year average of 35%. As I had alluded to earlier, going into the year, we would have hoped to have deployed more. At our revenue growth rate, had AOM hit our target, the amount of capital deployed would have been in the range of $78 to $90 million (assuming we were spending within our guardrails). I'll reiterate, deploying greater sums of capital at our high internal rates of return is what drives our value creation.

We're hopeful we can accelerate our spend in 2023 to within these levels and at an average 35% internal rate of return. However, until we see margin expansion year-over-year, we will need to be cautious with our spend. This is especially true in today's capital markets. While growth is wonderful, cash is king...

We are agnostic to which product, distribution channel, region, or country we deploy this spend. The only thing we deeply care about is that our internal rates of return are above 30%. If we are able to deploy greater sums of capital than our 2023 or 2024 roadmap affords us, then we will prioritize those products, channels, regions, countries that earn internal rates of greater than 35%.

There is another factor that I have touched on in earlier shareholder letters that I think is timely to re-introduce. A pet is not just “a pet”. I bring this up because some observers of Trupanion can get excited about the number of new pets added in a period of time. I would caution against coming to that conclusion in isolation!

A pet, and their corresponding lifetime value, can—and will—vary dramatically based on the individual characteristics of that pet. And that’s before introducing varying levels of coverage (like Trupanion’s 2.0 product), products (like our suite of products with Chewy and Aflac) and new markets (like Continental Europe). To illustrate with a simple example, if we added 10,000 new pets and they were all cats instead of dogs, then it would be ridiculous for us to assume these 10,000 new cats are going to have the same lifetime value as dogs. Of course, we know this today, and our understanding of lifetime value is extremely granular. But our growth aspirations have us thinking about our approach to calculating our estimated internal rates of return for our mix of new pets in a much more granular way. Recall this discussion from our 2016 Annual Shareholder Letter:

“Beyond having the same value proposition for each subcategory, we also try to get the same IRR on the money we invest to acquire pets in each subcategory…. What we report to our shareholders is our blended total for all of our subcategories. We will be really good when we can modulate our mix of business and accelerate our growth in high LVP subcategories, while slowing growth in our lower LVP subcategories.”

Take our goal to enroll thousands of new pets in Czech Republic as another example. In this example, our approach to pricing will not be unlike that of our approach in North America. We will start off broad and get more granular, largely by neighborhoods. What we do know, is that the average cost of veterinary care in the Czech Republic is considerably lower than in North America. For purposes of this exercise, we’ll assume costs are 50% lower. Assuming the same retention rates and the same adjusted operating margin, we would expect the lifetime value to be half of that of our North American business. Therefore, our allowable pet acquisition spend would also need to be 50% lower if we are to earn the same targeted internal rate of return.

The same can be said with our low and medium coverage products, PHI Direct and Furkin. If they have 40% of the coverage of our Trupanion product, with the same value proposition and margin target, they will have 40% of the ARPU and 40% of the adjusted operating income. In addition, with lower coverage, we would expect to see lower average retention rates (we make the assumption that a pet owner will be less satisfied with the lower coverage and is therefore more likely to cancel at an increased rate). So in this example, the lifetime value, and thus allowable PAC may be 25% of that of our historical pet.
In 2022, the lifetime value of these pets was just $64.

Back to my earlier point, a pet is not just “a pet”. 10,000 new pets with an average lifetime value of $700 are worth 100% more than 10,000 new pets with an average lifetime value of $350. So, although we are agnostic to where we invest to acquire new pets, each channel, product, or region must stand on their own and hit our internal rate of return target. We will do our best to transparently share this information to the owners of the company at our upcoming shareholder meeting and other such appropriate venues.

INTRINSIC VALUE PER SHARE

In this section of the letter, we will share with you all of the pieces needed to replicate our discounted cash flow model that generates our year-over-year change in intrinsic value. At the end, I will share the estimate of our intrinsic value per share for 2022, give you my assessment of our performance and inform you of how this calculation impacted our stock compensation pool for the year.

The chart below outlines the primary drivers of our intrinsic value calculation and showcases the importance of our key moat—relationships with veterinarians. Since 2012, the number of veterinary clinics in our addressable markets has grown from 25,000 to nearly 41,000. This is important to note as per our 2019 shareholder letter, where we first laid out our 15-year discounted cash flow (DCF) model, it was apparent that by year 2033 our long-term growth would slow when we ran out of the ability to add new clinics. Our runway has grown dramatically with our international expansion!

	Number of countries we are in	Number of hospitals in those countries	Number of territory partners and associates	Estimated number of hospitals we are visiting every 60-90 days*	Estimated aggregate number of face-to-face visits	Actual average number of active hospitals	Actual average number of new pets per active hospital per month	Number of hospitals with software**
2012	2	25,000	34	15,000	262,000	5,034	0.918	n/a
2013	2	25,000	40	16,200	324,000	5,531	1.008	n/a
2014	2	25,000	58	15,400	404,000	6,098	1.053	n/a
2015	2	25,000	84	19,000	490,000	7,359	1.093	n/a
2016	2	25,000	105	21,300	577,000	7,875	1.066	n/a
2017	2	25,000	107	19,800	662,000	8,242	1.063	n/a
2018	2	25,000	123	20,200	751,000	9,279	1.133	3,184
2019	3	28,000	130	21,600	852,000	10,315	1.141	4,534
2020	3	28,000	152	17,200	909,000	11,517	1.199	5,442
2021	3	28,000	161	17,000	971,000	14,736	1.260	6,430
2022	7	41,000	159	22,900	1,066,000	15,942	1.332	7,965

**Per the data available. Hospitals are added when we get a new enrollment from a new hospital that we haven't seen before or if we're alerted by a Territory Partner that a new hospital has opened up in the their area.*
***Includes all hospitals with the ability to pay the veterinarian directly, through vet portal (software), vet portal lite (software lite) and PIMS integrations. Previously, reported numbers were limited to hospitals partnered with account managers.*

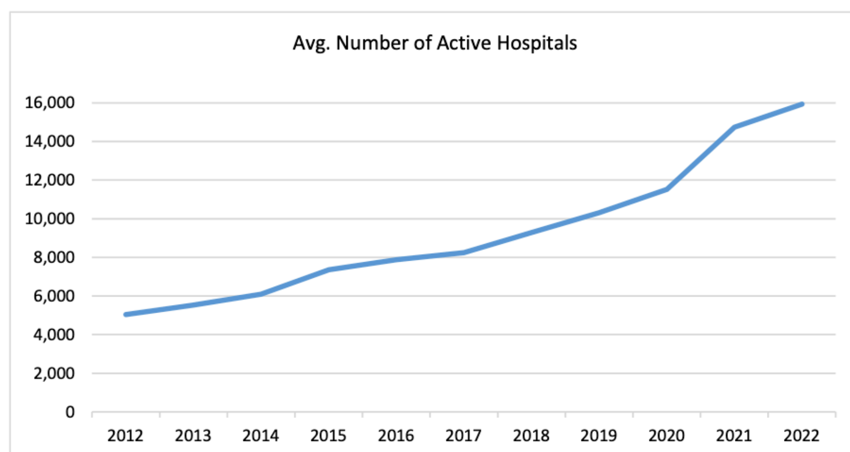
We are proud to align ourselves with the veterinary community. What the veterinary industry went through (and is still going through) these past few years was so tough. Their duty and dedication is remarkable, and the way they rose up to support all of our beloved pets throughout the course of the pandemic, and continuing today in the face of increasing costs, staffing shortages, and ongoing COVID disruptions, is truly admirable.

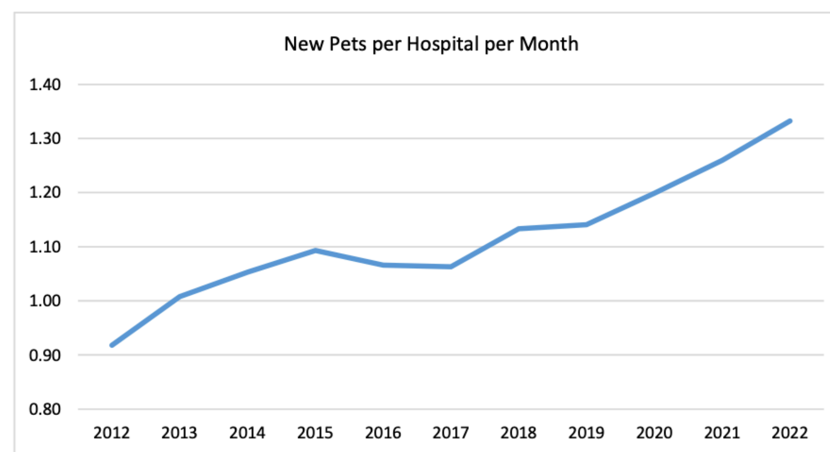
As a public company, it is my belief we need to earn and maintain the trust of all stakeholders. This includes our members, their pets, our team members, which include TP's, regulators, shareholders and of course, veterinarians and their staff.

We have built our business model around this belief. Recall from my 2015 Annual Shareholder Letter:

> ***"We fundamentally believe that support from veterinarians is critical to driving broader acceptance of medical insurance for pets in North America. We have built our success around this belief...."***

In 2022, the number of active hospitals grew 8.2% year-over-year. By our definition, in 2022 we averaged 16,000 hospitals with at least one new pet enrollment in the prior three-month period. That equates to nearly two-thirds of North American veterinary hospitals! I am thrilled with this result, especially in context of the broader veterinary environment in 2022. We did this while growing our same store sales metric by 5.8% year-over-year to 1.33 pets per month.





This combination drove a 9.5% year-over-year increase in our revenue. In addition to the number of active hospitals and same store sales, growth in refer-a-friend / add-a-pet added 5.0% to our revenue growth. Conversion increased modestly providing a 5.7% lift to revenue.

Subscription Revenue Lever	**YOY % Change**
Active Hospital Growth (leads)	8.2%
Same store sales (leads)	1.3%
Refer-a-friend / Add-a-pet	5.0%
Conversion rate	5.7%
ARPU	0.4%
New insurance products	0.0%
New channels	0.0%
New Geographies	0.0%

The combination of these factors drove our new pet enrollments in the year, which had a positive 8% impact on our DCF. When you take into account the momentum from our existing business, and model out an additional year in our DCF, the impact to our 2022 DCF was a positive 18%.

The number of partnered hospitals with software installed, allowing us to pay them directly at the time of check-out and eliminating the need for reimbursement, grew 24% year-over-year from approximately 6,400 hospitals to nearly 8,000 hospitals. This has no quantifiable impact on our DCF model, but a good member experience is always positive and something that I know the team holds as an essential part of what we do.

The year-over-year increase in our ARPU was 0.26 cents, creating a 0.4% lift to revenue. Because our DCF assumes ARPU growth in-line with our historical average of 5 – 6%, this reduced our intrinsic value by 9% in 2022.

The impact from our new insurance products, channels and geographies was immaterial to our revenue growth.

The second piece that is critical to update our DCF model is the cash generated per month for the average pet. Note that in doing so we account for a capital charge of 1%, which is the difference between the interest we earn on our capital requirements (held in cash and T-bills) minus the cost to finance those reserves via our debt facility. While we did see some leverage in our fixed expenses on a per pet basis, cost of veterinary invoices as a percent of subscription revenue ran ahead of target and increased 2.5% year-over-year. The combination resulted in a 0.63 cent, or 8%, decrease in our cash per pet number to $7.76 in 2022. The decrease in this metric negatively impacted our DCF model by 11% in 2022.

	2021		2022	
Average monthly cost (ARPU)	$63.56	100.0%	$63.82	100.0%
Less: paying veterinary invoices	($45.27)	71.2%	($46.38)	72.6%
Less: variable expenses	($6.25)	9.8%	($6.27)	9.8%
= contribution profit	**$12.04**	**18.9%**	**$11.17**	**17.5%**
Less: fixed expenses	($3.01)	4.7%	($2.77)	4.3%
= profit per pet per month	**$9.03**	**14.2%**	**$8.40**	**13.2%**
Less: capital charge requirement	($0.64)	1.0%	($0.64)	1.0%
= cash generated per month for the average pet	**$8.39**	**13.2%**	**$7.76**	**12.2%**

Retention rate remained strong in 2022. Our model uses a three year average for retention which had a positive 6% impact to our DCF model. In 2022, the average life of a subscription pet was 76 months. By my estimation, this is nearly twice that of the industry average. My estimation is informed by our history underwriting other brands and bringing to market new products with varying levels of coverage. Recall earlier that with our lower coverage products, we are seeing retention rates dramatically lower than that of our Trupanion brand and not unlike those of our competitors. Keeping our retention results in context is important when our starting bar is so high!

2022 Churn	**Active pets at year end**	**Number of cancelled pets**	**Distribution**	**Monthly churn**	**Monthly retention rate**	**YoY change in monthly retention rate**
No rate change	198,611	48,106	23.61%	2.39%	97.61%	-0.18%
Rate Change < 20%	585,043	61,828	69.56%	0.95%	99.05%	-0.03%
Rate Change >= 20%	57,385	10,594	6.82%	1.56%	98.44%	-0.14%
Total	841,039	120,528	100.00%	1.31%	98.69%	-0.05%

IRR was 30% in 2022. This would have been 36% if we maintained last year's margin, and 40% if we hit our 15% target for the year. Keep in mind that this assumption is inherently conservative as it assumes the same dollar amount of cash generated for the life of the pet. In reality, we are a cost-plus model and enrolled pets will see their monthly costs go up in-line with veterinary inflation. If we are effective in pricing to our value proposition, our margin will increase in-step with pricing.

TTM Retention	98.69%	**Year**	0	1	2	3	4	5	6		
Months	76.3	**Months**	6.0	12.0	12.0	12.0	12.0	12.0	10.3		76.3
FY PAC	289	**Profit per Pet per Month**	$8	$8	$8	$8	$8	$8	$8		
Profit per Pet	$8.40	**Profit per Pet**	$50	$101	$101	$101	$101	$101	$87		$641
Capital Charge	1%	**Capital Charge**	-$4	-$8	-$8	-$8	-$8	-$8	-$7		
FY ARPU	$63.82	**PAC**	-$289								
			-$243	$93	$93	$93	$93	$93	$80		
									IRR	**30%**	

The chart below shows scale in our fixed expenses over time as well as the historical uses of our PAC spend and annual retention rates. This is helpful in determining how much of our discretionary profit we should expect to spend in order to grow the number of enrolled pets. Keep in mind that we estimate the average cost of pets that enroll through refer-a-friend / add-a-pet at 50% of our PAC spend. In 2022, approximately 34% of our new pets enrolled in this way.

	Contribution profit	Fixed expenses	Total profit	PAC	Lead*	Convert*	Retention*	Retention rate
2016	$631	$341	$290	$123	85%	15%	0%	98.60%
2017	$727	$318	$409	$152	75%	25%	0%	98.63%
2018	$710	$261	$449	$164	60%	40%	0%	98.60%
2019	$753	$230	$523	$212	50%	50%	0%	98.58%
2020	$899	$246	$653	$247	50%	46%	4%	98.71%
2021	$956	$239	$717	$287	55%	41%	4%	98.74%
2022	$853	$212	$641	$289	54%	44%	2%	98.69%

**Historically, we have not tracked the attribution between our lead and conversion costs. Therefore, the percentages in the table above are internal management estimates.*

The last chart, which I always find illuminating, shows the impact on a per share basis. Yes, stock compensation is a real expense and this chart helps show our progress across important per share metrics. This chart shows the total number of shares including those that have been granted but have not yet vested. By this measure, revenue per share was up 30% year-over-year, adjusted operating income per share was up 14%, and cash per share was down 16%. This reflects the impact of the cash outflows we spent on our non-pet acquisition expenditures.

In 2022, we invested (hopefully wisely) an approximate $25 million on development expenses and CAPEX. These expenditures negatively impacted our DCF by 2.0%. While a slight detriment to intrinsic value growth in the short-term, over the long-term, these investments will hopefully increase our odds of sustainably growing at our high rates of growth.

In our DCF, total cash burn (defined as free cash flow + cost of debt) reduces our value by the amount of those outflows, which in the year was approximately $31.1 million. This was a negative 3.0% impact to our DCF. Changes in foreign exchange rates, and the growth of our Other Business, had a positive 5.0% impact to our DCF.

	Total share count plus options and warrants granted*	Revenue per share	YoY growth	Adjusted operating income per share	YoY growth	Cash, short-term investments, our building assets, minus debt per share**	YoY growth	Earnings (loss) per share***
2012	22,467,205	$2.47	53%	$0.13	-7%	$0.23	-30%	($9.76)
2013	24,889,316	$3.37	36%	$0.17	31%	$0.32	39%	($6.23)
2014	33,813,736	$3.43	2%	$0.03	-82%	$1.79	459%	($1.64)
2015	34,138,237	$4.31	26%	$0.11	267%	$1.27	-29%	($0.62)
2016	34,879,610	$5.40	25%	$0.42	282%	$1.40	10%	($0.24)
2017	35,444,460	$6.85	27%	$0.66	57%	$1.53	9%	($0.05)
2018	37,862,667	$8.03	17%	$0.85	28%	$3.56	133%	($0.03)
2019	37,951,839	$10.12	26%	$1.16	37%	$3.67	3%	($0.05)
2020	42,358,814	$11.85	17%	$1.35	16%	$7.03	91%	($0.16)
2021	42,842,831	$16.32	38%	$1.83	36%	$6.72	-4%	($0.89)
2022	42,755,360	$21.17	30%	$2.09	14%	$5.62	-16%	($1.10)

**Share count includes outstanding shares plus unexercised/unvested options & RSUs, as well as shares granted in subsequent years pertaining to the year's performance. Total outstanding shares also increased by 3,636,364 shares in 2020 due to Aflac's common stock purchase.*
***Beginning in 2022, we included long-term investments in this definition as we shifted our investing strategy. Prior periods have not been restated.*
****Loss per share is calculated using GAAP basic weighted-average shares at year-end.*

Grounded on our assessment of actual results, assuming a consistent 10.0% discount rate and without speculating on the potential of newer initiatives, we estimate our intrinsic value per share grew 12% in 2022 to $102. A simple shortcut that I use to double check the accuracy or effectiveness of our DCF model is to take our year-over-year growth of adjusted operating income and add or subtract our cash inflows or outflows. In 2022, our adjusted operating income grew 14% and our cash outflows brought this number down to 12%.

	Fully diluted shares	Intrinsic Value Based on our own internal discounted cash flow model	YoY growth in dollars	Intrinsic Value per share @ 10% discount rate	YoY Growth in Intrinsic Value per Share
2019	37,626,938	1,280,000,000	$320,000,000	$ 42.44	
2020	41,692,852	2,670,000,000	$1,390,000,000	$ 64.15	51%
2021	42,420,367	3,840,000,000	$1,170,000,000	$ 90.71	41%
2022	42,805,710	4,350,000,000	$510,000,000	$ 101.83	12%

In 2019, when we had revenues that were less than half of our 2022 revenues, we used a 10.8% discount rate, which included an additional risk factor we felt was appropriate given our size. In 2020, we lowered the discount rate to 10.0% to reflect a lowering of our risk profile. Assuming a 10.8% discount rate, our intrinsic value per share in 2022 would have been $81.

Recall from last year's letter...

"Our goal in our 60-month plan (which we published in last year's letter and spans from January 2021 to December 2025), is to grow our intrinsic value per share by 25% per year. As a large shareholder of the company, I would expect at least a 20% year-over-year rate of return. Based on the size of our addressable market and our business model, I would be disappointed if we achieved anything less than 15% growth in a given year."

Regardless of the discount rate one feels is most appropriate, if you apply it consistently, the year-over-year change in estimated intrinsic value per share would be below my expectations. While there are many positives to highlight in 2022, by this standard, I am disappointed in our 2022 results.

As a reminder, any change in the discount rate would not positively or negatively affect our teams' recognition. Our entry point to issue performance-based stock is an increase in the estimated intrinsic value per share of greater than 10%.
To me, this is the minimum threshold to "outsized performance" or the performance required to justify investing in Trupanion (a smaller, riskier investment than say the S&P 500 index).

Anything 10% or below is zero and in the event there is an increase to be shared, the percentage allocation increases with results. Please reference my 2016 Shareholder Letter and subsequent 2021 Shareholder Letter for more details on how the performance pool is calculated.

In 2022, after we deducted new hire and promotion grants and director compensation, there was no performance-based stock grant for the team, which left 12% for you, our owners. For the team, this will undoubtedly be a tough pill to swallow, especially after two high years of growth.

I suspect we will lose a few people but we simply can't afford to pay (stock compensation) without a minimum level of performance. In the long run, we believe this is the right thing to do and we want team members to be aligned for the long-term; that is the reason for all employees owning stock in the first place.

Shareholders sometimes ask us how we think about and calculate stock based compensation, and my answer has been two-fold. First, we only issue performance-based stock (the majority of our stock-based compensation) as an output of performance. We believe that the percentage we share between team members and owners is fair, appropriate, and aligned. Second, we calculate the amount of the pool on the year-over-year increase in intrinsic value per share, not just the increase in the overall enterprise value of the company. This year's results, although disappointing, provide us with the opportunity to demonstrate clearly that we have no new performance-based stock compensation without outsized results. A hard lesson is still a lesson, and one I hope we can all learn from.

IN SUMMARY

I'll repeat my earlier comments. If I step back and take a multi-year view, we are on track to achieve most of the goals we set out in the 60-month plan. Our adjusted operating income has grown 56% over the last two years. The number of active hospitals in North America now approximates 16,000. Retention rates remain strong. Our brand continues to grow in a healthy way, with increased conversion rates as well as strong growth of pet owners referring friends and adding pets. We have added new brands and new channels to reach, and help, more pet owners. We have entered Continental Europe and are working on our go-to-market in Japan as we speak, collectively doubling our addressable market. With our foundational work now two-thirds completed, we pivot our attention over the next 36 months to the deployment of new pet acquisition spend in a disciplined way across all products, distribution channels, regions and countries.

When I re-calibrate on the longer-term, which I define as 2026 to 2035, I could not be more excited. In my opinion, we have never been in a stronger position. Here are some of my high level thoughts:

1. The cost of veterinary care is going to continue to escalate at rates higher than ordinary inflation.

2. Self-insurance, our biggest competitor, with 97% of American pet owners choosing to self-insure, is under pressure with costs of caring for unexpected accidents and illness outpacing pet owner savings accounts. Consider that in April of 2020, the U.S. savings rate, as a percentage of disposable personal income hit a record high at 33%. In December of 2022, that number fell to 3.4%! Also in the fourth quarter of 2022, credit card balances in the U.S. jumped to a new all-time high of $986 billion. TransUnion stated that the average American's balance at the end of 2022 was $5,800. (Source: Washington Post, February 2022. *Credit card debt hit new high, can balance transfer help?*)

3. Our international expansion is doubling our addressable market, both in the number of pets and veterinarians we can help. In 10 to 20 years, I expect we will look back at this as one of our most important strategies.

4. The moats we have been building for decades, along with the values that we live by, continue to resonate with all of our constituents: team members, pet owners, veterinarians, industry partners, regulators, and shareholders.

5. Our target customer, loving and responsible pet owners, continue to strengthen the bonds with their four-legged family members. As the world gets more complicated and devisive, our beloved pets remind us daily of our simple need for unconditional love.

Over the next 12 to 18 months, we will put an emphasis on strengthening our balance sheet and reducing our non-pet acquisition spend. Continually improving our ability to effectively communicate our value proposition and deliver on our pricing promise will remain a top priority. Last but not least, we need to remain diligent to expand our adjusted operating margin - this will make everything easier! So far, I've been encouraged by the team's willingness to refocus on our positioning as the industry's low cost operator.

Those that know me well know that I am more comfortable when we are trading below intrinsic value than well above. When there is excess exuberance and money, it is difficult to maintain a strong mission-based culture. As the pendulum swings from easy to hard, we have a great opportunity over the next few years to make sure everyone is aligned with our long-term strategy. If done well, our culture and company will thrive.

To the team, I say thank you for your commitment to our mission to help loving, responsible pet owners budget and care for their pets. This year, we passed a very important and big milestone, and milestones should be celebrated. Trupanion has now spent over $2 billion paying veterinary invoices! We are making big impacts on the lives of pet owners and veterinarians alike. We have done this in multiple languages, in multiple countries, 24 hours a day, every day since the company's inception. It took us twenty-two years to hit this number—we expect to pass $3 billion before 2025!

Kuyashii,

Darryl Rawlings

END NOTES

This letter and other publicly available reports include certain non-GAAP financial measures. These non-GAAP financial measures may not provide information that is directly comparable to that provided by other companies in its industry as other companies in its industry may calculate or use non-GAAP financial measures differently. In addition, there are limitations in using non-GAAP financial measures because the non-GAAP financial measures are not prepared in accordance with GAAP, may be different from non-GAAP financial measures used by other companies and exclude expenses that may have a material impact on Trupanion's reported financial results. The presentation and utilization of non-GAAP financial measures is not meant to be considered in isolation or as a substitute for the directly comparable financial measures prepared in accordance with GAAP. Trupanion urges its investors to review the reconciliation of its non-GAAP financial measures to the most directly comparable GAAP financial measures in its consolidated financial statements, and not to rely on any single financial or operating measure to evaluate its business. These reconciliations are included within our Supplemental Financial Information provided on Trupanion's Investor Relations website.

Our internal rate of return is calculated assuming the new subscription pets we enroll during the period will behave like an average subscription pet. Cash outflows from an average pet include average pet acquisition cost for the applicable period, excluding revenue from our managing general agent product lines because their ARPU is representative of commission earnings versus underwriting premiums. Cash outflows also include a monthly capital charge, which we estimate as 1% of the monthly average revenue per pet for the four quarters preceding the period end date. Cash inflows from an average pet are calculated based on subscription revenue less cost of revenue from our subscription business segment for the 12 months prior to the period end date excluding stock-based compensation expense related to cost of revenue from our subscription business segment, sign-up fee revenue and the change in deferred revenue, minus fixed expenses related to our subscription business, which are the pro-rata portion of general and administrative and technology and development expenses, less stock-based compensation, based on revenues. Further details on the calculation for 2022 are included within our Supplemental Financial Information provided on Trupanion's Investor Relations website. Because of varying available valuation methodologies, subjective assumptions and the variety of equity instruments that can impact a company's non-cash expenses, Trupanion believes that providing various non-GAAP financial measures that exclude stock-based compensation expense and depreciation and amortization expense allows for more meaningful comparisons between its operating results from period to period. Trupanion offsets new pet acquisition expense with sign-up fee revenue in the calculation of net acquisition cost because it collects sign-up fee revenue from new members at the time of enrollment and considers it to be an offset to a portion of Trupanion's new pet acquisition expenses. Trupanion believes this allows it to calculate and present financial measures in a consistent manner across periods. Trupanion's management believes that the non-GAAP financial measures and the related financial measures derived from them are important tools for financial and operational decision-making and for evaluating operating results over different periods of time.

DISCLAIMER

This letter contains forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, and section 27A of the Securities Act of 1933, as amended (Securities Act). All statements contained in this letter other than statements of historical fact, including statements regarding lifetime values of a pet, discounted cash flows and our intrinsic value model, our 60-month plan, our capital allocation strategies, future results of operations and financial position (including ARPU, AOM, AOI, IRR, PAC, new pets enrolled, retention and churn, active hospitals, international expansion, veterinary invoices, and variable and fixed expenses) our business strategy and plans and our objectives for future operations.
In particular, this letter discusses our internal discounted cash flow model, and you should regard substantially all parts of this discussion as forward-looking statements. The words “anticipate,” “believe,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “model,” “plan,” “potentially,” “predict,” “project,” “target,” “will,” “would,” and similar expressions that convey uncertainty of future events or outcomes, are intended to identify forward-looking statements.

These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including risks relating to:

- our net losses since inception, our ability to maintain revenue growth, maintain profitability, obtain returns on our investments in pet acquisition, and ther financial risks;
- our ability to attract online visitors, grow or member base, and maintain retention rates;
- our ability to maintain relationships with Territory Partners, veterinarians and strategic partners;
- our ability to remain competitive and maintain brand recognition;
- our ability to scale our infrastructure, manage our growth, budget for veterinary invoice expenses, and other business risks;
- our other business;
- security breaches, payment processing, and related technology and intellectual property matters;
- compliance with risk-based capital and other regulations;
- litigation or regulatory proceedings;
- dependence on key personnel;
- compliance with covenants in our credit agreement;
- international operations, including exchange rates;
- investments or acquisitions, owning an office building, and other strategic matters;
- tax, accounting and general economic matters;
- being a public company;
- ownership of our common stock; and
- those described under the heading “Risk Factors” in our Annual Report on Form 10-K and other filings we make from time to time with the Securities and Exchange Commission.

Moreover, we operate in a very competitive and rapidly changing environment, and new risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we make. In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this letter may not occur and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements.

You should not rely on forward-looking statements as predictions or guarantees of future events. Although we believe that the assumptions and expectations reflected in the forward-looking statements are reasonable based on our historical experience, these assumptions and expectations involve significant judgment and uncertainty, and in some cases these assumptions and expectations (and therefore the judgment and uncertainty) have been projected over an extended period of time. Future results, levels of activity, performance or events and circumstances reflected in the forward-looking statements may not be achieved or occur. We undertake no obligation to update publicly any forward-looking statements for any reason, except as required by law.

trupanion™
2020 Shareholder Letter

To our shareholders

By the numbers, 2020 was a strong year for Trupanion.

Total revenue grew 31% over the prior year to $502 million.

Adjusted operating income grew 29% year-over-year to $57 million. We deployed $44 million of these funds within our subscription business at an estimated internal rate of return of 41%. Free cash flow, after pet acquisition and strategic investments, was $14.1 million.

Table 1. Key Metrics

	2014	2015	2016	2017	2018	2019	2020
Revenue	$115.9M	$147.0M	$188.2M	$242.7M	$304.0M	$383.9M	$502.0M
Year over Year change	38%	27%	28%	29%	25%	26%	31%
Discretionary Profit (AOI)	$0.9M	$3.6M	$14.8M	$23.4M	$31.9M	$44.2M	$57.1
Percentage of revenue	1%	2%	8%	10%	10%	12%	11%
Pet Acquisition Spend	$11.1M	$14.8M	$14.7M	$18.4M	$23.7M	$33.3M	$45.1M
Development Costs*	N/A	N/A	N/A	N/A	N/A	N/A	$0.3M
Internal Rate of Return (from new subscription pets)**	N/A	N/A	33%	43%	46%	40%	41%
Free Cash Flow***	($16.4M)	($15.3M)	$3.1M	$6.5M	$8.3M	$10.8M	$14.1M

*Development expenses are costs related to product exploration and development that are pre-revenue and historically have been insignificant. We view these activities as uses of our adjusted operating income separate from pet acquisition spend.

**In 2019, we modified our calculation of IRR to reflect the per pet unit economics of our subscription business. We have restated all prior periods in this table to reflect this change in approach. For the calculation of our internal rate of return for 2020, please see page 6.

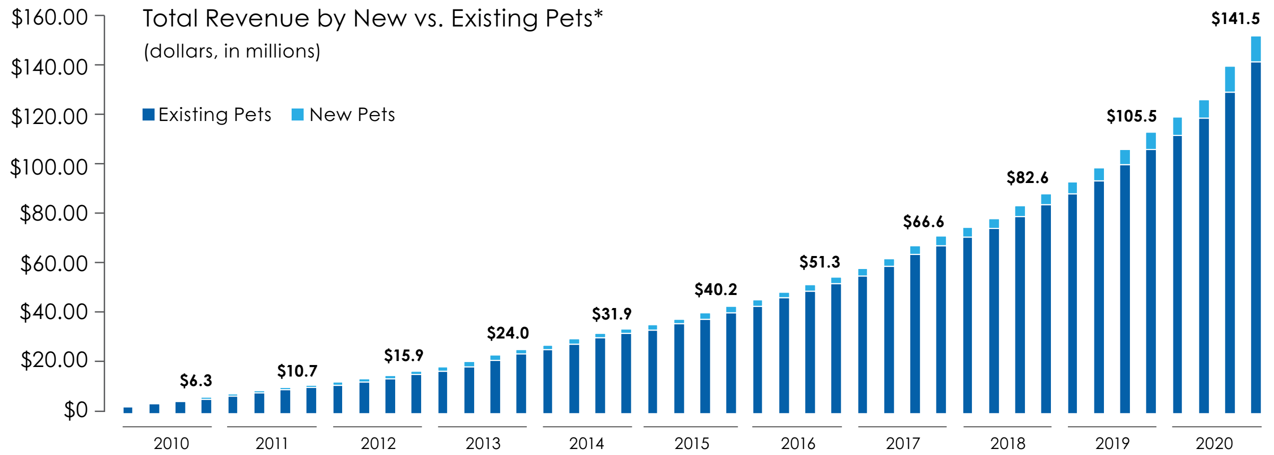
***2018 free cash flow of $8.3 million reflects free cash flow of ($44.3) million, adjusted to exclude the $52.5 million used to purchase our building.

In the fourth quarter, we significantly strengthened our balance sheet, issuing an additional 3.6 million shares of our common stock to Aflac in a strategic financing and alliance worth approximately $200 million under a 3-year lock-up.

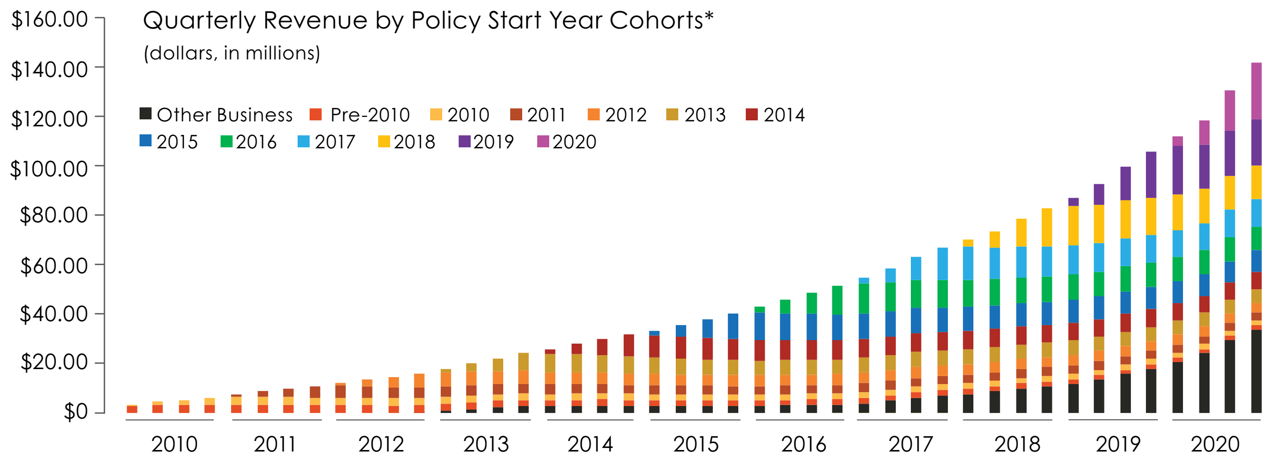
Financial Metrics / Performance

Table 2. Financial Metrics/Performance 2012-2020

Year	Enrolled pets	Revenue	YoY revenue growth	Adjusted operating income	Invested capital to acquire new pets	IRR on an average pet	Cash, short-term investments, our building assets, minus debt	Earnings (Net Loss)
2012	127,704	$55.5M	50%	$3.0M	$6.7M	N/A	$5.1M	($8.1M)
2013	182,497	$83.8M	51%	$4.3M	$8.4M	N/A	$7.9M	($8.2M)
2014	232,450	$115.9M	38%	$0.9M	$11.1M	N/A	$60.6M	($21.2M)
2015	291,818	$147.0M	27%	$3.6M	$14.8M	N/A	$43.2M	($17.2M)
2016	343,649	$188.2M	28%	$14.8M	$14.7M	33%	$48.8M	($6.9M)
2017	423,194	$242.7M	29%	$23.4M	$18.4M	43%	$54.4M	($1.5M)
2018	521,326	$304.0M	25%	$31.9M	$23.7M	46%	$134.7M	($0.9M)
2019	646,728	$383.9M	26%	$44.2M	$33.3M	40%	$139.4M	($1.8M)
2020	862,928	$502.0M	31%	$57.1M	$45.1M	41%	$297.8M	$(5.8M)



*Excludes miscellaneous revenue.



*Excludes miscellaneous revenue.

Business Segments

Today, the majority of Trupanion's business and intrinsic value is derived from our direct-to-consumer, monthly subscription business.

Of our $57 million of adjusted operating income in 2020, $54 million of this was generated from our subscription business, which is a 29% increase over 2019.

We ended the year with over 577,000 total enrolled subscription pets. During the year, we earned subscription revenue of approximately $388 million. Of this, we spent approximately $278 million paying veterinary invoices on behalf of our members, $35 million providing 24/7 support and $20 million on fixed expenses.

Our business segments as a percent of revenue in 2020:

Table 3. Business Segments as a Percent of Revenue 2020

	Subscription Business	Other Business	Total Business	Subscription Business	Other Business	Total Business
Revenue	100%	100%	100%	$387.7M	$114.3M	$502.0M
Less: Paying Veterinary Invoices	72%	63%	70%	$277.9M	$72.1M	$350.0M
Less: Variable Expenses	9%	29%	14%	$35.4M	$33.1M	$68.5M
Less: Fixed Expenses	5%	5%	5%	$20.4M	$6.0M	$26.4M
= Adjusted Operating Margin (AOM) or Income (AOI)	14%	3%	11%	$54.1M	$3.0M	$57.1M

Per Pet Economics

Below is our monthly per pet economics, or cash flow prior to new pet acquisition, for our average subscription pet in 2020.

Table 4. Per Pet Monthly Economics 2020

	2020	
Average Monthly Cost (ARPU)	$60.37	100.0%
Minus paying veterinary invoices (COGS)	($43.26)	71.7%
Minus variable expense (fast 24/7 service)	($5.51)	9.1%
Contribution Profit	$11.60	19.2%
Minus fixed expenses (G&A + IT)	($3.17)	5.3%
Profit per pet per month	**$8.43**	13.9%
Capital charge for money we are required to hold in cash or assets	($0.60)	1.0%
Cash generated per month for the average pet	**$7.83**	13.0%

In total, we added approximately 166,000 new subscription pets in 2020—year-over-year growth of 17%. Net pets, accounting for churn, increased 33% in the year.

Table 5. Pet Growth 2018-2020

Year	Gross New Pets	YoY Growth	Churn	Net New Pets	YoY Growth
2018	126,182	N/A	(67,095)	59,087	N/A
2019	141,283	12%	(78,027)	63,256	7%
2020	165,738	17%	(81,807)	83,931	33%

In 2020, we extended the average pet's life with Trupanion to 78 months, up from 70 months in 2019. Retention, as broken down by our three buckets:

Table 6. 2020 Churn By Rate Change

	Active Pets at Year End	Number of Cancelled Pets	Distribution	Monthly Churn	Monthly Retention	YOY Change in Monthly Retention
No rate change (1ST year pets)	114,846	28,814	19.87%	2.29%	97.71%	0.41%
Rate Change < 20% (Post 1ST year pets)	382,021	40,567	66.10%	0.97%	99.03%	0.03%
Rate Change ≥ 20% (Post 1ST year pets)	81,090	12,429	14.03%	1.40%	98.60%	0.01%
Total	577,957	81,810	100.00%	1.29%	98.71%	0.13%

When analyzing the three buckets, pets that are newly enrolled, and have yet to experience a rate change, have the lowest level of monthly retention. Therefore, if you were to accelerate the percentage of pets in that bucket, the overall blended rate could go down even if the retention rates by bucket remain the same.

Expansion in subscription adjusted operating income, coupled with improved retention, drove a 25% year-over-year increase in lifetime value of a pet, less fixed expenses in 2020.

Table 7. 2020 IRR Calculation

TTM Retention	98.71%	Year	0	1	2	3	4	5	6	
Months	77.5	Months	6	12	12	12	12	12	11.5	77.5
Full Year Pet Aquisition Cost (PAC)	247	Profit per Pet per Month	$8	$8	$8	$8	$8	$8	$8	
Profit per Pet	$7.83	Profit per Pet	$47	$94	$94	$94	$94	$94	$90	607
Capital Charge	1%									
FY ARPU	$60.37	PAC	-$247							
			-$200	$94	$94	$94	$94	$94	$90	
								IRR	41%	

Growth in lifetime value of a pet increases our allowable pet acquisition spend (PAC), while still operating within our targeted internal rate of return. Expansion in allowable PAC increases our ability to successfully execute our growth plans. Consider the following:

Table 8. Discretionary Cash Available for Acquisition Spend, Per Pet

Year	Contribution profit over the life of an average pet	Fixed expenses over the life of an average pet	Total profit over the life of the average pet	PAC	Lead*	Convert*	Retention*	Retention
2016	$631	$341	$290	$123	85%	15%	0%	98.60%
2017	$727	$318	$409	$152	75%	25%	0%	98.63%
2018	$710	$261	$449	$164	60%	40%	0%	98.60%
2019	$753	$230	$523	$212	50%	50%	0%	98.58%
2020	$899	$246	$653	$247	50%	46%	4%	98.71%

*Historically, we have not tracked the attribution between our lead generation, conversion and retention costs. Therefore, the percentages in the table above are internal management estimates.

Veterinary Metrics

We ended 2020 with 152 territory partners and their associates in the field "visiting" an estimated 17,200 hospitals in North America.

Table 9. Veterinary Clinic Metrics

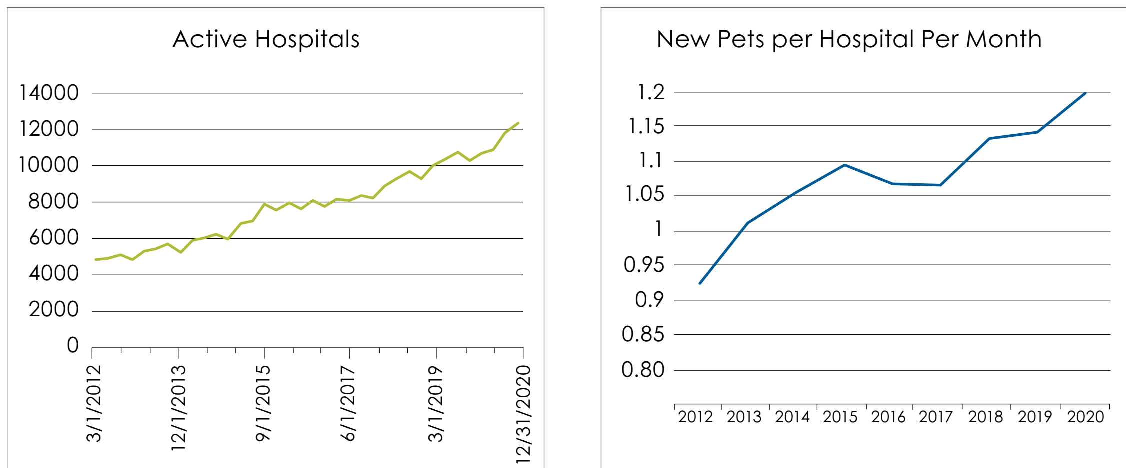
Year	Number of territory partners	Estimated number of clinics we are visiting every 60-90 days*	Estimated aggregate number of face-to-face visits	Actual average number of active hospitals	Actual average number of new pets per active hospital per month	Number of partnered clinics with software & account manager
2012	34	15,000	262,000	5,034	0.918	n/a
2013	40	16,200	324,000	5,531	1.008	n/a
2014	58	15,400	404,000	6,098	1.053	n/a
2015	84	19,000	490,000	7,359	1.093	n/a
2016	105	21,300	577,000	7,875	1.066	n/a
2017	107	19,800	662,000	8,242	1.063	n/a
2018	123	20,200	751,000	9,279	1.133	2,908
2019	130	21,600	852,000	10,315	1.141	4,426
2020	152	17,200	909,000	11,517	1.199	5,220

*Per the data available, this represents hospitals that have been visited at least once during the year. Given we don't have perfect tracking of visits, this is the definition used to approximate visits every 60-90 days.

In a year where care moved curb-side and in-person visits were limited, overall engagement was solid, but compared to the prior year, the growth in face-to-face visits declined.

We averaged 11,517 active hospitals during the year—a number that has since continued to climb. As a reminder, we define active hospitals as those

that have had at least one pet enroll with Trupanion in the prior three month period. We were able to deliver this 12% increase in active hospitals, while increasing the number of pets that enrolled per active hospital to 1.2, up from 1.1 in 2019.



We ended the year with our software and a partnered account manager in approximately 5,200 hospitals, up from approximately 4,400 at the end of 2019. We had hoped to make more progress with our software deployments in 2020. COVID presented a challenge to doing so.

Increasing the deployment and utilization of our software is important. It allows us to pay hospitals directly, and in an automated way. It's also an important part of our customer value proposition.

Members who experience the brand and our product this way are more likely to add-a-pet or refer-a-friend. In 2020, 0.82% of our subscription book of business was from our add-a-pet, refer-a-friend channel, up from 0.73% in 2019.

The Importance of Key Metrics

Higher ARPU, more active hospitals, improved same-store-sales, expansion in adjusted operating margin, reduced churn, greater member referrals and new pets added are the metrics that when we outperform relative to our expectations, drive outsized growth in intrinsic value.

Team

Trupanion's culture is unique.

Some might call it a moat—I do. Maintaining our culture as we grow will be important and is an area I am personally focused on.

We have several feedback mechanisms at Trupanion, but one of my favorites is what I've historically called the Stupid Box (now re-branded TruSolutions). The Stupid Box is available to all team members in order to identify policies, actions or behaviors in our organization that are, well, stupid. It's also one way I maintain a pulse on our culture. I personally review and assign an owner for each and every submission.

Earlier this year, the Stupid Box received a submission from a new team member, Cami, on one of my favorite topics—Nirvana. I'll let you read her passage:

"After hearing about Trupanion's usage of "nirvana" in today's session, I wondered if anyone has suggested that this term and the context in which this term is being used may be considered culturally insensitive? I understand the casual usage of the term, as well as the pop cultural reference to the Seattle-born band, Nirvana. However, I feel that it must be recognized as a more meaningful term for some. As a Buddhist myself, I have to admit that I was a little taken aback when I first received emails about "reaching Nirvana". The usage of "Nirvana" in this context does not necessarily offend me; rather, it indicates a cultural ignorance or disregard. I know I am new to the company, but it is precisely because of the transparency and welcoming attitudes I have encountered during my first couple of weeks that I feel comfortable speaking about this. I believe changing the term "Nirvana" will create a more inclusive atmosphere for employees and prospective employees. If I were told about "Nirvana" during my interviewing process, I think I would've thought of Trupanion in a more negative light. Thank you."

Following her feedback, I had the chance to talk with Cami and understand her point of view. Cami's submission was courageous, her perspective valuable and the take-away clear. Our term "Nirvana" had to

change. From here on, when you hear me refer to the state of self-sustaining growth, in which members adding pets or referring friends is offsetting churn, it will be under our newly coined term, “TruTopia”. Thank you Cami.

I’ve always believed that diversity makes Trupanion stronger, more effective. Simply put, diversity provides better outcomes for all our constituents, pet owners, veterinarians and their co-workers, Trupanion team members, strategic partners and shareholders. Diversity also provides the opportunity to learn from one another. Cami’s submission is a perfect example of that.

In some areas of diversity we’ve done well, and in other areas where we’ve fallen short, we’re making changes. Currently, Trupanion is focused on ensuring gender and racial diversity. This will be a goal in every team within the organization and it begins with our board of directors.

First, I’ll give you some history of how the board was comprised. At the beginning of 2020, we had 8 board members, myself, Dan, Murray, Hays, Howard, Mike, Robin and Jackie. 6 males, 2 females, all Caucasian. I am on the board because I founded the company. Dan, Murray, Mike & Hays all led investments to finance Trupanion in 2007, which enabled our expansion from Canada to the United States. At this point, I acknowledge that while important, diversity was not at the top of my priority list. Howard joined the board in connection with his service as Trupanion’s Chief Operating Officer. Our post IPO board members were Robin and Jackie, adding much needed gender diversity.

Over the past year, as we were looking to add a new Board member, I chose to interview candidates only if they would increase our diversity. Recently we added Eric. Eric grew up in Texas, is a father of two, pet guy, lawyer and the Mayor of Dallas. We appointed Eric because of his character and life experiences. We interviewed Eric because of a strong recommendation and because he increased our diversity.

As board members retire, we are being deliberate in appointing new non-Executive board members who add to our diversity. My goal, that I would be personally proud of, is to achieve at least 1/3 representation across race, gender and age (including over 60 & under 50) among independent board members.

This means we will not advance board candidates unless they meet the diversity requirements. At the same time, we will only add board members who meet our standards based on their individual character.

More broadly, diversity should be a focus in teams across the company. All managers need to access the diversity of their team and build upon it with new hires. This needs to be deliberate and thoughtful but also practical.

Once a team has racial and gender diversity, we want to continue our never ending goal of becoming diverse in even more ways. The dimensions of diversity are vast. Age, nationality, physical ability, languages spoken—we want our organization to increasingly represent all these facets and more!

Trupanion’s culture prioritizes individuality and inclusivity. We want to foster an environment where all voices are heard, and where team members feel empowered to bring their truest self to work. Our entry way hall holds the quote by Oscar Wilde, “Be yourself, everyone else is taken.”

Once an individual is on the Trupanion team, their success should be 100% based

on their achievements and contributions at Trupanion. Existing team members should never be promoted because of their diversity. Nobody wants to second guess if the advancements of one's career are due to their gender or skin color.

Equity is important. Our policies and programs were designed to ensure all team members have the same benefits, access to resources, and opportunities to build meaningful careers at Trupanion. This approach extends throughout the way we work together; for example, each team member has the same size desk. We want every employee to think and act like an owner of the Company. To build this alignment, each team member is granted equity in Trupanion at the time of hire.

Trupanion is a mission driven organization, and our team of over 1,100 individuals (and growing!) unifies around our collective goal of helping pets. No year is a better example of that than 2020.

It is hard to succinctly explain how I feel about the team and what we accomplished together in 2020. During one board meeting, I found myself literally brought to tears when describing the efforts of the team. At the time, I had no words to describe my gratitude. In fact, there is no word in the English language that succinctly captures this sentiment. Fortunately, there is one in Japanese: Kanrui.

As we cross over the one year mark—in which we transitioned all team members to a remote work environment—I believe that our culture is healthy and vibrant. Team member retention is strong, nearly 15% of team members advanced their careers internally, and we increased the level and quality of our communications. I look forward to seeing what we can accomplish together in the days, months and years ahead.

Intrinsic Value & Per Share Performance

In 2020, we calculated an increase in Trupanion's estimated intrinsic value per share of 88% before stock grants.

As a reminder, our calculation of intrinsic value is based on our discounted cash flow model.

Our intrinsic value model is informed by historical metrics—metrics we work hard to improve upon. Higher ARPU, more active hospitals, improved same-store-sales, expansion in adjusted operating margin, reduced churn, greater member referrals and new pets added are the metrics that when we outperform relative to our expectations, drive outsized growth in intrinsic value.

Each year, in addition to updating our inputs for another year of performance, we also evaluate other assumptions in our model such as the discount rate. For example, as we become a larger, more dependable company, we believe a lower risk premium is appropriate, resulting in a slight decrease to our discount rate.

This change, along with our strong performance in 2020, resulted in the 88% increase in our estimated intrinsic value per share stated above.

In addition to highlighting what metrics have a material impact on the value of our company and informing how we run the business and make decisions, our intrinsic value model helps guide how we compensate our team—with some adjustments discussed below.

Although our discounted cash flow model evolves over time, with the goal of becoming more and more accurate, for purposes of team member compensation and the calculation of our overall stock pool, we apply an apples to apples comparison. Inputs like discount rates, that can go up or down based on interest rates and risk profile, and are outside of the control of employees, are not factored in when determining compensation.

Under this approach, which isolates proven performance within the control of team members, we calculated an estimated increase to intrinsic value per share of 29% in 2020. Further, when determining the overall stock pool, we use the two-year

compounded annual growth rate (CAGR) in calculated intrinsic value per share, rather than a single year, to better reflect long-term sustainable performance. For the 2020 performance year, the two-year CAGR of our calculated intrinsic value per share was 31%.

In accordance with our Intrinsic Value Incentive Plan, a portion of this intrinsic value growth is shared with team members. Please see my 2016 shareholder letter for additional details.

In 2020, our fully diluted share count, which includes options and unvested restricted stock units, increased by 4,406,975 shares to 42,358,814. Of this increased share count, approximately 80% was based on the capital raise with Aflac, and the remaining 20% balance was shared with the team based on our results.

Given the calculated increase in intrinsic value of 31% (based on a two-year CAGR for compensation purposes), we were able to share 2.6% of the increase with the team, with the remaining benefitting shareholders.

In order to share 2.6% with the team, the total size of the grant pool was 850,608 shares. 202,668 shares were allocated during the year for new hire grants, individual performance awards and board compensation, leaving 647,940 shares that were issued in 2021 for our performance grant program related to the 2020 year.

50,350 shares within our performance pool were set aside as a charitable contribution to MightyVet.org, which is a non-profit founded to support veterinary professionals and aligns closely with our mission.

Our key financial metrics on a per share basis:

Table 10. Key Financial Metrics Per Share

Year	Total share count plus options & warrants granted*	Revenue per share	YoY growth	Adjusted operating income per share	YoY growth	Cash, short-term investments, our building assets, minus debt per share	YoY growth	Earnings (loss) per share**
2012	22,467,205	$2.47	53%	$0.13	-7%	$0.23	-30%	($9.76)
2013	24,889,316	$3.37	36%	$0.17	31%	$0.32	39%	($6.23)
2014	33,813,736	$3.43	2%	$0.03	-82%	$1.79	459%	($1.64)
2015	34,138,237	$4.31	26%	$0.11	267%	$1.27	-29%	($0.62)
2016	34,879,610	$5.40	25%	$0.42	282%	$1.40	10%	($0.24)
2017	35,444,460	$6.85	27%	$0.66	57%	$1.53	9%	($0.05)
2018	37,862,667	$8.03	17%	$0.85	28%	$3.56	133%	($0.03)
2019	37,951,839	$10.12	26%	$1.16	37%	$3.67	3%	($0.05)
2020	42,358,814	$11.85	17%	$1.35	16%	$7.03	91%	($0.16)

*Share count includes outstanding shares plus unexercised options and unvested restricted stock, as well as shares granted in subsequent year pertaining to the year's performance. In addition, total outstanding shares increased by 3,636,364 shares in 2020 due to Aflac's common stock purchase.

**Loss per share is calculated using the GAAP basic weighted-average shares at year-end.

Looking Ahead

Over the last 20 years, we have worked hard to build the foundation of our company and bring it to operating scale.

We've forged our own path, and we've led the industry.

2020 marked the completion of our 5 year plan, the vision for which was laid out in my 2014 Shareholder Letter. For those interested in assessing our performance, I encourage you to go back and re-read the 2014 Shareholder Letter. Every year since then, I've attached the 2014 Shareholder Letter to that of the current years' letter. Beginning 2021 and through 2025, you can expect I'll do the same with our 2020 letter.

2021 marks the start of our next 5 years—or as we at Trupanion call it—our 60 month plan.

Included herein are the contents of our 60-month plan. For competitive reasons, select information has been edited out, but I've left much of the document in its original form. Unlike prior shareholder letters, the content of our 60-month plan was not written solely by me, nor was it originally intended for an external audience. Rather, it was written by my team, led by Tricia Plouf and Margi Tooth, who were recently promoted to Co-Presidents, and will be closely overseeing the execution of the plan—with team members as the intended audience, to share our vision of where we are headed over the next 60 months.

In totality, our 60-month plan describes how we intend to increase the value proposition for our members while dramatically increasing our service levels over the next five years. It describes how we plan to add distribution channels, and expand on our partnerships with State Farm and Aflac, and access the 1 million puppies and kittens that are visiting the veterinarian for the first time every year.

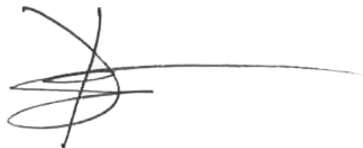
Our 60-month plan details how we plan to expand our insurance product lines to include PHI Direct and Furkin (our low and medium ARPU products, respectively), expand our geographies by entering Japan and Europe, as well as add a new monthly subscription pet food where we hope to verify our hypothesis that pets eating a healthy diet in the right amount of calories will be healthier.

In addition to all of the above, we outline how we are going to organize our existing "Trupanion" subscription business into distinct regions, how we will continue to drive high rates of growth in the breeder channel; and how we are continuing to harness the benefits of social media and other direct-to-consumer marketing channels.

If we achieve the goals in our 60-month plan, we'll grow revenue to over $1.5 billion, reach over 3.5 million pets and deliver growth in intrinsic value of over 25% per year. Doing so will not be easy—it will require a lot of hard work, decent execution and perhaps a bit of luck. But as one shareholder recently observed, at Trupanion we just work harder than most. We do not shy away from tough goals!

In totality, our 60-month plan sets the stage for an exciting growth story at Trupanion. I hope that in sharing this 60-month plan, you'll be as excited as we are about where we are headed.

Kuyashii,



DARRYL RAWLINGS

Founder & Chief Executive Officer

2021-2025

Our 60-Month Strategic Plan

OUR MISSION

To help loving, responsible pet owners budget and care for their pets.

What you will read in this document is our plan for the next 5 years for Trupanion. It follows a very successful 20 years, during which time a significant effort by the team enabled us to achieve operational scale—growing to a size where we can operate efficiently. We've done a good job in this respect—thank you! That work has laid the foundation for us to take Trupanion forward and given us more opportunities than ever before. To reflect this, we've refreshed our mission statement.

What has not changed since Day 1 is our singular focus on helping pets. We remain committed to this, and we hope that as you read this document and see what Trupanion aspires to become by the end of 2025, you will be as excited and motivated as we are about what lies ahead.

Today Trupanion is a monthly subscription business grown primarily through the sale of our core product, "Trupanion," which is sold through the veterinary channel. Our strength to date has been our collective ability to create, market, sell and service an intangible product that does what it says, both from the pet owner and veterinary perspective.

Trupanion Inc. (the company consisting of all our brands and entities) is a high-growth company, with revenue consistently increasing around 25% each year. As a team we have continued to be nimble and determined—it's this agility from our people that will set us up well for the future.

Between now and 2025, we will redefine many of our working practices. We will need to create new teams and new processes. We will learn new techniques and rise to new challenges. We will grow, evolve and reorganize. We will look very different in 5 years!

Our way of working and areas of focus that we know today will evolve to take on different meanings or play new and different roles in the company growth. This exciting phase will present more opportunities than ever before and we invite you, our team, to immerse yourself and make the most of this thriving company that we've created together. We will only be successful if our entire team is driving towards the same goal: achieving our mission.

> *For a **seed** to achieve its greatest expression, it must come completely undone. The shell cracks, its insides come out and everything changes. To someone who doesn't understand **growth,** it would look like complete destruction.*
>
> –CYNTHIA OCCELLI,
> Author, Mentor, & Entrepreneur

By 2025 we plan to create new growth initiatives to help us expand the reach of our core Trupanion product globally and begin the growth of new pet care brands in the animal health arena. Each of these initiatives will be underpinned by world-class subject matter experts supported with technology that will enable more effective solutions across the business. Combining operational excellence and growth-focused business units will enable us to help millions of pets and pet owners.

At all times we shall remain committed to our mission, our people, and our stakeholders; pets, pet owners, veterinarians, team members, territory partners and associates, strategic partners and investors.

We also remain dedicated to being bold, being nimble and being determined. We look forward to building our next 5 years together.

KUYASHII

The Japanese concept of being fueled by the doubting of others.

THE BOTTOM LINE—TARGETED GROWTH RATE & INCREASE IN INTRINSIC VALUE

Our 5-year goal is to achieve a consistent **annual revenue growth rate of 25% or greater.** This would equate to annual revenue for Trupanion Inc. of $1.5 billion by December 31ST, 2025. This revenue growth will also enable us achieve another goal: **to increase our intrinsic value[1] per share by approximately 25%** each year.

To achieve a collective annual growth rate of 25% we will target higher growth rates for each individual business segment–building in some room for error. This will help give us a higher degree of confidence that we can consistently grow our revenue at a rate of 25% or more each year. While some areas, such as the core Trupanion product in North America, may be seeking a 25% growth rate, others that are smaller or just beginning, such as Worksite Benefits or PHI Direct, will likely have a faster rate of growth. In aggregate, if every business unit achieves their goal, our overall growth may be much larger than 25%. This "building block" approach allows us to be more certain of success as it increases our likelihood of achieving our collective goal.

Nothing, however, will be more important than the combined effort of our people—the cement between our building blocks. Our strength to date has been our team and as we look to nurture, grow and add to Team Trupanion, we feel confident that we are creating an organization built for brilliance.

OUR 6 BUILDING BLOCKS

These building blocks are our planned areas of growth over the next 5 years. Some of these build on our current business model and expertise, and others leverage the same skills and knowledge to expand into new and exciting opportunities. Now that we have reached operational scale, not only can we continue to hone our existing member experience, we can also look to add more ways to support loving, responsible, and informed pet owners and their pets, for life. Here's the list we plan to focus on:

1. INSURANCE

- Grow our core "Trupanion" product in North America

2. INSURANCE

- Introduce PHI Direct and Furkin to North America. These are new pet medical insurance products designed to be offered primarily online. They will offer the same high value proposition as the Trupanion product but at different price points (we call these Low and Medium ARPU products)

3. INSURANCE

- Expand our sales of pet medical insurance to countries beyond the US, Canada and Australia—both with and potentially without the Trupanion brand

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1 Intrinsic Value is the value an informed and educated individual or entity would typically pay for a company under stable market conditions. We are always looking to increase this at a rate faster than 20%.

4. FOOD

- Introduce Landspath (a high-quality monthly subscription wellness diet, sold exclusively via veterinarians) in North America to try to prove our hypothesis that feeding pets a high quality diet, in what their veterinarian believes is the appropriate number of calories, will lead to healthier lives and therefore justify lower premiums for their medical insurance

5. PET CARE

- Introduce a GPS-based device that is perpetually powered to immediately locate lost pets—a global opportunity

6. TECHNOLOGY

- Enhance and expand our technology solutions, including through acquisitions, to dramatically expand our technology capabilities. As we become experts in technology in the pet space, we may also enter into a technology re-sale space (global opportunity).

THESE BUILDING BLOCKS ARE NOT LISTED IN ORDER OF PRIORITY–EACH BLOCK WILL HAVE OWNERS DEDICATED TO GROWING THEIR BUSINESS UNITS AND AS SUCH, EACH ONE SHOULD BE CONSIDERED AS IMPORTANT AS THE NEXT. AN IN-DEPTH DETAIL OF EACH BLOCK FOLLOWS.

BUILDING BLOCK 1—INSURANCE-GROW OUR NORTH AMERICAN TRUPANION PRODUCT[2]

We believe that any informed, responsible pet owner would want to buy Trupanion for their pet. Being well-informed removes the uncertainty and confusion around product selection, and Trupanion ultimately becomes the obvious choice for those that are knowledgeable. Our flagship product is widely acknowledged as having the best and the broadest coverage available and it is our goal to grow the adoption of this comprehensive product and the associated revenue by **25% each year from 2021 to 2025.**

Historically, the entire company has worked together to support the growth of this product. This has been an effective way of working over the past 20 years, however our size and scale mean that it is no longer sustainable to take such a broad market approach and expect to be as effective, especially as we start to introduce new products and channels into our eco-system.

Therefore, during our next 5-year chapter, we will adjust our organizational structure to provide a dedicated focus on all markets our core and much loved Trupanion-branded product is present in. We will build upon the framework of the Market Leader model to create alignment, ownership and depth of regional understanding to drive the best experience for all stakeholders. The Market Leader role will evolve to become a General Manager. By 2025 we expect to have up to 5 North American markets, each with a General Manager.

These General Managers will be responsible for the growth in their geography in support of the Territory Partners and their Associates. They will work across business units and partner with support

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2 In 2020, Trupanion is our core product. It is the one product the business hinges around and it is where we are all focused. By 2025, this will dramatically change as other business areas around us grow and expand.

teams to drive lead growth, conversion improvements and achieve TruTopia. They will own the expansion and reach of the Trupanion product, Landspath (see page 11) and, most critically, support Territory Partners in maintaining close relationships within the veterinary community. These relationships are essential to our success and have created immense barriers for our competitors to overcome—sustaining them will be critical to achieving our growth plans.

Key aspects of our core Trupanion product strategy remain essential within the General Manager construct. We must: expand our reach to every new pet owner (lead growth), find new ways to educate and sell Trupanion (convert) and deliver on an exceptional member experience (keep). Over the next 5 years we will strive to maintain a state of TruTopia—where the number of pets enrolling through friend recommendation or pets added by existing members offsets the number of pets that are cancelled each month.

To successfully achieve these goals in North America, we will need to **(A) strengthen our moats**[3], i.e. things we have or do that would be really hard for any competitor to have or do as well as us, **(B) increase the distribution** of the Trupanion brand, and associated brands, **(C) increase the rate at which we convert** these pet owners and, **(D) continue to enhance our member experience.** We'll explore these goals over the following pages before picking back up with our building blocks.

A) Strengthening our moats

Trupanion moat—low-cost operator with high value proposition. To be clear, "low-cost" certainly does not mean low quality or lowest price. Being a low-cost operator means that we are operating with efficiency, enabling us to provide exceptional service at a cost that helps us to enhance our competitive advantage by being able to give more back to our members. **Our goal by 2025 is to pay over 90% of veterinary invoices within 5 minutes.** In 2020, we paid approximately 24% in 5 minutes.

This exceptional member and hospital experience will primarily be delivered through our software. We also plan to significantly increase the rate of claims automation for those hospitals that, for reasons outside of our control, do not or cannot have access to our software. In 2020 our automation rates are around 18% of all claims, **by 2025 we are targeting 80% of claims handled through automation.**

Automation, which importantly includes our software and non-software claims, allows us to pay invoices faster without sacrificing accuracy due to our post-claim audit process by our claims team. Automation will mean we are spending less per claim overall to deliver outstanding service. Today, we target spending 71% of our members' monthly cost on paying invoices. In addition, we spend 9% of members' monthly costs to offer our high-quality service.

Our goal is to dramatically increase our service levels and to do so, we will leverage our automation and software patents. Our investment in technology will ensure we can continue to support our claims team members and allow them the time to focus on more complex claims, coverage summaries, and supporting our new products. We are committed to providing this group with the tools they need to carry out exciting, technical work—all of which will improve our member experience.[4]

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3 Trupanion Moat: A feature of our business that would take a competitor over 3 – 5 years to replicate. They require deep sustained level of effort and time to build and maintain and often can hinge on deep relationships.

4 Note that lowering our average cost per claim by increasing claims automation does not mean we will be eliminating our claims department or reducing the size of the team. In many cases it will enable current processes to be more efficient and also allow team members to have more time to focus on the more complex work as well as coverage summaries and new products.

When we use our patented software and claims automation to pay directly, our total cost to process a claim is reduced. This reduction in cost will allow us to pass this money back to the pet owner in the form of an even greater value proposition.

By 2025 we want to **improve our total claims ratio** (claims payments + cost to process a claim) for all members from **71 to 72%.**

SOFTWARE

Our patented software is a key part of our low-cost operator moat. Over the past five years we have been learning how to streamline installing our software in hospitals, or to have hospitals frequently use the software after installation. We realize it's not easy.

At the start of 2021 we anticipate that close to 6,000 hospitals will have our software installed—a little under 25% of the total hospital population. These 6,000 hospitals provide a good foundation for the next five years as the benefits of direct and immediate payment become known to more pet owners. By the end of 2025, we expect the **penetration rate of our software to be over 90%.** Our approach to generating demand for our software will need to adjust to reach this milestone; here's how we plan to achieve this:

We will increase our investment in the software to fund a product redesign—both in terms of look and feel as well as functionality. Our software will become the "bee's knees" of hospital software providing real-time opportunities to engage with the hospital team to create an increase in utilization.

We will launch a robust awareness campaign with our existing member base. Now that we have approximately 600,000 pets enrolled, we will connect with our hundreds of thousands of pet owners, to develop awareness of our unique ability to pay their invoice for them. We plan to create ways for our members to initiate conversations with their hospitals about direct payment. We believe many of our members do not even know this service exists and we see this as a huge opportunity to grow our software penetration while increasing the number of members and veterinary teams experiencing the benefits.

In meeting this goal we anticipate it will result in us achieving a **99.00% member retention rate,** which is a critical element for achieving TruTopia with our core Trupanion product.

TRUPANION MOAT—PRICING OF OUR SUB-CATEGORIES

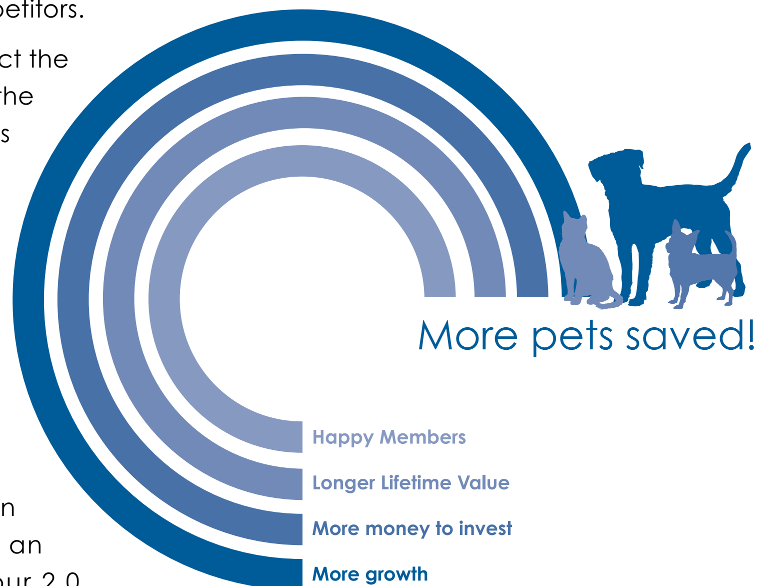
As with any moat, it takes hard work and sustainable effort to build and maintain it (if it was easy, it wouldn't be a moat)! A core tenet of our business model is our pricing promise to treat all pet owners fairly. This means the owner of a retriever in Seattle should pay a different amount AND receive the same value as the owner of a poodle in Phoenix. No matter the species, breed, age or location, the value returned to our members when they make a claim should be consistent if their pet is "average". It's important to note that our intangible product provides value by helping a pet owner budget and care for their pet in the event it's needed. The amount we return is the average amount we spend paying our members' invoices, currently 71% and targeting 72%.

Said another way, imagine that for every $1 we receive, we spend 71 cents (targeting 72 cents) to pay invoices. Every time we can improve our efficiency, more of that $1 can be spent paying invoices, which increases the value to the member. The better the experience, the happier our members.

The more accurately we can price, the more we can deliver on this pricing promise. The better we can do this up-front (rather than having to make dramatic changes later) the more likely members will remain members.

We are proud that we already have more focus and talented, dedicated actuaries than any of our competitors.

We believe that rate increases should reflect the trend in a given geographical area where the cost of care and overall inflation increases between 5-8% each year. We have learned that when our members experience rate increases over 20%, retention is lower. We know retention reduces further if a member receives 20+% increases year after year. To provide exceptional member experience we will smooth out our rate adjustments with an enhanced approach to pricing. To do this we will become more focused on the expansion of our neighborhood pricing approach, an approach started with the launch of our 2.0 product in Florida.



Neighborhood pricing ensures we have better pricing data to develop rates that are appropriate—ultimately helping to avoid large swings in pricing due to changes in the data that could have been anticipated. We are able to do this more effectively due to data that we can pull from our software, through information shared through our partnerships with practice management system providers and analysis of cost trends of pet owners in general, not just Trupanion members.

Our goal between 2021 and 2025 is for our members to experience rate increases in-line with local inflation in their neighborhood. This will likely be an increase between 5-12% each year as we learn to adjust and sharpen our approach. In the event that we need to increase rates more, this will be as a result of changes shown in our data that are driven by the market (e.g., significant increase in cost of care in a neighborhood). In any situation, our pricing and member-facing teams will partner to craft deeper communication and training moments to help support and guide our members and partners through proactive rate adjustment conversations.

Having more data sources allows us to target **98% pricing accuracy across our top 5,000 sub-categories** by 2025 (up from 50% across our top 100 subcategories in 2020).

B) Increasing Our Reach to New Pet Owners—Our distribution strategy

One great benefit to having built the Trupanion brand into what it is today is that we attract the interest of potential new strategic partners and distribution channels. These companies want to be involved in the growth of the category, and they recognize the value of our brand and our expertise. Over the next five years we will have big opportunities to dramatically increase the number of pet

owners learning about Trupanion as a brand, the core Trupanion product, and in some instances the assurance of quality the Trupanion brand represents. These opportunities include entering into new or enhancing existing partnerships with other industry leaders to expand the distribution of the Trupanion brand.

Between now and 2025, we will look to significantly increase the infrastructure and support dedicated to growing our channels and as such will look to build out a new area of our business related entirely to maximizing distribution. Each of our distribution channels will be operated as a business unit with a clearly defined owner—resourced with dedicated teams—focused on delivering the best returns. This ownership will be critical to success. The owners will operate as partners to the General Managers, creating new channels of distribution for each market to support mutual growth. They will also be responsible for driving growth through partner brands, such as Aflac, helping to reinforce the assurance the Trupanion brand presents when in partnership with others.

The biggest distribution opportunities for new or incremental lead growth can be summarized as follows:

E-LEADS

Trupanion has exclusive relationships with IDEXX and Covetrus, the owners of over 75% of practice information management systems (PIMS) used in North America today. PIMS are important for us because they can provide us with access to the **new pet owners** who make their first visit with their pet to a hospital each month. This is approximately **one million people—potentially one million leads per month!** We refer to these as e-leads.

A core part of our 5-year strategy is to understand how to operationalize the e-leads channel to reach this group of one million new pet owners every month.

We are confident that the combination of our current partnerships—and the opportunity of new partnerships ahead of us—will help us to maximize our reach to new pet owners during the next 5 years.

STATE FARM

We are proud of our exclusive relationship with America's largest insurance brand, State Farm. With access to over 18 million homes—and likely 9+ million pet owners—we have huge opportunity for growth. We have started to make progress in 2020 with the launch of Trupanion across the State Farm website, yet still have to develop a robust agent engagement program to fully appreciate the value of this huge US brand.

With such a large addressable market, we feel this target is distinctly achievable with partnership buy-in. To do this, we will need to enhance our resourcing and support of this major potential channel in 2021. As with all major distribution channels, we will be scaling our support and working cross-functionally with subject matter experts to provide the necessary resources in terms of infrastructure to excite State Farm agents and grow this business unit to meet its potential.

BREEDER

As our fastest-growing channel over the last 5 years, our goal for the next 5 will be to continue to expand our reach across the breeder community. Breeder has proven to be a fantastic channel for the Trupanion product with strong lead growth, the highest conversion rates and exceptional lifetime value. These three components indicate a very strong future for the breeder channel.

WORKSITE BENEFITS (FORMERLY CORPORATE BENEFITS)—AFLAC—POWERED BY TRUPANION

This is a distribution channel that enables employers to offer pet medical insurance to their team members as a benefit. We believe that Worksite Benefits can exceed $100m in revenue by 2025.

In 2020, we have seen solid growth generated by our internal team, but to be successful long-term, we believe that strategic partnerships in the worksite space are essential. With that in mind, we are very excited to be beginning our relationship with the leading provider of worksite benefits, Aflac.

As a key shareholder in Trupanion, Aflac will be a committed partner with full alignment, eager to support the growth of medical insurance for pets as a Worksite Benefit.

We will look to Aflac to be our catalyst for growth in this space. We will need to think differently and will leverage their extensive knowledge and partnerships with all leading benefit platforms to help redefine our product offering to take advantage of a market currently dominated by our competitors. We don't yet know the details around how this will look but we do know that our Worksite Benefit product, starting in 2021, will be very different. It will be one of the first products to be launched to market as "Powered by Trupanion". We're excited to launch into a several-year growth plan incorporating Aflac's extensive broker network, partnering with their new direct to consumer brand and ultimately, joining forces with the 20,000 strong 'Aflac Army' of agents.

We are confident that with Aflac alongside us, we can increase this emerging channel to achieve **$100m in revenue by 2025.**

SOCIAL MEDIA

Facebook and other digital platforms are shifting from conversion tools to fast becoming lead generation channels. These channels have the ability to target responsible, loving pet owners with a new pet at home, to initiate conversations about the need for high quality medical insurance.

As we continue to mature as a business, some of the skills we have been learning will start to become further embedded into our business units. Converting our leads and retaining our members will be essential skills needed across all business units: geographies, product lines, and distribution channels. While we are currently dedicated to supporting the core Trupanion product, we will adjust to support our new products and partners, speed up the learning process, and ultimately help these new lines of business to grow faster. We've spent 20 years learning how to do this for Trupanion; now we can take that learning and apply to other products and brands.

C) Conversion

Growing our ability to educate and inform pet owners "Why Trupanion" will continue to be a major focus for many teams in the business.

Conversion is measured as a blend of pet owners converting both online and over the phone. Our phone conversion rates have been consistently strong in past years and we have come to expect more than 1 in 2 pet owners will enroll this way. As we look to continue to grow the core Trupanion product, phone conversion will play a key role in establishing the first "brand cuddle." We are committed to call-driving initiatives to maximize our opportunities. This high-touch experience gives us a rare chance to connect directly with our members and to hear about their pets! This will remain a key part of our strategy. It's why we love what we do!

Online conversion is more challenging. We have made good progress to improve this—most significantly in 2020—and will continue to focus in this area. We will adjust our lens further to fully support complete digital conversion to encapsulate all device-type experiences that a future member may have access to—text, mobile, chat, email, web, tablet, etc. We intend to increase our digital conversion rates from 11% to well over 20% by the end of 2025.

This increase in digital conversion will significantly increase our blended conversion—web and phone conversion rates combined—from over 15% in 2020 to **over 25% by 2025.** We set this goal because we believe that 1 in 4 pet owners is a potential Trupanion member, and we are targeting a blended conversion rate that is representative of that.

As well as supporting the core Trupanion product, our conversion skills will be applied to support new geographies, products, and distribution channels. We will inevitably require growth in this space to support so many new business partners across the company.

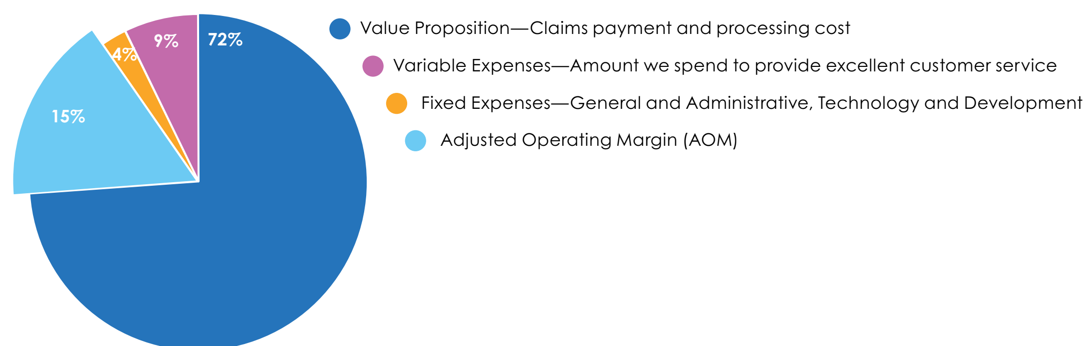
D) Enhance our member experience

In addition to increasing access to our software, paying invoices faster, and pricing more accurately, we will continue to invest time and resources into further enhancing our member experience.

Developing technologies and finding ways to engage, surprise, and delight our members will be key to create an increase in lifetime value, referrals, and pets added to support TruTopia.

While we look to grow our Trupanion-brand product substantially, our target Adjusted Operating Margin (AOM) will remain at 15%. We expect to miss this target at the end of the current 5-year Plan by about 1%. For the next 5-year chapter, we anticipate achieving the 15% goal as follows by 2025:

Targeted Adjusted Operating Margin



To support this operational efficiency, we will look to invest more in our financial systems and teams, such as introducing a new accounting and human resources information system and working with leading technology providers to give access to tools that allow for quicker decision making and easier reporting for all. As we increase the need to support a growing number of brands, countries and products, we will invest in our people and technology to do this the right way.

ANCILLARY PRODUCT GROWTH

As well as driving the growth of the core Trupanion product, we will look at expanding our expertise to support the development and launch of new products. The products below will be focused in the North American markets initially. Depending on launch metrics and growth acceleration, we may choose to deploy these in other geographies before the end of 2025 too—time will tell.

BUILDING BLOCK 2—INSURANCE-PHI DIRECT AND FURKIN

Over the next 5 years we are excited to launch two new subscription products—PHI Direct and Furkin—into the North American market. Our ability to operate at scale means that we are now able to support the development of new brands and accelerate their growth curve—which also allows the broader Trupanion family to grow. Many of our operational teams will be involved in bringing these two brands to life—we will be expanding our contact center, claims, finance, communications, marketing, IT, people ops, legal and facilities teams in support of these product additions.

These new pet medical insurance products will offer pet owners different price point choices. Critically, each will offer the **same high value proposition** as our Trupanion-brand product (the targeted 72% spent paying invoices). The brands will not be marketed together but by being available, they will help pet owners to clearly understand the difference in coverage.

We believe that when we can educate pet owners about the real differences between high, medium and low ARPU products—Trupanion (high ARPU = broadest and most comprehensive coverage), Furkin (med ARPU = mid-level coverage) and PHI Direct (low ARPU = lowest level coverage)—we can grow penetration of the industry and Trupanion Inc.'s overall share of market. In short, we know that some consumers may enroll in brands other than Trupanion, which is OK if they are informed and understand the difference in coverage. If that occurs, we want them to make an educated decision and enroll with a brand that we own that provides high value and is not misleading.

We plan to launch these products in Canada and then the US. The products will be marketed as direct-to-consumer brands and will not be sold through our Territory Partners and Associates, nor will they be Powered by Trupanion.

BUILDING BLOCK 3—INSURANCE: INTERNATIONAL GROWTH-HOSPITALS & PET GROWTH

The more hospitals we partner with, the more pets we help. Over the next 5 years we intend to take advantage of opportunities to expand into countries other than the U.S, Canada and Australia. Our partnership with Aflac presents us with a direct opportunity to enter into Japan where Aflac has customers in 1 in 4 households! We have plans to explore this early into our next 5-year chapter.

In addition to Japan, we don't know exactly which countries we'll move to next. We anticipate **potential** expansion into countries such as the UK, Brazil, and potentially parts of Western Europe. In keeping with our approach in the North American market and Australia, we will create leadership positions to oversee the general management and growth for each of these new geographies.

Our goal for entering into these additional markets is to double the number of hospitals where pet owners can learn about our Trupanion-branded product from about 25k today to 35k by the end of 2025, and then to 50k by the end of 2030.

For each hospital we enter, we will use the same unit of measurement for success—striving for consistent growth in same-store-sales to maximize our reach to each new pet entering a hospital. Naturally, the core elements of a growth model to drive leads and increase conversion and member retention will be critical ingredients for sustainable brand growth and increased contribution to the Trupanion Inc. growth curve.

We may also move forward with international partners and use our expertise to grow non-Trupanion brand products as well, should an appropriate and meaningful opportunity arise.

BUILDING BLOCK 4—FOOD-LANDSPATH

Our wellness food initiative is based on the theory that pets who are fed portion-controlled, high-quality food will live longer, healthier, and happier lives. We have a hypothesis based on third-party health and nutritional studies that these pets could have up to 2 years extended life. We are very excited to launch this new product—named Landspath—which will be sold directly through the veterinary channel.

In 2021, after over two years of research, we anticipate launching this venture in partnership with leading therapeutic food company, Rayne Clinical Nutrition. We will initially launch to our member-base and expect to begin working with partner hospitals across North America within the first 6 months of the year.

If our hypothesis is true, members with pets eating Landspath will enjoy the benefits of savings on our insurance products because we will have data to demonstrate that they are less prone to illnesses. This integrated product approach will be a fantastic member benefit and experience.

Landspath creates a much-needed source of recurring revenue that supports the veterinary channel and creates additional value for our members.

The market for pet owners who want to invest in their pet's health via high quality food is substantial: We aim to be selling **$100m in revenue of food** each year by the end of 2025.

BUILDING BLOCK 5—PET CARE-GPS TRACKER

There are around 180 million cats and dogs in North America. About one third will go missing at some point in their lives. Eighty percent will not be recovered. Rather than anxiously waiting and hoping someone takes a lost pet to a shelter or veterinarian to scan a microchip that may or may not be there, our solution is to enable pet owners to instantly locate their pet using an app on their phone through a self-charging, patented GPS unit which attaches to the pet's collar.

We will create a GPS team that will operate as a start-up business unit, separate to the core Trupanion business. We feel we can leverage our operating scale to support this business to accelerate growth, but acknowledge that it is equally important for the GPS owner to be able to move with pace outside of the core business.

BUILDING BLOCK 6—TECHNOLOGY SOLUTIONS

To help the growth of Trupanion and associated brands we will be making investments to significantly bolster our internal—and external-facing technology systems in direct support of our ever-expanding IT team. The value of this incremental technology investment will be a key advantage to drive support, efficiencies and a smarter way of working for the entire business.

We anticipate that through acquisitions of leading pet health technology companies such as Aquarium and BabelBark, we will be able to rapidly increase our pace of technology growth across Trupanion Inc.

In addition to adding value internally, we will also consider how technologies can be shared and re-sold to others in the pet space—building on the infrastructure and expertise we have already developed through our patented software while also ensuring the technology that we consider a competitive moat is maintained. As with all opportunities, the revenue target will be $100m with an AOM of 15% or $15m of adjusted operating income.

Much like GPS, the technology support for the Trupanion brand and associated products is our biggest motivation and the main value-driver for this initiative.

TRUPANION INC. & OUR BRAND FAMILY

The next 5 years will open up a whole new approach to the way we think about 'Trupanion', our much loved brand.

Historically, the vast majority of our company has been focused on the growth of one product and because of this we have referred to our entire business as Trupanion. Through the hard work and strong execution of our team, we have earned the right to represent far more of the brands in the insurance market and the broader pet space. The core Trupanion product will continue to be the largest and biggest revenue generator for the next 5 years. However, as we grow we have the opportunity to extend that reach and to help more pets.

We believe Trupanion Inc. (our parent company[5]) can drive the growth of products outside of insurance such as GPS, Food and Technology. As experts in the pet world, we are confident in our ability to help support our mission in more ways than just insurance and we're excited to do so!

OUR BRAND & PRODUCT ECOSYSTEM

With the introduction of so many brands into our family, it's important to be clear when we are talking about our core Trupanion product versus things the **Trupanion Inc.** team might be involved in. The visual below demonstrates the consumer facing brands that will exist in our ecosystem between 2021 and 2025.

"Powered by Trupanion"

A brand mark applied to products that carry the following features:

- Payment, direct to the veterinarian at the time of check-out
- 24/7 customer support
- TP Nation support

"Trupanion" 1.2, 2.0, 3.0...

We should expect our core product, referred to as "Trupanion" to always be the best possible product avilable. We will continue to iterate on the features and coverage and allow our product to evolve and grow as the pet, pet owner and veterinarian needs adjust.

It will have the highest Lifetime Value and the highest allowable Pet Acquisition Cost.

5 All brands and entities roll into Trupanion, Inc. overall and our stock and shareholders are in the parent company.

POWERED BY TRUPANION

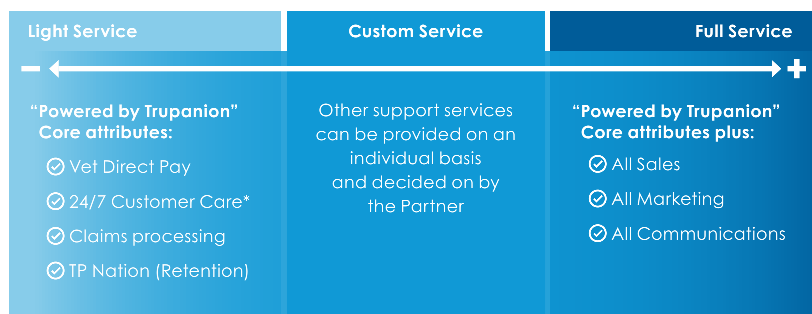
As our brand grows and our referral rates increase, we are becoming more widely recognized as providing pet owners and veterinarians with a quality and unrivalled member experience. As this positive brand association gains momentum we will begin to allow use of our brand in support of new entrants to the insurance market—brands looking for the best possible association with an expert partner. This approach unlocks the **power of Trupanion** for many other products. The tagline "Powered by Trupanion" will sit proudly alongside brands in the future—starting with Aflac in 2021.

"Powered by Trupanion" will become a brand reference serving as a hallmark of quality indicating to pet owners and veterinarians that whenever Trupanion is involved, the pet owner should expect a best-in-class experience. This will include:

- Payment direct to the hospital at the time of invoice and access to our world-class claims team
- 24/7/365 customer care and support
- Retention support from TP Nation to help drive greater retention at the hospital level *(This is for retention only. Brands will not be leveraging TP Nation as a sales team but as an ongoing resource of support. TPs help to create the brand assurance for which Trupanion has become known).*

Some brands may also look to us to offer services in addition to the core "Powered by" elements, such as sales, marketing and communications. Unlike the three core elements, other support services can be provided on an individual basis and decided on by the brand. Think of it like a continuum where our brand partners can choose the level of involvement they have to suit their needs.

Third-party Partners Service Level Spectrum
"Powered by Trupanion"



*24/7 Customer Care must be avilable for all brands carrying "Powered by Trupanion" but it does not mean it needs to be conducted by Trupanion.

We are looking forward to expanding the reach of the Trupanion brand into new product lines to help provide assurance to more pets, pet owners, and veterinarians around the world.

HOW WE MAKE GROWTH DECISIONS

Aside from reinforcing our moats and working on creating our building blocks to growth, there will continue to be many opportunities to grow our current business or to expand into new areas. To ensure we remain focused and committed to our strategic plan, we have outlined key decision criteria that will be applied ahead of moving forward with an opportunity:

- We will not move forward with an initiative unless it benefits all of our key stakeholder groups:
  - Pets
  - Pet Owners
  - Veterinarians
  - Team Members, Territory Partners, and Associates
  - Strategic Partners
  - Investors
- The opportunity must be worth our time and investment. Specifically, after 5 years we want it to be able to generate $100m + in annual revenue with Adjusted Operating Income of at least $15m. (These financial results could be generated directly from the opportunity or indirectly by benefitting an existing brand).
- We have and are willing to invest the resources (people, funds) in order to be successful. If something is worth doing, we will do it the right way.
- We have alignment with a potential partner regarding their approach to diversity, equity and inclusion.
- We will consider the impact to our current business and create a clear roadmap and prioritization framework to help our teams to understand the "why." We want people to enjoy these opportunities and to feel ready and able to execute on them.
- We won't move forward with an opportunity if it's going to negatively impact one of our moats.
- We won't move forward with an opportunity if we believe it will negatively impact one of our brand tenents or core beliefs (such as selling our data or adding wellness to the core Trupanion product).

To set ourselves up to handle new products, new geographies, and new distribution channels our core operational teams will receive significant investments in systems, people, infrastructure, and training. Some of these investments will be made in enterprise technologies such as accounting and human resource information system (HRIS), policy administration, BI platforms, digital asset management, training and communication platforms, remote working advancements, financial reporting, and many more.

OUR PEOPLE AND OUR CULTURE

Our 5-Year Plan would not be complete without talking about our best asset: our people. A lot will determine whether we achieve the goals in this Plan, none more so than whether we have the right people in the right roles, whether we help them be the best they can be, and whether we offer an environment that makes Trupanion *the* destination to build a career.

We are committed to establishing a company-wide diversity, equity, and inclusion strategy to create an increasingly fulfilling and engaging workplace for everyone. We believe that diversity, equity, and inclusion are critical to supporting our team members and improving our ability to achieve our mission. We will define key corporate goals to ensure these ideals become fully embedded in who we are.

For our team members, the work reflected in this 5-year Plan should mean many career growth opportunities and the benefits that come from being a part-owner of a successful growth company. To help so many more pets with more products in more places, we know our organization will **look very different** at the end of 2025. We will be a lot bigger and we will need to develop more leaders to keep us moving forward. Doing this well will be the single biggest driver of our success.

Finally, while this Plan is devoted to looking forward, we also want to preserve the great parts of how we got to this place where we can even contemplate these ambitious goals. We want everyone who joins us in the future to know the first pet we insured, about how the conference rooms got their names, about why we ring the bell, and all the other things that make us who we are.

We look forward to sharing your energy and enthusiasm for this next generation of Trupanion and your commitment to bringing this plan to life.

Thank you for being with us.

2022

Form 10-K

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

(Mark One)

☒ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2022
or
☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from ____ to ____

Commission File Number: 001-36537

TRUPANION, INC.

(Exact name of registrant as specified in its charter)

Delaware	**83-0480694**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)

6100 4th Avenue S, Suite 400
Seattle, Washington 98108

(855) 727 - 9079

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	Trading Symbol	Name of Exchange on Which Registered
Common stock, $0.00001 par value per share	TRUP	The NASDAQ Stock Market LLC

Securities registered pursuant to Section 12(g) of the Act: None.

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. ☒ Yes ☐ No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. ☐ Yes ☒ No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. ☒Yes ☐ No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). ☒ Yes ☐ No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☒	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
		Emerging growth company	☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b). ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). ☐ Yes ☒ No

The aggregate market value of the registrant's common stock held by non-affiliates as of June 30, 2022, the last business day of the registrant's most recently completed second fiscal quarter, was approximately $1,869,501,419 using the closing price on that day of $60.26.

As of February 9, 2023, there were approximately 41,020,005 shares of the registrant's common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE Part III incorporates certain information by reference from the definitive proxy statement to be filed by the registrant in connection with the 2023 Annual Meeting of Stockholders (Proxy Statement). The Proxy Statement will be filed by the registrant with the Securities and Exchange Commission pursuant to Regulation 14A not later than 120 days after the end of the registrant's fiscal year ended December 31, 2022.

TRUPANION, INC.
Annual Report on Form 10-K
For the Fiscal Year Ended December 31, 2022
TABLE OF CONTENTS

		Page
	PART I	
Item 1.	Business	3
Item 1A.	Risk Factors	10
Item 1B.	Unresolved Staff Comments	32
Item 2.	Properties	32
Item 3.	Legal Proceedings	32
Item 4.	Mine Safety Disclosures	32
	PART II	
Item 5.	Market for Registrant's Common Equity, Related Stock Holder Matters and Issuer Purchases of Equity Securities	33
Item 6.	Selected Financial Data	35
Item 7.	Management's Discussion and Analysis of Financial Condition and Results of Operations	37
Item 7A.	Quantitative and Qualitative Disclosures about Market Risk	56
Item 8.	Financial Statements and Supplementary Data	57
Item 9.	Changes in and Disagreements with Accountants on Accounting and Financial Disclosure	88
Item 9A.	Controls and Procedures	88
Item 9B.	Other Information	90
Item 9C.	Disclosure Regarding Foreign Jurisdictions that Prevent Inspections	90
	PART III	
Item 10.	Directors, Executive Officers and Corporate Governance	91
Item 11.	Executive Compensation	91
Item 12.	Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	91
Item 13.	Certain Relationships and Related Transactions, and Director Independence	91
Item 14.	Principal Accountant Fees and Services	91
	PART IV	
Item 15.	Exhibits, Financial Statement Schedules	92
Item 16.	Form 10-K Summary	94
	Signatures	95
	Parent Company Financials	97

Note About Forward-Looking Statements

This Annual Report on Form 10-K contains forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended (Exchange Act), and Section 27A of the Securities Act of 1933, as amended (Securities Act). All statements contained in this Annual Report on Form 10-K other than statements of historical fact, including statements regarding our future results of operations and financial position, our business strategy and plans and our objectives for future operations, are forward-looking statements. The words "believe," "may," "will," "potentially," "estimate," "target," "continue," "anticipate," "intend," "could," "would," "project," "plan" and "expect," and similar expressions that convey uncertainty of future events or outcomes, are intended to identify forward-looking statements.

These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including those described in Part I. Item 1A. "Risk Factors" and elsewhere in this Annual Report on Form 10-K. Moreover, we operate in a very competitive and rapidly changing environment, and new risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this Annual Report on Form 10-K may not occur and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements.

You should not rely on forward-looking statements as predictions of future events. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee that the future results, levels of activity, performance or events and circumstances reflected in the forward-looking statements will be achieved or occur. We undertake no obligation to update publicly any forward-looking statements for any reason, except as required by law.

Unless otherwise stated or the context otherwise indicates, references to "we," "us," "our" and similar references refer to Trupanion, Inc. and its subsidiaries taken as a whole.

PART I

Item 1. Business

Our Mission

Our mission is to help loving, responsible pet owners budget and care for their pets.

Company Overview

We provide medical insurance for cats and dogs throughout the United States, Canada, Europe, Puerto Rico, and Australia. Through our data-driven, vertically-integrated approach, we develop and offer high value medical insurance products, priced specifically for each pet's unique characteristics and coverage level.

We operate in two business segments: subscription business and other business. We generate revenue in our subscription business segment primarily by subscription fees from direct-to-consumer products. We operate our subscription business segment similar to other subscription-based businesses, with a focus on achieving a target margin prior to our pet acquisition expense and acquiring as many pets as possible at our targeted average estimated internal rate of return.

Our other business segment is comprised of revenue from other product offerings that generally have a business-to-business relationship and different margin profiles than our subscription segment, including revenue from writing policies on behalf of third parties and revenue from other products and software solutions.

Our Business

It is very difficult for pet owners to budget for veterinary expenses when their pets become sick or injured. Pet owners do not know whether their pet's health will be "average," "lucky," or "unlucky." Over the life of a pet, veterinary expense for a lucky vs. unlucky pet can vary from $500 to more than $50,000. Even if a pet ends up being "average" over its life, the timing of accidents or illnesses may not align with the owner's budgeting approach. Further, many pet owners do not know how to budget for the "average" cost of medical care for their pets. Average veterinary expenses often greatly exceed the expectations of the pet owner and vary dramatically based on a multitude of factors, including the availability of care by region and the types of treatments advisable for specific pet breeds. Consequently, self-insuring is not an effective solution for many individual pet owners.

Our monthly subscription products, priced specifically for each pet's unique characteristics and coverage level, help pet owners budget for unforeseen medical expenses. Through our high quality medical insurance products, pet owners are able to ensure the best care for their pet, and avoid decisions being made due to financial constraints. Our monthly subscription business model provides us with high quality predictable and recurring revenue.

Our subscription business's cost-plus model is designed to spread the risk evenly within each category of pets so our members can budget for unexpected veterinary costs. We have been collecting comprehensive pet health data for over 20 years. We believe our data and approach to pricing is unmatched and provides us with a greater understanding of anticipated veterinary costs. We leverage this to price our subscription plan for each pet based on their specific circumstances such as breed, age (at enrollment), geography, desired deductible or co-payment and coverage level, so that, in aggregate, the amounts paid by owners of lucky pets helps to cover the veterinary costs incurred by unlucky pets. We believe our actuarial team, working with our granular data, is able to price our subscription plan much more accurately than other players in the industry, enabling us to provide our members with the highest value proposition relative to coverage level.

Our core "Trupanion" product was designed by veterinarians to enable them to practice the best medicine – thus recommending the optimal treatment for the pet. As a result, we believe our Trupanion product enables veterinarians to establish stronger ties and better alignment with their clients. Trupanion members tend to visit their veterinarian more frequently and spend more money on the best course of treatment for their pet. This results in better health outcomes for pets, which we believe creates a flywheel effect that has been the key driver of growth for our subscription business.

Through the use of our proprietary, patented software designed to communicate directly with a veterinary hospital's practice management software, we are able to offer a differentiated experience to pet owners. Using our software, veterinary hospitals can receive payment from us directly for approved invoices in seconds, with their clients (our members) only paying their deductible or co-payment of covered treatments. We believe this unique solution, which is offered free to veterinarians and pet owners, transforms the insurance experience.

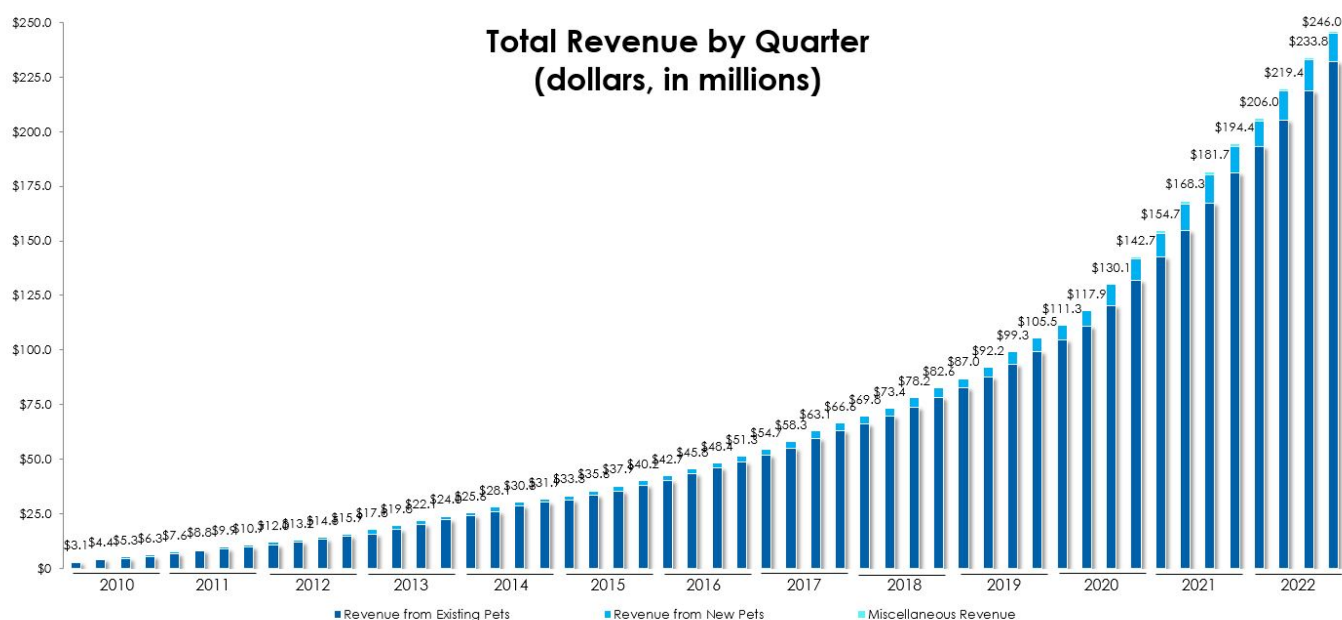
Our other business segment is comprised of other product offerings that generally have a business-to-business relationship and different margin profiles than our subscription segment. These include providing pet insurance policies on behalf of the Veteran Affairs program, employer sponsored programs, and underwriting policies on behalf of third parties that do not carry reference to the Trupanion brand. Additionally, our other business segment includes the sale of software solutions.

Our target markets are large and under-penetrated, as measured by insured pets:

	North America[1]	Continental Europe	Australia
Household dogs and cats (in thousands)	200,000	139,000	8,900
Market penetration	2.0 %	5.6 %	11.2 %

[1]According to Insurance Information Institute and Canadian Animal Health Institute, there are approximately 200 million household dogs and cats in the United States and Canada. North American Pet Health Insurance Association estimates that the penetration rate for medical insurance for cats and dogs in North America is approximately one to two percent. We believe that over the long-term, the North American penetration rate can reach levels comparable to the U.K., where, according to Global Market Insights, approximately one in four cats and dogs has medical insurance.

Our total enrolled pets grew from 31,207 pets on January 1, 2010 to 1,537,573 pets on December 31, 2022, which represents a compound annual growth rate of 35%. As a result, our revenue has grown from $19.1 million in 2010 to $905.2 million in 2022.



Our Strategy

We are focused on attracting and retaining members by providing a best-in-class value and member experience. In particular, we are focused on the following:

Increasing the leads from veterinary hospitals. We intend to increase the number of veterinary hospitals that help their clients learn about high quality medical insurance, and to increase the rate at which active veterinary hospitals refer leads to us by leveraging our Territory Partners.

Increasing the number of referrals from members. We seek to grow the number of existing members that add a pet or refer their friends and family to Trupanion. We do so by focusing on improving the member experience, including increasing the percentage of veterinary invoices that are processed rapidly at checkout and paid directly to veterinarians through our patented, proprietary software.

Improving conversion. We are investing to increase the rate at which we convert pet owners receiving quotes for our subscription plan into enrolled members.

Improving retention, particularly in the first year of enrollment. Member retention is a key part of our strategy. Historically, members in their first year of membership have the lowest retention rate. We are investing in the education process and improving initial customer communication and experiences in order to increase our retention rates.

Automating the payment of veterinary invoices. We use artificial intelligence and machine learning to leverage data so we can automate the payment of veterinary invoices. We intend to increase the percentage of veterinary invoices paid without human intervention with the goal of ensuring that we can process veterinary invoices in seconds and do so without reducing the quality of our decision making on a case-by-case basis.

Growing additional member acquisition channels. We are growing new member acquisition channels including employee benefits, point-of-sale, retail and direct-to-consumer, for the sale of our pet medical insurance products. We also intend to pursue new channels that we believe could, over time, deliver our desired return on investment.

Aligning with strategic partners. We seek partnerships with players who are leaders in their field, have long-term alignment, and recognize the value of our brand and expertise.

Expanding internationally. While the majority of our revenue is derived from the sale of insurance products in the U.S. and Canada, we have operations in Europe and operate in Australia through a joint-venture. We continue to explore other international expansion opportunities.

Expanding our product offering. We intend to introduce additional monthly subscription products, maintaining what we believe to be the highest value pet medical insurance, but with varying levels of coverage.

Pursuing other non-insurance revenue offerings. We intend to continue pursuing opportunities to provide pet owners with complementary products and services. For example, we have invested in a pet food initiative to explore whether pets on a calorie-controlled, high-quality diet have improved health outcomes that can justify a decrease in the cost of their medical insurance. We also sell software solutions to third parties.

Sales and Marketing (New Pet Acquisition)

We generate leads through a diverse set of member acquisition channels, which we then convert into members primarily through our contact center, website and other direct-to-consumer activities. These channels primarily include leads from third-parties such as veterinarians, strategic partners and referrals from existing members.

We build awareness of our core Trupanion product predominately through the veterinary community, engaging our team of “Territory Partners." Our Territory Partners are independent contractors who market our product and are paid fees based on activity in their regions. Their role is to create meaningful, long-term relationships with veterinarians and to educate those veterinarians about the benefits of high quality medical insurance. We believe this structure aligns our interests and provides a platform that we can leverage over time. Our Territory Partner approach is unique and unmatched in our industry. We believe that it would be extremely difficult, costly and time consuming for a competitor to replicate.

Competition

We compete primarily with pet owners who choose to self-fund their veterinary costs, mainly via credit cards, as well as new and existing pet insurance brands. We view our primary competitive challenge as educating pet owners on why high-quality medical insurance for pets is a better alternative to self-insuring.

The vast majority of pet owners in the markets in which we operate do not currently have medical insurance for their pets and there is very little movement from one insurance company to another due to pre-existing conditions. As a result, we are focused primarily on expanding the overall size of our markets by providing pet owners with high value, transparent medical coverage designed for each pet's unique characteristics and coverage level.

We have been competing against at least 20 brands at any given time in our operating history. In our experience, competing pet insurance companies generally fall into one of two segments: (a) traditional providers with low target price points and narrow coverage that is unlikely to cover things most likely to go wrong, like congenital and hereditary conditions, and (b) higher-value providers that provide some form of an annual plan designed to increase the cost of the plan as the pet ages.

We believe that we have competitive advantages that position us favorably. These include:

- broader coverage and a superior value proposition due, in part, to our vertically integrated structure that reduces frictional costs,
- a unique member acquisition strategy that leverages the relationships our Territory Partners have developed in the veterinary community,
- a proprietary database containing over 20 years of comprehensive pet health data enabling us to be more precise in our pricing and pet acquisition expense, and
- our patented, proprietary software which allows us to pay veterinary invoices directly at time of treatment.

Intellectual Property

We rely on federal, state, common law, and international rights, as well as contractual restrictions, to protect our intellectual property. We control access to our proprietary technology, software, and documentation by entering into confidentiality and invention assignment agreements with our employees and partners, and confidentiality and, in some cases, exclusive agreements with third parties, such as service providers, vendors, individuals and entities that may be exploring a business relationship with us. We also rely on a combination of intellectual property rights, including trade secrets, patents, copyrights, trademarks, and domain names to establish and protect our intellectual property. We seek to protect our proprietary position by filing patent applications in the United States and in jurisdictions outside of the United States related to our technology, inventions, and improvements that are important to our business. We hold two U.S. utility patents and one U.S. design patent related to our proprietary software, and we have multiple additional patent applications pending in the United States and in other jurisdictions. We additionally rely on data and market exclusivity, and patent term extensions when available. Our ability to protect and enforce our intellectual property rights is subject to risk and our failure to do so may adversely impact our business.

Human Capital Resources

Our Team

We are a mission driven organization with a diverse team united by a shared passion for pets. Our team members are our greatest asset, and we focus on attracting great people to our team and offering high-quality experiences to all team members.

As of December 31, 2022, we employed 1,187 people across the U.S., Canada and Europe. Our team is further supported by 158 field sales Territory Partner business owners and their associates who represent Trupanion. We also contract with team members in the Philippines through a third-party service provider, and we operate in Australia through a joint venture.

Our team is increasingly global with team members working in our Seattle headquarters in the United States, in the U.K. office, and virtually across the U.S., Canada, and Europe. Our Seattle headquarters office is pet friendly.

Benefits

We offer each team member the same benefits, regardless of role or level in the organization. We also recognize the importance of family and design our benefits plans to support the physical, financial, and emotional wellbeing of team members and their families.

The benefits available to all team members regardless of role include:

- ***Childcare & Support for Parents*** – We understand the importance of family and offer benefits to support working parents. Most notably, we offer onsite childcare at our Seattle headquarters. Trupanion pays 100% of the tuition costs for one child per Trupanion team member, when space is available.
- ***Resources for Wellbeing*** – We offer a variety of benefits to support wellness at and away from work, including free access to our onsite gym and an Employee Assistance Program for confidential support to navigate life's challenges. We also offer to our team members globally a virtual healthcare concierge service through a leading third-party provider specializing in the field of virtual medicine.
- ***Sabbatical*** - For every five consecutive years of service at Trupanion, team members are eligible for a paid five-week sabbatical.
- ***Paid Volunteer Time*** – The TruGiving Volunteer Program offers one paid work day per year to volunteer with an organization of each team member's choice.
- ***Paid Time Off*** – At least four weeks of paid time off is granted to team members each year in January, and increases with tenure.
- ***Medical Insurance for You*** – Trupanion pays 100% of the premiums for team members’ medical, dental, and vision coverage and offers options to enroll eligible family members.
- ***Medical Insurance for Your Pet*** – Team members have the option to enroll one dog or cat in 100% company paid Trupanion medical insurance at the highest coverage level we offer.
- ***Health Savings Account*** – Team members enrolled in our eligible medical plan have access to a Trupanion funded Health Spending Account.
- ***Flexible Spending Dollars*** – Team members receive flexible spending dollars each year on benefits of their choice, including contributions to dependent premiums, fitness and nutrition, childcare, and personal development.

- ***Leave of Absence & Salary Continuation*** – We provide all team members that are too ill or injured to work with access to time off through leave of absence at a reduced percentage of their salary through our disability pay programs.
- ***Severance and Change in Control Policy*** – We have a Severance and Change in Control policy that applies equally to all team members, regardless of their role at Trupanion.

Diversity, Equity, Inclusion, and Belonging

We believe that diversity, equity, inclusion, and belonging (DEIB) is critical to supporting our fellow team members and enhancing our ability to fulfill our mission and achieve our goals. We strive to foster an environment where diversity of people with different perspectives and backgrounds can thrive. A core tenet of Trupanion is that we offer a work experience that applies equally to all team members, regardless of role, as noted for example with respect to our Benefits offerings. This approach extends throughout the way we work together; for example, team members that come into any of our offices work in an open environment where the size of working space is the same for everyone regardless of role or seniority.

We have multiple employee-led resource groups that celebrate aspects of our team's diversity and help foster a welcoming and safe space for support, education, professional development, and networking.

We have a large representation of women at Trupanion including 59% of leadership positions. As part of our strategic plan, we have also set a goal to increase the representation of underrepresented groups on our teams beginning with underrepresented races and ethnicities. To achieve this goal we are taking specific actions to hire, retain, and develop people from underrepresented groups, and further a culture of inclusion at Trupanion. For example, among other steps we have taken, we have expanded the number of employee resource groups, developed a DEIB curriculum that is required for all team members, continue to develop accessibility enhancements to both our physical and digital spaces, and set department-level representation goals linked to compensation.

Trupanion is committed to paying equitably for equal work, regardless of gender or race/ethnicity, and conducts pay equity analyses as part of our efforts in furtherance of this commitment.

Career Development

At Trupanion we are committed to helping everyone grow and thrive along with the company. We are proud to continually see about 23% of our team members transition to new roles within Trupanion each year. Team members have access to ongoing development designed to help them succeed in their roles today, develop skills for the future, and build a career at Trupanion.

A sampling of our development opportunities include:

- TruUniversity (TruU) – All team members participate in TruU company orientation to learn about our history, culture, product, business model, and operations.
- Mentorship – Our TruMentor program creates connection across departments, so team members can learn from and support each other in their development.
- Professional skills – Our continuing education course catalogue includes a wide variety of topics related to our business, the animal health industry, and professional skills.
- Leadership Development – Our Leadership Unleashed curriculum offers specific leadership development programs both for new managers leading for the first time and for more experienced leaders leading teams of other leaders.

Safety

We prioritize the safety of all members of our team. For example, when the COVID-19 pandemic emerged, we were one of the first Seattle-area public companies to transition to fully virtual work, doing so before it was required. Since then we have kept our culture alive with more frequent all hands meetings and office hours with leadership, and converted many of our office events, like the annual Pet Pageant, to virtual formats. Since June 2021, we have offered hybrid work arrangements. We also offer complimentary COVID testing available 24/7 at our Seattle office for team members and their loved ones.

Regulation

United States Regulations

U.S. federal law and the laws and regulations of each United States state, territory and possession apply to companies licensed to transact insurance business in these jurisdictions. While our insurance subsidiary and underwriter, American Pet Insurance Company (APIC), is domiciled in New York State and its primary regulator is, therefore, the New York Department of Financial Services (NY DFS), APIC is also currently licensed to do business in all 50 states, Puerto Rico and the District of Columbia. As such, APIC is also subject to comprehensive regulation and supervision under laws and regulations of each U.S. state, territory, and possession.

Because APIC is domiciled in New York, APIC is subject to laws governing insurance holding companies in New York. These laws, among other things, require that we file periodic information reports with the NY DFS, including information concerning our capital structure, ownership, financial condition and general business operations; limit our ability to enter into transactions between APIC and our other affiliated entities; restrict the ability of any one person to acquire certain levels of our voting securities without prior regulatory approval; and restrict APIC's ability to pay dividends to its holding company parent.

Other state regulators also have broad authority to perform on-site market conduct examinations of our management and operations, marketing and sales, underwriting, customer service, claims handling and licensing. Regulators may perform market conduct examinations by visiting our facilities for a period of time to identify potential regulatory violations, discuss and correct identified violations, or to obtain a better understanding of how we operate in the marketplace. Further, U.S. state insurance laws and regulations require APIC to file financial statements with state insurance regulators in each state where it is licensed and its operations and accounts are subject to examination at any time. APIC prepares statutory financial statements in accordance with accounting practices and procedures prescribed or permitted by these regulators. The National Association of Insurance Commissioners (NAIC) has approved a series of uniform statutory accounting principles (SAP) that have been adopted, in some cases with minor modifications, by all state insurance regulators. As a basis of accounting, SAP was developed to monitor and regulate the solvency of insurance companies. When developing SAP, insurance regulators were primarily concerned with assuring an insurer's ability to pay all its current and future obligations to policyholders. As a result, statutory accounting focuses on conservatively valuing the assets and liabilities of insurers, generally in accordance with standards specified by the insurer's state of domicile. The financial statements included in this document are prepared in accordance with U.S. generally accepted accounting principles. The values for assets, liabilities and equity reflected in these financial statements are usually different from those reflected in financial statements prepared under SAP.

In 2021, we established two new wholly-owned insurance subsidiaries, ZPIC Insurance Company (ZPIC) and QPIC Insurance Company (QPIC), domiciled in Missouri and Nebraska, respectively. We have funded required statutory capital to these new subsidiaries, however, neither subsidiary has begun underwriting insurance policies.

U.S. federal law generally does not directly regulate the insurance industry. However, from time to time, various federal regulatory and legislative changes have been proposed. Among the proposals that have in the past been, or are at present may be under consideration, are the possible introduction of federal regulation in addition to, or in lieu of, the current system of state regulation of insurers.

In July 2010, the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) established a Federal Insurance Office within the U.S. Department of the Treasury. The Federal Insurance Office initially was charged with monitoring all aspects of the insurance industry (with exceptions for certain types of insurance), gathering data and conducting a study on methods to modernize and improve the insurance regulatory system in the United States. It is not possible to predict whether, in what form or in what jurisdictions any of these proposals might be adopted, or the effect federal involvement in insurance will have, if any, on us.

Industry Regulations

The NAIC adopted risk-based capital requirements for life, health and property and casualty insurance companies. APIC is subject to these risk-based capital requirements that require us to maintain certain levels of surplus, specifically $142.4 million as of December 31, 2022, to support our overall business operations in consideration of our size and risk profile. If we fail to maintain the amount of risk-based capital required, we will be subject to additional regulatory oversight. To comply with these regulations, we may be required to maintain capital that we would otherwise invest in our growth and operations. Refer to Item 1A. “Risk Factors” for additional details of these requirements.

Further, NAIC developed a set of financial relationships or tests known as the Insurance Regulatory Information System, or IRIS, to assist state regulators in monitoring the financial condition of U.S. insurance companies. As of December 31, 2022, APIC had three IRIS ratios outside the usual range, relating to net premiums written to surplus, change in adjusted policyholders' surplus, and investment yield. While a ratio outside the usual range is not considered a failing result, regulators may investigate or monitor an insurance company if its IRIS ratios fall outside the prescribed usual range. ZPIC and QPIC will be subject to similar regulations after they begin underwriting insurance policies.

Other Jurisdictions Regulations

In Canada, our insurance is written by an unaffiliated Canadian-licensed insurer, Omega General Insurance Company (Omega). Under the terms of our agreements with Omega, we retain any financial risk associated with our Canadian business. Omega's Canadian insurance operations are supervised and regulated by Canadian federal, provincial and territorial governments and Omega is a fully licensed insurer in all of the Canadian provinces and territories in which we do business. In addition, we are required to fund a Canadian trust account in accordance with Canadian regulations. As of December 31, 2022, the account held CAD $10.4 million.

We have a segregated cell business called Wyndham Segregated Account AX (WICL), located in Bermuda. WICL is regulated by the Bermuda Monetary Authority (BMA). Insurance companies with a presence in Bermuda are subject to solvency and liquidity standards, certain restrictions on the declaration and payment of dividends and distributions, certain restrictions on the reduction of statutory capital, and auditing and reporting requirements. In addition, BMA has the authority to supervise and, in certain circumstances, investigate and intervene in the affairs of insurance companies. Most significantly, Bermudan law restricts WICL's ability to declare or pay dividends and the value of WICL's assets must remain greater than the aggregate of its liabilities, issued share capital, and share premium accounts.

Corporate Information

We were founded in Canada in 2000 as Vetinsurance Ltd. In 2006, we effected a business reorganization whereby Vetinsurance Ltd. became a consolidated subsidiary of Vetinsurance International, Inc., a Delaware corporation. In 2007, we began doing business as Trupanion. In 2013, we formally changed our name to Trupanion, Inc. Our principal executive offices are located at 6100 4th Avenue South, Seattle, Washington 98108, USA, and our telephone number is +1 (855) 727-9079. Our website address is www.trupanion.com. Information contained on, or that can be accessed through, our website is not incorporated by reference, and you should not consider information on our website to be part of this Annual Report on Form 10-K.

Available Information

We are required to file annual, quarterly and other reports, proxy statements and other information with the Securities and Exchange Commission (SEC) under the Exchange Act. We also make available, free of charge on the investor relations portion of our website at investors.trupanion.com, our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after they are filed electronically with the SEC. The SEC also maintains an Internet website at www.sec.gov where you can obtain our SEC filings. You can also obtain paper copies of these reports, without charge, by contacting Investor Relations at InvestorRelations@Trupanion.com.

Investors and others should note that we may announce material financial information to our investors using our investor relations website, SEC filings, our annual stockholder meeting, press releases, public conference calls, investor conferences, presentations and webcasts. We use these channels, as well as social media, to communicate with our members and the public about our company, our services and other issues. It is possible that the information we post on these channels, such as social media, could be deemed to be material information.

Item 1A. Risk Factors

Investing in our common stock involves a high degree of risk. You should carefully consider the risks and uncertainties described below, together with all of the other information in this report, including our consolidated financial statements and related notes, as well as in our other filings with the SEC, in evaluating our business and before investing in our common stock. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties that are not expressly stated, that we are unaware of, or that we currently believe are not material, may also become important factors that affect us. If any of the following risks occur, our business, operating results, financial condition and prospects could be materially harmed. In that event, the price of our common stock could decline, and you could lose part or all of your investment.

Summary of Material Risk Factors

Our business is subject to numerous risks and uncertainties of which you should be aware. Among others, these risks relate to:

- Our significant net losses since inception, ability to achieve and maintain profitability or our ability to maintain our rate of revenue growth in the future;
- Our ability to grow and retain our member base, including uncertainties in the assumptions we use to determine our new pet acquisition spend, variable costs of attracting new members through online channels such as social media or search engines and from leads generated from Territory Partners, veterinarians and other third parties;
- Our reliance on Territory Partners, whom we engage as independent contractors rather than employees, and other third parties;
- The actual levels of our veterinary invoice expense (which may increase with use of our patented software for direct payment of invoices) and our ability to timely and accurately process valid invoices and to identify improper invoices;
- Our ability to maintain certain levels of surplus capital under applicable insurance regulations;
- Our ability to react to competitors and alternative financing methods for pet related medical costs;
- Our ability to maintain and enhance our brand;
- Our ability to maintain and scale our infrastructure, to invest in or acquire businesses, products or technologies, or otherwise manage our growth;
- Changes in legal, judicial, social and other environmental conditions, which could result in unexpected claim and coverage liability;
- Our reliance on key personnel and strategic relationships and our ability to maintain these relationships;
- Fluctuations in foreign exchange rates, other issues relating to expanding our operations internationally, and general changes in the global economy that can cause our operating results to vary;
- Ownership of multiple insurance subsidiaries in different jurisdictions;
- Our ability to maintain effective internal controls and security measures, including measures to mitigate cyber-attacks;
- Our acceptance of automatic fund transfers, credit card and debit card payments;
- Ownership of an office building;
- Our ability to protect our intellectual property (IP), avoid violating IP rights of others, and maintain relationships with third parties providing necessary IP and technology to us;
- The outcome of litigation or regulatory proceedings;
- Our level of indebtedness, our ability to service our debt, and our ability to comply with covenants that may restrict our operations and limit our ability to expand our business;
- Our ability to utilize net operating loss carryforwards and potential increases in our tax liabilities;
- The possible resurgence of the COVID-19 pandemic or a different variation of the virus or pandemic;
- Our ability to comply with numerous laws and regulations applicable to our business, including state, federal and foreign laws relating to insurance, privacy, the internet, email and texting, and accounting matters; and
- Our common stock, including missed earnings guidance, inadequate analyst coverage, trading volatility, lack of dividends, concentrated ownership, and anti-takeover provisions in our governing documents.

Risks Related to Our Business and Industry

We have incurred significant cumulative net losses since our inception and may not be able to achieve or maintain profitability in the future.

We have incurred significant cumulative net losses since our inception. We incurred net losses of $44.7 million and $35.5 million in the years ended December 31, 2022 and 2021, respectively, and as of December 31, 2022, we had an accumulated deficit of $171.6 million. We have funded our operations through equity financings, and borrowings under revolving lines of credit and term loans. Our ability to achieve and maintain profitability will depend, in significant part, on obtaining new members, retaining our existing members, maintaining relationships with our strategic partners, and ensuring that our expenses, including new pet acquisition expense, do not exceed our revenue. We expect to make significant expenditures and investments in new pet acquisition and product initiatives and these expenditures may not result in additional growth. Our recent growth in revenue and membership may not be sustainable or may decrease, and we may not generate sufficient revenue to consistently achieve profitability. Additionally, we budget for our expenses based, in significant part, on our estimates of future revenue and many of these expenses are fixed in the short term. As a result, we may be unable to adjust our spending in a timely manner if our revenue falls short of our estimates. Accordingly, any significant shortfall of revenue in relation to our estimates could have an immediate negative effect on our financial results.

We may not maintain our current rate of revenue growth.

Our revenue has increased quickly and substantially in recent years. We believe that our continued revenue growth will depend on, among other factors, our ability to:

- improve our market penetration through cost-efficient and effective pet acquisition programs to attract new members;
- convert leads into enrollments;
- maintain high retention rates;
- increase the lifetime value per pet;
- maintain positive relationships with veterinarians and other lead sources;
- maintain positive relationships with and increase the number and efficiency of Territory Partners;
- successfully integrate entities we recently acquired into our business;
- expand our business internationally;
- create and maintain positive relationships with strategic partners, particularly partners who present us with new sales channels and those who create software solutions for veterinary practices;
- continue to offer products with a superior value with competitive features and rates;
- price our subscriptions in relation to actual operating expenses and achieve required regulatory approval for pricing changes;
- recruit, integrate and retain skilled, qualified and experienced sales department professionals who can demonstrate our value proposition to new and existing members;
- provide our members with superior member service, including timely and efficient payment of veterinary invoices, and by recruiting, integrating and retaining skilled and experienced personnel who can efficiently review veterinary invoices and process payments;
- generate new and maintain existing relationships and programs in our other business segment;
- react to existing and new competitors;
- protect and defend our critical intellectual property;
- increase awareness of and positive associations with pet insurance and our brand;
- react to unexpected developments and general macroeconomic conditions, including pandemics and unfavorable changes in economic conditions, such as inflation, rising interest rates, or a recession; and
- successfully respond to and comply with regulations affecting our business and defend or prosecute any litigation.

You should not rely on our historical rate of revenue growth as an indication of our future performance.

We base our decisions regarding new pet acquisition expenditures primarily on the projected internal rate of return on marketing spend. Our estimates and assumptions may not accurately reflect our future results - we may overspend on new pet acquisition, and we may not be able to recover our pet acquisition costs or generate profits from these investments.

We have made and plan to continue to make significant investments to grow our member base. In addition to our acquisitions of Smart Paws GmbH (Smart Paws) and Royal Blue s.r.o, the parent company of PetExpert Europe s.r.o. (PetExpert), which added to our member base, we spent $80.4 million in new pet acquisition expense to acquire new members for the year ended December 31, 2022. Our average pet acquisition cost and the number of new pets we enroll depends on a number of factors and assumptions, including the effectiveness of our sales execution and marketing initiatives, changes in costs of media, the mix of our pet acquisition expenditures and the competitive environment. Our average pet acquisition cost has increased over time and has significantly varied in the past. In the future, our average pet acquisition cost may continue to rise and significantly vary period to period based upon specific marketing initiatives. We also regularly test new member acquisition channels and marketing initiatives, including direct-to-consumer initiatives, which often are more expensive than our traditional veterinarian-focused marketing channels and generally increase our average acquisition costs.

In addition, we base our decisions regarding our new pet acquisition expenditures primarily on our internal rate of return generated on an average pet. This analysis depends substantially on estimates and assumptions based on our historical experience with pets enrolled in earlier periods, including our key operating metrics. If our estimates and assumptions regarding our internal rate of return and the lifetime value of the pets that we project to acquire and our related decisions regarding investments in new pet acquisition prove incorrect, or if our calculation of internal rate of return and lifetime value of the pets that we project to acquire differs significantly from that of pets acquired in prior periods, we may be unable to recover our new pet acquisition expenses or generate profits from our investment in acquiring new members. Moreover, if our new pet acquisition expenses increase or we invest in member acquisition channels that do not ultimately result in the expected number of new member enrollments, the return on our investment may be lower than we anticipate irrespective of the lifetime value of the pets that we project to acquire as a result of the new members. If we cannot generate profits from this investment, we may need to alter our growth strategies, and our growth rate and operating results may be adversely affected. In addition, even if we decrease our average pet acquisition cost, our operating margins may differ from our expectations due to incorrect assumptions relating to existing members adding new pets or referring friends, expenses for member support, and other factors, some of which we do not control.

The prices of our subscriptions are based on assumptions and estimates. If our actual experience differs from the assumptions and estimates used in pricing our subscriptions or if we are unable to obtain any necessary regulatory approval for our pricing, our revenue and financial condition could be adversely affected.

The pricing of our subscriptions reflects amounts we expect to pay for a pet's medical care and we derive these prices from assumptions that we make based on our analytics platform. Our analytics platform draws upon pet data we collect and we use this data to price our policy in response to a number of factors, including a pet's species, breed, age, gender and location. Factors related to pet location include the current and assumed changes in the cost and availability of veterinary technology and treatments and local veterinary hospital preferences. Some data that feeds into our analytics platform is provided by third-party sources and these sources may limit or prevent us from accessing the data. Additionally, the assumptions we make about breeds and other factors in pricing may prove to be inaccurate and, accordingly, these pricing analytics may not accurately reflect the expense that we will ultimately incur. Furthermore, if any of our competitors develop similar or better data systems, adopt similar or better underwriting criteria and pricing models or receive our data, our competitive advantage could decline or be lost.

The prices of our subscriptions also reflect assumptions and estimates regarding our own operating costs and expenses. We monitor and manage our pricing and overall sales mix to achieve our target returns. If the actual costs, including veterinary invoice expenses, operating costs and expenses within anticipated pricing allowances, are greater than our assumptions and estimates such that the premiums we collect are insufficient to cover these expenses, then our results could be adversely affected and our revenue may be insufficient to consistently maintain profitability. Conversely, if our pricing assumptions differ from actual results such that we overprice risks, our competitiveness and growth prospects could be adversely affected.

In addition, most states require licensure and regulatory approval prior to marketing new insurance products. Our practice has been to regularly reevaluate and adjust the price of our subscriptions, with a goal of achieving our targeted payout ratio, subject to the review and approval of applicable state regulators, who may reduce or disallow our pricing changes. Such review has in the past resulted, and may in the future result, in delayed implementation of pricing changes, which could adversely affect our operating results and financial condition. In addition, we may be prevented by regulators from implementing significant pricing changes, requiring us to raise rates more quickly than we otherwise may desire. This could damage our reputation with our members and reduce our retention rates, which could significantly damage our brand, result in the loss of expected revenue and otherwise harm our business, operating results and financial condition.

If we are unable to grow our member base and maintain high member retention rates, our growth prospects and revenue will be adversely affected.

Our ability to grow our business depends on retaining and expanding our member base. For the year ended December 31, 2022, we generated 66.0% of our revenue from subscriptions. In order to continue to increase our membership, we must continue to convince prospective members of the benefits of pet insurance in general and our subscription in particular. To maintain our existing member base, we need to continue to reinforce the value of our subscription.

We utilize Territory Partners, who are paid fees based on enrollments and retention in their regions, to communicate the benefits of medical insurance to veterinarians through a combination of remote and in-person communications. Veterinarians then educate pet owners, who visit our website or call our contact center to learn more about these benefits, and potentially become members. We also invest in other third-party and direct-to-consumer member acquisition channels, though we have limited experience with some of them. We plan to expand the number of our Territory Partners and introduce other distribution channels to increase lead generation and to engage in other sales and promotional activities, including direct-to-consumer advertising and increasing our social media footprint, all of which are likely to increase our acquisition costs. In addition, these go-to-market plans may face unexpected delays, costs or other challenges, such as decreased ability of Territory Partners to conduct in-person visits with veterinarians.

We seek to convert pet owners who visit our website and call our contact center into members. The rate at which we convert these visitors into members is a significant factor in the growth of our member base. A number of factors have influenced, and could in the future influence, the conversion rates for any given period, some of which are outside of our control. These factors include:

- the competitiveness of our subscription, including its perceived value, simplicity, and fairness;
- potential consumer confusion as we add more products;
- changes in consumer shopping behaviors due to circumstances outside of our control, such as increased inflation and other economic conditions, the COVID-19 pandemic and containment efforts, and consumers' ability or willingness to pay for our product;
- legal or regulatory requirements, including those that make the experience on our website cumbersome or difficult to navigate or that hinder our ability to communicate with potential members quickly and in a way that is more conducive to conversion;
- system failures or interruptions in our website or contact center; and
- changes in the mix of consumers who learn about us through various member acquisition channels.

We have made and plan to continue to make substantial investments in features and enhanced functionalities for our website and support our contact center. These enhancements are designed to help appropriately direct pet owner traffic to the enrollment journey of their choice, increase member engagement, and improve member service. These activities do not directly generate revenue, however, and we may never realize any benefit from these investments. If the expenses that we incur in connection with these activities do not result in sufficient growth in members to offset the cost, our business, operating results and financial condition will be adversely affected.

We have historically experienced high average monthly retention rates. For example, our average monthly retention rate between 2010 and 2022 was 98.6%. We expect to continue to make significant expenditures relating to the retention of existing members.

If we do not retain our existing members or if our marketing initiatives do not result in enrolling more pets or result in enrolling pets that inherently have a lower retention rate, we may not be able to maintain our retention and new pet acquisition rates. Members we obtain through aggressive promotions or other channels that involve relatively less meaningful contact between us and the member are more likely to terminate their subscription. In the past, we have experienced reduced retention rates during periods of rapid member growth, as our retention rate generally has been lower during the first year of member enrollment. Members may choose to terminate their subscription for a variety of reasons, including perceived or actual lack of value, delays or other unsatisfactory experiences in how we review and process veterinary invoice payments, unsatisfactory member service, an economic downturn, increased subscription fees, loss of a pet, a more attractive offer from a competitor, changes in our subscription or other reasons, including reasons that are outside of our control. Our cost of acquiring a new member is substantially greater than the cost involved in maintaining our relationship with an existing member. If we are not able to successfully retain existing members and limit cancellations, our revenue and operating margins will be adversely impacted and our business, operating results and financial condition would be harmed.

We rely significantly on Territory Partners, veterinarians and other third parties, including strategic partners, to generate leads.

In order for us to implement our business strategy and grow our revenue, we must effectively maintain and increase the number and quality of our relationships with Territory Partners, veterinarians, existing members, complementary online and other businesses, animal shelters, breeders and veterinary affiliates, including veterinarian purchasing groups and associations and other referral sources, and continue to scale and improve our processes, programs and procedures that support them. Those processes, programs and procedures could become increasingly complex and difficult to manage as we grow and as a result of the COVID-19 pandemic.

Veterinary leads represent our largest member acquisition channel. We spend significant time and resources attracting qualified Territory Partners and providing them with current information about our business and they, in turn, communicate the benefits of medical insurance for pets to veterinarians. Our relationship with our Territory Partners may be terminated at any time (for instance, if they feel unsupported or undervalued by us), and, if terminated, we may not recoup the costs associated with educating them about our subscription products, and the relationship developed by that Territory Partner would be unsupported until such time a new Territory Partner is installed. Sometimes a single relationship may be used to cover multiple territories so that a terminated relationship with a Territory Partner could significantly affect our company. Further, if we experience an increase in the rate at which Territory Partner relationships are terminated, we may not develop or maintain relationships with veterinarians as quickly as we have in the past or need to in order to execute our business strategy and our growth and financial performance could be adversely affected.

Our ability to generate leads through veterinary hospitals could be negatively impacted if our policy is perceived to be inadequate, unreliable, cumbersome or otherwise does not provide sufficient value, or if our process for paying veterinary invoices is unsatisfactory to the veterinarians and their clients.

If we fail to establish new or are unable to maintain our existing member acquisition channels, if the cost of our existing sources increases or does not scale as we anticipate, or if we are unable to continue to use any existing channels or programs in any jurisdiction, including our exam day offer program, our member levels and pet acquisition expenses may be adversely affected.

Territory Partners are independent contractors and, as such, may pose additional risks to our business.

Territory Partners are independent contractors and, accordingly, we do not directly provide the same direction, motivation and oversight over Territory Partners as we otherwise could if Territory Partners were our own employees. Further, Territory Partners may themselves employ or engage others; we refer to these partners and their associates, collectively, as our Territory Partners. We do not control a Territory Partner's employment or engagement of others, and it is possible that the actions of their employees and/or contractors could create threatened or actual legal proceedings against us. Moreover, applicable law might prevent or limit our ability to include non-compete obligations in our contracts with Territory Partners. Similarly, Territory Partners may not require, or applicable law may not permit or may limit a Territory Partner's ability to subject their employees or service providers to non-compete obligations.

Territory Partners may decide not to participate in our marketing initiatives and/or training opportunities, accept our introduction of new solutions or comply with our policies and procedures applicable to them, any of which may adversely affect our ability to develop relationships with veterinarians and grow our membership. If we terminate a contract with a Territory Partner, such termination could also trigger contractually obligated termination payments or result in disputes, including threatened or actual legal or regulatory proceedings.

We believe that Territory Partners are not and should not be classified as employees under existing interpretations of the applicable laws of the jurisdictions in which we operate. We do not pay or withhold any employment tax with respect to or on behalf of Territory Partners or extend any benefits to them that we generally extend to our employees, and we otherwise treat Territory Partners as independent contractors. Applicable authorities or Territory Partners may in the future challenge this classification. Further, the applicable laws or regulations, including tax laws or interpretations, may change. If it were determined that we had misclassified any of our Territory Partners, we may be subjected to penalties and/or be required to pay withholding taxes, extend employee benefits, provide compensation for unpaid overtime, or otherwise incur substantially greater expenses with respect to Territory Partners. In addition, the costs associated with defending, settling, or resolving pending and future lawsuits (including demands for arbitration) relating to the independent contractor status of Territory Partners could be material to our business.

Any of the foregoing circumstances could have a material adverse impact on our operating results and financial condition.

We depend in part on Internet search engines to attract potential new members to visit our website. If Internet search engines' methodologies are modified or our search result page rankings decline for other reasons, our new member growth could decline, and our business and operating results could be harmed.

We endeavor to drive significant traffic to our website from consumers who search for pet medical insurance through Internet search engines such as Google, Bing and Yahoo!. A critical factor in attracting consumers searching for pet medical insurance on the Internet to our website is whether we are prominently displayed in response to Internet searches relating to pet insurance. Algorithmic search result listings are determined and displayed in accordance with a set of formulas or algorithms developed by the particular Internet search engine, which may change from time to time. If we are listed less prominently in, or removed altogether from, search result listings for any reason, the traffic to our websites would decline and we may not be able to replace this traffic, which in turn would harm our business, operating results and financial condition. If we decide to attempt to replace this traffic, we may be required to increase our pet acquisition expenditures, including by utilizing paid search advertising. Certain of our competitors have spent additional funds to promote their products in search results over us. If we decide to respond by purchasing search advertising, our pet acquisition costs would increase which may harm our business, operating results and financial condition.

Our actual veterinary invoice expense may exceed our current reserve established for veterinary invoices and may adversely affect our operating results and financial condition.

We maintain a recorded reserve for veterinary invoices that is based on our best estimates of the amount of veterinary invoices we expect to pay, inclusive of an estimate for veterinary invoices we have not yet received, after considering internal factors, including data from our proprietary data analytics platform, experience with similar cases, actual veterinary invoices paid, historical trends involving veterinary invoice payment patterns, patterns of receipt of veterinary invoices, seasonality, pending levels of unpaid veterinary invoices, veterinary invoice processing programs and contractual terms. We may also consider external factors, including changes in the law, court decisions, changes to regulatory requirements and economic conditions. Because reserves are estimates of veterinary invoices that have been incurred but are not yet submitted to us, setting appropriate reserves is an inherently uncertain and complex process that involves significant subjective judgment. Further, we do not transfer or cede our risk as an insurer and, therefore, we maintain more risk than we would if we purchased reinsurance.

Rising costs of veterinary care and the increasing availability and usage of more expensive, technologically advanced medical treatments may increase the amounts of veterinary invoices we receive. Increases in the number of veterinary invoices we receive could arise from unexpected events that are inherently difficult to predict, such as a pandemic that spreads through the pet population, tainted pet food or supplies or an unusually high number of serious injuries or illnesses. We may experience volatility in the number of veterinary invoices we receive from time to time, and short-term trends may not continue over the longer term. The number of veterinary invoices may be affected by the level of care and attentiveness an owner provides to the pet, the pet’s breed and age (at enrollment) and other factors outside of our control, as well as fluctuations in member retention rates and by new member initiatives that encourage an increase in veterinary invoices and other new member acquisition activities.

The ultimate cost of paying veterinary invoices and the related administration may vary materially from recorded reserves, and such variance may result in adjustments to the reserve for veterinary invoices, which could have a material effect on our operating results and resources available for acquiring additional members.

If more veterinary hospitals install and use our patented proprietary software, the number or amounts of veterinary invoices we receive is likely to increase.

Our patented proprietary software is designed to integrate directly with most practice management software systems used by veterinary hospitals and allow us to receive and pay veterinarian invoices directly to the hospital. We believe that it is critical to our long-term success to improve the member experience so we encourage veterinary hospitals to install and use our software. We have found that installation and use of our software by a veterinary hospital could increase the number of invoices we receive from that hospital. As more veterinary hospitals install our software, we expect the number or amounts of veterinary invoices to increase and result in an increase in our cost of revenue, which may have a material adverse effect on our financial condition.

Our use of capital may be constrained by minimum capital requirements or contractual obligations.

Our insurance subsidiaries are required to maintain minimum levels of surplus to support our overall business operations in consideration of our size and risk profile. We have in the past and may in the future fail to maintain the amount of risk-based capital required to avoid potentially costly additional regulatory oversight. For example, we maintained in excess of $142.4 million in risk-based capital as of December 31, 2022. We are also subject to a contractual obligation related to our reinsurance agreement with Omega, who currently writes our policies in Canada. Under this agreement, we are required to fund a Canadian trust account in accordance with Canadian regulations. As of December 31, 2022, the account held CAD $10.4 million.

To comply with these regulations and contractual obligations, we may be required to maintain capital that we would otherwise invest in our growth and operations, which may require us to modify our operating plan or marketing initiatives, delay the implementation of new initiatives or development of new technologies, decrease the rate at which we hire additional personnel and enter into relationships with Territory Partners, incur indebtedness or pursue equity or debt financings or otherwise modify our business operations, any of which could have a material adverse effect on our operating results and financial condition. For the year ended December 31, 2022, we accessed our line of credit, in part, to ensure we maintained the necessary amount of risk-based capital.

Our success depends in part on our ability to review, process, and pay veterinary invoices timely and accurately.

We believe member satisfaction and retention depends in part on our ability to accurately evaluate and pay veterinary invoices in a timely manner. Many factors can affect our ability to do this, including the training, experience and skill of our personnel, our ability to reduce the number of payment requests made for services not included in our subscription, effectiveness of management, our ability to develop or select and implement appropriate procedures, supporting technologies and systems, changes in our policy and veterinarian compliance with our protocols and procedures. Our failure to pay veterinary invoices, accurately and in a timely manner, or to deploy resources appropriately, could result in unanticipated costs to us, lead to material litigation, undermine member goodwill and our reputation, and impair our brand image and, as a result, materially and adversely affect our competitiveness, financial results, prospects and liquidity.

In addition, we use artificial intelligence and machine learning to leverage data so we can automate the payment of veterinary invoices. Although we intend to increase the percentage of veterinary invoices paid without human intervention and process veterinary invoices in seconds, our efforts may be unsuccessful for a number of reasons. The data we gather is extensive, and the development, maintenance and operation of our data analytics engine is novel, expensive and complex. We may face unforeseen difficulties, including material performance problems, undetected defects or technical obstacles, for example, with new capabilities incorporating machine learning. If such problems, defects, or obstacles prevent our proprietary algorithms from operating properly, we may incorrectly pay or deny claims made by our customers. Such errors could result in existing customers canceling their policies, prospective customers declining to purchase our subscription, or improper payments that reduce our resources. Additionally, our artificial intelligence and machine learning algorithms may lead to unintentional bias or discrimination, which could subject us to legal or regulatory liability that has a material and adverse effect on our business, results of operations and financial condition.

We may not identify fraudulent or improperly inflated veterinary invoices.

It is possible that we may pay a veterinary invoice which appears authentic but in fact reflects false, products or prices. It is also possible that veterinarians will charge insured customers higher amounts than they would charge their non-insured clients for the same service or product, or may alter medical records or exclude information from records. Such activity could lead to unanticipated costs to us and/or to time and expense to recover such costs. They could also lead to strained relationships with veterinarians and/or members, and could adversely affect our competitiveness, financial results and liquidity.

We are and will continue to be faced with many competitive challenges, any of which could adversely affect our prospects, operating results and financial condition.

We compete with pet owners that self-finance unexpected veterinary invoices with savings or credit, as well as traditional "pet insurance" providers and relatively new entrants into our market. The vast majority of pet owners in the United States and Canada do not currently have medical insurance for their pets. We are focused primarily on expanding our share of the overall market, and we view our primary competitive challenge as educating pet owners on why our subscription is a better alternative to self-financing.

Additionally, there are traditional insurance companies that provide pet insurance products, either as a stand-alone product or along with a broad range of other insurance products, such as wellness. In addition, new entrants backed by large insurance companies have entered the pet insurance market in the past and more may do so in the future. Further, traditional "pet insurance" providers may consolidate or take other actions to mimic the efficiencies from our vertically-integrated structure or create other operational efficiencies, which could lead to increased competition.

Some of our current and potential competitors have longer operating histories, larger customer bases, greater brand recognition and significantly greater financial, technical, marketing and other resources than we do. In addition to competing for new enrollments, such competitors may drive up pet acquisition costs and/or make offers that are more attractive to potential employees, referral sources and third-party service providers.

Moreover, some of our existing competitors may consolidate or be acquired, or may enter into new alliances with each other or establish or strengthen cooperative relationships. Any such consolidation, acquisition, alliance or cooperative relationship could adversely affect our ability to compete effectively and result in our loss of market share and could result in a competitor with greater financial, technical, marketing, service and other resources, all of which could harm our business, financial condition, cash flows and results of operations.

To compete effectively, we believe we will need to continue to invest significant resources in pet acquisition, in improving our member service levels, in the online experience and functionalities of our website and in other technologies and infrastructure. Failure to compete effectively against our current or future competitors could result in loss of current or potential members, which could adversely affect our pricing, lower our revenue, prevent us from maintaining profitability and diminish our brand strength.

If we are unable to maintain and enhance our brand recognition and reputation, our business and operating results will be harmed.

We believe that maintaining and enhancing our brand recognition and reputation is critical to our relationships with existing members, Territory Partners, veterinarians and others, and to our ability to attract new members, new Territory Partners, and additional supportive veterinarians. We also believe that the importance of our brand recognition and reputation will continue to increase as competition in our market continues to develop and mature. Our success in this area will depend on a wide range of factors, some of which are out of our control, including the following:

- the efficacy and viability of our pet acquisition programs and initiatives;
- the perceived value of our subscription;
- the quality of service provided, including the fairness, ease and timeliness of reviewing and paying veterinary invoices;
- actions of our competitors, Territory Partners, veterinarians and others;
- positive or negative publicity, including regulatory pronouncements and material on the Internet or social media;
- regulatory and other government-related developments; and
- litigation-related developments.

The promotion of our brand will require us to make substantial investments, and we anticipate that, as our market becomes increasingly competitive, these branding initiatives may become increasingly difficult and expensive. Our brand promotion activities may not be successful or yield increased revenue, and to the extent that these activities result in increased revenue, the increased revenue may not offset the expenses we incur and our operating results could be harmed. If we do not successfully maintain and enhance our brand, our business may not grow which would harm our operating results and financial condition.

Furthermore, negative publicity, whether or not justified, relating to events or activities attributed to us, our employees, Territory Partners, our strategic partners, our affiliates, or others associated with any of these parties, may tarnish our reputation and reduce the value of our brands. Damage to our reputation and loss of brand equity may reduce demand for our services and have an adverse effect on our business, operating results, and financial condition. Moreover, any attempts to rebuild our reputation and restore the value of our brands may be costly and time consuming, and such efforts may not ultimately be successful.

Our business depends on our ability to maintain and scale the infrastructure necessary to operate our technology platform and could be adversely affected by a system failure.

Our business depends on our ability to maintain and scale the infrastructure necessary to operate our technology platform, which includes our analytics and pricing engine, systems for managing veterinary invoice payments, customer relationship management system, billing system, contact center phone system and website. We use these technology frameworks to price our subscriptions, enroll members, engage with current members and pay veterinary invoices. Our members review and purchase subscriptions through our website and contact center, and for those veterinary hospitals who have installed our patented proprietary software, we receive and pay veterinarian invoices directly to the hospitals through our software. Our reputation and ability to acquire, retain and serve our members and support our partners depends on the reliable performance of our technology platform and the underlying network systems and infrastructure, and on providing best-in-class member service, including through our contact center and website. As our member base continues to grow, the amount of information collected and stored on the systems and infrastructure supporting our technology platform will continue to grow, and we expect to require an increasing amount of network capacity, computing power and information technology personnel to develop and maintain our technology platform and service our departments involved in member interaction.

We have made, and expect to continue to make, substantial investments in equipment and related network infrastructure to handle the operational demands on our technology platform, including increasing data collection, software development, traffic on our website and the volume of calls at our contact center. The operation of the systems and infrastructure supporting our technology platform is expensive and complex and could experience operational failures. In the event that our data collection, member base or amount of traffic on these systems grows more quickly than anticipated, we may be required to incur significant additional costs to increase the capacity in our systems. Further, our development and implementation activities may not be successful, may not be well-received by veterinarians or by new or existing members, particularly if they are costly, cumbersome or unreliable, and we may incur delays or cost overruns or elect to curtail our currently planned expenditures related to them. Even if our system improvements are well-received, they may be or become obsolete due to technological reasons or the availability of alternative solutions in the marketplace. If new solutions and enhancements are not successful on a long-term basis, we may not realize benefits from these investments, and our business and financial condition could be adversely affected.

In addition, any system failure that causes an interruption in or decreases the responsiveness of our services could impair our revenue-generating capabilities, harm our business and operating results and damage our reputation. In addition, any loss or mishandling of data could result in breach of confidence, competitive disadvantage or loss of members, and subject us to potential liability. Any failure of the systems and infrastructure that we rely on could negatively impact our enrollments as well as our relationship with members. If we do not maintain or expand the systems and infrastructure underlying our technology platform successfully, or if we experience operational failures, our reputation could be harmed and we could lose current and potential members, which could harm our operating results and financial condition.

If we fail to effectively manage our growth, our business, operating results and financial condition may suffer.

We have recently experienced, and expect to continue to experience, significant growth, which has placed, and may continue to place, significant demands on our management and our operational and financial systems and infrastructure. We expect that our growth strategy will require us to commit substantial financial, operational and technical resources and this commitment may also result in increased costs (such as member acquisition costs or costs associated with increases in the number or amounts of veterinary invoices received) generated by our business, which could prevent us from achieving profitability and remaining profitable and could impair our ability to compete effectively for business. If we do not effectively manage growth at any time, our financial condition could be harmed and the quality of our services could suffer.

In order to successfully expand our business, we need to hire, integrate and retain highly skilled and motivated employees and continue to improve our existing systems for operational and financial management. These improvements could require significant capital expenditures and place increasing demands on our management. If we do not successfully implement improvements in these areas, our business, operating results and financial condition will be harmed.

Emerging claim and coverage issues may adversely affect our business.

As industry practices and legal, judicial, social and other environmental conditions change, unexpected and unintended issues related to claims and coverage may emerge, including new or expanded theories of liability. These or other changes could impose new financial obligations on us by extending coverage beyond our underwriting intent or otherwise require us to make unplanned modifications to the products and services that we provide, or cause the delay or cancellation of products and services that we provide. In some instances, these changes may not become apparent until sometime after we have issued subscriptions that are affected by the changes. As a result, the full extent of liability under our subscriptions may not be known for many years after the subscription begins.

Our operating results may vary, which could make period-to-period comparisons less meaningful, and make our future results difficult to predict.

We have historically and may in the future experience fluctuations in our revenue, expenses and operating results. Our operating results may fluctuate in the future as a result of a number of factors, many of which are beyond our control. These fluctuations may make comparing our operating results on a period-to-period basis less meaningful and make our future results difficult to predict. You should not rely on our past results as an indication of our future performance. In addition, if revenue levels do not meet our expectations, our operating results and ability to execute on our business plan are likely to be harmed.

Seasonal or periodic variations in the behavior of our members also may cause fluctuations in our financial results. Enrollment in our subscription tends to be discretionary in nature and may be sporadic, reflecting overall economic conditions, budgeting constraints, pet-buying patterns and a variety of other factors, many of which are outside our control.

Due to these and other factors, our financial results for any quarterly or annual period may not meet our expectations or the expectations of investors or analysts that follow our stock and may not be meaningful indications of our future performance.

Changes in the economy may affect consumer spending on our subscription and this may negatively impact our business, operating results and financial condition.

Our business may be affected by changes in the economic environment. Medical insurance for cats and dogs is a discretionary purchase, and members may reduce or eliminate their discretionary spending during an economic downturn, resulting in an increase in subscription cancellations and a reduction in the number of new member enrollments. We may experience a material increase in cancellations or a material reduction in our member retention rate in the future, especially in the event of a prolonged recessionary period or a downturn in economic conditions. Conversely, consumers may have more income to pay veterinary costs out-of-pocket and less desire to purchase our subscription during a period of economic growth. In addition, media prices may increase during a period of economic growth, which could increase our new pet acquisition expenses. As a result, our business, operating results and financial condition may be significantly affected by changes in the economic environment.

We depend on key personnel to operate our business and, if we are unable to retain, attract and integrate qualified personnel, our ability to develop and successfully grow our business could be harmed.

Our success depends to a significant extent on the continued services of our current management team, including Darryl Rawlings, our founder, Chief Executive Officer and Chairperson of the Board. The loss of Mr. Rawlings or several other key executives or employees within a short time frame could have a material adverse effect on our business. We employ all of our employees, including executive officers and key employees on an at-will basis, and their employment can be terminated by us or them at any time, for any reason and without notice, subject to severance payment obligations. In order to retain valuable employees, in addition to salary and cash incentives, we have provided stock options and restricted stock that vest over time. While we may in the future grant equity awards tied to company performance, if we do not achieve certain financial goals, we will not grant equity awards and this may affect our ability to retain employees. The value to employees of stock options and restricted stock that vest over time will be significantly affected by movements in our stock price that are beyond our control and may at any time be insufficient to maintain their retention benefit or counteract offers from other companies. We would be adversely affected if we fail to adequately plan for the succession of our senior management and other key employees. Additionally, if we were to lose a large percentage of our current employees in a relatively short time period, or our employees were to engage in a work stoppage or unionize, we may be unable to hire and train new employees quickly enough to prevent disruptions in our operations, which may result in the loss of members, Territory Partners and/or referral sources.

Our success also depends on our ability to attract, retain and motivate additional skilled management personnel. We plan to continue to expand our work force, which we believe will enhance our business and operating results. We believe that there is significant competition for qualified personnel with the skills and knowledge that we require. Many of the other companies with which we compete for qualified personnel have greater financial and other resources than we do. New hires require significant training, capital expenditures and, in most cases, significant time before they achieve full productivity. New employees may not become as productive as we expect, and we may be unable to hire or retain sufficient numbers of qualified individuals. If we do not successfully hire and integrate new employees in accordance with our plans, our business, operating results and financial condition will be harmed.

We may continue to create, invest in or acquire businesses, products and technologies, which could divert our management's attention, result in additional dilution to our stockholders, otherwise disrupt our operations or harm our operating results.

We have in the past created, invested in or acquired complementary businesses, products, technologies and new lines of business, and we may continue to do so in the future. Our ability to successfully evaluate and manage investment opportunities, or make and integrate acquisitions or products, is unproven. For example, we have invested in a pet food initiative, and we believe that pet food may be an important part of our offerings over the long term. We do not have experience manufacturing, selling, or distributing food products and pet food manufacturing facilities and pet food products are subject to many laws and regulations administered by the United States Department of Agriculture, the Federal Food and Drug Administration, the Occupational Safety and Health Administration, and other federal, state, local, and foreign governmental agencies relating to the production, packaging, labelling, storage, distribution, quality, and safety of food products and the health and safety of employees. We have also acquired technology intended to enable us to improve our back-end software and facilitate certain expansion efforts, but technology integration is complicated, expensive and time consuming, and it may not result in us realizing the intended benefits from the acquisition.

The pursuit of potential new products, investments or acquisitions may divert the attention of management and cause us to incur various expenses in identifying, investigating and pursuing suitable opportunities, whether or not they are consummated. Further, even if we successfully invest in or acquire additional businesses or technologies, we may not achieve the anticipated benefits from the transaction. The investment or acquisition may also expose us to additional risks, including from unknowingly inheriting liabilities that are not adequately covered by contractual remedies. Acquisitions or investments could also result in dilutive issuances of equity securities or the incurrence of debt, which could adversely affect our operating results.

If we do not spend our development budget efficiently or effectively on commercially successful and innovative offerings and products, we may not realize the expected benefits of our strategy. Further, our development efforts with respect to new products and offerings and integrations of acquired businesses could distract management from current operations, and will divert capital and other resources from our more established products and offerings. If an investment or acquisition fails to meet our expectations, our business, operating results and financial condition may suffer.

We may not realize the benefits of our current and planned strategic relationships.

Our growth strategy includes developing and maintaining strategic relationships with various third parties. For example, in October 2020, we entered into a Strategic Alliance Agreement and certain related agreements with Aflac Incorporated (Aflac). We generally pursue strategic relationships with industry leaders that may offer us expanded access to segments of the pet owner market. For these efforts to be successful, we must successfully enter into agreements with these third parties on terms that are attractive to us, and then successfully implement the arrangement, which requires integrating and coordinating their resources and capabilities with our own, which may present challenges relating to technology integration, marketing, regulatory matters, customer support, and other operational matters. We may be unsuccessful in entering into agreements with acceptable third parties, negotiating favorable terms in these agreements, or achieving the anticipated results. In addition, our strategic relationships may require us to agree to exclusivity or other terms that may limit our ability to pursue opportunities we might otherwise pursue. For example, we have agreed to work exclusively with Aflac to develop opportunities in Japan's pet insurance marketplace, which may prevent us from pursuing alternative opportunities. In connection with our strategic relationships, we have in the past and may in the future provide equity consideration, impose contractual holding periods for such securities, impose standstill obligations or include other requirements that terminate in the event the strategic relationship ceases, which may have an adverse effect on our stock price and otherwise cause our business to suffer.

Strategic relationships also involve various risks, depending on their structure, including the following:

- our strategic partners may not be successful in creating leads;
- we may be unable to convert leads from our strategic partners into enrolled pets;
- our strategic partners could terminate their relationships with us;
- our strategic partners may acquire or form alliances with our competitors, thereby reducing their business with us;
- we may overpay strategic partners relative to the business the relationship generates; and
- bad publicity and other issues faced by our strategic partners could negatively impact us.

If we are unsuccessful in our strategic relationships, we may not realize the intended benefits of these relationships, lose the investment we have made in these relationships, face difficulty entering into other relationships, and our business may suffer.

Our business and financial condition is subject to risks related to our writing of policies for unaffiliated third parties.

Our other business segment includes revenues and expenses related to underwriting policies on behalf of third parties that do not carry reference to the Trupanion brand. The contractual relationships with these third parties may be terminated by either party or the third party may choose to begin a relationship with a different underwriter. Any termination of these relationships could result in a reduction in our revenue. For the year ended December 31, 2022, premiums from policies sourced by general agents accounted for 32% of our total revenue, and one general agent sourced members whose premiums accounted for over 10% of our total revenue. Further, in administering or marketing a product to consumers, if an unaffiliated third party makes an operating decision that adversely affects its business or brand, our business or brand could also be adversely impacted. We expect to roll off a portion of our other business starting in 2023 in order to allow us to utilize capital for other purposes, but we do not control the timing or extent of this roll off and, accordingly, it may not proceed as we expect, which could cause our results to fluctuate or have other unexpected impacts on our business.

Changes to this business may be volatile due to the nature of the relationships. Further, this business historically has had, and we expect it to continue to have, lower margins than our core business. As a result of this business, we are subject to additional regulatory requirements and scrutiny, which increase our costs and risks, and may have an adverse effect on our operations. Further, administration of this business and any similar business in the future may divert our time and attention away from our core business, which could adversely affect our operating results in the aggregate.

In Canada, our medical plan is written by Omega General Insurance Company. If Omega were to terminate its underwriting arrangement with us, our business could be adversely affected.

In Canada, our pet insurance subscription is currently written by Omega, and we assume all premiums written by Omega and the related veterinary invoice expense through an agency agreement and a fronting and administration agreement. We expect to begin to underwrite our own products in Canada through our wholly-owned subsidiary, GPIC Insurance Company (GPIC). If Omega were to terminate our agreement or be unable to write insurance for regulatory or other reasons, in particular before GPIC is duly authorized to write insurance across all Canadian jurisdictions, we may have to terminate subscriptions with our existing Canadian members and/or suspend member enrollment and renewals in Canada. In addition, as we move business from Omega to GPIC, we may be required to contribute more risk-based capital than expected into GPIC.

We are expanding our operations internationally, and we may therefore become subject to a number of risks associated with international expansion and operations.

We are expanding our operations internationally and expect to continue exploring outside of North America. For instance, we have entered the Australian market in 2019 through a joint venture. In August 2022 we purchased Smart Paws, a managing general agent for pet insurance with operations based in Germany and Switzerland, and in November 2022 we acquired PetExpert, a managing general agent for pet insurance with operations based in the Czech Republic and Slovakia. We have limited history of marketing, selling, administering and supporting our subscription product for consumers outside of the North America. In general, international sales and operations may be subject to a number of risks, including the following:

- regulatory rules and practices, foreign exchange controls, tariffs, tax laws and treaties that are different than those we operate under currently;
- the costs and resources required to modify our subscription appropriately to suit the needs and expectations of residents and veterinarians in such foreign countries;
- our data analytics platform may have limited applicability in foreign countries, which may impact our ability to develop adequate underwriting criteria and accurately price subscriptions in such countries;
- increased expenses incurred in establishing and maintaining office space and equipment for our international operations;
- technological incompatibility between our patented proprietary software and software used by veterinarians;
- difficulties in modifying our business model or subscription in a manner suitable for any particular foreign country, including any modifications to our Territory Partner model to the extent we determine that our existing model is not suitable for use in foreign countries;
- our lack of experience in marketing to consumers and veterinarians and online engagement in foreign countries, especially if doing so in a foreign language;
- our relative lack of industry connections in many foreign countries;
- our ability to locally hire, integrate and retain highly skilled and motivated employees and establish and improve systems for operational and financial management where appropriate;
- difficulties in managing operations due to language barriers, distance and time zone differences, staffing, cultural differences and business infrastructure constraints, including difficulty in obtaining foreign and domestic visas;
- the uncertainty of protection for intellectual property rights in some countries; and
- general economic and political conditions in these foreign markets.

These and other factors could harm our ability to gain future international revenue and increase our expenses, which would materially impact our business and operating results. The expansion of our existing international operations and entry into additional international markets will require significant management attention and financial resources, which may detract from management attention and financial resources otherwise available to our existing business. Our failure to successfully manage our international operations and the associated risks effectively could limit the future growth of our business and could have an adverse effect on our operating results and financial condition.

Changes in foreign exchange rates may adversely affect our revenue and operating results.

In addition to the United States, we offer products in Canada, several European countries, and Australia, and we are pursuing operations in other jurisdictions such as Japan. These activities expose us to the risk of changes in currency exchange rates. For the year ended December 31, 2022, approximately 15% of our total revenue was generated in Canada. While we have not experienced material exposure to exchange rates in Australia or Europe, that may not continue. Fluctuations in the relative strength of the US dollar compared to the currencies of other jurisdictions in which we operate has in the past and could in the future adversely affect our revenue and operating results. Moreover, in the future, we may expand the number of countries in which we offer products and operate and this could increase our exposure to currency exchange rate fluctuations.

Owning multiple insurance subsidiaries may harm our results of operations.

We currently own one of the insurers through which we are issuing products - APIC, a New York domiciled insurer. We also own and have regulatory approvals for two new insurers domiciled respectively in Missouri and Nebraska, ZPIC Insurance Company and QPIC Insurance Company. We are currently pursuing so-called expansion applications for these entities in most United States jurisdictions. In addition, we own and are pursuing Canadian regulatory approvals for our Canadian insurer GPIC and we may also seek to acquire or establish other insurers.

Acquisitions and operations of these insurers presents a number of risks, including the following:

- Acquiring or forming a new insurance subsidiary may divert the attention of management and cause us to incur various expenses in identifying, investigating and pursuing suitable opportunities, whether or not the acquisition or formation is completed.
- Even if we are successful in forming or acquiring a new insurance subsidiary we may not achieve the anticipated benefits.

- Each insurance entity will likely require a significant initial minimum capital contribution.
- Each insurance entity will be subject to additional regulatory scrutiny in the jurisdiction of incorporation and any additional jurisdictions in which the insurance subsidiary operates. Failure to comply with laws, regulations and guidelines applicable to a new insurance subsidiary could result in significant liability, result in the loss of revenue and otherwise harm our business, operating results and financial condition.
- A supervisory regulator may increase the amount of capital we must hold in an insurance subsidiary, especially if it shows material growth. We may not have easy access to such capital, and using it for this purpose may prevent us from investing in our growth and operations, which may require us to modify our operating plan, delay new initiatives, interfere with personnel growth, incur indebtedness or pursue financings, or otherwise modify our operations, any of which could have a material adverse effect on our operating results and financial condition.
- If the required minimum capital in one of our insurers falls below the required threshold, the responsible regulator may take action, or such a reduction may result in a breach of various contractual relationships, including, for example, with the unaffiliated general agents for which we write pet insurance policies, which may give such parties the ability to cancel their contracts with us and/or sue us for damages related to our risk-based capital levels, which could have a material adverse effect on our financial condition.
- We may not obtain required regulatory approvals in connection with potentially investing a portion of an insurer's assets, for example in real property.

We may require additional capital to meet our risk-based capital requirements, pursue our business objectives and respond to business opportunities, challenges or unforeseen circumstances. If capital is not available to us at any time, our business, operating results and financial condition may be harmed.

We may require additional capital to meet our risk-based capital requirements, operate or expand our business or respond to unforeseen circumstances. Additional funds may not be available when we need them, on terms that are acceptable to us, or at all. For instance, our arrangement with Aflac requires that, before we issue or sell equity to another investor, we are required to provide Aflac an opportunity to purchase equity allowing them to maintain their ownership percentage. This requirement may introduce delays or prevent us from raising funds through the issuance of securities. If we raise additional funds through the issuance of equity or convertible securities, the percentage ownership of holders of our common stock could be significantly diluted and these newly issued securities may have rights, preferences or privileges senior to those of holders of our common stock. Further, volatility in the equity markets may have an adverse effect on our ability to obtain equity financing or the cost of such financing and, in the event we require additional debt financing, volatility in the debt markets may have an adverse effect on our ability to obtain debt financing or the cost of such financing. Similarly, our access to funds may be impaired if regulatory authorities or rating agencies take negative actions against us. If a combination of these factors were to occur, our internal sources of liquidity may prove to be insufficient and, in such case, we may not be able to successfully obtain additional financing on favorable terms. If funds are unavailable to us on reasonable terms when we need them, we may be unable to meet our risk-based capital requirements, train and support our employees, support Territory Partners, maintain the competitiveness of our technology, pursue business opportunities, service our existing debt, pay veterinary invoices or acquire new members, any of which could have an adverse effect on our business, operating results and financial condition.

If we are unable to maintain effective internal control over financial reporting in the future, investors may lose confidence in the accuracy and completeness of our financial reports and the market price of our common stock may be negatively affected.

Section 404 of the Sarbanes-Oxley Act of 2002 (the Sarbanes-Oxley Act) requires that we evaluate and determine the effectiveness of our internal control over financial reporting and provide a management report on the internal control over financial reporting, which must be attested to by our independent registered public accounting firm.

We may not detect errors on a timely basis and our financial statements may be materially misstated. We have had in the past, and may have in the future, material weaknesses and significant deficiencies in our internal control over financial reporting. If we or our independent registered public accounting firm identify future material weaknesses in our internal control over financial reporting, we are unable to comply with the requirements of Section 404 in a timely manner, we are unable to assert that our internal control over financial reporting is effective or our independent registered public accounting firm is unable to express an opinion as to the effectiveness of our internal control over financial reporting, investors may lose confidence in the accuracy and completeness of our financial reports and the market price of our common stock could be negatively affected. We could also become subject to investigations by the stock exchange on which our securities are listed, the SEC or other regulatory authorities, which could require additional financial and management resources.

If our security measures are breached and unauthorized access is obtained to our data, including our members' data, we may lose our competitive advantage, our systems may be perceived as not being secure and we may incur third-party liability.

Our data repository contains proprietary information that we believe gives us a competitive advantage, including data on veterinary invoices received and other data with respect to members, Territory Partners, veterinarians and other third parties. We also collect and utilize demographic and other information from and about our members when they visit our website, call our contact center and apply for enrollment. Further, we use tracking technologies, including "cookies," to help us manage and track our members' interactions and deliver relevant advice and advertising. Security breaches could expose us to a risk of loss of our data and/or disclosure of this data, either publicly or to a third party who could use the information to gain a competitive advantage. Because techniques used to obtain unauthorized access or to sabotage systems change frequently and generally are not recognized until launched against a target, we may be unable to anticipate these techniques or implement adequate preventative measures. In the event of a loss of our systems or data, we could experience increased costs, delays, legal liability and reputational harm, which in turn may harm our financial condition, damage our brand and result in the loss of members. Such a disclosure also could lead to litigation and possible liability.

In the course of operating our business, we store and/or transmit our members' confidential information, including credit card and bank account numbers and other private information. Because the methods used to obtain unauthorized access to private information change frequently and may be difficult to detect for long periods of time, security breaches would expose us to a risk of loss of this information, litigation and possible liability. Our payment services are similarly susceptible to credit card and other payment fraud schemes, including unauthorized use of credit cards, debit cards or bank account information, identity theft or merchant fraud.

If our security measures are breached as a result of third-party action, employee error, malfeasance or otherwise, and, as a result, someone obtains unauthorized access to our data, including data of our members, our reputation may be damaged, our business may suffer and we could incur significant liability. Because techniques used to obtain unauthorized access or to sabotage systems change frequently and generally are not recognized until launched against a target, we may be unable to anticipate these techniques or implement adequate preventative measures. If an actual or perceived breach of our security occurs, the public perception of the effectiveness of our security measures could be harmed.

In addition, cyber-attacks or acts of terrorism could cause disruptions in our business or the economy as a whole. Our servers and systems may also be vulnerable to computer viruses, break-ins and similar disruptions from unauthorized tampering with our computer systems, which could lead to interruptions, delays, loss of critical data or the unauthorized disclosure of confidential member data. We currently have limited disaster recovery capability, and our business interruption insurance may be insufficient to compensate us for losses that may occur. Such disruptions could negatively impact our ability to run our business, which could have an adverse effect on our operating results and financial condition.

We are subject to a number of risks related to accepting automatic fund transfers and credit card and debit card payments.

We accept payments of subscription fees from our members through automatic fund transfers and credit and debit card transactions. For credit and debit card payments, we pay interchange and other fees, which may increase over time. An increase in the number of members who utilize credit and debit cards to pay their subscription fees or related credit and debit card fees would reduce our margins and could require us to increase subscription fees, which could cause us to lose members and revenue, or suffer an increase in our operating expenses, either of which could adversely affect our operating results.

If we, or any of our processing vendors or banks have problems with our billing software, or if the billing software malfunctions, it could have an adverse effect on our member satisfaction and could cause one or more of the major credit card companies or banks to disallow our continued use of their payment products. In addition, if our billing software fails to work properly and, as a result, we do not automatically charge our members' credit cards on a timely basis or at all, or a bank withdraws the incorrect amount or fails to timely transfer the correct amount to us, we could lose revenue and harm our member experience, which could adversely affect our business and operating results. Moreover, a vendor could fail to process payments, or could process payments in the wrong amounts, which could result in us failing to collect premiums, could result in increased cancellations and could adversely affect our reputation.

We are also subject to payment card association operating rules, certification requirements and rules governing electronic funds transfers, including the Payment Card Industry Data Security Standard (PCI DSS), a security standard applicable to companies that collect, store or transmit certain data regarding credit and debit cards, holders and transactions. Although we are currently compliant with PCI DSS, in the past we were not, and in the future we may not be, fully or materially compliant with PCI DSS, or other payment card operating rules. Any failure to comply with the PCI DSS in the future may violate payment card association operating rules, federal and state laws and regulations, and the terms of our contracts with payment processors and merchant banks. Such failure to comply may subject us to fines, penalties, damages and civil liability, and may result in the loss of our ability to accept credit and debit card payments. In addition, there is no guarantee that PCI DSS compliance will prevent illegal or improper use of our payment systems or the theft, loss or misuse of data pertaining to credit and debit cards, credit and debit card holders and credit and debit card transactions.

If we fail to adequately control fraudulent credit card transactions, we may face civil liability, diminished public perception of our security measures and significantly higher credit card-related costs, each of which could adversely affect our business, operating results and financial condition.

If we are unable to maintain our chargeback rate at acceptable levels, our credit card fees for chargeback transactions, or our fees for many or all categories of credit and debit card transactions, credit card companies and debit card issuers may increase our fees or terminate their relationship with us. Any increases in our credit card and debit card fees could adversely affect our operating results, particularly if we elect not to raise our subscription fees. The termination of our ability to process payments on any major credit or debit card would significantly impair our ability to operate our business.

We have limited experience owning an office building and may face unexpected costs.

In August 2018, we purchased our headquarters office building in Seattle, Washington, USA. Prior to this purchase, we had no experience owning an office building. It is difficult to predict all costs associated with maintaining the building and ensuring it is suitable for our use and that of other tenants and maintain compliance with all environmental and other regulations applicable to ownership of real estate. It is possible that the other current tenants in the building may cease to rent space in the building, which would decrease rental income we expect to receive from them, could cause a reduction in the value of the building. Tenants may also negotiate tenant improvements, requiring capital expenditures that may adversely impact our financial position. In addition, we may identify structural defects or other conditions, or we may determine that remodeling or renovations are necessary given our business operations and objectives. Managing tenants, maintaining the building, and otherwise facing the costs and responsibilities of being the owner of a building may be a distraction from our core business and cause our performance to suffer.

Failure to adequately protect our intellectual property could substantially harm our business and operating results.

We rely on a combination of intellectual property rights, including trade secrets, patents, copyrights, trademarks and domain names, as well as contractual restrictions, to establish and protect our patented proprietary software and our intellectual property. Despite our efforts to protect our proprietary rights, unauthorized parties may attempt to copy our digital content, pricing analytics, technology, software, branding and functionality, or obtain and use information that we consider proprietary. Moreover, policing our proprietary rights is difficult and may not always be effective. As we continue to expand internationally, we may need to enforce our rights under the laws of countries that do not protect proprietary rights to as great an extent as do the laws of the United States, which may be expensive and divert management's attention away from other operations.

Our proprietary software is protected by patents. These patents may not be sufficient to maintain effective product exclusivity because patent rights are limited in time and do not always provide effective protection. Furthermore, our efforts to enforce or protect our patent rights may be ineffective, could result in substantial costs and diversion of resources, could result in the invalidation of our patent rights, and could substantially harm our operating results. Even where our patents rights are enforced, legal remedies available for harm caused to us by infringing products may be inadequate to make us whole. Further, our successful assertion of our patent against one competing product is not necessarily predictive of our future success or failure in asserting the same patent against a second competing product. In addition, patents have a limited lifespan. In the United States, the natural expiration of a patent is generally 20 years after it is filed. Various extensions may be available. However, the life of a patent, and the protection it affords, is limited. Once the patent life has expired for our software, our competitors will be able to use our patented technology.

We seek to control access to our proprietary technology, software and documentation by entering into confidentiality and invention assignment agreements with our employees and partners, confidentiality agreements or license agreements with third parties, such as service providers, vendors, individuals and entities that may be exploring a business relationship with us, and terms of use with third parties, such as veterinary hospitals desiring to use our technology, software and documentation. These agreements may not prevent disclosure of intellectual property, trade secrets and/or other confidential information, and may not provide an adequate remedy in the event of misappropriation of trade secrets or any unauthorized disclosure of trade secrets and other confidential information. In addition, others may independently discover trade secrets and confidential information and, in such cases, we may not be able to assert any trade secret rights against such parties. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our intellectual property rights and related confidentiality, license and nondisclosure provisions, and failure to obtain or maintain trade secret protection, or our competitors being able to obtain our trade secrets or to independently develop technology similar to ours or competing technologies, could adversely affect our competitive business position.

Litigation or proceedings before the U.S. Patent and Trademark Office or other governmental authorities and administrative bodies in the United States and abroad may be necessary in the future to enforce our intellectual property rights, to protect our domain names and to determine the validity and scope of the proprietary rights of others. Our efforts to enforce or protect our proprietary rights may be ineffective, could result in substantial costs and diversion of resources and could substantially harm our operating results.

Assertions by third parties of infringement or other violation by us of their intellectual property rights could result in significant costs and substantially harm our business and operating results.

Third parties have in the past and may in the future claim that our services or technologies, including our proprietary software, infringe or otherwise violate their intellectual property rights. We may be subject to legal proceedings and claims, including claims of alleged infringement by us of the intellectual property rights of third parties. Any dispute or litigation regarding intellectual property could be expensive and time consuming, regardless of the merits of any claim, and could divert our management and key personnel from our operations.

If we were to discover or be notified that our services or our proprietary software potentially infringe or otherwise violate the intellectual property rights of others, we may need to obtain licenses from these parties in order to avoid infringement. We may not be able to obtain the necessary licenses on acceptable terms, or at all, and any such license may substantially restrict our use of the intellectual property. Moreover, if we are sued for infringement and lose the lawsuit, we could be required to pay substantial damages or be enjoined from offering the infringing services. Any of the foregoing could cause us to incur significant costs and prevent us from selling or properly administering subscriptions or performing under our other contractual relationships.

The outcome of litigation or regulatory proceedings could subject us to significant monetary damages, restrict our ability to conduct our business, harm our reputation and otherwise negatively impact our business.

From time to time, we have been, and in the future may become, subject to litigation, claims and regulatory proceedings and inquiries, including market conduct examinations and investigations by state insurance regulatory agencies and threatened or filed lawsuits by, among others, government agencies, employees, competitors, current or former members, or business partners.

We cannot predict the outcome of these actions or proceedings, and the cost of defending such actions or proceedings could be material. Further, defending such actions or proceedings could divert our management and key personnel from our business operations. If we are found liable in any action or proceeding, we may have to pay substantial damages or fines, which may have a material adverse effect on our business, operating results, financial condition and prospects. More critically, an adverse result from a proceeding could require us to change the way we conduct our business, including our marketing and promotional practices, and such a result may have a greater adverse effect on our business than monetary damages or fines. There may also be negative publicity associated with litigation or regulatory proceedings that could harm our reputation or decrease acceptance of our services. These claims may be costly to defend and may result in assessment of damages, adverse tax consequences and harm to our reputation.

Our current and future indebtedness could limit our ability to expand our business or respond to changes, and we may be unable to generate sufficient cash flow to satisfy any of our debt service obligations.

In March 2022, we entered into a credit agreement with Piper Sandler Finance, LLC that provides us with up to $150.0 million of credit (the Credit Facility). As of December 31, 2022, we issued term loans totaling $75.0 million under the Credit Facility. Substantial indebtedness, and the fact that a substantial portion of our cash flow from operating activities could be needed to make payments on this indebtedness, could have adverse consequences, including the following:

- reducing the availability of our cash flow for our operations, capital expenditures, future business opportunities and other purposes;
- limiting our flexibility in planning for, or reacting to, changes in our business and the industries in which we operate, which could place us at a competitive disadvantage compared to our competitors that may have less debt;
- limiting our ability to borrow additional funds; and
- increasing our vulnerability to general adverse economic and industry conditions.

Our ability to borrow any funds needed to operate and expand our business will depend in part on our ability to generate cash. If our business does not generate sufficient cash flow from operating activities or if future borrowings, under our Credit Facility or otherwise, are not available to us in amounts sufficient to enable us to fund our liquidity needs, our operating results, financial condition and ability to expand our business and meet our risk-based capital requirements may be adversely affected.

Covenants in our Credit Facility may restrict our operations, and if we do not effectively manage our business to comply with these covenants, our financial condition could be adversely affected.

Our Credit Facility contains various restrictive covenants, including limitations on our ability to incur other indebtedness or liens, make investments, and merge with or acquire other entities. Our Credit Facility also contains certain financial covenants, including minimum quarterly revenue and liquidity thresholds. Our ability to meet these restrictive covenants can be affected by events beyond our control. We are also obligated to pay interest under the Credit Facility at a floating base rate plus an applicable margin, which rate will increase based on prevailing rates. Our Credit Facility provides that our breach or failure to satisfy various covenants and obligations constitutes an event of default. Upon the occurrence of an event of default, our lenders could elect to declare any future amounts outstanding under our Credit Facility to be immediately due and payable. The Credit Facility is secured by substantially all of our assets and those of our subsidiaries. If we are unable to repay those amounts, our financial condition could be adversely affected.

We may have additional tax liabilities.

We are subject to income tax, premium tax, transaction tax and other taxes in the U.S. and foreign jurisdictions. Judgment is required in determining our provision for income taxes, premium tax, transaction tax and other taxes. In the ordinary course of our business, there are many transactions and calculations where the ultimate tax determination is uncertain. Further, we often make elections for tax purposes which may ultimately not be upheld. Although we believe our tax estimates are reasonable, the final determination of tax audits and any related litigation in the jurisdictions where we are subject to taxation could be materially different from our historical income tax provisions and accruals. The results of an audit or litigation could have a material effect on our consolidated financial statements in the period or periods in which that determination is made.

Our ability to use our net operating loss carryforwards and certain other tax attributes may be limited.

As of December 31, 2022, we had U.S. federal net operating loss carryforwards of approximately $258.9 million that will begin to expire in 2026. Under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended (the Code), if a corporation undergoes an "ownership change," the corporation's ability to use its pre-change net operating loss carryforwards and other pre-change tax attributes, such as research tax credits, to offset its post-change income taxes may be limited. In general, an "ownership change" occurs if there is a cumulative change in our ownership by "5-percent stockholders" that exceeds 50 percentage points over a rolling three-year period. Similar rules may apply under state tax laws. Pursuant to Sections 382 and 383 of the Code, annual use of our net operating loss carryforwards and credit carryforwards may be limited by previous and future ownership changes.

Our results of operations may be adversely impacted by the possible resurgence of the COVID-19 pandemic or a different variation of the virus or pandemic.

The global spread of the COVID-19 pandemic, including the spread of recent variants, and related containment efforts created significant economic disruption. A resurgence of the pandemic or variations of the virus or other pandemics could impact our growth rates and our volume of claims in the future.

For example, the economic impact on consumers may result in decreased new enrollments in our subscription and increased cancellations, as consumers may shift their spending in response to economic uncertainty.

COVID-19 resulted in substantially all our personnel working from home from mid-March 2020 until June 2021, following which we have hybrid work arrangements. Having far fewer people working in our main office has resulted in increased costs, decreased efficiency, deterioration of corporate culture, greater exposure to cybersecurity threats, or other operational risks. Future COVID-19 surges or new virus variants may result in us again closing our office or otherwise increasing work-from-home arrangements, which could adversely impact costs, operations and morale.

Governmental lockdowns and other restrictions at the onset of the COVID-19 pandemic impacted, and in the event of a future resurgence or a different pandemic may again impact, the ability of our Territory Partners to conduct face-to-face visits with veterinarians and their staff. These restrictions and limitations could impact our ability to promote and support our subscription through the veterinary channel.

Risks Related to Compliance with Laws and Regulations

Our business is heavily regulated, and if we fail to comply with the numerous applicable laws and regulations our business and operating results could be harmed.

The sale of medical insurance for cats and dogs, which is considered a type of property and casualty insurance in most jurisdictions, is heavily regulated by federal, state, provincial and/or territorial governments in each jurisdiction in which we operate. In the United States, insurance is regulated by each state in which we operate, and it is challenging to comply with the requirements of each of these jurisdictions along with the different Canadian federal provincial, and territorial requirements. As we expand internationally, compliance with insurance-related laws, rules and regulations becomes even more difficult and imposes significant costs on our business. Each applicable regulator has broad supervisory power over all insurance-related operations, which can include granting and revoking licenses to transact insurance business, and imposing fines and other penalties.

Due to the complexity, periodic modification and differing interpretations of insurance laws and regulations, we have not always been, and we may not always be, in compliance with them. A regulator's interpretation of existing laws or regulations may change without notice. Failure to comply with insurance laws, regulations and guidelines or other laws and regulations applicable to our business could result in significant liability, additional department of insurance licensing requirements, the revocation of licenses in a particular jurisdiction or our inability to sell insurance products, which could significantly increase our operating expenses, result in the loss of our revenue and otherwise harm our business, operating results and financial condition.

Moreover, because adverse regulatory actions in one jurisdiction may be required to be reported to other jurisdictions, an adverse regulatory action in one jurisdiction could result in penalties and adversely affect our license status or reputation in other jurisdictions. Even if the allegations in any regulatory or other action against us ultimately are determined to be unfounded, we could incur significant time and expense defending against the allegations, and any related negative publicity could harm consumer and third-party confidence in us, which could significantly damage our brand.

In addition, we have received, and may in the future receive, inquiries from regulators regarding our marketing and business practices. These inquires may include investigations regarding a number of our business practices, including the manner in which we market and sell products, the manner in which we write policies for any unaffiliated general agent, and whether any amounts we pay to hospitals or hospital groups is appropriate. Any modification of our marketing or business practices in response to regulatory inquiries could harm our business, operating results or financial condition and lead to reputational harm.

New laws may be adopted that may adversely affect our operating results and financial condition.

Existing laws and regulations impose limits on, for instance, our ability to enact price increases for our products, among other things. New laws may be adopted that could further affect our business, for example our ability to effect rate increases, to cancel or not issue existing policies, to use artificial intelligence or machine learning, or to market our products in various ways. Implementing changes in order to comply with new laws or regulations could also be time-consuming and costly.

We may be affected by mandatory participation in plans that could result in contributions from insurance subsidiaries we own.

Certain states have enacted laws that require a property-casualty insurer, which includes a pet insurance company, conducting business in that state to participate in assigned risk plans, reinsurance facilities, joint underwriting associations (JUAs), Fair Access to Insurance Requirements (FAIR) plans and wind pools. In these markets, if the state reinsurance facilities, wind pools, FAIR plans or JUAs recognize a financial deficit, they may in turn have the ability to assess participating insurers, adversely affecting our operating results and financial condition if we are a part of such state reinsurance facilities, wind pools, FAIR plans or JUAs. Additionally, certain jurisdictions require insurers to participate in guaranty funds for impaired or insolvent insurance companies. These funds periodically assess losses against all insurance companies doing business in the jurisdiction. Our operating results and financial condition could be adversely affected by any of these factors.

Regulations that require individuals or entities that sell medical insurance for cats and dogs or process claims to be licensed may be interpreted to apply to our business more broadly than we expect them to, which could require us to modify our business practices, create liabilities, damage our reputation, and harm our business.

Insurance regulations generally require that each individual who sells, solicits or negotiates insurance on our behalf must maintain a valid license in the jurisdiction in which the activity occurs. Regulations also generally prohibit paying an insurance commission to an unlicensed person or entity. Regulations may also require certain individuals who process claims to be licensed. These requirements are subject to a variety of interpretations between jurisdictions. We may not interpret and apply the requirements in the same manner as all applicable regulators, and, even if we have, the requirements or regulatory interpretations of those requirements may change. Regulators have in the past and/or may in the future determine that certain of our personnel or third parties were performing licensable activities without the required license, including for example a veterinary hospital employee. If such persons were not in fact licensed in any such jurisdiction, we could become subject to conviction for an offense or the imposition of an administrative penalty, and liable for significant penalties. Regulators may also deem payments we make to an unlicensed entity or person to be improper. We would also likely be required to modify our business practices and/or pet acquisition programs, or license the affected individuals, which may be impractical or costly and time-consuming to implement. Any modification of our business or marketing practices in response to regulatory licensing requirements could harm our business, operating results or financial condition.

We are subject to numerous laws and regulations, and compliance with one law or regulation may result in non-compliance with another.

We are subject to numerous laws and regulations that are administered and enforced by a number of different governmental authorities, each of which exercises a degree of interpretive latitude, including, in the United States, state insurance regulators, state securities administrators, state attorneys general and federal agencies including the SEC, Internal Revenue Service and the U.S. Department of Justice. Consequently, we are subject to the risk that compliance with any particular regulator's or enforcement authority's interpretation of a legal issue may not result in compliance with another's interpretation of the same issue, particularly when compliance is judged in hindsight. In addition, there is risk that laws and regulations or any particular regulator's or enforcement authority's interpretation of a legal issue may change over time to our detriment, or that changes in the overall legal environment may, even absent any particular regulator's or enforcement authority's interpretation of a legal issue changing, cause us to change our views regarding the actions we need to take from a legal risk management perspective, thus necessitating changes to our practices that may, in some cases, increase our costs and limit our ability to grow or to improve our results of operations. Further, in some cases, these laws and regulations are designed to protect or benefit the interests of a specific constituency rather than a range of constituencies. For example, state insurance laws and regulations generally are intended to protect or benefit purchasers or users of insurance products, not holders of securities, which generally is the jurisdiction of the SEC. In many respects, these laws and regulations limit our ability to grow or to improve our results of operations.

Failure to comply with federal, state and provincial laws and regulations relating to privacy and security of personal information, and civil liabilities relating to breaches of privacy and security of personal information, could create liabilities for us, damage our reputation and harm our business.

A variety of regulations govern the collection, use, retention, sharing and security of personal information. Claims or allegations that we have violated applicable laws or regulations related to privacy and data security could in the future result in negative publicity and a loss of confidence in us by our members, our participating service providers or team members, and may subject us to fines by credit card companies and the loss of our ability to accept credit and debit card payments. In addition, we have posted privacy policies and practices concerning the collection, use and disclosure of member data on our website. Several Internet companies have incurred penalties for failing to abide by the representations made in their privacy policies and practices. In addition, our use and retention of personal information could lead to civil liability exposure in the event of any disclosure of such information due to hacking, viruses, inadvertent action or other use or disclosure. Several companies have been subject to civil actions, including class actions, relating to this exposure.

We have incurred, and will continue to incur, expenses to comply with privacy and security standards and protocols for personal information imposed by law, regulation, self-regulatory bodies, industry standards and contractual obligations. Such laws, standards and regulations, however, are evolving and subject to potentially differing interpretations, and new privacy laws are frequently enacted. We are unable to predict what additional legislation, standards or regulation in the area of privacy and security of personal information could be enacted or its effect on our operations and business.

Law and regulations of the Internet, email and texting could adversely affect our business.

Many laws governing general commerce on the Internet remain unsettled and it may take years to fully determine whether and how existing laws such as those governing insurance, intellectual property, privacy and taxation apply to the Internet. In addition, the growth and development of the market for electronic commerce and Internet-related pet insurance advertisements and transactions may prompt calls for more stringent consumer protection laws that may impose additional burdens on companies conducting business and selling subscriptions over the Internet. Any new laws or regulations or new interpretations of existing laws or regulations relating to the Internet could harm our business and we could be forced to incur substantial costs in order to comply with them, which would harm our business, operating results and financial condition.

Additionally, we use phone solicitation, email and texting to market our services to potential members and/or as a means of communicating with our existing members. The laws and regulations governing the use of phone solicitation, email and texting continue to evolve, and the growth and development of the market for commerce over the Internet may lead to the adoption of additional legislation. Failure to comply with existing or new laws regarding phone solicitation, text or electronic communications with members could lead to significant damages. We have incurred, and will continue to incur, expenses in our efforts to comply with electronic messaging laws. If new laws or regulations are adopted, or existing laws and regulations are interpreted, to impose additional restrictions on our ability to send email to our members or potential members, we may not be able to communicate with them in a cost-effective manner. In addition to legal restrictions on the use of email for commercial purposes, Internet and email service providers and others attempt to block the transmission of unsolicited email, commonly known as "spam." Many service providers have relationships with organizations whose purpose it is to detect and notify the Internet and email service providers of entities that the organization believes are sending unsolicited email. If an Internet or email service provider identifies messaging and email from us as "spam" as a result of reports from these organizations or otherwise, we could be placed on a restricted list that will block our emails to members or potential members. If we are restricted or unable to communicate by phone, text or email with our members and potential members as a result of legislation, blockage or otherwise, our business, operating results and financial condition would be harmed.

Our segregated account in Bermuda, WICL segregated account AX, could be adversely impacted by regulatory compliance of an unaffiliated third party.

Wyndham Insurance Company (SAC) Limited (WICL) is a class 3 insurer regulated by the Bermuda Monetary Authority (BMA). WICL's ability to continue operations and pay dividends could impact the ability of our segregated account to do the same. WICL's failure to meet regulatory requirements set forth by the BMA could result in our inability to transact business with WICL segregated account AX. Further, WICL could be limited from allowing dividends to be paid out of segregated account AX in the event of adverse regulatory actions.

Our accounting is becoming more complex, and relies upon estimates or judgments relating to our critical accounting policies. If our accounting is erroneous or based on assumptions that change or prove to be incorrect, our operating results could fall below the expectations of securities analysts and investors, resulting in a decline in our stock price.

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes, and also to comply with many complex requirements and standards. We devote substantial resources to compliance with accounting requirements and we base our estimates on our best judgment, historical experience, information derived from third parties, and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets, liabilities, equity, revenue and expenses that are not readily apparent from other sources. However, various factors are causing our accounting to become complex, such as our building acquisition, our investments in strategic opportunities, and our expansion into foreign markets. The ongoing evolution of our business, international expansion, and entry into complementary businesses, such as pet food, may compound these complexities. Our operating results may be adversely affected if we make accounting errors or our judgments prove to be wrong, assumptions change or actual circumstances differ from those in our assumptions, which could cause our operating results to fall below the expectations of securities analysts and investors or guidance we may have provided, resulting in a decline in our stock price and potential legal claims. Significant judgments, assumptions and estimates used in preparing our consolidated financial statements include those related to revenue recognition, reserve for veterinary invoices, business combinations, and income taxes.

Risks Related to Ownership of Our Common Stock

Our actual operating results may differ significantly from our guidance.

From time to time we have released, and may continue to release, guidance in our quarterly earnings conference call, quarterly earnings releases, or otherwise, regarding our future performance that represents our management's estimates as of the date of release. This guidance, which includes forward-looking statements, has been and will be based on projections prepared by our management. These projections are not prepared with a view toward compliance with published guidelines of the American Institute of Certified Public Accountants, and neither our independent registered public accounting firm nor any other independent expert or outside party compiles or examines the projections. Accordingly, no such person expresses any opinion or any other form of assurance with respect to the projections. In addition, from time to time we provided information regarding how we think about the drivers of and our method of calculating our intrinsic value, including related statements regarding discounted cash flows and underlying assumptions (such as pet enrollment, revenue per pet, lifetime values of a pet, pet acquisition costs, and other costs and expenses).

These statements are based upon a number of assumptions and estimates that, while presented with numerical specificity, are inherently subject to significant business, economic and competitive risks and uncertainties, many of which are beyond our control, including those described in these "Risk Factors" and elsewhere in this report. When we state possible outcomes as high and low ranges, these are intended to provide a sensitivity analysis as variables are changed but are not intended to imply that actual results could not fall outside of the suggested ranges.

The principal reason that we release guidance and other information regarding our view of the drivers and calculation method of our intrinsic value is to provide a basis for our management to discuss our business and outlook with analysts and investors.

Guidance is necessarily speculative in nature, and it can be expected that some or all of the assumptions underlying these statements will not materialize or will vary significantly from actual results. Accordingly, these statements are only estimates of what management believes is reasonable as of the date of release. Actual results may vary and the variations may be material. In light of the foregoing, we urge investors not to rely upon our guidance or other information regarding our view of the drivers and calculation method of our intrinsic value in making an investment decision regarding our common stock. In addition, we do not accept any responsibility for any projections or reports published by any such third parties, and we urge you not to place undue reliance on those statements.

Any failure to successfully implement our operating strategy or the occurrence of any of the events or circumstances set forth in this report, or the other reports we file from time to time, could result in the actual operating results being different from our guidance, and the differences may be adverse and material.

Future securities issuances could result in significant dilution to our stockholders and impair the market price of our common stock.

Future issuances of shares of our common stock, or the perception that these sales may occur, could depress the market price of our common stock and result in dilution to existing holders of our common stock. Acquisitions, strategic investments, partnerships, or alliances could also result in dilutive issuances of equity securities. In addition, we may issue options, restricted stock units, or other stock-based awards to those providing services to us, and to the extent outstanding or future options are exercised or restricted stock units or other stock-based awards are settled for shares of our common stock, there will be further dilution. These equity incentives are generally granted under our 2014 Equity Incentive Plan, which provides for automatic annual increases in the number of shares or our common stock available for issuance under the plan equal to 4% of our issued and outstanding shares of common stock, or any lesser number determined by our board of directors. Our board of directors approved the 4% increase for 2022. The amount of dilution could be substantial depending upon the size of our future issuances of securities or exercises or settlement of stock-based awards. Furthermore, we may issue additional equity securities that could have rights senior to those of our common stock, such as pursuant to the "blank check" preferred stock contained in our certificate of incorporation. As a result, purchasers of our common stock bear the risk that future issuances of debt or equity securities may reduce the value of and dilute their ownership interest.

If securities or industry analysts do not publish research, or publish inaccurate or unfavorable research, about our business, our stock price and trading volume could decline.

The trading market for our common stock depends in part on the research and reports that securities or industry analysts publish about us or our business. If one or more of the securities or industry analysts who publish research about us or our business downgrade our stock or publish inaccurate or unfavorable evaluations of our company or our stock, the price of our stock could decline. If one or more of these analysts cease coverage of our company, our stock may lose visibility in the market, which in turn could cause our stock price to decline.

The market price of our common stock has been and is likely to continue to be volatile, and you may be unable to sell your shares at or above the price at which you purchased them.

The market price of our common stock has been and is likely to continue to fluctuate widely. Factors affecting the market price of our common stock include:

- variations in our operating results, earnings per share, cash flows from operating activities, and key operating metrics, and how those results compare to analyst expectations;
- forward-looking guidance that we provide to the public and industry and financial analysts related to future revenue and results of operations, and any change in that guidance or our failure to achieve the results reflected in that guidance;
- the net increases in the number of members, either independently or as compared with published expectations of industry, financial or other analysts that cover our company;
- changes to our subscription, strategic alliances, acquisitions or significant agreements by us or by our competitors;
- recruitment or departure of key personnel;
- factors relating to our other business segment;
- issuance of common stock or other securities to certain partners;

- the economy as a whole and market conditions in our industry;
- trading activity by a limited number of stockholders who together beneficially own a majority of our outstanding common stock;
- the number of shares of our stock trading on a regular basis; and
- any other factors discussed in these risk factors.

In addition, if the market for stock in our industry or the stock market in general experiences uneven investor confidence, the market price of our common stock could decline for reasons unrelated to our business, operating results or financial condition. Some companies that have experienced volatility in the trading price of their stock have been the subject of securities class action litigation. If we are the subject of such litigation, it could result in substantial costs and a diversion of our management's attention and resources.

We do not intend to pay dividends on our common stock and, therefore, any returns will be limited to the value of our stock.

We have never declared or paid any cash dividends on our common stock. Other than potential repurchases of our common stock, we currently intend to retain all available funds and any future earnings for the development, operation and expansion of our business and do not anticipate declaring or paying any cash dividends for the foreseeable future. APIC's ability to pay dividends is limited by New York state insurance laws, and WICL Segregated Account AX's ability to pay dividends is limited by our agreements with WICL as well as WICL's regulatory requirements. Any return to stockholders will therefore be limited to the increase, if any, of our stock price.

Our directors and principal stockholders own a significant percentage of our stock and will be able to exert significant control over matters subject to stockholder approval.

Our directors, five percent or greater stockholders and their respective affiliates beneficially hold a significant amount of our outstanding voting stock. Therefore, these stockholders have the ability to influence us through this ownership position. These stockholders may be able to determine all matters requiring stockholder approval. For example, these stockholders may be able to control elections of directors, amendments of our organizational documents, or approval of any merger, sale of assets, or other major corporate transaction. This may prevent or discourage unsolicited acquisition proposals or offers for our common stock that you or other stockholders may feel are in your or their best interest as one of our stockholders.

Provisions in our restated certificate of incorporation, restated bylaws and Delaware law might discourage, delay or prevent a change in control of our company or changes in our management and, therefore, depress the market price of our common stock.

Our restated certificate of incorporation and restated bylaws contain provisions that could depress the market price of our common stock by acting to discourage, delay or prevent a change in control of our company or changes in our management that the stockholders of our company may deem advantageous. These provisions, among other things:

- establish a classified board of directors so that not all members of our board are elected at one time;
- permit only the board of directors to establish the number of directors and fill vacancies on the board;
- provide that directors may only be removed "for cause" and only with the approval of two-thirds of our stockholders;
- require super-majority voting to amend some provisions in our restated certificate of incorporation and restated bylaws;
- authorize the issuance of "blank check" preferred stock that our board could use to implement a stockholder rights plan (also known as a "poison pill");
- eliminate the ability of our stockholders to call special meetings of stockholders;
- prohibit stockholder action by written consent, which requires all stockholder actions to be taken at a meeting of our stockholders;
- prohibit cumulative voting; and
- establish advance notice requirements for nominations for election to our board or for proposing matters that can be acted upon by stockholders at annual stockholder meetings.

In addition, Section 203 of the Delaware General Corporation Law may discourage, delay or prevent a change in control of our company. Section 203 imposes certain restrictions on mergers, business combinations and other transactions between us and holders of 15% or more of our common stock. Moreover, applicable insurance laws require that any person or entity acquiring direct or indirect control of an insurer obtain prior regulatory approval, which may impede potential acquisitions.

We have an Employee Severance and Change in Control Plan that applies to each employee of our company. This plan provides certain benefits to our employees in the event there is a change in control of our company and an employee is terminated under certain conditions. Potential acquirers may determine that the possible payments under this plan make an acquisition of our company unattractive.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our principal executive offices are located at 6100 4th Avenue South, Seattle, Washington. We purchased the building in August 2018 and occupy 120,124 square feet.

Item 3. Legal Proceedings

Information with respect to this item may be found in Note 9 of Item 8, “Financial Statements and Supplementary Data”, under the caption, “Legal Proceedings” which information is incorporated herein by reference.

Item 4. Mine Safety Disclosures

Not applicable.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters, and Issuer Purchases of Equity Securities

Recent Sales of Unregistered Securities

Pursuant to a marketing agreement between us and a strategic distributor, we agreed to issue shares of our common stock to the distributor as partial consideration for sales made through the distributor's marketing channels of white-label pet insurance and wellness products that we create and administer under the agreement. The number of shares we issue is determined quarterly, based on a percentage of revenue from such product sales divided by the volume weighted average price per share for the preceding quarter or, if lower, for the three months ended December 5, 2021. The shares we issue are subject to various restrictions, including a minimum holding period of two years and customary transfer restrictions for shares acquired in a private placement. On October 28, 2022, we issued 60 shares of our common stock to the distributor in respect of product sales that occurred in the quarter ended September 30, 2022. We offered and sold these shares in reliance upon the exemption from the registration set forth under Section 4(a)(2) of the Securities Act, and the regulations promulgated thereunder relating to sales by an issuer not involving any public offering, and in reliance on similar exemptions under applicable state laws.

Market for our Common Stock

Our common stock began trading on the New York Stock Exchange (NYSE) under the symbol "TRUP" on July 18, 2014. Prior to that time, there was no public market for our common stock. On June 17, 2016, we voluntarily transferred the listing of our common stock from the NYSE to the NASDAQ Global Market of the NASDAQ Stock Market LLC (NASDAQ) where our common stock continues to be traded under the symbol "TRUP".

Dividend Policy

We have never declared or paid cash dividends on our common stock. Other than potential repurchases of our common stock, we currently intend to retain all available funds and any future earnings for the development, operation and expansion of our business and do not anticipate declaring or paying any cash dividends for the foreseeable future. Any further determination to pay dividends on our common stock will be at the discretion of our board of directors, subject to applicable laws, and will depend on our financial condition, results of operations, capital requirements, general business conditions and other factors that our board of directors considers relevant.

Holders of Record

As of February 9, 2023, there were 29 registered stockholders of record of our common stock. The actual number of stockholders is greater than this number of record holders, and includes stockholders who are beneficial owners, whose shares are held of record by banks, brokers, and other financial institutions.

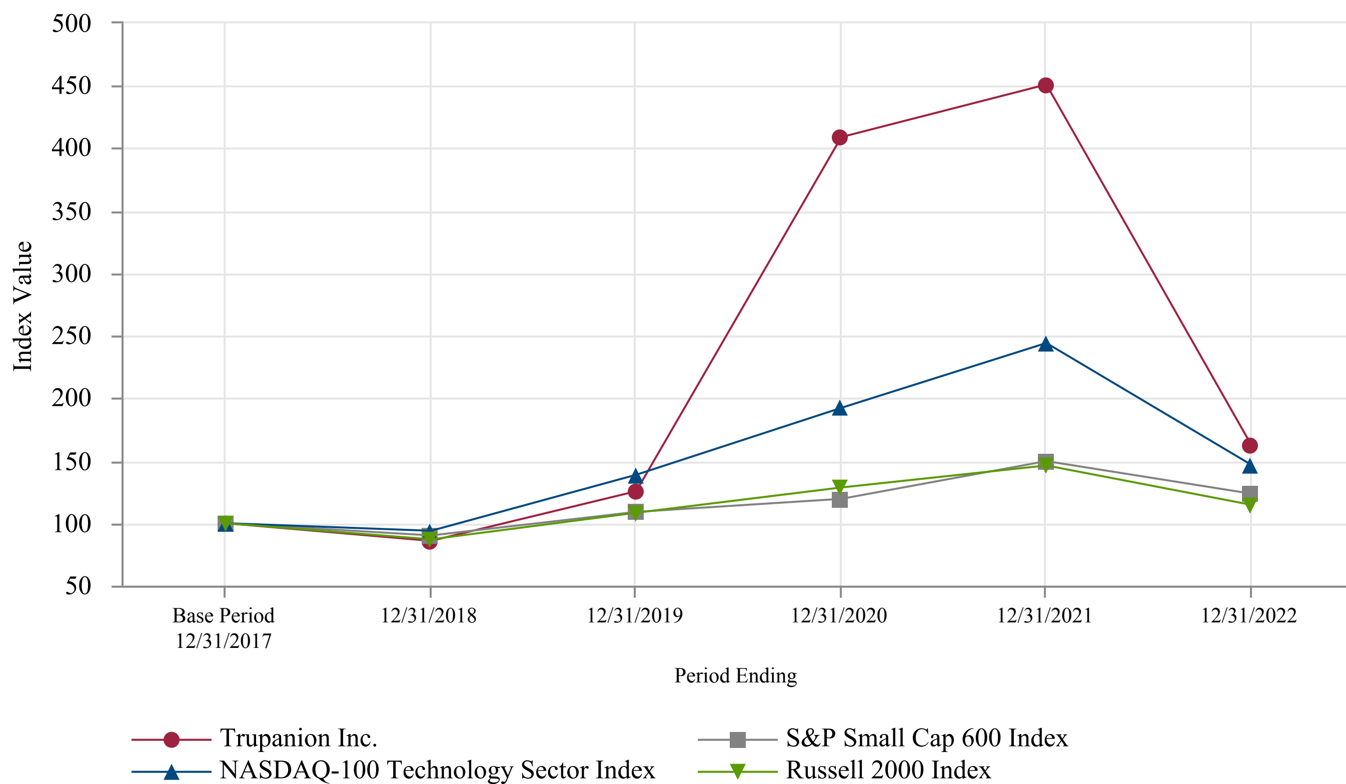
Securities Authorized for Issuance under Equity Compensation Plans

The information called for by this item is incorporated by reference to our Proxy Statement for the Annual Meeting of Stockholders to be held in 2023. See Part III, Item 12 "Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters."

Stock Performance Graph

The following shall not be deemed "filed" for purposes of Section 18 of the Exchange Act, or incorporated by reference into any of our other filings under the Exchange Act or the Securities Act, except to the extent we specifically incorporate it by reference into such filing.

This chart compares the stockholder return on an investment of $100 over the five years from December 31, 2017 through December 31, 2022 for (1) our common stock, (2) the S&P Small Cap 600 Index, (3) the NASDAQ-100 Technology Sector Index, and (4) the Russell 2000 Index. All values assume the reinvestment of any dividends; however, no dividends have been declared on our common stock to date. The stockholder return on the following graph is not necessarily indicative of future performance.



	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022
Trupanion Inc.	$ 100.00	$ 85.89	$ 125.59	$ 408.99	$ 451.08	$ 162.38
S&P Small Cap 600 Index	$ 100.00	$ 90.25	$ 109.07	$ 119.51	$ 149.71	$ 123.63
NASDAQ-100 Technology Sector Index	$ 100.00	$ 93.96	$ 138.78	$ 192.33	$ 244.21	$ 146.69
Russell 2000 Index	$ 100.00	$ 87.13	$ 108.38	$ 128.61	$ 146.23	$ 114.70

Item 6. Selected Financial Data

The selected statements of operations, balance sheet, and other data presented below should be read with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and related notes included elsewhere in this report. The selected statements of operations and balance sheet data are derived from our audited consolidated financial statements included elsewhere in this report and our previously audited financial statements that are not included herein. Our historical results are not necessarily indicative of the results to be expected in any future period.

	Year Ended December 31,				
	2022	2021	2020	2019	2018
			(in thousands)		
Consolidated statements of operations data:					
Revenue:					
Subscription business	$ 596,610	$ 494,862	$ 387,732	$ 321,163	$ 263,738
Other business	308,569	204,129	114,296	62,773	40,218
Total revenue	905,179	698,991	502,028	383,936	303,956
Cost of revenue:					
Subscription business[1]	497,684	407,664	314,875	262,139	215,992
Other business	285,310	186,981	105,252	56,873	36,598
Total cost of revenue	782,994	594,645	420,127	319,012	252,590
Operating expenses:					
Technology and development[1]	25,133	16,866	9,947	7,025	5,796
General and administrative[1]	39,379	31,893	21,847	18,384	17,104
New pet acquisition expense[1]	89,500	78,647	47,837	35,451	24,999
Depreciation and amortization	10,921	11,965	7,071	5,632	4,512
Total operating expenses	164,933	139,371	86,702	66,492	52,411
Loss from investment in joint venture	(253)	(171)	(126)	(352)	—
Operating loss	(43,001)	(35,196)	(4,927)	(1,920)	(1,045)
Interest expense	4,267	10	1,381	1,349	1,198
Other expense (income), net	(3,072)	14	(581)	(1,629)	(1,309)
Loss before income taxes	(44,196)	(35,220)	(5,727)	(1,640)	(934)
Income tax expense (benefit)	476	310	113	169	(7)
Net loss	$ (44,672)	$ (35,530)	$ (5,840)	$ (1,809)	$ (927)

[1]Includes stock-based compensation expense as follows:

	Year Ended December 31,				
	2022	2021	2020	2019	2018
			(in thousands)		
Cost of revenue	$ 6,484	$ 7,148	$ 1,586	$ 1,050	$ 927
Technology and development	4,742	3,056	3,795	364	209
General and administrative	12,831	8,862	2,773	3,312	2,304
New pet acquisition expense	9,336	9,160	758	2,120	1,335
Total stock-based compensation expense	$ 33,393	$ 28,226	$ 8,912	$ 6,846	$ 4,775

	December 31,				
	2022	2021	2020	2019	2018
	(in thousands)				
Consolidated balance sheet data:					
Cash and cash equivalents	$ 65,605	$ 87,400	$ 139,878	$ 29,168	$ 26,552
Short-term investments	156,804	126,012	89,862	69,732	54,559
Working capital	179,480	167,258	186,628	67,196	54,773
Total assets	671,627	562,582	498,250	257,200	207,510
Current and long-term debt	69,457	—	—	26,086	12,862
Total liabilities	366,330	230,382	158,311	120,440	78,337
Common stock and additional paid-in capital	499,694	466,792	439,007	232,731	219,838
Accumulated deficit	(171,562)	(126,890)	(91,360)	(85,520)	(83,711)
Total stockholders' equity	305,297	332,200	339,939	136,760	129,173

	Year Ended December 31,				
	2022	2021	2020	2019	2018
Other operational data[(1)]:					
Total Business:					
Total pets enrolled (at period end)	1,537,573	1,176,778	862,928	646,728	521,326
Subscription Business:					
Total subscription pets enrolled	869,862	704,333	577,957	494,026	430,770
Monthly average revenue per pet	$ 63.82	$ 63.56	$ 60.37	$ 57.52	$ 54.34
Lifetime value of a pet, including fixed expenses	$ 641	$ 717	$ 653	$ 523	$ 449
Average pet acquisition cost (PAC)[(2)]	$ 289	$ 287	$ 247	$ 212	$ 164
Average monthly retention	98.69 %	98.74 %	98.71 %	98.58 %	98.6 %

(1) For more information about how we calculate total pets enrolled, total subscription pets enrolled, monthly average revenue per pet, lifetime value of a pet, including fixed expenses, average pet acquisition cost and average monthly retention, see "Management's Discussion and Analysis of Financial Condition and Results of Operations—Key Operating Metrics."

(2) Average pet acquisition cost is calculated in part based on net acquisition cost, a non-GAAP financial measure. For more information about net acquisition cost and a reconciliation of new pet acquisition expense to net acquisition cost, see "Management's Discussion and Analysis of Financial Condition and Results of Operations—Non-GAAP Financial Measures."

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

Please read the following discussion and analysis of our financial condition and results of operations together with our consolidated financial statements and related notes included under Part II, Item 8 of this Annual Report on Form 10-K.

This section of this Form 10-K generally discusses 2022 and 2021 items and year-to-year comparisons between 2022 and 2021. Discussions of 2020 items and year-to-year comparisons between 2021 and 2020 that are not included in this Form 10-K can be found in "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Part II, Item 7 of the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2021.

Overview

We provide medical insurance for cats and dogs throughout the United States, Canada, Europe, Puerto Rico, and Australia. Through our data-driven, vertically-integrated approach, we develop and offer high value medical insurance products, priced specifically for each pet's unique characteristics and coverage level. Our growing and loyal membership base provides us with highly predictable and recurring revenue.

We operate in two business segments: subscription business and other business. We generate revenue in our subscription business segment primarily by subscription fees from our direct-to-consumer products. We operate our subscription business segment similar to other subscription-based businesses, with a focus on achieving a target margin prior to our new pet acquisition expense and acquiring as many pets as possible at our targeted average estimated internal rate of return. We generate revenue in our other business segment primarily by underwriting policies on behalf of third parties that do not carry reference to the Trupanion brand. We do not undertake the marketing efforts for these policies and have a business-to-business relationship with these third parties. Our other business segment also includes revenue from other products and software solutions that have a different margin profile from our subscription business.

We generate leads for our subscription business segment from a diverse set of member acquisition channels, which we then convert into members through our contact center, website and other direct-to-consumer activities. These channels include leads from third-parties such as veterinarians and referrals from existing members. Veterinary hospitals represent our largest referral source. We engage our "Territory Partners" to have face-to-face visits with veterinarians and their staff. Territory Partners are dedicated to cultivating direct veterinary relationships and building awareness of the benefits of high quality medical insurance to veterinarians and their clients. Veterinarians then educate pet owners, who visit our website or call our contact center to learn more about, and potentially enroll in, Trupanion. We also receive a significant number of new leads from existing members adding pets and referring their friends and family members. Our direct-to-consumer acquisition channels serve as important resources for pet owner education and drive new member leads and conversion. We monitor average pet acquisition cost to evaluate the efficiency in acquiring new members and measure effectiveness based on our targeted return on investment.

Our Response to the COVID-19 Pandemic

We have not experienced a material adverse impact on our business due to COVID-19, but we continue to monitor conditions closely and adapt our operations to meet federal, state and local guidance. Our focus remains on promoting employee health and safety, serving our members and ensuring business continuity. Our Seattle headquarters is now open for those who want to work in that office, in compliance with applicable regulations and guidance.

The impacts of COVID-19 and related economic conditions on our results are highly uncertain and in many ways outside of our control. The scope, duration and magnitude of the direct and indirect effects of COVID-19 are evolving rapidly and in ways that are difficult, if possible, to anticipate. For additional details, see the section titled "Risk Factors."

Key Operating Metrics

The following tables set forth total pets enrolled and key operating metrics for our subscription business for the years ended December 31, 2022, 2021 and 2020, and for each of the last eight fiscal quarters.

	Year Ended December 31,		
	2022	2021	2020
Total Business:			
Total pets enrolled (at period end)	1,537,573	1,176,778	862,928
Subscription Business:			
Total subscription pets enrolled (at period end)	869,862	704,333	577,957
Monthly average revenue per pet	$ 63.82	$ 63.56	$ 60.37
Lifetime value of a pet, including fixed expenses	$ 641	$ 717	$ 653
Average pet acquisition cost (PAC)	$ 289	$ 287	$ 247
Average monthly retention	98.69 %	98.74 %	98.71 %

	Three Months Ended							
	Dec. 31, 2022	Sept. 30, 2022	Jun. 30, 2022	Mar. 31, 2022	Dec. 31, 2021	Sept. 30, 2021	Jun. 30, 2021	Mar. 31, 2021
Total Business:								
Total pets enrolled (at period end)	1,537,573	1,439,605	1,348,145	1,267,253	1,176,778	1,104,376	1,024,226	943,854
Subscription Business:								
Total subscription pets enrolled (at period end)	869,862	808,077	770,318	736,691	704,333	676,463	643,395	609,835
Monthly average revenue per pet	$ 63.11	$ 63.80	$ 64.26	$ 64.21	$ 63.89	$ 63.60	$ 63.69	$ 62.97
Lifetime value of a pet, including fixed expenses	$ 641	$ 673	$ 713	$ 730	$ 717	$ 697	$ 681	$ 684
Average pet acquisition cost (PAC)	$ 283	$ 268	$ 309	$ 301	$ 306	$ 280	$ 284	$ 279
Average monthly retention	98.69 %	98.71 %	98.74 %	98.75 %	98.74 %	98.72 %	98.72 %	98.73 %

Total pets enrolled.* Total pets enrolled reflects the number of subscription pets or pets enrolled in one of the insurance products offered in our other business segment at the end of each period presented. We monitor total pets enrolled because it provides an indication of the growth of our consolidated business.

Total subscription pets enrolled.* Total subscription pets enrolled reflects the number of pets in active memberships at the end of each period presented. We monitor total subscription pets enrolled because it provides an indication of the growth of our subscription business.

Monthly average revenue per pet.† Monthly average revenue per pet is calculated as amounts billed in a given period for subscriptions divided by the total number of subscription pet months in the period. Total subscription pet months in a period represents the sum of all subscription pets enrolled for each month during the period. We exclude revenue from our managing general agent product lines because their ARPU is representative of commission earnings versus underwriting premiums. We monitor monthly average revenue per pet because it is an indicator of the per pet unit economics of our subscription business.

*Total pets enrolled and total subscription pets enrolled metrics include managing general agent pets acquired.

† Excluding activity relating to managing general agent policies.

Lifetime value of a pet, including fixed expenses.[†] Lifetime value of a pet, including fixed expenses, is calculated based on subscription revenue less cost of revenue from our subscription business segment for the 12 months prior to the period end date excluding stock-based compensation expense related to cost of revenue from our subscription business segment, sign-up fee revenue and the change in deferred revenue between periods. This amount is also reduced by the fixed expenses related to our subscription business, which are the pro-rata portion of general and administrative and technology and development expenses, less stock-based compensation, based on revenues. This amount, on a per pet basis, is multiplied by the implied average subscriber life in months. Implied average subscriber life in months is calculated as the quotient obtained by dividing one by one minus the average monthly retention rate. We monitor lifetime value of a pet, including fixed expenses, to estimate the value we might expect from new pets over their implied average subscriber life in months, if they behave like the average pet in that respective period. When evaluating the amount of pet acquisition expenses we may want to incur to attract new pet enrollments, we refer to the lifetime value of a pet, including fixed expenses, as well as our estimated internal rate of return calculation for an average pet, which also includes an estimated surplus capital charge, to inform the amount of acquisition spend in relation to the estimated payback period.

Average pet acquisition cost.[†] Average pet acquisition cost (PAC) is calculated as net acquisition cost divided by the total number of new subscription pets enrolled in that period. Net acquisition cost, a non-GAAP financial measure, is calculated in a reporting period as new pet acquisition expense, excluding stock-based compensation expense, other business segment expense and managing general agent expense, offset by sign-up fee revenue. We exclude stock-based compensation expense because the amount varies from period to period based on number of awards issued and market-based valuation inputs. We offset sign-up fee revenue because it is a one-time charge to new members collected at the time of enrollment used to partially offset initial setup costs, which are included in new pet acquisition expenses. We exclude other business segment pet acquisition expense because that does not relate to subscription enrollments. We exclude managing general agent pet acquisition expense because the ARPU of these products is representative of commission earnings versus underwriting premiums. We monitor average pet acquisition cost to evaluate the efficiency in acquiring new members and measure effectiveness based on our targeted return on investment.

Average monthly retention.[†] Average monthly retention is measured as the monthly retention rate of enrolled subscription pets for each applicable period averaged over the 12 months prior to the period end date. As such, our average monthly retention rate as of December 31, 2022 is an average of each month's retention from January 1, 2022 through December 31, 2022. We calculate monthly retention as the number of pets that remain after subtracting all pets that cancel during a month, including pets that enroll and cancel within that month, divided by the total pets enrolled at the beginning of that month. We monitor average monthly retention because it provides a measure of member satisfaction and allows us to calculate the implied average subscriber life in months.

[†] Excluding activity relating to managing general agent policies.

Non-GAAP Financial Measures

In addition to our results determined in accordance with U.S. GAAP, we believe the following non-GAAP financial measures are useful in evaluating our operating performance. We use the following non-GAAP financial information to evaluate our ongoing operations and for internal planning and forecasting purposes. We believe that these non-GAAP financial measures, when taken collectively, may be helpful to investors because it provides consistency and comparability with past financial performance. However, non-GAAP financial information is presented for supplemental informational purposes only, has limitations as an analytical tool, and should not be considered in isolation, or as a substitute for, the directly comparable financial measures prepared in accordance with GAAP.

We calculate these non-GAAP financial measures by excluding certain non-cash or non-recurring expenses. We exclude business combination transaction cost as it is non-recurring and not indicative of our operating performance. We exclude stock-based compensation as it is non-cash in nature. Although stock-based compensation expenses are expected to remain recurring expenses for the foreseeable future, we believe excluding them allows investors to make meaningful comparisons between our recurring core business operating results and those of other companies. We define non-GAAP development expenses as operating expenses incurred to develop new products and offerings that are pre-revenue. We define non-GAAP fixed expenses as the total of technology and development expense and general and administrative expense, less stock-based compensation expense, business combination transaction cost, and development expenses related to exploring and developing new products and offerings that are in the pre-revenue stage.

The following tables present the reconciliation of our non-GAAP financial measures from corresponding GAAP measures for the periods presented (in thousands):

	Year Ended December 31,		
	2022	2021	2020
Veterinary invoice expense	$ 649,737	$ 486,062	$ 351,124
Less:			
Stock-based compensation expense[1]	(4,054)	(4,538)	(1,118)
Other business cost of paying veterinary invoices	(212,857)	(129,614)	(72,119)
Subscription cost of paying veterinary invoices (non-GAAP)	$ 432,826	$ 351,910	$ 277,887
% of subscription revenue	72.5 %	71.1 %	71.7 %
Other cost of revenue	$ 133,257	$ 108,583	$ 69,003
Less:			
Stock-based compensation expense[1]	(2,232)	(2,610)	(468)
Other business variable expenses	(72,453)	(57,367)	(33,133)
Subscription variable expenses (non-GAAP)	$ 58,572	$ 48,606	$ 35,402
% of subscription revenue	9.8 %	9.8 %	9.1 %
Technology and development expense	$ 25,133	$ 16,866	$ 9,947
General and administrative expense	39,379	31,893	21,847
Less:			
Stock-based compensation expense[1]	(17,135)	(11,918)	(4,553)
Business combination transaction costs	(372)	(82)	(522)
Development expenses	(7,789)	(3,719)	(339)
Fixed expenses (non-GAAP)	$ 39,216	$ 33,040	$ 26,380
% of total revenue	4.3 %	4.7 %	5.3 %
New pet acquisition expense	$ 89,500	$ 78,647	$ 47,837
Less:			
Stock-based compensation expense[1]	(9,116)	(9,160)	(2,773)
Other business pet acquisition expense	(541)	(499)	(820)
Subscription acquisition cost (non-GAAP)	$ 79,843	$ 68,988	$ 44,244
% of subscription revenue	13.3 %	13.9 %	11.4 %

[1]Trupanion employees may elect to take restricted stock units in lieu of cash payment for their bonuses. We account for such expense as stock-based compensation in accordance with GAAP, but we do not include it in any non-GAAP adjustments. Stock-based compensation associated with bonuses was approximately $0.9 million for the year ended December 31, 2022.

	Three Months Ended							
	Dec. 31, 2022	**Sept. 30, 2022**	**Jun. 30, 2022**	**Mar. 31, 2022**	**Dec. 31, 2021**	**Sept. 30, 2021**	**Jun. 30, 2021**	**Mar. 31, 2021**
Veterinary invoice expense	$176,083	$171,112	$157,616	$144,926	$132,852	$125,058	$118,282	$109,870
Less:								
Stock-based compensation expense[1]	(899)	(960)	(1,022)	(1,173)	(798)	(769)	(672)	(2,299)
Other business cost of paying veterinary invoices	(59,946)	(58,197)	(50,378)	(44,336)	(38,009)	(34,432)	(31,029)	(26,144)
Subscription cost of paying veterinary invoices (non-GAAP)	$115,238	$111,955	$106,216	$99,417	$94,045	$89,857	$86,581	$81,427
% of subscription revenue	72.7 %	73.5 %	72.8 %	71.1 %	70.1 %	70.7 %	71.9 %	71.9 %
Other cost of revenue	$36,277	$32,589	$33,212	$31,179	$30,992	$28,443	$25,433	$23,715
Less:								
Stock-based compensation expense[1]	(414)	(433)	(754)	(631)	(581)	(542)	(552)	(935)
Other business variable expenses	(20,591)	(17,346)	(18,010)	(16,506)	(17,208)	(15,315)	(12,940)	(11,904)
Subscription variable expenses (non-GAAP)	$15,272	$14,810	$14,448	$14,042	$13,203	$12,586	$11,941	$10,876
% of subscription revenue	9.6 %	9.7 %	9.9 %	10.0 %	9.8 %	9.9 %	9.9 %	9.6 %
Technology and development expense	$6,955	$6,553	$6,396	$5,229	$4,665	$4,391	$4,079	$3,731
General and administrative expense	10,472	10,314	9,227	9,366	8,996	8,246	7,435	7,216
Less:								
Stock-based compensation expense[1]	(5,019)	(4,805)	(4,085)	(3,226)	(3,293)	(3,020)	(3,122)	(2,483)
Business combination transaction costs	(193)	(179)	—	—	—	—	—	(82)
Development expenses	(2,084)	(2,435)	(2,012)	(1,258)	(858)	(919)	(1,121)	(821)
Fixed expenses (non-GAAP)	$10,131	$9,448	$9,526	$10,111	$9,510	$8,698	$7,271	$7,561
% of total revenue	4.1 %	4.0 %	4.3 %	4.9 %	4.9 %	4.8 %	4.3 %	4.9 %
New pet acquisition expense	$22,457	$22,434	$22,982	$21,627	$19,845	$19,708	$19,390	$19,704
Less:								
Stock-based compensation expense[1]	(2,079)	(2,108)	(2,601)	(2,328)	(2,136)	(2,112)	(2,181)	(2,731)
Other business pet acquisition expense	(65)	(181)	(186)	(109)	(76)	(134)	(118)	(171)
Subscription acquisition cost (non-GAAP)	$20,313	$20,145	$20,195	$19,190	$17,633	$17,462	$17,091	$16,802
% of subscription revenue	12.5 %	13.2 %	13.9 %	13.7 %	13.1 %	13.7 %	14.2 %	14.8 %

[1]Trupanion employees may elect to take restricted stock units in lieu of cash payment for their bonuses. We account for such expense as stock-based compensation in accordance with GAAP, but we do not include it in any non-GAAP adjustments. Stock-based compensation associated with bonuses was approximately $0.2 million for the three months ended December 31, 2022.

When determining our PAC, we calculate net acquisition cost for a more comparable metric across periods. Net acquisition cost, a non-GAAP financial measure, is calculated in a reporting period as GAAP new pet acquisition expense, excluding stock-based compensation expense, other business segment expense, and managing general agent expense, offset by sign-up fee revenue. We exclude stock-based compensation expense because the amount varies from period to period based on the number of awards issued and market-based valuation inputs. We exclude other business segment pet acquisition expense because it does not relate to subscription enrollments. We exclude managing general agent pet acquisition expense because the ARPU of these products is representative of commission earnings versus underwriting premiums. We offset sign-up fee revenue because it is a one-time charge to new members collected at the time of enrollment used to partially offset initial setup costs, which are included in new pet acquisition expenses.

The following tables reconcile GAAP new pet acquisition expense to non-GAAP net acquisition cost (in thousands) for the years ended December 31, 2022, 2021, and 2020, and for each of the last eight fiscal quarters:

	Year Ended December 31,		
	2022	2021	2020
New pet acquisition expense	$ 89,500	$ 78,647	$ 47,837
Net of sign-up fee revenue	(4,984)	(4,954)	(3,292)
Excluding:			
Stock-based compensation expense	(9,116)	(9,160)	(2,773)
Other business pet acquisition expense	(541)	(499)	(820)
Pet acquisition expense for managing general agent policies	(443)	—	—
Net acquisition cost	$ 74,416	$ 64,034	$ 40,952

	Three Months Ended							
	Dec. 31, 2022	Sept. 30, 2022	Jun. 30, 2022	Mar. 31, 2022	Dec. 31, 2021	Sept. 30, 2021	Jun. 30, 2021	Mar. 31, 2021
New pet acquisition expense	$ 22,457	$ 22,434	$ 22,982	$ 21,627	$ 19,845	$ 19,708	$ 19,390	$ 19,704
Net of sign-up fee revenue	(1,191)	(1,339)	(1,252)	(1,202)	(1,162)	(1,268)	(1,260)	(1,264)
Excluding:								
Stock-based compensation expense	(2,079)	(2,108)	(2,601)	(2,328)	(2,136)	(2,112)	(2,181)	(2,731)
Other business pet acquisition expense	(65)	(181)	(186)	(109)	(76)	(134)	(118)	(171)
Pet acquisition expense for managing general agent policies	(443)	—	—	—	—	—	—	—
Net acquisition cost	$ 18,679	$ 18,806	$ 18,943	$ 17,988	$ 16,471	$ 16,194	$ 15,831	$ 15,538

Components of Operating Results

General

We operate in two business segments: subscription business and other business. Our subscription business segment primarily relates to subscription fees from our direct-to-consumer products. Our other business segment includes revenue from other product offerings that generally have a business-to-business relationship and different margin profiles than our subscription business segment, including revenue from writing policies on behalf of third parties and revenue from other products and software solutions.

Revenue

We generate revenue in our subscription business segment primarily from subscription fees for our pet medical insurance. Fees are paid at the beginning of each subscription period. In most cases, our members authorize us to directly charge their credit card, debit card or bank account through automatic funds transfer. Subscription revenue is recognized on a pro rata basis over the enrollment term. Membership may be canceled at any time without penalty, and we issue a refund for the unused portion of the canceled membership.

We generate revenue in our other business segment primarily from writing policies on behalf of third parties where we do not undertake the direct consumer marketing. This segment also includes revenue from other products and software solutions that have a different margin profile from our subscription business.

Cost of Revenue

Cost of revenue in each of our segments is comprised of the following:

Veterinary invoice expense

Veterinary invoice expense includes our costs to review veterinary invoices, administer the payments, and provide member services, and other operating expenses directly or indirectly related to this process. We also accrue for veterinary invoices that have been incurred but not yet received. This also includes amounts paid by unaffiliated general agents, and an estimate of amounts incurred and not yet paid for our other business segment.

Other cost of revenue

Other cost of revenue for the subscription business segment includes direct and indirect member service expenses, Territory Partner renewal fees, credit card transaction fees and premium tax expenses. Other cost of revenue for the other business segment includes the commissions we pay to unaffiliated general agents, costs to administer the programs in the other business segment and premium taxes on the sales in this segment.

Operating Expenses

Our operating expenses are classified into four categories: technology and development, general and administrative, new pet acquisition expense, and depreciation and amortization. For each category, except depreciation and amortization, the largest component is personnel costs, which include salaries, employee benefit costs, bonuses and stock-based compensation expense.

Technology and development

Technology and development expenses primarily consist of personnel costs and related expenses for our technology staff, which includes information technology development and infrastructure support, including third-party services. It also includes expenses associated with development of new products and offerings.

General and administrative

General and administrative expenses consist primarily of personnel costs and related expenses for our finance, actuarial, human resources, regulatory, legal and general management functions, as well as facilities and professional services.

New pet acquisition expense

New pet acquisition expenses primarily consist of costs, including employee compensation, to educate veterinarians and consumers about the benefits of Trupanion, to generate leads and to convert leads into enrolled pets, as well as print, online and promotional advertising costs. New pet acquisition expense was previously termed “sales and marketing” on the consolidated statement of operations. This update represents a change in name only. It does not denote a change in method of accounting.

Depreciation and amortization

Depreciation and amortization expenses consist of depreciation of property, equipment, and software developed for internal use, as well as amortization of finite-lived intangible assets.

Gain (loss) from investment in joint venture

Gain (loss) from investment in joint venture consists of the share of income and losses from our equity method investment in a joint venture, as well as income and expenses associated with administrative services provided to the joint venture.

Stock-based compensation

Stock-based compensation is included in the cost and expense line items above. Stock-based compensation will vary depending on corporate performance and terms of the awards under our equity incentive plan. For example, when we have delivered strong performance, stock-based compensation may increase as a result of incentive-based awards under our equity incentive plan.

Factors Affecting Our Performance

Average monthly retention. Our performance depends on our ability to continue to retain our existing and newly enrolled pets and is impacted by our ability to provide a best-in-class value and member experience. Our ability to retain enrolled pets depends on a number of factors, including the actual and perceived value of our services and the quality of our member experience, the ease and transparency of the process for reviewing and paying veterinary invoices for our members, and the competitive environment. In addition, other initiatives across our business may temporarily impact retention and make it difficult for us to improve or maintain this metric. For example, if the number of new pets enrolled increases at a faster rate than our historical experience, our average monthly retention rate could be adversely impacted, as our retention rate is generally lower during the first year of member enrollment.

Investment in pet acquisition. We have made and plan to continue to make significant investments to grow our member base. Our net acquisition cost and the number of new members we enroll depends on a number of factors, including the amount we elect to invest in pet acquisition activities in any particular period in the aggregate and by channel, the frequency of existing members adding a pet or referring their friends or family, the effectiveness of our sales execution and marketing initiatives, changes in costs of media, the mix of our pet acquisition expenditures and the competitive environment. Our average pet acquisition cost has in the past significantly varied, and in the future may significantly vary, from period to period based upon specific marketing initiatives and estimated rates of return on pet acquisition spend. We also regularly test new member acquisition channels and marketing initiatives, which may be more expensive than our traditional marketing channels and may increase our average acquisition costs. We continually assess our pet acquisition activities by monitoring the estimated return on PAC spend both on a detailed level by acquisition channel and in the aggregate.

Timing of price adjustments. Our subscription business's cost-plus model depends on our ability to estimate our operating costs and expenses, including veterinary invoice expenses, and to adjust our pricing to achieve our target returns. We regularly reevaluate and adjust the price of our subscriptions, with a goal of achieving our targeted payout ratio, subject to the review and approval of applicable state regulators. This makes it important for us to accurately estimate our costs and to promptly pursue regulatory approval of pricing adjustments. We may, though, have timing mismatches during which our pricing does not reflect our current expense profile.

Timing of initiatives. Over time we plan to implement new initiatives to improve our member experience, make modifications to our subscription plan, introduce new coverage plans, pursue pet food or other adjacent opportunities, improve our technology, increase the number of veterinary hospitals using our direct pay software, and find other ways to maintain a strong value proposition for our members. These initiatives will sometimes be accompanied by price adjustments, in order to compensate for an increase in benefits received by our members. The implementation of such initiatives may not always coincide with the timing of price adjustments, resulting in fluctuations in revenue and profitability in our subscription business segment.

Geographic mix of sales. The relative mix of our business between the United States, Canada, and other jurisdictions, and between areas within those geographies, impacts the monthly average revenue per pet we receive. For example, prices from our plans could vary depending on the relative cost of veterinary care in different countries or areas. As our mix of business between geographies changes, our metrics, such as our monthly average revenue per pet, and our exposure to foreign exchange fluctuations will be impacted. As we expand into international markets and continue to explore other opportunities, we expect these effects to increase.

Other business segment. Our other business segment primarily includes other product offerings that generally have a business-to-business relationship. These products have been, and we expect will be in the future, materially different from our subscription business segment. Our relationships in our other business segment are generally subject to termination provisions and are non-exclusive. Accordingly, we cannot control the volume of business, even if a contract is not terminated. Loss of an entire program via contract termination could result in the associated policies and revenue being lost over a period of 12 to 18 months, which could have a material impact on our results of operations. We may enter into additional relationships in the future to the extent we believe they will be profitable to us, which could also impact our operating results.

Results of Operations

The following tables set forth our results of operations for the periods presented both in absolute dollars and as a percentage of total revenue for those periods. The period-to-period comparison of financial results is not necessarily indicative of future results.

	Year Ended December 31,		
	2022	2021	2020
		(in thousands)	
Revenue:			
Subscription business	$ 596,610	$ 494,862	$ 387,732
Other business	308,569	204,129	114,296
Total revenue	905,179	698,991	502,028
Cost of revenue:			
Subscription business[1]	497,684	407,664	314,875
Other business	285,310	186,981	105,252
Total cost of revenue	782,994	594,645	420,127
Operating expenses:			
Technology and development[1]	25,133	16,866	9,947
General and administrative[1]	39,379	31,893	21,847
New pet acquisition expense[1]	89,500	78,647	47,837
Depreciation and amortization	10,921	11,965	7,071
Total operating expenses	164,933	139,371	86,702
Loss from investment in joint venture	(253)	(171)	(126)
Operating loss	(43,001)	(35,196)	(4,927)
Interest expense	4,267	10	1,381
Other expense (income), net	(3,072)	14	(581)
Loss before income taxes	(44,196)	(35,220)	(5,727)
Income tax expense	476	310	113
Net loss	$ (44,672)	$ (35,530)	$ (5,840)

[1] Includes stock-based compensation expense as follows:

	Year Ended December 31,		
	2022	2021	2020
		(in thousands)	
Cost of revenue	$ 6,484	$ 7,148	$ 1,586
Technology and development	4,742	3,056	758
General and administrative	12,831	8,862	3,795
New pet acquisition expense	9,336	9,160	2,773
Total stock-based compensation expense	$ 33,393	$ 28,226	$ 8,912

	Year Ended December 31,		
	2022	2021	2020
	(as a percentage of revenue)		
Revenue	100 %	100 %	100 %
Cost of revenue	87	85	84
Operating expenses:			
Technology and development	3	2	2
General and administrative	4	5	4
New pet acquisition expense	10	11	10
Depreciation and amortization	1	2	1
Total operating expenses	18	20	17
Loss from investment in joint venture	—	—	—
Operating loss	(5)	(5)	(1)
Interest expense	—	—	—
Other expense (income), net	—	—	—
Loss before income taxes	(5)	(5)	(1)
Income tax expense	—	—	—
Net loss	(5)%	(5)%	(1)%

Stock-based compensation expense:	Year Ended December 31,		
	2022	2021	2020
	(as a percentage of revenue)		
Cost of revenue	1 %	1 %	— %
Technology and development	1	1	1
General and administrative	1	—	—
New pet acquisition expense	1	1	1
Total stock-based compensation expense	4 %	4 %	2 %

	Year Ended December 31,		
	2022	2021	2020
	(as a percentage of subscription revenue)		
Subscription business revenue	100 %	100 %	100 %
Subscription business cost of revenue	83	82	81

Comparison of the years ended December 31, 2022, 2021, and 2020

Revenue

	Year Ended December 31,			% Change	
	2022	2021	2020	2022 vs. 2021	2021 vs. 2020
	(in thousands, except percentages, pet and per pet data)				
Revenue:					
Subscription business	$ 596,610	$ 494,862	$ 387,732	21%	28%
Other business	308,569	204,129	114,296	51	79
Total revenue	$ 905,179	$ 698,991	$ 502,028	29	39
Percentage of Revenue by Segment:					
Subscription business	66 %	71 %	77 %		
Other business	34	29	23		
Total revenue	100 %	100 %	100 %		
Total pets enrolled (at period end)	1,537,573	1,176,778	862,928	31	36
Total subscription pets enrolled (at period end)	869,862	704,333	577,957	24	22
Monthly average revenue per pet	$ 63.82	$ 63.56	$ 60.37	—	5
Average monthly retention	98.69 %	98.74 %	98.71 %		

Year ended December 31, 2022 compared to year ended December 31, 2021. Total revenue increased by $206.2 million to $905.2 million for the year ended December 31, 2022, or 29%. Revenue from our subscription business segment increased by $101.7 million to $596.6 million for the year ended December 31, 2022, or 21%. This increase was primarily due to a 19% increase in total subscription pets enrolled as of December 31, 2022 compared to a year ago, excluding pets acquired as part of business combinations in 2022. Average revenue per pet increased by 0.4% year over year, or 1.3% on a constant currency basis. Revenue from our other business segment increased by $104.4 million to $308.6 million, or 51%, for the year ended December 31, 2022, primarily due to a 41% increase in enrolled pets in this segment.

Cost of Revenue

	Year Ended December 31,			% Change	
	2022	2021	2020	2022 vs. 2021	2021 vs. 2020
	(in thousands, except percentages, pet and per pet data)				
Cost of Revenue:					
Subscription business:					
Veterinary invoice expense	$ 436,880	$ 356,448	$ 279,005	23%	28%
Other cost of revenue	60,804	51,216	35,870	19	43
Total cost of revenue	497,684	407,664	314,875	22	29
Other business:					
Veterinary invoice expense	212,857	129,614	72,119	64	80
Other cost of revenue	72,453	57,367	33,133	26	73
Total cost of revenue	285,310	186,981	105,252	53	78
Percentage of Revenue by Segment:					
Subscription business:					
Veterinary invoice expense	73 %	72 %	72 %		
Other cost of revenue	10	10	9		
Total cost of revenue	83	82	81		
Other business:					
Veterinary invoice expense	69	63	63		
Other cost of revenue	23	28	29		
Total cost of revenue	92	92	92		
Total pets enrolled (at period end)	1,537,573	1,176,778	862,928	31	36
Total subscription pets enrolled (at period end)	869,862	704,333	577,957	24	22
Monthly average revenue per pet	$ 63.82	$ 63.56	$ 60.37	—	5

Year ended December 31, 2022 compared to year ended December 31, 2021. Cost of revenue for our subscription business segment was $497.7 million, or 83% of revenue, for the year ended December 31, 2022, compared to $407.7 million, or 82%, of revenue, for the year ended December 31, 2021. This increase of 22% in subscription cost of revenue was primarily the result of a 19% increase in subscription pets enrolled, excluding pets acquired as part of business combinations, and a 2.5% increase in veterinary invoice expense per pet, or 2.9% on a constant currency basis. This was attributable to both increased cost and utilization of veterinary care. Cost of revenue for our other business segment increased by $98.3 million, or 53%, to $285.3 million for the year ended December 31, 2022, primarily due to the increase in enrolled pets in this segment.

Technology and Development Expenses

	Year Ended December 31,			% Change	
	2022	2021	2020	2022 vs. 2021	2021 vs. 2020
	(in thousands, except percentages)				
Technology and development	$ 25,133	$ 16,866	$ 9,947	49%	70%
Percentage of total revenue	3 %	2 %	2 %		

Year ended December 31, 2022 compared to year ended December 31, 2021. Technology and development expenses increased by $8.3 million, or 49%, to $25.1 million for the year ended December 31, 2022. The increase was primarily due to increased headcount and $1.7 million increase in associated stock-based compensation. Additionally, development expense, which totaled $7.8 million or 1% of total revenue, increased $4.1 million year over year as a result of investments in several pre-revenue initiatives. Technology and development expenses increased from 2% to 3% of total revenue year over year.

General and Administrative Expenses

	Year Ended December 31,			% Change	
	2022	2021	2020	2022 vs. 2021	2021 vs. 2020
	(in thousands, except percentages)				
General and administrative	$ 39,379	$ 31,893	$ 21,847	23%	46%
Percentage of total revenue	4 %	5 %	4 %		

Year ended December 31, 2022 compared to year ended December 31, 2021. General and administrative expenses increased by $7.5 million, or 23%, to $39.4 million for the year ended December 31, 2022. The increase was primarily due to a $4.0 million increase in stock-based compensation and a $3.1 million increase in compensation expense. General and administrative expenses decreased from 5% to 4% of total revenue year over year.

New Pet Acquisition Expense

	Year Ended December 31,			% Change	
	2022	2021	2020	2022 vs. 2021	2021 vs. 2020
	(in thousands, except pet and per pet data)				
New pet acquisition expense	$ 89,500	$ 78,647	$ 47,837	14%	64%
Percentage of total revenue	10 %	11 %	10 %		
Subscription Business:					
Total subscription pets enrolled (at period end)	869,862	704,333	577,957	24	22
Average pet acquisition cost (PAC)	$ 289	$ 287	$ 247	1	16

Year ended December 31, 2022 compared to year ended December 31, 2021. New pet acquisition expense increased by $10.9 million, or 14%, to $89.5 million, for the year ended December 31, 2022. This $10.9 million increase was attributable to expenses to generate leads and increase conversion rates. Specifically, total subscription pets enrolled increased 19%, excluding pets acquired through business combinations, between compared periods. New pet acquisition expenses as a percentage of revenue was 10% for the year ended December 31, 2022, compared to 11% in the same period last year.

Depreciation and Amortization

	Year Ended December 31,			% Change	
	2022	2021	2020	2022 vs. 2021	2021 vs. 2020
	(in thousands, except percentages)				
Depreciation and amortization	$ 10,921	$ 11,965	$ 7,071	(9)%	69%
Percentage of total revenue	1 %	1 %	1 %		

Year ended December 31, 2022 compared to year ended December 31, 2021. Depreciation and amortization expense decreased by $1.0 million, or 9%, to $10.9 million for the year ended December 31, 2022.

Stock-Based Compensation

Year ended December 31, 2022 compared to year ended December 31, 2021. Stock-based compensation is included in the cost and expense line items in the consolidated statements of operations, discussed above. Stock-based compensation expense in total was $33.4 million for the year ended December 31, 2022, up from $28.2 million in the prior year period. The amount of stock-based compensation recognized largely reflects the timing and vesting of our annual performance grants, calculated according to our equity incentive plan.

Quarterly Results of Operations

The following tables contain selected quarterly financial information for the years ended December 31, 2022 and 2021. The unaudited quarterly information has been prepared on a basis consistent with the audited consolidated financial statements and includes all adjustments that we consider necessary for a fair presentation of the information shown. These quarterly operating results for any fiscal quarter are not necessarily indicative of the operating results for any full fiscal year or future period.

Consolidated Statements of Operations Data:	**Three Months Ended**							
	Dec. 31, 2022	**Sept. 30, 2022**	**Jun. 30, 2022**	**Mar. 31, 2022**	**Dec. 31, 2021**	**Sept. 30, 2021**	**Jun. 30, 2021**	**Mar. 31, 2021**
	(in thousands)							
Revenue:								
Subscription business	$ 158,562	$ 152,401	$ 145,808	$ 139,839	$ 134,120	$ 127,077	$ 120,373	$ 113,292
Other business	87,447	81,359	73,603	66,160	60,259	54,590	47,887	41,393
Total revenue	246,009	233,760	219,411	205,999	194,379	181,667	168,260	154,685
Cost of revenue:								
Subscription business[(1)]	131,823	128,158	122,440	115,263	108,627	103,754	99,746	95,537
Other business	80,537	75,543	68,388	60,842	55,217	49,747	43,969	38,048
Total cost of revenue	212,360	203,701	190,828	176,105	163,844	153,501	143,715	133,585
Operating expenses:								
Technology and development[(1)]	6,955	6,553	6,396	5,229	4,665	4,391	4,079	3,731
General and administrative[(1)]	10,472	10,314	9,227	9,366	8,996	8,246	7,435	7,216
New pet acquisition expense[(1)]	22,457	22,434	22,982	21,627	19,845	19,708	19,390	19,704
Depreciation and amortization	2,897	2,600	2,707	2,717	2,770	2,944	3,158	3,093
Total operating expenses	42,781	41,901	41,312	38,939	36,276	35,289	34,062	33,744
Gain (loss) from investment in joint venture	(85)	(57)	(42)	(69)	(22)	(69)	5	(85)
Operating income (loss)	(9,217)	(11,899)	(12,771)	(9,114)	(5,763)	(7,192)	(9,512)	(12,729)
Interest expense	1,587	1,408	1,193	79	9	—	3	(2)
Other expense (income), net	(1,504)	(889)	(365)	(314)	236	(61)	(99)	(62)
Income (loss) before income taxes	(9,300)	(12,418)	(13,599)	(8,879)	(6,008)	(7,131)	(9,416)	(12,665)
Income tax expense (benefit)	(15)	496	19	(24)	1,034	(312)	(195)	(217)
Net income (loss)	$ (9,285)	$ (12,914)	$ (13,618)	$ (8,855)	$ (7,042)	$ (6,819)	$ (9,221)	$ (12,448)

[(1)] Includes stock-based compensation expense as follows (in thousands):

	Three Months Ended							
	Dec. 31, 2022	**Sept. 30, 2022**	**Jun. 30, 2022**	**Mar. 31, 2022**	**Dec. 31, 2021**	**Sept. 30, 2021**	**Jun. 30, 2021**	**Mar. 31, 2021**
	(in thousands)							
Cost of revenue	$ 1,346	$ 1,472	$ 1,830	$ 1,836	$ 1,379	$ 1,311	$ 1,224	$ 3,234
Technology and development	1,549	1,184	1,101	908	843	749	800	664
General and administrative	3,550	3,792	3,066	2,423	2,450	2,271	2,322	1,819
New pet acquisition expense	2,122	2,195	2,637	2,382	2,136	2,112	2,181	2,731
Total stock-based compensation expense	$ 8,567	$ 8,643	$ 8,634	$ 7,549	$ 6,808	$ 6,443	$ 6,527	$ 8,448

	Three Months Ended							
	Dec. 31, 2022	Sept. 30, 2022	Jun. 30, 2022	Mar. 31, 2022	Dec. 31, 2021	Sept. 30, 2021	Jun. 30, 2021	Mar. 31, 2021
Other Financial and Operational Data:								
Total Business:								
Total pets enrolled (at period end)	1,537,573	1,439,605	1,348,145	1,267,253	1,176,778	1,104,376	1,024,226	943,854
Subscription Business:								
Total subscription pets enrolled (at period end)	869,862	808,077	770,318	736,691	704,333	676,463	643,395	609,835
Monthly average revenue per pet	$ 63.11	$ 63.80	$ 64.26	$ 64.21	$ 63.89	$ 63.60	$ 63.69	$ 62.97
Lifetime value of a pet, including fixed expenses	$ 641	$ 673	$ 713	$ 730	$ 717	$ 697	$ 681	$ 684
Average pet acquisition cost (PAC)	$ 283	$ 268	$ 309	$ 301	$ 306	$ 280	$ 284	$ 279
Average monthly retention	98.69 %	98.71 %	98.74 %	98.75 %	98.74 %	98.72 %	98.72 %	98.73 %

	Three Months Ended							
	Dec. 31, 2022	Sept. 30, 2022	Jun. 30, 2022	Mar. 31, 2022	Dec. 31, 2021	Sept. 30, 2021	Jun. 30, 2021	Mar. 31, 2021
	(as a percentage of revenue)							
Revenue	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %
Cost of revenue	86	87	87	85	84	84	85	86
Operating expenses:								
Technology and development	3	3	3	3	2	2	2	2
General and administrative	4	4	4	7	5	5	4	7
New pet acquisition expense	9	10	10	10	10	11	12	13
Depreciation and amortization	1	1	1	1	1	2	2	2
Total operating expenses	17	18	19	19	19	19	20	22
Gain (loss) from investment in joint venture	—	—	—	—	—	—	—	—
Operating income (loss)	(4)	(5)	(6)	(4)	(3)	(4)	(6)	(8)
Interest expense	1	1	1	—	—	—	—	—
Other expense (income), net	(1)	—	—	—	—	—	—	—
Income (loss) before income taxes	(4)	(5)	(6)	(4)	(3)	(4)	(6)	(8)
Income tax expense (benefit)	—	—	—	—	1	—	—	—
Net income (loss)	(4)%	(6)%	(6)%	(4)%	(4)%	(4)%	(5)%	(8)%

	Three Months Ended							
	Dec. 31, 2022	Sept. 30, 2022	Jun. 30, 2022	Mar. 31, 2022	Dec. 31, 2021	Sept. 30, 2021	Jun. 30, 2021	Mar. 31, 2021
	(as a percentage of subscription revenue)							
Subscription business revenue	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %
Subscription business cost of revenue	83	84	84	82	81	82	83	84

Liquidity and Capital Resources

The following table summarizes our cash flows for the periods indicated (in thousands):

	Year Ended December 31,		
	2022	2021	2020
Net cash (used in) provided by operating activities	$ (8,000)	$ 7,458	$ 21,544
Net cash used in investing activities	(67,516)	(51,913)	(76,747)
Net cash (used in) provided by financing activities	60,743	(1,125)	170,848
Effect of foreign exchange rates on cash, cash equivalents, and restricted cash, net	(1,459)	252	(16)
Net change in cash, cash equivalents, and restricted cash	$ (16,232)	$ (45,328)	$ 115,629

Our primary requirements for liquidity are paying veterinary invoices, funding operations and capital requirements, investing in new member acquisition, investing in enhancements to our member experience, and servicing debt. We have certain contractual obligations in the normal course of business, including obligations and commitments relating to our Credit Facility, non-cancellable vendor purchase agreements, as well as future payments of veterinary invoice claims. Refer to Note 10, Reserve for Veterinary Invoices, included in Item 8 of Part II of this 10-K, for further details on anticipated cash outflows.

Our primary sources of liquidity are cash provided by operations and available borrowings from our Credit Facility, under which we have $75.0 million remaining credit as of December 31, 2022. We believe these sources are sufficient to fund our operations and capital requirements for the next 12 months. As we continue to grow and consider strategic opportunities, however, we may explore additional financing to fund our operations and growth or to meet capital requirements. Financing could include equity, equity-linked, or debt financing. Additional financing may not be available to us on acceptable terms, or at all.

As of December 31, 2022, we had $222.4 million in cash, cash equivalents and short-term investments and $75.0 million available under our Credit Facility. The Credit Facility is secured by substantially all of our assets and those of our subsidiaries. In addition, most of the assets in our insurance subsidiaries are subject to certain capital and dividend rules and regulations prescribed by jurisdictions in which they are authorized to operate. As of December 31, 2022, total assets and liabilities held outside of our insurance entities were $211.0 million and $103.9 million, respectively, including $7.2 million of cash and cash equivalents that were segregated from other operating funds and held in trust for the payment of veterinary invoices on behalf of our insurance subsidiaries. For further information, refer to "—Regulation".

In April 2021, our board of directors approved a share repurchase program, pursuant to which we may, between May 2021 and May 2026, repurchase outstanding shares of our common stock. While our board of directors has approved the program, any repurchase activity is subject to quarterly assessment and board approval, based on various factors including available cash, stock price relative to our estimated intrinsic value, forecasted operating results, and available opportunities to otherwise deploy capital for business expansion. We repurchased 95,021 shares under this program during the year ended December 31, 2022.

Operating Cash Flows

We derive operating cash flows primarily from the sale of our subscription plans, which is used to pay veterinary invoices and other cost of revenue. Additionally, cash is used to support the growth of our business by reinvesting to acquire new pet enrollments, develop new product offerings and to fund projects that improve our members' experience. Net cash used by operating activities was $8.0 million for the year ended December 31, 2022, compared to $7.5 million net cash provided by operating activities for the year ended December 31, 2021. The change was primarily driven by increased pet acquisition spend during the current period to drive new pet enrollments and future growth and faster payment of veterinary invoices. Changes in accounts receivable and deferred revenue were primarily related to annual policies with monthly payment terms within our other business segment.

Investing Cash Flows

Net cash used in investing activities was $67.5 million for the year ended December 31, 2022, compared to $51.9 million for the year ended December 31, 2021. The change was primarily related to cash paid for business acquisitions as well as purchases of property, equipment and intangible assets, primarily related to development of internal use software focused on new product initiatives and member experience improvements.

Financing Cash Flows

Net cash provided by financing activities was $60.7 million for the year ended December 31, 2022, compared to $1.1 million net cash used by financing activities during the same period in the prior year, primarily due to net proceeds from the term loans under the new Credit Facility which closed in March 2022, partially offset by $5.8 million used for the repurchase of shares of our common stock during the period.

Long-Term Debt

Our Credit Facility provides us with up to $150.0 million of credit. As of December 31, 2022, we issued term loans totaling $75.0 million under the Credit Facility. Refer to Note 11, Debt, included in Item 8 of this report, for further details.

Critical Accounting Policies and Significant Estimates

Our discussion and analysis of our financial condition and results of operations is based upon our consolidated financial statements, which have been prepared in accordance with GAAP. The preparation of these consolidated financial statements requires us to make estimates and judgments that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities as of the date of the consolidated financial statements, as well as the reported revenue and expenses during the reporting periods.

Critical accounting policies and estimates are those that we consider the most important to the portrayal of our financial condition and results of operations because they require our most difficult, subjective or complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain. Generally, we base our estimates on historical experience and on various other factors that we believe to be reasonable under the circumstances. Actual results may differ from these estimates.

Reserve for Veterinary Invoices

We use the paid loss development method (chain-ladder method) to estimate reserves for veterinary invoices for our subscription and for the majority of our other business segment. Paid loss development factors are estimated based on historical paid loss triangles. The reserve represents our estimate of the future amount we will pay for veterinary invoices that are dated as of, or prior to, our balance sheet date. The reserve also includes our estimate of related internal processing costs. To determine the accrual, we make assumptions based on our historical experience, including the number of veterinary invoices we expect to receive, the average cost of those veterinary invoices, the length of time between the date of the veterinary invoice and the date we receive it, and our expected cost to process and administer the payments. As of each balance sheet date, we reevaluate our reserve and may adjust the estimate for new information.

As of December 31, 2022, our reserve for veterinary invoices was $43.7 million, consisting of $42.4 million for the amount we expect to pay in the future for veterinary invoices dated between January 1, 2022 and December 31, 2022, inclusive of related processing costs, and a reserve of $1.3 million for invoices dated prior to January 1, 2022. We believe the reserve amount as of December 31, 2022 is adequate, and we do not believe that there are any reasonably likely changes in the facts or circumstances underlying key assumptions that would result in the reserve balance being insufficient in an amount that would have a material impact on our reported results, financial position or liquidity. The ultimate liability, however, may be in excess of or less than the amount we have reserved.

For the year ended December 31, 2022, we paid $36.6 million for veterinary invoices dated on or before December 31, 2021, including related processing costs. Our reserve estimate for these expenses was $39.7 million as of December 31, 2021. As of December 31, 2022, we reevaluated the remaining reserve for those periods prior to December 31, 2021 and recorded an adjustment to our income statement to decrease it by $1.7 million.

Income Taxes

We determine our deferred tax assets and liabilities based on the differences between the financial reporting and tax basis of assets and liabilities. The deferred tax assets and liabilities are measured using the enacted tax rates that will be in effect when the differences are expected to reverse. A valuation allowance is recorded when it is more likely than not that the deferred tax asset will not be recovered. We apply judgment in the determination of the consolidated financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. Although we believe our assumptions, judgments and estimates are reasonable, changes in tax laws or our interpretation of tax laws and the resolution of any tax audits could significantly impact the amounts provided for income taxes in our consolidated financial statements.

Item 7A. Quantitative and Qualitative Disclosures About Market Risks

Market risk is the risk of loss arising from adverse changes in market rates and prices, such as interest rates (inclusive of credit spreads) and other relevant market rate or price changes. Market risk is directly influenced by the volatility and liquidity in the markets in which the related underlying assets are traded. The following is a discussion of our primary market risk exposures and how those exposures are managed as of December 31, 2022. Our market risk sensitive instruments are primarily entered into for purposes other than trading.

Interest Rate Risk

The primary market risks to our investment portfolio are interest rate risk and credit risk associated with investments in fixed maturity securities. The objective of our investment activities is to maintain principal and the majority of our investments are short-term in nature. For additional information regarding our investments, refer to Note 6, Investments, included in Item 8 of this report.

Additionally, we are exposed to interest rate risk as a result of our debt and our investment activities. Our Credit Facility bears interest at a floating base rate plus an applicable margin. As of December 31, 2022, our aggregate outstanding indebtedness was $69.5 million. A 10% change in market interest rates would not be expected to have a material impact on our consolidated financial condition or results of operations. For additional information regarding our debt, refer to Note 11, Debt, included in Item 8 of this report.

We may be exposed to interest rate risk as a result of our debt and our investment activities. The primary objective of our investment activities is to maintain principal and the majority of our investments are short-term in nature. A 10% change in market interest rates would not be expected to have a material impact on our consolidated financial condition or results of operations.

Foreign Currency Exchange Risk

We generate approximately 15% of our revenue in Canada. As our operations in Canada or the United States grow on an absolute basis and/or relative to one another, our results of operations and cash flows will be subject to fluctuations due to changes in foreign currency exchange rates. A 10% change in the Canadian currency exchange rate could have a material impact on our consolidated financial condition or results of operations. A hypothetical change of this magnitude would have increased or decreased our total revenues by approximately $13.7 million, total expenses by approximately $9.9 million, and have a net impact of $3.8 million of income or loss for the year ended December 31, 2022. To date, we have not entered into any material foreign currency hedging contracts although we may do so in the future.

Item 8. Financial Statements and Supplementary Data

Trupanion, Inc.
Index to Consolidated Financial Statements

	Page
Report of Independent Registered Public Accounting Firm (PCAOB ID: 42)	58
Consolidated Statements of Operations	60
Consolidated Statements of Comprehensive Loss	61
Consolidated Balance Sheets	62
Consolidated Statements of Stockholders' Equity	63
Consolidated Statements of Cash Flows	64
Notes to Consolidated Financial Statements	65

Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of Trupanion, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Trupanion, Inc. (the Company) as of December 31, 2022 and 2021, the related consolidated statements of operations, comprehensive loss, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2022, and the related notes and the financial statement schedule listed in the Index at Item 15(a) (collectively referred to as the “consolidated financial statements”). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2022, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework), and our report dated February 16, 2023 expressed an unqualified opinion thereon.

Basis for Opinion

These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of the critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the account or disclosures to which it relates.

Reserve for Veterinary Invoices

Description of the Matter	The Company's reserve for veterinary invoices totaled $43.7 million as of December 31, 2022. As discussed in Note 1 to the financial statements, the Company's reserve for veterinary invoices is based on an actuarial analysis of the Company's historical experience including the number of veterinary invoices it expects to receive, the average cost of those veterinary invoices, the length of time between the date of the veterinary invoice and the date the Company receives the veterinary invoice and the members' chosen deductibles. Auditing the Company's reserve for veterinary invoices is complex due to the sensitivity of the estimated reserve to management assumptions including frequency and severity of loss and development factors applied to paid and reported invoices.
How We Addressed the Matter in Our Audit	We evaluated the design and tested the operating effectiveness of controls over the reserve for veterinary invoices process, including controls over the completeness and accuracy of the data used in management's actuarial projections and the review and approval processes that management has in place for the methods and assumptions used by management's actuaries in estimating the reserves. To evaluate the reserve for veterinary invoices, our audit procedures included, among others, testing the completeness and accuracy of the underlying invoice data and related contracts. We involved our actuarial specialists to assist in our evaluation of management's methodologies and assumptions used in the calculation of the reserve and compared the Company's recorded reserve to a range of reasonable estimates developed independently by our actuarial specialists.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2012.

Seattle, Washington
February 16, 2023

Trupanion, Inc.
Consolidated Statements of Operations
(in thousands, except per share data)

	Year Ended December 31,		
	2022	**2021**	**2020**
Revenue	$ 905,179	$ 698,991	$ 502,028
Cost of revenue:			
Veterinary invoice expense(1)	649,737	486,062	351,124
Other cost of revenue(1)	133,257	108,583	69,003
Total cost of revenue	782,994	594,645	420,127
Operating expenses:			
Technology and development(1)	25,133	16,866	9,947
General and administrative(1)	39,379	31,893	21,847
New pet acquisition expense(1)	89,500	78,647	47,837
Depreciation and amortization	10,921	11,965	7,071
Total operating expenses	164,933	139,371	86,702
Loss from investment in joint venture	(253)	(171)	(126)
Operating loss	(43,001)	(35,196)	(4,927)
Interest expense	4,267	10	1,381
Other expense (income), net	(3,072)	14	(581)
Loss before income taxes	(44,196)	(35,220)	(5,727)
Income tax expense	476	310	113
Net loss	$ (44,672)	$ (35,530)	$ (5,840)
Net loss per share:			
Basic and diluted	$ (1.10)	$ (0.89)	$ (0.16)
Weighted average shares of common stock outstanding:			
Basic and diluted	40,765,355	40,137,505	35,858,869

(1)Includes stock-based compensation expense as follows:

	2022	2021	2020
Veterinary invoice expense	$ 4,145	$ 4,538	$ 1,118
Other cost of revenue	2,339	2,610	468
Technology and development	4,742	3,056	758
General and administrative	12,831	8,862	3,795
New pet acquisition expense	9,336	9,160	2,773

Trupanion, Inc.
Consolidated Statements of Comprehensive Loss
(in thousands)

	Year Ended December 31,		
	2022	2021	2020
Net loss	$ (44,672)	$ (35,530)	$ (5,840)
Other comprehensive income (loss):			
Foreign currency translation adjustments	(4,412)	(496)	2,496
Net unrealized gain (loss) on available-for-sale debt securities	(4,966)	502	325
Other comprehensive income (loss), net of taxes	(9,378)	6	2,821
Comprehensive income (loss)	$ (54,050)	$ (35,524)	$ (3,019)

Trupanion, Inc.
Consolidated Balance Sheets
(in thousands, except share data)

	December 31,	
	2022	2021
Assets		
Current assets:		
Cash and cash equivalents	$ 65,605	$ 87,400
Short-term investments	156,804	126,012
Accounts and other receivables, net of allowance for doubtful accounts of $540 at December 31, 2022 and $342 at December 31, 2021	232,439	165,217
Prepaid expenses and other assets	14,248	12,325
Total current assets	469,096	390,954
Restricted cash	19,032	13,469
Long-term investments	7,841	7,061
Property and equipment, net	90,701	77,950
Intangible assets, net	24,031	22,663
Other long-term assets	18,943	17,776
Goodwill	41,983	32,709
Total assets	$ 671,627	$ 562,582
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$ 9,471	$ 8,952
Accrued liabilities and other current liabilities	32,616	28,162
Reserve for veterinary invoices	43,734	39,671
Deferred revenue	202,692	146,911
Long-term debt - current portion	1,103	—
Total current liabilities	289,616	223,696
Long-term debt	68,354	—
Deferred tax liabilities	3,392	2,827
Other liabilities	4,968	3,859
Total liabilities	366,330	230,382
Stockholders' equity:		
Common stock: $0.00001 par value per share, 100,000,000 shares authorized; 42,041,344 and 41,013,158 shares issued and outstanding at December 31, 2022 and 41,408,350 and 40,475,185 shares issued and outstanding at December 31, 2021	—	—
Preferred stock: $0.00001 par value per share, 10,000,000 shares authorized; no shares issued and outstanding	—	—
Additional paid-in capital	499,694	466,792
Accumulated other comprehensive income (loss)	(6,301)	3,077
Accumulated deficit	(171,562)	(126,890)
Treasury stock, at cost: 1,028,186 and 933,165 shares at December 31, 2022 and 2021	(16,534)	(10,779)
Total stockholders' equity	305,297	332,200
Total liabilities and stockholders' equity	$ 671,627	$ 562,582

Trupanion, Inc.
Consolidated Statements of Stockholders' Equity
(in thousands, except share amounts)

	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Treasury Stock	Total Stockholders' Equity
	Shares	Amount					
Balance at January 1, 2020	34,947,017	$ —	$ 232,731	$ (85,520)	$ 250	$ (10,701)	$ 136,760
Issuance of common stock from private placement	3,636,364	—	192,265	—	—	—	192,265
Issuance of common stock in connection with the Company's equity award programs, net of tax withholdings	870,726	—	4,864	—	—	—	4,864
Stock-based compensation expense	—	—	9,147	—	—	—	9,147
Repurchases of common stock	(3,300)	—	—	—	—	(78)	(78)
Other comprehensive income (loss)	—	—	—	—	2,821	—	2,821
Net loss	—	—	—	(5,840)	—	—	(5,840)
Balance at December 31, 2020	39,450,807	—	439,007	(91,360)	3,071	(10,779)	339,939
Issuance of common stock in connection with the Company's equity award programs, net of tax withholdings	1,024,378	—	(1,117)	—	—	—	(1,117)
Stock-based compensation expense	—	—	28,902	—	—	—	28,902
Other comprehensive income (loss)	—	—	—	—	6	—	6
Net loss	—	—	—	(35,530)	—	—	(35,530)
Balance at December 31, 2021	40,475,185	—	466,792	(126,890)	3,077	(10,779)	332,200
Issuance of common stock in connection with the Company's equity award programs, net of tax withholdings	632,994	—	(2,124)	—	—	—	(2,124)
Stock-based compensation expense	—	—	35,026	—	—	—	35,026
Repurchases of common stock	(95,021)	—	—	—	—	(5,755)	(5,755)
Other comprehensive income (loss)	—	—	—	—	(9,378)	—	(9,378)
Net loss	—	—	—	(44,672)	—	—	(44,672)
Balance at December 31, 2022	41,013,158	$ —	$ 499,694	$ (171,562)	$ (6,301)	$ (16,534)	$ 305,297

Trupanion, Inc.
Consolidated Statements of Cash Flows
(in thousands)

	Year Ended December 31,		
	2022	2021	2020
Operating activities			
Net loss	$ (44,672)	$ (35,530)	$ (5,840)
Adjustments to reconcile net loss to cash provided by (used in) operating activities:			
Depreciation and amortization	10,921	11,965	7,071
Stock-based compensation expense	33,393	28,226	8,912
Other, net	1,051	(1,927)	153
Changes in operating assets and liabilities:			
Accounts and other receivables	(66,982)	(66,170)	(43,272)
Prepaid expenses and other assets	(5,227)	(3,055)	(2,839)
Accounts payable, accrued liabilities, and other liabilities	3,136	8,796	9,951
Reserve for veterinary invoices	4,227	10,768	7,662
Deferred revenue	56,153	54,385	39,746
Net cash provided by (used in) operating activities	(8,000)	7,458	21,544
Investing activities			
Purchases of investment securities	(273,006)	(95,672)	(65,286)
Maturities and sales of investment securities	239,210	57,869	44,066
Cash paid in business acquisitions, net of cash acquired	(15,034)	—	(48,133)
Purchases of property and equipment	(17,088)	(12,355)	(7,451)
Other	(1,598)	(1,755)	57
Net cash provided by (used in) investing activities	(67,516)	(51,913)	(76,747)
Financing activities			
Issuance of common stock, net of offering costs	—	—	192,265
Repurchase of common stock	(5,755)	—	—
Proceeds from exercise of stock options	2,290	3,607	6,013
Shares withheld to satisfy tax withholding	(4,359)	(4,732)	(1,115)
Proceeds from debt financing, net of financing fees	69,138	—	6,213
Repayment of debt financing	(571)	—	(32,450)
Other	—	—	(78)
Net cash provided by (used in) financing activities	60,743	(1,125)	170,848
Effect of foreign exchange rate changes on cash, cash equivalents, and restricted cash, net	(1,459)	252	(16)
Net change in cash, cash equivalents, and restricted cash	(16,232)	(45,328)	115,629
Cash, cash equivalents, and restricted cash at beginning of period	100,869	146,197	30,568
Cash, cash equivalents, and restricted cash at end of period	$ 84,637	$ 100,869	$ 146,197
Supplemental disclosures			
Income taxes paid (refund)	$ 2,498	$ 282	$ (31)
Interest paid	3,353	16	1,363
Noncash investing and financing activities:			
Purchases of property and equipment included in accounts payable and accrued liabilities	1,324	729	861
Acquisition-related contingent consideration recorded as a liability	—	—	162

1. Nature of Operations and Summary of Significant Accounting Policies

Description of Business

Trupanion, Inc. (collectively with its wholly-owned subsidiaries, the "Company") provides medical insurance for cats and dogs throughout the United States, Canada, Puerto Rico, and Australia. Through the Company's data-driven, vertically-integrated approach, the Company develops and offers high value medical insurance products, priced specifically for each pet's unique characteristics and coverage level.

Basis of Presentation

The consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles ("GAAP") and include the accounts of the Company and its wholly-owned subsidiaries. All intercompany accounts and transactions have been eliminated in consolidation.

Use of Estimates

The preparation of consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Actual results could differ from such estimates.

Cash, Cash Equivalents and Restricted Cash

The Company considers all highly liquid investments with an original maturity of three months or less to be cash equivalents. At times, cash on deposit may be in excess of the applicable federal deposit insurance corporation limits.

The Company considers any cash account that is contractually restricted to withdrawal or use to be restricted cash. The Company is required to maintain certain restricted cash balances to comply with insurance company regulations. As of December 31, 2022, the Company was in compliance with all requirements.

Accounts and Other Receivables

Receivables are comprised of trade receivables and other miscellaneous receivables. Accounts and other receivables are carried at their estimated collectible amounts. Accounts receivable balance is primarily related to the Company's other business segment where the Company generates revenue from underwriting policies through unaffiliated general agents. These policies are typically annual policies, with monthly payment terms through the end of the twelve-month period. The Company had $220.8 million and $159.4 million accounts receivable associated with underwriting these policies as of December 31, 2022 and 2021, respectively.

Deferred Acquisition Costs

The Company incurs certain costs, including premium taxes, fees and enrollment-based bonuses, and referral fees that directly relate to the successful acquisition of new or renewal customer contracts. These costs are deferred and are included in prepaid expenses and other assets on the consolidated balance sheet and amortized over the related policy term to the applicable financial statement line item, either new pet acquisition expense or other cost of revenue. Deferred acquisition costs as of December 31, 2022 and 2021 were $6.0 million and $4.3 million, respectively. Amortized deferred acquisition costs classified within new pet acquisition expense amounted to $4.9 million, $4.7 million, and $3.2 million and amortized deferred acquisition costs classified within other cost of revenue amounted to $33.9 million, $30.5 million, and $23.2 million, for the years ended December 31, 2022, 2021, and 2020, respectively.

Investments

The Company invests in investment grade fixed maturity securities of varying maturities. Available-for-sale securities are reported at fair value with unrealized gains and losses included in accumulated other comprehensive loss. Held-to-maturity securities are reported at amortized cost. Premiums or discounts on fixed maturity securities are amortized or accreted over the life of the security and included in interest income. There have been no realized gains and losses on sales of fixed maturity securities.

The Company evaluates whether declines in the fair value of its investments below book value are other-than-temporary. This evaluation includes the Company's ability and intent to hold the security until an expected recovery occurs, the severity and duration of the unrealized loss, as well as all available information relevant to the collectability of the security, including past events, current conditions, and reasonable and supportable forecasts, when developing estimates of cash flows expected to be collected.

Fair Value of Financial Instruments

The Company is required to disclose information on all assets and liabilities reported at fair value that enables an assessment of the inputs used in determining the reported fair values. The fair value hierarchy prioritizes valuation inputs based on the observable nature of those inputs. The fair value hierarchy applies only to the valuation inputs used in determining the reported fair value of the investments and is not a measure of the investment credit quality. The hierarchy defines three levels of valuation inputs:

Level 1 - Quoted prices in active markets for identical assets or liabilities

Level 2 - Inputs other than quoted prices that are observable for the asset or liability, either directly or indirectly

Level 3 - Unobservable inputs that reflect the Company's own assumptions about the assumptions market participants would use in pricing the asset or liability

The Company's financial instruments, in addition to those presented in Note 8, Fair Value, include cash and cash equivalents, accounts receivable, accounts payable, and accrued liabilities. The carrying amounts of accounts receivable, accounts payable, and accrued liabilities approximate fair value because of the short-term nature of these instruments.

Property and Equipment

Property and equipment primarily consists of building, land and land improvements, office equipment, internally-developed software related to the Company’s website, and internal support systems, capitalized during the application development stage of the project. Property and equipment is recorded at cost and depreciated using the straight-line method over the estimated useful life of the respective asset:

Land	Not depreciable
Land improvements	10 years
Building	39 years
Software	3 to 5 years
Office equipment	3 to 5 years

Goodwill and Intangible Assets

Goodwill and indefinite-lived intangible assets are not amortized. The Company reviews these assets for impairment at least annually or if indicators of potential impairment exist. Acquired finite-lived intangibles are amortized on a straight-line basis over the estimated useful lives of the assets.

Asset Impairment

Long-lived assets, including property, equipment, and intangible assets, are reviewed for impairment when events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Should an impairment exist, the impairment loss would be measured as the amount the asset's carrying value exceeds its fair value. The Company has recognized no impairment loss on long-lived assets for the years ended December 31, 2022, 2021, and 2020.

Reserve for Veterinary Invoices

Reserve for veterinary invoices is an estimate of the future amount the Company will pay for veterinary invoices that are dated as of, or prior to, its balance sheet date. The reserve also includes the Company's estimate of related internal processing costs. To determine the accrual, the Company makes assumptions based on its historical experience, including the number of veterinary invoices it expects to receive, the average cost of those veterinary invoices, the length of time between the date of the veterinary invoice and the date the Company receives it, the member's chosen deductible, and the Company's expected cost to process and administer the payments. As of each balance sheet date, the Company reevaluates its reserve and may adjust the estimate for new information.

Deferred Revenue

Deferred revenue is primarily related to the Company’s other business segment where the Company generates revenue from underwriting policies through unaffiliated general agents. These policies are typically annual policies, with monthly payment terms through the end of the twelve-month period. Deferred revenue also consists of subscription fees received or billed in advance of the subscription services within the Company's subscription business.

Revenue Recognition

The Company generates revenue primarily from subscription fees and through underwriting policies for unaffiliated general agents. Revenue is recognized pro-rata over the terms of the customer contracts.

Veterinary Invoice Expense

Veterinary invoice expense includes the Company’s costs to review veterinary invoices, administer the payments, and provide member services, and other operating expenses directly or indirectly related to this process. The Company also accrues for veterinary invoices that have been incurred but not yet received or paid. This also includes amounts paid by unaffiliated general agents, and an estimate of amounts incurred and not yet paid for the other business segment.

Other Cost of Revenue

Other cost of revenue for the subscription business segment includes direct and indirect member service expenses, Territory Partner renewal fees, credit card transaction fees and premium tax expenses. Other cost of revenue for the other business segment includes the commissions the Company pays to unaffiliated general agents and costs to administer the programs in the other business segment.

Technology and Development

Technology and development expenses primarily consist of personnel costs and related expenses for the Company's technology staff, which includes information technology development and infrastructure support and third-party services. It also includes expenses associated with development of new products and offerings.

General and Administrative

General and administrative expenses consist primarily of personnel costs and related expenses for the Company’s finance, actuarial, human resources, legal, regulatory, and general management functions, as well as facilities and professional services.

New Pet Acquisition Expense

New pet acquisition expense primarily consists of costs, including employee compensation, to educate veterinarians and consumers about the benefits of Trupanion, to generate leads and to convert leads into enrolled pets, as well as print, online and promotional advertising costs. New pet acquisition expense was previously termed “sales and marketing” on the consolidated statement of operations. This update represents a change in name only. It does not denote a change in method of accounting.

Other Income, Net

Other income, net, was $3.1 million, nil, and $0.6 million, including interest income of $3.0 million, $0.3 million, and $0.6 million for the years ended December 31, 2022, 2021, and 2020, respectively.

Advertising

Advertising costs are expensed as incurred, with the exception of television advertisements, which are expensed the first time each advertisement is aired. Advertising costs amounted to $25.5 million, $23.6 million and $13.4 million, in the years ended December 31, 2022, 2021 and 2020, respectively.

Stock-Based Compensation

Compensation expense related to stock-based transactions, including employee and non-employee stock option awards, restricted stock awards, and restricted stock units, is measured and recognized in the financial statements based on fair value. The fair value of restricted stock awards and restricted stock units is the common stock price as of the measurement date. The fair value of stock options is estimated on the measurement date using the Black-Scholes option-pricing model that requires management to apply judgment and make estimates, including:

- *Expected volatility* —The Company estimates the expected volatility based on the historical volatility of a representative group of publicly traded companies with similar characteristics to the Company, and its own historical volatility;
- *Expected term for awards granted to employees* —The Company has based its expected term for awards issued to employees on the simplified method, as permitted by the SEC Staff Accounting Bulletin Topic 14, Share-Based Payment;
- *Risk-free interest rate*—The risk-free interest rate is based on the yields of U.S. Treasury securities with maturities similar to the expected term of the options; and
- *Expected dividend yield*—The Company has never declared or paid any cash dividends and does not presently plan to pay cash dividends in the foreseeable future. Consequently, the Company uses an expected dividend yield of zero.

Stock-based compensation expense for stock options, restricted stock awards, and restricted stock units is recognized on a straight-line basis over the requisite service period, which is generally the vesting period of the respective award. The Company recognizes forfeitures when they occur.

Income Taxes

The Company uses the asset and liability approach for accounting and reporting income taxes. Deferred tax assets and liabilities are recognized for future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities, and their respective tax bases, operating loss, and tax credit carryforwards.

Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect of a tax rate change is recognized in the period that includes the enactment date. Valuation allowances are provided for when it is considered more likely than not that deferred tax assets will not be realized.

The Company recognizes the effect of income tax positions only if those positions are more likely than not of being sustained. Recognized income tax positions are measured at the largest amount that is greater than a 50% likelihood of being realized. Penalties and interest are classified as a component of income taxes.

Foreign Currency Translation

The Company’s consolidated financial statements are reported in U.S. dollars. Assets and liabilities denominated in foreign currencies were translated to U.S. dollars, the reporting currency, at the exchange rates in effect on the balance sheet date. Revenue and expenses denominated in foreign currencies were translated to U.S. dollars using a weighted average rate for the relevant reporting period. Cumulative translation adjustments of $2.8 million, $(1.6) million, and $(2.1) million were recorded in accumulated other comprehensive loss (income) as of December 31, 2022, 2021, and 2020, respectively.

Insurance Operations

Effective January 1, 2015, the Company formed a segregated account in Bermuda as part of Wyndham Insurance Company (SAC) Limited (WICL) and entered into a revised fronting and reinsurance arrangement with Omega General Insurance Company (Omega) to include its newly formed segregated account. The Company maintains all risk with the business written in Canada and consolidates the entity in its financial statements. Dividends are allowed subject to the Segregated Accounts Company Act of 2000, which allows for dividends only to the extent that the entity remains solvent and the value of its assets remain greater than the aggregate of its liabilities and its issued share capital and share premium accounts.

For the Company's Canadian business, all plans are written by Omega and the risk is assumed by the Company through a fronting and reinsurance agreement. Premiums are recognized and earned pro rata over the terms of the related customer contracts. Revenue recognized from the agreement in 2022, 2021, and 2020 was $135.9 million, $112.0 million and $81.3 million, respectively, and deferred revenue relating to this arrangement at December 31, 2022 and 2021 was $6.4 million and $4.7 million, respectively. Reinsurance revenue was 15%, 16%, and 16% of total revenue in 2022, 2021, and 2020, respectively. Cash designated for the purpose of paying claims related to this reinsurance agreement was $7.2 million and $7.7 million at December 31, 2022 and 2021, respectively. In addition, as required by the Office of the Superintendent of Financial institutions regulations related to the Company's reinsurance agreement with Omega, the Company is required to fund a Canadian Trust account with the greater of CAD $2.0 million or 120% of unearned Canadian premium plus 20% of outstanding Canadian claims, including all incurred but not reported claims. As of December 31, 2022, the account balance was CAD $10.4 million and the Company was in compliance with all requirements.

The Company has not transferred any risk to third-party reinsurers.

Concentrations of Credit Risk

Financial instruments, which potentially subject the Company to concentration of credit risk, consist primarily of cash and cash equivalents, investments, and debt. The Company manages its risk by investing cash equivalents and investment securities in money market instruments and securities of the U.S. government, U.S. government agencies and high-credit-quality issuers of debt securities.

2. Net Loss per Share

Basic net loss per share is computed using the weighted average number of shares of common stock outstanding during the period. Diluted net loss per share is calculated using the weighted average number of shares of common stock plus, when dilutive, potential shares of common stock outstanding using the treasury-stock method. Potential shares of common stock outstanding include stock options, unvested restricted stock awards and restricted stock units.

The following potentially dilutive equity securities were not included in the diluted earnings per share of common stock calculation because they would have had an antidilutive effect:

	As of December 31,		
	2022	2021	2020
Stock options	629,650	807,205	1,459,290
Restricted stock awards and restricted stock units	1,112,552	1,087,627	782,755

3. Business Combinations

PetExpert

On November 16, 2022, the Company acquired 100% of voting equity interest in Royal Blue s.r.o., the parent company of PetExpert, a veterinary-centric, managing general agent for pet insurance with operations in the Czech Republic, Slovakia, and Belgium for approximately $12.3 million in net cash. The acquisition provides the Company with a foothold in Europe, allowing for expansion within different countries within the region. Additionally, the acquired technology from PetExpert focuses on the pet space and, along with the acquired personnel, is intended to enable the Company to improve its back-end software to help facilitate growth opportunities. The Company incurred $0.2 million of acquisition-related costs that were recorded in general and administrative expenses.

The acquisition is recorded using the purchase method of accounting in accordance with Accounting Standards Codification (ASC) 805, *Business Combinations*, which requires that the assets acquired and liabilities assumed to be recorded at their respective fair values at the acquisition date. The excess of the purchase price over the estimated fair values of the net tangible and intangible assets acquired is recorded as goodwill. The application of the purchase method of accounting resulted in the recognition of intangible assets, the estimated fair values of which involved a discounted cash flow model and certain assumptions and estimates, including but not limited to, revenue growth rates and margins, attrition rates, and discount rates. These estimates are inherently uncertain and unanticipated events and circumstances may occur which could affect the accuracy or validity of estimates used in purchase accounting. The purchase price allocation recorded in a business combination may change during the measurement period, which is a period not to exceed one year from the date of acquisition, as additional information about conditions existing at the acquisition date becomes available.

The following table summarizes the preliminary estimated fair values of the assets acquired and liabilities assumed at the acquisition date (in thousands):

	November 16, 2022
Current assets, net of cash acquired	$ 295
Property and equipment and other long-term assets	27
Amortizable intangible assets	5,121
Goodwill	9,541
Current liabilities and short-term loan	(1,677)
Deferred tax liability and other liabilities	(1,056)
Total consideration transferred, net of cash acquired	$ 12,251

The Company acquired intangible assets which included developed technologies and customer relationships with an estimated useful life of 5.0 years. The goodwill recognized is attributable primarily to going concern value such as assembled workforce, future technology development, future customers, and expected synergies from incorporating the operations into the Company's portfolio. It has been assigned to the subscription business segment. None of the goodwill associated with this acquisition is expected to be deductible for income tax purposes.

As of the acquisition date, the Company assumed a credit agreement entered into by PetExpert in 2021 that provides for a revolving line of credit. The maximum credit limit at December 31, 2022 was $0.4 million. To the extent not previously paid, the line of credit is due on May 31, 2023. As of December 31, 2022, PetExpert had $0.4 million debt issued and outstanding under this assumed credit agreement.

Smart Paws

On August 31, 2022, the Company completed an acquisition of 100% of the equity of Smart Paws GmbH (Smart Paws), a managing general agent for pet insurance with operations in Germany and Switzerland, for approximately $2.8 million in net cash. The acquisition of Smart Paws provides the Company with a foothold in Europe, allowing for expansion within different countries within the region. The Company incurred $0.1 million of acquisition related costs that were included in general and administrative expenses during the year ended December 31, 2022.

The Company acquired a definite-lived intangible asset valued at $1.1 million with an estimated useful life of 5.0 years. Goodwill of $2.6 million was recognized as a result of the acquisition and attributable primarily to going concern value such as assembled workforce, future customers, and expected synergies from incorporating the operations into the Company's portfolio. None of the goodwill associated with this acquisition is expected to be deductible for income tax purposes.

The results of PetExpert and Smart Paws operations have been included in the consolidated financial statements since the acquisition date, but were immaterial to the Company's consolidated financial statements.

4. Property and Equipment, Net

Property and equipment, net consisted of the following (in thousands):

	December 31, 2022	December 31, 2021
Land and improvements	$ 15,911	$ 15,911
Building and improvements	48,963	48,547
Software	55,932	37,984
Office equipment and other	6,814	6,258
Construction in progress	262	540
Property and equipment, at cost	127,882	109,240
Less: Accumulated depreciation	(37,181)	(31,290)
Property and equipment, net	$ 90,701	$ 77,950

Depreciation expense related to property and equipment was $6.1 million, $7.1 million and $5.2 million for the years ended December 31, 2022, 2021 and 2020, respectively.

5. Goodwill and Intangible Assets

Goodwill arises from business acquisitions in which the purchase price exceeds the fair value of tangible and intangible assets acquired less assumed liabilities.

The following is a summary of goodwill by reportable segment for the year ended December 31, 2022 (in thousands):

	Subscription Business	Other Business	Total
Balance as of December 31, 2021	$ 32,709	$ —	$ 32,709
Acquisitions	12,159	—	12,159
Effects of foreign currency	(2,885)	—	(2,885)
Balance as of December 31, 2022	$ 41,983	$ —	$ 41,983

The following table presents the detail of intangible assets other than goodwill for the periods presented (in thousands):

	Gross Carrying Value	Accumulated Amortization	Net Carrying Value	Weighted Average Useful Life Remaining as of December 31, 2022
December 31, 2022:				
Licenses	$ 4,773	$ —	$ 4,773	N/A
Leases	2,959	(2,866)	93	1.0
Trade name	1,228	(266)	962	7.8
Developed technologies	16,770	(5,164)	11,606	3.6
Customer relationships	7,980	(3,001)	4,979	3.1
Patents, trademarks, and other	2,768	(1,150)	1,618	4.3
Total Intangibles	$ 36,478	$ (12,447)	$ 24,031	3.9
December 31, 2021:				
Licenses	$ 4,773	$ —	$ 4,773	
Leases	2,959	(2,539)	420	
Trade name	1,373	(160)	1,213	
Developed technologies	11,516	(2,721)	8,795	
Customer relationships	7,589	(1,771)	5,818	
Patents, trademarks, and other	2,373	(729)	1,644	
Total Intangibles	$ 30,583	$ (7,920)	$ 22,663	

The Company acquired an insurance company in 2007, which originally included licenses in 23 states. These licenses were valued at $4.8 million. The Company is currently licensed in all 50 states, the District of Columbia and Puerto Rico. Most licenses are renewed annually upon payment of various fees assessed by the issuing state. Renewal costs are expensed as incurred. This is considered an indefinite-lived intangible asset given the planned renewal of the certificates of authority and applicable licenses for the foreseeable future.

Amortization expense associated with intangible assets was $4.8 million, $4.9 million, and $1.9 million for the years ended December 31, 2022, 2021, and 2020, respectively.

As of December 31, 2022, expected amortization expense relating to purchased intangible assets for each of the next five years and thereafter is as follows (in thousands):

Year ending December 31:	
2023	$ 5,606
2024	5,175
2025	4,456
2026	1,459
2027	1,311
Thereafter	589
Total	$ 18,596

6. Investments

Available-for sale securities are classified as short-term versus long-term investments based on whether they represent the investment of funds available for current operations. All available-for-sale securities are considered short-term in nature, with the exception of certain long-term investments that are being held for statutory requirements. Held-to-maturity securities are classified as short-term versus long-term investments based on the effective maturity dates. The amortized cost, gross unrealized holding gains and losses, and estimates of fair value of long-term and short-term investments by major security type and class of security were as follows as of December 31, 2022 and 2021 (in thousands):

	Amortized Cost		Gross Unrealized Holding Gains		Gross Unrealized Holding Losses		Fair Value	
As of December 31, 2022								
Long-term investments:								
Available-for-Sale Investments								
Foreign deposits	$	7,683	$	—	$	—	$	7,683
	$	7,683	$	—	$	—	$	7,683
Held-to-Maturity Investments								
U.S. Treasury securities	$	158	$	—	$	(4)	$	154
	$	158	$	—	$	(4)	$	154
Short-term investments:								
Available-for-Sale Investments								
U.S. Treasury securities	$	42,833	$	—	$	(186)	$	42,647
Mortgage-backed securities and collateralized mortgage obligations		8,015		—		(97)		7,918
Other asset-backed securities		11,286		—		(77)		11,209
Municipal bond		1,000		—		(6)		994
Corporate bonds		37,793		—		(262)		37,531
	$	100,927	$	—	$	(628)	$	100,299
Held-to-Maturity Investments								
U.S. Treasury securities	$	12,059	$	—	$	(58)	$	12,001
Certificates of deposit		3,254		—		—		3,254
U.S. government funds		41,192		—		—		41,192
	$	56,505	$	—	$	(58)	$	56,447

	Amortized Cost		Gross Unrealized Holding Gains		Gross Unrealized Holding Losses		Fair Value	
As of December 31, 2021								
Long-term investments:								
Available-for-Sale Investments								
Foreign deposits	$	6,050	$	—	$	—	$	6,050
Municipal bond		1,000		11		—		1,011
	$	7,050	$	11	$	—	$	7,061
Short-term investments:								
Held-to-Maturity Investments								
U.S. Treasury securities	$	8,671	$	—	$	(9)	$	8,662
Certificates of deposit		3,295		—		—		3,295
U.S. government funds		114,046		—		—		114,046
	$	126,012	$	—	$	(9)	$	126,003

Maturities of debt securities classified as available-for-sale and held-to-maturity were as follows (in thousands):

	December 31, 2022	
	Amortized Cost	Fair Value
Available-for-sale:		
Due under one year	$ 10,137	$ 10,108
Due after one year through five years	98,473	97,875
	$ 108,610	$ 107,983
Held-to-maturity:		
Due under one year	$ 56,505	$ 56,447
Due after one year through five years	158	154
	$ 56,663	$ 56,601

The Company does not expect any credit losses from its held-to-maturity investments, considering the composition of the investment portfolio and the credit loss history of these investments. For available-for-sale debt securities, the Company determined that there was $0.6 million of unrealized losses and nil for the years ended December 31, 2022 and 2021, respectively. Further, any available-for-sale debt securities with unrealized losses have been in the loss position for less than twelve months. The Company does not expect any credit losses from its available-for-sale debt securities, considering the composition of the investment portfolio and the credit rating of these investments. For those securities, the Company determined it is not likely to, and did not intend to, sell prior to a potential recovery.

Proceeds from the sales of fixed maturities classified as available-for-sale were $43.0 million and nil during the years ended December 31, 2022 and 2021, respectively.

7. Other Investments

Investment in Variable Interest Entity

The Company has invested $7.0 million in preferred stock of a variable interest entity, Baystride, Inc., a U.S.-based privately held corporation operating in the pet food industry. The Company does not have power over the activities that most significantly impact the economic performance of the variable interest entity and is, therefore, not the primary beneficiary. The Company has the option to purchase all of the outstanding common stock issued by the variable interest entity in 2023 at an amount approximating its expected fair value. The preferred stock investment in the variable interest entity is accounted for as an available-for-sale debt security, and measured at fair value at each balance sheet date — see Note 8.

Additionally, the Company has extended a $5.6 million revolving line of credit to the variable interest entity to fund its inventory purchases. The Company's investment and amounts loaned under the line of credit are recorded in other long-term assets on its consolidated balance sheet. The outstanding loan balance under the line of credit, including accrued interest, was $6.3 million and $4.5 million as of December 31, 2022 and 2021, respectively. The Company has also entered into a series of agreements to provide ancillary services to, and receive reimbursement from, the variable interest entity at cost. The Company provided $0.8 million and $0.9 million of these services for the years ended December 31, 2022 and 2021, respectively.

Investment in Joint Venture

In September 2018, the Company acquired a non-controlling equity interest in a joint venture in Australia, whereby it has committed to licensing certain intellectual property and contributing up to $2.2 million AUD upon the achievement of specific operational milestones over a period of at least four years from the agreement execution date. As of December 31, 2022, the Company has contributed $1.0 million AUD. This equity investment is accounted for using the equity method and is classified in other long-term assets on the Company's consolidated balance sheet. The Company's share of income and losses from this equity method investment is included in gain (loss) from investment in joint venture on its consolidated statement of operations. Also included in this line item are income and expenses associated with administrative services provided to the joint venture.

8. Fair Value

Investments

The following table summarizes, by major security type, the Company's assets that are measured at fair value on a recurring basis, and placement within the fair value hierarchy (in thousands):

	As of December 31, 2022			
	Fair Value	Level 1	Level 2	Level 3
Assets				
Money market funds	$ 1,633	$ 1,633	$ —	$ —
Fixed maturities:				
Mortgage-backed securities and collateralized mortgage obligations	7,918	—	7,918	—
Other asset-backed securities	11,209	—	11,209	—
Corporate bonds	37,531	—	37,531	—
Foreign deposits	7,683	7,683	—	—
Municipal bond	994	—	994	—
U.S. Treasury securities	42,647	—	42,647	—
Preferred stock in variable interest entity	4,115	—	—	4,115
Total	$ 113,730	$ 9,316	$ 100,299	$ 4,115

	As of December 31, 2021			
	Fair Value	Level 1	Level 2	Level 3
Assets				
Money market funds	$ 32,255	$ 32,255	$ —	$ —
Fixed maturities:				
Foreign deposits	6,050	6,050	—	—
Municipal bond	1,011	—	1,011	—
Preferred stock in variable interest entity	8,442	—	—	8,442
Total	$ 47,758	$ 38,305	$ 1,011	$ 8,442

The Company measures the fair value of money market funds and foreign deposits based on quoted prices in active markets for identical assets. Our fixed maturity investments classified as either Level 1 or Level 2 in the above tables are priced exclusively by external sources, including pricing vendors, dealers/market makers, and exchange-quoted prices. The fair value of our fixed maturity investments classified as Level 2 is based on either recent trades in inactive markets or quoted market prices of similar instruments and other significant inputs derived from or corroborated by observable market data. Held-to-maturity investments are carried at amortized cost and the fair value and changes in unrealized gains (losses) are disclosed in Note 6, Investments. The fair value of these investments is determined in the same manner as available-for-sale securities and are considered either a Level 1 or Level 2 measurement.

The Company's preferred stock investment in the variable interest entity (see Note 7) is accounted for as an available-for-sale debt security, and measured at fair value at each balance sheet date. The estimated fair value of the preferred stock investment is a Level 3 measurement, and is based on certain unobservable inputs such as the value of the underlying enterprise, volatility, time to liquidity, and market interest rates. An increase or decrease in any of these unobservable inputs would result in a change in the fair value measurement. Estimated fair value was $4.1 million and $8.4 million as of December 31, 2022 and 2021, respectively, recorded in other long-term assets on the Company's consolidated balance sheet. A $4.3 million unrealized loss and a $0.5 million unrealized gain was recorded in the statement of other comprehensive income for the year ended December 31, 2022 and 2021, respectively. The Company considers the unrealized loss of $2.9 million as of December 31, 2022 to be temporary in nature.

The Company's other long-term assets balance also included notes receivable of $9.3 million and $7.6 million as of December 31, 2022 and 2021, respectively, recorded at their estimated collectible amount. The Company estimates that the carrying value of the notes receivable approximates the fair value. The estimated fair value represents a Level 3 measurement within the fair value hierarchy, and is based on market interest rates and the assessed creditworthiness of the third party.

The Company estimates the fair value of long-term debt based upon rates currently available to the Company for debt with similar terms and remaining maturities. This is a Level 3 measurement. Based upon the terms of the debt, the carrying amount of long-term debt approximated fair value at December 31, 2022.

The Company recognizes transfers between levels of the fair value hierarchy on the date of the event or change in circumstances that caused the transfer. There were no transfers between levels for the years ended December 31, 2022 and 2021.

9. Commitments and Contingencies

Legal Proceedings

From time to time the Company is or may become subject to various legal proceedings arising in the ordinary course of business, including proceedings against members, other entities or regulatory bodies. Estimated liabilities are recorded when it is both probable that a liability has been incurred and the amount of the loss can be reasonably estimated. At this time, the Company does not believe any such matters to be material individually or in the aggregate. These views are subject to change following the outcome of future events or the results of future developments.

10. Reserve for Veterinary Invoices

The reserve for veterinary invoices is an estimate of the future amount the Company will pay for veterinary invoices that are dated as of, or prior to, its balance sheet date. The reserve also includes the Company's estimate of related internal processing costs. The reserve estimate involves actuarial projections, and is based on management's assessment of facts and circumstances currently known, and assumptions about anticipated patterns. The Company uses generally accepted actuarial methodologies, such as paid loss development methods, in estimating the amount of the reserve for veterinary invoices. The reserve is made for each of the Company's segments, subscription and other business, and is continually refined as the Company receives and pays veterinary invoices. Changes in management's assumptions and estimates may have a relatively large impact to the reserve and associated expense.

Reserve for veterinary invoices

Summarized below are the changes in the total liability for the Company's subscription business segment (in thousands):

	Year Ended December 31,		
Subscription	**2022**	**2021**	**2020**
Reserve at beginning of year	$ 22,407	$ 19,925	$ 15,541
Veterinary invoices during the period related to:			
Current year	439,679	357,859	278,776
Prior years	(2,799)	(1,411)	229
Total veterinary invoice expense	436,880	356,448	279,005
Amounts paid during the period related to:			
Current year	414,778	333,182	259,971
Prior years	18,739	16,109	13,387
Total paid	433,517	349,291	273,358
Non-cash expenses	4,227	4,675	1,263
Reserve at end of period	$ 21,543	$ 22,407	$ 19,925

The Company's reserve for the subscription business segment decreased $0.9 million from $22.4 million at December 31, 2021 to $21.5 million at December 31, 2022. This change was primarily comprised of $436.9 million in expense recorded during the period less $433.5 million in payments of veterinary invoices. This $436.9 million in veterinary invoice expense incurred included a reduction of $2.8 million to the reserves relating to prior years, which was the result of ongoing analysis of recent payment trends. The Company's adjustments to prior year reserves were a reduction of $1.4 million and an increase of $0.2 million as a result of analysis of payment trends in the years ended December 31, 2021 and 2020, respectively.

Summarized below are the changes in total liability for the Company's other business segment (in thousands):

Other Business	Year Ended December 31, 2022	2021	2020
Reserve at beginning of year	$ 17,264	$ 9,004	$ 5,653
Veterinary invoices during the period related to:			
Current year	211,729	129,826	72,286
Prior years	1,128	(212)	(167)
Total veterinary invoice expense	212,857	129,614	72,119
Amounts paid during the period related to:			
Current year	190,031	112,574	63,359
Prior years	17,899	8,780	5,409
Total paid	207,930	121,354	68,768
Non-cash expenses	—	—	—
Reserve at end of period	$ 22,191	$ 17,264	$ 9,004

The Company’s reserve for the other business segment increased $4.9 million from $17.3 million at December 31, 2021 to $22.2 million at December 31, 2022. This change was comprised of $212.9 million in expense recorded during the period less $207.9 million in payments of veterinary invoices. This $212.9 million in veterinary invoice expense incurred included an increase of $1.1 million to the reserves relating to prior years, which was the result of ongoing analysis of recent payment trends. The Company's adjustments to decrease prior year reserves were $0.2 million and $0.2 million as a result of analysis of payment trends in each of the years ended December 31, 2021 and 2020, respectively.

Veterinary invoice expenses

In the following tables, the cumulative number of veterinary invoices represents the total number received as of December 31, 2022, by year the veterinary invoice relates to, referred to as the year of occurrence. If a pet is injured or becomes ill, multiple trips to the veterinarian may result in several invoices. Each of these veterinary invoices is included in the cumulative number, regardless of whether the veterinary invoice was paid. Information for years 2019 through 2021 is provided as required supplementary information. Amounts in these tables are presented on a constant currency basis to remove the impact of changes in the foreign currency exchange rate on development. The cumulative expenses as of the end of each year are revalued using the currency exchange rate as of December 31, 2022.

The following table summarizes the development of veterinary invoice expense, on a constant currency basis, for the Company's subscription business segment by year of occurrence (in thousands, except for cumulative number of veterinary invoices data):

	Cumulative veterinary invoice expenses				Reserve	Cumulative number of veterinary invoices
	As of December 31,				As of December 31,	
Subscription	2019	2020	2021	2022	2022	2022
Year of Occurrence	*(unaudited)*	*(unaudited)*	*(unaudited)*			
2019	$ 231,064	$ 231,451	$ 231,271	$ 231,004	$ —	1,062,289
2020		$ 278,199	$ 277,297	$ 276,811	$ —	1,196,283
2021			$ 352,736	$ 350,462	$ 869	1,461,528
2022				$ 436,406	$ 20,674	1,647,508
				$1,294,683	$ 21,543	

The following table summarizes the development of veterinary invoice expense, on a constant currency basis, for the Company's other business segment by year of occurrence (in thousands, except for cumulative number of veterinary invoices data):

	Cumulative veterinary invoice expenses				Reserve	Cumulative number of veterinary invoices
	As of December 31,				As of December 31,	
Other Business	2019	2020	2021	2022	2022	2022
Year of Occurrence	(unaudited)	(unaudited)	(unaudited)			
2019	$ 38,879	$ 38,604	$ 38,676	$ 38,725	$ —	283,095
2020		$ 72,284	$ 72,021	$ 72,251	$ —	535,071
2021			$ 129,809	$ 130,645	$ 493	901,453
2022				$ 211,720	$ 21,698	1,210,566
				$ 453,341	$ 22,191	

Cumulative paid veterinary invoice expense

In the following tables, amounts are by the year the veterinary invoice relates to, referred to as the year of occurrence. Amounts in these tables are presented on a constant currency basis to remove the impact of changes in the foreign currency exchange rate. The cumulative amounts paid as of the end of each year are revalued using the currency exchange rate as of December 31, 2022. Information for years 2019 through 2021 is provided as required supplementary information.

The following table summarizes the amounts paid for veterinary invoices, inclusive of related internal processing costs and reported on a constant currency basis, for the subscription segment (in thousands):

	Year Ended December 31,			
Subscription	2019	2020	2021	2022
Year of Occurrence	(unaudited)	(unaudited)	(unaudited)	
2019	$ 217,546	$ 229,779	$ 230,609	$ 231,004
2020		$ 260,786	$ 275,564	$ 276,811
2021			$ 332,895	$ 349,593
2022				$ 415,732
				$ 1,273,140
			Total amounts unpaid and recorded as a liability	$ 21,543

The following table summarizes the amounts paid for veterinary invoices, inclusive of related internal processing costs and reported on a constant currency basis, for the other business segment (in thousands):

	Year Ended December 31,			
Other Business	2019	2020	2021	2022
Year of Occurrence	(unaudited)	(unaudited)	(unaudited)	
2019	$ 33,252	$ 38,572	$ 38,676	$ 38,725
2020		$ 63,357	$ 72,009	$ 72,251
2021			$ 112,557	$ 130,152
2022				$ 190,022
				$ 431,150
			Total amounts unpaid and recorded as a liability	$ 22,191

11. Debt

On March 25, 2022, the Company entered into a credit agreement with Piper Sandler Finance, LLC that provides the Company with $150.0 million in credit (the Credit Facility) consisting of:

(a) an initial term loan in an aggregate principal amount of $60.0 million (Initial Term Loan), which was funded at closing;

(b) commitments for delayed draw term loans in an aggregate principal amount not in excess of $75.0 million (Delayed Draw Term Loans, and together with the Initial Term Loan, the Term Loans), which may be drawn from time to time until September 25, 2023. On December 29, 2022, the Company borrowed a Delayed Draw Term loan of $15.0 million; and

(c) commitments for revolving loans in an aggregate principal amount at any time outstanding not in excess of $15.0 million (Revolving Loans), which may be drawn at any time prior to March 25, 2027.

The Credit Facility bears interest at a floating base rate plus an applicable margin. The stated interest rate as of December 31, 2022 was approximately 9.7% for the original $60.0 million term loan and for the $15.0 million term loan. The Company incurred total debt issuance cost of approximately $5.9 million, which is reported in the Consolidated Balance Sheet as a direct reduction from the carrying amount of the Credit Facility, and is amortized as interest expense over the term of five years.

The Credit Facility is secured by substantially all assets of the Company and its subsidiaries. Proceeds from the Credit Facility may be used for permitted acquisitions and investments, working capital and other general corporate purposes. The Credit Agreement contains financial and other covenants. As of December 31, 2022, the Company was in compliance with all financial and non-financial covenants.

To the extent not previously paid, the Initial Term Loan is due and payable on March 25, 2027, the Delayed Draw Term Loans are due and payable on the earlier of the five-year anniversary of their initial funding or March 25, 2028, and Revolving Loans are due and payable on March 25, 2027. The Company must repay 0.25% of any then-outstanding Term Loans, together with accrued and unpaid interest, on a quarterly basis.

Future principal payments on outstanding borrowings as of December 31, 2022 are as follows (in thousands):

Year Ending December 31,	December 31, 2022
2023	$ 1,103
2024	750
2025	750
2026	750
2027	71,513
Total	$ 74,865

12. Stock-Based Compensation

Stock-based compensation expense includes stock options and restricted stock units granted to employees and other service providers and has been reported in the Company's consolidated statements of operations depending on the function performed by the employee or other service provider. Stock-based compensation expense recognized in each category of the consolidated statements of operations for the years ended December 31, 2022, 2021 and 2020 was as follows (in thousands):

	Year Ended December 31,		
	2022	2021	2020
Veterinary invoice expense	$ 4,145	$ 4,538	$ 1,118
Other cost of revenue	2,339	2,610	468
Technology and development	4,742	3,056	758
General and administrative	12,831	8,862	3,795
New pet acquisition expense	9,336	9,160	2,773
Total expensed stock-based compensation	33,393	28,226	8,912
Capitalized stock-based compensation	1,633	676	235
Total stock-based compensation	$ 35,026	$ 28,902	$ 9,147

As of December 31, 2022, the Company had 1,112,552 unvested restricted stock units. Stock-based compensation expenses of $82.3 million related to unvested restricted stock units are expected to be recognized over a weighted average period of approximately 2.6 years.

Stock Options

The grant date fair value of stock option awards are estimated on the date of grant using the Black-Scholes option-pricing model. The Company did not grant any new stock options during the years ended December 31, 2022, 2021, and 2020.

The following table presents information regarding stock options granted, exercised and forfeited for the periods presented:

	Number of Options	Weighted Average Exercise Price per Share	Aggregate Intrinsic Value (in thousands)
Outstanding as of January 1, 2020	2,097,978	$ 9.86	$ 57,907
Granted	—	—	—
Exercised	(626,554)	9.54	35,696
Forfeited	(12,134)	17.41	—
Outstanding as of December 31, 2020	1,459,290	9.93	160,200
Granted	—	—	—
Exercised	(647,164)	5.59	58,200
Forfeited	(4,921)	13.66	—
Outstanding as of December 31, 2021	807,205	13.39	95,765
Granted	—	—	—
Exercised	(174,721)	12.82	10,931
Forfeited	(2,834)	18.87	—
Outstanding as of December 31, 2022	629,650	13.53	21,410
Exercisable at December 31, 2022	629,650	$ 13.53	$ 21,410

As of December 31, 2022, stock options outstanding and stock options exercisable had a weighted average remaining contractual life of 3.4 years.

The fair value of options vested were as follows for the years ended December 31, 2022, 2021, and 2020. The Company didn't grant any stock options in these three years.

	Weighted Average Grant Date Fair Value per Share	Fair Value of Options Vested (in thousands)
Year:		
2020	$ —	$ 1,105
2021	$ —	$ 313
2022	$ —	$ —

Restricted Stock Awards and Restricted Stock Units

The below table summarizes the Company's restricted stock award and restricted stock unit activity for the years ended December 31, 2022, 2021 and 2020:

	Number of Shares	Weighted Average Grant Date Fair Value per Share
Unvested shares as of January 1, 2020	581,943	$ 29.56
Granted	535,184	37.60
Vested	(266,640)	29.77
Forfeited	(67,732)	31.51
Unvested shares as of December 31, 2020	782,755	34.81
Granted	787,730	101.32
Vested	(426,725)	40.10
Forfeited	(56,133)	72.93
Unvested shares as of December 31, 2021	1,087,627	78.94
Granted	623,401	84.11
Vested	(516,077)	72.81
Forfeited	(82,399)	81.91
Unvested shares as of December 31, 2022	1,112,552	$ 84.46

13. Stockholders' Equity

Common Stock and Preferred Stock

As of December 31, 2022, the Company had 100,000,000 shares of common stock authorized and 41,013,158 shares of common stock outstanding. Holders of common stock are entitled to one vote on each matter properly submitted to the stockholders of the Company except those related to matters concerning possible outstanding preferred stock. At December 31, 2022, the Company had 10,000,000 shares of undesignated preferred stock authorized for future issuance and did not have any outstanding shares of preferred stock. The holders of common stock are also entitled to receive dividends as and when declared by the board of directors of the Company (the Board), whenever funds are legally available. These rights are subordinate to the dividend rights of holders of any senior classes of stock outstanding at the time. The Company does not intend to declare or pay any cash dividends in the foreseeable future.

Share Repurchase Program

In April 2021, the Board approved a share repurchase program, pursuant to which the Company may, between May 2021 and May 2026, repurchase outstanding shares of the Company's common stock. The Company repurchased 95,021 shares during the year ended December 31, 2022. The Company did not repurchase any shares under this program during the year ended December 31, 2021.

14. Accumulated Comprehensive Income (Loss)

A summary of the components of accumulated other comprehensive income (loss) is as follows (in thousands):

For the year ended December 31, 2022	Foreign Currency Translation	Net Unrealized Gain (Loss) on Available-for-Sale Securities	Total
Balance as of December 31, 2021	$ 1,624	$ 1,453	$ 3,077
Other comprehensive income (loss)	(4,412)	(4,966)	(9,378)
Balance as of December 31, 2022	$ (2,788)	$ (3,513)	$ (6,301)

For the year ended December 31, 2021	Foreign Currency Translation	Net Unrealized Gain (Loss) on Available-for-Sale Securities	Total
Balance as of December 31, 2020	$ 2,120	$ 951	$ 3,071
Other comprehensive income (loss)	(496)	502	6
Balance as of December 31, 2021	$ 1,624	$ 1,453	$ 3,077

For the year ended December 31, 2020	Foreign Currency Translation	Net Unrealized Gain (Loss) on Available-for-Sale Securities	Total
Balance as of December 31, 2019	$ (375)	$ 625	$ 250
Other comprehensive income (loss)	2,495	326	2,821
Balance as of December 31, 2020	$ 2,120	$ 951	$ 3,071

15. Segments

The Company has two reporting segments: subscription business and other business. The subscription business segment generates revenue primarily from subscription fees related to the Company's direct-to-consumer products, while the other business segment is comprised of revenue from other product offerings that generally have a business-to-business relationship and a different margin profile than our subscription business segment, including revenue from writing policies on behalf of third parties and revenue from other products and software solutions.

The chief operating decision maker reviews revenue and operating income (loss) to evaluate segment performance. Revenue, veterinary invoice expense, other cost of revenue, and new pet acquisition expenses are generally directly attributed to each segment. Other operating expenses, such as technology and development expense, general and administrative expense, and depreciation and amortization, are allocated proportionately based on revenue in each segment. Interest and other expenses and income taxes are not allocated to the segments, nor included in the measure of segment profit or loss. The Company does not analyze discrete segment balance sheet information related to long-term assets.

Operating income (loss) of the Company's segments were as follows (in thousands):

	Year Ended December 31,		
	2022	2021	2020
Subscription business:			
Revenue	$ 596,610	$ 494,862	$ 387,732
Veterinary invoice expense	436,880	356,448	279,005
Other cost of revenue	60,804	51,216	35,870
Technology and development	16,555	11,942	7,673
General and administrative	25,964	22,579	16,866
New pet acquisition expense	88,959	78,148	47,017
Depreciation and amortization	7,205	8,494	5,451
Subscription business operating loss	(39,757)	(33,965)	(4,150)
Other business:			
Revenue	308,569	204,129	114,296
Veterinary invoice expense	212,857	129,614	72,119
Other cost of revenue	72,453	57,367	33,133
Technology and development	8,578	4,924	2,274
General and administrative	13,415	9,314	4,981
New pet acquisition expense	541	499	820
Depreciation and amortization	3,716	3,471	1,620
Other business operating income (loss)	(2,991)	(1,060)	(651)
Loss from investment in joint venture	(253)	(171)	(126)
Total operating loss	$ (43,001)	$ (35,196)	$ (4,927)

The following table presents the Company's revenue by geographic region of the member (in thousands):

	Year Ended December 31,		
	2022	2021	2020
United States	$ 764,349	$ 580,966	$ 419,162
Canada and other	140,830	118,025	82,866
Total revenue	$ 905,179	$ 698,991	$ 502,028

Substantially all of the Company's long-lived assets were located in the United States as of December 31, 2022 and 2021.

16. Dividend Restrictions and Statutory Surplus

The Company's business operations are conducted through subsidiaries, one of which is an insurance company domiciled in New York, American Pet Insurance Company (APIC), and one of which is a segregated cell business, Wyndham Segregated Account AX, located in Bermuda. In 2021, the Company established two new wholly-owned insurance subsidiaries in the United States, ZPIC Insurance Company (ZPIC) and QPIC Insurance Company (QPIC), domiciled in Missouri and Nebraska, respectively. The Company is also awaiting final required approvals for a Canadian insurer, GPIC Insurance Company. In addition to general state law restrictions on payments of dividends and other distributions to stockholders applicable to all corporations, insurance companies are subject to further regulations that, among other things, may require such companies to maintain certain levels of equity and restrict the amount of dividends and other distributions that may be paid to their parent corporations.

Applicable regulations generally restrict the ability of the insurance entities to pay dividends to its holding company parent. These restrictions are based in part on the prior year's statutory income and surplus. In the United States, dividends up to specified levels are generally considered ordinary and may be paid without prior approval. Dividends, in larger amounts, known as extraordinary dividends, are subject to approval by the insurer's domiciliary state regulator. An extraordinary dividend or distribution is generally defined as a dividend or distribution that, in the aggregate in any 12-month period, exceeds the lesser of (i) 10% of surplus as of the preceding December 31 or (ii) the insurer's adjusted net investment income for such 12-month period, not including realized capital gains. None of the Company's insurance subsidiaries paid dividends to the Company during the years ended December 31, 2022, 2021, and 2020.

The Company's insurance subsidiary in Bermuda is regulated by the Bermuda Monetary Authority. Under the Bermuda Companies Act of 1981, as amended, a Bermuda company may not declare or pay a dividend or make a distribution out of contributed surplus if there are reasonable grounds for believing that: (a) the company is, or would be after the payment, unable to pay its liabilities as they become due; or (b) the realizable value of the company's assets would thereby be less than its liabilities. The Segregated Accounts Company Act of 2000 further requires that dividends out of a segregated account can only be paid to the extent that the cell remains solvent. The value of its assets must remain greater than the aggregate of its liabilities, issued share capital, and share premium accounts. Per our contractual agreements with Wyndham Insurance Company (SAC) Limited, the allowable dividend is equivalent to the positive undistributed profit attributable to the shares. This insurance subsidiary paid the Company a dividend of $6.9 million, $5.6 million, and $4.7 million during the years ended December 31, 2022, 2021 and 2020, respectfully.

The statutory net income for 2022, 2021 and 2020 and statutory capital and surplus at December 31, 2022, 2021 and 2020, for the Company's insurance subsidiary in New York were as follows (in thousands):

	As of December 31,		
	2022	2021	2020
Statutory net income	$ 35,227	$ 24,409	$ 17,547
Statutory capital and surplus	$ 162,232	$ 124,189	$ 93,171

As of December 31, 2022, the Company's insurance subsidiary in New York maintained $162.2 million of statutory capital and surplus which was above the required amount of $142.4 million of statutory capital and surplus to avoid additional regulatory oversight.

The Company has funded $8.0 million and $7.8 million of statutory capital to ZPIC and QPIC, respectively, as of December 31, 2022. ZPIC and QPIC will each be required to maintain a level of surplus as determined by their respective domiciliary regulators. As of December 31, 2022, neither ZPIC nor QPIC has begun underwriting any insurance policies.

As of December 31, 2022, the Company had $13.0 million on deposit with various states in which it is licensed to write policies.

17. Income Taxes

Loss before income taxes was as follows for the years ended December 31, 2022, 2021 and 2020 (in thousands):

	Year Ended December 31,		
	2022	2021	2020
United States	$ (43,794)	$ (34,052)	$ (5,408)
Foreign	(402)	(1,168)	(319)
	$ (44,196)	$ (35,220)	$ (5,727)

The components of income tax expense (benefit) were as follows (in thousands):

	Year Ended December 31,		
	2022	2021	2020
Current:			
U.S. federal & state	$ 82	$ 58	$ 198
Foreign	814	2,066	45
	896	2,124	243
Deferred:			
U.S. federal & state	11	(15)	(9)
Foreign	(431)	(1,799)	(121)
	(420)	(1,814)	(130)
Income tax expense (benefit)	$ 476	$ 310	$ 113

A reconciliation of income tax expense at the statutory federal income tax rate and income taxes as reflected in the financial statements is presented below:

	Year Ended December 31,		
	2022	2021	2020
Federal income taxes at statutory rate	21.0 %	21.0 %	21.0 %
U.S. state income taxes	3.5	7.5	(2.6)
Equity compensation	2.5	30.4	122.3
Change in valuation allowance	(26.7)	(58.4)	(136.0)
Other, net	(1.7)	(1.7)	(4.1)
Credits	0.3	0.3	(2.6)
Effective income tax rate	(1.1)%	(0.9)%	(2.0)%

The principal components of the Company's deferred tax assets and liabilities were as follows (in thousands):

	As of December 31,	
	2022	2021
Deferred tax assets:		
Deferred revenue	$ 8,610	$ 6,232
Accruals and reserves	1,860	2,294
Net operating loss carryforwards	63,772	52,796
Depreciation and amortization	1,421	833
Equity compensation	3,179	4,126
Credits	997	847
Other	1,661	381
Total deferred tax assets	81,500	67,509
Deferred tax liabilities:		
Deferred costs	(1,322)	(887)
Intangible assets	(3,603)	(2,802)
Other	(2,398)	(1,817)
Total deferred tax liabilities	(7,323)	(5,506)
Total deferred taxes	74,177	62,003
Less deferred tax asset valuation allowance	(77,507)	(64,791)
Net deferred tax liability	$ (3,330)	$ (2,788)

At December 31, 2022, the Company had U.S. federal and state net operating loss carryforwards of $63.8 million (tax-effected) and U.S. federal income tax credits of $1.0 million. Use of carryforwards is limited based on the future income of the Company. The federal net operating loss carryforwards will begin to expire in 2026. Foreign net operating loss carryforwards will begin to expire in 2023. U.S. federal income tax credits will begin to expire in 2036. Pursuant to Sections 382 and 383 of the Internal Revenue Code, annual use of the Company's net operating loss carryforwards and credit carryforwards may be limited if the Company experiences an ownership change. As of December 31, 2022, the utilization of approximately $0.5 million of net operating losses are subject to limitation as a result of prior ownership changes; however, subsequent ownership changes may further affect the limitation in future years.

A valuation allowance is required to reduce the deferred tax assets reported if, based on the weight of available evidence, it is more likely than not that some portion or all of the deferred tax assets will not be realized. After consideration of all the evidence, both positive and negative, the Company has recorded a full valuation allowance against its U.S. Federal and the majority of its U.S. State deferred tax assets as of December 31, 2022, 2021, and 2020 because the Company's management has determined that it is more likely than not that these assets will not be fully realized.

For the year ended December 31, 2022, the Company recognized a net increase of $13.0 million in valuation allowance against its net deferred tax assets associated with U.S. federal and certain state jurisdictions, primarily attributable to current year activity.

The Company is open to examination by the U.S. federal tax jurisdiction for the years ended December 31, 2019 through 2022, and is also open to examination for 2006 and forward with respect to net operating loss carryforwards generated and carried forward from those years in the United States. The Company is subject to taxation in various states and countries, and may be subject to audit or examination by the relevant authorities in respect to those particular jurisdictions primarily for 2017 and thereafter.

For the year ended December 31, 2022, the Company intends to invest substantially all of its foreign subsidiary earnings, as well as its capital in its foreign subsidiaries, indefinitely outside of the U.S. in those jurisdictions in which it would incur significant, additional costs upon repatriation of such amounts. A deferred tax liability related to taxes due upon repatriation to the U.S. has not been recorded.

The Company is booking Global Intangible Low-Taxed Income ("GILTI") on a current basis and is not booking deferred taxes related to GILTI.

The Company accounts for uncertain tax positions based on a two-step process of evaluating recognition and measurement criteria. The first step assesses whether the tax position is more likely than not to be sustained upon examination by the taxing authority, including resolution of any appeals or litigation, on the basis of the technical merits of the position. If the tax position meets the more-likely-than-not criteria, the portion of the tax benefit greater than 50% likely to be realized upon settlement with the relevant taxing authority is recognized in the financial statements. No significant changes in uncertain tax positions are expected in the next twelve months.

A reconciliation of the beginning and ending amount of gross unrecognized tax benefits is as follows (in thousands):

	Year Ended December 31,		
	2022	2021	2020
Balance, beginning of year	$ 138	$ 133	$ 113
Increases (decreases) to tax positions related to prior periods	8	—	15
Increases to tax positions related to the current year	5	5	5
Balance, end of year	$ 151	$ 138	$ 133

18. Employee Benefits

The Company has a 401(k) plan for its U.S. employees. The plan allows employees to contribute a percentage of their pretax earnings annually, subject to limitations imposed by the Internal Revenue Service. The plan also allows the Company to make a matching contribution, subject to certain limitations. To date, the Company has made no contributions to the 401(k) plan.

19. Related Parties

In August 2018, the Company invested $0.3 million in a limited liability entity in exchange for a 17.5% ownership interest. The investee is considered to be a related party, as the Company has the ability to exercise significant influence over the investee. In February 2020, the Company entered into a service agreement with the investee, under which the Company incurred $3.5 million and $2.7 million of expenses for consulting services provided by the investee related to pet acquisition during the years ended December 31, 2022 and 2021, respectively, recorded as new pet acquisition expense on the Company's consolidated statement of operations.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a- 15(e) and 15d- 15(e) under the Exchange Act), as of the end of the period covered by this Annual Report on Form 10-K. Based on such evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that as of such date, our disclosure controls and procedures were effective.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined under Rule 13a-15(f) and 15d-15(f) under the Exchange Act. Management has assessed the effectiveness of its internal control over financial reporting as of December 31, 2022 based on the criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework). As a result of this assessment, management concluded that, as of December 31, 2022, its internal control over financial reporting was effective in providing reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. generally accepted accounting principles. Ernst & Young has independently assessed the effectiveness of the Company's internal control over financial reporting and its report is included below.

Changes in Internal Control

There were no changes in our internal control over financial reporting identified in management's evaluation pursuant to Rules 13a-15(d) or 15d-15(d) of the Exchange Act during the period covered by this Annual Report on Form 10-K that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Limitations on Effectiveness of Controls and Procedures

In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. In addition, the design of disclosure controls and procedures must reflect the fact that there are resource constraints and that management is required to apply judgment in evaluating the benefits of possible controls and procedures relative to their costs.

Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of Trupanion, Inc.

Opinion on Internal Control Over Financial Reporting

We have audited Trupanion, Inc.'s internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, Trupanion, Inc. (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2022 and 2021, the related consolidated statements of operations, comprehensive loss, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2022, and the related notes and the financial statement schedule listed in the Index at Item 15(a) and our report dated February 16, 2023 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Ernst & Young LLP

Seattle, Washington

February 16, 2023

Item 9B. Other Information

None.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

Not applicable.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

Information required by this item is incorporated herein by reference to our Proxy Statement with respect to our 2023 Annual Meeting of Stockholders to be filed with the SEC within 120 days of the end of the fiscal year covered by this Annual Report.

Item 11. Executive Compensation

Information required by this item is incorporated herein by reference to our Proxy Statement with respect to our 2023 Annual Meeting of Stockholders to be filed with the SEC within 120 days of the end of the fiscal year covered by this Annual Report.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

Information required by this item is incorporated herein by reference to our Proxy Statement with respect to our 2023 Annual Meeting of Stockholders to be filed with the SEC within 120 days of the end of the fiscal year covered by this Annual Report.

Item 13. Certain Relationships and Related Transactions and Director Independence

Information required by this item is incorporated herein by reference to our Proxy Statement with respect to our 2023 Annual Meeting of Stockholders to be filed with the SEC within 120 days of the end of the fiscal year covered by this Annual Report.

Item 14. Principal Accountant Fees and Services

Information required by this item is incorporated herein by reference to our Proxy Statement with respect to our 2023 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year covered by this Annual Report.

PART IV

Item 15. Exhibits, Financial Statement Schedules

(a)(1) Financial Statements

We have filed the financial statements listed in the Index to Financial Statements as a part of this Annual Report on Form 10-K.

(a)(2) Financial Statement Schedules

Schedule I Condensed Financial Information of Registrant

No other financial statement schedules have been provided because the information called for is not required or is shown either in the financial statements or notes thereto.

(a)(3) Exhibits

The following exhibits are filed as part of this Annual Report on Form 10-K or are incorporated herein by reference.

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed/ Furnished Herewith
		Form	File No.	Exhibit	Exhibit Filing Date	
3.1	Restated Certificate of Incorporation of the Registrant.	10-Q	001-36537	3.1	8/28/2014	
3.2	Certificate of Amendment to the Restated Certificate of Incorporation of the Registrant.	8-K	001-36537	3.1	6/3/2016	
3.3	Amended and Restated Bylaws of the Registrant.	10-K	001-36537	3.3	2/12/2021	
4.1	Description of Capital Stock	10-K	001-36537	4.1	2/14/2020	
4.2	Form of Common Stock Certificate.	S-1	333-196814	4.1	6/16/2014	
10.1+	Form of Indemnity Agreement.	S-1	333-196814	10.1	6/16/2014	
10.2+	2007 Equity Compensation Plan and forms of stock option agreements and exercise notices, restricted stock notice agreement and restricted stock agreement thereunder.	S-1	333-196814	10.2	6/16/2014	
10.3+	2014 Equity Incentive Plan and forms of stock option award agreement, restricted stock agreement and restricted stock unit award agreement thereunder.	S-1	333-196814	10.3	6/16/2014	
10.4+	2014 Employee Stock Purchase Plan.	S-1	333-196814	10.4	6/16/2014	
10.5†	Agency Agreement between Omega General Insurance Company and Trupanion Brokers Ontario, Inc., effective January 1, 2015.	10-K	001-36537	10.13	2/24/2015	
10.6†	Fronting and Administration Agreement between Wyndham Insurance Company (SAC) Limited and Omega General Insurance Company, effective January 1, 2015.	10-K	001-36537	10.14	2/24/2015	
10.7†	Quota Share Reinsurance Agreement between Wyndham Insurance Company (SAC) Limited and Omega General Insurance Company, effective January 1, 2015.	10-K	001-36537	10.15	2/24/2015	
10.8	Quota Share Reinsurance Agreement between Wyndham Insurance Company (SAC) Limited and Omega General Insurance Company, effective July 1, 2020.	10-K	001-36537	10.23	2/14/2020	
10.9	Quota Share Reinsurance Agreement between Wyndham Insurance Company (SAC) Limited and Omega General Insurance Company, effective January 1, 2023.					X
10.10+	Compensation Program for Non-Employee Directors of Trupanion, Inc. as amended on February 22, 2022.	10-Q	001-36537	10.2	4/29/2022	

10.11+	Compensation Clawback Policy, effective February 11, 2019.	10-K	001-36537	10.21	2/14/2019	
10.12+	Trupanion, Inc. Employee Severance and Change in Control Plan effective January 29, 2021.	8-K	001-36537	10.1	2/4/2021	
10.13	Strategic Alliance Agreement, dated as of October 26, 2020 by and between Trupanion, Inc. and Aflac Incorporated.	8-K	001-36537	10.2	10/29/2020	
10.14	Shareholder Agreement, dated as of October 26, 2020 by and between Trupanion, Inc. and Aflac Incorporated.	8-K	001-36537	10.3	10/29/2020	
10.15†	Credit Agreement, dated as of March 25, 2022, by and among Trupanion, Inc., Piper Sandler Finance, LLC, as administrative agent, and the lenders party thereto.	10-Q	001-36537	10.1	4/29/2022	
21.1	Subsidiaries of the Registrant.					X
23.1	Consent of independent registered public accounting firm.					X
24.1	Power of Attorney (reference is made to the signature page hereto).					X
31.1	Certification of Principal Executive Officer, pursuant to Rule 13a-14(a)/15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
31.2	Certification of Principal Financial Officer, pursuant to Rule 13a-14(a)/15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
32.1*	Certification of Chief Executive Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					X
32.2*	Certification of Chief Financial Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					X
101.INS	XBRL Instance Document - the instance does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.					X
101.SCH	Inline XBRL Taxonomy Extension Schema Document.					X
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document.					X
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document.					X
101.LAB	Inline XBRL Taxonomy Extension Labels Linkbase Document.					X
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document.					X
104	Cover Page Interactive Data File (formatted in Inline XBRL and contained in Exhibit 101)					X

\+ Indicates a management contract or compensatory plan or arrangement.

† Registrant has omitted portions of the referenced exhibit pursuant to a request for confidential treatment under Rule 24b-2 promulgated under the Exchange Act. The omitted portions of this exhibit have been filed separately with the SEC.

* This certification is deemed not filed for purpose of section 18 of the Exchange Act or otherwise subject to the liability of that section, nor shall it be deemed incorporated by reference into any filing under the Securities Act or the Exchange Act.

Item 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of Seattle, state of Washington, on this 16th day of February, 2023.

TRUPANION, INC.

By: /s/ Darryl Rawlings

Darryl Rawlings
Chief Executive Officer and Chairperson of the Board

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Darryl Rawlings, Gavin Friedman and Drew Wolff, and each of them, as his or her true and lawful attorneys-in-fact, proxies and agents, each with full power of substitution, for him or her in any and all capacities, to sign any and all amendments to this Annual Report on Form 10-K, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact, proxies and agents full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully for all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact, proxies and agents, or their or his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Date: February 16, 2023	/s/ Darryl Rawlings
	Darryl Rawlings Chief Executive Officer and Chairperson of the Board *(Principal Executive Officer)*
Date: February 16, 2023	/s/ Drew Wolff
	Drew Wolff Chief Financial Officer *(Principal Financial and Accounting Officer)*
Date: February 16, 2023	/s/ Jacqueline Davidson
	Jacqueline Davidson Director
Date: February 16, 2023	/s/ Michael Doak
	Michael Doak Director
Date: February 16, 2023	/s/ Dan Levitan
	Dan Levitan Director
Date: February 16, 2023	/s/ Murray Low
	Murray Low Director
Date: February 16, 2023	/s/ Howard Rubin
	Howard Rubin Director
Date: February 16, 2023	/s/ Zay Satchu
	Zay Satchu Director

Schedule I - Condensed Financial Information of Registrant

Trupanion, Inc.
Condensed Statements of Operations and Comprehensive Loss
(Parent Company Only, in thousands)

	Year Ended December 31,		
	2022	2021	2020
Expenses:			
Veterinary invoice expense	$ 4,144	$ 4,538	$ 1,118
Other cost of revenue	2,340	2,610	468
Technology and development	4,930	3,130	1,087
General and administrative	16,346	11,714	7,055
New pet acquisition expense	9,351	9,177	2,799
Depreciation and amortization	289	473	328
Total expenses	37,400	31,642	12,855
Loss from investment in joint venture	(192)	(33)	(108)
Operating loss	(37,592)	(31,675)	(12,963)
Interest expense	4,255	(2)	1,361
Other income, net	(8,047)	(5,755)	(4,845)
Loss before equity in undistributed earnings of subsidiaries	(33,800)	(25,918)	(9,479)
Income tax benefit	14,544	12,272	8,460
Equity (loss) in undistributed earnings of subsidiaries	(25,416)	(21,884)	(4,821)
Net loss	$ (44,672)	$ (35,530)	$ (5,840)
Other comprehensive income (loss), net of taxes:			
Other comprehensive income (loss) of subsidiaries	(9,378)	6	2,821
Other comprehensive income (loss)	(9,378)	6	2,821
Comprehensive loss	$ (54,050)	$ (35,524)	$ (3,019)

Trupanion, Inc.
Condensed Balance Sheets
(Parent Company Only)
(In thousands, except share data)

	December 31,	
	2022	2021
Assets		
Current assets:		
Cash and cash equivalents	$ 16,052	$ 33,957
Accounts and other receivables	5,739	5,452
Prepaid expenses and other assets	697	591
Total current assets	22,488	40,000
Restricted cash	19,032	13,469
Property and equipment, net	2,398	904
Intangible assets, net	5,710	5,620
Other long-term assets	13,960	16,519
Advances to and investments in subsidiaries	312,559	257,198
Total assets	$ 376,147	$ 333,710
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable, accrued liabilities, and other current liabilities	$ 484	$ 254
Long-term debt - current portion	750	—
Total current liabilities	1,234	254
Long-term debt	68,354	—
Deferred tax liabilities	1,100	1,094
Other liabilities	162	162
Total liabilities	70,850	1,510
Stockholders' equity:		
Common stock: $0.00001 par value per share, 100,000,000 shares authorized; 42,041,344 and 41,013,158 shares issued and outstanding at December 31, 2022; 41,408,350 and 40,475,185 shares issued and outstanding at December 31, 2021	—	—
Preferred stock: $0.00001 par value per share, 10,000,000 shares authorized; no shares issued and outstanding	—	—
Additional paid-in capital	499,694	466,792
Accumulated other comprehensive income (loss)	(6,301)	3,077
Accumulated deficit	(171,562)	(126,890)
Treasury stock, at cost: 1,028,186 and 933,165 shares at December 31, 2022 and 2021	(16,534)	(10,779)
Total stockholders' equity	305,297	332,200
Total liabilities and stockholders' equity	$ 376,147	$ 333,710

Trupanion, Inc.
Condensed Statements of Cash Flows
(Parent Company Only, in thousands)

	Year Ended December 31,		
	2022	2021	2020
Operating activities			
Net loss	$ (44,672)	$ (35,530)	$ (5,840)
Adjustments to reconcile net loss to cash provided by (used in) operating activities:			
(Income) loss attributable to investments in subsidiaries	19,331	17,501	170
Depreciation and amortization	289	473	328
Stock-based compensation expense	33,393	28,226	8,912
Other, net	533	(161)	240
Changes in operating assets and liabilities	(166)	(1,219)	(1,142)
Net cash provided by operating activities	8,708	9,290	2,668
Investing activities			
Cash paid in business acquisition, net of cash acquired	(15,034)	—	(48,133)
Purchases of property and equipment	(516)	(280)	(341)
Advances to and investments in subsidiaries	(71,671)	(71,721)	(24,885)
Dividends from subsidiaries	6,942	5,567	4,651
Other investments	(1,598)	(1,755)	—
Net cash used in investing activities	(81,877)	(68,189)	(68,708)
Financing activities			
Issuance of common stock, net of offering costs	—	—	192,265
Repurchase of common stock	(5,755)	—	—
Proceeds from exercise of stock options	2,290	3,607	6,013
Taxes paid related to net share settlement of equity awards	(4,359)	(4,732)	(1,115)
Proceeds from debt financing, net of financing fees	69,138	—	6,213
Repayments of debt financing	(487)	—	(32,450)
Other financing	—	—	(78)
Net cash (used in) provided by financing activities	60,827	(1,125)	170,848
Net change in cash, cash equivalents, and restricted cash	(12,342)	(60,024)	104,808
Cash, cash equivalents, and restricted cash at beginning of period	47,426	107,450	2,642
Cash, cash equivalents, and restricted cash at end of period	$ 35,084	$ 47,426	$ 107,450

1. Organization and Presentation

The accompanying condensed financial statements present the financial position, results of operations and cash flows for Trupanion, Inc. These condensed unconsolidated financial statements should be read in conjunction with the consolidated financial statements of Trupanion, Inc. and its subsidiaries and the notes thereto (the Consolidated Financial Statements). Investments in subsidiaries are accounted for using the equity method of accounting. Trupanion, Inc. received cash dividends from a subsidiary of $6.9 million, $5.6 million and $4.7 million for the years ended December 31, 2022, 2021 and 2020, respectively. These cash dividends were recorded within Trupanion, Inc.'s other income and were eliminated within the consolidated financial statements of Trupanion, Inc.

Additional information about Trupanion, Inc.'s accounting policies pertaining to intangible assets, commitments and contingencies, stock-based compensation, stockholders' equity, and income taxes are set forth in Notes 5, 9, 12, 13, and 17, respectively, to the Consolidated Financial Statements.

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