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RESEARCH ARTICLE



Characteristics and challenges of companion animal rescue organisations in New Zealand

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ABSTRACT

Aims: To describe the characteristics of companion animal rescue organisations (CARO) in New Zealand; to describe current capacity, resource limitations and challenges of CARO with a particular focus on cats and dogs; and to explore support for creating a national database of CARO in New Zealand.

Methods: A cross-sectional survey was administered to CARO in New Zealand in May 2022. The survey asked about organisational characteristics, types and numbers of animals cared for, services provided, policies, staffing, funding sources, challenges, and attitudes towards a national database for rescue organisations. Descriptive statistics were provided for all quantitative study variables and free-text comments were analysed for common themes.

Results: The survey was completed by 106/208 (51%) known CARO distributed across the country. These CARO provided services to an estimated 59,874 homeless animals annually with 86/106 (81%) providing services to cats and/or dogs. Primary services provided by CARO who cared for cats or dogs included rehoming (72/86; 84%) and housing (70/86; 81%) animals. Intake was managed through a combination of strategies. Donations (72/86; 82%) were the main funding source. The 62 registered charities were more likely to report being funded by grants than the 23 non-charities (39/62 (63%) vs. 1/23 (4%); $p < 0.001$), and non-charities were more likely to self-fund (18/23 (78%) vs. 20/62 (32%); $p < 0.001$). Nearly half of the CARO that provided workforce information (35/72; 49%) had a workforce of 10 or fewer including volunteers. A total of 5,699 people worked for 86 CARO that care for cats or dogs of whom 4,847 (85%) were part-time volunteers. Of the 72 cat and dog CARO who provided workforce information, 57/72 (79%) relied solely on volunteers.

The majority of all 106 CARO respondents (78/106; 73%) indicated they were likely to register on a national database of CARO, subject to addressing concerns about time required and information security.

CARO respondents described challenges of insufficient funding, access to veterinary services, and a shortage of volunteers and foster homes, with additional concerns including a lack of public awareness, supportive legislation, and resources. Financial support (90/106; 85%) and policy change (76/106; 72%) were preferred support options.

Conclusions: This study highlights the significant role played by CARO in New Zealand and the challenges they face, emphasising the need for financial support, legislation, and initiatives extending beyond the rescue sector to reduce the number of animals being surrendered. The findings also suggest a willingness among CARO to participate in a national database.

Abbreviations: CANZ: Companion Animals New Zealand; CARO: Companion animal rescue organisations; SPCA: Society for the Prevention of Cruelty to Animals

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Introduction

One of the most challenging issues in companion animal welfare worldwide is the management of stray, unwanted, and abandoned animals (Carver 2020). In New Zealand, which has one of the highest rates of companion animal ownership worldwide, there are two main types of organisation that deal with these populations: publicly funded organisations that are operated and managed by local authorities to provide animal control services (Te Tari Taiwhenua

Department of Internal Affairs 2021; Animal Control New Zealand 2023); and companion animal rescue organisations (CARO). CARO are typically independent, privately funded groups including some that maintain their own dedicated shelter facilities as well as those that solely run foster-based programmes placing animals with volunteers in the community. CARO play a central role in rescuing, rehabilitating, and rehoming the population of stray, unwanted, and abandoned animals. In times of crisis, CARO may also provide

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short-term care for animals whose owners are temporarily unable to look after them (Ma *et al.* 2023).

The limited data on this subject suggests that CARO in New Zealand currently work with thousands of animals each year (Healthy Pets NZ 2021) and are a common source for owners to obtain new pets (Johnston *et al.* 2017; Gates *et al.* 2019; Companion Animals New Zealand 2020). However, there are significant difficulties with accurately estimating the size of the vulnerable companion animal population in New Zealand as well as the effectiveness of efforts made by rescue organisations to support and rehome them due to the lack of a national database with details on the demographics of these organisations. The lack of high-quality data on the number, location, size, and resources of animal rescue organisations is recognised as a significant issue in many countries (Stavisky *et al.* 2017; Vinic *et al.* 2020; Woodruff *et al.* 2021) and can impede critical national activities such as planning for the care of animals affected by emergency response situations (Glassey 2019).

In 2020, Companion Animals New Zealand (CANZ), the Society for the Prevention of Cruelty to Animals (SPCA) and the Ministry for Primary Industries organised a series of workshops bringing together key stakeholders from animal rescue organisations in New Zealand. The purpose was to better understand the challenges facing the sector and to generate ideas for improving animal outcomes. Many individuals expressed the need for New Zealand to have a national register or database for animal rescue organisations to address critical knowledge gaps around the number, size, and coverage of the different groups as well as factors influencing their successes or failures. However, it was acknowledged that there would likely be many barriers to overcome around data-sharing and long-term sustainability (F. Esam,¹ pers. comm.).

Among all registered charities operating in New Zealand, those classified as “care and protection of animals” receive some of the lowest levels of income and the least government support. Nearly a third (31%) of registered charitable animal care and protection organisations operate with an income < \$10,000 per annum (Morrow and McLeod 2021). While there are few studies on the perceptions of animal rescue workers on the challenges facing them, Stavisky and colleagues’ study of UK animal shelter workers in 2011 identified a worsening mismatch between the continuous demand for their services and limited resources (Stavisky *et al.* 2017). CARO in New Zealand may experience similar challenges.

To our knowledge, there have been no previous studies or systematic attempts in New Zealand to describe the characteristics, operations and challenges of CARO. As a preliminary step towards building a

better understanding of the animal rescue landscape in New Zealand, we conducted a cross-sectional survey of all organisations currently involved in the management, rehoming, and/or fostering of companion animals, with a particular focus on those dealing with cats and dogs, which are the most common companion animals in New Zealand (Companion Animals New Zealand 2020).

The objectives of this research study were to: (1) describe the characteristics of CARO in New Zealand; (2) describe current capacity, resource limitations and challenges of these organisations with a particular focus on cats and dogs; and (3) explore support for creating a national database of CARO in New Zealand, to make it easier to understand capacity and provide support.

Materials and methods

Study design

A cross-sectional survey was administered to CARO in New Zealand. The study was reviewed and approved by the Massey University Human Ethics Committee (SOB 21/59).

Sampling frame

The process for generating the sampling frame is outlined in Figure 1. We applied a broad definition of “companion animal,” adopting the CANZ definition: “any animal that shares a living environment and relationship with humans” (Companion Animals New Zealand 2020). A combination of methods was used to construct a sampling frame of animal rescue organisations following methods used by Stavisky and colleagues (Stavisky *et al.* 2012) as there is currently no national database recording this information. The initial source was the New Zealand charities register (<https://www.charities.govt.nz/charities-in-new-zealand/research-into-charities/>). Our search included all registered organisations whose main sector was identified as “care and protection of animals” but subsequently excluded those whose main activity was listed as “makes grants to other organisations.” To identify CARO that were not registered charities, we asked national animal welfare organisations (CANZ, SPCA) and local animal rescue networks to identify additional rescue organisations. A Google search was also conducted using keywords such as “animal rescue,” “dog,” “cat,” “fostering,” and “pet adoption” to identify websites for organisations not on any other lists. We created a combined list from these sources, excluding organisations that solely provided services for wildlife or marine life.

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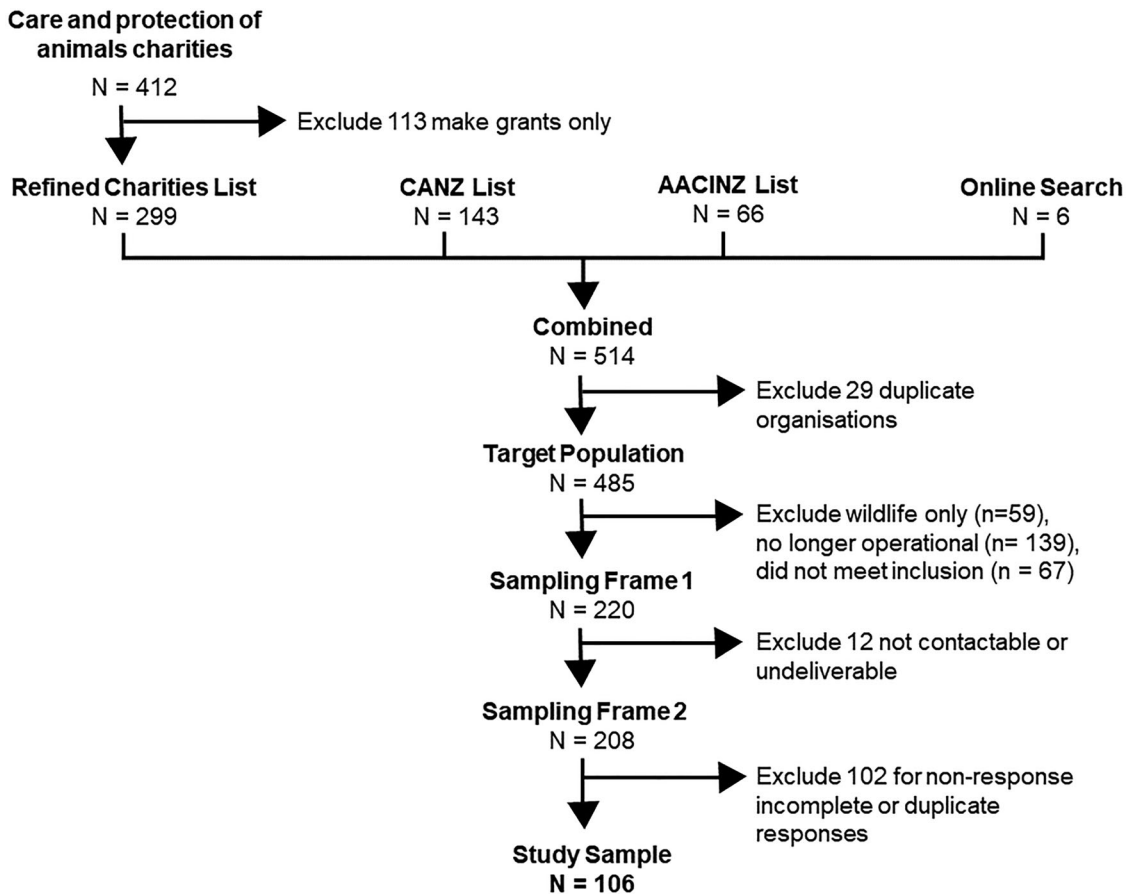


Figure 1. Flow diagram showing the process used to generate the study sampling frame for an online survey of New Zealand companion animal rescue organisations (CARO). All organisations in the New Zealand Charities Register whose main sector was “care and protection of animals” were identified and those whose main activity was “makes grants to other organisations” were excluded. Additional CARO were identified via national animal welfare organisations (CANZ), local animal rescue networks (AACINZ) and a Google search (e.g. “animal rescue,” “dog,” “cat,” “fostering,” “pet adoption”). Duplicate organisations, and those that solely provided services for wildlife or marine life were excluded.

Survey design and distribution

We developed a survey that was divided into four main sections. Questions were mainly closed, including multiple choice or rating scales, with several open-ended questions asking for respondents’ experiences in greater detail. In the first section, respondents were asked questions about the demographic characteristics of their organisation and about the types and numbers of animals they cared for, the main services they provided, their intake and euthanasia policies, resources they had available, including access to veterinary services, and main challenges they faced. The second section asked about attitudes towards a national database for rescue organisations – the likelihood that organisations would register, the kind of information they would be comfortable sharing and with whom, and any concerns they had about such a database. The third and fourth sections, only available to CARO that cared for cats, focused specifically on cat rescue activities and feline fostering programmes. Results from sections three and four will be reported elsewhere. The survey incorporated questions previously used in a census of cat and dog rehoming organisations in the UK (Stavisky *et al.* 2012). Early versions of the survey were

piloted with representatives of companion animal organisations, and their feedback was incorporated into the final version. A full copy of the survey is provided as Supplementary Information.

We emailed organisations from our sampling frame directly with a copy of the survey link and advertised the project through social media platforms (Facebook and X (Twitter)) as well as the CANZ website. The social media promotion had a link to a site where interested groups who had not received the survey could read more about it and access a link to complete it. No guidance was provided on who within the organisation should complete the questionnaire. Different survey links were used for the e-mail and social media advertisement channels so that we could track which generated the most responses from CARO. The survey was emailed on 6 May 2022 and stayed open until 30 June 2022. The e-mail contained a study information sheet, a copy of the survey questions, and a hyperlink to voluntarily complete the anonymised survey online using the Qualtrics platform (Qualtrics XM, Seattle, WA, USA).

Organisations with no email address were contacted through social media (Facebook, Facebook Messenger) on 16 May 2022 with a link provided to the

survey. Non-responders were reinvited three times using at least two means of contact to increase the likelihood of response (Dillman 2020). Non-responders were offered the option of completing a paper-based version of the survey that was emailed to them. By voluntarily choosing to complete the survey, respondents were assumed to have provided informed consent. Organisations that responded stating that they considered themselves out of scope for the study were deleted from the mailing list after the first contact.

Statistical analysis

Data from the paper-based surveys were entered manually into the online survey tool under the emailed survey link and then data captured through both the email and social media advertisement links were combined. All data were then imported into R statistical software version 4.2.1 (R Development Core Team, R Foundation for Statistical Computing, Vienna, Austria) for cleaning and analysis. Any duplicate responses from the same organisation were removed and only responses from individuals who completed at least 20% of the survey questions they were eligible to answer were retained for analysis. In total, 70 responses were excluded from the analysis.

Analyses of staffing and resources, services provided, admission policies and funding sources were restricted to the subset of organisations dealing with cats and/or dogs. Organisations caring exclusively for other animal species such as rodents, birds, or horses were excluded because these species have significantly different housing and care requirements. Not all respondents replied to every question; the number of respondents is shown separately with each result.

For the analysis of CARO availability by region, we supplemented the data from survey respondents with location information for non-respondents, available through the charities database or publicly available through an internet search. Numbers of households were obtained from Statistics New Zealand subnational household projections, by region and household type, 2018(base)–2043, with the figures for 2023 used (Stats NZ 2021). The initial rate of respondent rescues per 10,000 households was calculated by dividing the number of rescues that reported that they operated in a region by the number of households. To calculate the estimated total numbers per region we first allocated non-respondent rescues to a region based on their location address and added these numbers to the respondent regional totals. We then divided the estimated totals by the number of households per region and multiplied by 10,000 to calculate the final estimated rate per 10,000 households.

Descriptive statistics were calculated for quantitative study variables. As the data were not normally distributed, medians and IQR were used. The Wilcoxon rank sum test with continuity correction was used to compare differences in years of operating between charities and non-charities, and the association between staff numbers and numbers of animals cared for was calculated using the Spearman rank-order correlation coefficient. Differences in sources of funding between charities and non-charities were analysed by comparing proportions using the Fisher exact test to allow for numbers in some cells being < 5 (Kirkwood 1988). P-values < 0.05 were considered statistically significant.

Qualitative data from the free-text comments for questions were imported into NVivo v20 (QSR International Pty Ltd., Chadstone, Australia) and analysed to highlight key issues raised by respondents. This process involved: (1) reading through all free-text responses multiple times to gain familiarity with the data; (2) reading through the individual responses again in detail, underlining keywords, phrases, and/or ideas exemplifying major themes; and (3) collating the coded data into categories by subjectively grouping responses with similar perceived meaning.

Results

Response rates

The survey was distributed to the 208 CARO in the final sampling frame. A total of 176 CARO accessed the link, including 158 that were directly recruited through the email link and 18 that were indirectly recruited through the social media promotion link. Of the 176 responses received, 70 were excluded, 42 (60%) for incompleteness, 25 (36%) for duplication, and 3 (4%) for ineligibility. The final dataset comprised 106 CARO with an overall estimated response rate of 51% (Figure 1).

Of the 106 CARO in the final study data set, 102 (96%) were directly recruited and four were found through social media. The majority of organisations (101/106; 95%) provided a name while five chose to be anonymous. Seven respondents (7%) indicated that they were a branch affiliated with a national organisation.

Demographics of CARO

Of the 104 CARO who provided information on the number of years they had been operating, 33 (32%) had been operating for ≤ 3 years, 23 (22%) for 4–6 years and 50 (46%) for ≥ 7 years. The majority of CARO (78/106, 74%) were registered charities and these had been operating longer (median 7 (IQR 3–14) years; $w = 1301$, $p = 0.03$) than CARO that were not registered charities (median 5 (IQR 2–7) years).

Geographic distribution

The 106 CARO were distributed widely across New Zealand (Table 1) with 75 (71%) CARO providing services in one region, 10 (9%) in two regions, and the remaining 21 operating in three or more regions (19/106; 18%) or not specifying their service area (2/106; 2%). Although there were more CARO in areas with larger populations, there was not a strong correlation between the number of rescue organisations and the number of households in a region. The rate of coverage ranged from 0.7 CARO per 10,000 households in the Auckland region to five CARO per 10,000 households in the West Coast. Adding publicly available location data from CARO that had not responded to the survey increased the number of CARO available but did not significantly change the variation in distribution (Table 1).

Capacity for care

The majority of the 106 CARO provided services for one (68; 64%) or two (15; 14%) species of animal. However, 23 (22%) provided services for three or more species. Table 2 summarises the type of species and estimated numbers cared for each year by the 106 CARO. Over 80% of the study group (86/106; 81%) provided services to cats and/or dogs while 20 (19%) did not but cared for birds, rabbits, rats and mice, guinea pigs and a range of larger animals including sheep, goats, horses and cattle. Other animals cared for included donkeys, pigs, turtles, monkeys, and reptiles. Of the 86 CARO who cared for cats or dogs, 64 (74%) did so exclusively while 22 (26%) also provided services to at least one other type of animal. Overall, the 106

CARO who responded to the survey reported caring for an estimated 59,874 homeless animals each year.

Operations of dog and cat CARO

The following sections describe the services and capacity of the 86 organisations who provided services for cats and dogs.

Admission

Most of the 86 cat and dog CARO that responded managed the service they provided through limited admission (28/86; 33%), managed admission policies (19/86; 22%), restricting admission when full to capacity (5/86; 6%), or through a combination of these strategies. Only eight (9%) described themselves as open admission/accepting all animals, while 9 (10%) did not answer this question. Comments from the 19/86 (22%) whose response was "other" included only admitting specific breeds or categories of animal, or that they did not have a facility. Only one reported euthanasia of animals because of lack of shelter capacity to house and/or foster them.

Services

Services provided by the 86 CARO caring for cats and dogs are shown in Table 3. The most common services were rehoming (72/86; 84%) and housing (70/86; 81%). Nearly half the sample (39/86; 45%) reported that they provided veterinary care for the animals they cared for. Other services provided included community micro-chipping, education, and trap, neuter, and return programmes.

Table 1. Number (%) of New Zealand companion animal rescue organisations (CARO) responding to an online survey or with publicly available location information, and number of estimated households, by region.

Region ^a	Number (%) of CARO			Number of households ^c	CARO per 10,000 households	
	Respondents	Non respondents ^b	Total		Respondents	Total
Northland	13 (12%)	7	20	77,500	1.7	2.6
Auckland	39 (37%)	36	75	598,200	0.7	1.3
Waikato	24 (23%)	14	38	191,100	1.3	2.0
Bay of Plenty	17 (16%)	3	20	132,800	1.3	1.5
Gisborne	7 (7%)	0	7	19,200	3.7	3.6
Hawke's Bay	12 (11%)	1	13	70,100	1.7	1.9
Taranaki	10 (9%)	3	13	50,200	2.0	2.6
Manawatū-Whanganui	16 (15%)	11	27	101,800	1.7	2.7
Wellington	22 (21%)	13	35	211,700	1.0	1.7
Tasman	10 (9%)	1	11	23,400	4.3	4.7
Nelson	11 (10%)	1	12	22,800	4.8	5.3
Marlborough	10 (9%)	1	11	21,000	4.8	5.2
West Coast	7 (7%)	0	7	14,100	5.0	5.0
Canterbury	21 (20%)	10	31	255,300	8.2	1.2
Otago	18 (17%)	1	19	98,900	1.8	1.9
Southland	10 (9%)	4	14	42,300	2.4	3.3
Total ^d	106	103				

^aRegional council boundaries as specified by Statistics New Zealand.

^bIn all except two cases where more information was available, only one region was identified for non-respondents based on the head office address. This may under-count regions operated in, in contrast to respondents, who were able to select all regions that applied. Up to five CARO may have some information duplicated in the non-respondent data column as they did not provide their name and "non-respondent" organisations were those not included in the final study.

^cSource: Stats NZ (2021); year used 2023.

^dMany respondent CARO operated in more than one region so the "Respondent" column adds up to > 106. The denominator of 106 was used for calculating percentages, although two CARO did not provide region of service.

Table 2. Number (%) of companion animal rescue organisations (CARO; n=106) in New Zealand caring for different types of animals per year and the median (and IQR) number of that animal each CARO cared for, as reported by respondents to an online survey.

Species	Number (%) of CARO	Estimated number of animals cared for each year		
		Median	IQR	Total
Cats	64 (60%)	200	50–400	37,427
Dogs	40 (38%)	95	32–195	7,689
Birds	20 (19%)	20	10–275	9,566
Rabbits	18 (17%)	25	5–50	1,582
Sheep	13 (12%)	5	4–10	180
Horses	13 (12%)	2	2–18	159
Cattle	13 (12%)	3	2–7	71
Goats	12 (11%)	4	2–5	150
Wildlife	12 (11%)	20	5–40	2,421
Guinea pigs	11 (10%)	7	4–65	485
Camelids	8 (8%)	2	2–4	23
Rats	8 (8%)	2	2–5	94
Mice	7 (7%)	6	3–13	27
Total				59,874

Euthanasia policies

There were 79 respondents who provided information on their organisation's euthanasia policies, with individuals allowed to select more than one option from the provided list. Of these, 18 (23%) did not have a stated policy on euthanasia; 61 (77%) indicated that animals could be euthanised for welfare reasons including severe health or behavioural problems; 6 (8%) indicated that animals could be euthanised if they were difficult to re-home; 1 (1%) indicated that animals may be euthanised if there was insufficient shelter capacity to house and/or foster them; and 23 (29%) provided free-text comments on other options, which included only euthanising if there was poor quality of life, if it was recommended by a veterinarian, or if the animal was too unsocialised to be safely rehomed.

Veterinary services

Of the 79 respondents who provided information on how they accessed veterinary services, 2 (3%) had their own in-house clinic and/or veterinarian, 22 (28%) used a single local veterinary clinic, 46 (58%) used multiple local veterinary clinics, and 9 (11%) selected the "other" option. In the free-text comments, the "other" arrangements included having one primary veterinary clinic but using others as back-up, using

Table 3. Number (%) of companion animal rescue organisations (n=86) in New Zealand that care for cats or dogs, that provide different types of services as reported by respondents to an online survey.

Services	Number	%
Rehoming of animals	72	84
Housing unwanted animals (including fostering)	70	81
Trap, neuter, and return	42	49
Providing veterinary care	39	45
Sanctuary	37	43
Education	37	43
Community microchipping	27	31
Finance	9	10

Table 4. Distribution of staff types of companion animal rescue organisations that care for cats or dogs (n=72) that responded to an online survey.

Staff	Number of staff per organisation			Total (%)
	Range	Median	IQR	
Paid full-time (n=72)	0–650	0	0–0	668 (12%)
Paid part-time (n=70)	0–9	0	0–0	16 (0.1%)
Volunteer full-time (n=69)	0–50	0	0–1	168 (3%)
Volunteer part-time (n=72)	0–3,500	5	0–20	4,847 (85%)
Total	1–4,150	11	5–25	5,699 (100%)

Table 5. Number (%) and proportion of companion animal rescue organisations (n=72) that care for cats or dogs that have different numbers of full-time and total staff and their proportions of volunteers to total staff as reported by respondents to an online survey.

	Number (%)
Number of full-time, paid staff	
0	62 (86%)
1–4	8 (11%)
≥5	2 (3%)
Total	72 (100%)
Volunteers as a proportion of all staff	
100%	57 (79%)
90–99%	7 (10%)
80–89%	5 (7%)
<80%	3 (4%)
Total	72 (100%)
Number of total staff (including volunteers)	
0–10	35 (49%)
11–50	27 (36%)
>50	11 (15%)
Total	72 (100%)

multiple veterinary clinics across multiple regions, and sending animals to specialty referral veterinary clinics if needed.

Staffing

When asked about staffing levels, 72 respondents replied. A total of 5,699 people worked for these organisations, of whom 4,847 (85%) were part-time volunteers (Table 4). Only 10/72 (14%) employed any full-time paid staff, with 57/72 (79%) depending entirely on volunteers (Table 5). Nearly half (35/72; 49%) had a workforce, including volunteers, of ≤10. Table 6 shows the number of animals cared for in a year by number of staff for the 67 CARO that provided information about both staff numbers and volunteers. Ten respondents reported having 1–5 staff and caring for 1–50 animals, which was the most common ratio reported. The next most common ratios reported (5 reports) were for 6–10 or 11–20 or 21–50 staff caring for 101–250 animals. There was a moderate positive correlation between the size of an organisation's available workforce and the number of animals cared for, which was statistically significant ($r_s = 0.47$; $p < 0.001$).

Funding

The main funding source for the 86 CARO caring for dogs and cats was donations (72/86; 84%). Adoption

fees (67/86; 78%), fundraising activities (56/86; 65%) and grants (40/86; 47%) also provided income, but 44% (38/86) reported self-funding their work to some extent. Nearly all drew on more than one source of funding (77/86; 90%), with 64 (74%) drawing on three or more sources. Registered charities were more likely to report grants (39/62 (63%) vs. 1/23 (4%); $p < 0.001$) or donations (57/62 (91%) vs. 15/23 (65%); $p = 0.005$) as a funding source, while non-registered charities were more likely to report self-funding (18/23 (78%) vs. 20/62 (32%); $p < 0.001$).

Table 6. Number of staff and animals cared for by companion animal rescue organisations that care for cats or dogs ($n = 67$) and which responded to an online survey.

Number of staff (including volunteers)	Estimated number of cats and dogs per year					Total
	1–50	51–100	101–250	251–500	>500	
1–5	10	3	4	1	0	18
6–10	4	0	5	2	1	12
11–20	2	1	5	3	0	11
21–50	3	2	5	4	2	16
51–99	0	0	3	0	3	6
≥100	0	0	1	0	3	4
Total	19	6	23	10	9	67

Technology

The most frequent way that the CARO that cared for dogs and cats tracked procedures and progress for animals in their care was through spreadsheets (39/86, 45%). Only 22/86 (26%) reported using specific shelter management software and 36/86 (42%) relied at least partly on paper-based systems.

Challenges and needs for all CARO

All participants were asked open-ended questions about the biggest challenges they faced.

The biggest challenges that respondents reported their CARO was facing were insufficient funding to meet demand for their services, access to and cost of veterinary services, and finding enough volunteers and foster homes. One respondent said, “Financial security, knowing we have access to vet care when needed instead of having to really consider every visit due to what’s available in the bank account at the time of need, which isn’t often available at the time of course,” while another responded, “Money. There is never enough money and we are constantly chasing our tails.” One said simply, “Charities are at breaking point. We can’t help everyone.”

The overarching theme apparent in the descriptions of challenges faced was “lack” – a lack of time, people, space, equipment and resources. Lack was a common term used in the comments, with respondents describing lack in three ways: in relation to the public, legislation and, particularly, funding, all of which limited

their capacity to respond to the demand for their services.

Lack of public awareness, knowledge or understanding

Respondents mentioned different ways in which they saw pet owners, potential pet owners, or the wider public contributing to animal homelessness or other welfare issues. These included a lack of public awareness of the need for desexing, and the choice not to desex or microchip but instead to give away free litters of kittens or to dump them. Concerns were shared about an apparent lack of empathy for animals or knowledge about how to care for them, and a lack of understanding of the behavioural needs of animals. Some respondents mentioned further challenges associated with a lack of understanding of the reasons behind their limited admission policies or charges for adoption, with others reporting challenging experiences of abuse on social media or in person.

Lack of a supportive legislative environment

Respondents were frustrated by the lack of legislation to sufficiently prevent what they saw as underlying causes of animal over-population or to adequately protect companion animals or recognise their needs. Some wanted to see policy changes to support their animal welfare work:

The two biggest problems our organisation faces with regard to the operational side of our organisation ... are funding and a lack of legislation to adequately address the stray and unwanted companion animal population.

Respondents also expressed their frustration at the lack of legislative protection for birds and for chained dogs, the lack of codes of conduct for particular species (“Rats do not have a code of welfare for them, so sometimes they are a forgotten pet”), and the need for legislation to require desexing and micro-chipping. Others argued for legislation to better prevent backyard breeding, animal abuse or neglect. Some respondents were also frustrated by the lack of action by agencies or organisations with enforcement mandates to adequately enforce the animal welfare legislation that does exist.

Lack of funding and resources

The challenge of finding volunteers, particularly fosterers, was mentioned by a number of respondents, along with a shortage of veterinarians and difficulty getting appointments. However, the resource challenges most often mentioned were the related concerns of costs and funding. Concerns about cost impacted the ability to pay for veterinary treatment, or necessary euthanasia, vaccinations, desexing, and

radiographs as well as essentials like food, petrol, flea and worm treatments, equipment, and the ability to safely handle and transport animals. Finally, several respondents described the lack of time as a challenge, as they were working full-time to fund the rescue work they did outside of work hours, while one highlighted the lack of grants available for animal services, particularly to meet operational costs such as veterinary bills.

Lack of capacity to respond

Concerns about a lack of capacity to respond to both the needs of individual animals and overall demand were apparent in the comments. One respondent described the challenges of limited funding to pay for veterinary care and a lack of veterinary appointments, particularly appointments outside of normal opening hours, in this way:

There is nothing worse than having no choice but to wait until morning – if not longer – to have an animal in need seen due to not being able to afford the huge difference in price for these services.

Another put it like this:

[There is] not enough capacity for the need, we turn away five people for every person we are able to help due to lack of space and funds, we can't bring in something we can't afford to treat or feed ourselves.

In different ways, the comments describe the challenges of responding to too much demand, with too little resource, often too late to make the difference that earlier intervention could have prevented.

Support required by all CARO

After describing the biggest problems they faced, the 106 CARO respondents were then asked to select what support from public, private or government organisations they would find useful from a list of seven options. The support option chosen most frequently was financial support (90/106; 85%), closely followed by supplies and policy change (each 76/106; 72%). In the free-text comments for this question, additional suggestions included grants that could be used to employ staff or provide administrative support, and more funds to support desexing programmes. There was a perceived need for greater enforcement of existing legislation, more legislation to prevent animal abuse, neglect and backyard breeding, and educational programmes to increase public awareness of animal welfare and responsible ownership. There were several comments about the need for greater co-operation and collaboration within the sector, the need to create and adhere to minimum standards of care, and for greater oversight and support of smaller independent CARO in particular.

Opinions of CARO on establishing a national database

The likelihood of CARO registering on a voluntary national database was high, with 78 (74%) of the 106 respondents replying that their organisation would be extremely likely (46/106; 43%) or somewhat likely (32/106; 30%) to register. Only eight (8%) responded that they would be somewhat or extremely unlikely to register, with 12 (11%) neither likely or unlikely and 8 (8%) not responding to the question. Only 7/106 (6%) respondents indicated that there would be no benefit from such a database and 3/106 (3%) that they would not be interested. The main concern about registering was time (58/106; 55%), followed by concerns about security of information (35/106; 33%), or fear of how the information might be used (33/106; 31%). Most respondents (85/106; 80%) indicated that they would feel comfortable having information about the services they provided and the species they cared for publicly available (82/106; 77%). There was a lower level of comfort about sharing contact information (64/106; 60%), staff numbers, (37/106; 35%), the source of animals cared for (42/106; 40%), capacity (45/106; 43%), or organisational protocols (49/106; 46%). Just over half of the respondents reported feeling comfortable sharing information about outcomes for the animals entering their organisation being publicly available (56/106; 53%).

Figure 2 shows the organisations with which CARO respondents would consider sharing anonymised data, to support research and response activities. They were most comfortable sharing data with emergency services, veterinarians and researchers. The majority of those who responded would definitely consider sharing data with emergency services (74/97; 76%) and veterinarians (73/96; 76%) with a further 21% in each case indicating they may or may not share data with these groups. Only 3/96 (3%) said they would not consider sharing data.

Discussion

To our knowledge, this is the first published national cross-sectional survey to collect detailed information about New Zealand's companion animal rescue sector, particularly those organisations that provide services to stray, abandoned and surrendered cats and dogs, the work they do, and the challenges they face. Our study includes both registered charities and organisations that operate outside of the formal charity sector. As with any cross-sectional survey, there is potential for information bias if individuals who responded were part of CARO that differed systematically from those that did not respond (Gates *et al.* 2019). Nevertheless, it provides useful insight into the important role played by CARO in New Zealand.

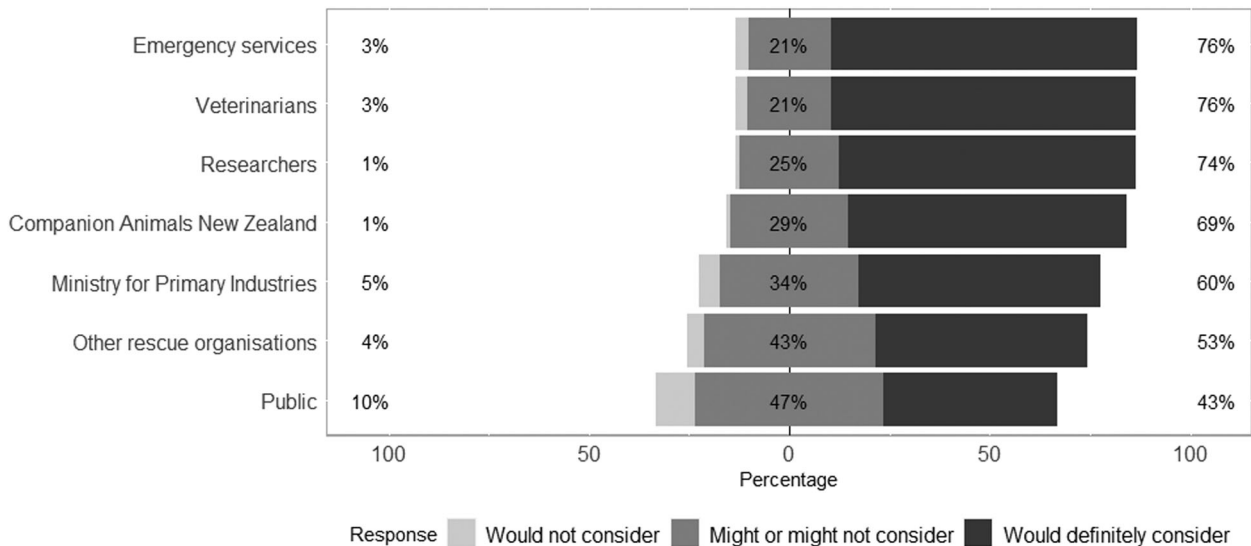


Figure 2. Chart showing willingness of companion animal rescue organisations that responded to an online survey (n = 106) to consider sharing anonymised data with different groups.

At the time of the survey, the CARO that responded were providing services to an estimated 60,000 animals a year. This is likely to be a substantial undercount as only about half of all the CARO we identified in New Zealand responded to the survey and not all who responded provided data about the numbers of animals they cared for. These numbers also do not include animals handled by animal control programmes run by city councils, which emphasises the large scale of the stray and unwanted animal population in New Zealand that needs to be managed. While our study was strictly limited to CARO, it would be useful to conduct further research exploring the extent to which animal control organisations currently engage in rehoming animals that enter their systems, and the relationships they may have with local CARO to provide these services.

Respondents described many significant challenges CARO faced in their day-to-day operations. From a public health perspective the challenges CARO are facing can be understood as the results of a range of interrelated individual community and broader social conditions that contribute to the animal homelessness and welfare issues they deal with (Dahlgren and Whitehead 2021; Ly *et al.* 2021a; McDowall *et al.* 2023). The overall theme of feeling consistently pressured for time with insufficient resources to meet the constant flow of animals needing their services echoes findings from a study conducted in 2011 in the UK (Stavisky *et al.* 2017). This suggests that these are shared persistent global issues for CARO and that there is a need to explore different potential funding models for rescue organisations as well as other initiatives that could help to reduce the number of unwanted animals needing the services of CARO.

Wider factors that may reduce animal surrender include increasing access to pet-friendly affordable

housing and providing financial support for accessing veterinary care (McLennan *et al.* 2022). The specific policy initiatives that CARO respondents supported to improve animal welfare included greater protection for chained dogs and for birds; introducing codes of conduct for species that are not currently protected by legislation; requiring all companion animal owners to desex and microchip their pets; and introducing stronger measures to prevent backyard breeding, animal abuse, or neglect. Further research may be useful to understand the impact these proposed policy changes would have and help policy-makers identify important areas to prioritise for future legislative changes.

A recent report on the state of the New Zealand charity sector noted that the “care and protection of animals” sector overall was in good financial health, but that many charities had thin operating margins (Morrow and McLeod 2021). Our findings suggest that CARO that are not registered charities are particularly vulnerable financially as they are more likely to depend on self-funding to carry out their work. Most CARO reported dealing with their inability to meet the demand for services by limiting their intake; only one respondent reported euthanasia as a strategy to manage capacity issues. Respondents also reported being involved in work to reduce the numbers of unwanted companion animals and the continual need for their services through community desexing initiatives, trap, neuter, and return programmes, micro-chipping, and public education. There is currently no data available to quantify the extent to which New Zealand CARO engage in these activities and the subsequent impact on reducing the number of animals that present to their organisations; further research on this subject would be beneficial.

Most CARO reported relying heavily or solely on volunteers rather than paid staff, with a number of

respondents highlighting that finding enough volunteers was a challenge. We found notable variations in the ratio of workforce to animals between CARO but did not ask about total number of hours worked by staff, which may explain some of the variation. Aspects of animal rescue work such as fostering require particular knowledge and skills (Graham 2023) and have been described as “high stakes” (McNamee and Peterson 2016) as they involve significant time and responsibility and the care of vulnerable living beings (Reese *et al.* 2021). Frequent turnover of volunteers may make it more difficult to provide the training and support necessary to provide quality care. Future studies on CARO that include questions on staff workload, hours and staff turnover would improve our understanding of CARO capacity and challenges.

We found that CARO were operating all across New Zealand, but there did not appear to be a strong correlation between human populations and the number of CARO located in a region. We were limited in our ability to estimate regional availability by insufficient information about the services provided by non-responders. However, the variation in distribution of CARO suggests that there are potential inequities in access to animal rescue services. Concerns about inequities in service provision to animals are emerging as a concern in the literature (Roberts *et al.* 2021; Ly *et al.* 2021b; Horecka and Neal 2022), including the concept of veterinary care deserts (Bunke *et al.* 2023) and animal welfare deserts (Reese and Li 2023). Service deserts are areas where access is particularly limited through lack of provider availability, distance or affordability (Bunke *et al.* 2023). Our study only asked about the regions in which CARO reported their services were available, and not the distance to services. Further research could usefully explore other aspects of the accessibility, availability and affordability barriers to animal rescue service provision and correlations with estimated homeless animal populations.

Respondents expressed support for a voluntary national database. The study found that most CARO were likely to register on such a database although there were some concerns about the time it would take, security of information or how the information might be used. A further potential barrier to widespread implementation of a database is the current reliance of many CARO on paper-based systems. Current work by CANZ to develop and pilot a database is a promising initiative to improve data on the extent of the homeless animal population in New Zealand, companion animal rescue services, and outcomes for animals.

Conclusions

The challenges CARO are facing in New Zealand can be understood as the result of a range of inter-related

individual, community, and broader social conditions that contribute to animal homelessness and welfare issues. Effective responses need to include a range of prevention and mitigation initiatives reaching beyond the rescue sector, but in which the sector plays a vital part. The study's findings provide insights into the state of companion animal rescue organisations in New Zealand, and the need for support in terms of funding, other resources, and policy change. The study also provides evidence that CARO would be in favour of establishing and participating in a national database subject to concerns being addressed about the time required and information security.

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