Career Pathways of New Zealand Veterinary Graduates: Influences, Experiences, and Decisions

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Abstract

As local and international concern about a shortage of veterinarians grows, developing an understanding of veterinarians' career pathways and the factors that influence their career decisions is of increasing importance. The aim of this research was to explore the patterns that exist among the career pathways of two cohorts of New Zealand veterinary graduates, 10- and 20-years post-graduation, and to identify the factors that had been influential in shaping their career trajectories. A mixed methods approach provided a means to develop a detailed understanding of veterinarians' career pathways through integration of survey (n=109) and interview (n=25) data. Perceptions of why people cease veterinary work were documented alongside the lived career experiences of these two cohorts of Massey University veterinary graduates.

Cohort members' career pathways were varied. Most (83%) held a clinical veterinary role 10 years after graduation. However, after 20 years, fewer (57%) held clinical veterinary roles. Almost one-quarter of the 20-year cohort worked in non-veterinary roles, and a further 14% held non-clinical veterinary roles. Some aspects of career patterns differed between the men and women and between the two cohorts, but there were also similarities.

Veterinarians' career decisions were multifaceted, and six key themes were developed to describe the factors that influenced them. Considering the cohort members' material, social, and cognitive work values provided a useful lens through which to explore how their work environments and personal characteristics and aspirations influenced their career decisions. Veterinarians' workplace experiences and the degree of fit between their personal characteristics and aspirations, and the workplace environment, influenced their feelings towards their work and their state of wellbeing, which in turn influenced their career decisions. However, these factors alone were insufficient to fully describe the influences on veterinarians' career decision-making. Opportunities, professional

networks, and non-work factors also played a key role in shaping cohort members' career trajectories.

The findings of this research provide insight into the career patterns and decision-making of New Zealand veterinarians which will be useful for future workforce planning, and in developing initiatives to enhance veterinarians' career fulfilment and retention within clinical practice and the New Zealand veterinary profession.

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Chapter One: Introduction

Veterinarians are well recognised for their roles as animal doctors and for promoting animal health and welfare. However, they also hold crucial roles in food safety, public health, research, veterinary practice management, veterinary education, disease prevention and response, and biosecurity. Maintaining a robust veterinary workforce is important for New Zealand where animal industries are of major economic importance and the rate of pet ownership is among the highest in the world (Companion Animals New Zealand, 2020). Without adequate numbers of veterinarians in New Zealand, the health and welfare of production, racing, and companion animals may be compromised. In turn, this could have significant flow on effects to the New Zealand economy. In addition, the New Zealand agriculture industry may become vulnerable to biosecurity breaches and public health may be at risk. Furthermore, the wellbeing of veterinarians may be negatively affected by increased workloads resulting from understaffed veterinary workplaces.

The number of veterinarians available to work in New Zealand is determined by the number of veterinarians graduating within New Zealand and entering the veterinary workforce, the number of overseas graduates entering the New Zealand veterinary workforce and the number of veterinarians leaving the New Zealand veterinary workforce, either on a permanent or temporary basis. Further to this, other aspects of veterinarians' career pathways influence their workforce contributions. For instance, their decisions to change to a different area of veterinary work, or to work part time, also influence workforce supply.

On average, one-quarter of New Zealand veterinary graduates are no longer registered to work as veterinarians in New Zealand 10 years after graduating (Veterinary Council of New Zealand [VCNZ], 2019). However, little is known about the career trajectories of those who no longer hold registration in New Zealand or even of those who continue to work within the New Zealand

veterinary profession. This research aims to gain a further understanding of the career pathways of New Zealand veterinarians and the factors that influence their career decisions.

1.1 Research Context

1.1.1 Veterinary Education in New Zealand

Massey University is the sole provider of veterinary undergraduate education in New Zealand. Graduates of the five-year programme are awarded a Bachelor of Veterinary Science (BVSc). The number of veterinarians qualifying each year from Massey University has increased since the first cohort completed their degree in 1967 (Massey University, 2013; Weston & King, 2020). This original cohort consisted of 21 graduates but by the late 1990s, between 60-70 new veterinarians qualified each year (Weston & King, 2020). Since the mid-2000s, increased government funding and the admission of international students into the programme has seen the number of graduates increase further and currently there are around 120 graduates each year, including approximately 20 international students (Weston & King, 2020). Prior to gaining accreditation from the American Veterinary Medical Association Council on Education in 2002 (Massey University, 2020), it was rare for the university to enrol international veterinary students, although occasionally international students from the Pacific were funded by the New Zealand Ministry of Foreign Affairs and Trade (MFAT) as part of an aid programme (J. Weston, personal communication, April 28, 2021). International students who graduate from the veterinary programme at Massey University most commonly return overseas to work as veterinarians, with few remaining in New Zealand and entering the New Zealand veterinary workforce (J. Weston, personal communication, August 2, 2018).

1.1.2 Understanding Veterinary Career Pathways

Upon graduating, most New Zealand veterinary graduates enter clinical veterinary practice (Parkinson & Gilling, 2005b). This entails working in a practice setting to provide preventative healthcare, and diagnosis and treatment of disease and injuries across a range of animal species.

However, other career options exist for veterinarians outside of clinical veterinary practice. In understanding the career pathways of veterinarians, three broad categories of work types are considered: clinical veterinary work, non-clinical veterinary work, and non-veterinary work (Figure 1.1).
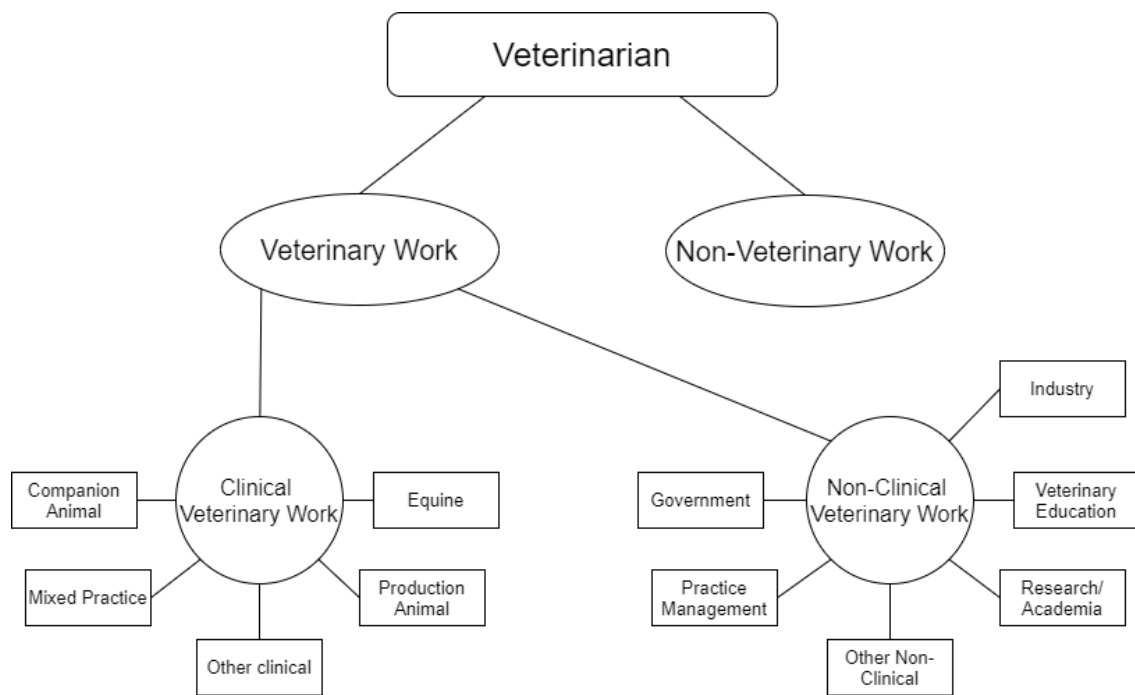
Figure 1.1: Concept diagram of veterinary career options

Veterinarians may enter non-clinical veterinary roles, where they continue to work as veterinarians outside of the clinical setting. Other veterinarians may work outside of the veterinary profession in non-veterinary roles, where a veterinary degree is not a requirement. In addition to the different types of work veterinarians may undertake during their careers, time away from the workforce is another aspect that contributes to shaping their career pathways.

1.1.3 The New Zealand Veterinary Workforce

To practise as a veterinarian in New Zealand, a veterinarian must register with the Veterinary Council of New Zealand (VCNZ) and hold an Annual Practising Certificate (APC) (Veterinary Council of New Zealand, 2019b). The number of veterinarians registered to practise in New Zealand has

increased year-on-year since records began in the late 1990s (Weston & King, 2020). According to VCNZ data (2019), there were 2966 veterinarians registered to practise in New Zealand in 2018 comprising 2549 full time equivalent (FTE) veterinarians. Thirty percent of FTE veterinarians had qualified overseas and 56% of FTE veterinarians were women. The median age for male veterinarians was 51 years, while the median age of female veterinarians was 38 years.

Clinical veterinary work is the most prominent and recognised aspect of veterinary work and much of the undergraduate veterinary programme in New Zealand focuses on preparing students for clinical roles. Overall, 73% percent of FTE veterinarians practising in New Zealand describe themselves as clinicians (VCNZ, 2019). The predominant types of clinical veterinary work include companion animal practice, production animal practice, equine practice, and mixed practice (Figure 1.1). Mixed practitioners work with a combination of companion, equine, and production animals. Veterinarians who identify primarily as clinical veterinarians may also take on management duties within the practices in which they work, or may be an owner, partner, or shareholder in a veterinary business. Enticott (2018) suggests that the clinical veterinarian (specifically the mixed practitioner) is the predominant veterinary identity and that the literary works of James Herriot play an important role in shaping this identity, even to this day.

There are a range of veterinary practice structures in New Zealand. These include privately owned practices (owned by an individual or partnership), club practices (farmer-owned co-operatives, now less common), contract practices (where a veterinary partnership is contracted by a farmer cooperative to provide veterinary services (Shortridge et al., 1998)), and practices owned by buying groups and corporate businesses. It is pertinent to note that large multi-branch practices in New Zealand are commonly referred to as corporates but have a range of ownership structures; many have consolidated ownership and are private equity funded, with veterinarians remaining at the forefront of the business and often holding shares in the company. However, in recent times two publicly listed companies have acquired veterinary practices in New Zealand (C. Irvine, personal

communication, March 30, 2021). Generally, individual clinics under corporate ownership in New Zealand tend to have a clinical focus (versus a retail focus) and maintain a degree of autonomy, differing from the larger corporate practices overseas who strive to replicate their protocols and client experience across all of their clinics (C. Irvine, personal communication, March 30, 2021).

Outside of clinical veterinary practice, non-clinical veterinarians form an important part of New Zealand's veterinary workforce and contribute widely to New Zealand's economy, public health, and biosecurity and provide additional technical support to clinical veterinarians in practice. Just over one-quarter of veterinarians practising in New Zealand work in non-clinical roles (VCNZ, 2019) including industry roles (such as in with pharmaceutical and pet nutrition companies); government work relating to food safety, public health, animal welfare, and biosecurity; consultancy; veterinary education; management; laboratory work; pathology; and veterinary-related research. However, despite the importance of non-clinical veterinary roles, these roles have been considered as not "real vet work" (Ridge, 2016, p. 375) among the veterinary profession, indicating the persistence of the traditional veterinary identity as a clinical practitioner.

1.1.4 Veterinarian Shortage

Despite increasing numbers of New Zealand veterinary graduates and veterinarians registered to practise in New Zealand, concerns have been raised among the profession about apparent veterinarian shortages. Prior to the increase in veterinary student enrolments in the mid-2000s, a shortage of veterinarians in New Zealand was identified by Jackson (2004) based on survey data collected in 2001-2002. In this study, 119 job vacancies were reported by 98 clinical practices, and a further 16 vacancies for veterinarians were reported by other organisations. However, even after the number of places in the veterinary undergraduate programme increased, Stevenson and Eden (2012) projected that a veterinarian shortage would exist in New Zealand from 2015 onwards. Concerns about a veterinarian shortage in New Zealand have been voiced in recent years, with commentary appearing in VetScript (the official publication of the New Zealand Veterinary

Association; NZVA) (Blaikie, 2018; Guesgen, 2019; Guilford, 2008; Maclachlan, 2008), the New Zealand media (1News, 2019; Tso, 2018), and in social media forums. Similar concerns about a veterinarian shortage exist in other countries including Australia and the United Kingdom. An unpublished 2018 survey of 416 veterinary business owners and managers in Australia and New Zealand indicated that 89% believed that veterinarians were in short supply, and 82% had experienced a longer than usual delay in filling veterinarian vacancies (Lincoln Institute, 2018). Similar delays in recruitment have also been noted in the United Kingdom (SPVS, 2017). The apparent shortage of veterinarians in Australia has occurred despite earlier predictions that veterinarian supply would outstrip demand from 2012 to 2025 (Australian Veterinary Association, 2015) and only a modest growth in demand for veterinary services (or a possible decline) would occur among Australian pet owners between 2011-2026 (Baguley, 2011).

Veterinarians remain on the long-term skills shortage list (New Zealand Immigration, 2021) and overseas qualified veterinarians make up a substantial proportion of New Zealand's veterinary workforce – 30% in 2019 (VCNZ, 2019). However, current border closures resulting from COVID-19 restrictions have severely restricted the flow of overseas veterinarians into New Zealand, further exacerbating concern around veterinary workforce shortages (Bryant, 2021; Jacobson, 2020; Kelly, 2020; Piddock, 2020).

While the apparent veterinarian shortage is a complex problem influenced by multiple factors, the number of veterinarians available (and willing) to work in New Zealand is a key factor. Furthermore, the working patterns of veterinarians within the New Zealand veterinary workforce is also of relevance.

1.2 Motivations for the Study

As a veterinarian who had changed from mixed practice to companion animal practice after six-and-a-half years in my first job, then left veterinary work altogether a year or so later, I came to this research with a personal interest. I did not know anyone who had left veterinary work and I

wondered if there were others out there, and if there were, what factors had influenced their departures from veterinary work? I have always found it difficult to articulate why I decided to leave clinical veterinary work because there was not one single factor that influenced the decision – it was more complicated than that.

Retaining veterinarians within the New Zealand profession is one aspect of ensuring New Zealand has an adequate supply of veterinarians. There is concern among members of the profession that attrition of veterinarians, from clinical practice and from the wider profession, is leaving unfilled gaps in the workforce. Attrition of veterinarians from the veterinary profession comes with a national cost. Significant government funding is allocated to veterinary education in New Zealand and early attrition from the profession negatively affects the return on investment. There is also a personal cost to veterinarians themselves as they invest a significant amount of time, dedication, toil, and finances in becoming a veterinarian. However, data examining the extent to which New Zealand veterinarians are leaving clinical work, or leaving veterinary work altogether, is scarce. As a result, the extent to which veterinarian attrition is contributing to the apparent shortage of veterinarians is uncertain.

The Veterinary Council of New Zealand collects some quantitative workforce data in their annual workforce survey; however, this data captures a snapshot of the veterinary profession at a given time and is purely quantitative in nature. The Veterinary Council of New Zealand does not currently report on the reasons why veterinarians opt out of registering to practise in New Zealand. Some studies have described New Zealand veterinarians' early careers (Gates et al., 2020; Gilling & Parkinson, 2009; Parkinson & Gilling, 2005a, 2005b), career patterns among women veterinarians (Jones, 1985), demographics and job vacancies (Jackson, 2004), job satisfaction (Shouksmith & Hesketh, 1986; Teekayuwat, 1998), and the factors that influence New Zealand veterinarians to leave rural veterinary practice (Dykes, 2017). However, many of these studies are now quite old,

qualitative data is scarce, and little is known of the longer-term career pathways of New Zealand veterinarians.

There have been a number of studies in Australia, North America and the United Kingdom that quantitatively assessed the reasons for specific career changes but data on longer-term career pathways remains sparse. The most comprehensive investigation of veterinary career pathways to date was carried out in Australia but concluded 14 years ago (Heath, 1998, 2001a, 2002, 2007c). Beyond this, much of what we know about veterinarians' career pathways and career decisions is limited to the grey literature, in particular, reports relating to surveys undertaken by professional bodies including the Royal College of Veterinary Surgeons and the British Veterinary Association (Buzzeo et al., 2014; Robinson et al., 2019; Vet Futures, 2015b) in the United Kingdom, and the Veterinary Council of New Zealand (VCNZ, 2019). These reports relate to current members of each organisation, and veterinarians who are no longer members are excluded, thus they include little or no information about those who have left the veterinary profession.

To date, the reasons that factor into veterinarians' career decisions are underexamined in the literature, although there has been a flurry of research published in this area in recent times (Adam et al., 2019; Arbe Montoya et al., 2021; Booth et al., 2020; Hagen et al., 2020). There is speculation within the veterinary community about the role that poor job satisfaction plays in influencing veterinarians to leave clinical veterinary work or to leave the profession altogether and international studies have indicated that dissatisfaction with various aspects of veterinary work contribute to decisions to change career direction (Adam et al., 2019; Buzzeo et al., 2014; Robinson et al., 2019).

There are few qualitative investigations of veterinarians' career pathways. More than 20 years ago Kerr (1995) conducted case study research examining the experiences and reasons that led twelve veterinarians to leave the veterinary profession in the United States. More recently, there has been qualitative analysis surrounding the reasons why Australian veterinarians leave clinical veterinary work (Arbe Montoya et al., 2021). However, to my knowledge, there are no existing in-depth

qualitative reports relating to the careers of New Zealand veterinarians, although Gilling and Parkinson (2009) and Parkinson and Gilling (2005a, 2005b) included a qualitative component in their work.

The changing demographic of the veterinary profession adds another dimension to this discussion as it continues to manifest in the New Zealand veterinary workforce. The extent to which the gender shift in the workforce is influencing job satisfaction and veterinarian retention is an issue of contention. While veterinary classes have been female dominated for almost 30 years (Weston, 2014), female full-time equivalent veterinarians in the New Zealand veterinary workforce outnumbered their male counterparts for the first time in 2015 (VCNZ, 2016). Over time, the proportion of female veterinarians in the workforce will continue to increase. There is no evidence to suggest female veterinarians have a higher rate of attrition from the profession than their male counterparts however, it has been recognised that men and women experience different motivations at different times during their careers (Mainiero & Sullivan, 2005). As the gender balance in the veterinary profession shifts, understanding career decision-making among both male and female veterinarians is of increasing importance.

1.3 Aim, Scope, and Significance of the Research

While we know that most New Zealand graduates begin their career in clinical practice, often as mixed practitioners (Parkinson & Gilling, 2005b), little is known about their subsequent career pathways. This research aimed to examine the career pathways of two cohorts of Massey University veterinary graduates in the first 10- to 20-years of their careers and sought to identify the factors that had been influential in shaping their career trajectories. Within the cohorts, the study focused on those who had been New Zealand domestic students upon entering the veterinary programme at Massey University.

This research is the first of its kind and employs a mixed methods approach to examine the cohort members' careers. A quantitative approach was used to determine the patterns that exist among the

cohort members' career pathways and this was followed by a qualitative investigation of their lived career experiences. Using a qualitative approach to examine cohort members' career stories allowed a contextual and detailed examination of the factors that influenced their career decisions. Interviews with cohort members focused on their career stories and the factors that influenced them to remain in a job, change jobs, shift away from clinical veterinary work, take time out of the workforce, or leave veterinary work altogether.

Investigating the rate at which cohort members leave the New Zealand veterinary workforce is useful to further characterise how veterinarian attrition could be influencing supply of veterinarians. In addition, the more subtle aspects of their career journeys, such as entering non-clinical veterinary roles, switching to part-time work, or taking time out from the workforce are also relevant to workforce planning. For those who do make career changes, understanding what factors influence their career decisions is important if attempts are to be made to enhance veterinarian retention (in jobs, clinical work, and the New Zealand veterinary profession), to further establish veterinarians' support needs and career aspirations, and to identify the factors that contribute to career fulfilment.

1.4 Thesis Overview

The thesis consists of eight further chapters. In Chapter Two I examine the existing literature surrounding veterinarians' career pathways and outline the research questions that relate to this research. In Chapter Three I present the research methods and outline the conceptual framework that underpins the research. I also outline the justification for the chosen methods and discuss the role of researcher reflexivity and positioning in qualitative research. Chapter Four details the findings of a preliminary study, which sought to identify what factors members of the New Zealand veterinary community believe influence veterinarians to opt out of veterinary work. Chapter Five is the first of three chapters dedicated to reporting the findings from the cohort study. In Chapter Five I report the findings of the career survey and provide descriptive statistics relating to the cohort members' career pathways. In this chapter comparisons are made between career pathways of the

two cohorts and the men and women. Chapters Six and Seven each address three themes that were developed from the career interviews to describe the factors that were influential in cohort members' career decisions. Discussion of the research findings occurs in Chapter Eight where I integrate the quantitative and qualitative findings. In this chapter I also use Elizur's (1984) proposed categories of work values as a lens through which to consider the factors that influence career decisions, noting that work values alone do not completely account for all aspects of career decisions. I also outline the limitations of the research and propose some areas for future research. Finally, in Chapter Nine I relate the significance of the findings to the research problem, note the implications of the findings, and provide some concluding thoughts.

Chapter Two: Literature Review

In this chapter, I outline what is known about the career pathways of veterinarians in New Zealand and overseas. The review focuses on what is known about the extent to which veterinarians shift away from clinical work and from the veterinary profession and outlines some of the factors reported to influence their career decisions. The review concludes by summarising and outlining the current gaps in the knowledge that have helped to define the overarching research questions that guide the current research.

2.1 Extent of Career Changes Among Veterinarians

The extent of career changes will be discussed in terms of veterinarian retention, and this can be considered at different levels. At the broadest level, one can consider retention within the veterinary profession, or more specifically, within the New Zealand veterinary profession. Veterinarians who remain within the profession can be in clinical or non-clinical veterinary roles. Retention can also be considered specifically in relation to clinical practice and areas of practice (for example, within production animal practice or rural practice), and at the level of the individual workplace.

2.1.1 Retention Within the Veterinary Profession

Several international studies and reports have defined working within (or outside) of the veterinary profession in different ways. In a longitudinal study of veterinary graduates in Australia, Heath (2002, p. 469) defined veterinary work as "practising in Australia or overseas, or in direct contact with animals of veterinary importance through research, government or commercial work". Here the phrase direct contact is not defined and is open to interpretation but appears to suggest that physical contact with animals is required. The Royal College of Veterinary Surgeons (RCVS) in the United Kingdom define working outside of the veterinary profession as "in a role that does not require a veterinary qualification or use of veterinary skills" (Buzzeo et al., 2014, p. 3; Robinson et al., 2019, p. 73). In the USA, "veterinarians who were not currently engaged in an activity that

required nor utilized their veterinary degree" were eligible to participate in a study of attrition from the veterinary profession (Kerr, 1995, p. 83). Whichever definition is used, there is still some subjectivity in interpreting whether a role would fall within the definition, particularly in determining whether a role is a non-clinical veterinary role or a non-veterinary role. In addition, the variation between the definitions used (and the fact that some studies omit a definition entirely) makes direct comparison between studies more difficult.

It was important that a clear definition of what constituted veterinary versus non-veterinary work was developed for use in the current research. For the current research, non-veterinary work was defined as working in a role that does not require a veterinary degree and is not related to the veterinary industry.

2.1.1.1 Retention Within the New Zealand Veterinary Profession

To practise in New Zealand, veterinarians must hold an Annual Practising Certificate (APC). The Veterinary Council of New Zealand (VCNZ) considers the maintenance of an APC as an indicator of retention within the New Zealand veterinary profession (VCNZ, 2019). However, as will be discussed further in a subsequent section of the literature review, there are some factors that need to be considered when interpreting this data.

Since 2009, the VCNZ has been reporting the percentage of veterinarians who hold an APC in subsequent years beyond their first year of registration (VCNZ, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2018, 2019). The most recent workforce report stated that "a little over 75% of New Zealand trained veterinarians continue to take out an APC 10 years after the date of first registration" (VCNZ, 2019, p. 20).

There is marked variation in the APC maintenance rates between cohorts. For example when examining the data from 2012-2013 workforce survey, two-year APC maintenance rates varied between 74% and 95% across the different cohorts (average 89%) and the five-year rates varied from 69%-83%, (average 74%) (VCNZ, 2013). This is notable as it suggests that underlying social or

economic factors may play a role in determining APC maintenance rates among different cohorts.

There is also a marked variation in the numbers of graduates applying for an APC for the first time in different years. This may reflect the veterinary job market at the time of graduation; if the job market in New Zealand is poor, it is likely that more graduates will seek work overseas.

However, using APC maintenance as a measure of retention within the profession has limitations, and may not provide the complete picture. Some veterinarians may continue to renew their APC despite not actually being employed as a veterinarian in either a clinical or non-clinical role (for example, to continue to prescribe and treat their own animals). This could result in an overestimation of the number of veterinarians employed within the veterinary profession. However, on the contrary, individuals who no longer hold a New Zealand APC may be working as veterinarians overseas or may have opted to take a career break. Whether such individuals are permanently lost to the New Zealand veterinary profession is largely unknown (Weston et al., 2007).

Prior to the Veterinary Council of New Zealand reporting APC maintenance rates, Weston et al. (2007) calculated that that 60% of veterinarians who graduated from Massey since 1967 held a current APC. However, they noted that some of this attrition was due to retirement. Further breakdown into five-year cohorts and analysis by gender, revealed variation in APC maintenance rates between the men and women in each cohort. For some cohorts, the women had a higher rate of APC maintenance compared to men and in other cases, the opposite was true (Weston et al., 2007). There was also variation in APC maintenance rates between the cohorts and the reasons for this were not fully apparent (Weston et al., 2007). There could be economic forces involved, particularly when considering that male veterinarians had the lowest rates of APC maintenance among the 1987-1991 cohorts - around the time of the 1987 stock market crash. Social factors may also be at play. Of note, when excluding the 1967-1971 cohort (due to them being the group most likely to be influenced by retirement), the overall average rate of APC maintenance appears to have reduced after 1986. The reason for this is unclear; however, changes within the profession may play

a role. In addition, many younger veterinarians spend time working overseas which may influence the apparent APC maintenance rates of the recent graduates (Weston et al., 2007).

The APC maintenance data reported by the VCNZ offers a good starting point to assessing attrition from the New Zealand veterinary profession. However, it does not give an indication of how many New Zealand veterinarians continue to practise overseas or how many veterinarians continue to hold an APC but are not employed in the veterinary workforce. It highlights that variation occurs between cohorts but generally, the rate of APC maintenance decreases over time. Examination of this data prompted me to consider how retention of veterinarians compares with that of human medical professionals in New Zealand.

2.1.1.2 Comparing Retention Rates of New Zealand Veterinarians with Other Similar Professions in New Zealand

The Medical Council of New Zealand collects data on APC maintenance among medical graduates. A comparison between the annual rates of APC maintenance/registration among New Zealand medical, nursing, and veterinary graduates is displayed in Table 2.1. The average percentage of veterinary graduates holding an APC each year post-graduation has been calculated from the data available and is presented alongside the average rate of APC maintenance for medical graduates, and the rate at which the nursing cohort meets requirements to practise in New Zealand. From these comparisons it appears that the New Zealand veterinary profession has similar rates of APC maintenance compared to New Zealand doctors and nurses. Each of the professions note a similar decrease in APC maintenance/registration over time.

Table 2.1: Comparison of annual rates (%) of APC/registration maintenance by New Zealand veterinary, medical, and nursing graduates. Where data is available from more than one cohort of graduates, an average rate is presented.

	Years Post-Graduation									
	1	2	3	4	5	6	7	8	9	10
Veterinary graduates (2012-13 survey)	96	89	80	74	74	77	77	75	73	71
Medical graduates	99	90	82	81	81	80	78	75	72	66
Nursing Graduates	84	80	78	70	74	73	71	68	66	65

Note: Data for veterinary graduates from VCNZ (2013), medical graduates from (Medical Council of New Zealand, 2019), and nursing graduates from 2005/2006 cohort (Nursing Council of New Zealand, 2018).

The 2012-2013 veterinary workforce report was the most recent report that provided numerical APC maintenance data and thus was chosen for this comparison (VCNZ, 2013). However, more recent graphical data suggests that higher rates of APC maintenance have been occurring during the early careers of the more recent graduates (i.e. those who first registered in 2010 or later) (VCNZ, 2019). A similar trend has been noted in the New Zealand medical profession where a higher proportion of graduates from the 2010-2015 cohorts have maintained an APC compared to previous groups (Medical Council of New Zealand, 2019). The Medical Council of New Zealand (2019) suggest this improvement in retention rates may be a result of the Voluntary Bonding Scheme initiated by the Ministry of Health in order to attract and retain medical professional staff in hard-to-staff locations or areas of practice (Ministry of Health, 2021) and it is possible that the corresponding Voluntary Bonding Scheme for veterinarians[1] is having a similar effect.

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[1] The voluntary bonding scheme for veterinarians is a Government funded initiative to provide financial incentive to encourage veterinary graduates to enter and remain in rural practice (with a production animal focus) in New Zealand. Ministry for Primary Industries. (2021). *Vet bonding scheme*. https://www.mpi.govt.nz/funding-rural-support/farming-funds-and-programmes/vet-bonding-scheme/.

In his Australian longitudinal study, Heath (1998, 2002, 2007c) used a different approach to determine the number of veterinarians who were no longer involved in veterinary work at various stages post-graduation. Rather than basing this assessment on whether individuals held an APC or veterinary registration, participants self-identified whether they were in clinical, non-clinical, or non-veterinary work. This was possible as the study involved a cohort of graduates and followed them on their career pathways from their first year as veterinary students through until 15-years post-graduation.

In this study, the rate at which the veterinarians worked in non-veterinary work five years after graduation was low – only 1% (Heath, 1998) however this figure rose to 20% 10 years post-graduation (Heath, 2002). At this time, work descriptions of those not undertaking veterinary work included "mothering, writing, research, studying, dance, e-commerce, or a family business" (Heath, 2001a, p. 65). By 15 years post-graduation, the number of veterinarians not involved in veterinary work increased slightly again to 23% (Heath, 2007c). Further examination of those in non-veterinary work (along with those working less than 50% of their time in veterinary work) revealed some of the paths these individuals were taking. Family care was the largest category of non-veterinary work undertaken (by 44%). Other non-veterinary work categories included "medical, computing or another profession" – 11%; "business including farming" – 8%, "research" – 6% (Heath, 2007c, p. 285). The remainder of respondents no longer working in a veterinary role were working in other non-specified areas.

In the 2019 survey of the veterinary profession carried out by the Royal College of Veterinary Surgeons (RCVS)[2] in the United Kingdom, 4.5% of respondents reported working outside of the veterinary profession (Robinson et al., 2019). A similar percentage had been reported in the 2014

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[2] The Royal College of Veterinary Surgeons is statutory regulatory body with which veterinarians in the United Kingdom must be registered. Royal College of Veterinary Surgeons. (2021). *The role of the RCVS*. https://www.rcvs.org.uk/how-we-work/the-role-of-the-rcvs/.

iteration of the survey (Buzzeo et al., 2014). It is pertinent to note that many individuals that have opted to discontinue working as a veterinarian were also likely to have ceased their RCVS membership and would not have had the opportunity to take part in this survey; therefore the overall number of veterinarians working outside the profession was likely underestimated. Robinson et al. (2019) reported that 64% of RCVS members working outside the veterinary profession were working in a field unrelated to animals and few intended to return to the veterinary profession. Only 15% reported an intention to return to the veterinary profession in the future, down from 26% in the 2014 iteration of the survey (Buzzeo et al., 2014). Just over half of the non-veterinary group had no plans to return to veterinary work (a slight increase from five years earlier (Buzzeo et al., 2014)), and the remaining 32% were undecided (also increased from 24% five years previously (Buzzeo et al., 2014; Robinson et al., 2019)). The reasoning behind these future intentions would provide further insight, however, such questions were not part of the survey. Also of note was that 95% of those currently employed outside of the veterinary profession had previously been employed within the veterinary field (the majority in clinical practice) (Robinson et al., 2019), implying that at some stage they had made a decision to move away from veterinary work. In the 2014 survey of the UK veterinary profession, 43% of RCVS members who had ceased working in the veterinary profession had spent ten years or less in veterinary work, and over 25% had worked in the veterinary field for 11-20 years before changing their career direction (Buzzeo et al., 2014).

In addition to quantifying the proportion of veterinarians who no longer work within the veterinary profession, several studies have reported on veterinarians' intent to leave the veterinary profession in the future (Australian Veterinary Association [AVA], 2019; Begeny et al., 2018; Buzzeo et al., 2014; Fairnie, 2005; Hagen et al., 2020; Mitchell, 2017; Robinson et al., 2019). Across these studies, the degree to which veterinarians reported an intention to leave varied markedly and whether these veterinarians do go on to leave the profession is unknown. In Australia, 19% of registered veterinarians responding to the 2018 workforce survey indicated they "were considering not working as a veterinarian in the following year" (AVA, 2019, p. 7). In the United Kingdom, intention

to leave the profession has been reported at 9.4% (intending to leave within the next five years) (Robinson et al., 2019), 17% (intending to leave or take time away from veterinary work) (Hagen et al., 2020), 25% (would leave the veterinary profession if they could) (Mitchell, 2017), and 37% ("actively thinking about leaving the profession") (Begeny et al., 2018, p. 7). Mitchell (2017) reported that there were no gender differences among the expressions of intent or desire to leave the veterinary profession. Robinson et al. (2019) also noted that a greater proportion of RCVS members were planning to retire completely within five years (10.6%) than in previous surveys of the profession - 6.8% in 2014 (Buzzeo et al., 2014) and 6.6% in 2010 (Robertson-Smith et al., 2010).

An Australian study attempted to assess the likelihood of "remaining a veterinarian" within a five-year time frame (Fairnie, 2005, p. 158). Participants in this survey were mostly in clinical practice (83%) and working as a veterinarian was not clearly defined. These factors should be considered when interpreting the results as respondents may have been referring to no longer working as a clinician. Almost a quarter of Western Australian veterinarians in this study suggested that they intended to *possibly* or *definitely not* be working as veterinarians in five years' time - 28% of men and 19% of women. Almost half of those aged over 54 years indicated their intention to leave veterinary work within five years but there were also 16% of under 35-year-olds and 21% of 35-54-year-olds who intended to cease working as a veterinarian within five years. The exact reasoning behind these intentions among the younger age groups was uncertain but the author concluded may have been a result of experiencing low job satisfaction, which could occur for a range of reasons (Fairnie, 2005).

How well these assessments of intention to leave veterinary work reflect actual future career changes is not clear and for survey respondents, answering questions about their future intentions may be influenced by how they are feeling on the day. For instance, if they had experienced a particularly difficult situation in their veterinary work on that day, they may be more likely to indicate they are intending to leave the profession than if they had completed the survey after

having a good day at work. Survey respondents' feelings on the day, and survey response bias may account for the variation seen in the studies. Indeed, the response rate among registered veterinarians in the 2018 Australian Workforce Survey was only 10% (AVA, 2019) and response bias may have been significant.

Monitoring lived career changes would be a more accurate indicator of the frequency at which veterinarians leave the veterinary profession, rather than relying on assessments of future intentions.

2.1.2 Retention of Veterinarians in Clinical Practice

In the previous section I examined what is known about retention of veterinarians within the veterinary profession (in either clinical or non-clinical veterinary work). Next, I will focus on retention of veterinarians in clinical veterinary work. In New Zealand, the undergraduate veterinary programme has an emphasis on preparing veterinarians for clinical practice and most graduates spend the early years of their career in clinical practice (Parkinson & Gilling, 2005b). In the 2018-2019 workforce report, 73% of New Zealand practising veterinarians identified themselves as clinicians while the remainder worked in a variety of non-clinical roles (VCNZ, 2019). This gives an indication of the numbers of clinical versus non-clinical veterinarians at a given moment in time but does not consider the pathway that led these veterinarians into non-clinical work and at what stage they entered their non-clinical roles.

A longitudinal study of Australian veterinary graduates offered further insight into the transition out of clinical practice. There was a distinct shift away from clinical practice in the five to 15-year period post-graduation (Heath, 1998, 2007c). Around 97% of the study cohort in Heath's longitudinal study started out in clinical practice, but this decreased to 81% five years post-graduation (Heath, 1998), 61% percent after 10 years (Heath, 2007c) and 57% 15 years post-graduation (Heath, 2007c). These findings suggest that the period between five to 15 years post-graduation is an important timeframe in which career change is considered by veterinarians, thus will be a useful period to capture in

subsequent research. Similarly, in the United Kingdom, a tendency has been noted for veterinarians' interests to shift away from clinical practice, particularly five years or more after graduating (Vet Futures, 2015b). While 9% of veterinary students wanted to work outside of clinical practice, this percentage doubled among graduates up to eight years post-graduation (Vet Futures, 2015b). Another shift occurred in the desire to own or become a partner in a veterinary practice. Forty-five percent of veterinary students wished to do so, but only 25% of graduates up to eight years post-graduation shared the same desire (Vet Futures, 2015b). This indicates that the intentions and preferences of veterinary students and veterinary graduates change over time. Whether this is due primarily to their work experiences, or whether there are other factors at play deserves further attention.

In addition to shifts away from clinical practice in general, Heath (1998, 2002, 2007a, 2007c) also reported a tendency for Australian veterinarians to shift away from mixed practice over time (regardless of whether they came from a rural background). Sixty-one percent of the graduates worked in mixed practice upon graduating, but this decreased to 26% by five years post-graduation (Heath, 1998), 18-19% at 10 years (Heath, 2002, 2007c) and 12% at 15 years (Heath, 2007c). Over the corresponding time period the percentage of cohort members in companion animal practice increased from 45% at five years to 55% at 15 years (Heath, 2007c), indicating that at least some left mixed practice to pursue companion animal practice, and that career changes occur within clinical practice. Such changes have also been noted among North American veterinarians (Andrus et al., 2006). The most frequent destinations for North American veterinarians who had left production animal practice were companion animal practice (27% of leavers) and non-clinical government work (25% of leavers) (Andrus et al., 2006). Non-clinical government work (29%) or industry (29%) roles were the most frequent destinations of those who changed away from companion animal practice (Andrus et al., 2006). At times, veterinarians switched from mixed or production practice to a different type of clinical practice (often companion animal), but also frequently shifted into non-clinical roles. It appeared to be less common for veterinarians to change from companion animal

practice to mixed or production animal practice. Often, despite leaving clinical practice, the veterinarians in existing studies remained working within the veterinary profession in a non-clinical capacity, thus continuing their contribution to the veterinary workforce.

2.2 Factors Influencing Career Changes

The previous section examined what is known about the rate at which veterinarians leave (or intend to leave) the veterinary profession and has identified a gradual shift away from clinical practice post-graduation (Heath, 1998, 2002, 2007c; Vet Futures, 2015b). The current section will examine what is known about the factors that influence veterinarians to make these career changes or influence their intent to do so. To my knowledge, there is no peer reviewed literature covering the reasons for New Zealand veterinarians leaving the veterinary profession or leaving clinical practice, although in recent years, informal surveys have been carried out involving New Zealand veterinarians (Dykes, 2017; Lincoln Institute, 2018) and some data (peer-reviewed and non-peer-reviewed) exists around other career experiences such as reasons for working part time (VCNZ, 2019), experiences in and leaving the first job (Gates et al., 2020; Gilling & Parkinson, 2009), career patterns among women veterinarians (Jones, 1985), and job satisfaction (Shouksmith & Hesketh, 1986; Teekayuwat, 1998). Data from both peer-reviewed and grey literature is discussed in the following sections which consider the factors that influence veterinarians' career decisions in New Zealand and overseas.

2.2.1 Work Environment

Numerous aspects of the work environment have been identified as influential to the career decisions of veterinarians. These include working conditions, such as remuneration, after-hours requirements, working hours, and support available, as well as other aspects of workplace culture and social interactions within the workplace.

2.2.1.1 After-hours, Working Hours, and Work-Life Balance

Long working hours and the requirement to provide an after-hours service have been cited as factors contributing to the career decisions of veterinarians both in New Zealand (Dykes, 2017) and

overseas (Arbe Montoya et al., 2021; Heath, 1998, 2000, 2002; Jelinski et al., 2009; Robinson et al., 2019; Villarroel et al., 2010b). Working frequent night shifts has been noted to decrease job satisfaction among veterinary technicians in the United States (Liss et al., 2020) and emergency veterinarians who had left emergency veterinary practice most frequently cited unfavourable work schedules as their reason for leaving (Booth et al., 2020). Booth et al. (2020) also noted that improved flexibility in work scheduling was one of the key factors that would influence veterinarians who were considering leaving emergency practice, to stay. In the United Kingdom, retention of veterinarians within the veterinary profession was decreased among those who did not "endorse long work hours" (Begeny et al., 2018, p. 5). In other words, those who felt that working long hours was par for the course and approved of working long hours were more likely to be retained within the veterinary profession. In another study of veterinarians in the United Kingdom, just under one-third of respondents indicated that the aspect of their job that they would most like to change was their working hours (Hagen et al., 2020).

Work hours and after-hours commitments were prominent among the reasons given by Australian veterinary graduates for changing career direction in the five years post-graduation (including changing between different types of practice as well as from clinical to non-clinical work) (Heath, 1998). Fifty-nine percent of men and 50% of women who worked part time (0.5 FTE or less) rated long work hours as a very important factor in their decision not to work full time (Heath, 2002). What constituted long working hours was not stated. In addition, half of the Australian cohort who had left clinical work in the first 10 years after graduating (50% of the men and 50% of the women) identified after-hours commitments as being very important in their decision to change to non-clinical veterinary work (Heath, 2002). However, other factors were deemed to be equally important, including attitudes of bosses (for both men and women) and boredom (men) (Heath, 2002). A desire for more predictable, shorter work hours was rated as being very important by 55% of the women who had left clinical work and 35% of the men (Heath, 2002). It is important to note that this data was based on a small sample of 14 men and 11 women who had left clinical work for a

non-clinical veterinary field (Heath, 2002) so a single response could have a marked effect on the percentage reported. In a wider survey of Australian Veterinary Association (AVA) members (Heath, 2000), one-fifth of respondents had changed from clinical to non-clinical veterinary work. Having to participate in after-hours provision ranked as the fourth most frequent reason for moving from clinical practice after "a change of focus", "family", and "lack of career opportunities" (Heath, 2000, p. 735).

In Canada, Jelinski et al. (2009) found that working hours and after-hours duties were the most important factors for veterinarians switching away from mixed or farm animal practice in the initial five years of their veterinary career and the ability to reduce their working hours was frequently cited as a reason for Canadian veterinarians to leave clinical practice for non-clinical veterinary roles (Osborne, 2009, 2012). Similarly, after-hours/on-call duties were the most important factor for veterinarians who opted to move from rural to urban Australia (Heath, 2001b). Jelinski et al. (2009) noted that many companion animal practitioners in larger metropolitan centres have access to dedicated after-hours hospitals, relieving them of much of the burden of after-hours duties.

Overall, working hours did not appear to be strongly correlated to retention within farm animal practice in the United Kingdom, despite some respondents citing working hours as a source of dissatisfaction, or as a reason for their departure (Adam et al., 2019). Rather, a supportive work environment, specifically having performance reviews and being on-call with an experienced veterinarian, and spending a greater proportion of their working time with farm animal species, were more strongly associated with retention than remuneration, work hours, and physical working conditions (Adam et al., 2019).

Workload and work intensity are also important in understanding work-related stress (Meehan & Bradley, 2007). For example, working long hours at a steady pace, with a manageable workload and adequate time to complete the work, is different to working long hours with an unmanageable or excessive workload and a missed lunch break. This concept was demonstrated by Meehan and

Bradley (2007, p. 75) who showed that levels of work-related stress increased with number of consultations but in contrast, there was "no association between job stress and number of hours spent consulting each day".

The personal toll and perception of not doing the best for their clients that resulted from heavy workloads, was identified as a contributing factor for Australian veterinarians leaving clinical practice (Arbe Montoya et al., 2021). Furthermore, flexibility around work schedules was also an important aspect of work that veterinarians considered when making career changes (Adam et al., 2019; Dykes, 2017). A lack of flexibility in their work was a factor for veterinarians who had left farm animal practice in the United Kingdom (Adam et al., 2019) and for veterinarians who had left rural practice in New Zealand (Dykes, 2017). On the other hand, in New Zealand, having flexibility in a workplace (in work schedules, type of work carried out, and opportunities for time off), was a factor in veterinarians' decisions to remain in rural practice (Dykes, 2017).

The aforementioned studies considered the influence of after-hours commitments and working hours in different career change contexts, so it is difficult to compare them directly. The studies that stated long hours as a factor in veterinarian career decisions didn't give an indication of what long hours were, perhaps because this is an individual assessment and what constitutes long hours is different for different people. The studies also did not clarify what it is about after-hours work that affects career decisions. Whether this relates purely to having to work during evenings and weekends and being unable to make other social plans, or whether there are more complex reasons for disliking after-hours such as a lack of support and therefore confidence to deal with after-hours duties or not feeling that the service is valued. Similarly, how much of the influence of working long hours is related to work intensity, workload, or a lack of autonomy or flexibility is unclear. These aspects deserve more attention. A qualitative investigation would be a suitable method to look beyond the more objective measures (such as the number of hours worked or the need to participate in after-hours rosters) and to gather more detail on what (if any) relational aspects of

provision of an after-hours service and overall working hours influence veterinarians in their career decisions, their importance in influencing career pathways, and their association with other factors.

In a similar vein to considering the issues of working hours and after-hours, work-life balance has also been identified as a factor influencing veterinarians' career decisions to leave farm animal practice (Adam et al., 2019; Andrus et al., 2006), or their current job (Hagen et al., 2020), to leave clinical practice (Arbe Montoya et al., 2021), and their intention to leave the veterinary profession (Robinson et al., 2019). The term work-life balance as used in these studies appears to intertwine with objective measures of work scheduling such as working hours, after-hours duties, flexibility of work schedules, workload, overtime, and ability to take time off for holidays or for parental and family responsibilities. Many definitions of work-life balance have been proposed in the literature, and as such there is a lack of consensus around what the term actually means (Kalliath & Brough, 2008). Having reviewed the different definitions of work-life balance in existing literature Kalliath and Brough (2008) proposed a new definition to incorporate two key aspects of work-life balance that occurred consistently in existing definitions. They describe work–life balance as "the individual perception that work and non-work activities are compatible and promote growth in accordance with an individual's current life priorities" (Kalliath & Brough, 2008, p. 326). In line with this definition, Casper et al. (2018, p. 197) suggest that work-nonwork balance is a more appropriate term and define this as "employees' evaluation of the favourability of their combination of work and nonwork roles, arising from the degree to which their affective experiences and their perceived involvement and effectiveness in work and nonwork roles are commensurate with the value they attach to these roles". These definitions suggest that the term work-life balance or work-nonwork balance encompass more than just the material measures such as working hours.

Indeed, the 2019 survey of the UK veterinary profession separates out work-life balance, long working hours, and lack of flexibility as different factors (Robinson et al., 2019). Experiencing poor work-life balance and long working hours were the first, and third most frequent reasons for

members of the RCVS to be considering leaving the veterinary profession (Robinson et al., 2019). Both men and women in this survey identified poor work-life balance as the most frequent reason for considering a career change, while long working hours was the third most frequent reason among women and the fifth most frequent reason among men. In another survey of UK veterinarians, work-life balance was again the most frequent reason given by veterinarians who were intending to leave their current job and was the second most frequently disliked aspect of the veterinary profession (after "dealing with people") (Hagen et al., 2020, p. 4). Only half of veterinarians in the United Kingdom reported achieving a good work-life balance and men were more likely than women to agree that they achieved their desired balance when other factors (demographics, work type) were accounted for (Begeny et al., 2018).

Optimal work schedules likely vary between individuals, and different individuals are likely to have different perceptions of what optimal work-life balance looks like for them. In addition, Begeny et al. (2018) refer to several relational aspects of the work environment that influence how individual veterinarians perceive their work-life balance, beyond the objective contributors mentioned previously. They showed that a veterinarians' sense of "fitting in" (Begeny et al., 2018, p. 9) at work influenced their sense of belonging, which in turn influenced their sense of work-life compatibility and work-life balance. Similarly, feeling like they fit in influenced veterinarians' willingness to make sacrifices to achieve 'success' at work, which also altered their perception of work-life balance. So, while objective measures relating to work scheduling influence and contribute to a sense of work-life balance, there are also social and cultural aspects of the workplace that tie in and contribute to a veterinarians' perception of their work-life balance.

2.2.1.2 Poor Remuneration

Poor remuneration features prominently in the literature as a factor influencing veterinarians' career decisions (Adam et al., 2019; Arbe Montoya et al., 2021; AVA, 2019; Buzzeo et al., 2014; Furr, 2018; Hagen et al., 2020; Heath, 2007c; Kerr, 1995; Parkinson & Gilling, 2005b; Robinson et al., 2019) and a

link between veterinarians' remuneration and job satisfaction has been suggested (Kersebohm et al., 2017). Parkinson and Gilling (2005b) suggested that New Zealand veterinarians often re-assessed their career pathways around five to seven years post-graduation as there was little opportunity to gain salary increases at this time, as they reached the top of the Vet Club pay scale[3].

For Australian veterinarians surveyed 15 years after graduation, remuneration was among the four most important factors for those who had left clinical practice or had left veterinary work altogether (Heath, 2007c). Similarly, remuneration was the third most frequently cited reason among 246 veterinarians who had left rural veterinary practice in the United States (Villarroel et al., 2010b) and financial reasons were the third most frequent factor for Canadian veterinarians who had left clinical practice in a 2007 survey (Osborne, 2009). In the 2012 iteration of the Canadian survey, financial reasons were only the 6th most frequent factor cited by veterinarians who had left clinical practice (Osborne, 2012).

Remuneration was a factor for 45% of the RCVS members who were intending to leave the veterinary profession and was the fifth most frequently cited factor in the 2019 survey of the UK veterinary profession (Robinson et al., 2019). The relationship between salary and the likelihood of looking for new employment was evaluated among veterinarians in the United Kingdom (Hagen et al., 2020). This study indicated that salary was the third most frequent reason for veterinarians to plan to leave their current role, and found that at higher salaries, there was decreasing intent to leave a role.

Veterinarians interviewed as part of a qualitative study of attrition from the veterinary profession in the United States spoke of how remuneration influenced them in their decisions to leave the veterinary profession (Kerr, 1995). They noted that their salary was low in relation to the level of education and experience they had, and the amount of work that veterinarians undertake, and also

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[3] This is an unofficial pay scale (not compulsory for businesses to follow) that outlines a standard salary range for veterinarians of a certain level of experience.

perceived better remuneration could be achieved in other professions (Kerr, 1995). Together these findings indicate that veterinarians have unmet expectations around remuneration and this idea evolved further in qualitative research undertaken in 2018 (Arbe Montoya et al., 2021) whereby a mismatch was highlighted between veterinarians' perceptions of their skills and the expectations on them and the remuneration they received. This mismatch was cited as a reason for veterinarians to leave clinical practice in Australia (Arbe Montoya et al., 2021).

2.2.1.3 Early Experiences/Mentorship/Support

It has been suggested that veterinarians' early career experiences contribute to shaping their future career (Gilling & Parkinson, 2009; Heath, 2001a, 2002; Stolz, 2006). Negative experiences during this time may influence veterinarians to pursue a career in other areas of practice or other non-clinical veterinary work, or to leave the profession altogether (Gilling & Parkinson, 2009; Jelinski et al., 2008; Robinson et al., 2004).

The first year in practice has been proposed as a "make or break period" (Gilling & Parkinson, 2009, p. 209). Research findings in Australia support the importance of the first job in shaping a veterinarian's career with the majority of cohort members (73%) in a longitudinal study agreeing or strongly agreeing with the statement "my first job played a major role in my subsequent career direction" (Heath, 2002, p. 471). In addition, female veterinarians working in food animal practice in North America recognised that "a positive experience in their first position of employment was as critical to retention in the profession as anything else" (Stolz, 2006, p. 555). Heath (2001a, p. 28) reflected on the importance of the first job saying, "The first job would prove crucial. Successful, it could be a stepping-stone towards a fulfilling career of high professional standards; unsuccessful, it could begin a downward slide towards disappointment, disillusionment or even despair".

Further defining what makes for a positive and successful experience in a job, whether that be the first job or subsequent jobs, will play an important role in understanding career decisions, particularly decisions to remain in a position or a particular type of work.

The level of support provided in the workplace (particularly early in a veterinarian's career) has been identified as one of the key factors that influence veterinarians' career decisions (Adam et al., 2015; Heath, 2007c; Jelinski et al., 2009; Stolz, 2006). The majority of graduates in a New Zealand survey (82%) reported they received a good level of support in the workplace, however, some new graduates received inadequate support and had negative early experiences (Gilling & Parkinson, 2009). Such experiences led some to question whether they wanted to continue in the profession. This was demonstrated by one participant who commented "My experience as a graduate was relatively poor and just about put me off being a vet" (Gilling & Parkinson, 2009, p. 212). Other participants in this study knew of veterinarians who felt so traumatised by negative early experiences that they had decided to leave the profession (Gilling & Parkinson, 2009). Another New Zealand study reported that a lack of adequate support and toxic workplace cultures were the most frequent reasons cited by recent New Zealand graduates to leave (or to be considering leaving) their first job (Gates et al., 2020). In the United Kingdom, a lack of professional support was the most frequent reason (by a large margin) for veterinarians' first jobs not meeting their requirements, and poor management was noted as the most frequent reason for recent graduates to have left their first job (Robinson & Buzzeo, 2013).

Support for new graduates was considered important to their future retention in farm animal practice and several factors related to veterinarians' early careers are positively associated with retention of veterinarians in farm animal practice (Adam et al., 2015, 2019). In the first job, having the support (and physical attendance if needed) of an experienced veterinarian, both during normal working hours and when working on-call was positively associated with retention (Adam et al., 2015, 2019). Having staff appraisals/performance reviews was considered a sign of a supportive work environment and was strongly associated with veterinarian retention in farm animal practice in the United Kingdom (Adam et al., 2019). Adam et al. (2019) suggested that a supportive workplace culture had more of an effect on retention of veterinarians in farm animal practice, than remuneration and working hours.

Of note, was that other types of support (including from other recent graduates or friends and family, or in attending routine calls) did not positively influence retention (Adam et al., 2015), although support from peers, and friends and family is likely to be valuable in other ways such as coping with workplace stress (Gardner & Hini, 2006). So, it appears that the type of support available is important and this is further supported by Gates et al. (2020) in their study of New Zealand recent graduates. For these New Zealand graduates, having regular contact with an experienced veterinarian who was approachable and would consider their overall wellbeing was considered the most useful form of support during their early years in practice (Gates et al., 2020).

2.2.1.4 Workplace Culture and Social Interactions

Aspects of workplace culture and the social interactions that occur within workplaces are relevant to veterinarians' career decisions and have become more prominent in recent studies (Adam et al., 2019; Arbe Montoya, 2019; Arbe Montoya et al., 2021; Dykes, 2017; Furr, 2018; Hagen et al., 2020; Heath, 2002, 2007c; Kerr, 1995; Villarroel et al., 2010b). Kerr (1995) noted that North American veterinarians who had left the veterinary profession frequently discussed a relationship with another individual who greatly influenced their career decisions. In some cases, this individual had a positive influence in providing mentorship or encouragement. However, negative interactions with clients, colleagues, and employers (and in some cases the employer's spouse) were also significant factors influencing their decisions to leave the veterinary profession (Kerr, 1995).

Relationships with employers and managers were noted as factors of influence in several other studies (Adam et al., 2019; Dykes, 2017; Hagen et al., 2020; Heath, 2007c). Management issues were the second most frequent reason for veterinarians in the United Kingdom to be planning to leave a job (Hagen et al., 2020), although exactly what it was about management that made them want to leave was not further described. In the same study, management was also identified as the third most frequently cited factor that veterinarians would like to change about their current job, and in this context was noted to encompass "organisation, autonomy, more business experience, realistic

expectations and less bureaucracy/regulation" (Hagen et al., 2020, p. 4). Management issues were also a significant factor among New Zealand (Dykes, 2017) and UK (Adam et al., 2019) veterinarians who had left rural or farm animal veterinary practice. For the New Zealand veterinarians, difficulties with the tiered corporate-style management was a factor, along with management decisions being made without veterinarian input (Dykes, 2017). For the UK veterinarians, feeling underappreciated or bullied by their employers or their employer's lack of "understanding of employees facing challenging personal circumstances" were aspects of staff management that contributed to their departure from farm animal practice (Adam et al., 2019, p. 4). Similarly, "attitude of bosses" was rated as a very important factor by half of Australian veterinarians who had left clinical practice for another veterinary field by 10 years post-graduation (Heath, 2002) and was also important for those who had left clinical practice 15 years after graduation (Heath, 2007c). However, this factor was of less importance to those who had left veterinary work altogether (Heath, 2007c).

Clients were noted to be an important contributor to job satisfaction, contributing in both positive and negative ways (Adam et al., 2019). Positive client relationships were an important factor among farm veterinarians who had remained in farm animal practice in the United Kingdom (Adam et al., 2019), and veterinarians who had remained in rural practice in New Zealand (Dykes, 2017). Similarly, good relationships with team members in the workplace was the most frequently cited reason for veterinarians to choose to stay in a job in the United Kingdom (Hagen et al., 2020), and New Zealand veterinarians also recognised how important their work colleagues were as a factor influencing them to remain in a workplace (Dykes, 2017).

Workplace cultures have also been noted to affect veterinarians' career decisions to leave rural practice in Canada (Villarroel et al., 2010b), and New Zealand (Dykes, 2017), and to leave veterinary clinical faculty positions (Furr, 2018). Moore et al. (2014) noted a link between workplace culture and job satisfaction among small animal clinic teams in Canada. Workplace bullying, in the form of emotional manipulation and blackmail from employers, has been reported as a reason for Australian

veterinarians to leave clinical practice (Arbe Montoya, 2019; Arbe Montoya et al., 2021). Sexism has

also been reported as a factor for leaving clinical (or rural) practice in Australia (Arbe Montoya,

2019) and New Zealand (Dykes, 2017). In both studies, discrimination based on gender was directed

at women in farming or production animal industries. In the New Zealand study, the sexism was

noted to come from farming clients (Dykes, 2017), however in the Australian study it appeared that

the sexism was occurring from within the workplace, although the exact nature and origin was not

clear or discussed further (Arbe Montoya, 2019).

The presence of role models was a significant factor in retaining veterinarians within the veterinary

profession in the United Kingdom (Begeny et al., 2018). The second most important factor for

predicting retention in this study was veterinarians having a "sense of fitting in with those that have

been successful before them" (Begeny et al., 2018, p. 7). Male veterinarians were found to have a

greater sense of fitting in with veterinary leaders (the majority of whom are male (Robinson et al.,

2019)) and this positively influenced their motivation and satisfaction levels and in turn their

intention to stay in the profession (Begeny et al., 2018). It was unclear from this study exactly what

contributed to a veterinarian's sense of "fitting in", whether it meant having good relationships with

people in the workplace, or whether it meant something else. The authors did however outline how

"fitting in" gave veterinarians a sense of belonging which enhanced their perception of work-life

compatibility, and meant that they came to expect success for themselves and were more willing to

make sacrifices to pursue their career ambitions (Begeny et al., 2018).

2.2.1.5 Other Aspects of the Work Environment

Some veterinarians who had left farm animal practice in the United Kingdom cited the physical

working environment on farms (e.g. lack of appropriate animal handling facilities and poor weather)

as a factor in their decision (Adam et al., 2019). In this same study, some of the former farm

veterinarians also noted their preference for providing health care at an individual animal level, for

which there were limited opportunities in farm animal practice, leading to their pursuit of other

work types, including companion animal practice (Adam et al., 2019). Also related to the working environment, in an informal New Zealand survey, more than half of the veterinarian respondents who had left rural practice cited the "repetitive work, lack of stimulation, and variety" as a significant factor in their decision to leave (Dykes, 2017, p. 18). While some respondents noted their enjoyment of the physical aspects of the work, one-quarter of leavers reported the physicality of the job was a factor in their decision to leave rural practice citing concerns about injury and feeling unsafe working during pregnancy (Dykes, 2017).

In addition, the ethical and moral conflicts encountered in clinical veterinary practice have also been identified as contributing factors in decisions to leave clinical practice (Arbe Montoya et al., 2021), to leave farm animal practice (Adam et al., 2019), and to leave the veterinary profession (Kerr, 1995). The disparity between welfare standards for farm animals versus companion animals was a factor for one veterinarian who had left farm animal practice in the United Kingdom (Adam et al., 2019). Arbe Montoya et al. (2021) noted the emotional impact of moral and ethical conflicts but gave no further indication of the types of conflicts that were influencing veterinarians' career decisions. However, in a separate review paper Arbe Montoya et al. (2019, p. 6) concluded that moral conflicts often arise "from conflicts of interest between clients, patient needs, professional duties and social expectations" and suggested that the most frequent source of moral conflict occurred when the financial constraints of clients result in less than optimal care for the animal patient. Kerr's (1995) earlier qualitative work also indicated that having to euthanise animals with treatable conditions due to the financial constraints of their owners troubled veterinarians and in some cases contributed to their departure from veterinary work. In addition, participants in this study also suggested that pressure from their employers to "sell certain services or products", and the misrepresentation of certain services did not sit well with them and was a source of ethical and moral conflict which contributed to them seeking other career options (Kerr, 1995, p. 181). In all, eight of the 12 participants in this study mentioned that the ethical and moral conflicts they faced during their time

working as a veterinarian in clinical practice had influenced their decisions to leave the veterinary profession.

2.2.2 Personal Factors

2.2.2.1 Family Commitments

In the 1980s, Jones (1985) documented that the career patterns observed among women veterinarians in New Zealand were significantly influenced by their family situations. However, the current extent to which veterinarians take a career break for parental care and then opt not to return to veterinary work is largely unknown. Family care is a frequent reason given for New Zealand veterinarians working less than 40 hours per week (VCNZ, 2019) and Parkinson and Gilling (2005b) also reflected on how the career patterns of women were influenced by their decision on whether and when to start a family.

Overseas, family care has been identified as a factor that influences career pathways. During the process of planning for a family, veterinarians reflected on their career aspirations and what was important to them and the potential for a given job to suit their requirements to also fulfil their family's needs (Adam et al., 2019; Parkinson & Gilling, 2005a). In cases where they felt their employer was unsupportive or their work type was not compatible with family life (such as in offering part-time or flexible working arrangements), they considered other career options (Adam et al., 2019).

For Australian veterinarians who were doing either no veterinary work, or who worked part time 10 years post-graduation, "raising children" was cited as a very important factor by 65% of women and 18% of men (Heath, 2002, p. 470). It is difficult to know how much this factor influenced veterinarians who were doing no veterinary work compared to those who had simply taken up part-time work. In a subsequent survey of the same cohort 15 years post-graduation, caring for family was ranked 5th in importance for those who had opted to leave veterinary work and was less important to those who had left clinical veterinary work (Heath, 2007c). This seems to suggest that

this factor is much more influential in the decision to work part-time, as opposed to the decision to change career. This finding was supported by the RCVS surveys where veterinarians intending to leave the veterinary profession ranked family matters as only the eighth most frequent factor of influence in 2014 (Buzzeo et al., 2014), and 11th most frequent factor in 2019 (Robinson et al., 2019).

Family care is not limited to looking after children and may include caring for other family members including older parents and relations. In addition, schooling options for children and employment opportunities for spouses may be scarce in rural areas leading to the decision to pursue a career in a more urban location (Heath, 2000; Parkinson & Gilling, 2005a). However, despite the focus on family as a factor in leaving jobs or work types, there is also some indication that family is a reason for veterinarians to opt to remain in a job (Hagen et al., 2020) or in farm animal practice (Adam et al., 2019). Hagen et al. (2020) do not elaborate on the circumstances in which family influenced UK veterinarians to remain in a job, however, one respondent in another UK study felt they would have been more settled and therefore more likely to have remained in farm animal practice had they started a family (Adam et al., 2019).

2.2.2.2 Personal and Professional Development

Factors relating to personal and professional development have also been identified as contributing to career changes among veterinarians (Arbe Montoya et al., 2021; AVA, 2019; Buzzeo et al., 2014; Heath, 2007c; Kerr, 1995; Lincoln Institute, 2018; Murray et al., 2005; Osborne, 2009, 2012; Robinson et al., 2019). More specifically, perceiving a lack of career opportunities or opportunities for career development, has been identified as a reason (or potential reason) for veterinarians leaving clinical practice (Heath, 2000, 2007c), leaving production animal practice (Adam et al., 2019), leaving (or planning to leave) the veterinary profession (AVA, 2019; Heath, 2007c; Robinson et al., 2019), disillusionment in practice (Ridge, 2016), and for leaving a first job (Gates et al., 2020).

Around 38% of RCVS members who were intending to leave the UK veterinary profession cited a lack of career opportunities as influential, an increase of one-third since 2010 (Robinson et al., 2019), and

the availability (or perceived lack of availability) of opportunities for career progression has been reported as a key factor influencing whether veterinarians felt their career expectations had been met or not (Vet Futures, 2015a), indicating it has a significant role in a veterinarian's job satisfaction.

In a recent unpublished survey of veterinarians in New Zealand, one-quarter of respondents who were planning to leave their current clinical role for another clinical role reported that lacking a sense of development or fulfilment in their current job was a factor, and this was the most frequently cited factor among respondents (Lincoln Institute, 2018). The second most freqently cited factor "looking for a different experience in clinical practice" was reported by 19% of respondents.

Further developmental aspects were cited by Australian veterinarians who had left the veterinary profession by 15 years post-graduation (Heath, 2007c). A change in interests, wanting "greater challenges" and a "loss of interest in veterinary work" as the first, second and fourth most important reasons for their career change (Heath, 2007c, p. 285). A "lack of career opportunities" and the desire to further their education also featured as important factors (Heath, 2007c, p. 285). A similar pattern was seen among those who had opted to leave clinical practice. For this group pursuing "greater challenges" or further education were ranked equally as the two most important factors, with a "lack of career opportunities" and a "loss of interest in veterinary work" ranked fourth and fifth (Heath, 2007c, p. 285). These findings were obtained via a survey question where participants rated the importance of 15 factors that were pre-determined by the study author. While the ranking may be suitable to assess the relative importance of those factors compared to each other it is possible that the factors the author has chosen are not actually the factors that are most important for participants. For example, the opportunity to rate after-hours or long working hours as a factor was omitted from this survey question so participants who saw this as important did not have the opportunity to say so and it did not appear in the ranking. However, further evidence exists that more positive personal development factors are relevant to veterinarians' career decisions. Pursuing other work interests and opportunities was identified as a reason for Australian veterinarians to

leave clinical veterinary work (Arbe Montoya et al., 2021) and having a new employment opportunity was also highly important for experienced veterinarians who had left production animal practice in North America (Andrus et al., 2006). Developing new interests was also important to Canadian veterinarians who had left clinical practice (Osborne, 2009, 2012) and research veterinarians in the United Kingdom were often introduced to their research career when an opportunity arose and, alongside seeking a new challenge and a more stimulating role, this was the most influential factor in their entry into a research career (Murray et al., 2005). Seeking a new challenge was also important to 44% of RCVS members who were intending to leave the UK veterinary profession (Robinson et al., 2019).

2.2.2.3 Dissatisfaction, Disillusionment, and Other Feelings and Emotions

The feelings and emotions that arise during their work are also thought to influence veterinarians in their career decisions. Adam et al. (2019, p. 3) noted that the positive feelings derived from farm animal work (such as "enjoyment, satisfaction, and even love for their work", having confidence, and perceiving their work had a "positive impact") were significant for veterinarians who had remained in farm animal practice. On the other hand, those who had left farm animal practice cited "dissatisfaction, boredom, and frustration" among their reasons for leaving, although such factors were reported far less frequently than job or personal factors (Adam et al., 2019, p. 3). Stress and disillusionment were the fourth and fifth most frequently cited reasons for Canadian veterinarians to leave clinical practice in 2011 (Osborne, 2012) and negative emotions and thoughts were also reported to influence Australian veterinarians to shift away from clinical practice (Arbe Montoya et al., 2021).

Poor job satisfaction was one factor influencing Australian veterinarians who were intending to leave veterinary work (AVA, 2019). Similarly, in the 2014 RCVS survey of the UK veterinary profession, the most frequent factor selected by veterinarians as contributing to their intention to leave the veterinary profession was "dissatisfaction with veterinary work" (Buzzeo et al., 2014, p. 50). The

second and third most frequent factors for this intention were being "fed up with the way the veterinary profession is going" and "not feeling rewarded/valued" in a non-financial sense (Buzzeo et al., 2014, p. 50). These findings are concerning as they suggest that some veterinarians are experiencing poor job satisfaction and are having negative experiences working in the veterinary profession. However, it is pertinent to note that these are not reasons given by people who have left the veterinary profession, rather those that state an intention to leave. It is impossible to know from this study what participants are referring to when they state dissatisfaction and being fed up with the veterinary profession, highlighting the need for in-depth qualitative data relating to veterinary career changes which would help to clarify these responses and provide detailed insight into the relevant issues. The subsequent 2019 RCVS survey gave some indication of where this dissatisfaction stemmed from as respondents were given additional reasons to choose in their response (Robinson et al., 2019). As a result, "poor work-life balance", "not feeling rewarded or valued (non-financial)", "long/unsocial hours", and "chronic stress" were the four most frequently cited factors contributing to their intention to leave the veterinary profession (Robinson et al., 2019, p. 91).

In addition, examining what factors contribute to employee satisfaction in the veterinary profession may help to determine what factors are leading to dissatisfaction. In their study of New Zealand veterinarians, Shouksmith and Hesketh (1986, p. 144) proposed that the ideal job provided veterinarians with "relatively high levels of material rewards", positive relationships in the workplace, an ability to fully utilise and grow their skills, autonomy in determining "when and at what pace the tasks" are done, opportunities to take part in leisure activities outside of work, and that their job fostered self-respect. Around a decade later, another study investigated aspects of job satisfaction among New Zealand veterinarians (Teekayuwat, 1998). About two-thirds of veterinarians expressed general satisfaction but respondents felt they needed more contact with colleagues in similar roles and also expressed a general desire for more regular hours of work. Factors contributing to job satisfaction included "a professionally challenging job", "enjoyable or interesting work", "ability to balance time on and off the job" and "a good income" (Teekayuwat,

1998, p. 71). These studies are now more than 20 years old, and both consisted mostly of male respondents (70% male (Teekayuwat, 1998) and 88% male (Shouksmith & Hesketh, 1986)). As such, the degree to which these factors are still relevant to New Zealand veterinarians is unknown, particularly given the change in the gender balance within the veterinary profession.

Some international studies have also outlined aspects that contribute to veterinarians' job satisfaction in other countries. Heath (2001a, p. 51) concluded that the main source of job satisfaction for Australian veterinarians was a "successful outcome for the animals and appreciation from the client". In contrast, the sources of dissatisfaction included difficulties with clients, frustration around not being able to work to the best of their ability, and work factors including poor remuneration, working hours, a lack of recognition, and poor practice management (Heath, 2001a). Building strong client relationships was a primary source of job satisfaction among farm animal veterinarians in the United Kingdom (Adam et al., 2019), while for clinical veterinarians in Germany, a "good working atmosphere", a "reasonable salary" and "holidays and leisure time" were the three most important factors that influenced job satisfaction (Kersebohm et al., 2017, p. 7). Overall, "a good working atmosphere" was statistically more significant to the women, while "a reasonable salary" was statistically more important to the men (Kersebohm et al., 2017, p. 7). For women employed as veterinarians, job satisfaction was "mostly associated with the satisfaction with the supervisor" (Kersebohm et al., 2017, p. 3).

A 2018 report carried out by the British Veterinary Association (BVA) recognised that more subtle factors influenced veterinarians' job satisfaction, motivation, and retention within the profession (Begeny et al., 2018). "Feeling valued at work", "having role models", and having a sense of "fitting in" were factors that positively influenced veterinarians' job satisfaction and retention within the veterinary profession (Begeny et al., 2018, p. 6). Job satisfaction was found to be decreased among those who had experienced gender discrimination in the workplace (Begeny et al., 2018).

Some studies also refer to disillusionment as a factor influencing career decisions (Dykes, 2017; Kerr, 1995; Osborne, 2009, 2012; Parkinson & Gilling, 2005b; Robinson et al., 2004). Between 20-30% of Canadian veterinarians report disillusionment among their reasons for leaving clinical practice (Osborne, 2009, 2012). For some veterinarians the disillusionment they felt in their veterinary careers originated from an expectation-reality mismatch (Kerr, 1995; Parkinson & Gilling, 2005b) and a lack of adequate preparation and development of veterinary students has also been suggested as a precursor to some veterinarians opting out of veterinary work (Bell et al., 2018). Although, Tomlin et al. (2010b) reported that veterinary students in the United Kingdom generally had realistic expectations of working hours, remuneration, and after-hours duty, they recognised that the effect of these realities on day to day life may not yet be fully understood.

In a British survey, 41% of veterinarians felt a gap existed between their career expectations and the reality of life as a veterinarian (Vet Futures, 2015a). Those experiencing this mismatch tended to be younger (under 35 years), more recently qualified (less than 15 years), female, and were more likely to express an intention to leave the profession (Vet Futures, 2015a). The three main reasons given for a veterinary career to fall below expectation were: a lack of career progression, level of remuneration, and working hours/after-hours commitments (Vet Futures, 2015a). In light of these findings, a meeting was arranged in association with the RCVS and British Veterinary Association (BVA) to bring together a group of veterinarians (working in clinical, non-clinical, and non-veterinary roles) to discuss and identify possible reasons for disillusionment among veterinary graduates (Ridge, 2016). Disillusionment was deemed by the group to be prevalent among veterinarians in clinical roles (Ridge, 2016). "Lack of opportunities for career development", "insufficient pay" and "long working hours" featured again as some of the reasons for disillusionment (Ridge, 2016, p. 375). However an additional factor, identified as one of the most important, was the "lack of management/support from bosses" and, "unrealistic client expectations" and "unrealistic job expectations" were also thought to be signifcant (Ridge, 2016, p. 375).

Expectation-reality mismatch is one potential source of disillusionment. Robinson et al. (2004, p. 14) describe another pathway to disillusionment which they term "the spiral of disillusionment". The spiral of disillusionment outlines the process whereby negative experiences lead to a lack of confidence and a change in career direction in search of a role where more support is available. The authors developed this explanation in relation to working with large animals however the concept of negative experiences leading to a loss of confidence and a subsequent career change may have relevance in other areas of veterinary work. Disillusionment (resulting from client constraints, animal welfare concerns, being unable to fully investigate and provide care for individual sick animals, and economic factors surrounding the production animal industry) was cited as a factor by 15/44 New Zealand veterinarians who had left roles in rural practice (Dykes, 2017).

2.2.2.4 Physical and Mental Health and Wellbeing

Physical and mental health have been identified as contributing factors in veterinarians' career decisions (Adam et al., 2019; Arbe Montoya et al., 2021; Booth et al., 2020; Dykes, 2017; Kerr, 1995; Lincoln Institute, 2018; Parkinson & Gilling, 2005a; Robinson et al., 2019; Villarroel et al., 2010b).

In 2018, Australian veterinarians who were contemplating a shift away from veterinary work reported that stress and mental health factors were influential (AVA, 2019). Similarly, in a recent (2018) unpublished survey of New Zealand veterinarians, experiencing stress and anxiety was the most frequent reason for veterinarians to be considering leaving clinical practice within the next year (followed by "poor work conditions" and "insufficient remuneration") and was the third most frequently cited factor among those planning to change to a different clinical role (Lincoln Institute, 2018, p. 32). In addition, half of the RCVS members who expressed an intention to leave the UK veterinary profession cited "chronic stress" as a factor and this, along with "long/unsocial" working hours, were the third most frequently cited factors (Robinson et al., 2019, p. 91).

Both physical and mental health issues (including injuries and fear of injury, allergies, exhaustion, fatigue, depression, burnout, and stress) were influential among veterinarians who had left farm

animal practice in the United Kingdom (Adam et al., 2019), veterinarians who had left clinical practice in Australia (Arbe Montoya et al., 2021), and veterinarians who had left the veterinary profession in the United States (Kerr, 1995). The physical health of New Zealand veterinarians has been suggested as a factor in their decisions to leave rural practice, with acute injuries, repetitive strain injuries, and concerns for their safety noted to be influential (Dykes, 2017; Parkinson & Gilling, 2005a). Dykes (2017, p. 26) also suggested that mental health and wellbeing, including "stress, anxiety, and poor coping mechanisms" had a role to play. In the United States, stress and burnout were cited as the second and third most frequent reasons for emergency veterinarians to leave emergency practice (behind unfavourable work schedules) (Booth et al., 2020). In this study, 45% of emergency veterinarians who had worked in emergency practice for more than five years and subsequently left, reported that burnout was a factor in their decision. Stress and burnout have been reported to be more significant to clinical veterinarians than their non-clinical colleagues (Mitchell, 2017).

Where studies have ranked the importance or frequency at which a range of factors influence veterinarians' career decisions, physical and mental health issues tend to be ranked lower than many other factors. For example, Australian veterinarians rated these issues as "not very important" compared to other factors (Heath, 2007c, p. 285). Approximately 16% of RCVS members who were planning to leave the veterinary profession cited mental health reasons (reported as a separate factor to stress, which was much more frequently cited), and fewer than 10% cited physical health issues (Robinson et al., 2019). Similarly, while almost one-quarter of veterinarians who had left rural practice in the United States cited injuries or health issues as a "highly important" factor in their decision, there were ten other factors that were more frequently cited (Villarroel et al., 2010b, p. 861).

Many of the reasons given for changing or intending to change career direction are also factors that could compromise a veterinarians' wellbeing and act as stressors. For instance, long working hours

were among the most frequent reasons for UK veterinarians to be considering a change of career away from the veterinary profession (Robinson et al., 2019) and could also act as a stressor that negatively affect a veterinarians' wellbeing (Gardner & Hini, 2006). In addition, it is pertinent to note that while a factor may be very influential for one individual's career decision, this may not be reflected in the frequency at which it is reported by others. Furthermore, stigma continues to exist surrounding mental health and thus it is possible that the frequency at which it plays a role in veterinarians career decisions could be under-reported. Veterinarians may still be reluctant to report poor mental health, fearing not only the general stigma, but also the potential implications for their ability to register and continue to practise as a veterinarian.

2.2.2.5 Travel

It is common for New Zealand veterinary graduates to gain a few years of work experience in New Zealand before venturing overseas to work and travel, often basing themselves in the United Kingdom (Parkinson & Gilling, 2005a). Most commonly, graduates will undertake small animal locum work, at times leading to an ongoing interest or preference in this area of practice (Parkinson & Gilling, 2005a). It is unknown how many New Zealand graduates decide to stay abroad permanently or longer term and are therefore lost to the New Zealand veterinary profession and the experiences gained overseas may also influence the career decisions of those who return. Parkinson and Gilling (2005a) suggested that few veterinarians return to their previous job after traveling overseas. However, it is now more common for employers (particularly larger employers) to be proactive in encouraging employees to return after spending time travelling and working overseas, holding their job open until they return and sometimes even contributing to their airfare home to New Zealand (J.Weston, personal communication, April 28, 2021).

2.2.3 Factors Influencing Career Changes in the Nursing and Medical Professions

Many of the factors influencing veterinarians' career changes may not be unique to veterinarians. Exploring what factors influence career decisions in other professions offers additional context when

considering veterinarians' career decisions. Indeed, many of the factors arising from the veterinary literature are also relevant to career change decisions of human healthcare professionals including nurses and doctors (Doran et al., 2016; Moloney et al., 2018; Owen et al., 2019; Walker & Clendon, 2018).

Two recent New Zealand studies have identified a range of factors that influenced nurses to leave nursing (Walker & Clendon, 2018) and their intentions to leave or remain in the nursing profession (Moloney et al., 2018). Information regarding the factors that influence the career decisions of New Zealand doctors is scarce but overseas studies offer an insight into some the factors that influence general practitioners to leave general practice in the United Kingdom (Doran et al., 2014; Doran et al., 2016; Owen et al., 2019; Sansom et al., 2018).

Workplace factors were commonly cited by nurses and doctors alike and were the most common reasons for nurses to have left nursing (Walker & Clendon, 2018). The burden of heavy workloads was noted by both New Zealand nurses (Moloney et al., 2018; Walker & Clendon, 2018) and doctors overseas (Doran et al., 2016; Owen et al., 2019). A study of general practitioners in the United Kingdom indicated that two most important factors in their intentions to leave general practice were "intensity of workload" and "volume of workload" and the third most important factor in their decisions to leave was "too much time spent on unimportant tasks" (Owen et al., 2019, p. 3). These factors closely mirrored the factors that the respondents felt would influence them to remain in GP work: "reduced intensity of workload", "longer appointment times/more time to spend with patients" and "reduced volume of work/less administration" (Owen et al., 2019, p. 4). Working hours and the inflexibility of working hours were also relevant (Moloney et al., 2018; Walker & Clendon, 2018), "inconvenient scheduling" (Walker & Clendon, 2018, p. 36), the need to undertake shift work (Walker & Clendon, 2018), and sub-optimal work-life balance (Doran et al., 2016; Moloney et al., 2018; Walker & Clendon, 2018) influenced human healthcare professionals to leave their profession.

Lack of support in the workplace was also of significance to doctors and nurses. Collegial and managerial support (or lack thereof) were relevant to career decisions (Doran et al., 2016; Moloney et al., 2018; Walker & Clendon, 2018) and a culture of bullying (Doran et al., 2016; Moloney et al., 2018; Walker & Clendon, 2018) and even violence (Walker & Clendon, 2018) in workplaces was also noted.

Remuneration was a factor for nurses (Moloney et al., 2018) but was less commonly mentioned by doctors (Doran et al., 2014; Doran et al., 2016; Sansom et al., 2018). Understaffing was a significant factor for nurses (Moloney et al., 2018; Walker & Clendon, 2018) who also noted that poor management influenced their career decisions (Walker & Clendon, 2018). Doctors noted that mismatches between their own, and their employers' values were significant (Doran et al., 2016).

The ability to provide patient-centred care was important for both nurses and doctors (Doran et al., 2016; Moloney et al., 2018; Owen et al., 2019) and former nurses in a New Zealand study suggested that having more time to care for their patients and spending less time on paperwork would have influenced them to remain in nursing (Walker & Clendon, 2018). The degree to which nurses and doctors felt their work was valued and their efforts recognised was important (Doran et al., 2014; Doran et al., 2016; Sansom et al., 2018; Walker & Clendon, 2018) and a lack of, or conflicts around, professional development, career progression, and job-satisfaction were also influential (Doran et al., 2016; Walker & Clendon, 2018).

Doctors in the United Kingdom also reported the significance of organisational changes in the National Health Service (NHS) and the negative representation of doctors in the media, as factors (Doran et al., 2016), and fear of litigation was also relevant (Sansom et al., 2018).

The aforementioned studies mainly identified workplace factors, although Walker and Clendon (2018) noted that family requirements and overseas travel could influence New Zealand nurses to leave the nursing profession. Among New Zealand nurses, the presence of a recession versus strong

economy was also thought to affect the level of retention, with retention rates increasing during periods of economic uncertainty (Moloney et al., 2018). A lack of confidence and being unable to find work that suited their requirements were also noted to be influential (Walker & Clendon, 2018). Both nurses and doctors signalled that issues of wellbeing influenced their career decisions and reported burnout, stress, anxiety, fear, fatigue, exhaustion, injuries, illness, and the physicality required in the job could all negatively influence their wellbeing (Doran et al., 2016; Sansom et al., 2018; Walker & Clendon, 2018).

There are many similarities between the factors identified by nurses and doctors in these studies, and the factors discussed in the veterinary literature. In addition, nurses and doctors identified aspects of their workload, understaffing, fear of litigation, changes in their organisation, and the degree to which they felt they were able to care for their patients (an aspect of their work that they highly valued) as significant factors.

2.3 Conclusion and Research Questions

Multiple factors have been noted to influence the career pathways of veterinarians overseas, however limited knowledge exists around the career patterns and career decisions of New Zealand veterinarians. Australian veterinarians have been noted to shift away from clinical practice over time (Heath, 1998, 2002, 2007c). Among the international studies, there is some indication that different factors contribute career decisions at various career stages and there are some differences (but also similarities) in the factors cited by men and women. Much of the existing analysis of veterinarians' careers has been quantitative in nature, relying on survey data. Surveys focusing on veterinarian's careers and career changes may be subject to response bias, whereby those who are unhappy in their careers may be more inclined to participate. In addition, those who have left the profession are less likely to be included in profession-wide surveys which are distributed via veterinary registration bodies and via other veterinary networks, so non-response bias is also a potential issue. Survey methods are useful for identifying patterns (Sayer, 2010) and how widespread a phenomenon is,

however, they do not allow in-depth exploration of how and why veterinarians decide to change career direction. This is better achieved through qualitative studies (Sayer, 2010) where participants can explain their reasons in more detail and in their own words rather than choosing terms from a list provided by the researcher. Currently, there is a lack of knowledge around the contextual aspects of how and why career decisions are made by veterinarians. The limited qualitative data available suggests that veterinarians' career decision making is multifaceted (Arbe Montoya et al., 2021; Kerr, 1995).

There is a gap in the current knowledge around the careers of New Zealand veterinarians. A need exists for local, up-to-date research to examine the extent to which New Zealand veterinarians change career direction, and the reasons that they opt to do so. This research aims to fill this gap and examines the patterns of career pathways of New Zealand graduate veterinarians and explores their lived experiences of career change using a mixed methods approach. A quantitative approach is used to explore the career patterns among New Zealand veterinarians and an in-depth, qualitative analysis contributes a greater understanding of the factors that influence their career decisions. Two overarching research questions helped to guide the research, and these are presented along with the sub-questions below.

Research Question One

What are the patterns that occur among the career pathways of New Zealand domestic veterinary graduates in the first 10- to 20-years after graduation?

Sub-questions:

- What proportion of individuals from the two cohorts are working as veterinarians at 10- and 20-years post-graduation?

- Of those that remain in veterinary work, what proportion are in clinical versus non-clinical work roles?

- Of those who are involved in other types of work, what sorts of roles do they hold?

- How many work types have the graduates worked in, and how many jobs or roles have they held?

- What are their future career intentions?

- What (if any) are the differences that occur among the career pathways of the two cohorts and between the men and the women?

Research Question Two

What factors influence the career decisions of New Zealand domestic veterinary graduates and how do they describe these factors in relation to their career change experiences?

Sub-questions:

- How do gender, early career experiences, and career stage inform career changes among veterinarians?

Chapter Three: Research Design

The broad aim of this research was to develop an in-depth understanding of the career pathways of New Zealand veterinarians. The research consisted of two stages; firstly, a preliminary qualitative study explored the factors that members of the wider veterinary community believed to be influential in veterinarians' career decisions, and the second stage focused on the career pathways and lived career change experiences among two cohorts of Massey University domestic veterinary graduates. The first phase of this cohort study used an online survey to identify the patterns that occurred among the career pathways of the graduates, and their career outcomes 10- and 20-years after graduation. The second phase of the cohort study used semi-structured interviews to examine the factors and motivations that had influenced these veterinarians in their career decisions.

In this chapter I outline the conceptual framework that underpinned the research, along with the importance of taking a reflexive approach and considering researcher positioning. I then outline the research context and mixed methods research design and explain the rationale for the chosen approach. This chapter also details the methods of participant recruitment, data collection, and data analysis for each stage and phase of the research, and the relevant ethical considerations.

3.1 Conceptual Framework

This research was underpinned by a critical realist ontology and a constructionist epistemology. Ontology determines the nature of reality and epistemology defines how reality can be known and understood (Crotty, 1998; Moon & Blackman, 2014).

Critical realism sits between the naïve realist and the relativist ontological perspectives (Braun & Clarke, 2013; Moon & Blackman, 2014). The naïve realist assumes that a real world exists, outside our constructions of it (Braun & Clarke, 2013) and can be objectively researched (Moon & Blackman, 2014), while the relativist perspective suggests there is no single truth and no real world beyond our constructions and perspectives of it, but rather, reality exists only in our minds and therefore

different people have different versions of reality (Braun & Clarke, 2013; Moon & Blackman, 2014). Through the critical realist lens, a real world is thought to exist (Maxwell, 2012; Maxwell & Mittapalli, 2010), however it is not "objectively knowable" (Maxwell & Mittapalli, 2010, p. 153). Rather, from a critical realist perspective, our knowledge of that world is "a construction from our own perspectives and standpoint" (Maxwell, 2012, p. 5). While acknowledging that a real world exists, albeit one that we cannot fully objectively know, the critical realist perspective also acknowledges that the experiences, perspectives and meanings that influence veterinarians' career pathways are as real to the participants as the observable outcomes of their career decisions (Maxwell, 2012) and they can play a causal role in observed career outcomes (Putnam 1999 as cited in Maxwell, 2012).

The constructionist epistemology that underpinned this research suggests that knowledge is generated by an interaction between ourselves and the world around us (Crotty, 1998). It contrasts with that of the objectivist, which suggests that knowledge exists independently of our constructions, within an object (Moon & Blackman, 2014) and is waiting to be discovered (Crotty, 1998). In this research, the constructionist epistemology acknowledges that the knowledge generated around career change is a co-construction between the researcher and the research participants, resulting from the interplay between them. Following from this, the constructionist view of how knowledge is constructed suggests that "different individuals construct meaning of the same object or phenomenon in different ways; how an individual engages with and understands their world is based on their cultural, historical and social perspectives" (Moon & Blackman, 2014, p. 1172). Although critical realism does not ascribe to the belief that there are multiple realities, it does consider that there can be "different valid perspectives on reality" (Maxwell, 2012, p. 9) that result from constructions of knowledge from these differing standpoints. This contrasts with the subjectivist viewpoint that supports the idea of multiple realities that exist purely within our minds and that knowledge originates purely from within ourselves, independent from the world around us (Moon & Blackman, 2014).

The critical realist view of causation is an important feature of this theoretical perspective. From the critical realist perspective, the cause of a phenomenon (such as a career change), is viewed as a process whereby a combination of events influence each other and this mechanism of influence, along with the context, leads to an outcome (Maxwell, 2012; Maxwell & Mittapalli, 2010; Sayer, 2000). These processes can result from the intersection of structural/material things (such as economic/social/political entities, policies, behaviours, life-events and occurrences) and individual perceptions and beliefs that affect people's views of the world (Maxwell, 2012). This contrasts with a positivist view of causation, where researchers seek regularities and associations between cause and effect, under controlled circumstances (Sayer, 2000). However, in researching social phenomena such as career changes, the circumstances, contexts and other interactions in time and space can also influence or be a part of a causal mechanism and these cannot be controlled for (Sayer, 2000).

Insights into causal processes, such as the factors which result in career change decisions, can be gained via qualitative research methods (in this case interviews) where participants are able to describe in depth how certain events are connected by processes and how some events have an impact on others that follow (Maxwell, 2012). Qualitative research methods also help to account for the contexts which critical realists acknowledge contribute to causation (Sayer, 2000). Critical realists search for "substantial connections among phenomena, rather than formal associations or regularities" (Sayer, 2000, p. 27).

A critical realist viewpoint is compatible with both quantitative and qualitative research and provides a suitable theoretical perspective to inform mixed methods research (Maxwell & Mittapalli, 2010). From the critical realist perspective, quantitative research methods are valuable for descriptive purposes (Sayer, 2010; Zachariadis et al., 2013). In this research, the quantitative aspect of the research described the research participants, the patterns that occurred during their careers, their observable career outcomes, and made comparisons among respondents. That is, the survey helped

to identify *what* the research participants had done during their careers to date, and where they were at in their careers currently.

However, from the critical realist viewpoint, such quantitative methods are less suitable for providing an adequate analysis of causation, as it is difficult to obtain adequate information about contextual and mechanistic features that contribute to causation (Sayer, 2010; Zachariadis et al., 2013). The question of *how* and *why* the career pathways of these veterinarians developed as they did was best addressed using qualitative methods. Developing causal explanations is a strength of qualitative research methods which allow for the mechanisms between events and outcomes to be described within the context in which they occurred (Sayer, 2010; Zachariadis et al., 2013). Qualitative methods help to explain the causal processes that lead to certain outcomes in individual or a small number of contexts (Sayer, 2000, 2010).

3.2 Research Design

Developing a comprehensive understanding of the career changes of veterinarians involved describing their career pathways, the extent to which career changes occur, and the patterns of change (best suited to quantitative methods), as well as identifying the factors and motivations that influenced their career change decisions in the context of their lived experiences (best suited to qualitative methods). A mixed methods approach was chosen as each of the research questions were best addressed using a different method and gathering perspectives both from the wider veterinary community and career changers themselves helped to broaden the understanding of the factors at play in veterinarians' career decisions. A diagrammatic overview of the research design is presented in Figure 3.1.
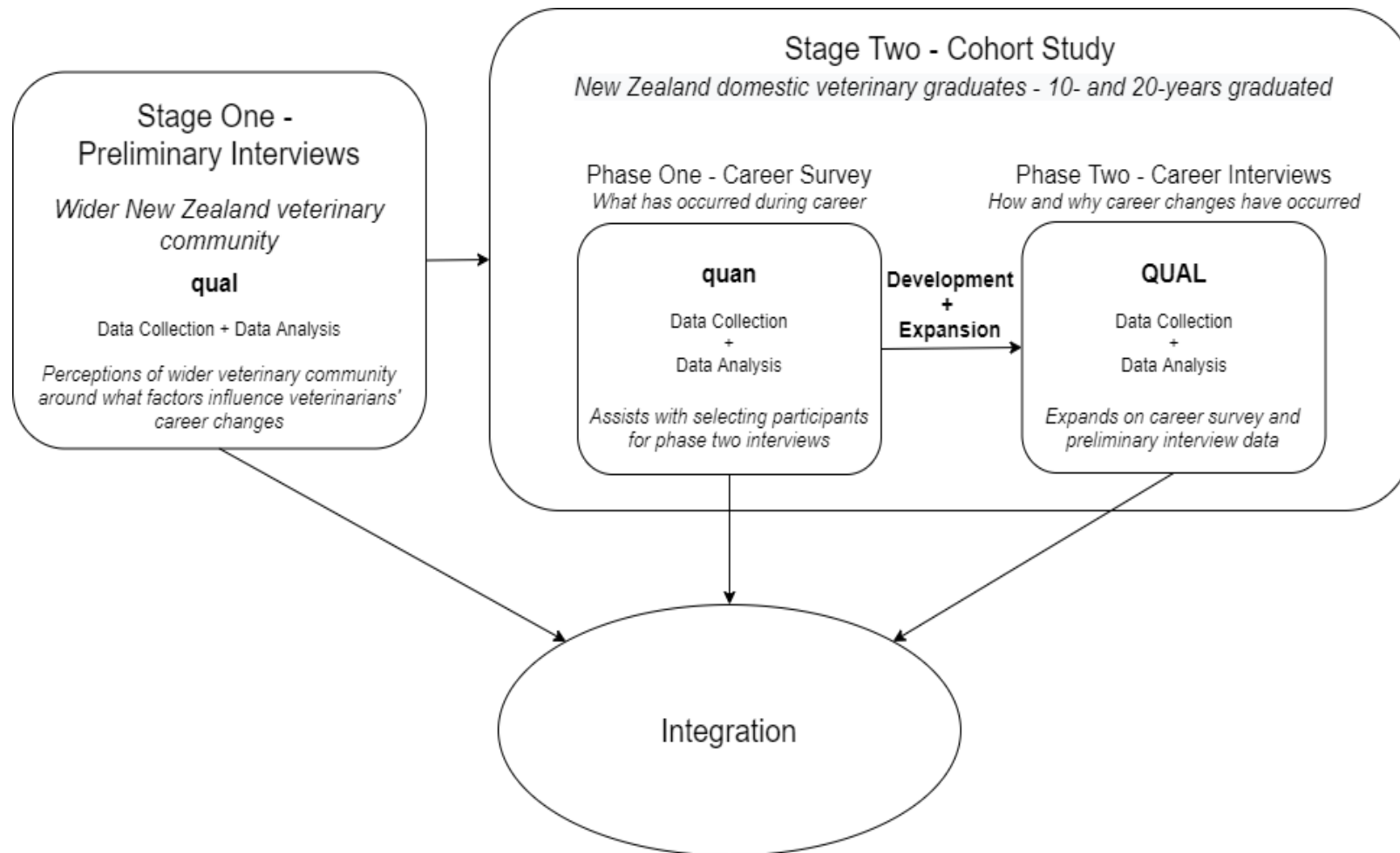
Figure 3.1: Overview of research design. Notation qual = qualitative method, quan = quantitative method, QUAL = qualitative method with capitalisation indicating that qualitative aspect is the main focus of the study (Creswell & Plano Clark, 2011).

Mixed methods research utilises a combination of quantitative and qualitative data collection and analysis methods within a study (Johnson & Onwuegbuzie, 2004; Onwuegbuzie & Leech, 2006) and importantly, integrates the data in some way (Creswell & Plano Clark, 2011). Data integration results in a greater synergy between the research methods, maximising the level of understanding that can be achieved (Nastasi et al., 2010). Using a mixed methods approach allows the strengths of the quantitative and qualitative methods to be combined and their weaknesses to be offset by each other (Creswell & Plano Clark, 2011).

There are a wide range of mixed methods research designs (Creswell & Plano Clark, 2011). For this research, a multiphase design encompassed the preliminary interview study alongside the cohort study. Within the cohort study, a sequential explanatory design was chosen, where an initial quantitative career survey was followed by a qualitative interview phase which aimed to further explain the findings of the quantitative phase (Creswell & Plano Clark, 2011).

The sequential explanatory mixed methods approach used in the cohort study fulfilled two main purposes. The first purpose was development (Greene et al., 1989; Onwuegbuzie & Leech, 2006). The initial quantitative phase assisted in the development of the qualitative phase by helping to identify and scope the characteristics of potential interview participants (Greene et al., 1989) and also by helping to identify what would be discussed in the interviews. The second purpose was expansion (Greene et al., 1989; Onwuegbuzie & Leech, 2006). The quantitative phase of the research used a survey instrument and aimed to describe participants' career pathways rather than explain them (Sayer, 2010). The qualitative phase then expanded on this description. Gathering rich interview data relating to participants' experiences of career changes and the factors and motivations that influenced them in their career decisions provided an explanation of how and why the described career pathways developed as they did. Such an approach allowed participants to describe the complexities and interrelations of factors that influenced their choices and the context in which they made them. This allowed me to develop a deeper understanding of the complexities

surrounding veterinarians' career changes and to identify causal factors in their career decisions through a critical realist lens. Relying purely on survey data to explain the reasons for veterinarians' career changes would not allow for such complexities and contextual details to be considered.

3.2.1 Data Integration

Data integration is an important feature of a mixed methods approach. Not only are multiple methods of data collection and analysis utilised, but for a study to have truly mixed methods the quantitative and qualitative data must be integrated in some way (Creswell & Plano Clark, 2011). The exact mode of integration is tailored to the individual study according to the research questions and aims, and can occur at three levels, the "design, methods, and interpretation and reporting levels of research" (Fetters et al., 2013, p. 2135). In this research, data integration occurred at all three levels.

Firstly, integration occurred at the level of the study design (Fetters et al., 2013). Within the cohort study, the qualitative phase built on the initial quantitative phase. The quantitative phase investigated *what* had happened during the careers of these veterinarians, while the second qualitative phase further built on this by adding *why* and *how* these changes in career occurred and in what context. Exploring the causal elements of participants' career decisions from their own perspective using qualitative interviews fits with the critical realist view that causation can be explained by the processes that occur in a given context (Maxwell, 2012; Maxwell & Mittapalli, 2010; Sayer, 2000).

The second level at which data integration occurred in this study was at the methods level (Fetters et al., 2013). Here, integration was achieved by connecting the quantitative and qualitative data through the participant selection process (Fetters et al., 2013). Participants for the second (qualitative) phase of the cohort study were purposively selected from those who had indicated in the survey that they were interested in participating in an interview. Interview participants were then selected from this group according to criteria relating to their career pathways reported in the

survey, primarily their current work type, but also their cohort, gender and other aspects of their work history. Selecting a subset of survey respondents to participate in the interview phase allowed me to gain further insight directly from the same cohort and to build further on participants' survey responses. Using survey responses to select interview participants with a wide range of experiences allowed me to seek maximum variation among the interviewees and ensured adequate representation from both cohorts and from the men and women.

The third level at which integration of the qualitative and quantitative data took place in this study was at the "interpretation and reporting level" (Fetters et al., 2013, p. 2142). While data analysis for the preliminary interviews and the quantitative and qualitative phases of the cohort study were carried out independently, in the discussion chapter I describe how aspects of the qualitative data from the cohort study explained and further developed an understanding of the career patterns identified in the quantitative phase and the extent to which it did so (Creswell & Plano Clark, 2011). During this phase of integration, I also considered the findings of the cohort study alongside those from the preliminary interviews in order to make comparisons between the factors that the wider veterinary community perceived were important and the factors indicated by cohort members as important in their lived career change experiences.

3.3 Methods of Data Collection

3.3.1 Stage One - Preliminary Interview Study

3.3.1.1 Research Goals and Strategy

The preliminary study (stage one in Figure 3.1) sought to document the perceptions that members of the veterinary community held as to why some veterinarians choose to leave veterinary work. Carrying out a study with members of the veterinary community provided a broader perspective of the factors influencing veterinarians' career decisions and when integrated with the stage two cohort study, allowed comparisons between people's perceptions of why people leave veterinary work, and the lived experiences of career changers.

Short semi-structured interviews were chosen to explore participants' views, allowing them to discuss the factors that they felt were most important for veterinarians who left veterinary work, and enabling them to communicate the more complex aspects, which would have been difficult to achieve in a survey.

3.3.1.2 Participant Recruitment

Participant recruitment took place at the 2018 New Zealand Veterinary Association (NZVA) Conference in Hamilton, New Zealand. The CEO of the NZVA granted permission to attend the conference and interview attendees. An article previously published in *VetScript* (the monthly magazine published by the New Zealand Veterinary Association) announced that I would be at the conference and looking for people to share their views on career change among New Zealand veterinary graduates. Conference attendees included veterinarians working in clinical practice and non-clinical veterinary work, veterinarians whose main work role was outside of the veterinary profession, and non-veterinarian industry representatives who work closely alongside veterinarians (for example, veterinary nurses and representatives from corporate or group practices, and personnel from petfood, medical equipment, and pharmaceutical companies).

The predominant recruitment method was via snowball sampling, whereby participants (or in some cases acquaintances) introduced me to other potential participants. In addition, I approached exhibitors at their stands during quiet times and colleagues who were known to me. I also recruited participants through chance meetings, and one participant approached me and volunteered to participate.

3.3.1.3 Interview Procedure

Twenty-five interviews were carried out during the conference and ranged in length from two to 14 minutes (mean five minutes). The interviews were carried out in a public space and prior to commencing the interviews, participants were provided with an information sheet (Appendix D) and consent form (Appendix E). A semi-structured interview format was used, and participants were

asked "Why do you think people stop working as vets?" What "working as vets" meant was left open. It was hoped that asking this question would elicit a discussion of the factors that participants felt were important in the decision for veterinarians to cease veterinary work, and to consider what working as a veterinarian meant.

Demographic and background information was collected at the time of the interview including each participant's gender, age range, current work type (e.g. clinical veterinarian), type of clinical work (if current work type was clinical), final year of veterinary study, length of time in current work role, and the career transitions which they had made themselves. All but one of the interviews were recorded using a stand-alone digital recorder. One interviewee requested not to have their interview recorded however notes were taken with their permission. Each participant was allocated a pseudonym, which was used in subsequent reporting.

3.3.1.4 Data Analysis Methods

The demographic and background data supplied by the participants was entered into an Excel spreadsheet. Some participants held more than one current work role, so their main work role was recorded as their current work role. For the veterinarian participants, the number of years since completing their veterinary degree was calculated from their final year of veterinary school. Descriptive statistics were used to describe the participant group based on gender, age, current work role, length of time since final year of veterinary study and the career transitions they had experienced during that time.

Interview recordings were uploaded to NVivo 12 (QSR International Pty Ltd.) I initially listened through them to familiarise myself with their content. The interviews were not transcribed due to the preliminary nature of the study and the length of the interviews. A thematic analysis was carried out with each interview recording being coded in turn using a constant comparative method as described by Leech and Onwuegbuzie (2007). Codes were allocated to segments of the interview to identify the factors or meaning behind that segment. Dual coding was permitted where more than

one code could be applied to a segment of data. Each segment of data was compared with previous segments to decide if it came under an existing code. If there were no similar data segments a new code was created. The codes were not determined prior to coding but rather emerged during the coding process (Leech & Onwuegbuzie, 2007). The codes were then grouped into broader themes to summarise the key areas that participants identified as being important factors in a veterinarian's decision to stop doing veterinary work. The identification of these factors helped to inform stage two of the research by highlighting some potentially important factors that needed further exploration, which assisted in developing the survey and interview questions.

3.3.2 Stage Two – Cohort Study

The cohort study focused on the career pathways of two cohorts of veterinarians who had graduated from the Veterinary School at Massey University 10- and 20-years previously. These cohorts were chosen as they had experienced what appears to be a stage in their career when change often occurs, the five to 15-year post-graduation period (Heath, 1998, 2007c). The cohort study aimed to gain insight into the career pathways and career decisions of New Zealand veterinary graduates, including those working within the veterinary profession (either in clinical practice or non-clinical roles), working outside of the veterinary profession, or taking a career break.

The cohort study focused on individuals that had been New Zealand domestic students at the time of enrolling in the Bachelor of Veterinary Science (BVSc) degree. There were two main reasons for this. Firstly, the research was focused on the career pathways of veterinarians in the New Zealand context. International students do not commonly live and practise in New Zealand for long after graduation, in some cases despite gaining New Zealand residency (J. Weston, personal communication, August 2, 2018). Secondly, the 20-year cohort attended Massey University before American Veterinary Medical Association (AVMA) accreditation made Massey's BVSc programme an attractive option for full fee-paying international students, therefore few international students attended the Veterinary School at this time (J. Weston, personal communication, April 28, 2021).

Focusing only on cohort members who were New Zealand domestic students at the time of enrolling in the BVSc programme meant that the cohorts were more comparable and made it more likely that the results of the cohort study would provide information about veterinary careers in New Zealand.

Some New Zealand domestic graduates go on to work overseas, and these individuals were included in the study, as gaining further understanding as to the extent to which New Zealand domestic graduates go on to work overseas and why they choose to work outside of New Zealand is important. Indeed, the New Zealand domestic graduates who participated in the study resided in a range of locations (rural and urban), both in New Zealand and overseas.

3.3.2.1 Cohort Study Phase One - Quantitative Career Survey

Research Goals and Strategy

The goal of phase one of the cohort study was to examine the patterns that occurred among the career pathways of two veterinary graduate cohorts, and to determine the extent to which career changes away from clinical veterinary work had occurred. Phase one focused on addressing the first overarching research question: What are the patterns that occur among the career pathways of New Zealand domestic veterinary graduates in the first 10- to 20-years after graduation?

An online survey was used to gather data on the career pathways of the cohorts. The survey data was used to describe the cohorts, assess how widely career changes occurred within them, identify the patterns that existed among different aspects of their veterinary careers, and make comparisons between the cohorts and between the men and women.

Survey Procedure

In developing the survey, I drew on the literature, the themes identified in the preliminary study, and personal experience in the veterinary profession to brainstorm a series of questions relating to veterinarians' career pathways. The final questions were chosen according to their relevance to the first research question.

Qualtrics (www.qualtrics.com) was used to create and distribute the survey with permission from Massey University ITS (see Appendix G). Hard copies of the survey were also available to be requested by participants and were mailed to participants where a postal address was the only available method of contact. Prior to opening the survey to the study cohorts, it was piloted by seven veterinarians who were not members of the research cohorts. Data from the pilot surveys was not included in the analysis. These veterinarians were in clinical or non-clinical veterinary roles or were full-time postgraduate students. The survey questions were adjusted, and new questions added as a consequence of the pilot. Pilot participants indicated the survey took them around 30 minutes to complete.

The final survey included 70 questions including multi-choice, Likert-scale, checkbox, matrix style, and short answer questions. The survey also asked participants to log their career events (jobs, career breaks etc.) along with the year that each job or event started and finished. Not all questions were applicable to all respondents, who were automatically directed to the questions of relevance to them, based on their responses to previous survey questions. Survey respondents were asked to include their name, to assist with follow-up, although this was optional.

The survey sections included background and demographic information, as well as questions about their first job, employment history, current employment status, current role (including general questions and specific questions for clinical, non-clinical and non-veterinary roles), future career plans, and reflections on their veterinary career to date (Appendix I). In addition, at the conclusion of the survey, participants were asked to indicate their interest in taking part in a future interview and receiving a summary of findings.

Participant Recruitment

The original cohort members were identified through the online Massey graduate database (a public database). The database did not allow New Zealand domestic students to be distinguished from international, Australian domestic, and NZAID students. Therefore, all individuals listed as graduating

in the respective cohorts were included in participant recruitment initially, and those who were not New Zealand domestic students were subsequently identified through the survey. The list of cohort members from the graduate database was cross-referenced with the final year student profiles in the *Ihenga* veterinary school yearbooks for each of the cohorts. In total, there were 145 cohort members identified who graduated as members of these cohorts, 65 in the 20-year cohort and 80 in the 10-year cohort. Two members of the 20-year cohort were deceased, leaving 63 cohort members to invite to participate.

One of the main challenges in gathering perspectives from those who are no longer working in the veterinary profession or who no longer hold veterinary registration, is locating them. However, social and professional networks facilitated contact with those who were no longer working in the veterinary profession. Contact was initiated with cohort members via social media (including Facebook and LinkedIn), through social and professional connections within the cohorts, and from contact details obtained via the Veterinary Council of New Zealand public online register and search engines. Emails were sent to cohort members inviting their participation and included an information sheet (Appendix H) and a link to the online survey. Three participants were approached via mail.

Through these methods of contact, all 80 members of the 10-year cohort were contacted and invited to take part in the research. Seventy-six of the 80 cohort members completed the survey. Of the 63 members of the 20-year cohort, three were unable to be contacted by any of the above means. Overall, 50 members of the 20-year graduate cohort completed the survey. One individual from the 20-year cohort responded that they had not been a New Zealand domestic student and were therefore excluded from completing the survey in its entirety. Survey responses were collected over a five-month period with up to 4 reminders being sent. For the survey phase, submitting a survey implied consent and this was clearly outlined to participants in the information sheet.

Data Analysis Methods

All survey responses were received through the online Qualtrics survey. The final survey data was imported into Microsoft Excel (2016, Microsoft). Responses were de-identified by removing names and email addresses and assigning an identification number to each response. A record was kept of which identification number corresponded to which respondent in a separate file. Overall, there were 109 survey responses from cohort members who had been New Zealand domestic veterinary students.

The data was then formatted where required and each column of data was assigned an appropriate title. A key of column titles was kept as a record of which responses belonged to each survey question. In some cases, additional columns were added, to display a further breakdown of the data in preparation for analysis. Missing data was identified, cross-checked with the original data, and coded.

Descriptive statistics were used to characterise the study population and describe what had occurred during participants' careers thus far. Comparisons were made between the two cohorts and between the men and women in order to identify if there were any significant differences in career pathways or patterns between these groups.

Where appropriate, measures of central tendency were used to help summarise the data. Data was graphed to assist with analysis, and chi-squared tests were used to determine whether differences that were observed between groups (such as the two cohorts or the men and women) were statistically significant. Where appropriate, data was grouped to ensure the expected frequencies with the contingency tables were 5 or greater, to maintain the accuracy of the chi-squared values. Where such grouping was not possible, and contingency tables had expected values of less than five, the Fisher's Exact test was used to assess significance. This analysis was carried out using R software (R Core Team, 2020).

Time-to-event analysis was used to determine whether there were patterns in the timing of leaving the first job or in starting in a non-clinical or a non-veterinary job or role. Kaplan-Meier curves were developed for the 10- and 20-year cohorts and the men and women to show the probability of each group remaining in the first job or starting in a non-clinical or non-veterinary role over time.

Results from the survey are presented in Chapter Five. Responses to several questions from the survey are not reported in this thesis. The omission of this data was due to several factors including: the data being covered in the time-to-event analysis (how long participants remained in their first job) or subsequent interviews (open answer questions relating to respondents' general comments about their career experiences and reasons for considering or not considering future career changes); or the data not directly addressing the research question (the questions pertaining to work schedules, working outside of scheduled hours, frequency of working on-call, benefits received for on-call work, and respondents' reflections on their veterinary careers).

3.3.2.2 Cohort Study Phase Two – Qualitative Career Interviews

Research Goals and Strategy

The goal of the qualitative phase of the cohort study was to explain in depth, the career change experiences of New Zealand domestic veterinary graduates and in particular, the factors and motivations that influenced their career decisions. Semi-structured interviews were used to address the research question: What factors influence the career decisions of New Zealand domestic veterinary graduates and how do they describe these factors in relation to their career change experiences? A sub-question was: How do gender, early career experiences, and career stage inform career changes among veterinarians?

Participant Recruitment and Selection

Seventy-three of the 109 New Zealand domestic survey respondents indicated an interest in participating in a future interview. Due to practical and time constraints it was not possible to interview all of those who had indicated an interest. Purposive sampling was used to select interview

participants based on their survey responses, with the view of including veterinarians who had experienced a wide range of career pathways. Four broad categories of interview candidates were identified relating to their current role. These included those in veterinary clinical work (51 indications of interest), non-clinical veterinary work (9 indications of interest), non-veterinary work (10 indications of interest), and those currently on a career break (3 indications of interest). Initially, due to smaller numbers, all of those who indicated they were in non-clinical work, non-veterinary work, or on a career break were included in a short list of possible interview participants.

Those currently in clinical work were the largest group to indicate interest in participating. Respondents from this group were further categorised into those who were still working in their first job, had only changed workplaces (as opposed to changing to different types of clinical work), had changed to a different type of clinical work, or had experienced more than three types of career transitions. The aim was to invite participants from each of these sub-categories in order to obtain a range of clinical experiences. Other criteria were loosely considered to obtain as much variation as possible among participants within the clinical group including gender, cohort, practice ownership, type of clinical practice work, whether they had children, and whether they had previously taken a career break.

The initial shortlist included 28 participants. Three further participants were invited during the course of the recruitment process in order to fill the identified criteria, leading to a total of 31 invitations to participate. These individuals were emailed an invitation to participate including the information sheet (Appendix L) and consent form (Appendix M) to review. For those who agreed to participate, an interview was arranged at a mutually agreed time and place. Interviews were grouped based on location, allowing me to cover various regions of New Zealand. Participants were based in a range of locations in both the North and South Islands of New Zealand, and overseas, and worked in both rural and urban areas. Three of the individuals recruited under the clinical category, had changed work types between completing the survey and participating in the interview. These

individuals were re-categorised accordingly – two had changed to non-clinical jobs and one was on a career break. The final breakdown of the 25 interview participants who accepted the invitation to participate is presented in Table 3.1, including re-categorisation of those who had changed work type recently.

Table 3.1: Interview participants categorised by gender, cohort (years graduated) and work type

Gender/Cohort	Clinical	Non-clinical	Non-veterinary	Career break	Total
Female	**4**	**3**	**6**	**3**	**16**
10	3	1	1	3	8
20	1	2	5		8
Male	**3**	**4**	**2**		**9**
10	2	1	1		4
20	1	3	1		5
Total	**7**	**7**	**8**	**3**	**25**

Interview Procedure

The interviews were semi-structured and sought to cover participants' experiences in their first job, their subsequent jobs and career changes, their current job, and reflections on their career to date. The interview schedule (Appendix N) included interview questions, possible prompts, and information to include when verbally informing the participant and closing the interview (Jacob & Furgerson, 2012). The semi-structured interview format allowed flexibility to cover the questions in any order, to probe participant responses, and to ask additional questions for clarification as the interviews progressed. The interview questions were designed to focus the participants on their own experiences as much as possible, rather than their perceptions of the experiences of others, or their general opinions.

Prior to beginning the interviews with the cohort members, pilot interviews were undertaken with two veterinarians who were no longer in clinical work. These pilot interviews allowed me to practise my interview technique, to trial the interview questions and assess the responses they elicited, and

to gauge the length of the interviews. The data from these interviews was not included in the thematic analysis.

At the time of the interviews with cohort members, I outlined the research verbally and supplied them with a copy of the information sheet to review again (Appendix L). Written consent was obtained prior to the interview (Appendix M). Twenty-three interviews were carried out face-to-face and an additional two interviews were conducted via Skype video call where the participants were located overseas, or in remote regions. Face-to-face interviews were conducted in a place of the participant's choosing, including in their home or office, or at a local café. With the participant's permission, each interview was recorded to capture the interview accurately and allow for the interviews to be transcribed. Note taking during the interviews was limited to making an outline of the participant's career pathway and noting further questions that arose during the interview. These interviews ranged in length from 22 to 101 minutes (mean 58 minutes).

At the conclusion of the interview, the participants were thanked for their time, and reminded that they would receive a copy of the transcript to review and approve. I also asked if they were willing to further clarify any questions that came up as I reviewed the interview transcripts. In some cases, I did follow up a few points that arose during the interviews, either to further probe something a participant had said or to clarify what they meant. After each interview, I wrote reflective notes that summarised key information about the context in which the interview took place, and some of the memorable points from the interview. I also noted reflections on how the interview went (for instance did I ask a leading question or was there something I should have probed further) and I later returned to these notes to help inform my analysis of the individual interviews.

After the first three interviews, I reviewed the transcripts with one of the project supervisors, to gather feedback on my interviewing technique, and to assess the information elicited from the interview questions. As a result, I added an additional question to the interview schedule which was adjusted as further interviews were conducted.

Data Analysis Methods

The interview recordings were transcribed; four by me and the remainder by a professional transcriber. An amendment to the original ethics application was requested to allow for professional transcription as this had not been included in the original submission. It was not critical that all interviews were transcribed by the same person as the focus was on what the participants said, not on how they said it, such as in conversation analysis, which requires the subtleties of the transcription procedure to be precise (ten Have, 2007). The transcriber signed a confidentiality form (Appendix O).

I checked each transcript while listening to the recording to ensure it had accurately captured what the participant had said. This allowed me to further familiarise myself with the content of each transcript. During this checking process, the transcripts were de-identified by replacing names, locations and other specifics with an appropriate word or phrase to communicate the context and participants were allocated a pseudonym. It was noted during the de-identification process, that many interviews had specificities deeply entwined within the stories told, that could not be fully de-identified without losing significant parts of the story. This was important for me to be aware of while moving forward with the analysis and reporting the findings, to ensure anonymity was maintained. During the transcription checking process, a brief outline was made of the career events of each of the participants as a quick reference, including the factors behind the career changes they made.

The participants were each offered the opportunity to review and amend the transcript if they wished, prior to signing a transcript release form (Appendix P). Some participants opted to make minor amendments, the majority of which related to improving clarity. Some were further de-identified by removing certain details. Where I had noted additional questions or points for clarification, participants had the opportunity to respond to these. This was optional; however, the majority were willing to do so. Participants who had indicated that they wished to receive a copy of

the recording were all offered this at the time of the transcript review. Three interview participants noted a concern that when reading over their transcript, they remained somewhat identifiable to people who knew them, and potentially to other members of the veterinary profession, even after specific details had been de-identified, due to the nature of their career pathway. They were reassured that the transcripts would not be reproduced in their entirety, rather, I would be endeavouring to identify key themes across the dataset, and that selected excerpts would be used to illustrate key ideas. I advised the participants that voiced concern that I would be check any excerpts I chose from their interviews with them before they were published, and all of these participants agreed to continue their participation in the research. They all approved the use of the chosen excerpts. One other participant did not return their transcript release form after several reminders therefore this transcript was not included, leaving 24 interviews for analysis.

Thematic analysis (Braun & Clarke, 2006) was used to develop key themes from the interviews relating to the participants' career experiences and the factors that influenced their career decisions. Thematic analysis is not rooted in a single theoretical approach and is compatible with critical realism (Braun & Clarke, 2006). The process of thematic analysis began with an initial familiarisation with the data (Braun & Clarke, 2006). In addition to checking the transcripts and creating an outline of each participant's career events and the factors that influenced them, I made hand-written notes on hard copies of the transcripts. I noted key words, descriptive codes, and ideas that arose in each interview. I shared two of these initial codings with a supervisor to evaluate my approach and whether the depth of this initial process was appropriate. Together we reviewed two of the transcripts that I had made notes on, and some additional ideas were noted. The purpose of this review was to assess the depth of my interpretation and the process I was using, and to add further depth to the analysis (Braun & Clarke, 2013). After the initial reading and note making, I attempted to summarise the key ideas from each transcript in a few words or short phrases. This was an attempt to focus the key ideas that emerged from each interview and completed the familiarisation process.

The second phase of the thematic analysis was coding the data (Braun & Clarke, 2006). NVivo software (Version 12, QSR International) was used to carry out the formal coding process. The interview transcripts were uploaded, and demographic data was recorded for each interview participant, identified at this stage by their pseudonym. This included the cohort to which they belonged, their gender and their current work type (clinical/non-clinical/non-veterinary or career break). Coding describes the process whereby a code is assigned to segments of data. The code is a word or phrase that represents the idea or meaning behind a segment of data (Saldaña, 2016). Codes can be descriptive, where the meaning is explicit from the participant's words, or analytic, where the code alludes to a deeper meaning that extends beyond that explicitly stated in the data, or a combination of the two (Cope, 2016). The initial coding of data was primarily descriptive in nature while subsequent coding built further on this by developing further analytic codes. The purpose of coding is three-fold and these purposes are described by Cope (2016, p. 379) as "data reduction, organisation and the creation of searching aids, and analysis."

Each interview was coded in turn, with dual coding permitted where segments of data fitted more than one code. Once all the data had been coded, the codes were reviewed to check for repetition and consolidated. These codes were then grouped by an overarching idea that connected them, to develop a theme (Braun & Clarke, 2006). A process of refining the codes, themes, and subthemes took place as the analysis progressed and continued during the process of writing up the themes. This process resulted in six main themes being developed and these are defined and presented in Chapters Six and Seven. Excerpts from the interviews are presented using pseudonyms to illustrate the themes and subthemes. On some occasions when describing a single participants' career story in the text, their pseudonym has been omitted and they are referred to as the participant, to further protect their identity. I omitted their pseudonym when more sensitive aspects of their career stories were reported, or when the information had the potential to be identifying when seen alongside the other excerpts reported under their pseudonym.

What constituted a theme or subtheme was not based on frequency counts, nor was magnitude coding employed. Rather, the process of thematic analysis considered prevalence (both within individual interviews and across the entire data set) but also acknowledged that fewer occurrences of a theme or subtheme within the data does not necessarily indicate that it is less important (Braun & Clarke, 2006). The themes and subthemes developed through thematic analysis revealed something significant about the data (Braun & Clarke, 2006), rather than indicating a numerical hierarchy of importance or suggesting that the themes or subthemes can be generalised in a quantitative sense.

3.4 Researcher Reflexivity and Positioning

It is important to address the embeddedness of the researcher in qualitative research and how the subjectivity of a researcher may influence the research. Assuming a researcher can be completely removed from the research and can act as a neutral observer who can independently interpret what participants have said with complete objectivity is flawed (England, 1994). It is not a realistic goal to eliminate a researcher's subjectivity, which results from their preconceptions, opinions, perspectives, and beliefs that inevitably follow them into the research setting (Braun & Clarke, 2013; Dowling, 2016; England, 1994; Maxwell, 2013). Rather, consideration must be given to how such subjectivities may influence a researcher's interpretation of the data and the conclusions drawn from the research (Maxwell, 2013) through continually evaluating and acknowledging the potential effects of research subjectivities and reflecting on oneself as a researcher, through a process of critical reflexivity (Braun & Clarke, 2013; Dowling, 2016; England, 1994). Researcher subjectivities can influence research design, interactions with participants, and the analysis and reporting of the data (England, 1994).

As part of the critical reflexive process, it is relevant to consider the positioning of the researcher and to be aware of the ways in which this positioning may affect the research (Maxwell, 2013; Whitson, 2017). Exactly how this occurs may vary between individuals. The positioning of the

researcher as an insider or an outsider may affect how they view and interpret the research data (Dowling, 2016). In this research I am an insider, as a veterinarian, a member of the 10-year cohort, and a career-changer. In the information sheet I identified myself as a Massey University veterinary graduate as although members of the 10-year cohort already knew me, most of the 20-year cohort did not. I did not explicitly identify myself as a career-changer in the information provided, although many of those in the 10-year cohort became aware that I had worked outside of the veterinary profession between the time of completing the survey and when the interviews were carried out, as I attended a class reunion. However, they would not have known the detail of the reasons behind this career change. On the few occasions when my career came up organically in general pre-interview small talk, I spoke briefly about what I had done since graduating without elaborating on the factors that had influenced my own career pathway, so as not to influence participants when it came time for them to relay their career stories and the factors that had influenced them.

Participants may have felt more comfortable sharing their views candidly with a fellow veterinarian and this insider status may have facilitated a better understanding of their stories from my perspective, and may have facilitated rapport development (Dowling, 2016). One of the benefits of my experience as a veterinarian was an inherent understanding of the daily life of a veterinarian and the terminology used by participants. On the other hand, it could be argued that some participants would be more forthcoming in their interviews talking to someone that they did not know, or perhaps research participants would have articulated their stories differently, had they been speaking with someone in the position of an outsider (Dowling, 2016).

In addition to insider/outsider status, it is pertinent to consider the power relationships that may occur between the researcher and participants and reflect on how this may influence the research (Dowling, 2016). In this research, the power relationship was deemed to be reciprocal, where myself as the researcher and the research participants were colleagues (Dowling, 2016). There was some potential for a power imbalance between myself and the 20-year cohort who I would consider senior

colleagues, however this was not perceived by me in our interactions. Despite this relatively equal power relationship, the mere presence of myself as a researcher, my characteristics, and the presence of a recording device would have contributed to how participants shaped their telling of their career stories (Wiles et al., 2005) and my positioning as a colleague and researcher likely influenced the way in which participants told their career stories, and the stories they chose to include (Wiles et al., 2005). Taking a reflexive approach to evaluate how my presence and positioning may have influenced participants was important when analysing the interview data.

While I avoided using leading questions and influencing participants that way (Maxwell, 2013), it should be acknowledged that participants may tell stories with a particular purpose and meaning in mind and Wiles et al. (2005, p. 91) suggest that "talk is used strategically" and participants' stories may be shaped not only by their own viewpoint, but also by "the audience's perceived values, expectations, and goals" (Wiles et al., 2005, pp. 91-92). It is important to recognise the co-creation of meaning that occurred between the research participants, and myself as the researcher. Participants told stories relating to clinical practice without the need to further explain technical terms, as we shared an understanding of day-to-day life as a veterinary clinician. As participants had the opportunity to speak in depth over the course of the interview, the context and detail this provided gave me a good sense of their career experiences and the meaning they had created for themselves around their career experiences.

An awareness of how participants position themselves in their career stories also contributes to the analysis as it gives insight into how they portray themselves in the telling of their career stories (Wiles et al., 2005). Participants may position themselves in particular ways within their career stories with respect to the events and experiences they describe. However, participants' narrative positionings were not the specific focus of this research, rather the focus was on how the stories they discussed were meaningful in the context of their own careers. This ties back to the critical realist perspective that underpins this research, whereby an individual's own thoughts and values

are real (Maxwell, 2012) and can have causal effects on what they feel, think, and do (Putnam 1999 as cited in Maxwell, 2012).

While I acknowledged the inevitability of researcher subjectivity, and took a reflexive approach, I also took some measures to reduce any negative effects of researcher subjectivity. I considered how I would pose the interview questions in order to collect rich, in-depth data (Maxwell, 2013). I used open ended questions, encouraging participants to tell their story in their own words and giving them freedom to speak in detail about what they deemed important. I avoided asking questions about specific factors and reasons that were not brought up first by the participant, although I did probe them further to talk in more detail about the factors that they had identified as important to their career decisions. Participants had the opportunity to amend their transcripts for clarity, to ensure that their points had come across as intended (Maxwell, 2013). In addition, during the thematic analysis of the interview data, I analysed all of the data (rather than a selection of it) (Silverman, 2017) and in doing so searched for ideas that did not fit with my preconceptions (Maxwell, 2013).

3.5 Ethical Considerations

This research was carried out in accordance with the Massey University Code of Ethical Conduct. A low-risk notification was submitted for the preliminary study. Each phase of the cohort study was approved by the Massey University Human Ethics Committee (SOB 18/36 and SOB 18/63). The ethical issues that were considered included a potential conflict of interest, risks of harm, informed consent, data storage, confidentiality and anonymity, and reciprocity (Punch, 2006).

Early in the research planning process, consideration was given to whether including the 10-year cohort was appropriate given that I was a member of this cohort. After meeting with the Chair of the Human Ethics committee to discuss this issue and the research, we decided that there were no significant power differentials between myself and my fellow cohort members and therefore there were no potential conflicts of interest.

Consideration was given to the potential risk of harm to participants, to me as the researcher, to the veterinary profession, and to Massey University. The risks to these groups were deemed to be low. The risk of harm to participants was minimised in both phases of the research by ensuring informed consent and maintaining confidentiality. Participants were free to opt out of answering questions they were not comfortable with or to withdraw from the study within a stated timeframe. While the interview questions were not of a sensitive nature, there was a risk that they could bring up difficult memories for some participants. I carried a list of support contacts in case they were required. As mentioned previously in this chapter, participants gave informed consent to participate in this research. Interview participants were given the opportunity to review and amend their interview transcripts before signing the transcript release form (Appendix P). The risk of harm to myself as the researcher was low. Contact was maintained with the project supervisors to mitigate the risks of travelling alone to carry out the interviews.

The risk of harm to the veterinary profession was also considered to be minimal. The CEO of the New Zealand Veterinary Association was supportive of the research, and it was thought that any issues relating to the New Zealand veterinary profession that arose during the research were likely to exist in the profession in other parts of the world. The risk of harm to Massey University was low. Permission was obtained from the Head of the Veterinary School at Massey University (Appendix B) and the Pro Vice-Chancellor of the College of Sciences prior to commencing the research (Appendix A).

Digital data including survey results, interview recordings and transcripts were stored securely on a password protected Massey University computer. In recording the interviews, a standalone digital recorder was used, and recordings were transferred to the Massey computer as soon as possible following the interview. Interview consent forms were stored securely. Identifiable data will be kept for seven years and will then be destroyed.

Only the researcher had access to identifiable data. Participants were not identified during reporting of data. Survey data was de-identified before being viewed by the supervisory team by allocating a unique ID number to data from each participant. Pseudonyms were used to report interview data and where needed; certain details of stories that may indirectly identify individuals were changed. Where there was a concern that interview participants might remain identifiable to supervisory members based within the School of Veterinary Science (despite de-identifying details in the transcript) any discussion of that transcript was carried out with a supervisor based outside of the School of Veterinary Science.

Reciprocity was another ethical consideration. Reflecting on and sharing their career experiences may have been beneficial to participants in terms of giving them a voice and may have been cathartic. Participants may have also valued the opportunity to contribute to this research project and to the wider veterinary profession. At least two participants reflected that talking about their careers during the interview was a positive experience for them and another expressed that their motivation for participating in the research was the care they felt towards the veterinary profession. Participants were thanked for their participation and were offered a summary of the study findings. In addition to this thesis, findings will be disseminated at conferences and in other relevant publications.

3.6 Chapter Summary

This research was designed to develop an in-depth understanding of the career pathways of New Zealand veterinarians. A mixed methods approach was chosen as each of the overarching research questions were best addressed using a different research method.

The research was completed in two stages, the first of which was a preliminary interview phase, which was carried out to gather the perspectives of members of the wider veterinary community as to what factors are relevant in veterinarians' career decisions. This was followed by a cohort study that examined the lived career experiences of two cohorts of New Zealand domestic veterinary

graduates. A quantitative survey method was chosen as the most suitable method to investigate *what* had occurred during the graduates' careers thus far and to identify any patterns among their career pathways. Descriptive statistics and time-to-event analyses were employed to identify such patterns and comparisons were made between the two cohorts and between the men and women. The investigation of the factors that influenced the career decisions of veterinarians was most suited to a qualitative interview approach, where I sought to further explain and expand on the initial survey findings by conducting interviews and thematically analysing participants' career stories to gain an insight into the reasons that factored into their career decisions. Findings from the preliminary study and the cohort study were integrated to broaden the understanding of the careers of New Zealand veterinarians and to compare the perceived reasons for career decisions alongside the lived experiences of career change.

A critical realist ontology and constructionist epistemology underpinned the research. Through the critical realist lens, I considered that the participants' experiences and perspectives on what had occurred during their careers and the meaning they created from such experiences, was just as real and valid as the observable career events and acknowledged that knowledge is a co-creation between the research participants and myself as the researcher. The critical realist's perspective on causality is particularly relevant to this study, whereby career changes were able to be explained by looking at a sequence of events and processes that led to an outcome while also considering the context in which they occurred (Maxwell, 2012; Maxwell & Mittapalli, 2010; Sayer, 2000).

The next chapter outlines the findings of stage one of the research - the preliminary interview study.

Chapter Four: A Preliminary Study

What factors are thought to influence New Zealand veterinarians to leave veterinary work?

The purpose of this preliminary study was to gather insights from members of the veterinary community as to why they believe some veterinarians leave veterinary work. There are many anecdotal discussions as to why veterinarians opt out of clinical work, or the veterinary profession and this preliminary study aimed to formally present these views using a qualitative approach. Interviewing veterinarians (working in clinical, non-clinical and non-veterinary roles), as well as non-veterinarians closely involved in the veterinary profession (such as veterinary nurses, and other industry personnel), provided a broad perspective of the perceptions of why veterinarians opt to leave veterinary work. Considering the views of members of the veterinary community alongside the lived experiences of career changers from the cohorts allowed comparisons to be made between perceptions and actual experiences. The methods relevant to the preliminary study were described in the previous chapter. In this chapter, I outline the demographics of the preliminary study participants and the key themes that were developed from their interview responses.

4.1 Participant Demographics and Background

There were 19 female and six male participants. They ranged in age from their twenties to over 60 years. The participants held a variety of different work roles. There were seven clinical veterinarians, eight non-clinical veterinarians, two veterinarians whose main role was in non-veterinary work and eight non-veterinarians who held various roles within the wider veterinary industry.

Of the seven clinical veterinarians, three worked in small animal practice, one was in mixed practice with a small animal bias, one was in mixed practice with a large animal bias and two were production animal veterinarians. The non-clinical veterinarians worked in industry, practice management, education, and academic/research roles. Of the two veterinarians primarily engaged

in non-veterinary work, one was involved with a local government organisation and the other was farming. Both of these participants noted they also did small amounts of clinical veterinary work; one in production animal practice and the other in small animal practice.

The veterinarian participants had been qualified for between six to 45 years, (mean 19 years, median 18 years) and had experienced a range of career transitions since graduating. Eleven of the 17 participating veterinarians reported having changed workplaces within the same type of work at some stage in their career (such as working as a mixed practitioner in more than one different workplace). Eight veterinarians had shifted from one type of clinical practice to another (for example, from mixed to small animal practice) and nine veterinarians had experienced a shift from clinical veterinary work to non-clinical veterinary work. The transition from non-clinical to clinical veterinary work was less common with two participants reporting that they had made this change. Of the 17 veterinarians, four reported leaving veterinary work for non-veterinary work and three reported returning to clinical veterinary work after a period of non-veterinary work. None of the veterinarians had made the transition from non-veterinary work to non-clinical veterinary work but one participant reported having held multiple non-veterinary roles.

4.2 What Counts as Veterinary Work?

When I posed the question "why do you think people stop working as vets", I deliberately omitted the definition of what I meant by working as a veterinarian in order to gauge participants' perceptions of what veterinary work encompassed. Most participants based their answers in relation to veterinarians leaving clinical veterinary work. The few who acknowledged or made some distinction between clinical and non-clinical veterinary work were predominantly in non-clinical veterinary roles themselves. Diane gave particular consideration as to what working as a veterinarian meant, recognising that veterinary roles exist outside of clinical practice and indeed veterinarians can use their skills in other non-veterinary fields as well. When posed the question "why do you think vets stop doing vet work?" her response began:

"I think a lot of them don't. I think that a lot of vets are leaving what is a traditional clinical practice and finding other ways to use their degrees."

She later made the point:

"Should we be saying just because you've done a veterinary degree you have to practise in . . . veterinary clinical practice for the rest of your life?"

Diane – non-clinical veterinarian – 21+ years qualified

Another participant noted a distinction between veterinarians in clinical practice versus those who go into non-clinical work and their tendency to leave the veterinary profession entirely.

"It tends to be the people who have been in clinical practice and then, it doesn't seem to agree with them. Like, the people that sort of go into research or education or industry don't tend to leave I find."

Angela – clinical veterinarian - <10 years qualified

Having relayed her own experience of a number of career changes including stints in non-veterinary work while also caring for children, returning to clinical work and then moving into non-clinical roles, Diane made the point that throughout all these changes and even during a period of not being registered for some years, there was no point that she had not considered herself to be a veterinarian, suggesting that her identity as a veterinarian persisted beyond being employed in clinical veterinary practice.

"I don't think people stop being vets, I think they become vets of different types and, and people flow in and out of the workforce a lot more than they ever used to, and I'm quite sad actually to hear us saying that oh you know we're lost to the industry. I'm supposedly lost to the industry because I'm not on the tools any longer. But actually I'm, you know I resent being told I'm not a vet any longer and I hear it all the time, 'oh you used to be a vet'…"

Diane – non-clinical veterinarian – 21+ years qualified

4.3 Key Themes

Three main themes were developed, through thematic analysis, to describe the factors that were thought to influence veterinarians to leave veterinary work. These are presented and defined, along with their subthemes in Table 4.1.

Table 4.1: Key themes describing the factors thought to influence veterinarians to leave veterinary work and their definitions and subthemes

Theme	Definition	Subthemes
Workplace- and profession-related factors	Relates to the nature of veterinary work or the nature of individual workplace environments, and the veterinary profession in general. Also includes social interactions in the workplace and financial/business aspects of practice.	Working hours, workload & after-hours Support Remuneration Veterinary practice as a business Career development/ progression Social influences in the workplace
Situational factors	External factors that occur outside of the workplace or work-related factors that may interact with them. They relate to the individual's current situation and provide the context in which a career decision is made.	Opportunities & serendipity Changing priorities Family and children
Personal influences	The personal factors that affect the individual veterinarian. May be a result of interplay between other factors but impact the veterinarian on a personal level. These may include feelings and emotions, desires, health (physical and mental) and wellbeing.	Pursuing a new challenge, developing new interests, & wanting a change Veterinarians' expectations and values Wellbeing

Summaries of each of the subthemes and illustrative quotes are presented in Table 4.2, Table 4.3, and Table 4.4. The subthemes that appear in bold type in each table were among the five most frequently discussed subthemes.

Table 4.2: Workplace- and profession-related factors thought to influence veterinarians to leave veterinary work

Subtheme	Summary	Illustrative Quote/s
Working hours, workload, and after-hours	Long working hours, heavy workloads, work-life balance, and after-hours requirements were suggested to be significant factors. A lack of flexibility in clinical practice and, in some cases, a lack of willingness of employers to create some flexibility around how people work was noted; the lack of flexible working options was also identified as a barrier to returning to veterinary work.	*"For me the key things that will probably stop me wanting to work in clinical practice is after-hours and workload."* *Brendon - clinical veterinarian - <10 years qualified*
Remuneration	Remuneration was a factor that featured prominently, with many people believing this was a significant factor. They recognised that remuneration was low for the amount of work that veterinarians do, the expectations of them, and for their level of education. They also suggested that veterinarians are paid poorly compared with other similar professions, and the perception of relatively low remuneration made other work options look more attractive. It was suggested that higher salaries are available to veterinarians overseas and this leads to many leaving New Zealand. However, participants were divided in how influential they believed remuneration to be. Some participants noted it as a contributing factor but suggested it probably wasn't the main factor. One participant who had changed to non-clinical work clearly stated that remuneration was not a factor in his own decision.	*"I think for what you do and the expectations on you, you don't get paid comparably to other professions that are under that same pressure. We don't have that same pay level which, I mean for me being a vet's not about the money but at the end of the day if you're under that sort of pressure and that's one of the factors that comes into it then I think for some people it would contribute to their decision to leave because there's easier ways to make the same amount of money that you don't have to be on-call and you don't have to have people yell at you and you don't have to make big decisions every day."* *Kimberly – clinical veterinarian - 10-20 years qualified*
Support	The level of support in the workplace was thought to be important in either encouraging or discouraging veterinarians to remain in veterinary work. Participants spoke of the importance of the first job after graduating in gaining positive early experiences and referred to support as being important for new or recent graduates.	*"It also depends on your first job or two outside of vet school. If you have a really good compassionate boss that's willing to mentor you - I was lucky to have one of them - then I think you are more likely to stay in the profession. Whereas if you have some really bad experiences straight off the bat then you're more likely to want to give it up pretty quickly."* *Martin – non-clinical veterinarian - 10-20 years qualified*

Career development and progression	Limited opportunities for career progression and the perception of hitting a career ceiling were thought to contribute to veterinarians exploring other career options. Participants described a scenario of reaching a certain level of experience and realising that there is not a lot more for them to do within their veterinary field. In describing their own experiences or what they had observed, participants suggested that there were various stages during a veterinary career where veterinarians tend to re-assess their career pathways. These included one to two years after graduation (when veterinarians experience an initial learning curve and the realities of working as a veterinarian come to light) and four to five years after graduation (when veterinarians start to question 'where to from here?' and often start their families). From five years post-graduation onwards, (participants referred to five to seven years and 10-11 years) some veterinarians reported they themselves had become bored of clinical practice and were ready for a new challenge, prompting their shift away from clinical work.	*"There's a subset of people that just get to the end of their career - so after 10 years their career taps out, there's nowhere further to go unless you decide to become a specialist."* *Sophie – clinical veterinarian - 10-20 years qualified* *"There was quite a lot of variety and I did change, and I did do different things and I tried to re-invent and I tried to do different stuff all the way through but it just sort of hit a wall I suppose for me, clinical practice - eventually."* *Mike – non-clinical veterinarian – 21+ years qualified*
Veterinary practice as a business	The focus on the financial and business aspects of veterinary practice was thought to be at odds with some veterinarians' values and their reasons for pursuing a veterinary career. Veterinary work was cited as very business-oriented, and it was felt that this could lead to a mismatch in the expectations of veterinary graduates and a potential values mismatch between employees and employers. Several participants discussed the possible implications of increasing corporatisation of the veterinary profession, suggesting that veterinarians, particularly those working in corporate practices, feel under pressure to sell products and services, a potential mismatch with their values and personality.	*"There's a high drive for sales as well, so in a lot of what people sometimes go into that industry for when they get out in reality it's not actually what it's all cracked up to be and there's a different onus. So, a lot of it's more business-orientated than actually welfare and medicine and all those sorts of things."* *Shannon - non-veterinarian in industry and veterinary nurse*

Social influences in the workplace **(client-factors)**	Negative interactions with employers, colleagues and clients, and the culture of the workplace. Bullying and sexism were identified as factors contributing to negative work cultures and were thought to be factors that cause veterinarians to reconsider their future in the veterinary profession. Mismatches between the expectations of bosses or managers and employees was thought to be relevant and generational differences were thought to contribute to this mismatch. Difficulties with clients and managing their expectations around cases and outcomes were identified as factors alongside the potential risk of litigation and client complaints to the Veterinary Council. It was suggested that veterinary practice was becoming more client-focused, and clients had become focused on their rights. Difficult interactions with clients were also noted and dealing with difficult clients was thought to be enough to put some new graduates off veterinary work. Challenges with clients even extended to managing threatening behaviour and such interactions were thought to lead veterinarians to re-evaluate their future in clinical practice.	*". . . the general sort of atmosphere within the particular clinic as well, so staff interactions and things like that too. Because there's definitely some places that are a bit, for want of a better word, toxic and not exactly very supporting, for you know, junior staff members, but I think most places are sort of learning that that's more important now."* *Angela – clinical veterinarian - <10 years qualified* *"I think there's a really solid change in the expectations of clients in terms of the pressures that are put on the veterinarians around . . . the expectation of cases, outcomes, and then you know the potential Vet Council, litigation, the risks that are involved from that perspective . . . I think it's still a factor and probably a fear and a risk in that sense."* *Fleur – non-veterinarian in industry and veterinary nurse*

Table 4.3: Situational factors influencing veterinarians to leave veterinary work

Subtheme	Summary	Illustrative quote/s
Opportunities and serendipity	It was suggested that for some veterinarians, leaving veterinary work is not necessarily a conscious choice but rather the result of an opportunity presenting itself at the right time, leading them away from clinical practice or veterinary work altogether.	*"I never planned to leave, it just sort of happened. Different opportunities presented themselves, you go actually you know what, that sounds really cool. And the opportunities wouldn't have presented unless I was a vet . . . so I think sometimes opportunities present themselves and you take them."* *Erin – non-clinical veterinarian - 10-20 years qualified*
Changing priorities	Some participants suggested that the things veterinarians value most may change over time and a subsequent shift in priorities may influence their career decisions in pursuit of a lifestyle that suits their situation. Changes in family circumstances, the need for self-care and stress management, and placing increased value on achieving a work-life balance that suits their needs were suggested as factors that may lead to a shift in priorities.	*"Lifestyle adaptations, so your priorities change over time or how you want to balance your own life. So sometimes that's in terms of stress management, sometimes in terms of family, and I don't just mean by having kids either, I mean like you might have elderly parents. So other things outside the spectrum of working that dictate how you need to have a balance…"* *Heidi – non-clinical veterinarian – 10-20 years qualified*
Family and Children	There were varying views on the extent to which having children is a factor. The discussion primarily related to female veterinarians and the effect of having children on their careers. Some participants believed that women left veterinary work to have children, whereas others believed the barriers to their return were more relevant. There was some suggestion among participants that it is becoming easier to transition back into practice after taking time out to raise children, however there are barriers that remain. Specifically, a lack of motivation to return to veterinary work – primarily due to prior experiences, inflexibility around working arrangements in clinical practice, and the difficulty in juggling parental responsibilities with after-hours requirements were noted to be relevant, although some felt the focusing on women leaving the profession to have children was misguided.	*"One of the frequent reasons is motherhood, and I don't think its motherhood in and of itself that causes people to leave. I think it's the inflexibility of the profession."* *Amanda - clinical veterinarian - 10-20 years qualified* *"Definitely the focus on women having children is wrong. My friends that have had children, that loved their career, have gone back to work either part time or full time. The friends of mine that did not like being a vet, have had children and it's become a good excuse not to go back to work, but they didn't want to be a vet anymore anyway . . . I just don't think blaming women having kids is - I think that's very narrow focused."* *Sophie – clinical veterinarian - 10-20 years qualified*

Table 4.4: Personal factors influencing veterinarians to leave veterinary work

Subtheme	Summary	Illustrative quote/s
Pursuing a new challenge, developing new interests, and wanting a change	Participants recognised that wanting a change could be the precursor to shifting away from veterinary work. A desire to experience new things and broaden their horizons was noted as a reason for change. Boredom with carrying out routine tasks, and a loss of enthusiasm for veterinary work prompted some veterinarians to go in search of the next challenge.	*"For me, moving into industry, it was just wanting to get into something a little bit different, outside of one building to get out and travel a little bit more and meet more people. So, I didn't get out of veterinary clinical work because I didn't necessarily like it, it was just a little bit more appealing to get out and about and talk to people."* *Martin – non-clinical veterinarian - 10-20 years qualified*
Veterinarians' expectations and values	Several interview participants considered that a mismatch between veterinarians' expectations versus the reality of working as a veterinarian could be a factor. Sources of expectation-reality mismatch were thought to include the shock of the responsibility that suddenly falls on you as a new graduate and the pressure associated with decision-making, the degree to which veterinarians have to deal with people, the emphasis on business aspects of veterinary practice, and the expectation of how, as an individual they are able to cope in certain situations.	*"I think a lot of the young ones not realising the amount they have to deal with people, so not actually being a people person. They're there for the pets but can't deal with the people. I've seen a lot of those, that's why they leave the industry."* *Kelly – non-veterinarian in industry and veterinary nurse*

| Wellbeing | Physical and mental wellbeing were felt to be influential. The physical nature of the work was noted, particularly in dealing with large animals. The nature of large animal practice also lends itself to repetitive tasks and participants noted that physical wear and tear on the body can be a factor, particularly as veterinarians age. In addition, the risk of injury in dealing with large animals was also noted as a factor in veterinarians' decisions to step away from clinical practice.

Overall, participants placed a strong focus on wellbeing issues, suggesting that burnout, emotional/compassion fatigue, stress and feeling under pressure, and becoming dissatisfied or frustrated were relevant for veterinarians who opt out of veterinary work. Participants noted pressure came from employers wanting veterinarians to act as salespeople, time pressures in busy workplaces, expectations from clients around cases and outcomes, and avoiding complaints.

Participants widely believed that the stress of working as a veterinarian was a significant contributing factor for those who decide to leave veterinary work. It arose time and again during the interviews. | *"I think a lot of it has to do with emotional burnout. They're under quite a lot of pressure and as the industry has got busier and busier and there's been more and more focus on clients, and clients are more aware of their rights and can look up diseases and those sorts of things, the pressure on the vets to get things right has got a lot more and there's been a lot more onus on those vets to be doing the right thing and clients will question them a lot more than they used to. So, for a young vet coming out it can be quite daunting. For older vets I think there gets a point where they just have fatigue, and they get a little bit overrun with the same old sort of scenarios and the same problems."*

Shannon – non-veterinarian in industry and veterinary nurse

"The stress. Probably the stress of the job would be the biggest one."

Jessica – non-veterinarian in industry and veterinary nurse |

4.4 Chapter Conclusions

Participants in this preliminary study drew on their knowledge of the veterinary industry, their own experiences in clinical practice, and other veterinarians they had known. In addition, some participants drew on their personal experiences of career change and described the factors that were important to their own career change decisions. It was notable that the veterinarians who referred to their own career change experiences identified additional factors that were not considered by other participants, including the importance of developing new interests, wanting a change, losing enthusiasm for the work, and having other opportunities arise. This indicated that exploring the lived career change experiences of veterinarians in the cohort study would be valuable.

Many participants suggested that multiple factors may be involved in the decision to leave veterinary work rather than just one single factor. Most people spoke about decisions to leave clinical work specifically, and participants collectively identified a broad range of factors that were thought to contribute to this decision. The most frequently discussed factors were working hours, workload and after-hours, remuneration, clients, family situations, and the stress of the job, largely echoing the factors commonly discussed in the veterinary literature and on social media forums. Participants held polarised views on the degree to which remuneration influences veterinarians to leave clinical veterinary work and the degree to which having a family influenced women, hinting at the individuality of career decisions. What may be a significant factor for some, may not be significant to others and certain factors may be more relevant in certain contexts where they interact with other factors.

Wellbeing featured commonly among the interviews. Stress was a factor commonly identified by participants and sources of stress included many of the other factors described. As such, stress was an overarching theme. However, for those who described their own experiences of leaving clinical work, issues of stress, burnout and emotional fatigue were not referred to directly among the main

reasons for their career decisions. They tended to speak more of boredom and wanting something more, seeking flexible work, and new opportunities. While wellbeing has been considered as a separate subtheme it is conceivable that all the other themes contribute to a veterinarian's level of wellbeing. For instance, a lack of support may lead to stress, as may experiencing a values mismatch with an employer. Therefore, wellbeing appears to be important, even when participants do not speak directly of it.

The themes and subthemes identified in this preliminary study were further examined in the second stage of the research – the cohort study. In the qualitative phase of the cohort study, I further explored the role of these themes and subthemes in lived career changes and examined how the different factors relate and interact with each other. In the next chapter I introduce the two cohorts of veterinary graduates and present the findings from the first phase of the cohort study, the career survey.

Chapter Five: Career Patterns Among the Two Cohorts of Veterinary Graduates

In the previous chapter I presented the results from the preliminary study which sought to identify what factors members of the wider veterinary community believed to be of importance to veterinarians' decisions to leave veterinary work. In the current chapter I present the findings of the first phase of the cohort study, the career survey, which examined the lived career pathways of two cohorts of Massey University veterinary graduates. In this chapter I describe the survey respondents and outline the findings that address the first research question "What are the patterns that occur among the career pathways of New Zealand domestic veterinary graduates in the first 10- to 20-years after graduation?" I outline the career pathways of the cohort members by providing information on the first job they held after graduation, their employment history, current work, and future career intentions. In presenting this information I address the research sub-questions including:

- What proportion of individuals from the two cohorts are working as veterinarians at 10- and 20-years post-graduation?

- Of those that remain in veterinary work, what proportion are in clinical versus non-clinical work roles?

- Of those who are involved in other types of work, what sorts of roles do they hold?

- How many work types have the graduates worked in, and how many jobs or roles have they held?

- What are their future career intentions?

- What (if any) are the differences that occur among the career pathways of the two cohorts and between the men and the women?

5.1 The Survey Respondents

5.1.1 Response Rate

In total there were 145 graduates in the target cohorts, 80 from the 10-year cohort and 65 from the 20-year cohort. Within the 10-year cohort there were 64 women (80%) and 16 men (20%) and within the 20-year cohort there were 38 women (58%) and 27 men (42%). Two members of the 20-year cohort were known to be deceased, leaving 143 graduates.

An overall survey response rate of 88% (126/143) was achieved. Of the 10-year graduates, 95% (76/80) submitted a survey response, along with 79% (50/63) of the 20-year cohort. 109/126 of the respondents identified themselves as New Zealand domestic students at the time of enrolling in the BVSc programme at Massey University. One of the 50 respondents from the 20-year cohort indicated that they were an international student and were excluded from completing the remainder of the survey. A further 14 members of the 10-year cohort were full fee-paying international students and two were Australian domestic students. Only those who were New Zealand domestic students were required to complete the main sections of the survey and will be referred to as the respondents for the remainder of this chapter. Of the domestic respondents, 95% (104/109) gave complete or almost complete responses (up to four questions not answered).

5.1.2 Demographics

The demographics of the respondents are presented in Table 5.1. The 20-year cohort had a higher proportion of male respondents (41% - 20/49) compared to the 10-year cohort (20% - 12/60) which aligned with the overall proportions of men and women in each cohort. There was little ethnic diversity among respondents with 88% (96/109) identifying as NZ European. Seventy-two percent (79/109) of respondents (72% of the men and 73% of the women) had children, whose ages ranged from new-born to over 18 years. Respondents had between one and five children (median two). Pre-school aged children 0-4 years comprised 36% of the respondents' children, while 41% were primary

school aged (5-10 years). Just under one-quarter of respondents' children were 11 years of age or older.

Table 5.1: Demographics of the career survey respondents. (Some percentage totals add to > 100 due to rounding)

	Overall n=109 n (%)	10-yr cohort n=60 n (%)	20-yr cohort n=49 n (%)
Gender			
Female	77 (71)	48 (80)	29 (59)
Male	32 (29)	12 (20)	20 (41)
Age			
30-35	46 (42)	46 (77)	0 (0)
36-40	10 (9)	10 (17)	0 (0)
41-45	38 (35)	1 (2)	37 (76)
46-50	10 (9)	3 (5)	7 (14)
51-55	1 (1)	0 (0)	1 (2)
56-60	4 (4)	0 (0)	4 (8)
61+	0 (0)	0 (0)	0 (0)
Ethnicity			
NZ European	96 (88)	51 (85)	45 (92)
Asian	5 (5)	4 (7)	1 (2)
Other European	2 (2)	1 (2)	1 (2)
Māori	1 (1)	1 (2)	0 (0)
NZ European, Māori	1 (1)	1 (2)	0 (0)
NZ European, Asian	1 (1)	0 (0)	1 (2)
NZ European, Other European	1 (1)	1 (2)	0 (0)
NZ European, Māori, Other	1 (1)	0 (0)	1 (2)
Other	1 (1)	1 (2)	0 (0)
Relationship Status			
Married or de facto	93 (85)	50 (83)	43 (88)
Single	14 (13)	10 (17)	4 (8)
Separated or divorced	2 (2)	0 (0)	2 (4)
Children			
Yes	79 (72)	41 (68)	38 (78)
No	29 (27)	18 (30)	11 (22)
Prefer not to say	1 (1)	1 (2)	0 (0)

5.1.3 Background Information

Most of the respondents decided to pursue a veterinary career during their school years with 31% (33/108) making the decision at 10 years of age or under, and a further 45% (49/108) deciding between the ages of 11-17 years. Twenty-four percent of respondents (26/108) decided to pursue a veterinary career at 18 years of age or older.

The factors most frequently identified as important in the decision to pursue a veterinary career were wanting to work with animals, an interest in science, and wanting a professional career (Table 5.2). Where respondents specified that other factors influenced them, these included a desire to work outdoors, wanting a degree that prepared them directly for a job, wanting a career related to farming or agriculture, wanting to work in conservation, wanting a hands-on job that required problem solving, wanting a job that offered variety, and wanting a challenge.

Table 5.2: Factors influencing the decision to pursue a veterinary career. Respondents (n=109) were asked to choose the three factors that were most important in their career choice (out of a list of 10 factors, including other. One respondent selected only 2 factors; therefore, percentage of respondents does not add to 300%.)

Factors influencing the decision to pursue a veterinary career	Frequency of respondents selecting factor as one of most important three	Percentage (%) of respondents selecting factor as one of most important three
Wanting to work with animals	67	61.5
Interest in science	66	60.6
Wanting a professional career	53	48.6
Love of animals	50	45.9
Wanting to help animals	29	26.6
Influenced by meeting/working with a veterinarian	19	17.4
Wanting a financially rewarding career	14	12.8
Wanting to help people	11	10.1
Influenced by parents	9	8.3
Other factors	8	7.3
Total	**326**	**299.1**

Overall, 68% (74/109) of respondents came directly from high school to study veterinary science at Massey University. The remainder participated in a range of activities prior to studying veterinary

science. These included working in other employment, completing another degree or qualification, starting another degree, or travelling or taking a gap year. Information on whether respondents had been offered a place in the veterinary programme on their first, or subsequent attempts was not collected.

Since completing their veterinary degree, 39% (42/109) of respondents had gained (or were studying towards) additional veterinary qualifications. The Master of Veterinary Medicine (MVM) was the most frequently cited qualification (Figure 5.1). Membership of the Australian and New Zealand College of Veterinary Scientists was also frequently reported. This qualification gives "official recognition of a veterinarian's knowledge and experience in a designated field of veterinary science" (Australian and New Zealand College of Veterinary Scientists, 2021, Welcome section, para. 2).
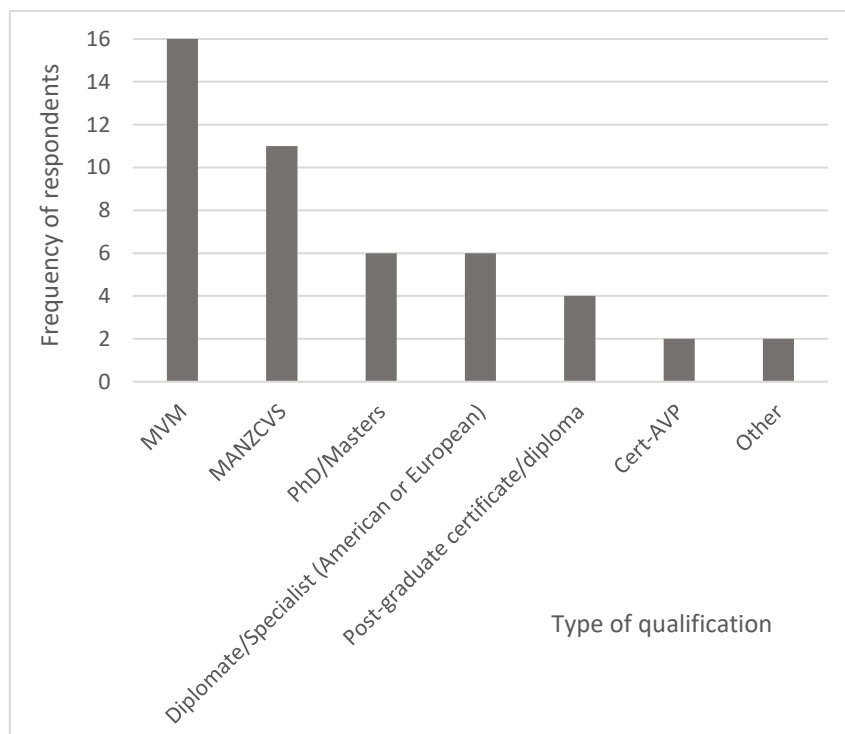
Figure 5.1: Additional veterinary qualifications held or currently studying towards. MVM = Master of Veterinary Medicine, MANZCVS=Membership of the Australian and New Zealand College of Veterinary Scientists, Cert-AVP = Certificate in Advanced Veterinary Practice.

Where respondents reported holding other veterinary qualifications, these were in complementary veterinary therapies including acupuncture and chiropractic, and in Johne's consultancy and tuberculosis testing.

There was a significant difference (p=0.02) in the proportion of the two cohorts attaining additional veterinary qualifications. Despite graduating more recently, 48% (29/60) of the 10-year cohort held (or were studying towards) additional veterinary qualifications compared to only 27% (13/49) of the 20-year cohort. There was no significant difference between the genders overall (p=0.31), or between the men and women in the 10- (p=0.11) or 20-year cohort (p=0.26). However, the women in the 10-year cohort were significantly more likely to have obtained additional veterinary qualifications than women in the 20-year cohort (p=0.004) (Figure 5.2).

Fewer respondents (14% - 15/109) had pursued non-veterinary qualifications since qualifying as a veterinarian, although several held more than one non-veterinary qualification. Overall, there was no significant difference in attainment of additional non-veterinary qualifications between the cohorts (p=0.48) and the proportion of men (16% - 5/32) and women (13% - 10/77) holding or studying towards additional non-veterinary qualifications was similar (p=0.76). A comparison by cohort and gender is presented in Figure 5.2, however, the differences in attainment of non-veterinary qualifications among these groups were not statistically significant.
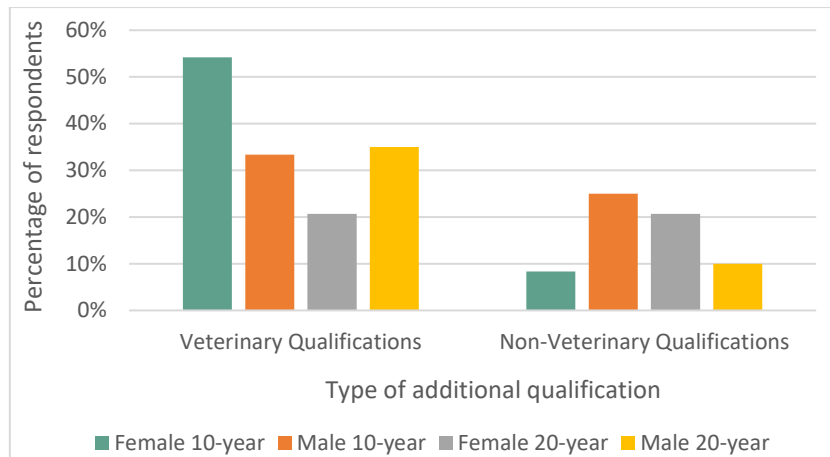
Figure 5.2: Percentage of men and women in each cohort holding or studying towards additional veterinary or non-veterinary qualifications

Respondents held a range of non-veterinary qualifications, many relating to business and education and these are presented in Table 5.3.

Table 5.3: Frequency of respondents holding (or studying towards) non-veterinary qualifications at a given level of the New Zealand Qualifications Framework (New Zealand Qualifications Authority, n.d.) Some respondents held qualifications at more than one level, and others held more than one qualification at the same level. In this instance each of the qualifications are listed but multiple qualifications at the same level are counted only once.

Qualification (NZQF level)	Frequency of respondents holding at least one qualification at a given level	Areas of qualification
Certificate (L1-6 or another certificate)	7	Early childhood education, adult education, small business management, business, demand-driven planning, sustainable nutrient management, Mata ā Ao Māori, and pharmaceuticals
Diploma (L5-7)	3	Web development, graphic design, agribusiness
Graduate Certificate (L7)	1	Educational studies (higher education)
Graduate Diploma (L7)	2	Adult education and training, sustainable practice, teaching (secondary)
Bachelor's degree (L7)	1	Business studies
Post-Graduate Diploma (L8)	2	Business and administration (x2)
Masters (L9)	3	Business administration, osteopathy, research bioinformatics, professional practice
Other qualifications	3	Photography, ruminant nutrition, production and inventory management
Total	22	-

5.2 The First Job After Graduation

5.2.1 First Job Type and Location

Ninety-five percent (104/109) of respondents began their career in clinical veterinary practice. Of the five who did not, three went straight into an internship or residency programme and two started in a non-veterinary role. One of those who started out in a non-veterinary role did go on to work in both clinical and non-clinical veterinary roles, while the other has never worked as a veterinarian. Most respondents began their careers in rural or small-town New Zealand, shown in Figure 5.3. Both respondents who started a non-veterinary job after graduating were based in an urban or city area of New Zealand.
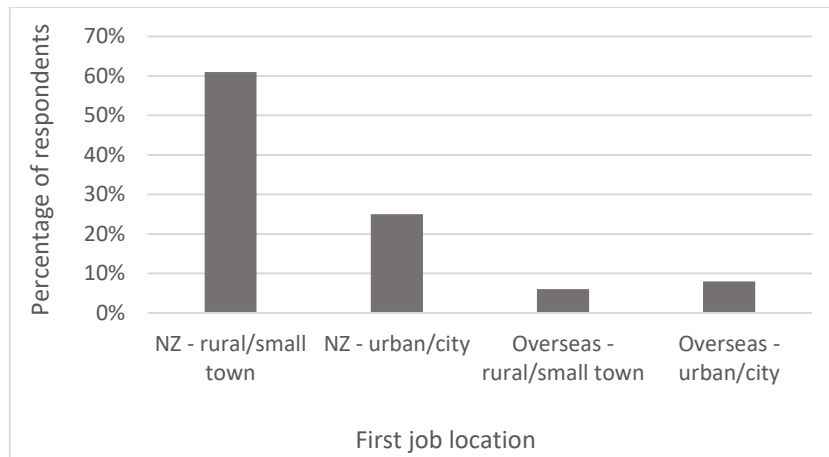
Figure 5.3: Location of the first job after graduation (includes all work types)

The location of the first job differed significantly between the two cohorts (*p*=0.003), with 29% (14/49) of the 20-year cohort working overseas in their first job, compared with only 5% (3/60) of the 10-year cohort (Figure 5.4).
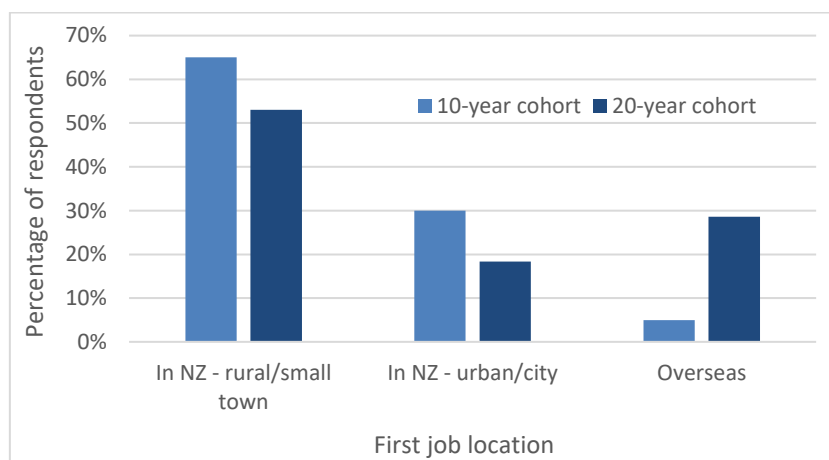
Figure 5.4: First job location (all work types) - comparison by cohort

In addition, the location of the first job differed significantly between the men and women (*p*=0.02), with 78% (25/32) of the men starting their careers in rural or small-town New Zealand, compared with 52% (40/77) of women (Figure 5.5). In contrast, there was no significant difference in the *current* job locations when comparing the men and women (*p*=0.25).

Figure 5.5: Comparison of the location of the respondents' first job after graduation and the location of their current job by gender (including all work types)

5.2.2 Timing of the First Veterinary Job Offer

Overall, 58% (63/109) of the respondents had been offered their first veterinary job prior to completing their final year of veterinary studies[4]. A further 19% (21/109) received their first job offer in December or January, and the remaining 22% (24/109) in February or later. One respondent had never worked in a veterinary job.

There was a significant difference (p=0.001) between the two cohorts in the timing of their first veterinary job offer. Almost three-quarters (44/60) of the 10-year cohort had received veterinary job offers prior to completing their final year of study compared to 40% (19/48) of the 20-year cohort. A further 35% (17/48) of the 20-year cohort did not receive a job offer until February or later (Figure 5.6).

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[4] In New Zealand the final year veterinary students complete their studies in November.
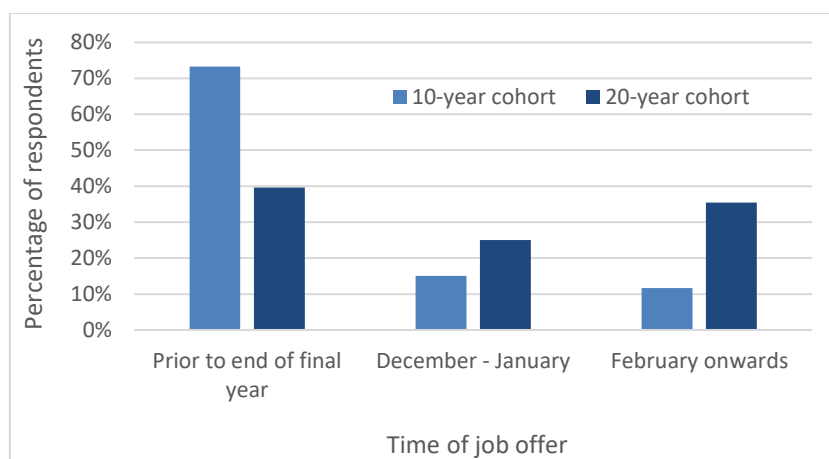
Figure 5.6: Time period when respondents were offered their first veterinary job after graduating - comparison between cohorts

However, there was no significant difference in the timing of the first job offer between the men and the women, either overall (p=0.71) or within the 10-year (p=0.49) or 20-year (p=0.39) cohorts, although the women in the 20-year cohort reported having significantly later job offers than the women in the 10-year cohort (p=0.003).

Most respondents started their first veterinary job in December or January after completing their final year of study (60% - 64/107, two respondents did not answer this question) and the remaining 40% (43/107) started their job in February or later. The most frequent reasons for not having started their first job prior to February was not having had a job offer at that stage or taking a break. Some respondents had secured jobs but were not due to start until February or later, and others had yet to start applying for jobs, took time out to travel, or cited other reasons.

5.2.3 Remaining in the First Job at 10- and 20-Years Post-Graduation

Eleven percent of respondents (12/107) reported that they were still working in their first job, including one member of the 20-year cohort. Two cohort members (from the 20-year cohort) did not answer this question. On closer inspection of the work history data, seven respondents who stated they were still in their first jobs indicated they had held different roles during this time, presumably within the original workplace. As expected, a greater percentage of the 10-year cohort members

(18% - 11/60) remained in their first job at the time of the survey, compared with the 20-year cohort (2% - 1/47) (*p*=0.008).

5.2.4 Time to Leaving First Job or Role – Time-to-Event Analysis

Time to event analysis was used to determine the probability of the respondents remaining in their first job or role over time. Respondents provided their employment history including each job (or role) they had held and the year in which they started and finished. The time to the event (in this case leaving first job) was calculated from this data with cross-reference to respondents' indications of whether they were still working in their first job. Of the 109 respondents, 103 provided full employment history data. An additional respondent provided information about the jobs held but did not provide start and finish dates. For the purpose of this time-to-event analysis, where respondents indicated they had held more than one role within in their first job, time to leaving the first role is included in the time-to-event analysis.

The time to leaving the first job or role was calculated by subtracting the year the job started from the year the job ended. In New Zealand, the final year of veterinary studies concludes in November each year and some graduates go on to begin their first job in December of the same year. For the purpose of analysing the work history data, where respondents had indicated they began their first job in the same year they completed their final year of study, the start date was adjusted to the following year, which was the year of their graduation.

Two respondents who had indicated that they were no longer working in their first job had not provided a complete work history. However, they were included in the time-to-event analysis by integrating their responses from a separate survey question in which they indicated they had remained in their first job for 1-2 years. They were each recorded as leaving their first job after one-and-a-half years.

The Kaplan-Meier plot for time to leaving the first job or role is presented in Figure 5.7. Sixty-two percent (95%CI 53-72) of respondents remained in their first job for at least one year and 19% (95%CI 13-28) of respondents remained for at least three years (Appendix J).
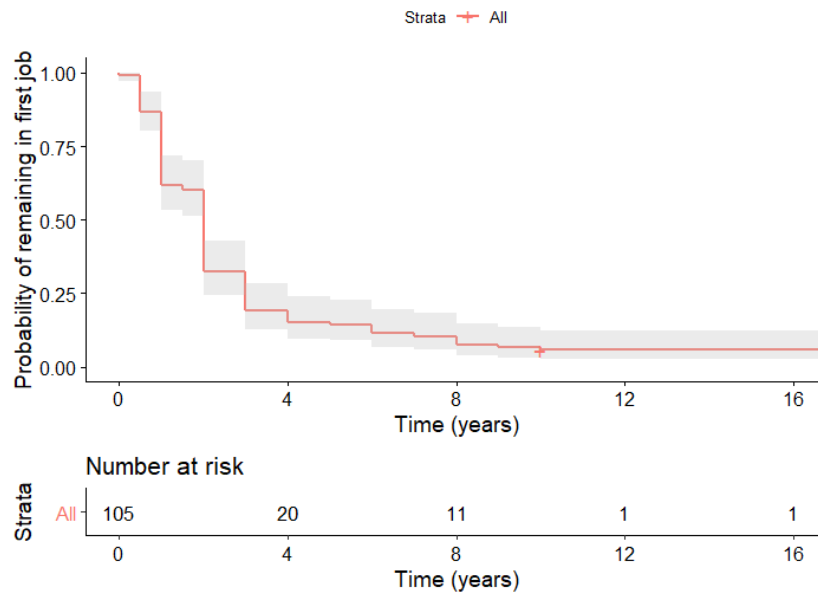
Figure 5.7: Kaplan-Meier curve showing the probability of respondents remaining in their first job or role over time. Respondents who had not left their first job/role at the time of the survey were right censored and this is denoted by the crosses on the plot. The grey shading accompanying the survival curve shows the 95% confidence intervals.

As seen in Figure 5.8, the pattern of leaving the first job was similar between the two cohorts and 62% of both the 10-year cohort (95%CI 51-76) and 20-year cohort (95%CI 49-77) remained in their first jobs or roles for at least one year. The 10-year cohort had a slightly higher probability of remaining in their first jobs for two years or longer (Appendix J).
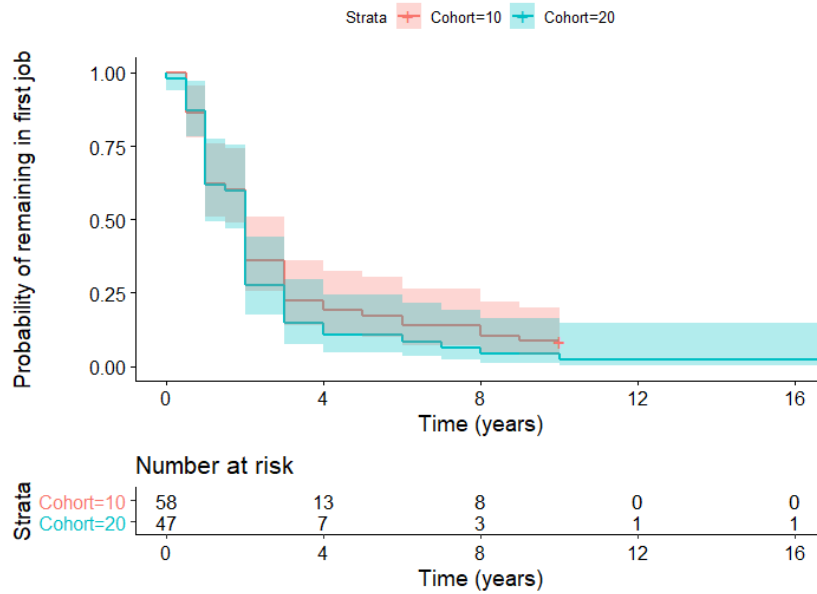
Figure 5.8: Kaplan-Meier curve showing probability of remaining in first veterinary job over time – comparison between the cohorts

The probability of remaining in the first job for at least one year was similar for the men (60% - 95%CI 45-80) and women (63% - 95%CI 53-75) (Figure 5.9). Beyond the two-year time point, the men had a higher probability of remaining in their first jobs or roles at each subsequent time point compared to the women and a larger proportion of the men (30% - 95%CI 17-52) remained in their first jobs for at least three years compared to the women (15% - 95%CI 8-25) (Appendix J). The effect of cohort and gender on the time to leaving the first job varied over time (*p*=<0.001), meaning the Cox proportional hazards model (used to assess how different covariates effect the time-to-event (Kumar & Klefsjö, 1994)) does not hold. Therefore, the differences between the men and women, and the cohorts, should not be considered alone, without considering time as an interaction factor.
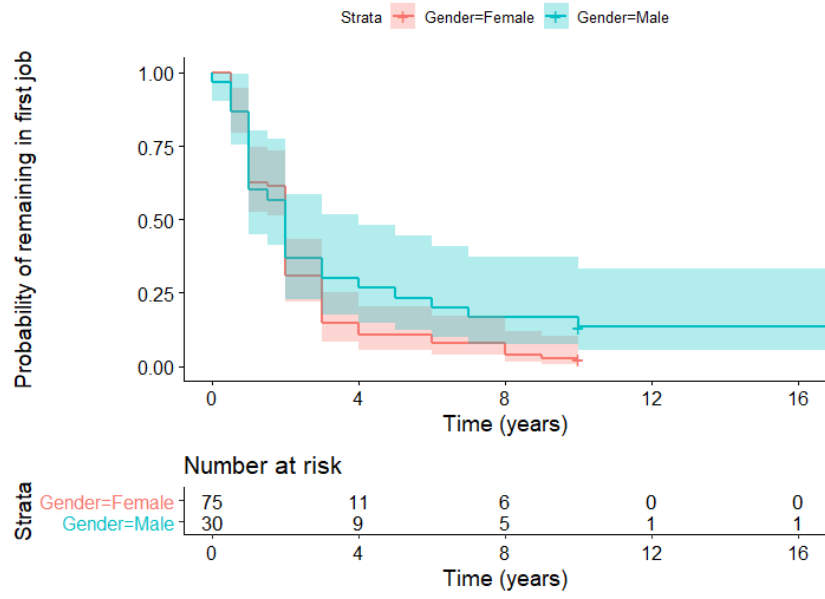
Figure 5.9: Kaplan-Meier curve comparing probability of remaining in first job or role over time - comparison between the men and women

5.3 Employment History

The veterinarians in this study reported holding a range of jobs and roles during their careers so far. They also reported the time they had spent in other career activities including volunteer work, undertaking clinical work on their own farm, working as a veterinarian overseas, periods of locum work, completing internships and residencies, and taking career breaks.

5.3.1 Number of Work Types Held – Clinical/Non-Clinical/Non-Veterinary

The work types held by veterinarians can be classified into three broad categories – clinical veterinary work, non-clinical veterinary work, and non-veterinary work. Of the 105 respondents who reported the work types they had held, 70 (67%) had worked within one work type only. A further 28 (27%) had worked in two of the work types and 7 (7%) had worked in all three.

5.3.2 Career Transitions

The types of career transitions respondents had made are presented in Table 5.4. The focus was on whether they had made such a transition, rather than how many times they had made each type of transition. The three most frequently reported transitions were changing workplaces within the same type of work, changing from one type of clinical practice to another (for example from mixed practice to companion animal practice), and changing from clinical to non-clinical veterinary work.

Table 5.4: Frequency and percentage of respondents experiencing each type of career transition at least once. Respondents were asked to report all the career transitions that they had made therefore total frequency is >109 and total percentage is >100.

Career Transition	Frequency of respondents (n=109)	Percentage (%) of respondents
Workplaces within the same type of work	75	68.8
One type of clinical practice to another	49	45.0
Clinical veterinary to non-clinical veterinary work	24	22.0
Clinical to non-veterinary work	17	15.6
One type of non-clinical work to another	5	4.6
Non-clinical to clinical veterinary work	5	4.6
Non-clinical work to non-veterinary work	3	2.8
Did not provide a response	3	2.8
Non-veterinary work to clinical veterinary work	2	1.8
Non-veterinary work to non-clinical veterinary work	2	1.8
One type of non-veterinary work to another	0	0
Total	**185**	**169.8**

5.3.3 Number of Jobs or Roles Held to Date

The median number of jobs/roles held was four (mean=4.3, min=1, max=8). The number of jobs/roles held did not differ significantly between the cohorts (p=0.20), between the men and women (p=0.95), or when comparing the men and women within or between the cohorts. The overall cohort and gender comparisons are presented in Figure 5.10 and Figure 5.11.
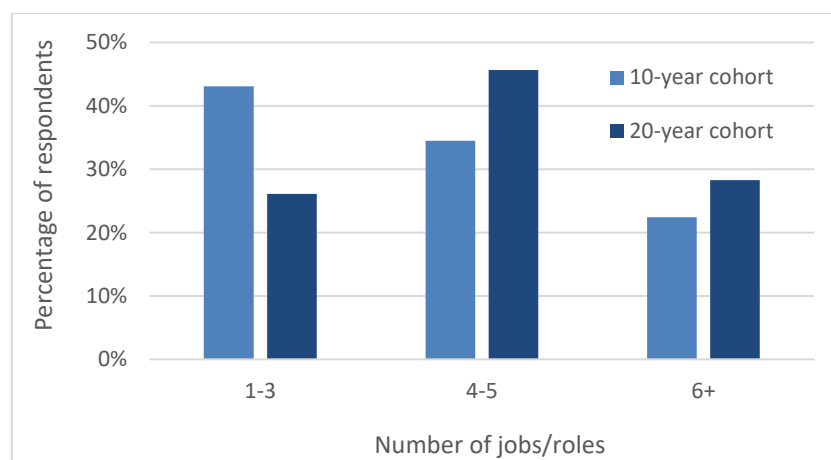
Figure 5.10: Number of jobs/roles held (all work types) - comparison by cohort
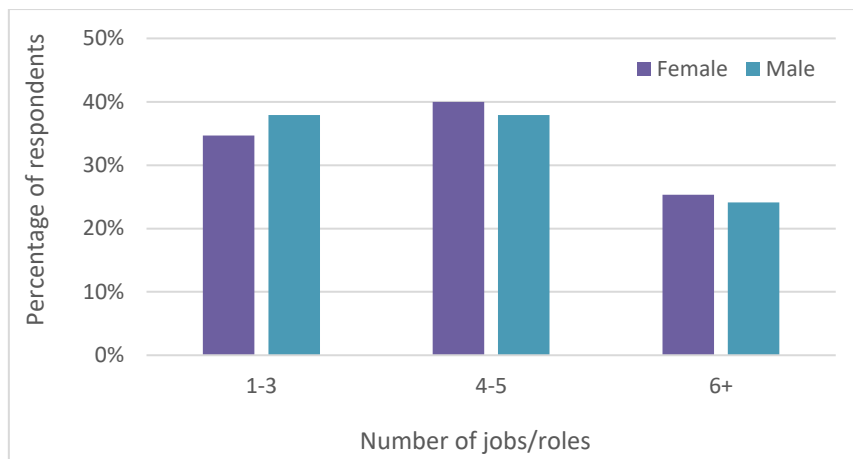
Figure 5.11: Number of jobs/roles held (all work types) - comparison by gender

Several assumptions were made when working with the employment history data to determine the number of jobs or roles held. Clinical, non-clinical, and non-veterinary roles were all included in the job count and where respondents held different roles within a workplace these were counted separately. Where respondents reported that they did clinical work on their own farm or stated other job types, this was counted as a job. Respondents were asked to record periods of working as a locum as one job. Instances where respondents reported working as a veterinarian overseas were included as separate jobs except where multiple jobs were held within a single year. This was deemed likely to be locum work and was counted as one job. Career breaks for any reason were not included among the job count. Two respondents indicated they held three different jobs in less than one year. In these instances, it was assumed that these respondents were involved in locum work, and these were counted as a single job. The non-veterinary jobs held by the individual who had never worked as a veterinarian were included in the count. Assumptions were also made in some cases about whether respondents had returned to the same job or started a different job after a break, as this was not clear in all cases. For respondents where this was not clear, it was assumed that they returned to their same job after a period of paid parental leave. Similarly, where respondents had recorded a career break for looking after children that was one year or less in length, it was assumed they returned to the same job unless otherwise stated.

5.3.4 Time Spent in Jobs/Roles – Comparisons by Work Type and Type of Clinical Work

The mean number of years spent in a job or role was similar across the clinical (3.7 years), non-clinical (3.8 years) and non-veterinary (3.7 years) work types. The calculations of job/role length included the length of time in the current job to date. A comparison of the length of time spent in the different types of clinical practice is presented in Figure 5.12. Where respondents reported that they were still in their first job but had held different roles during this time, each of the roles were counted separately. The mean length of time spent in small animal, mixed animal and equine clinical jobs or roles were similar at 3.5, 3.4, and 3.6 years respectively and the median time spent in each of these types of clinical practice was 2 years. In contrast, the mean time spent in large animal jobs was 5.7 years, with a median of 4 years.
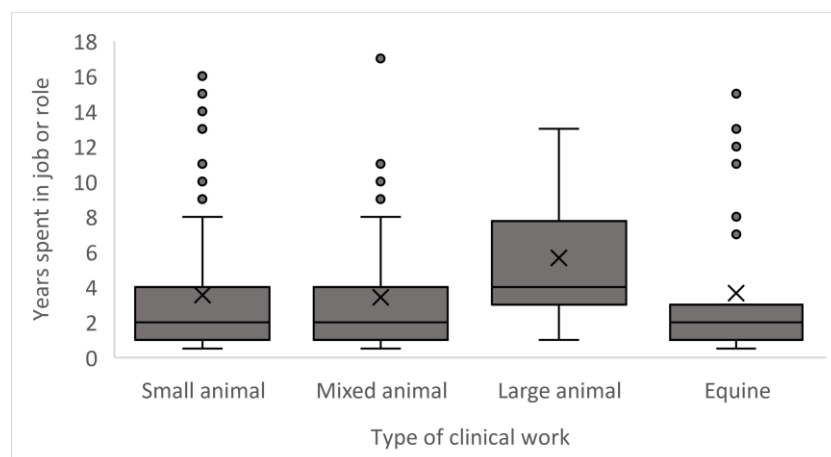
Figure 5.12: Comparison of length of time spent in jobs or roles across the different types of clinical work (including current jobs to date)

5.3.5 Work Types Held at 10-Years Post-Graduation – Comparing the Two Cohorts

The type of jobs (or roles) held by respondents at 10 years post-graduation did not differ significantly between the two cohorts (p=0.64), although a greater proportion of non-clinical roles were held by the 10-year cohort, and a greater proportion of non-veterinary roles were held by the 20-year cohort (Figure 5.13).

The jobs or roles held by the respondents at 10 years post-graduation were extracted from the employment history data they provided and were grouped into categories. I opted to use the employment history data for both cohorts to make comparisons between them (rather than using the information supplied by the 10-year cohort on their current work type in a subsequent section of the survey). Carrying out clinical work on their own farm and working as a locum in New Zealand were included within the clinical category, and a separate category was maintained for those who were working as a veterinarian overseas. Five respondents from the 20-year cohort, and nine respondents from the 10-year cohort held two jobs or roles in the tenth-year post-graduation and both were included in the analysis. In total there were 117 jobs held by the 103 respondents who supplied a complete work history. As such this analysis relates to the proportion of the jobs or roles held in the different categories of work types, rather than the proportion of respondents in each work type.
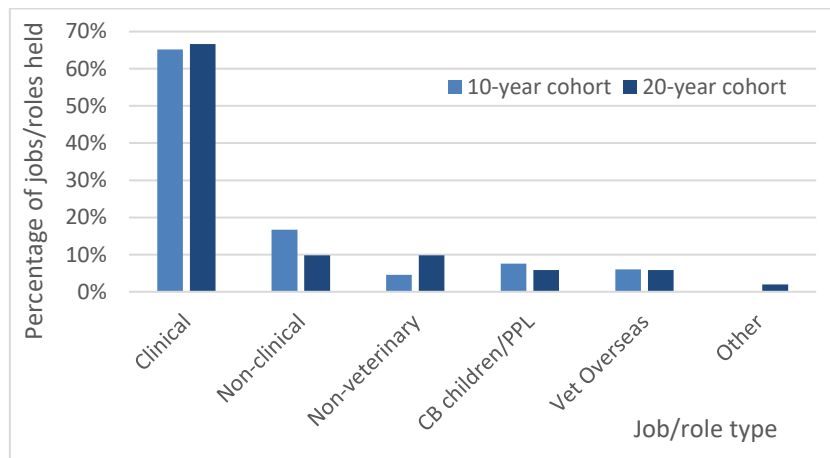
Figure 5.13: Type of job or role held at 10 years post-graduation - comparing the 10- and 20-year cohorts. Some respondents held more than one job at 10-years post-graduation, and both are included. CB-children refers to taking a career break for the purpose of caring for children, and PPL refers to paid parental leave.

5.3.6 Time to Event Analysis - Starting a Non-Clinical or Non-Veterinary Job or Role

The following time-to-event analysis considers the probability of respondents starting their first non-clinical veterinary or non-veterinary job or role over time. The time to starting in a non-clinical or

non-veterinary job or role was calculated from the employment histories provided by subtracting the year of graduation from the start date of the first non-clinical or non-veterinary job or role held.

Non-clinical and non-veterinary jobs were grouped together to represent roles outside of clinical veterinary practice, however, starting in a non-clinical or non-veterinary role did not necessarily equate to leaving clinical practice as some veterinarians held clinical and non-clinical roles concurrently, while others later returned to clinical work. Overall, 11 respondents who started in a non-clinical or non-veterinary job returned to some form of clinical work (including clinical work on their own farm), 24 did not return to clinical work, and four held concurrent roles in both clinical and either non-clinical or non-veterinary work. One respondent who returned to clinical veterinary work after a period in non-clinical work, later went on to hold another non-clinical role (concurrently with a clinical role). Similarly, two respondents held non-veterinary jobs, then returned to clinical veterinary work, before resuming non-veterinary work later. The time-to-event analysis includes only the time to the first non-clinical or non-veterinary role and does not consider the fact that some respondents later returned to clinical veterinary work, either temporarily or permanently and this should be taken into consideration when interpreting the time-to-event analysis.

The Kaplan-Meier plot of the time to starting a non-clinical or non-veterinary role is presented in Figure 5.14. Individuals who had not started a non-clinical veterinary or non-veterinary job or role at the time of the survey were right censored to indicate they had yet to experience the event. At five years post-graduation, 18% (95% CI 10-25) of respondents had started in a non-clinical or non-veterinary role. This increased to 28% (95% CI 19-36) at 10 years post-graduation and 43% (95% CI 30-54) by 20 years post-graduation (Appendix J).
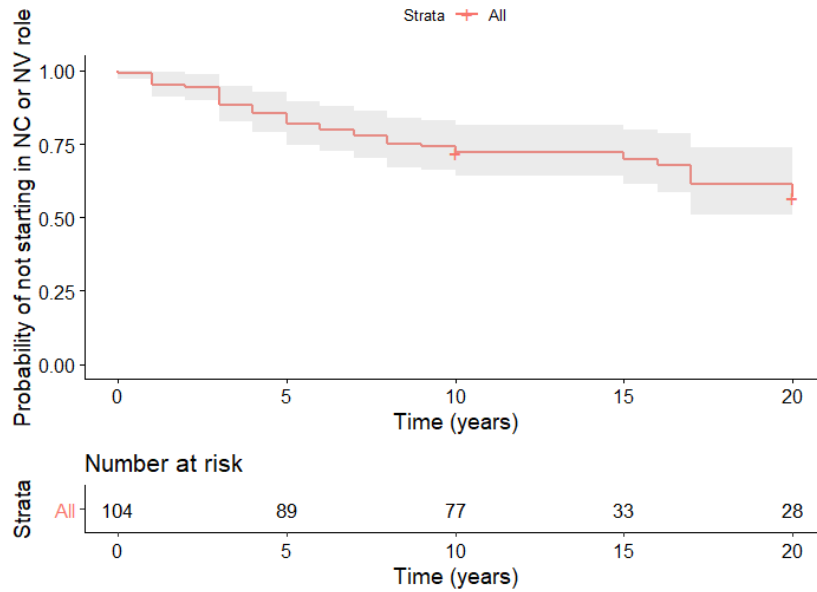
Figure 5.14: Kaplan-Meier curve showing probability of not starting in a non-clinical (NC) or non-veterinary (NV) job or role over time. Right censored individuals are denoted by a + sign.

Of the 10-year cohort, 14% (95% CI 4-22) had started in a non-clinical or non-veterinary role five years post-graduation compared to 24% (95% CI 10-35) of the 20-year cohort (Figure 5.15 and Appendix J).
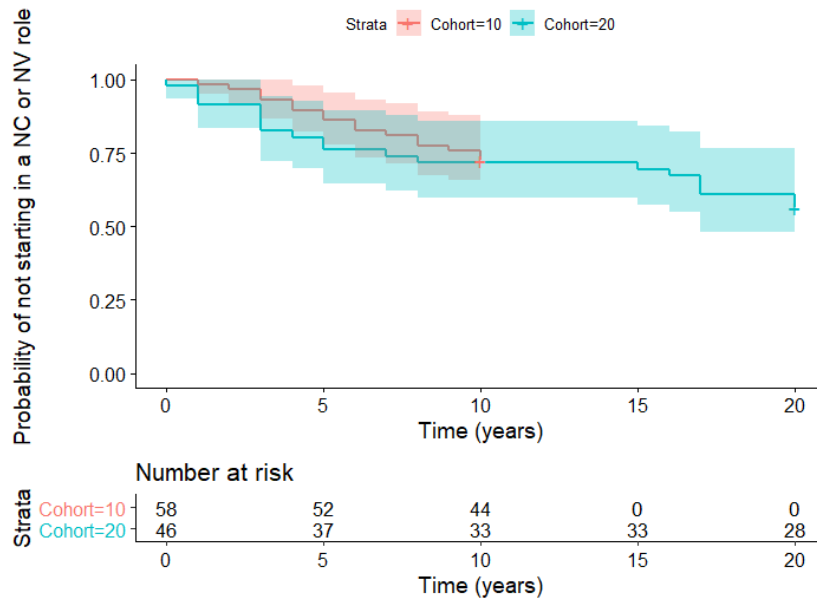
Figure 5.15: Kaplan-Meier plot showing probability of not starting a non-clinical veterinary or non-veterinary job or role over time - comparison by cohort. Right censored individuals are denoted by a + sign.
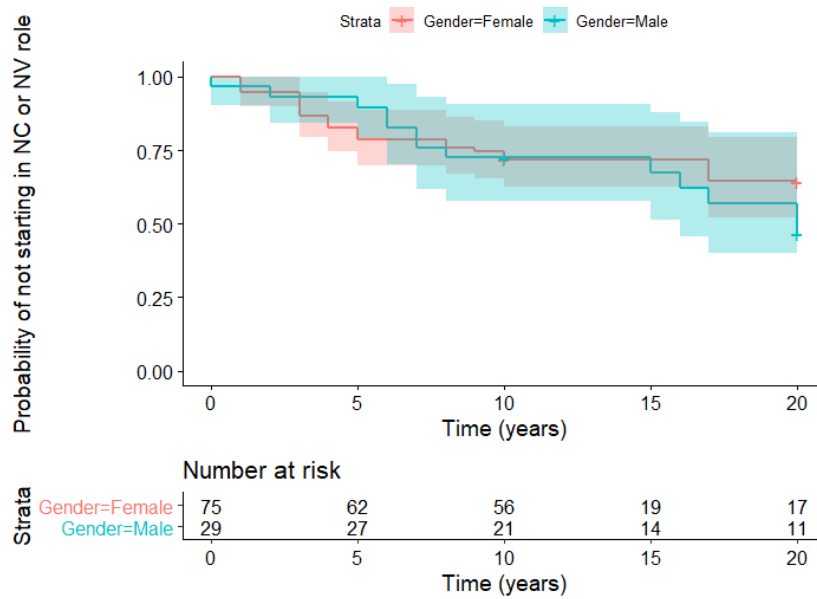
Figure 5.16: Kaplan-Meier plot showing probability of not starting in a non-clinical veterinary or non-veterinary job or role - comparison by gender. Right censored individuals are denoted by a + sign.

When comparing the Kaplan-Meier plots for the men and women, the curves follow each other closely in some regions such as one to three years, and six to 15 years, but are seen to cross and diverge during other periods (Figure 5.16). There is a period from three to six years post-graduation where the women were more likely to have started in a non-clinical or non-veterinary role, and a period from 15 to 20 years post-graduation where the men were more likely to do so. At five years post-graduation, 21% (95% CI 12-30) of the women had started in a non-clinical or non-veterinary job/role, compared with 10% (95% CI 0-21) of men. At 17 years post-graduation, 36% (95% CI 21-48) of women and 43% (95% CI 19-60) of men had started in a non-clinical or non-veterinary role (Appendix J). The effect of cohort and gender on the time to starting in a non-clinical or non-veterinary role or job varied over time (p=<0.01), thus the Cox proportional hazards model does not hold. Therefore, the differences between the men and women, and the two cohorts, should not be considered alone, without considering time as an interaction factor.

5.4 Current Work Type

The main work types held by respondents (both overseas and in New Zealand) at the time of the survey are presented in (Table 5.5). Those who reported they were currently taking a career break were looking after children. One respondent in clinical work reported they were currently looking for a non-clinical role.

Table 5.5: Frequency and percentage of respondents (overall and from each cohort) in each work type at the time of the survey. Percentage of 20-year cohort members does not equal 100 due to rounding (*).

Current work type	10-year cohort n (%)	20-year cohort n (%)	Overall n (%)
Veterinary Work	**55 (91.7)**	**35 (71.4)**	**90 (82.6)**
Clinical	*50 (83.3)*	*28 (57.1)*	*78 (71.6)*
Non-Clinical	*5 (8.3)*	*7 (14.3)*	*12 (11.0)*
Non-Veterinary Work	**2 (3.3)**	**12 (24.5)**	**14 (12.8)**
Full-time student	**1 (1.7)**	-	**1 (0.9)**
Career break	**2 (3.3)**	**1 (2.0)**	**3 (2.8)**
No response	-	**1 (2.0)**	**1 (0.9)**
Total	60 (100)	49 (99.9*)	109 (100)

In distinguishing current work types by location, overall, 68% (74/109) of respondents were working in veterinary roles (either clinical or non-clinical) *in New Zealand*, including 75% (45/60) of the 10-year cohort and 59% (29/49) of the 20-year cohort members. Overall, 14% (15/109) of respondents held veterinary roles *overseas* - 17% (10/60) of the 10-year cohort and 10% (5/49) of the 20-year cohort. One respondent from the 20-year cohort who was working in clinical practice did not provide information on their location, accounting for the remaining 2% of the cohort in veterinary work.

Of those working in the three main work types (either in New Zealand or overseas), a greater proportion of women worked in clinical veterinary work compared to men (Figure 5.17), although this difference was not statistically significant (p=0.31). However, the main work type did differ between the two cohorts (p=0.002) as seen in Figure 5.18, with a greater proportion of the 10-year cohort reporting their main work type as veterinary clinical practice.
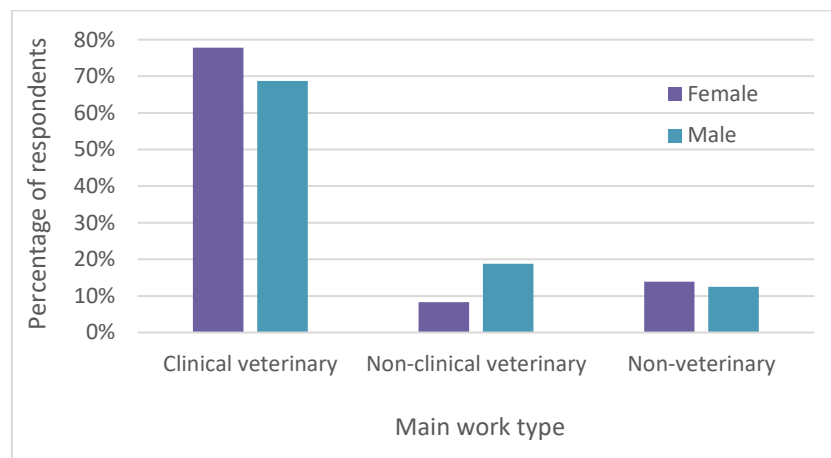
Figure 5.17: Main work type of respondents who were currently employed - comparison by gender
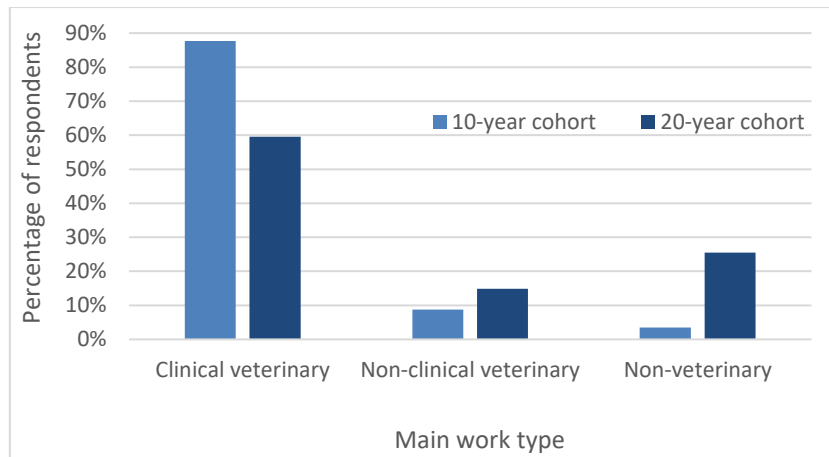
Figure 5.18: Main work type of respondents who were currently employed - comparison between the cohorts

In addition, the main work type differed significantly between the men and women in the 20-year cohort (p=0.04). The women in this cohort were more likely to work in non-veterinary work compared to the men, who were more likely to work in non-clinical veterinary work (Figure 5.19). The main work type also differed between the women across the 10- and 20-year cohorts (p=0.0004) with the 10-year women more likely to work in clinical practice (Figure 5.19). The differences between the men and women within the 10-year cohort (p=0.27) and between the men in the 10- and 20-year cohorts (p=0.06) were not statistically significant.
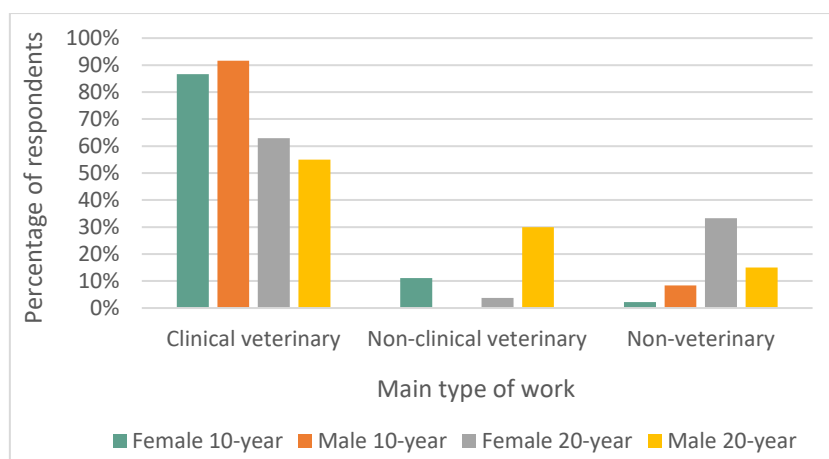
Figure 5.19: Main work types of respondents who were currently employed - comparison by cohort and gender

5.4.1 Registration Status with the Veterinary Council of New Zealand

In order to practise as a veterinarian in New Zealand (including most non-clinical veterinary jobs), graduates must hold an Annual Practising Certificate (APC) with the Veterinary Council of New Zealand. Almost three-quarters of respondents were currently registered as practising with the Veterinary Council of New Zealand, including 80% of the 10-year cohort (48/60) and 67% of the 20-year cohort (33/49). The registration status of those not registered as practising with the VCNZ are displayed in Table 5.6. Some of these respondents clarified that although they were not registered in New Zealand, they were registered overseas. One respondent stated they had just re-registered for the coming practising year. There was no significant difference in practising status (registered – practising versus not registered as practising) between the cohorts (p=0.13) or between the men and women (p=0.92).

Table 5.6: Current practising status with the Veterinary Council of New Zealand

Practising Status VCNZ	Frequency	Percentage %
Registered – practising	**81**	**74**
Not registered as practising	**28**	**26**
Registered non-practising[5]	6	6
Not currently registered	21	19
Other	1	1
Total	**109**	**100**

5.4.2 Part-Time Work

Overall, 38/109 respondents (35%) reported that they worked part time, 33 of whom worked in clinical veterinary practice. Ninety-five percent (36/38) of respondents who worked part time were women, including 58% of the women in the 10-year cohort and 37% of women in the 20-year cohort. The two men who worked part time were both from the 20-year cohort. The mean full-time equivalent status (FTE) of the part-time workers was 0.56 (median 0.55, maximum 0.9, minimum

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[5] Veterinarians can register with the Veterinary Council of New Zealand as non-practising. This enables them to remain in contact with the profession and keeps their name on the national register of veterinarians, but they are not eligible to practise as a veterinarian in New Zealand and do not hold an APC. Veterinary Council of New Zealand. (2019a). *Completing your application for an Annual Practising Certificate (APC)*. https://www.vetcouncil.org.nz/Web/Forms/APC/APC_Landing.aspx.

0.1). The mean time after graduation that respondents started working part time was 8.6 years (median 8 years, max 20 years, and minimum 2.5 years).

5.4.3 Veterinary Business Ownership, Partnership, and Practice Management Roles

Of the 103 respondents who provided additional information about their current work, one-quarter (26/103) reported that they were owners of, or partners in a veterinary business. Four respondents had previously been in ownership or partnership roles, and two indicated they had held previous ownership/partnership roles in addition to their current one. The mean time to entering business ownership or partnership was 8.3 years after graduation (median=7 years, max=20 years, min=3 years). There was no overall difference in the rate of business ownership/partnership between the two cohorts (p=0.53). However, a significantly greater proportion of men were owners or part-owners of veterinary businesses (39% - 12/31) compared to women (19% - 14/72) (p=0.04). Much of this difference can be attributed to the difference between the men and women in the 10-year cohort (p=0.02) as the difference in the rate of business ownership and partnership did not differ significantly between the men and women in the 20-year cohort (p=0.68) (Figure 5.20). Employment status appears to be a confounding factor as there is no longer a significant difference between the men and women, either overall (p=0.46) or within the 10-year cohort (p=0.20) when comparing only those who work full time.
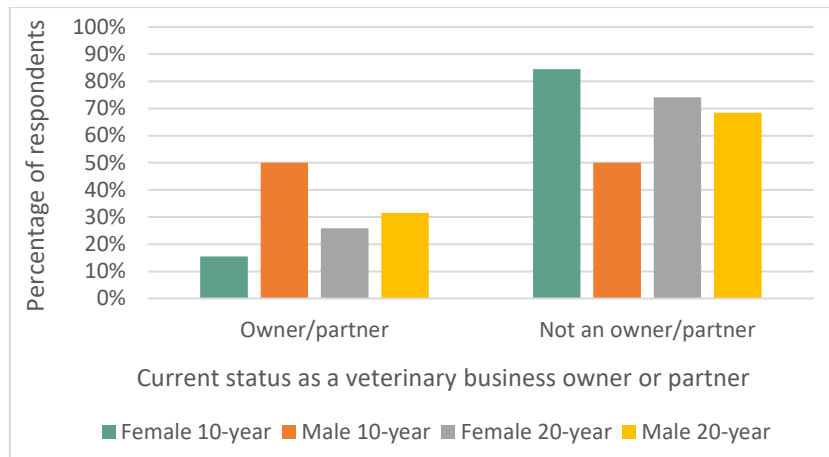
Figure 5.20: Rates of veterinary business ownership/partnership - comparison between the men and women in each of the cohorts

Almost half (47% - 36/77) of the clinical respondents reported some degree of involvement in practice management. Again, a greater proportion of men had management responsibilities alongside their clinical duties compared with women (p=0.008) and much of this difference can be attributed to the difference between the men and women in the 10-year cohort (Table 5.7). However, the difference between management responsibilities among men and women in full-time work is not significant (p=0.18). Of the respondents who held management responsibilities, 89% (32/36) spent 40% or less of their working time on practice management tasks, and the remainder spent 41-60% of their working time on these tasks.

Table 5.7: Involvement of clinical veterinarians in practice management tasks. Comparison by cohort, gender, and cohort and gender. *Percentage does not add to 100 due to rounding. One respondent in clinical work did not provide information about their involvement with practice management tasks.

	Involved with practice management tasks			
	Yes n (%)	No n (%)	*p* value	Total n (%)
Cohort				
10-year	25 (50)	25 (50)	0.44	50 (100)
20-year	11 (41)	16 (59)		27 (100)
Gender				
Women	21 (38)	35 (63)	0.008	56 (101*)
Men	15 (71)	6 (29)		21(100)
Cohort + Gender				
10-year cohort				
Female	16 (41)	23 (59)	0.02	39 (100)
Male	9 (82)	2 (18)		11 (100)
20-year cohort				
Female	5 (29)	12 (71)	0.22	17 (100)
Male	6 (60)	4 (40)		10 (100)
Overall Total	**36 (47)**	**41 (53)**		**77 (100)**

5.4.4 Veterinary Work

Of the 90 respondents who indicated they were in some form of veterinary work, 78 (87%) described their main work type as clinical, and 12 (13%) as non-clinical. A comparison of the veterinary work roles held by the men and women in each of the cohorts is presented in Figure 5.21. The differences seen between the men across the two cohorts were significant (*p*=0.05) as was the difference between the men and women in the 20-year cohort (*p*=0.04).

5.4.4.1 Clinical Veterinary Work

Overall, 72% of respondents (78/109) reported that their main work role was in veterinary clinical practice. Of the 77 who answered further questions about their clinical work, 69% (53/77) described themselves as an employee or associate veterinarian. A further 22% (17/77) reported that they were a sole practice principal, practice partner or director, and 3% (2/77) were locum veterinarians. Six percent (5/77) described their roles in other ways, including "senior veterinarian", "senior

veterinarian and clinic manager", "lecturer and small animal veterinarian", "shareholder, director, employee", and "part of an executive management group".
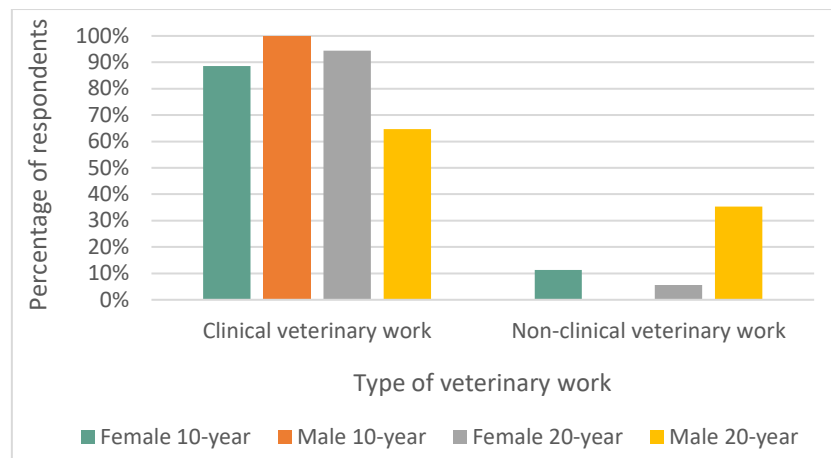
Figure 5.21: Comparison of work types held by those currently in veterinary work – comparison between the men and women in the two cohorts

Time Spent Working with Veterinary Species – Comparing the First Job and Current Clinical Job

The percentage of time spent working with the different veterinary species in respondents' first clinical job versus their current clinical job is displayed in Table 5.8. Just under one-quarter of respondents spent almost all or all (91-100%) of their time working with dogs and cats in their first job. This increased to 41% in their current job. Similarly, increases were seen in the proportion of those spending 91-100% of their time with dairy cows or with horses. For each of the main groups of veterinary species (dogs and cats, dairy cows, sheep/beef cattle, and horses) the proportion of respondents spending none of their time with each group was greater in the current job versus the first job. Together these findings indicate a shift away from mixed practice between the cohort members' first and current jobs.

Table 5.8: Time spent working with each species in first clinical job (FJ) and current clinical job (CJ). Some percentages add to > 100 due to rounding (*).

	Dogs and Cats		Dairy Cows		Sheep/Beef Cattle		Horses		Other Companion		Wildlife		Other Livestock		Other	
	FJ n (%)	CJ n (%)	FJ n (%)	CJ n (%)	FJ n (%)	CJ n (%)	FJ n (%)	CJ n (%)	FJ n (%)	CJ n (%)	FJ n (%)	CJ n (%)	FJ n (%)	CJ n (%)	FJ n (%)	CJ n (%)
0%	7 (7)	11 (15)	46 (45)	47 (64)	48 (47)	46 (62)	42 (41)	47 (64)	49 (48)	28 (38)	79 (77)	53 (72)	65 (63)	56 (76)	99 (96)	71 (96)
1-50%	47 (46)	16 (22)	36 (35)	12 (16)	50 (49)	26 (35)	56 (54)	21 (28)	54 (52)	46 (62)	23 (22)	21 (28)	38 (37)	18 (24)	4 (4)	3 (4)
51-90%	24 (23)	17 (23)	20 (19)	7 (9)	5 (5)	2 (3)	1 (1)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
91-100%	25 (24)	30 (41)	1 (1)	8 (11)	0 (0)	0 (0)	4 (4)	6 (8)	0 (0)	0 (0)	1 (1)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Total n (%)	103 (100)	74 (101*)	103 (100)	74 (100)	103 (101*)	74 (100)	103 (100)	74 (100)	103 (100)	74 (100)	103 (100)	74 (100)	103 (100)	74 (100)	103 (100)	74 (100)

Practice Structure

The clinical veterinarians worked in a variety of practice types, although the majority worked in either a single branch practice or a privately-owned multi-branch practice (Table 5.9). Other practice types frequently reported by respondents included multi-branch practices owned by a buying-group or corporate and club practices (farmer owned co-operatives). Where respondents referred to working in other types of practice these included the SPCA, a farming business, and a "multi-branch corporate club".

Table 5.9: Frequency and percentage of clinical veterinarians working in different practice types. Percentage of respondents adds to >100% due to rounding (*).

Practice Type	Frequency of respondents (n=77)	Percentage of respondents (%)
Single branch practice	23	29.9
Multi-branch practice - privately owned	23	29.9
Multi-branch practice – owned by buying group or corporate	13	16.9
Club practice	9	11.7
University teaching hospital	3	3.9
Other type of practice	3	3.9
Specialist hospital	2	2.6
Contract practice	1	1.3
Total	77	100.1*

After-hours – Participation in On-Call Duties and Level of Satisfaction with On-Call Arrangements

Seventy-six of the 78 clinical respondents reported on their involvement with on-call duties. Sixty-six percent (50/76) of the clinical veterinarians participated in on-call duties including 67% (18/27) of 20-year cohort and 65% (32/49) of 10-year cohort. There was a significant difference between the men and women (p=0.008), with 90% (18/20) of the men and 57% (32/56) of the women participating in on-call duties. This could be confounded by the type and location of practice. For instance, overall, a greater proportion of women worked in urban or city areas where there is greater access to dedicated after-hours clinics.

Although the level of satisfaction with on-call arrangements did not differ significantly between the men and women (p=0.18) or between the cohorts (p=0.06), there were statistically significant differences between the men and women in the 10-year cohort (p=0.04) and between the women in the 10- and 20-year cohorts (p=0.02) (Figure 5.22). Of those who did on-call work, the women in the 20-year cohort were least satisfied with their on-call arrangements and this contrasted with the women in the 10-year cohort who were the most satisfied group.
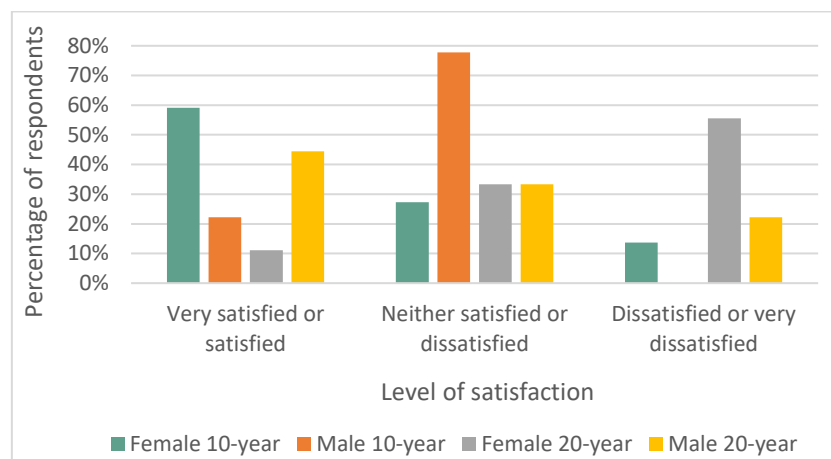
Figure 5.22: Clinical veterinarians who do on-call work – levels of satisfaction with their on-call arrangements - comparison by gender and cohort.

Additional Paid Work

Just under one-quarter of the respondents reported additional paid work. Most frequently, additional work was carried out within the veterinary field, either in a clinical or non-clinical capacity, but also included farming and other types of work (Table 5.10). Other additional paid work was specified as network marketing, consulting/speaking, executive chair, and company director.

Table 5.10: Table showing types of additional paid work done on top of the main work type

Additional work type	Frequency
Clinical work	**8**
Additional locum work or shifts at another clinic	4
Additional shifts at own clinic	2
Other clinical work	2
Not specified	**6**
Farming	**4**
Other	**4**
Non-clinical veterinary work	**3**
Total	**25**

5.4.4.2 Non-Clinical Veterinary Work

Twelve of the 109 respondents reported they currently worked in a non-clinical veterinary role. All had previously worked in clinical veterinary work. The respondents' current non-clinical roles are described in Table 5.11. One of the men reported that their non-clinical work included an on-call component.

Table 5.11: Types of non-clinical roles held by respondents

Non-Clinical Role	Number of Respondents
Veterinary education/veterinary nurse education	3
Veterinary practice manager or director (no clinical responsibilities)	3
Technical/industry veterinarian	2
Other non-clinical veterinary role	2
Government veterinarian	1
Veterinary research	1
Total	**12**

5.4.5 Non-Veterinary Work

Fourteen of the 109 respondents indicated that their main role was in non-veterinary work and the majority of these roles (64% - 9/14) were not animal-related. One respondent who classified their current work type as non-veterinary, worked in a job that did not require a veterinary degree but did relate to the veterinary industry. This respondent has been included in non-veterinary work based on their self-classification, but this highlighted that despite defining non-clinical veterinary work and non-veterinary work, in some cases the distinction was unclear. Similarly, another respondent worked in human healthcare and in a field of animal healthcare that did not specifically require a veterinary degree. Respondents who were currently in non-veterinary work reported involvement in a range of industries (Table 5.12) and one of the men reported that their non-veterinary work included an on-call component.

Table 5.12: Industries in which respondents undertake their non-veterinary work

Non-Veterinary Work Industries	Number of Respondents
Agriculture	5
Other industry	5
Human healthcare	2
Education	1
Business and finance	1
Total	**14**

Agriculture was the most frequently cited industry in which respondents held non-veterinary roles. Several respondents had become farm owners, farmers, or worked in other aspects of the agriculture industry including in education, farm consultancy, production planning, and business project management. In addition, there were also individuals working in art, management, diplomacy/foreign policy, and regulatory affairs. One of the respondents reported her non-veterinary role was being a mother.

5.5 Future Career Intentions

5.5.1 Time Frame Planning to Stay in Current Job (All Work Types)

Overall, most of the respondents were planning to remain in their current job longer term. Of the 103 respondents who reported their intentions, 64 (62%) were planning to stay in their current job for longer than 2 years (Figure 5.23).
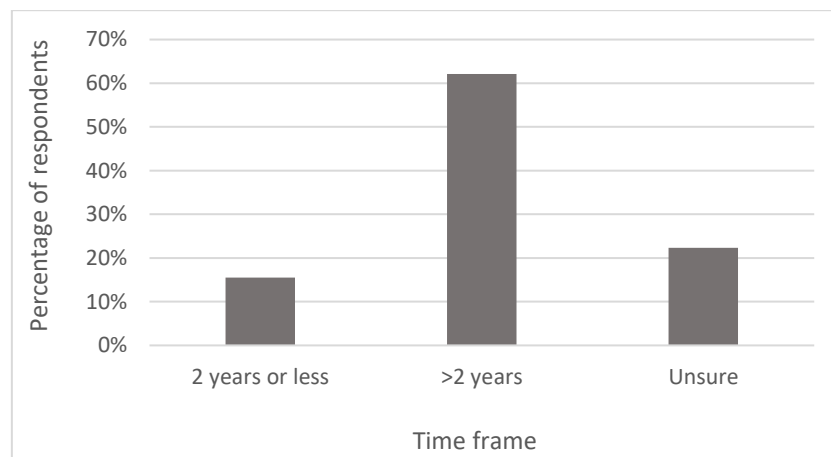
Figure 5.23: Time frame planning to stay in current job (all work types)

Seventy-one percent of the men (22/31) were intending to stay in their current job for more than two years compared with 58% (42/72) of women, although this difference was not statistically significant (p=0.48). There was also no significant difference between the two cohorts (p=0.19).

5.5.2 Veterinarians Currently in Clinical Veterinary Work – Future Career Intentions

The time that the clinical veterinarians were intending to remain in their current job is presented in Figure 5.24. Overall, members of the two cohorts did not differ significantly in the time in which they intended to remain in their current clinical job (p=0.29), nor did the men and women (p=0.20). The women in the 10-year cohort were the group who were least likely to intend to remain in their current job for more than two years and were the most uncertain as to how long they would remain, although this difference was not statistically significant when compared to the men in the 10-year cohort (p=0.31) or the women in the 20-year cohort (p=0.33).
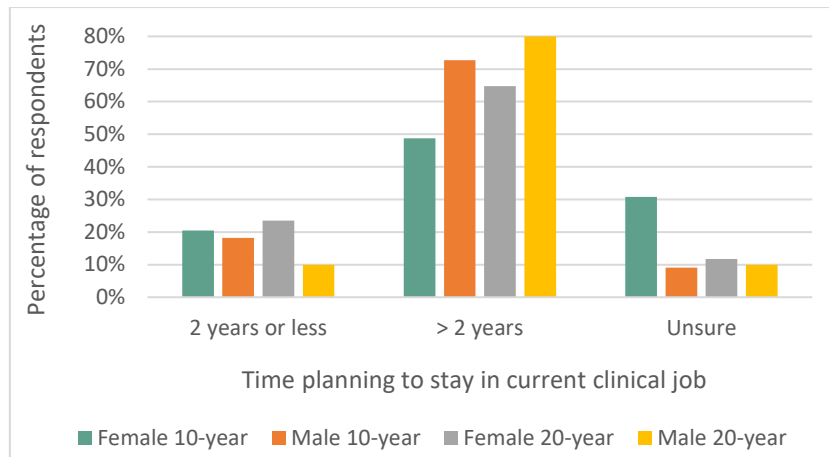
Figure 5.24: Time frame planning to stay in current CLINICAL job – comparison by cohort and gender

The clinical veterinarians were asked whether they were considering changing work type (i.e. changing to non-clinical or non-veterinary work or changing to a different type of clinical work). Answers were provided by 76/78 clinical respondents and are presented in Table 5.13. Most clinical veterinarians were not considering a change in work type. Fourteen percent (11/76) were considering a change either to non-clinical or non-veterinary work and 13% (10/76) were unsure whether they would remain in clinical work.

Eighty-one percent of men (17/21) and 64% (35/55) of women currently in clinical work indicated they were not considering changing work types (Table 5.13). A greater proportion of men were considering changing to non-clinical work whereas a greater percentage of women were considering changing to non-veterinary work. Eighteen percent of women (10/55) reported feeling uncertain about whether they were considering a change in work types however, none of the men shared this uncertainty. Overall, these gender differences were not statistically significant (p=0.09), nor were the differences between the cohorts (p=0.63)

Table 5.13: Intentions of clinical veterinarians to change to a different work type – comparisons between the two cohorts and between the men and women. In some instances (*) the total percentage considering changing work types does not equal the sum of the individual work type changes due to rounding.

Future career intentions	10-yr cohort n (%)	20-yr cohort n (%)	Women n (%)	Men n (%)	Total n (%)
Considering changing work type	**9 (18.4*)**	**5 (18.5)**	**10 (18.2)**	**4 (19.0*)**	**14 (18.4*)**
To a different type of clinical	1 (2.0)	2 (7.4)	2 (3.6)	1 (4.8)	3 (4.0)
To a non-clinical role	5 (10.2)	2 (7.4)	4 (7.3)	3 (14.3)	7 (9.2)
To a non-veterinary role	3 (6.1)	1 (3.7)	4 (7.3)	0 (0.0)	4 (5.3)
Not considering changing work type	**35 (71.4)**	**17 (63.0)**	**35 (63.6)**	**17 (81.0)**	**52 (68.4)**
Unsure	**5 (10.2)**	**5 (18.5)**	**10 (18.2)**	**0 (0.0)**	**10 (13.2)**
Total	49 (100)	27 (100)	55 (100)	21 (100)	76 (100)

Women in the 20-year cohort were most uncertain as to their future career intentions, while none of the men from either cohort felt uncertain about their future careers (Figure 5.25). Men from the 10-year cohort were the group most likely to consider a change to non-clinical work, with 18% (2/11) indicating their intention to do so. However, the differences among the men and women within and between the cohorts were not statistically significant.
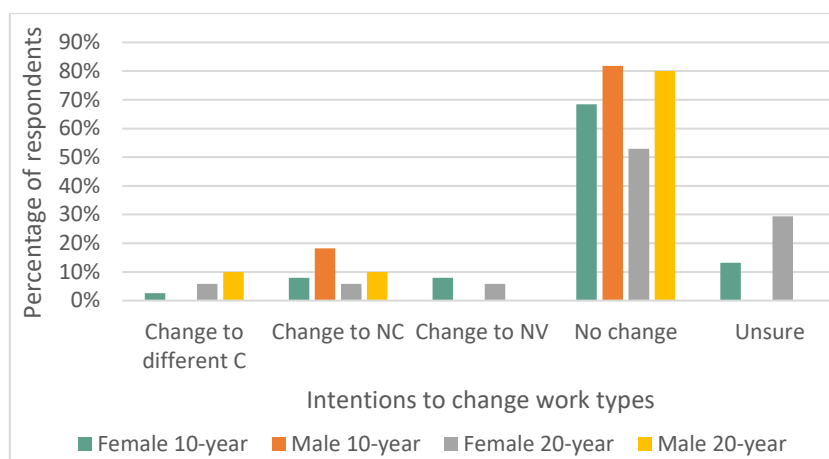
Figure 5.25: Intentions of clinical veterinarians to change work types - comparison by gender and cohort. C = clinical work, NC = non-clinical work, NV = non-veterinary work.

5.5.3 Veterinarians Currently in Non-Clinical Veterinary Work – Future Career Intentions

Most of the non-clinical veterinarians were content to remain in non-clinical work with 75% (9/12) indicating that they were either not planning on changing from non-clinical work or were considering a change to a different type of non-clinical work. Those who were not planning a change in work type stated this was because they were happy in their non-clinical work. The two respondents who were considering changing non-clinical roles wanted to pursue further qualifications or practice ownership (without working in a clinical capacity in the practice). The remaining 25% of non-clinical respondents (3/12) were unsure of their future intentions. None of the non-clinical respondents indicated that they were considering a return to clinical veterinary work.

5.5.4 Veterinarians Currently in Non-Veterinary Work – Future Career Intentions

Most respondents who were currently in non-veterinary work were either not planning on returning to veterinary work in the future (50% - 7/14) or were unsure if they would consider it (21% - 3/14). For those planning to return to veterinary work (either in a clinical (14% - 2/14) or non-clinical (7% - 1/14) role) this was a longer-term plan (i.e. not in the next 12 months). For those who were unsure

whether they would consider changing work types, their family situation was the key influencing factor. One respondent working in non-veterinary work did not report their future career intentions.

For those who were not considering returning to veterinary work, the primary reasons were focused on enjoyment of their current work, positive aspects of their current working environment, and the length of time away from veterinary work. Two respondents contrasted their enjoyment of their non-veterinary work with the lack of enjoyment they experienced in their veterinary work which stemmed from negative experiences with veterinary bosses, moral conflicts, and a lack of enjoyment of surgery. Others noted benefits of their non-veterinary roles including flexibility, no on-call duties, not working on weekends, better financial reward, greater opportunities for entrepreneurship, and the ability to "chart my own course".

The length of time spent away from veterinary work was another factor noted by respondents as influential in their intention not to return, with some stating they had been away from the profession for too long. Those who were uncertain about a potential return to veterinary work were prioritising other things including their children and farm. For those contemplating a return to veterinary work, this was a longer-term plan. One respondent intended to return as they wanted to keep their veterinary skills up to date, another was planning a return after settling their family in a new location and the third was considering a return to non-clinical veterinary work noting that physical limitations prevented them returning to clinical veterinary work.

5.5.5 Intentions to Become a Veterinary Practice/Business Owner or Part-Owner

Twenty-five percent of respondents (26/103) reported that they were owners or part-owners of a veterinary business or practice, and the remaining three-quarters (77/103) were not. The majority of those who were not business owners or partners either did not want to become a business owner/partner (53% - 41/77) or were uncertain about whether they wanted to (31% 24/77). Only 16% (12/77) reported that they aspired to become a business owner/partner in the future. Overall, there was no significant difference in desire for future ownership among the two cohorts (p=0.35)

(Figure 5.26) or the men and women (p=0.67) (Figure 5.27). Among the 10-year cohort, despite 50% of the men (3/6) and only 16% (6/38) of the women reporting that they wanted to become a veterinary business owner or partner in the future, this difference was not statistically significant (p=0.17) (Figure 5.28).
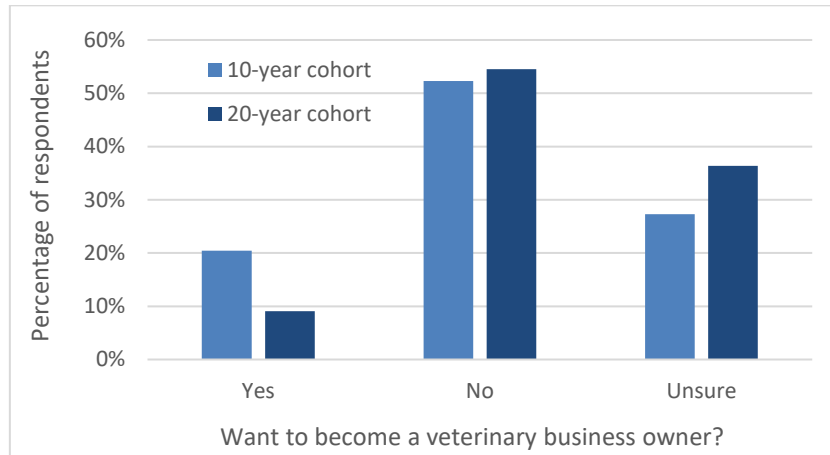
Figure 5.26: Desire to become a veterinary business owner or part-owner – comparison by cohort (responses from all work types)
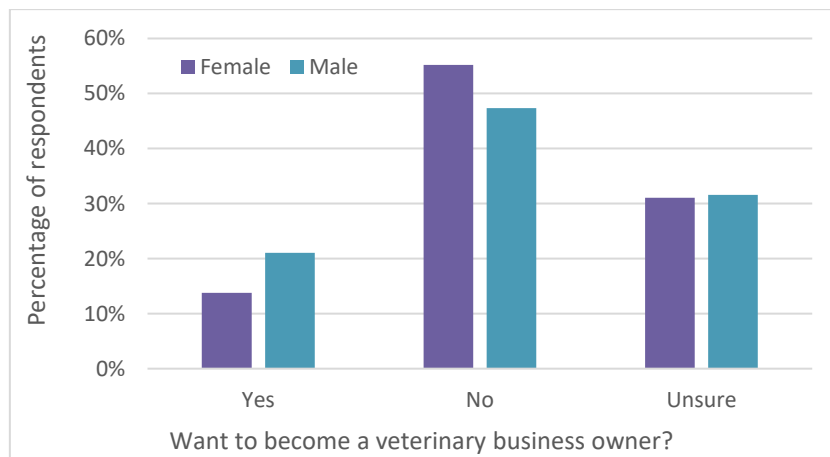
Figure 5.27: Desire to become a veterinary business owner or part-owner – comparison by gender (responses from all work types)
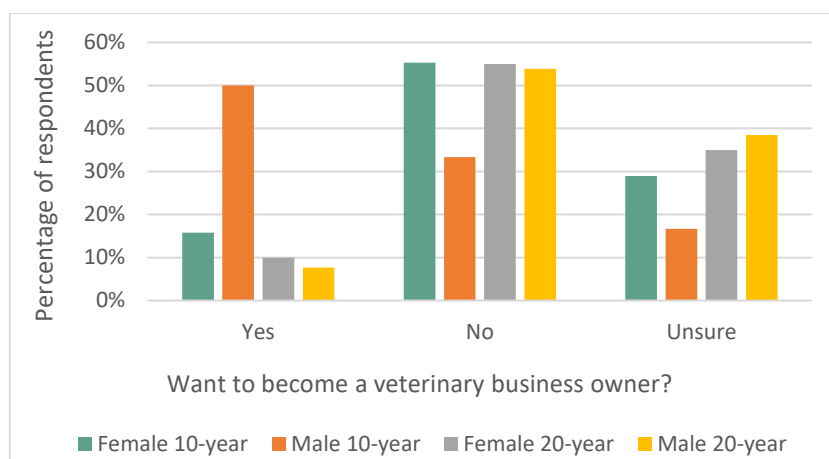
Figure 5.28: Desire to become a veterinary business owner or part-owner – comparison by gender and cohort (responses from all work types)

5.5.6 Career Goals

In addition to reporting their intentions around staying in their current job, changing work types, and becoming a veterinary business owner or partner, respondents also reported other plans for the next five years. Twenty percent (21/105) of respondents who answered questions about their future goals were wanting to reduce their working hours, while 13% (14/105) were wanting to increase them. Five percent (5/105) were planning to take a career break. None of the respondents were considering retirement.

There were four main ideas that encompassed respondents' future career goals. Firstly, respondents spoke of their goals relating to business and leadership. They also referred to goals relating to their ambitions to further their education, complete additional qualifications or undertake more CPD. Others spoke of their goals to change their working conditions while some spoke of their personal career aspirations. In addition, some respondents were unsure of their future plans and preferred to wait and see what eventuates.

5.5.6.1 Business and Leadership Goals

For those in a management or practice ownership/partnership position, growing or expanding the practice was a commonly reported career goal. One respondent noted specifically that they would

like to employ more staff to allow more flexible working hours and time off and another who worked alone hoped to employ an additional veterinarian. Aspirations for business growth related not only to veterinary businesses but also to respondents' non-veterinary businesses.

For some respondents, their business goal had a strong focus on not only providing excellent veterinary services, but also on providing an exceptional working environment for their staff and one respondent's goal was "to be an excellent employer". Others spoke of their leadership goals and the desire to contribute to the profession.

Some respondents aspired to gain management roles or increase their management responsibilities and several respondents indicated their intention to reduce their clinical responsibilities to focus more of their time on practice management. Others aspired to own or become a partner or shareholder in a veterinary practice. In contrast, others were planning to exit their veterinary businesses to pursue other interests.

5.5.6.2 Further Education, Qualifications, or Continuing Professional Development

Of the 109 respondents, 16 aspired to gain further veterinary qualifications or pursue further education. Goals included gaining membership of the Australian and New Zealand College of Veterinary Scientists, completing a Master of Veterinary Medicine (MVM), and completing other non-specified Masters and PhD qualifications. Others wished to gain further skills and qualifications in a specific area of veterinary practice and diagnostic imaging was noted as a specific area of interest. Three respondents aimed to complete a non-veterinary qualification in business or agribusiness.

5.5.6.3 Making Changes to Working Conditions

Respondents also held goals to make changes to their working conditions. They aspired to attain more flexible working hours, to improve their work-life balance, to work part time or on a casual basis, or to reduce the amount of physically demanding work they were doing. Others wished to pursue promotion and increase the number of hours they were working.

Some reported their motivations for wanting to change to non-clinical veterinary work and these included pursuing more family-friendly working hours and decreasing work-related stress. Several respondents noted a desire to achieve a 50/50 balance between clinical and non-clinical work. Of those who held clinical roles, some specifically stated they wished to reduce the amount of clinical work they were doing in order to pursue more consultancy work and practice management.

5.5.6.4 Personal Career Aspirations

Respondents frequently referred to personal goals within their careers. These centred around self-improvement, their financial goals, pursuing areas of interest (either within veterinary work, or outside of the workplace), delivering quality veterinary care, and helping others. One respondent's goal was simply to "be a good vet".

Goals relating to self-improvement were commonly cited and focused on continued learning, improvement, becoming more expert or knowledgeable in a certain area of veterinary clinical practice, gaining proficiency in certain clinical skills, and continuing to use and refine the skills and knowledge previously acquired.

Similarly, many respondents aspired to deliver exceptional veterinary care. One took this a step further, aiming to "pioneer some veterinary initiatives". For two respondents, their goal was to have fun, and enjoy themselves in their work. One respondent summed up their current career goal stating their desire "to learn more how to appreciate the privilege of being a vet and have as much fun as possible doing the job."

Many respondents stated their intention to pursue certain areas of interest within clinical veterinary work. Some respondents stated that they wanted to develop a special interest to focus on. Others had specific areas of interest in mind including herd health, imaging, internal medicine, specific species (beef/sheep/deer), surgery, and challenging equine clinical cases. Others wished to pursue their interests outside of work such as photography, property development, and travel.

Some respondents had financial goals, including gaining financial security. One respondent stated, "Finances have never been a key goal in my career, but it would be nice after years of study and resident wages and now self-funded CPD to have a salary that reflects the years of training."

For several respondents their career goals included helping others. Specifically, this included helping to develop career paths for others, sharing knowledge, helping younger vets "with clinical work and emotional needs", and through volunteer work either in New Zealand or overseas.

5.6 Chapter Summary

The career survey was the first phase of the cohort study that examined the careers of two cohorts of Massey University veterinary graduates. This phase of the research focused on *what* the veterinarians had done during their careers to date, the patterns that occurred among their career pathways, including in their first jobs and subsequent employment, their current work and future career plans. Comparisons were made between the two cohorts and the men and women to identify any key differences among these groups. In addition to assessing the numbers of veterinarians who work outside the veterinary profession, considering the rate at which New Zealand graduates opt to work as veterinarians overseas and the work patterns of those who remain in veterinary work (such as part-time working hours) are also critical to workforce planning.

Almost all the respondents began their careers in clinical practice. The newly graduated 20-year cohort took longer than the 10-year cohort to secure their first jobs and were significantly more likely to take up their first job overseas. In addition, the location of the first jobs differed between the men and women with a greater proportion of men starting out in rural or small-town New Zealand and a greater proportion of women starting out in an urban or city area of New Zealand. However, when comparing the locations of their *current* job, there was no longer a statistically significant difference between the men and women.

Twelve respondents (11%) were still working in their first job, including one of the 20-year cohort members, although many of these individuals reported holding more than one role during their time in this job. Most respondents had remained in their first job for a relatively short period of time and only 19% of respondents remained in their first job or role for three years or longer. Respondents had held a median of four jobs or roles. The average time spent in mixed animal, companion animal, and equine jobs was similar (approximately three and a half years), however the average time spent in large animal jobs was longer, at over five and a half years.

Most of the cohort members (83% - 90/109) remained in some form of veterinary work, either in clinical practice (72% - 78/109) or non-clinical veterinary work (11% - 12/109). However, on closer inspection, only 68% of cohort members were in veterinary work in New Zealand, indicating that some New Zealand veterinarians are lost to the New Zealand veterinary profession, but continue to work in veterinary roles overseas.

Respondents held a variety of non-clinical jobs, including as technical/industry veterinarians, government veterinarians, in veterinary education, veterinary practice management, veterinary research, and in other non-clinical roles. There were a relatively small number of respondents who held non-veterinary roles (13% -14/109) at the time of the survey. Although the non-veterinary roles reported did not require a veterinary degree, some were related to the veterinary industry. For instance, 5/14 respondents in non-veterinary work reported working in the agricultural sector and an additional two held non-veterinary jobs that related to aspects of the veterinary sector. This demonstrated that respondents often continued to contribute to associated industries, as well as having roles that related back to the veterinary industry and showed that the line between what comprises a non-clinical versus a non-veterinary role is not always easily demarcated, despite attempts to provide a clear definition.

Most respondents indicated that they were intending to stay on their current career pathway. Relatively few were intending to change to a non-clinical or non-veterinary role from clinical

practice. Sixty-two percent of respondents were intending to stay in their current roles for longer than two years and 68% of those in veterinary clinical work were intending to stay in a clinical role. Fourteen percent (11/76) of veterinarians in clinical practice reported that they were considering changing to either non-clinical or non-veterinary work. Three-quarters of those in non-clinical veterinary work and half of those in non-veterinary work intended to remain in their current work type.

In addition to the differences that occurred between the cohorts' experiences of their first job after graduation, a greater proportion of 10-year cohort members held additional veterinary qualifications compared to the 20-year graduates. A greater proportion of the 10-year cohort members remained in clinical veterinary work compared to the 20-year cohort. This difference in the current work type occurred despite the work types held at 10-year post-graduation being similar across the two cohorts. While perhaps not surprising that the 20-year cohort had fewer members remaining in clinical work given that greater time had elapsed for them to explore other avenues, this finding does challenge the current speculation within the veterinary profession that more recent cohorts of veterinary graduates are leaving clinical practice and the veterinary profession in greater numbers than their predecessors. Following up with the 10-year cohort again in 10 years' time would be valuable to determine if they also experience a similar shift away from clinical practice, or if a greater proportion remain in clinical work (or veterinary work in general) compared to the current 20-year cohort.

There were also additional differences between the men and women including their involvement in part-time working arrangements, on-call duties, veterinary business ownership, and involvement with practice management tasks. Much of the difference between the men and women in their involvement in veterinary business ownership or partnership, and involvement with practice management tasks could be attributed to differences between the men and women in the 10-year

cohort suggesting that women did progress to these aspects within their career but that it took them longer to achieve.

There were also many aspects where no significant difference was noted between the cohorts (despite the difference in the length of their careers), or between the men and women. Similarities existed in the number of jobs they had held, their attainment of additional non-veterinary qualifications, their practising status with the VCNZ, their desire to become a veterinary business owner or part-owner, the time the clinical veterinarians were intending to remain in their current job, and their intention to remain in clinical veterinary work.

Whilst, in some cases where the was no overall difference between the men and women, gender differences did occur within a cohort. For instance, although there was no overall difference in the current employment type (i.e. clinical, non-clinical and non-veterinary work) of the men and women, this did differ between the men and women within the 20-year cohort where men were more likely to work in non-clinical veterinary work, whereas women were more likely to work in a non-veterinary job. Similarly, while there was no overall difference in the level of satisfaction with on-call arrangements between the men and women, the women in the 10-year cohort were less satisfied than their male counterparts. The women from the 10-year cohort were also less likely to want to become an owner of or partner in a veterinary business when compared with the men from the same cohort.

Having gained insight into the patterns that exist among the career pathways of the respondents, and some of the differences between the cohorts and the men and women, the next phase of the research aimed to explore, in-depth, the factors that shaped cohort members' career trajectories. Interviewing a selection of cohort members about their career experiences offered further insight into why the 20-year cohort took longer to find their first jobs and their exodus overseas as new graduates, and the implications of this for their future careers. The interviews also examined what factors contributed to cohort members leaving (or remaining in) their first job (given that most had

left within three years) and subsequent jobs (given that the mean amount of time spent in a mixed, companion animal or equine job was around three-and-a half years, and five-and-a-half years for production animal jobs). The career stories shared by cohort members offered further insight into their experiences and motivations around business ownership and partnership and their motivations for pursuing roles outside of veterinary clinical practice.

Chapter Six: Career Decisions - Influence of Environment and Circumstances

In the previous chapter I presented the results of the first phase of the cohort study, the career survey, which focused on *what* had occurred during participants' careers to date. The current chapter is the first of two chapters that describe the themes that were developed from the second phase of the cohort study – the career interviews. By examining the factors that influenced cohort members to remain in jobs, change jobs, change work types, or take time away from the workforce, the current chapter and Chapter Seven further build on the survey results by providing a contextual and in-depth analysis to further explain *how* and *why* cohort members' careers evolved as they did.

Six main themes were developed through thematic analysis of the interview data, the process of which has been described in Chapter Three. Each of the themes are named after song titles which describe the content of the theme in a memorable way. The current chapter describes the first three themes; (1) Working Nine to Five…and Beyond (working environment), (2) The World I Know (non-work influences), and (3) Opportunity Knocks (opportunities), which have been grouped together as they relate to the veterinarians' environment and circumstances.

Rather than being the consequence of a single factor, career decisions were the result of many influences which varied over the course of participants' careers. Participants spoke at length about their working environment, and the positive and negative experiences which became relevant in their career decisions. Non-work influences were also relevant and the desire or need to prioritise family over career was an important factor for several participants, as too were their lifestyle and leisure interests. The opportunities available to the cohort members, both within their workplaces and externally, were also influential in their career decisions.

6.1 Theme One – Working Nine to Five… and Beyond (Workplace Environments)

Discussion of the workplace environments, where participants worked from nine to five and beyond, featured prominently among their career stories. The working environment as described by this theme encapsulates the work context and material aspects of the work, as well as the social dynamics of the workplace. In some instances, the working environment directly influenced career decisions and in others it contributed to participants' overall experiences in jobs and their careers. In some cases, participants spoke of the positive aspects of their working environment as a contributing factor to their satisfaction and wellbeing within a job. However, for others, unfavourable working environments led to negative experiences, feelings of disillusionment, and in some cases, their departure from a job, clinical practice, or veterinary work altogether.

Numerous aspects of participants' working environments influenced their career decisions. These included the workplace culture, the people they worked with (including their clients, employers, and veterinarian and non-veterinarian colleagues), and the support available to them, as well as their work schedules, remuneration, and the nature of the work.

6.1.1 Workplace Culture

Central to the workplace environment was the workplace culture, and how this fitted with the participants' own values. Participants spoke of the general atmosphere in their workplaces, including the level of collegiality and autonomous work culture. They also spoke of the importance of feeling valued. It became clear that employers, colleagues, and clients all played a role in defining the culture of a workplace, as did the support provided and these are discussed in subsequent sections. Other aspects of workplace culture that affected a few participants included bullying, racism, and sexual harassment. Some aspects of workplace culture particularly affected women and influenced their career pathways.

How well the ethos and values of a veterinary practice or other workplace fit with those of the participants was influential in their career decisions. Where there was a good match, satisfaction

and contentment in their job ensued. However, when there was a mismatch between workplace and participant values, this contributed to some participants leaving a job. Participants spoke about how well their values fitted with those outlined in workplace mottos or mission statements. Jade, a 10-year graduate, noted that the general notion that the client is always right, contributed to her feelings of disillusionment and reluctance to return to clinical work after a break. She disagreed with this statement about clients saying "*no - 90% are wrong*", highlighting a perceived conflict between being a service provider versus an animal healthcare provider. Others reported a greater affinity for their workplace vision or mission statement and acknowledged and valued their employers' efforts to create a positive workplace culture, citing this as an influential factor contributing to their contentedness within a job. When participants' values aligned with that of their workplace it contributed to a sense of wellbeing, and they felt valued as a veterinarian and as a person. Fiona, a 20-year graduate, explained how the vision of her non-clinical workplace, "*fits with me as a person*" in that it puts people first and recognises that having happy and content staff is beneficial to the wider purpose of the organisation. This was a factor in her longevity in working for this organisation. Fiona appreciated this "*very family-friendly*" and "*very people-focused*" workplace and contrasted this with her experience of working in clinical practice.

Jade (a 10-year graduate) outlined her experience at one clinic which she described as the best job she had ever had. When I enquired further as to what had made the job so good, her response was centred around the feeling of value she had at that clinic. This feeling was derived from the leadership demonstrated by her employer in making a substantial effort to create a positive workplace culture and to show her employees that they were valued and cared for. Jade spoke at length about this employer who had clearly left her mark and gave numerous examples of the care she showed her employees often through small acts of kindness and demonstrations of empathy towards Jade as an employee. This employer also gave her employees a voice in the clinic decision-making and allowed them to work autonomously. Her approach in standing up to clients when they behaved in an unacceptable manner towards her staff was highly valued by Jade and contributed to

her positive experience in this workplace. Jade described a time when this employer supported her in dealing with badly behaved clients:

"She turned around and told them, you speak about my vets like that ever again – you are not welcome at this practice. If they retaliated, she would send them a goodbye letter fairly promptly. So, she protected her staff."

Jade – 10-year graduate – career break

Other contributors to workplace culture included the quality of the medicine practised, which was relevant to participants when deciding to stay in a job, and the culture around, or emphasis on preventative healthcare or ambulance at the bottom of the cliff medicine, which needed to fit with the individual's own preferences.

Participants noted that the work culture and ethos could vary greatly between different veterinary practices, and even within a practice after staffing changes or a change in ownership. Anna, a 20-year graduate, noted how one practice she worked in changed from having a strong client-focus to being more sales-focused when the practice grew and took on more dairy clients and dairy veterinarians. The focus on selling as much product as possible, whether or not the client needed it, contrasted with Anna's own values and ethics.

Having had a positive experience of workplace culture in one clinical job, Maria was hesitant to work at a different practice when other factors influenced her decision to move on from this job saying:

"They're all generally small businesses - you don't know what you're going to get at each individual practice. At every practice there's a different culture, potentially and so I wasn't sure if I wanted to work at a different practice. So, I decided to apply for (a non-clinical role)."

Maria – 20-year graduate – non-clinical

Holly, a 10-year graduate, described her experience of working in two different practices where the workplace cultures contrasted sharply. Realising that her current employers were not keeping up with technology, gave little regard to retaining staff, were not facilitating her development as a veterinarian, nor willing to allow her to work part-time should she become a mother, she started looking for other opportunities and found a new clinical job in a more forward-thinking practice. She described this change in workplaces as *"the most significant change in my life"*, noting the opportunities that were available in her new job versus the limitations she felt in working for a *"very old-fashioned, non-progressive practice"*.

Not only did participants note variability in culture between practices but some participants noted a culture of competitiveness between practices, where neighbouring practices were viewed as the opposition, fighting for business and clients. Rivalry between practices was particularly significant for 10-year graduate Naomi, as it changed the entire course of her career. When she resigned from her first job to take up a position in a mixed practice in a nearby town, her previous employer imposed legal conditions on the type of work she could do at her new practice meaning she was unable to do her preferred large animal work (other than for after-hours emergencies) and as a result switched to working with companion animals, a move she had not intended to make.

Autonomy in the workplace was valued by participants, even as new graduates. Ben, a 10-year graduate, noted that employees within his clinical workplace *"manage themselves, there's no micromanagement"* and they were given free rein to work independently and manage their own days. Having a degree of autonomy within the workplace was a factor that influenced several people to remain in their jobs. On the other hand, a lack of autonomy was also influential in the decisions of several participants to either leave clinical work, or not to return to it. When participants were unable to exercise a measure of control in what they did, pursue their own interests, or provide input into the day-to-day running of a practice, this resulted in unease. James, for example stated

how his inability to have input into how he worked was a key factor in his decision to leave his clinical job (and clinical practice). He noted his employer's viewpoint on this:

"I can remember him saying in a review towards the end; we've noticed (James) that you're much more motivated and much keener if you have some input into how your day's going to roll. He said it like a criticism. I'm sitting there thinking; yeah."

James – 20-year graduate – non-veterinary

A lack of autonomy in clinical practice was also identified as a barrier to returning to clinical work. Evelyn noted that the lack of autonomy available in clinical practice put her off returning to clinical work (having been in non-veterinary work) when a local clinic offered her a job opportunity. She was considering a return to clinical practice at the time but said of her decision not to take up the offer:

"It was still very prescriptive about what I needed to be . . . it's a genuine mixed practice, so it was too broad for me, and it was too rigid, whereas if I'm self-employed, I can choose when and how I want to work, and it was never going to work. It was never going to attract me back to practice . . . I just think, being self-employed and being sort of the master of your own destiny, I think was too attractive to give up."

Evelyn – 20-year graduate – non-veterinary

6.1.1.1 Corporate and Group Practice Culture

Several participants spoke specifically of the work environment and culture within corporate and group clinics. They described the effect that these work environments had on their decisions not to take up jobs at corporate practices, their preference for working in private practice, and how the workplace culture in corporate or larger group practices contributed to their experiences in clinical work, and decisions not to return to clinical practice.

One participant who worked for a large multi-branch veterinary practice noted the range of opportunities that were available to her and her colleagues including shareholding, part-time working arrangements, up-to-date technology, and dedicated IT and HR departments but also highly valued the active efforts made by this practice to create a positive work culture, and re-investment into the practice.

However, other participants described less favourable experiences. Some noted how their clinic culture changed when the clinic they were working in was taken over by a corporate or group practice, losing its personal feel, something that these participants valued. These participants described the feeling that they became just a number to their employer and felt there was less personal communication, and excessive layers of management. Eliza noted that this change in atmosphere was a contributing factor in leaving her first job:

"It was becoming more and more corporate, and the kind of congenial feeling – we had a really close core group of vets, and we got on well, and then it just got bigger and just lost the personal part that was really important to me."

Eliza – 10-year graduate – non-veterinary

For Andrea, her perception of the corporate sales ethos came into play when she was looking for a new job. Having been recommended a job at a corporate clinic through her network, she decided not to apply for it based on her previous experiences:

"The job I worked at (overseas) just before I left; that got bought out by a corporate group as well, and you could just see some of the changes that they were trying to implement, and it was just a little bit too kind of hard-sell, which I didn't really – I know you can suggest to clients the best kind of things, but . . . it wasn't quite what I was after."

Andrea – 20-year graduate - clinical

Working in multiple corporate veterinary practices (both in New Zealand and overseas) contributed significantly to Jade's disillusionment with clinical veterinary work and subsequent decision not to return to clinical work after a career break. She viewed their use of financial KPIs, chronic understaffing, run down clinics and equipment, large numbers of new graduate nurses, and having high staff turnover, as unfavourable. She also described working at one practice overseas with triaging systems that prioritised seeing a larger volume of non-urgent, routine appointments over an emergency case which would require more time and resources. This approach did not align with her own values and led her to leave that clinical job.

6.1.1.2 Bullying, Racism, and Sexual Harassment

Some participants experienced bullying, racism, or sexual harassment in their workplaces. Bullying in the workplace was not unique to clinical practice with one participant relaying how the atmosphere within her non-clinical workplace was negatively affected by bullying and contributed to her decision to move on from that job, despite the fact she herself was not the recipient of the bullying.

Another participant described how she had been on the receiving end of dictatorial behaviour and manipulation from colleagues and an employer in one workplace which she described as having a "*systemic nature of bullying*". Here she experienced bullying from a nurse, her veterinarian colleagues, and her employer. Despite being bullied in this job, the participant stayed in this job for some time, as the working arrangements suited her needs at the time. However, an intense episode of manipulative behaviour by her employer around her return from maternity leave was the impetus for leaving this job.

Racism was also experienced by one participant who noted it was particularly prevalent working in clinical practice in the South Island and was specific to New Zealand. She had never experienced racism in her time working overseas. The racism she experienced was primarily from clients, but also in one instance from a nurse on her team and indirectly from upper management. This participant noted that it took much less for a client to make a complaint because of her ethnicity. On returning

to New Zealand from overseas, and deciding where to base herself, she vowed not to return to the South Island due to the racism she experienced there.

Sexual harassment in the workplace was also described by another participant. Again, although not directed at her (rather her employer was sexually harassing the veterinary nurses) it again affected the overall workplace culture and was a contributing factor in her leaving that job, and eventually leaving veterinary work altogether.

6.1.1.3 Women in the Workplace

Some participants also spoke of how workplace culture affected them as women and touched on issues of sexism and the under-representation of women in leadership roles within the veterinary profession.

Evelyn, a member of the 20-year cohort, recalled how women veterinarians were readily accepted (and at times preferred) by farming clients in the mixed practice she worked for as a new graduate. She noted that women veterinarians were no longer a novelty in this practice but acknowledged this was not the case in all practices. This was confirmed by other members of the 20-year cohort who noted the work environment they graduated into was "*very traditional and very male-focused*". Anna reflected on the wider industry culture at the time:

> *"There weren't strong female vet leaders. There weren't any. I don't think there was any*
>
> *visible leaders. The practices I worked at, there were no middle-aged female vets; they just*
>
> *didn't exist . . . so then I look back and think, well actually, where were they? They'd all*
>
> *stopped to have children and they never came back to work, and I should have probably*
>
> *looked at that and thought, why is that?"*

Anna believed that this lack of female leadership in the veterinary profession had affected her career trajectory. Had there been female role models and leadership, at a time when she was at a crossroads in her career, she suspects she would have taken a different path – one that provided her

with greater opportunities to continue her career while raising her family. In looking to the future, she said:

> "I'd just like the veterinary industry to become more family-focused and just more modern, really in terms of being able to still encourage females to be vets, but also to encourage that – that they are going to want to have families and being able to try and make that work with – and for there to be leadership in that so that the pathway – you can actually see the pathway."

Anna – 20-year graduate – non-veterinary work

Holly, a member of the 10-year cohort, described choosing her first job in mixed practice based partly on the fact that there were strong women veterinarian role models within the practice, whose presence had already conditioned the farming clients that women can do the job. However, some of the 10-year cohort members did still note that the industry had some way to go. Jade recalled working as a small animal veterinarian in a practice where clients generally preferred to book in with the male veterinarians and this preference was accommodated by the practice. Some of the 10-year cohort members noted how being a woman can negatively influence a veterinarian's career, referring again to clinical practice not being a family-friendly career option, and some employers being less than accommodating around their need to balance their job and family. Lydia noted that being a woman in practice:

> "Comes with extra complications, especially once you start having families . . . I've had a pretty good experience, but lots of people haven't. I sort of feel like as an industry, females could be looked after better. I'm so fricken sick of adverts coming out; we're after a fixed full-time position. It's like, but you're just closing off so many of the population, that can do job-share and want flexibility."

Lydia – 10-year graduate – non-clinical

Some of the women from the 10-year cohort spoke of how being a woman had negatively influenced the opportunities that were available to them in terms of job and partnership opportunities, and this is discussed further in the opportunities section of this chapter.

6.1.2 People in the Workplace

Participants spoke of how the people (employers, colleagues, and clients) they encountered in their workplaces contributed to positive or negative experiences, and the workplace culture. The people that they worked with were influential in participants' making successful career changes, or in their decision to remain in or change jobs or work types.

6.1.2.1 Clients

Clients played a part in defining how participants viewed their work, and their experiences in the workplace. Negative experiences with clients contributed to the career decisions of some, particularly in leaving clinical practice, or being discouraged from returning to it. However, other participants spoke of how their relationships with clients motivated them to continue in their clinical work.

Several participants spoke of the high value they placed on developing client relationships and how this became a key focus for them in clinical practice, of more importance and interest to them than the actual clinical medicine. There seemed to be some difference in how people who worked in large animal or equine practice spoke of their relationships with clients compared to those in companion animal practice. Those who prioritised building positive client relationships were predominantly in large animal practice. Those in companion animal practice tended to speak more of negative interactions with clients. In turn, participants who placed a high value on client relationships appeared to be satisfied in their work and had frequently stayed long term in their current roles or in previous clinical roles. However, those who described tenuous client relationships were more questioning of their futures in clinical practice, and for some this had already contributed to their decision to leave clinical work or was identified as a barrier to them returning.

Relationships between veterinarians and their clients became more strained when they each placed different values on an animal's health and care, or when veterinarians perceived they were not valued or respected by their clients. This contributed to their overall experience in practice which in turn contributed to their career decisions to leave, or not return to, clinical practice. Participants had contrasting experiences of how they felt respected by clients. Some felt that being a qualified veterinarian meant they were afforded immediate respect from clients, whereas others felt actively disrespected by their clients. Again, there appeared to be some difference between large animal veterinarians (predominantly male participants but also one woman), who reported feeling well respected and companion animal veterinarians (all of whom were women), who often felt disrespected by clients, although it wasn't clear if there was also a gender difference involved here whereby the male veterinarians were more likely to be respected, or to feel respected by their clients.

Some participants described their best clients as people who placed a similar value on their animal's health and wellbeing as they did. Jade (a 10-year graduate) felt that part of her dissatisfaction with clinical practice was influenced by clients and stemmed from constantly "*trying to sell them the idea to take care of their own pets*". She reflected on a wider social attitude in New Zealand of people's right to own pets despite their inability to adequately care for them. Others reflected on how much being a veterinarian is treating the clients and for Melanie, a 20-year graduate, this raised ethical issues which influenced her decision to leave clinical practice. She found it difficult when she was having to follow clients' wishes, which in some cases were not in the best interest of the animal:

> "*I did find with vet, you're usually treating the human – not the animal, indirectly, but that's what it feels like quite often. Some of the cases in England, I did find that very hard. There was one where it was an elderly dog – very elderly dog – large dog that was 18 years old, basically couldn't walk anymore, couldn't do anything, so on so much medication it's probably surprising it doesn't rattle, but they love it to pieces, and they weren't ready to let it*

go. I found that hard, because for me that felt selfish, but I can totally understand their point

of view. Yeah, so for that, I did feel like I was treating the person. I was giving the animal the

drugs to keep it going and help with its pain and arthritis and all that sort of stuff, but I was

treating the person."

<p style="text-align:right">Melanie – 20-year graduate – non-veterinary</p>

In contrast, other participants reflected on the scenario whereby some clients would opt for euthanasia for a treatable injury or illness or requested the minimum possible intervention and this was a point of conflict for them.

Angela noted that the value that clients placed on her as a veterinarian seemed flawed and this contributed to her departure from clinical practice:

"I guess that was part of my disillusionment with vet med, too; was you could spend days of

your life saving an animal, doing life-saving surgery, nursing it all night long, present

someone with a bill for probably a quarter of what your time was worth, and get nothing but

aggravation, but euthanise an animal with empathy and you get a box of chocolates. I just

thought, there's just something wrong with the way people view veterinary service in New

Zealand".

<p style="text-align:right">Angela – 20-year graduate – non-veterinary</p>

Another participant had been particularly affected by her perception of how veterinary clients value her work. She was feeling overcome by what she believed was a societal perception that "*vets – all they care about is money*". Her role in dealing with client complaints at her clinic was taking a toll on her and contributing to the anxiety she felt around returning to her job and had already delayed her return after maternity leave. She felt she may never return to clinical work citing these negative client interactions and the effect they were having on her as a significant factor.

In contrast, some participants who had shifted into non-clinical or non-veterinary roles noted how differently their new clients valued the services they provided and as a result felt it would be hard to return to clinical work. On reflecting on whether she would ever consider returning to clinical work Lydia said:

> "If I could just do the clients that were cool, that would be cool, but I don't want to deal with the dicky ones, because I just can't be bothered. I don't think I could go from having such a high value placed on my time, back to not having that value."

> *Lydia – 10-year graduate – non-clinical*

Evelyn also noted the different dynamic in her non-veterinary job:

> "I'm working closely with people on a regular basis, and they want me to be there, so they're paying me to come, because they want me to be there, and they want me to be a part of their business, rather than not wanting me to be there but having to have me there. So, it's quite a different business relationship."

> *Evelyn – 20-year graduate – non-veterinary work*

At the same time, many of the participants who had ceased working in clinical veterinary work reflected that the positive relationships and interactions they had with their clients in clinical practice were the things they missed or had enjoyed the most about clinical work.

6.1.2.2 Colleagues

Participants' colleagues (including veterinarians, veterinary nurses, and support staff) also played a key role in influencing the workplace culture and how participants felt about their work. Colleagues were a source of support for many, particularly in their first jobs. Many described situations where the collegiality within a practice made it a great place to work, particularly as a new graduate. When choosing a job as a new graduate, many participants looked for colleagues who they thought were

friendly and would help and support them. Participants valued having a positive collegial atmosphere in their jobs and often described this as the best part of a job. They valued working as a team and being able to chat about cases and unwind together.

The professional interests of colleagues sometimes influenced participants' careers. For example, several participants described how they ended up providing the companion animal services in a mixed practice because their colleagues weren't interested in doing so. In addition, the departure of a colleague or colleagues from a workplace also influenced participants' career pathways, and although difficult at the time, as it often meant the loss of a support network, this resulted in them gaining opportunities to develop relationships with clients as well as allowing them to extend their clinical skills.

Unfortunately, for some participants their colleagues contributed to a less than ideal work culture. Some participants described unprofessional behaviour in their veterinarian colleagues, which included bullying, demonstrations of anger in the workplace, and contradicting the advice of other veterinarians in the practice to clients.

6.1.2.3 Employers

Relationships between participants and their employers or managers often had a significant influence on their career experiences, particularly in the early years. Participants described how their employers influenced the workplace culture and were seen as a crucial source of support. The degree to which employers supported participants, especially in their new graduate jobs, influenced the career decisions of some participants.

Participants spoke at length of positive relationships with their employers which were based on them giving time, making their employee feel valued, and showing genuine care. However, negative interactions had a more direct influence on people's career decisions, in some cases influencing participants' decisions to pursue non-veterinary work. Melanie reflected on how one of her early employers contributed to her decision to leave clinical veterinary work:

"He was an awesome vet in some ways – some of the stuff he did . . . but definite small man syndrome – just (an) angry little man, and that just wasn't pleasant to be around, and really put me off vet work.

Melanie – 20-year graduate – non-veterinary

Liam, a 20-year graduate, described one of his early employers as a "*bit of a tyrant*" noting that he left him feeling unsupported and the limited feedback he did provide was unconstructive. Liam had a tumultuous time working in clinical practice and having no to minimal support from his employers in his first two clinical jobs was a significant factor in his decision to leave clinical work for good.

When participants didn't feel valued by their employer, or experienced a mismatch of values with their employer, they started to consider other job options. Amy described how her manager (a large animal veterinarian) couldn't help her with companion animal cases, but at the same time was judgemental of her work. She noted that this manager didn't think the companion animal side of the practice was important as it was not profitable, and the manager's prioritisation of money over animal welfare contributed to her leaving this position. In addition, the manager did not appear to value Amy's efforts. Recalling a tricky surgical case with a successful outcome, that left her with a sense of accomplishment and some very happy clients, Amy spoke of her manager's response:

"I remember telling my manager . . . and she just said, 'did they pay'? You know and you're like oh that's, that's all that it's about for her is did they pay? There was so no sort of 'wow that's amazing that you did that' . . . or anything like that. It was just 'did they pay'? And so that I found that really, really disheartening. I think that if I had stayed any longer at that job it would've been quite soul destroying."

Amy – 10-year graduate - clinical

Several other participants noted that they did not feel their employers valued their efforts, subsequently leading to them to search for another job. Holly reflected on her employer's view of the veterinarians he employed:

> *"All we were was an expense to his sales business, essentially to farmers. Yeah, we weren't developed – we weren't invested in; we were just there to work our arse off as the ambulance at the bottom of the cliff."*

> *Holly – 10-year graduate - clinical*

Some participants were hoping to develop and progress within their jobs; however their employers didn't share this focus. This lack of shared vision led some participants to move on from their clinical jobs, either into another clinical job or into non-clinical work. Mismatched values influenced Oliver in his decision not to go into partnership in a practice, despite his initial intention of doing so. He reflected on the reason for this decision and his subsequent departure from that practice saying:

> *"I was sold the role that there was partnership potential in the first six to 12 months. I guess the reason why (I didn't go into partnership with them) is I questioned whether we shared the same values . . . I thought at the time that they didn't treat their staff as ethically as what sat well with me. This is where they had agreed to staff taking holidays; staff had booked holidays and things like that, and then they would turn around and say, no we can't kind of thing. I didn't think that was fair to the staff. I guess that made me question whether we shared the same values."*

> *Oliver – 20-year graduate – non-clinical*

6.1.3 Support

The adequacy of the support available influenced several participants in their early career decisions to leave their first jobs or to leave clinical practice altogether. There was some variation in the level of support that different individuals required or desired as new graduates. Several participants who had negative experiences of support early in their clinical careers no longer worked in veterinary

clinical practice. However, this was not a consistent feature: not all participants who had positive early support experiences were still in veterinary, or clinical veterinary work.

The phrases 'sink or swim' and 'thrown in the deep end' were frequently used by participants to describe their first jobs as veterinarians and occasionally in relation to subsequent jobs. For some, the feeling of being 'thrown in the deep end' was overwhelming, while for others it was enjoyable. While part of this difference in reaction may have related to their own characteristics and personalities, it seems that the level of support available in their jobs affected how well they coped.

Participants spoke of multiple sources of support within the workplace, including their employers, colleagues, (veterinarians, nurses, and support staff), and clients and described a range of support mechanisms, most of which were informal in nature. In some cases, technical support, such as advice for carrying out a procedure, and having an experienced colleague to demonstrate techniques and provide advice on case management was valued. However, for participants, support went well beyond this and included providing encouragement and back up, knowing someone was looking out for them, having someone to talk to about cases or life in general, support to pursue further study or areas of interest, and support in their lives outside of the workplace. One participant felt that the unwavering support of her team at work, at a time when she was affected by a personal tragedy, had a significant influence on her remaining in that clinical job for as long as she did.

Where participants had positive experiences of support, they described people giving their time and showing genuine care, as well as sharing their own vulnerabilities. Support staff, including veterinary nurses and other members of the veterinary team were also noted for their role in supporting participants in the workplace, particularly as new graduates. Oliver recalled how the support staff in one of his early clinical jobs supported him:

"They had good long-term support staff who - probably even the nurses and receptionists and stuff kind of perhaps took under their wing, the young graduate vets kind of thing - would try and make your life as easy as possible. I know that they used to have a little secret stash of names under the appointment book of clients that didn't want to see a particular vet. But they'd never tell you that. They'd organise your day for you, and we didn't actually know that this client didn't actually want to see you again."

Oliver – 20-year graduate – non-clinical

Positive experiences of support not only set participants up well in their early careers but also influenced the success of their transitions away from clinical practice. Evelyn attributed her successful transition into her non-veterinary job to her very supportive employer.

"The next boss I had; he was a really good boss as well – a really good mentor, because he just pulled you in and gave a really good induction into a totally new role for me. So, it wasn't sort of throwing me in the deep end . . . again he invested a lot of time, and I'm really grateful for that, because it could have gone badly wrong if he'd just thrown me in the deep end, and I would have been back to practice with my tail between my legs."

Evelyn – 20-year graduate – non-veterinary

Participants also reflected on how their positive experiences of support early in their careers subsequently led to them paying it forward as they became more senior. Adam described how he tried to support new graduates by sharing his own vulnerabilities, as his senior colleagues had done for him:

"Again, talking back to how good (the clinic) was as a new grad, the first time that I killed a cow accidentally – and then coming back to the clinic, and being like, 'oh my god'. It was a milk fever cow and I was treating it for milk fever, and she died; it quite possibly wasn't me at all, but the farmer's there and is like, why did the cow die? You're like, I don't know. Going back to that

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office, the experienced vets just kind of stopped whatever they were doing, and we sat around all afternoon talking about all the times that they'd had terrible disasters, and that was a really good supportive thing for them to do. Since then, I've done that for other new grads, where I would tell them things like the story about when I killed the cow . . . because I really appreciated what they did to me."

<div align="right">

Adam – 10-year graduate - non-clinical

</div>

Unfortunately, some participants had negative experiences with support early on in their careers, with absent or unhelpful employers. This lack of support led some participants to leave their jobs and others to leave clinical work altogether. For Liam, having very little guidance at all in his first two jobs was critical in his decision to leave not only those jobs, but clinical work altogether. He described being "*chucked in at the deep end*" and didn't cope well with the stress that ensued. On speaking of his employer, he recalled:

"I can't even remember him helping, observing any of the surgeries or you know having a period where I would you know have been in consultations together."

<div align="right">

Liam – 20-year graduate – non-clinical

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Thankfully, Liam had a positive experience of support in his subsequent non-clinical work. He noted how pivotal this was, not only for his career, but also in his life outside of work. He described a person in his workplace who became a big supporter:

"He was a big influence. I owe (this person) a lot. He was basically my mentor . . . not just for (work) but just as someone to look up to . . . it was kind of the first sort of positive thing for a long time".

<div align="right">

Liam – 20-year graduate – non-clinical

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Another career stage at which support was important to veterinarians was returning to practice after a career break. In some cases, participants described feeling a lack of support from the Veterinary Council of New Zealand (VCNZ) to return to practice and this either delayed or prevented their return. Maria (a 20-year graduate) felt discouraged in her initial dealings with the VCNZ when she was looking at returning to clinical work and this delayed her return. She noted the lack of support pathways for returning to practice, the need to find a mentor, and the financial resources needed to complete the re-entry process made the transition back to clinical practice challenging. However, she did go on to complete a refresher course when it became available and subsequently transitioned back into clinical practice. Anna was on the verge of returning to casual part-time veterinary work at her local practice. However, she felt VCNZ made it difficult for her to be employed where she had to do small animal after-hours, as she had previously worked as a large animal veterinarian, and to this day she hasn't returned to veterinary work, citing her experiences in dealing with the VCNZ as "*very off-putting*":

> "*I mean, they are certainly not encouraging, I think, of women going back to work after having children. I found them the opposite, and certainly on the phone I found them very negative…*"

Anna – 20-year graduate – non-veterinary

6.1.4 After-Hours, Work Schedule, and Workload

Participants often spoke of after-hours duties as a challenge, especially early on in their careers. The demands of their after-hours roster influenced some participants to search for a new clinical job, with a less demanding rota. Their experiences with after-hours duties did contribute to some participants' shift away from clinical work, however, it didn't appear to be a primary influence in any of the cases. Some participants noted that not having after-hours duties in their non-clinical or non-veterinary work was a bonus, and something they came to value, however the after-hours

requirement in their clinical work was not a primary reason for their career change. They did however believe that having to participate in after-hours duties would be a barrier to them returning to clinical work in the future. Similarly, experiencing a clinical role with no after-hours responsibilities influenced what clinical jobs Oliver would apply for in the future:

"That role had no after-hours, and I just noticed the difference it made me to my quality of life, and I made a bit of a deal with myself that I would never do after-hours again."

Oliver – 20-year graduate – non-clinical

Others noted that they would not be put off applying for a clinical role that had after-hours requirements if other aspects of the job were favourable. Further to this, several participants described an enjoyment of participating in after-hours duties, suggesting that it was when you saw some of the most interesting cases. For some it was fun and exciting and after-hours callouts gave participants the opportunity to give things a go.

Participants' early experiences with after-hours duty often contributed to whether they had a positive or negative early experience in practice. Early negative experiences with after-hours contributed to some participants leaving clinical practice. Much of this was ascribed to the lack of support they received and their personal capacity to cope rather than the actual after-hours work itself. However, Fiona (a 20-year graduate) found that being on-call was stressful and knew early on in her career that it wasn't something she could do forever, as she found herself losing sleep and worrying about her patients.

In addition to their experiences with after-hours duties, participants also commented that working long hours, weekends, and public holidays in clinical practice influenced their career decisions. For the cohort members who had left clinical practice, working hours had been a consideration for some and several participants noted that clinical practice was not a life-friendly job due to the working hours required and having to work nights and evenings. Fiona went as far to say that for her, full-

time clinical work was "*incompatible with normal life*". Some wanted to work a nine-to-five job or "*normal hours*", where they could leave their work at the end of the day and this, along with the prospect of having public holidays off, contributed to them pursuing options outside of veterinary work.

Many participants spoke of their experiences of working part time and Andrea noted that for her, it was more sustainable. She felt she was unlikely to ever return to full-time clinical work as she couldn't fathom returning to a regime of working 8am to 7pm as she had previously.

> "*Now I kind of feel that definitely working part time, I think you appreciate the job more; whether you do the job better, or you have more enthusiasm for it, because you don't feel as stressed and as overloaded as I remember when I was working full time.*"
>
> *Andrea – 20-year graduate - clinical*

Perhaps the most prominent discussion relating to working hours was centred around flexibility, which was valued by participants who wanted more control over their working day and the ability to adapt their working day to enhance their work-life balance. Several participants spoke of finding flexibility (both in terms of managing their workday and hours of work, and in the ability to work remotely) outside of veterinary clinical practice and made note of the limited flexibility available in clinical veterinary practice. Numerous participants recognised that the most favourable aspect of their non-clinical or non-veterinary roles was the flexibility it provided them. Fiona contrasted the flexibility in her non-clinical job with the lack of flexibility in clinical practice:

> "*If one of my kids calls and says – or the school calls and says they're sick, I can stop what I'm doing and I can go and sort them out, and I can go and get them. Vet – I might be in the middle of surgery and I can't – you can't do that.*"
>
> *Fiona – 20-year graduate – non-clinical*

However, an appreciation of flexible working hours was not unique to women with children. James identified the lack of flexibility in terms of managing his workday was a factor in his decision to leave clinical practice and Adam, although not originally intending to leave clinical practice, found the flexible working hours to be a positive aspect of his non-clinical job. He felt that his newfound enjoyment of having this flexibility could be a barrier to him returning to clinical practice in the future.

Participants also spoke of difficulties in negotiating their work schedule. Their experiences in negotiating working hours, particularly on returning from maternity leave, was relevant to the career trajectories of some participants. Several participants noted difficulties in negotiating working arrangements that suited their requirements, resulting in undesirable working hours or their departure from a clinical job. Tegan spoke of her experience saying:

> *"It had been fine before I went on maternity leave; it had all been pretty open – it was like that's probably what's going to happen – three days a week – no problem. Then, they try and manipulate you when you're at your most vulnerable, because you're tired – you're stressed . . . Within one or two weeks of trying to negotiate coming back to work, I had to just come back full time, because we couldn't come (to) an agreement."*

> *Tegan – 10-year graduate - clinical*

Amy also described a negative experience with negotiating her work schedule after becoming unwell, which subsequently led her to leave this clinical job. She believed that contractually she had a case to argue, however she said:

> *"At that point I just didn't want the fight. I didn't wanna go through it and so then I thought there's gotta be something better than this."*

> *Amy – 10-year graduate - clinical*

Negotiating annual leave was also a point of contention for one participant. Having a request for annual leave for Christmas Eve declined, despite requesting it months in advance, saw one participant resign from a clinical job. To them, being able to spend Christmas Eve with their children was more important than staying in that job.

Participants also spoke of workload issues, specifically, having too much work to do in the time available. This led to dissatisfaction, and the realisation that such working arrangements were not sustainable longer term. In some cases, this scenario arose when participants were trying to juggle management and clinical roles within a job and resulted in participants dropping one aspect of the role to focus on the other. Adam's experience of having an excessive workload due to management duties on top of his full-time clinical work led him to decline the offer of management responsibilities in his subsequent job. Heavy workloads were not unique to participants in clinical veterinary work. Nina described the difficulty she experienced in juggling the multiple aspects of her non-clinical veterinary work, which contributed (along with a lack of recognition for her efforts) to her departure from this job.

> *"There just wasn't enough time to do it all properly . . . so the expectation was always that you'd be working 60-80 hours a week, and you got paid for 37.5 of them."*

> *Nina – 20-year graduate – non-veterinary*

6.1.5 Remuneration

Nina was not the only participant to refer to remuneration as a factor and several other participants described how their level of remuneration influenced their career decisions. Their perceptions of being underpaid or well-paid influenced their level of job satisfaction, contributed to their sense of value in their jobs, and for some influenced them in their decisions around returning to or leaving clinical practice. Key to understanding participants' perceptions of their remuneration was their belief that their remuneration should reflect the effort and hours they put in, the sacrifices made for

the job, and stress that it caused. Robert noted his frustration in his practice's strict adherence to the club pay scale[6]. This was a contributing factor in his decision to leave clinical practice to explore other opportunities as he felt that:

"Remuneration should be related to your value in terms of what you bring in, in terms of business, in terms of clients, in terms of work ethic and what you deliver, I felt should be reflected in what you were paid."

Robert - 10-year graduate – non-veterinary

Other participants valued the financial rewards that came with practice ownership or partnership and noted that this was crucial in maintaining their motivation and drive to remain in veterinary work. Ben, a practice partner also noted the importance of the financial rewards matching the effort that he put in, saying:

"If I was doing it for 60K or something like that I would probably go and do something else. So it's gotta be, I don't know what that number would be - but yeah I definitely enjoy it, but I wouldn't do it if it wasn't - if I wasn't getting what I thought I was due out of it."

Ben – 10-year graduate - clinical

Where participants felt they were not adequately remunerated, this perception was often based on comparison with others, including their peers within the veterinary profession and people in other professions. They compared their own remuneration with that of professions requiring a similar period of education, with similar university entry requirements (such as doctors and optometrists) and jobs that required a much shorter university degree, or no degree at all. These comparisons led to dissatisfaction among some participants who perceived that their remuneration was relatively low. Realising that others were earning equivalent or more than them, despite shorter periods of

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[6] This is an unofficial pay scale (not compulsory for businesses to follow) that outlines a standard salary range for veterinarians of a certain level of experience.

study and fewer personal sacrifices (such as working after-hours) left some participants feeling undervalued and disillusioned, and questioning their future in clinical practice. Similarly, finding out that their veterinary peers were receiving higher rates of pay was a source of disillusionment for some. Participants also compared their remuneration to that of their spouse, and it wasn't only veterinarian couples that spoke of the differences in their remuneration. As a veterinary student, Maria (a 20-year graduate) believed she would have a similar earning ability to her (university educated, non-veterinarian) husband, however this proved not to be the case, with him earning significantly more. One of the primary reasons for her pursuing a non-clinical veterinary role was the financial reward of doing so, and she was now earning a salary similar to that of her husband for the first time. The level of remuneration in her clinical job was also a contributing factor in Naomi's uncertainty around returning to clinical practice after a break.

"Now I'm starting to think – and I don't like the fact that I'm thinking along these lines; I don't even really think I'm paid well enough – I don't get paid as much as (my husband) or even – I was talking to someone the other day who does payroll stuff and by the time you take out what we get paid for after-hours, she actually gets paid more than I do. Why am I doing this job when I could just go and pay people, or whatever – I don't know – do something totally unrelated without all the mental anguish."

Naomi – 10-year graduate – career break

Changing jobs offered some participants the opportunity to receive a pay rise. This was a factor in Robert's decision to leave his first job, where the new job offered a better salary package. Several participants referred to how their remuneration influenced whether they felt valued in their jobs. For some, this only became apparent when they resigned from a position and their employer tried to retain them by offering a pay rise. For James, his employer's offer of a pay rise after he resigned confirmed for him that his decision to move on was the right one, as he felt they hadn't valued him

until then. Anna described her experience of getting a job offer from another practice, who offered her a significantly higher salary than she was receiving in her clinical job at the time:

> *"So, I took that information and . . . I just went to my practice manager . . . and said, oh I've just been offered a job that pays $25,000 more. He says, oh I better pay you $25,000 more then. So, I just got a massive pay rise, and I was like, but hang on a minute – you've just been underpaying me. Oh yeah, but you didn't know, did you? So, that to me – that's not very good."*

> *Anna – 20-year graduate – non-veterinary*

6.1.6 The Nature of Clinical Veterinary Work (and its Effect on Health)

Several participants from both cohorts reflected on the nature of clinical veterinary work, particularly how the physical requirements of repetitive large animal work took a toll on their bodies. For several participants, this played a role in their decision to step away from clinical veterinary work and others noted it may limit their clinical career in the future. For one participant with a pre-existing physical condition, it became apparent to her that her ability to work in clinical practice would be limited and this contributed to her pursuing other types of work. For others, the physical aspects of the job caused wear and tear on their bodies over time. William, who loved his career in clinical practice started to think about alternative work options when the physical aspects of the work started to affect him.

"I'd sort of think . . . I've got a week's preg-testing – got four o'clock starts every day this week – probably it will be 5,000 cows or 7,000 cows by the end of the week – my wrist hurts – my shoulder hurts – I know I can do it and I get by, and I can do a good job, but really I can't be bothered . . . Parts of my body were hurting. So, I felt like – I'd been thinking for a few years, it would have been nice to be able to do something else; I just didn't know what to do."

William – 20-year graduate – non-clinical

The effect of the physical, repetitive nature of the work influencing career decisions was not unique to the 20-year cohort. Robert, a 10-year graduate, described his realisation that the physical nature of his work and the effect on his body would limit his career in large animal practice. Robert also highlighted how the sub-optimal facilities on-farm exacerbated the physical demands of the job. Other participants also referred to this noting that the facilities available on-farm contributed not only to how efficiently they were able to work, but also how they felt physically afterwards and in turn, the long-term wear and tear on their body.

For some, the physical aspects of the work environment created a barrier to returning to clinical work. Having worked in large animal practice prior to taking a career break, Anna knew her "*shoulders wouldn't allow it now*". Looking back, she noted that she picked up a lot of injuries working as a large animal veterinarian and had since realised that her frequent visits to the physiotherapist were not normal.

In many instances, participants had not foreseen the amount of routine, repetitive work that their job as a clinical veterinarian would entail and that often, this didn't require any intellectual input. This was noted predominantly regarding large animal work but also in some cases, by those in companion animal practice, where much of their work consisted of vaccination appointments. While William noted the repetitiveness of pregnancy testing thousands of cows per week, James noted the

seasonal repetitiveness of his large animal work and the influence this had on his decision to pursue a non-clinical veterinary role, where he found each day brought a new challenge. He described his time in large animal practice as resembling "*Groundhog Day*". He questioned:

> *"Did you have eight years' experience, or do you have one-year experience eight times over?*
> *It was probably in hindsight the latter, rather than the former."*

> *James – 20-year graduate - non-veterinary*

Their physical safety while working with large animals also influenced some participants in their career decisions. Having found herself in some less-than-ideal situations on-farm while pregnant, Amy decided to stop doing large animal work and focus on companion animals. Some participants also referred to the physical and health and safety aspects of companion animal practice including bending over a surgery table, exposure to chemicals and radiation and working in high stress, high pressure environments. Having gone on to work in companion animal practice in the UK, these factors caused Robert to further question his role in clinical practice, and work-related stress caused physical symptoms for another participant who, after a period of sick leave, subsequently left this clinical job.

6.2 Theme Two – The World I Know (Non-Work Influences)

The participants' world outside of work also had a role to play in influencing their career decisions. Non-work influences occur independently from the workplace and are not directly related to the veterinarian's career or job but can influence their work values and career decisions. There were three main non-work aspects that influenced career decisions - family, lifestyle and leisure interests, and travel. The location in which participants chose to live (and work) was also important and underpinned the discussions of both family circumstances and lifestyle and leisure interests. The influence of location is discussed alongside each of these other non-work influences in turn.

6.2.1 Family Situation (and Location)

Family circumstances were an important part of the participants' worlds outside of work and the most frequently discussed non-work influence. Family circumstances were most commonly (but not exclusively) referred to by women. Participants referred to how their children, partners, and other family members such as their parents and extended family played a role in their career decisions.

For some participants, proximity to family members was a factor in choosing their first job. Angela, a 20-year graduate, spoke of being distanced from her family support network in New Zealand when she accepted her first job overseas. This was significant for her at that time, contributing (along with a lack of support within the workplace and feeling overwhelmed) to her departure from that job after less than a year.

The desire to have children started to influence the career decisions of some participants even before their children's arrival. Decisions were made around what jobs would work for them when they had children. Some foresaw a challenge around combining their work in clinical practice with starting a family.

> *"I think a lot of decisions I made were me consciously saying, look – I want to have children – I need to have a job where I can work around that. Knowing my previous experience from clinical practice it was going to be a challenge."*

> *Fiona – 20-year graduate - non-clinical*

Participants' family situations also influenced their priorities, and where, if, and how they worked. Having children was a catalyst for some women to shift their focus away from work and their careers, and towards their family. In some cases, their desire to be there for their children influenced them not to return to veterinary work after taking time away. Several participants noted that work was not as important to them any longer, preferring to spend time with their children, who were their number one priority. Jade summed up how her priorities changed:

"Just something changes in you when you have kids. You're like, this stress is so not worth it – I'm trying to get these two little independent kids to grow up and be happy – if I come home unhappy every day, they pick up on it, and they end up having unhappy childhoods. So, for us, it just wasn't worth it – for me. So, yeah something changes in you when you become a parent. Your priorities shift, you'd rather sit up and get your baby to sleep for two hours, than sit there and try and figure out a case."

Jade – 10-year graduate – career break

Anna summed up how her family values were instilled in her from her own upbringing and reflected on what this meant for her career:

"The reason I think I haven't gone back to clinical practice is because – for both my husband and I, we had stay-at-home mums that had both given up their careers . . . I think the drive for me, to be a stay-at-home mum is stronger than anything else. I can't fight it. I just have to accept it, that while I've got young children, I actually want to be here for them."

Anna – 20-year graduate - non-veterinary

Anna had dipped her toe into doing some clinical work but found that the hours didn't work for her as she found it stressful having to rush her children to get to work in the morning. Having limited childcare options presented difficulties for those working in small towns and trying to juggle work commitments. Participants recognised that they may gain more freedom in their career decisions when their children start school, and again when they are older and more independent.

Maintaining or improving their proximity to extended family was important for some participants, who wanted their children to be close to their grandparents, or after a health scare led them to re-evaluate where they wanted to live and work. Some participants had returned to New Zealand after a period working overseas as they wanted their children to grow up in New Zealand. Andrea, a 20-year graduate, noted that having her parents nearby to help look after her children would allow her

to do more hours of clinical work but for another, living near family meant career sacrifices, as there were limited job opportunities in the region where she lived:

> *"Probably, at least in the next 10-20 years, I won't be doing my preferred job, just because of family and wanting to live somewhere that's close to extended family. So, (my husband's) parents live close-by, so that allows us to be close to the grandparents, and again – my husband's job is in this area, and we think this area's a cool place for the kids to grow up."*

> *Grace – 10-year graduate – career break*

Participants also spoke of how their partner influenced their career decisions, referring to gender roles within the relationship, relocating for a partner to pursue job opportunities, moving to a different town to pursue a relationship, and supporting their partner in their career. In some cases, this meant making compromises in their own careers. Many of the discussions were around women following their husbands, although two of the men described relocating to follow or to be closer to their (female or male) partners. In some instances, participants noted that there were limited job opportunities for their partner in the area in which they lived which led them to relocate to other regions or in some instances, other countries. Others with more specific expertise found that returning to New Zealand for family reasons meant there were fewer job opportunities available to them in New Zealand.

Fiona reflected on her own decisions to follow her husband wherever his job opportunities took him and to allow him to push forward with his career while she took care of their children and adapted her career accordingly. She mused on the fact that there was never any discussion about this, but rather these roles were assumed. Fiona noted her surprise that she had effectively followed the "*traditional pathway*" despite being career focused and being brought up by a mother who she described as a "*big feminist*". She ascribed her adherence to this traditional gender role, to the

culture in the veterinary school during her time as a student, which she believed influenced her subsequent career.

"What was perpetuated at Massey when we were there is the boys are up here on a big pedestal, and the girls won't practice for very long, because they'll all stop and have babies. I actually think really, subconsciously, that was really drilled in, so here I am . . ."

Fiona – 20-year graduate - non-clinical

6.2.2 Lifestyle and Leisure Interests (and Location)

Career decisions were also influenced by participants' lifestyle and leisure interests that were central to their world outside of work. Again, location was influential with participants opting to base themselves where they could pursue these interests. Wanting a job somewhere "*not too remote*" or isolated, and close to other larger centres was influential to some. For James, part of the decision to accept his first job was the location, which enabled him to pursue his main hobby, something he wouldn't have been able to do from some other regions in New Zealand.

Some participants revealed that a key motivator for them to remain in their clinical roles long term was their love of the town they lived and worked in and the lifestyle it gave them. James ended up staying in this first role longer than most and when asked what had influenced him to stay for this long, he replied:

"Yeah, not the job, for a start . . . It was things out of work."

James – 20-year graduate – non-veterinary

Participants recognised the importance of being happy outside of work but also noted how it could be difficult to balance leisure activities such as going to the gym or joining a social sports team, with the demands of after-hours duties.

Despite expecting to work as a mixed practitioner and become a partner in a small-town mixed practice, and his love of calving cows, Oliver discovered while working abroad, that he enjoyed the lifestyle that came with living in a big city. This was instrumental in his shift to companion animal practice.

For Andrea (a 20-year graduate), changing location was significant in her career pathway. At one stage she recalled questioning her future in clinical practice however, she reflected that changing locations (countries) and in turn her job, every few years, kept her motivated in her work. For others it wasn't so easy to move. William (a 20-year graduate) noted that it becomes harder to shift as you get older having *"put roots down; it's a bit harder to pull them up"* and noted a lack of desire to have to start from the beginning somewhere else, having already started to progress within the practice.

6.2.3 Travel

For many participants, the desire to travel and undertake a working holiday/overseas experience (OE) influenced their career decisions. The opportunities to travel and work abroad that came with veterinary work influenced William to pursue a veterinary career, while Jade based some of her career decisions on her desire to see the world:

> *"I was never going to be able to match my wants of travel with doing that kind of practice, so I ended up doing small animal, which still upsets me to this day, that that's what I've done now. I really wish I didn't, but in saying that, in hindsight, there's no way I could have done all that travel . . . I had to choose, and I chose life over career."*
>
> *Jade – 10- year graduate – career break*

Participants described their desire to explore the world and often viewed the OE as something you almost expected to do, a New Zealander's rite of passage. Adam reflected on this saying:

> *"Both my parents and (my wife's) parents . . . were from that time where they'd both gone and done some period of time working in the UK, and I think it was – subconsciously I*

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thought that was what you did. So, it was always on the cards, and it was more a question

of, if we're going to go locuming, we probably should be competent, and so work for a bit till

you're happy and then go and do it."

<div align="right">*Adam – 10-year graduate – non-clinical*</div>

Participants frequently reflected on the timing of their OE, particularly in relation to developing the skills they needed to locum overseas. Many participants left their first jobs to venture off on their OE. In some cases, participants declined partnership offers, preferring to fulfil their desire to travel. While travelling and working abroad, many got to experience other types of veterinary work. For example, several participants who had been large animal or mixed animal veterinarians in New Zealand were employed as companion animal locums. For some, this cemented for them that they preferred large animal work, while others switched their focus to companion animals. Working overseas also allowed some participants to explore opportunities outside of clinical practice, such as working for the government in the foot and mouth outbreak response in the United Kingdom, or other non-veterinary work.

Returning to New Zealand, was an important point in many of the participants' careers, where they took stock and considered their career options. Several participants returned to their previous workplace. In some cases, this was pre-arranged, and jobs were held open for participants on their return. However, in other cases it was unplanned and came about via fortuitous timing and opportunity.

6.3 Theme Three – Opportunity Knocks (Opportunities)

The opportunities available to participants throughout their careers were influential in shaping their career pathways, and the timing and circumstances in which these opportunities arose was important. At times opportunities 'came knocking' and this was influential in altering participants' career trajectories. The availability of job opportunities at the time of graduation was influential, as

were subsequent job and partnership opportunities. Some participants felt that their gender had influenced the job and partnership opportunities available to them. In addition, participants reflected on how opportunities within their workplaces influenced them. For instance, having opportunities to pursue professional interests, further develop their skills, or be promoted within a workplace were some of the opportunities discussed. Furthermore, offers of partnership, shareholding, or management roles within their workplaces also influenced participants' career trajectories. When opportunities arose within their workplace, this often influenced participants to remain in that workplace through providing them with a change, a new challenge, or career progression.

For some, the search for better opportunities for career progression led to pursuing a veterinary career initially, while opportunities to enter a non-clinical or non-veterinary role, or a perceived lack of opportunities within clinical practice featured prominently in the career stories of more than half of those that had left clinical practice. Several participants who switched to non-clinical or non-veterinary work noted greater opportunities to develop, progress, and achieve promotion in their new roles.

6.3.1 Job Opportunities at Time of Graduation and Beyond

There was a stark contrast in the availability of job opportunities for each of the cohorts early on in their careers. Despite graduating amid the Global Financial Crisis, job opportunities in New Zealand were plentiful for the 10-year cohort. Several members of the 10-year cohort described having multiple job offers, allowing them to choose which job they felt was the best fit for them. However, almost all participants from the 20-year cohort commented on the lack of job opportunities in New Zealand when they graduated. Fewer of the 20-year cohort were able to secure a job in New Zealand, and those who did noted their good fortune in doing so. This scarcity of jobs in New Zealand and feeling under pressure to secure a job resulted in many participants taking up their first job overseas and/or accepting jobs that were not ideal for a new graduate. For instance, participants

worked sole charge in an after-hours clinic, worked in jobs with minimal or no support available, and worked as locums. For some, these early experiences had a significant effect on their subsequent careers. The challenge of entering their new careers in an overseas location away from existing support networks proved difficult, resulting in some cases, in negative experiences which led some participants to reconsider their future in clinical veterinary work.

However, it wasn't just these early job opportunities that were influential and the job opportunities that arose throughout participants' careers were important. The timing of opportunities was crucial, as were participants' circumstances at the time. Many participants went in search of new job opportunities when they were dissatisfied with their current situation, were at a crossroads of deciding where to next or were starting to think that they needed a change. Several participants spoke of actively approaching clinics and other workplaces in search of opportunities and this approach led to some participants securing a new job.

However, it was not only clinical job opportunities that were influential and timely openings in non-clinical and non-veterinary jobs that participants either went in search of, or arose more serendipitously, were important for around half of the participants that had shifted away from clinical work. Evelyn spoke of the importance of an opportunity in shaping her career change to non-veterinary work.

> *"Yeah, I think it was a time in my life when I had come back from overseas, and it was really only because I had that offer; if I hadn't, I would have gone back into practice, so it was more opportunity, I think and timing. I guess I was prepared to take a risk to see what it was like, and if hadn't have worked out, then I would have gone back into practice."*
>
> *Evelyn – 20-year graduate - non-veterinary*

At times, opportunities presented themselves in a serendipitous fashion, when participants were not specifically looking for them. Adam was content in his clinical job when he received a non-clinical job

offer from a colleague. After some discussion and encouragement from his colleague, he accepted the job saying:

> *"It kind of felt like there was no jeopardy involved in taking this other job, because I wasn't leaving under a cloud, or anything like that. I wasn't like, I'm so sick of this – I have to do something else. It was more like, oh this opportunity came up – it doesn't necessarily come up that often, so let's give it a go, and see what happens."*

<div align="right">

Adam – 10-year graduate – non-clinical

</div>

It was often an opportunity that cemented participants' decisions to shift from clinical work however a few participants made the decision to step away from clinical work in the absence of the next opportunity. They did this when they could no longer cope with their clinical veterinary role or had decided to prioritise other aspects of their life or work.

Some participants turned down opportunities when the circumstances weren't right. Several participants described turning down partnership opportunities in favour of travelling or when the fit with the other practice partners was not conducive to a successful partnership due to a clash of values and poor personality fit. These participants highlighted that an opportunity alone was not necessarily enough to change their career direction, the circumstances and timing had to be right.

Some participants reflected that developing niche roles had the effect of narrowing the job opportunities available to them, particularly in relation to the location in which they chose to live. One participant noted the challenge he faced with limited job opportunities for his non-veterinary role available in New Zealand. For him this meant working for an overseas organisation, and the requirement for regular travel away from his New Zealand base. The availability of job opportunities was also relevant to those with niche roles within clinical veterinary work. Grace reflected on her choice to pursue a specific career pathway, with limited employment opportunities in New Zealand.

"I don't regret doing the career path that I've done, but it does make it difficult now; I'm quite narrow in what I can be employed in, especially in New Zealand . . . I think having somewhat limited my career opportunities within veterinary science, does make me wonder if I should have gone for something a bit broader."

Grace – 10-year graduate – career break

6.3.2 Lack of Opportunity to Pursue Interests or Progress Within a Job

Opportunities, or a perceived lack of opportunities were relevant in moving between jobs, and between clinical, non-clinical and non-veterinary work. Reflecting on the contrasts between the two clinical jobs she had held, Holly noted the difference in the opportunities that were available to her within the two different clinics. A lack of opportunity to advance professionally in her first role ultimately led her to leave this job, however in her current role she felt the opportunities were endless:

"I'm learning so much even just about business, and learn(ing) people-management, and just opportunities abound, really. Not that I'm really interested in much more than being a (type of) vet, and helping lead the team, but I mean, you literally could do what you want here, whether it was restricted hours, or specialise in something."

Holly – 10-year graduate - clinical

A perceived lack of opportunities to pursue their interests within a job or to be promoted or further develop their skills or expertise within a job also influenced some participants to explore possibilities outside of clinical practice. Evelyn reflected on how opportunities for her to pursue her interests within a clinical setting were limited.

"I do sometimes think what would have kept me in practice; apart from the timing side of it, I guess it would have been – would I have been able to develop the skills – the business and

the (specific) skills within a practice? To be honest; at that time, I don't think I could have. It might be different now, but I'm not sure how far the profession has come".

<div align="right">*Evelyn – 20-year graduate – non-veterinary*</div>

Nina became frustrated in her non-clinical role when opportunities to develop and achieve promotion were limited. She reflected on how the requirements for gaining promotion were vague and ever shifting and this contributed to her decision to move on from this role, saying:

"I could sit here and work my backside off for the next five years and be no better off for it. I wasn't prepared to keep doing that for potentially no reward at all."

<div align="right">*Nina - 20-year graduate – non-veterinary work*</div>

6.3.3 Gendered Nature of Opportunities

While opportunities were deemed by participants to have played an important role in their career pathways, some participants reported that their gender had influenced the opportunities that came knocking. This was reported both in the context of job opportunities and in opportunities for practice partnership, but in some cases, was noted to occur even prior to graduation. One of the women from the 20-year cohort spoke of her experience, as a veterinary student, of receiving a scholarship from a veterinary practice, having been told by the employer that *"we came over here to give it to a bloke, but we ended up giving it to you"*. Another participant from the 20-year cohort reflected on how the underlying culture at university did not promote the idea of equal opportunities for men and women.

Job opportunities also appeared to be influenced, in some cases, by gender. Jade described times when both she and her husband (also a veterinarian) were searching for jobs at the same time and how their experiences differed greatly:

"This is interesting; we were both applying for jobs (overseas) – both applying for the same jobs – didn't tell anyone that we were together. He would get interview after interview. He'd get acknowledgement of getting the CVs. Whether he got the job or not, he always got acknowledgment; me – never – no acknowledgment they'd received my CV – never told me the job had been taken – I didn't get any interviews. He got maybe five or six, so it was very different how him and I were treated, and yet for a lot of positions I was far more qualified, having had (relevant experience)."

Jade – 10-year graduate – career break

Opportunities for partnership were also felt to be affected by gender. Among the female cohort members interviewed, there was one shareholder, but no partners or sole owners of veterinary businesses, although one participant had a business idea in mind. Some women reported being offered partnership opportunities and declining them, citing the timing of the opportunity as a key factor – that is, they wanted to travel overseas. Others were excluded from partnership opportunities, despite their interest, due to working part time. Some held aspirations to become a business owner in the future and work solely in the non-clinical aspects of the business. Other women spoke of their lack of desire or ambition to take on ownership or partnership duties citing the additional demands and stress it would place on them, particularly while also having family commitments, or lacking the 'right' personality for a management role. Many of the women who lacked desire to become a practice owner or partner based their decision around their view of how demanding it would be on top of their other life commitments and one participant reflected that she would have been more likely to pursue veterinary business ownership had she not had family commitments to consider.

Naomi described the situation in her own practice where up until very recently all the partners had been men and part-time veterinarians (often women) were still not permitted to be partners. Naomi also described her role as the wife of a practice partner:

"It basically means the wives of the vets in the clinic pretty much have no chance of becoming a partner, because they're pretty much seen as a free partner, I think, which I don't know if that's – no, I think that's fair to say that to be honest. Well, I don't know if it's seen as a free partner, but it's just not an option; they do not consider that we are potential partners."

She went on to describe her frustrations around the gendered nature of the opportunities that were available to her.

"I was just thinking, too about the not being able to be a partner thing; I think realistically part of it really pissed me off, because (my husband) and I are quite competitive – we're both fairly similar intellectually, and I think we are competitive in – not as in I want to beat him or anything, but I just feel like we're both relatively intelligent people, and I don't think our intelligence really separates us, and it just pisses me off that we both go in with the same things, but come out with something different, because he's a man."

Naomi – 10-year graduate – career break

6.4 Chapter Summary and Conclusions

In this chapter I have presented the first three themes that related to the cohort members' environment and circumstances; (1) Working Nine to Five…and Beyond (workplace environments), (2) The World I Know (non-work influences), and (3) Opportunity Knocks (opportunities).

Participants' experiences of workplace environments influenced their career decisions. Negative experiences were particularly influential in their decisions to leave a job, or to leave clinical practice or veterinary work altogether. However, participants also spoke of positive experiences in their workplace environments which influenced them to remain in a job.

Central to the discussion of workplace environments was the culture that existed within the workplace. Workplace cultures were influenced in turn by the people who worked within them,

including employers and other veterinarian and non-veterinarian colleagues, and the support available. Participants' relationships with their employers were key, particularly regarding the support their employers provided. Several participants who had experiences of having little or no support early in their careers left clinical work in the early stages of their careers. Clients influenced how participants viewed their work and impacted the sense of value some participants felt in their work as veterinarians. A sense of not feeling their work was valued by their clients was a factor in some of the participants' decisions to depart from clinical practice and left others pondering whether they would return after a career break.

The idea of fit with the workplace centred around a values match (or mismatch) between workplace and employee and this, along with feeling valued in the workplace, underpinned many of the discussions. How well the values of their workplace fit with their own values was relevant. In addition, how participants perceived they were valued (or not) by their employer and clients and how well their own values aligned with those of their workplace, employer or manager, and clients, were relevant to their career decisions. Where there were mismatches between participants' own values and those of their employers (such as how they practised medicine, the value employers placed on employee development, and how employees were treated) this was a factor in participants' decisions to leave jobs, decline partnership offers, and sometimes, to pursue non-clinical or non-veterinary roles.

After-hours work wasn't the primary reason for any of the participants' departures from clinical work, although it did contribute for a few and did influence some to change jobs within clinical practice. The benefits of not having to participate in after-hours duties were reflected on in hindsight by participants who had shifted into non-clinical or non-veterinary jobs without an after-hours component and thus became a barrier to them returning to clinical practice, rather than being the inciting reason for leaving. Similarly, some who had worked in clinical practices that did not have an after-hours requirement decided that they would avoid clinical jobs with an on-call component in

the future. Other aspects of participants' work schedules also influenced their career trajectories. Some noted the lack of flexibility around working in clinical practice influenced them, while others in non-clinical work noted the enjoyment they got from having a newfound flexibility around their work schedule. Participants also spoke of difficulties they experienced in negotiating their work schedules, particularly around their return from maternity leave and others noted that heavy workloads led to dissatisfaction and the need to prioritise either their clinical or non-clinical roles within a job.

Remuneration was another factor that participants identified as influential to their career decisions and the idea underpinning this was the need to feel valued for their work. They believed that their remuneration should match the effort and sacrifices made for their work, and some, who didn't feel valued in this way, started to question their future in clinical practice. Often their level of remuneration became a factor when participants compared their remuneration with that of other professions or jobs, or when there were other factors contributing to their dissatisfaction in a job.

The physical and often repetitive nature of large animal work was significant for several participants who had left clinical work, either in search of greater intellectual challenge or because of the physical wear and tear on their bodies. This was spoken about by both the 10- and 20-year graduates. Physical limitations and the physical injuries and aches and pains that resulted from this repetitive physical work made it difficult for some to remain in their clinical large animal jobs and were the catalyst for several participants to look for opportunities outside of clinical practice. Some who were still in clinical practice (and very content there) could foresee that the wear and tear from repetitive large animal work might limit their clinical careers in the future.

Although participants focused a lot on their work environments in their career stories, and these had a significant influence on their career decisions and career experiences, non-work influences were also important in defining their career trajectories. Family circumstances influenced career decisions and participants spoke of making career compromises and adjusting the way they worked, in order

to prioritise the needs of their children and their partner. Sometimes this meant taking a career break, and for some, not returning to work. Others switched to part-time work or changed away from clinical practice to better accommodate the needs of their family. Family considerations were most commonly (but not exclusively) spoken of by women. Often, when participants spoke of taking a career break to prioritise their children, there were other factors that also contributed to this decision, for instance, an underlying disillusionment with clinical practice, negative experiences with the Veterinary Council of New Zealand around returning to practice, and a lack of jobs in the area where they chose to live, that fit with their area of expertise.

Participants spoke of how location was often chosen based on proximity to family or their lifestyle and leisure interests. Notably several participants who had remained in their jobs long-term placed an emphasis on the role of the lifestyle they could have in the location in which they lived and worked. In some cases, they noted it was this lifestyle, over and above the job itself, that kept them in a job long-term. These factors, along with the desire to travel overseas and their experiences of working abroad, helped to shape the careers of these veterinarians. Their desire to travel often saw them leave their first jobs, even, in some cases, after offers of partnership and often their return from overseas was a significant decision point where they asked themselves "what next"?

At times when participants found themselves considering their next step and in situations where participants experienced dissatisfaction with aspects of the work environment in their job, or in clinical work in general, opportunities became of particular importance in influencing their career trajectories.

Either a lack of opportunity within, or an opportunity arising outside of clinical practice was significant to more than half of those that had transitioned away from clinical practice. Some went in search of other opportunities when other factors caused dissatisfaction in a job, or in clinical work in general. However, for others, opportunities outside of clinical practice arose more serendipitously. In both instances, timely opportunities were crucial in shaping the participants' career trajectories

and were often the catalyst in participants' shifts away from clinical practice. For those who did opt out of clinical work in the absence of an opportunity or knowing what their next step was, it was often a result of them no longer being able to cope in their clinical veterinary role and where their decision to leave was influenced by their lack of support and confidence and the resulting stress they experienced in their clinical work.

It was not only external job opportunities that were influential in shaping participants' career pathways, but also a perceived lack of opportunity within their clinical jobs or within clinical work in general, particularly around progression or pursuing their interests, led several participants to look for opportunities elsewhere.

Some of the women perceived a discrepancy in the opportunities available to them based on their gender and reflected on how this had influenced their careers by inhibiting their opportunities for partnership and by making them feel undervalued compared to their male counterparts. In relation to the workplace culture, some women in the 20-year cohort noted that at the time they graduated, clinical practice was still very male-dominated. However, gender was still relevant to the 10-year graduates who noted discrepancies in job and partnership opportunities, and opportunities for, and attitudes to part-time working arrangements.

From the themes presented in this chapter, it is already apparent that work environment factors played a significant role in the cohort members' career decisions, and there is room for veterinary employers to consider how the working environment could be enhanced to reduce veterinarian attrition. However, there were additional circumstances outside of the workplace, including serendipitous opportunities, the desire to travel or participate in specific leisure interests, location preferences, and parenting preferences, that were also of significance in career-decision making, but somewhat outside of the control of veterinary employers.

Having addressed the three themes that relate to the participants' environment and circumstances, in the next chapter I will discuss the second group of three themes; (1) Knowing Me, Knowing You (professional networks), (2) Go Your Own Way (personal characteristics), and (3) More Than a Feeling (feelings, emotions and mental wellbeing). These three themes are presented together as they relate to factors that arise from the veterinarian as a person.

Chapter Seven: The Veterinarian as a Person: How Individual Factors Influence Veterinarians' Career Decisions

In the previous chapter, I discussed three themes related to the participants' environment and circumstances. In this chapter, I focus on three additional themes that relate to the veterinarian as an individual; (1) Knowing Me, Knowing You (professional networks), (2) Go Your Own Way (personal characteristics and aspirations), and (3) More Than a Feeling (feelings, emotions, and mental wellbeing).

Participants spoke of how their professional networks influenced them in their careers and career decisions. These networks played a key role in identifying job opportunities and provided career advice, mentorship, and support.

Personal characteristics were significant in influencing how participants perceived their suitability for clinical and other types of work. Participants also spoke of how their preferences and interests helped to shape their careers and acknowledged that in some cases their professional priorities changed over time. Common influences included a desire for knowledge, ongoing learning, and intellectual stimulation; goals and values; pursuit of career progression and challenge; and wanting a change.

In some cases, the emotions and feelings experienced by these participants, and their mental wellbeing influenced their career decisions. Negative feelings and emotions stemmed primarily from their experiences within their work environment but also as the result of trying to balance work and family commitments. Participants spoke of feeling bored, frustrated, resentful, and disillusioned in their work and spoke of how stress, anxiety, fear, and a lack of confidence affected their career decisions. Some participants had experienced depression, burnout, post-traumatic stress disorder, substance abuse, and a self-described nervous breakdown, all of which affected their career trajectories. However, it was not only negative emotions that participants spoke of, and many

shared their feelings of pride and happiness in their work, described what aspects of their work they found rewarding, and spoke of how their enjoyment of their work helped to shape their careers. Among the participants there was a general sense that they had no regrets, even when their career pathways had not panned out as they had expected. Many of the cohort members who had pursued careers outside of veterinary clinical practice described having found happiness, fulfilment, enjoyment, or an improved sense of fit in their work.

7.1 Theme Four – Knowing Me, Knowing You (Professional Networks)

The song title 'Knowing Me, Knowing You' encapsulates the importance of professional networks in helping participants identify job opportunities and develop identities as veterinarians. They also play a role in establishing networks of support and knowledge. Professional networks are the connections that participants have or develop with people outside of their own workplace and these were particularly important in helping to shape participants' careers during their early years in practice and at times of change, and for some, played an important role in their transition away from clinical veterinary practice.

Participants' professional networks often centred around their veterinary classmates and (veterinary) friends from university. However, their networks also included people from the wider veterinary community, such as colleagues from other practices, staff from Massey University Veterinary School, previous employers, and people they met whilst on student placements and at conferences. Participants spoke of the influence of their existing networks, but also described occasions where they created new networks in their search for new opportunities. Participants did not directly reference social media as a networking tool and seemed to rely on personal contact.

7.1.1 Role of Networks in Job Opportunities

In the previous chapter, I outlined how the career trajectories of many participants were influenced by the opportunities that became available to them. Professional networks played a key role in facilitating job opportunities. In some cases, participants actively developed networks in search of

job opportunities (such as by phoning potential employers looking for job opportunities or by attending conferences). For others, opportunities developed organically through their existing networks. Some participants spoke of their networks from Massey University and their role in influencing their careers through the opportunities they facilitated. Previous employers and clients also played a role in facilitating new opportunities. Fiona talked about the importance of her own networks:

> *"The network of - I think this is a really positive thing about vet school and vet classes, that network of friendship. So, a lot of the jobs I've got have been through contacts – not necessarily through my vet class, but we always know people."*

> *Fiona – 20-year graduate – non-clinical*

In some instances, networks were influential early in participants' careers, including in helping them secure their first jobs. For some, the connections they made while undertaking practical placements at clinics led to job opportunities, and for others, first job opportunities or recommendations came via their classmates. Others sought advice from Massey staff members about jobs they were considering as new graduates. A staff member at the Massey University Veterinary School was instrumental in helping Lydia secure her first job. She described how the relationship between the staff member and the practice facilitated a job offer:

> *"He was really chummy with (employer) . . . He was like, oh if I could get you a job there, would you like that? I'm like, actually yes, I would – that would be quite good."*

> *Lydia – 10-year graduate – non-clinical*

Many participants also recalled how their networks had facilitated job opportunities beyond the first job after graduating. Being approached by a former classmate facilitated Oliver's departure from his first job:

"I didn't actively go out applying for a whole heap of jobs at all; it's just that this (former classmate) said, hey look – I think you'd be really good for this job – it's a great practice."

Oliver – 20-year graduate – non-clinical

In some cases, former employers proved to be valuable contacts. Andrea was approached and offered a permanent job at a practice where she had worked as a locum and Adam returned to work for his previous employer after they contacted him with a job offer while he was overseas.

Networks were also influential in facilitating job opportunities for participants' (veterinarian or non-veterinarian) spouses, which in turn influenced participants' own careers by changing the location in which they lived and worked, or by shifting their own career focus. Others found jobs overseas through their classmates.

Networks were also instrumental in facilitating several participants' departures from clinical practice. Adam was not intending to leave his clinical job and relayed the story of how this transition came about:

"Someone who I had previously worked with contacted me and said, this (non-clinical job) – I think it would be good for you. I said, nah I'm happy where I am. They just kept badgering me, and eventually I said, oh tell me more about it . . . So, it was a combination, I think, of (my former colleague) continuing to badger me, and (a previous employee of the company) . . . talk(ing) about the job."

Adam – 10-year graduate – non-clinical

Fiona's transition away from clinical practice was also facilitated by her professional network. She had made connections within an organisation while she was working in clinical practice, and they told her there would be a (non-clinical) job for her there when she returned from travelling overseas. When she decided it was time to return to New Zealand, she approached them:

"So, I rang (organisation) and said, oh well I'm coming home. They go; oh yeah – there's a job for you. So, it was a time before interviews became – I mean, they knew who I was and things, so it was kind of a very informal interview – job offer made, and I was employed."

Fiona – 20-year graduate – non-clinical

Networks became particularly valuable when participants found themselves at a crossroads in their careers and were pondering their next step. Several participants recalled approaching Massey University staff members, either looking for opportunities, or for advice, which in turn facilitated their move away from clinical practice. For Liam (a 20-year graduate), seeking career advice from a staff member in the Massey University Veterinary School was extremely influential in his change of career direction, having decided not to continue in clinical practice. Evelyn also sought advice from a former lecturer, and this resulted in a job offer, facilitating her shift towards an area of interest and out of clinical practice:

"I rang a lecturer actually from Massey who taught me because I'd sort of been thinking when I come back, I'd like to do some more (type of work), and how would I do that. So, I rang him, and he said, well why don't you come and work for me? So, that was the decision . . . I thought at the time, well I'll give this a go, and give it a year, and if it doesn't work out then I'll just go back to practice. So, that's what I did; I started working for (my former lecturer), and just learned on the job..."

Evelyn – 20-year graduate – non-veterinary

A chance encounter at a veterinary conference was particularly influential for 20-year graduate William, who had been considering leaving clinical practice for some time but had been uncertain as to what his next step would be. Conversations at this conference opened his mind to the possibility of non-clinical work and another conversation a couple of months later introduced him to his current

non-clinical job. He reflected on how "*luck and talking to people*" resulted in him finding this job and transitioning away from clinical practice.

Evelyn summed up how important her networks were in influencing her career pathway and made the link between the opportunities that came her way and her networks:

> *"If I look back, it's probably more around opportunity . . . it's all through really more connections and people . . . some key people at key times, and either mentoring and looking out for me, which I'm forever grateful for, and just opportunities – people actually giving you opportunities . . . Yeah, so I think people and connections is a huge part of it."*

> *Evelyn – 20-year graduate – non-veterinary*

7.1.2 Career Support, Advice, and Mentorship

Support and mentorship within the workplace have been discussed in the previous chapter but several participants spoke about the role of their networks outside of their workplace in sharing knowledge and providing career advice and mentorship. At times when the relevant expertise or support was not available within their own clinic, or when participants needed an outside perspective, they reached out to their networks, often other veterinarians, particularly their former classmates.

As new graduates, participants valued sharing their experiences with their classmates, some of whom worked in the same workplace, or a neighbouring one, or shared a house. Several participants noted that relationships with classmates had endured throughout their careers so far. Fiona relayed the willingness of her classmates to support her return to clinical practice and assist her in meeting the Veterinary Council of New Zealand (VCNZ) requirements to apply for an annual practising certificate, should she wish to pursue clinical work in the future.

> *"(They) said, oh don't worry Fiona – come and do some work for us. This friendship network is really amazing through vet school. (My classmate said); I'll supervise you and sign you off on everything that they need – you'll be fine."*

Fiona – 20-year graduate – non-clinical

Participants also reflected on how interactions with their networks gave them perspective on their own careers. For some, speaking to classmates about their experiences as a new graduate was reassuring. Several participants felt that having a lack of network contacts at certain times in their careers meant they had missed out on useful career information and perspectives from those in different workplaces. Holly noted how she gained perspective on her job, after discussions with a classmate allowed her to see that she was not being treated fairly in what she was expected to do. Prior to this, Holly had felt isolated within her practice and because of this she lacked a wider perspective on her job and career, not realising what other options were available. She reflected on how, as a result, she stayed in her first job longer than she felt would have been ideal:

> *"In hindsight, I maybe stayed there a few extra years, but sometimes you don't know that when you're isolated and not really free to networking or keeping in touch with things."*

Holly – 10-year graduate – clinical

Some participants worked with external consultants to develop their professional goals and define frameworks around working to achieve those goals. Oliver described how a management consultant was influential in his decision to step away from clinical work to focus on the management aspects of his veterinary business. Anna described seeking career advice from a life coach when she was at a crossroads in her career, deciding where she would practice and what species she would focus on. However, in hindsight she realised it would have been better to have spoken to other veterinarians for advice however she lacked contact with the appropriate networks:

"I have learned a bit about coaching since, and I am aware now that all the coach does is basically help you to make up your own mind; they don't actually give advice. Maybe looking back, I think I was probably after advice, in that probably I think it would have been better to have actually just talked to actual vets that were working, but I probably didn't know the sort of age of vet – sort of that middle-aged female vet – to see what they sort of thought."

Anna – 20-year graduate – non-veterinary

7.2 Theme Five – Go Your Own Way (Personal Characteristics and Aspirations)

Going or finding one's own way in their career was also influenced by participants' personal characteristics and aspirations. Their personalities, preferences, priorities, passions, and individual motivations either prompted career changes or hindered them. The degree to which participants perceived that their personal characteristics fit with their work influenced their decisions around changing career direction, particularly when leaving clinical veterinary practice.

Participants spoke of how their work preferences and priorities changed over time, and how they pursued their professional interests either within or outside of veterinary clinical practice. Personal motivations including the pursuit of knowledge, challenge, and intellectual stimulation; wanting a change; their goals, values, and philosophies; and aspirations for professional development or career progression also influenced their career trajectories. Some participants reflected on their identity as a veterinarian, what it meant for them and their career, and how it influenced their view on changing career direction.

7.2.1 Personal Characteristics

Participants made links between their personal characteristics and their career pathways. A key element was the fit between their personal characteristics and their work, with some noting that clinical practice, or companion animal practice wasn't a good fit for them. Liam decided to leave

clinical practice early in his career saying it "*really wasn't my cup of tea*" but found his subsequent non-clinical work "*fit like a glove*".

Several participants made self-evaluations of their suitability for certain types of work and a component of two participants' self-evaluations was whether they were detail-focused versus big-picture thinkers. Fiona's construction of herself as a strategic thinker and her perceptions of the detail-focused requirements of companion animal work led her to believe that she wasn't well suited to this type of work.

> "*If someone had said to me, if you want to do clinical practice you need to be a detail-focused person. I'm totally not a detail-focused person . . . I'm very much a – I look at (the) big picture and I look at strategic things.*"
>
> *Fiona – 20-year graduate – non-clinical*

Fiona noted that her propensity to see the bigger picture would have been useful in large animal practice, but she had been fixated on becoming a companion animal veterinarian from a young age and she initially continued to follow this path, despite noting that her talents lay elsewhere. Logan initially felt he might pursue research as a component of his work but realised his personality didn't lend itself to the detail-focus he felt was needed for this type of work.

Participants also referred to their suitability for different aspects within clinical practice. Angela spoke of how a different set of characteristics were desirable to excel in medicine versus surgery:

> "*I've always thought the skill-set required to be a good surgeon is almost entirely different from the skill-set required to be a good clinician; one requires get in there and get it done, get out again – the other one requires patience and time, and thinking through all the options, and being prepared to chase dead-ends before you open the right door. So, yeah being really comfortable with one, and I was really comfortable in the clinical setting . . . I really just found everything about surgery quite unsettling.*"

Ultimately Angela's discomfort with surgery was a significant factor in her departure from clinical practice. She felt she would have stayed longer in clinical practice had there been the option to participate solely in non-surgical aspects of practice or even to just perform the more basic surgeries. Maria also recognised her preference for internal medicine but noted "*you can't be in a clinic and not do surgery*". Angela further reflected on how her personal characteristics meant she was not suited to performing surgery, and she recognised this even as a veterinary student.

> "*Not mechanically minded, and there's a lot of mechanical elements to surgery. So, yeah it was always a worry for me . . . I think it was the fact that the immediacy of the resolution required; you don't really have a lot of time. If you're in there, and then something starts bleeding, you've got to stop it right now, and if your best is not good enough, the animal dies, which for my personality type . . . that heroic aspect of it is not something that I've ever been comfortable with.*"

Angela found a better fit in her subsequent non-veterinary role:

> "*It suits my skill-set and the way I think. It's very – you need to be a very critical thinker, and quite analytical and organised type approach to the assessment, which is me . . . so the different skills and outcomes just suited my skillset and personality type better.*"

Participants also relayed how aspects of their personal characteristics had facilitated or hindered their career changes. Being open minded to career options and being prepared to take a risk were recognised as factors that facilitated the career changes of some participants. Others felt their honesty in their intentions and loyalty prevented them from exploring or accepting other job opportunities and Anna reflected on this, describing a time when she was offered a job at another clinic:

"That could have been a pivotal point, because probably I should have gone, because if I had, it would have put me in the practice that was in this area. I didn't, because I loved my job, and I'm very loyal as well, I think to the practice that I work for."

<div align="right">

Anna – 20-year graduate – non-veterinary

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The mindset with which participants approached their careers, and the perspective that their previous career experiences had given them also influenced participants' career pathways. Ben described how his mindset influenced his approach to his career:

"You have in mind what you want to do and, and somehow you manipulate the system so it works for you, you know you don't let the system manipulate you, is how I look at it I suppose, so all those things that I've wanted to do somehow or another you make them happen, you know whether they fall into place just because or whether you just do what you have to do to make it happen I guess."

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Ben – 10-year graduate – clinical

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7.2.2 Preferences, Priorities, and Passions

Participants' preferences for working with certain species influenced them in their career decisions, particularly in choosing their first jobs. In some instances, these preferences changed over time and some participants found that they needed to prioritise certain aspects of their work. Others followed their interests and passions, and in some cases, this led them away from clinical practice.

As new graduates, many participants sought positions as mixed practitioners, wanting to try different aspects of practice or simply because it was the thing to do. One participant with a strong preference for working with sheep, beef cattle, and deer was willing to work as a companion animal veterinarian until a large animal role came up in the practice, which he chose as it had a large component of sheep, beef, and deer work. Some participants decided to re-prioritise what species they worked with during their career, however others noted it became difficult to do so. At a

crossroads in her career and deciding whether to return to clinical practice after a break, Naomi reflected on her desire to work in the large animal side of the practice. However, having worked predominantly with companion animals for most of her career she noted the barriers to doing so:

"I don't know, because I've been out of it for nine years now – well, I do after-hours, but it's really just calvings and the odd down cow or something. It's nothing like – because at this stage in our career, (my husband's) doing so much more of the farm management kind of stuff, which I just don't have the knowledge or skills to be able to do, and I kind of feel like going back as a large animal vet at this point I'd be like pretty much a new grad again, and I feel like it's not really – I guess I wouldn't be worth paying to do that job."

Naomi – 10-year graduate – career break

Participants were motivated by different aspects of clinical work. Several noted that over time, their work had become less about individual animals and medicine, and more about client relationships and business management. Logan reflected on the aspects of clinical work that motivated him:

"Basically, the only time I didn't enjoy being a vet was when we did our OE, and I had to do small animals for six months. I guess that highlights that for me is not the actual – it's not being a vet, or the technical knowledge, or the skills which motivate me; it's the clients and being able to watch the changes and grow – you implement something – you see the outcome, and all that kind of stuff, and probably large animals. Yeah, individual animals don't interest me, that's for sure."

Logan – 10-year graduate - clinical

Many participants reflected on how their work interests and passions influenced their career pathways. Grace's career pathway was strongly guided by the aspects that she enjoyed, and she reflected on the pursuit of enjoyment over a more strategic approach to her career:

"I guess I've sort of followed 'what do I enjoy most' and what I think I'm most suited to, as opposed to what job is going to be best for maintaining a broad employment opportunity."

Grace – 10-year graduate – career break

Participants also spoke of their interest in working with specific species; however, their interests went beyond just the type of animals that they worked with. For several participants, the interests they developed while in clinical practice led them to pursue work in other fields. Developing a special interest was the precursor to Evelyn exploring opportunities outside the veterinary field, and Robert, a 10-year graduate, spoke of his interest in the business management aspect of veterinary practice and how this led him to pursue his interest in business in a non-veterinary capacity. He had considered other means of progressing his career within the veterinary profession including changing to a non-clinical role or gaining specialist qualifications in a field of clinical veterinary work. However, he noted he lacked the passion to pursue specialisation. He also considered buying into a veterinary practice as a means of pursuing his interest in business, however questioned the long-term sustainability of the current veterinary business model, leading to his decision to pursue his interest in business outside of the veterinary profession. Another participant had a long-held interest in physical therapies and although there were few opportunities to pursue this interest early in her career, it was an interest she pursued later. Others developed interests and found enjoyment in teaching via experiences in their clinical jobs and postgraduate study which led them to pursue veterinary-related teaching roles. Several participants had a long-held interest in farming and their veterinary careers facilitated their entry into their own farming businesses by providing them with the financial means and contacts who assisted them. Later in her career, Nina was guided by her interests and passion. However, this had not always been the case and she reflected on her prior non-clinical work saying:

"I kind of fell into those things, and they weren't subjects that I certainly ever had a passion about, but they were things that were available when I sort of didn't really know what else I

really wanted to do at the time. So, I was doing those, but when I was sort of thinking about

what else would I do, and what would my passion be, I kind of came back to (my interest)."

Nina - 20-year graduate – non-veterinary

Some participants noted that their interests had changed or developed throughout the course of their careers. Others had become more aware of what interested them and several of the men identified their love of projects and in hindsight, felt that veterinary clinical practice wasn't the ideal career for someone who was project orientated. Some pondered whether another career choice would have suited them better. Oliver (a 20-year graduate) had managed to fulfil his love of projects through building up his own veterinary businesses and through projects outside of work but noted that he originally wanted to become an architect. James reflected on how he is "*not a technical person, so being a vet wasn't a great career choice*". He also noted how his own love for projects did not fit with his work in large animal practice. He described how this lack of project-based work contributed to his shift into non-clinical veterinary work:

> *"A lack of the ability to really do much – that kind of building bigger projects. As I said to you: I love projects. I kind of feel like my time in practice was the complete opposite; no job lasted more than a day. Most jobs were a call, and you wrote the docket at the end of it, and that was it."*

James – 20-year graduate – non-veterinary

At times, participants needed to re-adjust their priorities which often changed throughout their career. Several participants who were involved in both clinical and non-clinical work, either within their job, or in multiple jobs, described the need to prioritise one over the other. Often, the workload from both aspects overburdened the participants and they felt that they needed to choose one area to focus on. Lydia summed up her experience of deciding to prioritise her non-clinical work:

> *"So, when I came back part time, I was doing mornings on clinical work, and afternoons on (my non-clinical work), and at the same time trying to grow it . . . then it got to the point where it was like, I can't do this anymore – I can't grow it any more than I can if I'm still doing clinical work. So, there was this period of time for probably about a year, that was really sucky, because I couldn't do good at either."*

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Lydia – 10-year graduate – non-clinical

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Fiona also spoke of the circumstances around her decision to prioritise her non-clinical job. She had been working as a locum veterinarian in clinical practice one day per week as well as working in her non-clinical veterinary job. For her, the decision to prioritise was prompted by her non-clinical employer.

> *"Basically (non-clinical workplace) said to me, well you need to make a decision – are you going to be a senior member of staff and be here every day, and manage staff and do all that stuff or are you still dabbling in being a vet?"*

<div align="right">

Fiona – 20-year graduate – non-clinical

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Adam chose to prioritise his clinical work over his non-clinical responsibilities. He recognised that his passion lay with working with cows and farmers and problem solving on-farm, rather than with managing other people and their problems, which he felt wasn't suited to his personality. However, in most cases where participants felt they had to choose one or the other, the need to prioritise their time, tasks, and work commitments meant foregoing clinical work to focus on non-clinical roles or jobs, with some noting they found the non-clinical aspects of their work more intellectually stimulating.

Other participants spoke of how other priorities influenced their career choices, including their involvement with family businesses, the decision to pursue new projects and challenges over "*chasing the dollar*", choosing to prioritise the practical benefits of a job over their happiness and

wellbeing, and prioritising their life outside of work such as pursuing relationships and travel over their job or career. Some participants noted in retrospect that they wished they had valued and prioritised their own wellbeing and life outside of work more. Lydia described how her approach to her work changed when she realised she needed to have a life outside of work and said of her workplace "*they don't own me like they did*".

7.2.3 Individual Motivations

Participants were guided in their career decisions by their own individual motivations. Many were driven by the desire to learn and build on their knowledge, or by work that was intellectually stimulating. Others spoke of how their desire for a change, their goals, values, and philosophies, and the pursuit of career progression influenced their career decisions.

7.2.3.1 Knowledge/Learning/Intellectual/Professional skills

Many were driven in their careers by a thirst for knowledge, intellectual stimulation, and the desire to continue learning. This drove some to change jobs or roles, while others pursued further study in veterinary or non-veterinary areas, which shaped their subsequent careers. Several participants noted they enjoyed a challenge.

Some participants experienced struggles in clinical practice relating to their knowledge and this preceded their departure from clinical practice. This ranged from feeling that they lacked the knowledge required when starting out as a new graduate due to not being a "*good student*", through to feeling that clinical practice did not fulfil their desire for intellectual stimulation. Lydia contrasted the intellectual stimulation she felt in her current non-clinical job with her time as a clinical veterinarian:

> "*If I'm being a vet – it was cool, and the relationship with clients are pretty cool, especially when they trust you – I love that, but going out to shove your arm up 1,000 cows a day – pfft, you know, they don't need my brain for that. They don't need a veterinary degree for that. I*

mean, the whole veterinary model really does have to change, but that's why I think is just so much more satisfying being where I am."

Lydia – 10-year graduate – non-clinical

In addition, the desire to feel knowledgeable led to difficulties for some during their time in clinical practice and influenced their work preferences. For example, Tegan, noted her preference for working in a companion animal practice, rather than in a mixed practice where she felt she lacked the knowledge to contribute to the large animal aspects of the business. Nina spoke of her realisation that it was impossible to know everything as a clinician and how her desire to feel knowledgeable was instrumental in her shift away from clinical practice:

"I guess one of the things that I struggled with, and I think it's a bit because to get into vet school you've got to be a . . . pretty high achiever – the Type A personality, and really goal-driven. So, I still had that thought that I needed to know everything, and do everything perfectly right, and be good at everything, and fix everybody's problem, and I really struggled with that in general practice, because you can't know everything about everything. So, I think that was one of the drivers behind what else do I do? Looking at the (postgraduate study), I remember thinking that because then I thought I'll know a whole lot about a little thing, and then my brain will be happy, of course that doesn't always work out, either".

Nina - 20-year graduate – non-veterinary

Some other participants noted their desire for further learning in the clinical aspects of practice had waned over time as their role shifted more into management and practice ownership. They no longer felt motivated to keep up with the latest developments in clinical practice and preferred to focus on their management duties and client relationships. On the other hand, some participants were concerned about losing the clinical knowledge they had acquired if they spent time away from practice.

7.2.3.2 Wanting a Change or Moving On

Several participants spoke of wanting a change or feeling a need to move on as a precursor to changing jobs, including leaving their first jobs. They recognised the desire to move on after a year or two to shake off their new graduate label, something that they felt could be difficult while remaining in the same job. Others noted that they had made a few mistakes and felt it was time to move on for a fresh start, while others left in search of something more, recognising that they needed a change of jobs to keep their interest in clinical practice.

Some participants noted that despite wanting a change or developing other interests, they were reluctant to lose what they had worked so hard to build, whether that be relationships with clients and organisations, their clinical skills, or their career in general. It could be difficult for them to let go of what they had put a lot of effort and investment into. Amy, having held a non-clinical veterinary job in the past, felt she would enjoy pursuing this type of work again but said:

> *"I am scared of losing your skills. Like if you get out of practice - already I feel nervous and stuff about doing surgery and it's like I get scared to make that make that move and then feel like you can never go back to it."*

> *Amy – 10-year graduate - clinical*

This reluctance to lose out on the investment they had made into their current job or work type was a barrier to change for some, although others did overcome it and pursued other jobs and types of work.

Wanting a change was relevant not only for transitions within clinical practice but also for those in non-clinical and non-veterinary jobs who were looking for something different, influencing participants to move between non-veterinary jobs and from non-clinical to non-veterinary work. Evelyn spoke of extending her non-veterinary work to include other aspects that are "*new and interesting*", that made her "*want to get out of bed and go and do*".

7.2.3.3 Goals, Values and Philosophies

Several participants spoke of how their goals, both within clinical practice and outside of it shaped their careers. Some described how their goal of practice ownership or partnership influenced them, while others were driven by their desire to make large animal clinics more sustainable and to gain credibility in their field of interest. Others were motivated by their goals outside of veterinary work (such as their farming goals) and used their veterinary careers to facilitate the attainment of these goals. For some, a lack of goals led to decreased motivation in their work.

Some participants spoke of how their values and philosophies influenced their career direction. Several participants spoke of the motivations that drove them in their work with farmers, citing the desire to positively influence farmers in their farming enterprises, contribute to their business decisions, and help them succeed. For those that were able to achieve this within a practice setting, it offered them fulfilment, however, others pursued this interest through non-veterinary work. Evelyn summed up how her non-veterinary work allowed her to fulfil her aspirations to positively impact farmers:

> "I had found where I wanted . . . to be, in that by working with the farmer I was helping to influence where the business was going, and to make good decisions so that basically I was almost doing the vet profession out of a job . . . we had healthy animals. So, I guess I got more satisfaction out of doing that than going and pregnancy-testing hundreds of cows."

> *Evelyn – 20-year graduate – non-veterinary work*

Striving to be the best they could motivated some participants in their job choices. Several reflected on how they chose jobs that would align with their desire to practice a high level of medicine, noting that they wanted to work in a 'best practice' type environment or at a clinic that was "*really well thought of*". In some cases, when the circumstances within a practice did not align with a participant's desire to practice to high standards, this contributed to them leaving. On other occasions, time constraints coupled with a heavy workload did not allow participants to work to

what they felt was the best of their ability. This caused Nina frustration and contributed to her departure from her non-clinical job.

> *"I think really just being torn between too many things and probably back in that situation where I like doing what I do well . . . and there just wasn't enough time to do it all properly."*

> *Nina - 20-year graduate – non-veterinary*

7.2.3.4 Progression, Career Development, and Challenge

Many participants were motivated to progress in and further develop their careers and this affected their career decisions. They wanted new challenges and to grow and advance in their work, both in terms of their remuneration and developing their skills. These aspects acted at times as a push factor (when the desired opportunities were not available in a participants' current role), a pull factor (when better opportunities for development and challenge arose elsewhere), and a reason for remaining in a role (when opportunities for development and/or challenge were available within a participant's current job). Several participants who had remained in a workplace long term had identified that their ability to be promoted within the workplace, or to experience different roles, provided them with new challenges and had influenced them to remain. This was the case for Logan who said of his clinical job:

> *"Within the role, I guess there's always been a challenge, or there's no ceiling in what I want to do, I can basically do whatever I want, so it's good. Then, I get to – each few years I've had a new challenge I can step into, or a challenge I can take on, to grow. . . . I couldn't imagine doing the same thing for 40 years."*

> *Logan – 10-year graduate – clinical*

On the other hand, James summed up how he felt there was a lack of challenge in his clinical work, and this was significant in his departure from clinical veterinary practice:

"I remember being in practice six or seven years and thinking, the pinnacle of my career so far was the day that I received a letter that I'd got into vet school, if that makes sense. So, I guess that probably sums up my time in practice . . . there wasn't any massive kind of challenges. My (non-clinical) career was vastly different from that; it challenged every day in so many different ways. Every few months it felt like some big achievement had been kind of done."

James – 20-year graduate – non-veterinary

When participants couldn't see the next step in their career, it often led to re-evaluation. This was particularly relevant for Oliver who was contemplating his future in the veterinary profession saying:

"If I'm truthful, I probably see myself exiting the industry in the next five years because . . . I kind of feel like I've achieved everything that I need to achieve in the industry. I feel like I was a really good GP vet – done that for 20 years. I've built up and created what I think is a really great business . . . and I kind of go, what else do I want to do?"

Oliver – 20-year graduate – non-clinical

Some participants described how partnership or business ownership added a new dimension to their work, giving them a change and a new challenge, a greater level of autonomy and input into their practice, and financial reward. Becoming a practice owner or partner provided them with that next step in their career, while still working within a clinical setting. Gaining autonomy within the practice setting was also recognised as a benefit of becoming a partner. Ben, a 10-year graduate, described his ability to choose what cases he saw and to manage his work schedule in a way that would make large animal work more sustainable for him physically. Having the opportunity to have input into the practice and control over their work was also a valued part of being a practice owner or partner. William pursued practice ownership as he *"wanted to be back having a little bit more control over my destiny"* and Holly, who had become a shareholder and had taken on some management duties

in her practice, noted that the ability to work from home on the management tasks would likely make her work in the practice more sustainable over time. She also noted that "*shareholding ties you in*", hinting that it may influence the retention of a veterinarian in a practice and "*changes your responsibility*". She did however reflect on her experience of becoming a shareholder saying:

"I wish I had valued myself more and tried to negotiate a better shareholding compared to the male with less experience that talked himself up to get more. I just sort of took what I was given, because I was pretty fresh at it all"

Holly – 10-year graduate - clinical

Some of the women had received partnership offers but had turned them down citing the timing not being right, and their preference to travel instead. Others were interested in practice partnership but had not yet had the opportunity. Several of the women reflected on their lack of desire to become a practice owner or partner. Predominantly they noted that they wished to maintain some semblance of a work-life balance, which they deemed incompatible with being a practice owner. Some suggested their personalities did not fit with management type roles and they also shied away from having the responsibility of practice ownership and the stress they felt would accompany it, despite the recognition that as a practice owner "*everything you're doing is for you*". Tegan noted that she would likely pursue practice ownership if her circumstances were different:

"If I didn't have a family, and didn't have a partner and things like that, I'd probably definitely be more sunk into my work. I without a doubt would be trying to – I'd probably own a practice, is what I would do. (My husband) would love that, but I just don't need the stress or the demands that come with it."

Tegan – 10-year graduate – clinical

7.2.4 Identity

Participants acknowledged that being a veterinarian became part of their identity, not only with respect to their careers but also in their personal lives. Within their careers, some reflected on how they were viewed by others who associated the role of the veterinarian solely with being an animal doctor. James noted that this narrow perception of what skills a veterinarian had and what type of work they did created a challenge for him in his non-clinical and later non-veterinary roles, where he felt he needed to prove his value beyond his clinical skills. He spoke of his experience of being a veterinarian outside of clinical practice:

> *"My whole approach would always be to try and help people understand that vets are not a vertical slice of society; they're a horizontal slice, and there are different types of people with vet degrees. . . . We were seen I think, certainly in a business circle, as quite narrow. Yeah, so a lot of people at the company, by the time I left, wouldn't have even known I was a vet, but the ones that did would try and pigeon-hole; you sort of had James Herriot written on your forehead. I probably spent a lot of time compensating the other way to avoid that."*

> *James – 20-year graduate – non-veterinary*

Several participants spoke of the perception of failure that accompanied their transition away from clinical practice. Fiona noted that the prominent identity of the clinical veterinarian was cemented during the veterinary degree:

> *"I think the vet degree . . . it very much focused on - there was only one outcome and you're a clinical vet. I think right through my career; I still think you get looked at by clinical vets as though you're a failure because you're not a clinical vet."*

> *Fiona – 20-year graduate – non-clinical*

Some also keenly felt the loss of identity as they stepped into non-clinical or non-veterinary roles. Ten-year graduate Eliza, having taken on a non-clinical role started to question "*am I really a vet if*

this is what I'm doing?". However, she referred to her primary purpose which was to influence the farmer, and this helped her feel that her non-clinical work was valuable. Anna also spoke of the loss of identity she experienced shifting away from clinical veterinary work:

> *"You identify yourself with being a vet, and I found that quite hard with changing to being a mother; that loss of identity I found quite a big thing, really, especially in a new area. I didn't work in the area where I live as well, people in my area where I live don't realise even what I did. So, I found that – whereas, you used to just have automatic respect, because of my career, I don't have that in the area that I live in; I am just a mum, which is a bit naff, really . . . So, I think that's also a problem that people suffer from stopping to have children, that loss of identity. All I identified with was being a vet, and it was everything, really. Then, all of a sudden that's just gone."*

> *Anna – 20-year graduate – non-veterinary*

7.3 Theme Six – More Than a Feeling (Feelings, Emotions, and Mental Wellbeing)

Emotions and feelings centred on experiences in work environments were not simply expressed by participants but appeared to play a role in influencing participants' career decisions and as such were more than a feeling. Participants described how feelings of boredom, resentment, disillusionment, frustration, and cynicism developed and referred to feelings of anxiety, fear, and guilt around their work. A lack of confidence during their time in practice or having taken time away from the workforce was significant for several participants as was work-related stress. Others described how their experiences with depression, post-traumatic stress disorder, substance abuse, burnout, and a self-described nervous breakdown affected their career decisions. In addition, several women referred to the stress and guilt that they felt as a result of trying to balance their work and family commitments. However, cohort members also described more positive emotions and feelings that derived from their work including feelings of enjoyment, happiness, and pride, and spoke of the aspects their work that they found rewarding.

7.3.1 Positive Emotions

Enjoyment was the most frequently discussed positive emotion among the cohort members. They reported on the sense of enjoyment they found in their work and in specific types of work and how this contributed to them remaining in a job or pursuing work that they enjoyed. Tegan, a member of the 10-year cohort, made the distinction that she enjoyed (small animal) clinical work itself, however the administration and clinic politics that accompanied it were less favourable. Of note, is that several participants who had voiced their enjoyment of clinical work, had still pursued other work types at different stages of their careers, so enjoyment of clinical work was not always enough to keep cohort members in clinical roles indefinitely.

Several cohort members described aspects of their clinical or non-clinical veterinary work that they found particularly rewarding. Learning new skills, making positive contributions towards animal welfare, the personnel development aspects of their management duties, and having good follow up with patients were aspects of their work that cohort members found rewarding. Finding fulfilment in providing continuity of care contributed to Tegan's preference for working in a smaller practice, where she perceived there were greater opportunities to see the same patient for their follow up appointments than is the case in larger practices. Eliza spoke of the sense of pride and accomplishment she felt in her non-clinical work related to task completion and input. She also described the positive feeling derived from seeing farmers flourish and feeling she had the knowledge to assist them.

An overarching sense of contentment in their new roles was expressed among the participants who had moved away from clinical veterinary practice. Many of the cohort members who had made this transition spoke of the enjoyment, fulfilment, and happiness they had found in other types of work, and some noted an improved sense of fit in their new roles. As such, for these cohort members their shift away from clinical practice led them to their own success. Accompanying this was a general sense among the cohort members of having no regrets in their careers, even when their career

trajectories had not been as they had foreseen them. Several cohort members reflected on how the different experiences they had throughout their careers had led them not only to their current role, but also had introduced them to people and experiences they may not have otherwise had. As such many cohort members reflected on how, if they had their time over, they would not necessarily do anything differently or change their career decision-making. Despite this general sense of acceptance surrounding their career pathways, negative emotions and feelings had, at times, been influential as participants navigated their careers.

7.3.2 Boredom, Frustration, Disillusionment, Resentment, and Cynicism

Some participants noted a clear lack of challenge or boredom in their clinical work which prompted them to look for the next challenge outside of clinical practice. Lydia recalled knowing at an early stage in her career that she would not stay in clinical work longer-term as she could foresee herself becoming bored with the work after a few years. On the other hand, Maria became bored in her role as a stay-at-home mother, and this prompted her return to practice and others who considered pursuing (less stressful) non-veterinary work recognised that they may become bored with such a role.

Some participants spoke of the frustration and disillusion they experienced with aspects of their work environment, including their remuneration, lack of opportunities to progress, and workload. Feelings of disillusionment prompted some participants to either change to a different clinical job, or to pursue work outside of the veterinary profession. Much of the disillusionment described by these participants as influential in their career decisions centred around not feeling valued.

Some participants began to feel resentment towards their work or workplace. This occurred as a result of their work environment, including the extent to which they felt valued in their work, the support provided, and their interactions with their employer and clients. Melanie described how her feelings of resentment were a precursor to her departure from clinical work:

"Another pivotal thing that happened is when I started getting resentful, and that's when I realised that I needed to stop doing it, because I would get almost angry if an animal was sick, sort of thing, because it felt like they were just – not their fault, but it felt like then I was getting stuck in that situation where I've got a boss that's going to yell at me down the phone if I don't know how to fix it, or if the owners don't want to pay the bill . . . Yeah, when I started getting a bit resentful, and it sort of out-weighed the positives . . . that's when I realised that, no I need to give this a break, whether it's a long-time break, or short – I need to give it a break, because I don't want to be that person. I love animals; I don't want to be resenting them."

Melanie – 20-year graduate – non-veterinary

In addition, James described the cynicism he developed around the workplace culture of the organisation in which he worked. This prompted his departure from the company and from veterinary work altogether.

"I'd been going hard-core for whatever it was – 10 years, and the last four years in particular, and I was . . . cynical almost about the (industry) in New Zealand – about the push, push, push – chase it all – just grow at all costs, and I was really tired . . . . My new bosses that; yeah – we hear that (the industry) is going down a mineshaft, but you're still going to get your numbers aren't you – that kind of mentality. So, for a bunch of reasons – mainly because I needed a change . . . but also because I had some cynicism around that kind of culture, and I knew that in the performance culture we were in, that was untenable".

James – 20-year graduate – non-veterinary

7.3.3 Anxiety, Fear, Guilt, and Lack of Confidence

Participants spoke of how anxiety, fear, guilt, and lack of confidence affected them in their career decisions. For 10-year graduate Naomi, a deep-seated anxiety around negative client interactions

and work intensity had delayed her return to clinical practice and she was still contemplating whether she would return. Other participants worried about things too, including how long it had taken them to find a job as a new graduate (leading to several participants accepting less than ideal first jobs), after-hours work (leading them to decide they wouldn't do after-hours in the future), surgery and surgical outcomes (influencing a departure from clinical practice), and worrying about transitioning away from clinical practice.

Other participants noted that fear influenced their careers. For some, the fear of the responsibility involved with owning their own practice prevented them from pursuing this as an option, even though they recognised there would be other benefits. Others were influenced in their clinical careers by their fear of making a mistake or having a negative case outcome, which was exacerbated by a lack of support from their employers and by their own perception of their skill deficiencies. For some, this fear contributed to their departure from clinical practice. Angela made the point that it didn't really matter whether her fears about surgery were founded or not, they had a big impact on her confidence and ability to continue in clinical practice. Fear also prevented some participants from trying a different job or type of work or delayed them doing so.

Confidence was another significant subtheme that developed through participants' stories. Melanie's early experiences of clinical work and the lack of support available to her as a new graduate affected her confidence, not only in the work itself, but also in choosing a new clinical job. When moving on from one clinical job she recalled how she didn't feel confident to "*pick a clinic and pick one that would be okay*" and went on to pursue non-veterinary work instead. Others noted they grew in confidence over time, however some participants also found that the further they got into their career, the less confident they felt. Participants attributed their declining confidence to seeing colleagues making mistakes and a greater awareness of complications and things that can go wrong. They also cited that working with unconfident veterinarians and reading up about cases on online veterinarian forums made them doubt themselves at times and noted the continuous array of new

products and drugs could be a challenge. Despite having had several years of experience, Oliver noted that a dip in confidence led him to leave one clinical job:

"My motivation for leaving that job after three years – because it was sole charge, and I guess you start – even back then I'd probably been out six or seven years, and occasionally you'd sort of start to doubt yourself a little bit."

Oliver – 20-year graduate – non-clinical

Some participants noted a lack of confidence in certain areas of clinical practice such as working with particular species or in surgery, particularly after not having worked in a specific area of veterinary medicine for a period of time or having not had enough exposure to develop enough expertise to feel confident. While Angela's lack of confidence in surgery was evident as a student, other participants described their confidence in performing surgical procedures waning over time often as a result of taking a break from clinical work or working in clinical jobs where they were not required to perform surgery or did so infrequently. Even those who were able to regain enough confidence to perform their surgical duties felt they were not quite as confident as they were prior. The amount of exposure to certain species affected how confident some participants felt. Evelyn decided to focus solely on large animal work as she felt she wasn't doing enough small animal work to develop and maintain confidence in this area.

Lacking confidence around times of transition was significant in participants' career decisions. Confidence was a critical factor for some participants who were looking to return from time away from clinical practice. Maria noted how influential confidence was in returning to the workforce and Anna described her surprise at how much her confidence was affected, having taken time away from clinical work:

"The thing is, they've got to realise; you've actually lost your confidence, too because you stopped to have children, which you don't realise is going to happen. I never foresaw that, because I was very confident when I was working; you very quickly lose all of that."

Unfortunately, her interactions with the Veterinary Council of New Zealand further dented her confidence at a time when she was looking at returning to clinical work.

"So, you become this very unconfident person who's maybe just wanting to dip their toe in, and then you have the Veterinary Council say, nah – we don't want you . . . It's quite a knock to the confidence, really."

Anna – 20-year graduate – non-veterinary

Returning to veterinary work after a break was not the only time of transition where confidence influenced participants. Confidence also affected them in their decisions around practice ownership and leaving clinical practice. William reflected on how he lacked the confidence to take over sole ownership when his business partner opted out. Confidence also influenced him later in his career. Having recognised his desire to pursue work outside of clinical practice, he was delayed in his transition citing a lack of confidence in applying for non-clinical roles.

Fiona attributed her momentary feelings of self-doubt to imposter syndrome (an affliction of some high-achieving individuals whereby they feel like frauds and fail to assimilate their successes with their own abilities (Kolligian Jr & Sternberg, 1991)). She reflected on this saying:

"I have terrible imposter syndrome; I sit there and go, why am I in this role – I don't really know anything. So, I have this terrible – and I believe it's very common in females . . . even now, I still sit there, and I have to go, stop that's ridiculous – of course you know what you're doing – of course you deserve to be in this role . . . When you start talking about it, it's amazing how many others will tell you the same thing…"

Fiona – 20-year graduate – non-clinical

Guilt was another feeling that participants described as influential in their careers. Liam described feeling guilty while taking time away from practice and working a non-veterinary job, after negative experiences in his first job. He felt compelled to give clinical practice another go as he felt guilty that he had attained a veterinary degree but was not using it. Guilt also affected others in their career decisions and in their day-to-day work. Oliver recalled feeling guilty for leaving his first job at the time that he did, when his employer was struggling with their own mental health. He spoke of his decision to leave his first job saying:

"I (felt) very bad leaving my first role, because I knew that I was probably leaving them in a bit of a tough situation . . . To some degree I probably carried a bit of guilt around leaving them then, but . . . it was the right call to make for me."

Oliver – 20-year graduate – non-clinical

Later, when transitioning away from clinical work to focus on his role in practice management, Oliver felt he was letting his clients down and this influenced his decision making during this time of transition. Other participants also spoke of how they had experienced feelings of guilt around letting people down, often in relation to balancing their work and family commitments.

7.3.4 Mental Wellbeing

Several participants referred to how their mental wellbeing had been influential, sharing experiences of how post-traumatic stress disorder, depression, substance abuse, a self-described nervous

breakdown, and burnout affected their career decisions. These experiences influenced their departures from their first job or from clinical work, and in some cases prevented them returning to clinical veterinary work after a break. In some cases, participants attributed these episodes of poor mental wellbeing to their work environment, or a combination of their work environment and their personal characteristics and circumstances. However, in other instances, they arose from events that occurred in participants' lives outside of work. One participant described how their experience of post-traumatic stress-related depression contributed to them not wanting to return to clinical practice saying, "*It's not worth the spirals back into hating myself, not wanting to be here and all of that.*"

The stress that some participants experienced in their jobs influenced their career decisions. Much of the stress participants described originated from their working environment although for some it arose from trying to balance family and work commitments. Participants identified many different aspects of their work environments that caused them stress. These included inadequate support staff (in terms of numbers and levels of expertise), a lack of autonomy within the workplace, lack of support from employers and colleagues, heavy workloads, after-hours duty, working in high pressure environments, experiencing bullying and racism in the workplace, concerns about keeping abreast of current knowledge and up-to-date with CPD requirements, clinical skills, dealing with unfamiliar or difficult cases, extra study commitments, making life and death decisions, complications with procedures, and client communication. Stressors related to client communication included dealing with intense, angry, and emotional clients, the need to communicate all possible scenarios and potential outcomes, informing clients of the unexpected death of their pet, trying to convince clients to take proper care of their pets, managing their expectations, dealing with client complaints, and clients who believe veterinarians are primarily motivated by profit. A few participants spoke of occasions when they were affected by moral stress, such as when they perceived an animal was being overtreated (when the most humane option for the animal was euthanasia) or undertreated (having to euthanise an animal with a treatable condition).

Liam described the stress he experienced in his first two jobs which originated from a lack of support and led to his departure from each of these jobs and from clinical practice altogether. He said of his experience in these clinics:

"I just didn't really cope with the stress. It was more sort of, the fear of doing something wrong type of thing so yeah it was just yeah constant stress."

Liam – 20-year graduate – non-clinical

Maria, having changed to non-clinical work, reflected on the relief she felt around no longer having to deal with some of the stressors she experienced in clinical practice. She illustrated this saying:

"Now I sometimes have these dreams that you know there's cats coming in with traumas and I'm stressing, intense owners and wake up and go 'oh good, oh that's really good I don't have to deal with that'."

Maria - 20-year graduate – non-clinical

Several participants also described how being a veterinarian in practice was an emotionally stressful job. Naomi wished she had remained in large animal work, noting a difference in the stress involved working with large animals compared to companion animals. She reflected on this saying:

"Obviously, you still have different pressures on you, and you still have people that make complaints and all that sort of thing, but it's just not the same kind of ongoing emotional pressure when money is involved . . . I think also large animals, you get to spend a lot of time just doing stuff in your mind – standing there pregnancy-testing for five hours or whatever, or disbudding calves for a few hours, or whatever; you just get to kind of mentally chill out a bit…"

Naomi – 10-year graduate – career break

Some participants described how they made career decisions to reduce the stress they felt in the workplace. Maria eased her transition back to practice by volunteering initially, to avoid the stress of feeling that she needed to earn her keep. Andrea also described her deliberate decisions to choose jobs throughout her career that were not sole charge:

> *"I didn't really want to put myself in that kind of stressful environment when I feel that I didn't have to. So, that was kind of making your life easier kind of decision so that there was less stress to worry about."*

> *Andrea – 20-year graduate - clinical*

Several of the women reflected on how the constant juggle to manage their work commitments alongside their family acted as a stressor. Some of the women noted that their family commitments didn't allow them time in the evenings to sit down and research cases or participate in continuing professional development. Tegan noted that the demands of after-hours work was particularly stressful when combined with family commitments. She summed this up saying:

> *"Now that I've got a family, it is just next-level for after-hours; it's so hard to have that stress of your demands on your family life, and then have to be on-call, and have to coordinate everything, and feel like you're not missing out, or letting someone down, or feeling like you don't want to go and see that animal, because of your home life."*

> *Tegan – 10-year graduate – clinical*

However, not all participants viewed stress in a negative light. Ben used stress as a motivator in his career, although did qualify that he needed to feel he was adequately remunerated in return. He said:

> *"I've always liked stress and I love using it as a motivator for me . . . there'll be a tipping point when I get too much, and things go up the wall but I do enjoy that side of things and so*

that's why I like emergency surgeries and those sorts of things . . . but yeah I wouldn't do it if there wasn't a financial reward for that."

<div align="right">*Ben – 10-year graduate - clinical*</div>

Participants noted that work-related stress was not confined to clinical veterinary work and acknowledged that their non-clinical or non-veterinary jobs were not without stressors of their own. However, participants noted that the stressors they experienced in their non-clinical or non-veterinary work were not necessarily the same as those they experienced in clinical work and suggested for that for them, they were more manageable. Some participants who had left clinical practice spoke of their discomfort with the pressure of life-or-death situations. Angela recognised that although there was an initial learning curve in her non-veterinary work, the pressures she experienced in this job, although still present, were different to those she experienced in clinical practice. She spoke of this saying:

"It was a baptism by fire again, but it wasn't as confronting I guess, because nothing dies when you get it wrong. Might cause an international incident if you get it really wrong, but at that stage, it wasn't I guess so immediately critical that you get it absolutely right the first-time round."

<div align="right">*Angela – 20-year graduate – non-veterinary*</div>

7.4 Chapter Summary and Conclusions

The current chapter has outlined the three themes that related to the cohort members as individuals, describing how participants' professional networks; personal characteristics and aspirations; and feelings, emotions and mental wellbeing influenced their career decisions and contributed to shaping their career pathways.

I noted in the previous chapter that opportunities were important for many of those who had made significant career changes and participants' networks outside of their workplaces were often crucial

in facilitating these opportunities. Participants' professional networks were extensive, and they spoke frequently of the significance of their classmates and staff from the Massey University Veterinary School, as well as other veterinary and non-veterinary colleagues. For many participants, their networks facilitated job opportunities and often provided a source of support (often via a shared experience), career advice, or mentorship. For several participants, professional networks were instrumental in their switch away from clinical practice and into their non-clinical or non-veterinary roles.

Also important were the participants' personal characteristics and aspirations. Some reflected on how they did not understand themselves well prior to undertaking a veterinary degree or how they perceived that certain aspects of their character and personality meant they were well- or poorly suited to certain types of work. The extent to which they felt their personal characteristics fit with their work influenced participants in their career decisions. When they found that their work was not a good fit for them, they often pursued other options. Participants' personal characteristics also influenced them around times of career change. For instance, some were more open to change and willing to take a risk, whereas others identified how their loyalty prevented them changing jobs. Participants' mindset towards their career was also influential in how they coped with career transitions and how they approached their career in general.

Participants were influenced in their careers by their work preferences and what they enjoyed, their interests, and priorities. Participants had preferences for the type of work they liked, and many pursued what they enjoyed or were interested in, which at times led them away from clinical practice. Sometimes, participants opted to prioritise one aspect of their work over another. In addition, personal motivations such as the pursuit of knowledge, new challenges, and ongoing learning; their career goals and career progression; their values and philosophies; and wanting a change were also influential. How well participants were able to pursue or satisfy their individual

interests or preferences within a workplace was relevant to their career decisions and at times they moved to different roles in search of something that was missing in their existing role.

Participants' identity as a veterinarian was closely intertwined with their personal identity, and some noted that a change in career direction contributed to a loss of identity. There was a perception among the participants that leaving clinical practice was viewed as a failure.

Participants also described other emotions and feelings that contributed to their career decisions and for some, their mental wellbeing was a factor in determining their career trajectory. While the pursuit of enjoyment was discussed alongside personal motivations, the feelings and emotions that affected their career changes were predominantly described as negative in nature and primarily arose from their working environment. Participants described feelings of boredom, resentment, frustration, and disillusionment as well as how they were influenced by anxiety, fear, guilt, and a lack of confidence. These emotions, along with stress, influenced their mental wellbeing and satisfaction in their work. Some participants described their experiences of depression, post-traumatic stress disorder, substance abuse, burnout and how these influenced them in their career decisions.

Having a sense of being valued (or not) in their work underpinned a lot of the other emotions that arose as a result of their work, namely when they felt they were not valued this led to feelings of frustration, resentment, and disillusionment. Participants also described how fear and anxiety affected them; at times preventing them from moving on to new jobs or careers, and at other times, prompting their move.

Several participants also noted that their level of confidence, particularly at times of transition, was influential for their career decisions. For some, a lack of confidence influenced their departure from a clinical job, and for others it contributed to their departure from clinical veterinary work, sometimes facilitating it, and at other times delaying it. Participants also reflected on how their confidence was negatively impacted after taking time away from clinical practice, and how this

influenced them in their decision to return (or not) to clinical work and how they navigated this transition.

However, participants also spoke of the positive emotions derived from their work, and although the contribution of these emotions to their career trajectories was often less explicit, positive emotions contributed to some cohort members remaining in a job or type of work. Importantly, many of the participants who had shifted away from clinical veterinary work spoke of the positive emotions and feelings their new roles evoked in them. As such, on a personal level, their shift away from clinical work could be considered as career success.

In all, six themes were identified that incorporated the factors that were influential to participants' career decisions: three related to their environment and circumstances, and three to individual factors. In the next chapter, I further discuss the relationships between these themes and how they interact to influence veterinarians career trajectories. I draw on the existing literature, the preliminary study, and the cohort survey data to provide an in-depth discussion of the career pathways of New Zealand veterinary graduates and give a holistic overview of the factors that influence their career decisions.

Chapter Eight: General Discussion

The aim of this research was to develop an understanding of the patterns that exist among New Zealand veterinarians' career pathways, the extent to which they leave the veterinary profession, and the factors that influence their career decisions. Understanding how and why New Zealand veterinarians' career pathways evolve and the extent to which they leave the veterinary profession is important given the national cost of educating veterinarians, the personal passion and toil involved in gaining a veterinary degree, and the current workforce shortage. Understanding the factors that influence veterinarians' career decisions is important when considering what opportunities exist to enhance engagement and fulfilment in veterinary work and retention of veterinarians within jobs, areas of veterinary work, and the New Zealand veterinary profession. Enhancing engagement in veterinary work may in turn benefit current and future veterinarians, their employers, their clients, and the animals and communities that they serve.

In this chapter I integrate the findings from the quantitative and qualitative studies and discuss the wide variety of factors and themes that influenced veterinarians' career trajectories, not all of which involve negative aspects of veterinary work. I discuss how Elizur's (1984) three categories of work values from the psychology literature inform the interpretation of the themes and use these categories as a starting point to develop a holistic view of the factors that influenced cohort members' career decisions. Lastly, I consider the variability within individual career pathways, and the rate at which the cohort members continued to work in the New Zealand veterinary profession.

8.1 Multiple Factors are Involved in Career Decisions

The reasoning and influences behind veterinarians' career changes (whether that be changing jobs, changing to a different type of clinical work, or changing to non-clinical or non-veterinary work) were multifaceted, supporting the earlier suggestions of Parkinson and Gilling (2005a) and Bell et al. (2018) and echoing the findings of Arbe Montoya et al. (2021) and Kerr (1995). As such, it is difficult

to comment on the relative importance of the different factors involved. Each factor had been important to someone in determining their career trajectory, but not everyone identified the same factor or combination of factors.

Cumulatively, the participants in the preliminary study, who were closely aligned with the veterinary industry, identified a broad range of factors that caused people to leave 'veterinary work'. They described factors commonly cited anecdotally, in surveys, and on social media forums. Working hours, workload, and after-hours work; remuneration; client factors; the influence of family and children; and stress were the most frequently cited reasons suggested by these participants. Many of the broader factors identified in the preliminary study were proposed by participants who had themselves shifted away from clinical veterinary work and had drawn on their personal experiences, indicating that further examination of lived career experiences in the cohort study would be valuable.

The factors most frequently described by the preliminary study participants were also relevant to cohort members' career change experiences indicating that these factors are relevant to real-life career decision-making. However, it became clear when examining the lived experiences of the cohort members that alone, these commonly cited factors did not entirely explain their career change decisions. For instance, cohort members' decisions to change away from clinical veterinary work were not simply based on perceived negative aspects of the work such as after-hours requirements or remuneration, but also on a range of other factors, including more positive and motivational factors. Similarly, shifts away from clinical practice could not simply be attributed to women leaving clinical work to care for family (although family situations were highly relevant in shaping the careers of some of the cohort members and are discussed further in a subsequent section).

The sense that job satisfaction and retention is influenced by factors wider than the material aspects of the job, was in line with the findings of Adam et al. (2019) who noted that veterinarians who had

left (and stayed in) farm animal practice referred to their remuneration and working hours, but these factors were not accurate predictors of retention among the survey respondents, indicating that other factors were at play.

8.1.1 Not All the Reasons for Changing Career Direction were of a Negative Nature

Cohort members described various combinations of factors specific to their context that influenced their career decisions. A change in career direction often centred around positive goals and aspirations, and sometimes occurred as the result of a serendipitous opportunity. Although some people had significant negative experiences which were a precursor to them moving away from clinical work; for others a sense of looking for more, prioritising certain aspects of their career or life, pursuing professional interests and areas of enjoyment, or taking up an opportunity were central to their career decisions. In other words, having positive experiences did not guarantee that a veterinarian would remain in clinical practice indefinitely, as other factors came into play. Often, they were influenced by career ambitions or goals and wanting more in their career. Thus, although negative experiences could propel some to change jobs or work types (push factors), career decisions often came about from factors that pulled the veterinarians in another direction. For many, there were a combination of push and pull factors at play.

8.1.2 Professional Networks were an Important Facilitator of Career Opportunities

Professional networks were described by cohort members as an important source of job opportunities and helped to shape their career pathways. Often the professional networks described by cohort members were pre-existing and based around their veterinary class group. Professional networks may be particularly relevant to New Zealand educated veterinarians who all graduate from a single university and continue to experience the camaraderie that develops among a close-knit class group long after they graduate. Further, the relatively small size of the New Zealand profession facilitates the formation of close professional networks.

Professional networks have been recognised in the general career literature as playing a role in facilitating job opportunities and providing career information and support (Forret, 2014; Granovetter, 1973; Seibert et al., 2001). Professional networks were also found to play a role in retaining teachers who had considered leaving the teaching profession (Cooper & Mackenzie Davey, 2011). Previously, Gohier (2017) found that 15% of recently graduated Canadian veterinarians found their current role via networking, and 17% had secured a role in a business in which they had worked in as an undergraduate student. Enticott (2018) also noted how chance, social relationships, and professional networks influenced veterinarians from the United Kingdom to migrate to New Zealand. However, aside from these studies, the influential role of professional networks in veterinarians' career pathways and decision-making has largely gone unmentioned in the veterinary literature.

In the current research, professional networks also played a role in providing career guidance, support, and mentorship, which in turn influenced cohort members' satisfaction in their work. It was in this context that networks received further mention in the veterinary literature (Bell et al., 2019; Gardner & Hini, 2006; Moir & Van den Brink, 2020; Riggs et al., 2001; Tindell et al., 2020) although, like Enticott (2018), these authors extended their discussion of networks beyond professional networks and into personal networks such as friends and family outside of the veterinary profession.

8.2 Developing a Holistic View of the Factors that Influence Career Decisions

Six themes were developed to describe the factors that were influential to the cohort members' career decisions. Given that many different factors influenced different people, at different times, in different contexts, developing a holistic overview of the factors that influence veterinarians in their career decisions is useful and considering their career decisions in light of their work values is a helpful starting point.

8.2.1 Work Values as a Useful Lens to Interpreting Career Decision-Making

Elizur (1984) proposed three categories of work values: material (instrumental), social (affective), and cognitive (psychological) (Table 8.1).

Table 8.1: Table showing categorisation of work values and their relationship with the themes and subthemes developed in the cohort study. Based on (Kaasa, 2011).

Basic Dichotomy *(Definitions from (Kaasa, 2011, p. 853))*	Elizur's proposed categories of work values (Elizur, 1984; Elizur et al., 1991)	Cohort study – themes and subthemes Factors influencing cohort members' career decisions
Extrinsic "Tangible outcomes or rewards of work"	**Material (instrumental)** e.g. Pay, benefits, security, work hours, work conditions	**Working Nine to Five…and Beyond (Work environment)** Remuneration; work schedule/after-hours, and workload; repetitive physical work
Intrinsic "Intangible rewards related to process of work"	**Social (affective)** e.g. recognition, co-workers, supervisor, esteem, interaction	**Working Nine to Five…and Beyond (Work environment)** Interactions and relationships with colleagues, clients, employers; workplace culture; support
	Cognitive (psychological) e.g. advancement, feedback, status, achievement, job interest, meaningful work, personal growth, use of ability	**Go Your Own Way (Personal Characteristics and Aspirations)** Wanting a change; interest in work/ ability to pursue interests; desire for career progression, challenge, knowledge/learning

These categories of work values provide a useful lens to understand the range of workplace factors that influenced cohort members' career decisions and the role of their personal characteristics and aspirations. These work values may provide a useful framework for employers and the veterinary profession to consider what aspects of the workplace environment (and the fit between a workplace and an individual) may enhance veterinarian retention. So, rather than focusing on only one aspect of work values, for example, the material aspects of the workplace such as remuneration, considering the social and cognitive aspects as well will create a more holistic view of the relevant factors. Similarly, individuals may place greater emphasis on different work values at different times so there is no single recipe to improve retention and job satisfaction. For example, some cohort members described the lack of intellectual stimulation in routine large animal jobs as a factor in their decision to pursue other types of work. However, others described their enjoyment of such tasks which provided a mental break and an opportunity to build relationships with farming clients.

Three material factors (remuneration, after-hours, and working hours and workload) featured among the five most frequently discussed subthemes developed from the preliminary study interviews. Cohort members also spoke of how material factors were influential in their career decisions, but both social and cognitive work values also featured prominently in their career stories.

Social factors included interactions with clients, colleagues, and employers and the overall workplace culture and support available (participants spoke of support in a social sense rather than a material one, so it is included as a social factor). The value people placed on these aspects of their work and the degree to which their social and cognitive work values were met in the workplace combined to influence their career decisions. The personal characteristics of employers and how they influenced the general workplace culture and the relationship participants had with their employer (particularly in relation to the provision of support) were also important. Other aspects of workplace culture, including the business focus of veterinary practice, the existence of toxic workplaces, and issues of bullying and sexism were referred to by participants in the preliminary study, and again by the cohort members. Members of the 10-year cohort generally described more positive experiences of early career support than those in the 20-year cohort, several of whom described a complete absence or inadequacy of support early in their career as a key factor in their decision to leave a job, or clinical practice altogether. Hopefully there has been a recognition that provision of support to new graduates is both a requirement (Veterinary Council of New Zealand, 2020) and good business practice, and a shortage of veterinarians provides further impetus to foster a positive work environment to both attract and retain staff.

Cognitive factors identified by cohort members have been grouped under the personal characteristics and aspirations theme and include the desire for a change, career progression and development, ongoing learning and challenge, pursuing interests or prioritising certain work types, wanting intellectual stimulation, and the pursuit of career goals. Cohort members emphasised how cognitive work values influenced their career decisions as they sought work which fulfilled their

needs with some referring to their own self-assessment of suitability for a given type of work. Cognitive factors were identified in the preliminary study although it was only those who had experienced a career change themselves who identified the relevance of developing new interests and wanting a change.

8.2.2 The Work Environment and Personal Aspirations were Central to Career Decisions

The work environment and cohort members' personal characteristics and aspirations were central to their career decisions (Figure 8.1) and the preliminary study identified many of the aspects that the cohort members described. The relationships between these two central themes and the four other themes are discussed throughout this chapter and are summarised in Figure 8.1. In the subsequent sections I further discuss some of the key findings of the research, to provide a holistic interpretation of the themes, and how they interact and influence career decisions.

KNOWING ME, KNOWING YOU
PROFESSIONAL NETWORKS

Fellow cohort members
Other colleagues within veterinary industry
People outside of veterinary industry

Information flow about job openings, job referrals
Serendipitous job opportunities

Source of career support, guidance and mentorship - influential in fulfilment work values

WORK VALUES
are central to career decisions

Overarching theme of feeling valued and supported in the workplace

WORKING NINE TO FIVE (AND BEYOND)
WORK ENVIRONMENT

Extrinsic/Material: **After-hours/work schedule, workload Remuneration** Physical repetitive nature of the work

Intrinsic/Social: Workplace culture Support **Clients**, colleagues, employers/managers

THE WORLD I KNOW
NON-WORK FACTORS

Family: Primarily a factor among the women
Often combines with other factors
Barriers to returning to clinical practice

Lifestyle and Leisure: Influenced some to remain in their clinical jobs

Travel/OE: Returning from the OE was an important decision point for many

Compatibility of non-work factors with work situation/work values

OPPORTUNITY KNOCKS
OPPORTUNITIES

Job opportunities
○ Clinical practice
○ Outside of clinical practice

Search for other opportunities

Fit of person, their characteristics and values with workplace/work type

Unfulfilled work values (material, affective, cognitive) or poor fit

GO YOUR OWN WAY
PERSONAL CHARACTERISTICS & ASPIRATIONS

Intrinsic/Cognitive: Wanting a change
Career progression/development
Ongoing learning and challenge
Pursuing interests
Prioritizing meaningful/enjoyable work
Pursuit of career goals
Search for intellectual stimulation
Self-assessment of suitability

Negative emotions and feelings, and reduced wellbeing

Search for other opportunities

MORE THAN A FEELING

FEELINGS, EMOTIONS & MENTAL WELLBEING

Boredom, resentment, frustration
Disillusionment, cynicism
Anxiety, fear, guilt, lack of confidence
Stress, mental distress

Figure 8.1: Diagram displaying six themes that describe the factors relevant to cohort members' career decisions and the interactions between the themes. The factors most frequently cited by the preliminary study participants are in bold type. The abbreviation OE refers to overseas experience, a term that refers to a working holiday abroad, a common undertaking among young professionals from New Zealand.

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8.2.3 Overarching Theme of Feeling Valued and Supported in the Workplace

The idea of feeling (and being) valued and supported in the workplace was an overarching theme that related to many aspects of the workplace environment as expressed in both material and social work values (Figure 8.1). This overarching theme was relevant to cohort members' stories around remuneration, after-hours duties, interactions with their employers, client interactions, and workplace culture. These findings provide further insight into the factors that contribute to a veterinarian's sense of value. This is important as Robinson et al. (2019) reported that not feeling rewarded/valued in a non-financial way was the second most frequently cited factor among veterinarians intending to leave the veterinary profession in the United Kingdom. The importance of feeling valued, as described by cohort members in the current research, supports the work of Begeny et al. (2018) who linked the sense of feeling valued in the workplace to veterinarians' motivation (an idea that incorporates their career ambitions, potential, and confidence), job satisfaction, and retention within the veterinary profession.

8.2.4 Person-Organisation Fit (the Interaction between Personal Characteristics, Aspirations, Values, and the Work Environment)

The degree to which cohort members' personal characteristics and aspirations fit with their workplace environment, and the degree to which they were able to fulfil their work values within a workplace were also important factors in career decision-making and contributed to job satisfaction. Person-organisation fit has been defined by Kristof (1996, pp. 4-5) as "the compatibility between people and organisations that occurs when: a) at least one entity provides what the other needs, or b) they share similar fundamental characteristics, or c) both."

Cohort members reflected on how their values matched (or didn't match) those of their organisation or employer/manager and discussed this in terms of the type of work (e.g. preventative approach to animal health versus ambulance at the bottom of the cliff approach), workplace mottos, practising standards, and how their employers or managers viewed and interacted with their employees.

Preliminary study participants suggested that values mismatches between employee veterinarians and their workplaces may impact career satisfaction, for example a sales and profit focus may predominate and clash with an employee's focus on medicine, animal welfare, and desire to help.

In addition, considering a broader view of fit, cohort members (particularly those that had deviated from the traditional clinical pathway) reflected on their suitability for clinical work, considering their personalities, personal characteristics, values, strengths and weaknesses, and tendency to be big picture thinkers or more detail oriented. They spoke of the closeness of the fit between their own individual characteristics and their working environments and often made self-evaluations of their suitability for clinical veterinary or other types of work.

Bell et al. (2019) also suggested that job fit was a key theme underpinning the success of veterinarians' career transitions into their first job and their longevity in the veterinary profession, noting the importance of veterinarians finding a workplace environment with values and practising standards that aligned with their own. Armitage-Chan and May (2018) offered further insight into the sense of fit felt by veterinarians in their workplaces, suggesting that a veterinarian's professional identity (diagnosis-focused versus challenge-focused) can influence career satisfaction and wellbeing. For instance, those with a diagnosis-focused identity may experience poor fit in first opinion practice, where day-to-day challenges obstruct their ability to perform the gold standard diagnostic and treatment plans, whereas those with a challenge-focused identity have more opportunities to fulfil their professional identity in first opinion practice, leading to greater career satisfaction in this type of workplace (Armitage-Chan & May, 2018). Armitage-Chan (2020) suggested that veterinarians may adjust to assume a more challenge- or relational-focused identity over time but persistent identity confusion can affect career satisfaction and wellbeing. Several cohort members who were, or who had previously been very content in their clinical roles referred to the value they placed on client relationships, and the positive client relationships they experienced, an indication that they may have adopted a more relational- or challenge-focused identity.

8.2.5 Consequences of Unfulfilled Work Values, Feeling Undervalued, Negative Workplace Experiences, and Poor Person-Organisation Fit

As summarised in Figure 8.1, when an individuals' work values were unfulfilled, they themselves did not feel valued, they had negative workplace experiences, or experienced poor fit with their workplace, the themes 'More than a Feeling' and 'Opportunity Knocks' became particularly relevant.

8.2.5.1 Negative Emotions and Feelings, and Compromised Wellbeing

The emotions and feelings that drove cohort members to explore other job or career opportunities were primarily negative in nature, and were often evoked through their workplace experiences, echoing the findings of Arbe Montoya et al. (2021) and Kerr (1995). Negative emotions often occurred because of unfulfilled work values (including material, social, and cognitive aspects), or when cohort members felt undervalued, had negative experiences, or experienced poor fit with their workplace. These factors were noted to contribute to cohort members' decisions to pursue non-clinical or non-veterinary jobs, to change to a different clinical job, to delay or not return to a job (or work) after maternity leave, and to accept less than ideal first jobs in a tight job market. They also prevented some from pursuing veterinary business ownership. At times, veterinarians left a job (or clinical work) in the absence of the next opportunity or plan. This occurred when they felt they could no longer continue in a job (or more specifically in clinical practice) and these decisions were based around the feelings, emotions, and mental wellbeing of these participants that resulted from a lack of fulfilment of their work values (i.e. feeling unsupported) and their own perceived mismatch of fit between their characteristics, skills and ability, and their clinical veterinary work.

Both the cohort members and preliminary study participants spoke of boredom, frustration, fear, disillusionment, dissatisfaction, a lack of confidence, and burnout as influential. However, the cohort members also identified additional feelings and emotions that were not considered by the preliminary study participants including cynicism, guilt, anxiety, and resentment.

Work-related stress was frequently referred to by cohort members who had made career or job changes and the preliminary study participants also placed particular emphasis on this as a contributing factor. Cohort members described a vast array of factors that contributed to the stress they felt in the workplace, the details of which were discussed in Chapter Seven. In broad terms, cohort members collectively attributed work-related stress to aspects of the workplace environment and culture, their perceptions of their skills and the maintenance of skills and knowledge, client communication, and moral stress. However, people's experiences of work-related stress are context specific, and different people attribute their work-related stress to different aspects of their work. Furthermore, the degree to which certain aspects of veterinary work cause stress likely varies among individuals; while some people may find a particular aspect of veterinary work highly stressful, others may not.

Other studies have previously documented stress as a factor for veterinarians intending to leave (Robinson et al., 2019) and leaving the veterinary profession (Kerr, 1995) or clinical practice (Arbe Montoya et al., 2021). Stress has also been noted to influence New Zealand veterinarians' decisions to leave rural practice (Dykes, 2017) and featured among the five factors most frequently referred to by the preliminary study participants. These participants also suggested that compassion fatigue could be a reason that veterinarians leave clinical veterinary work however, this was not named as a factor by cohort members, nor did it appear among the selection of studies from the nursing and medical professions described in the literature review.

There is much focus on mental health and wellbeing among veterinarians in the literature (Bartram & Baldwin, 2010; Bartram et al., 2009; Gardner & Hini, 2006; Hatch et al., 2011; Kogan et al., 2020; Meehan & Bradley, 2007; Moir & Van den Brink, 2020) and recent studies have considered mental health and wellbeing as factors that influence veterinarians in their career decisions (Adam et al., 2019; Arbe Montoya et al., 2021). In the current research, several of the cohort members who had left clinical practice or were considering not returning, cited aspects of their mental health and

wellbeing as important contributing factors, however this was not consistent across all the career changers. Some participants acknowledged the mental health challenges faced by members of the veterinary profession but specifically stated that these were not factors in their own career decisions. This highlights that while mental health and wellbeing was significant for some cohort members' decision-making, it was just one piece of the multifaceted puzzle.

8.2.5.2 Pursue other Opportunities

Professional networks played an important role in facilitating job opportunities and as a source of career support, advice, and mentorship. The preliminary study participants largely overlooked the importance of opportunities and professional networks in shaping a veterinarian's career pathway. Only one preliminary study participant noted that alternative opportunities were a relevant factor, and this was based on their own experience of career change. However, opportunities and professional networks stood out among the career stories of the cohort members enough to warrant their inclusion as themes.

Opportunity seeking also occurred at other times of change, such as returning from overseas travel or relocating to a new region. Opportunities both inside and outside of participants' workplaces also played a role in prompting job and work type changes. In many cases, a job opportunity arising outside of the current workplace was the final stage of making a career or job change and was the catalyst that accelerated or actualised this transition. This effect occurred when there were pre-existing factors driving the desire for change, and when there were not. Many veterinarians left one job when another opportunity came up, either as a result of searching for one, seeking career advice, or being approached with a job offer.

The availability of opportunities as a precursor to a career change has been under-reported in the veterinary career literature but were highly significant for some of the cohort members. Previously, Andrus et al. (2006, p. 1892) noted that an "extremely attractive alternative employment opportunity" was the most common reason for North American veterinarians, graduated six years or

longer, to change jobs or work types within the veterinary profession. Similarly, Arbe Montoya et al. (2021) mention work opportunities as a factor influencing veterinarians to leave clinical work, but do not place particular emphasis on this, rather encompassing it as a subtheme of personal factors. However, opportunities came through more strongly among the cohort members' career stories in the current research, perhaps partly due to this research considering a broader range of career decisions and partly due to the close-knit and relatively small size of the New Zealand veterinary profession which facilitated professional networking.

8.2.5.3 Opportunities at the Time of Graduation

The availability of job opportunities at the time of graduation also played a role in shaping participants' early career experiences. For some members of the 20-year cohort, the lack of job opportunities available in New Zealand upon graduation became significant to their career pathway as their experiences in less than ideal first jobs, accepted with some degree of desperation, contributed to their departure from clinical practice and in some cases from veterinary work altogether. Jobs appeared to be more readily available for the 10-year cohort graduates who described having more opportunity to pick and choose which jobs they would accept with some interview participants noting that they were offered more than one job and were able to choose the one they thought was most suitable.

8.2.5.4 Opportunities and Cognitive Work Values

Participants who had remained in a workplace longer term often described having opportunities to grow, develop, and progress within their workplace. In contrast, those who did not have these opportunities often searched for them elsewhere. This is a significant point of interest for retaining veterinarians both within workplaces and within clinical work. Ensuring there are opportunities for ongoing learning, new challenges, and options to pursue interests or progress into management or partnership roles seems to be important. The preliminary study participants also referred to a

perception that there were finite opportunities for career progression within clinical veterinary work, leading to veterinarians pursuing other types of work.

In the existing veterinary literature, there is little further explanation about what career progression means to veterinarians. The traditional and perhaps most recognised avenue of career progression for veterinarians is practice ownership or partnership (or more recently shareholding), however Adam et al. (2019) allude to the fact that veterinarians' desire for career progression reaches beyond that of practice ownership or partnership and the cohort members in this research offered further insight into what career progression meant for them. In addition to pursuing business ownership or partnership, cohort members also spoke of how opportunities (or a lack of opportunities) to develop their professional skills, pursue their interests, be promoted, or achieve salary progression influenced them in their careers. Those who had ambitions to pursue interests were sometimes led away from clinical practice in pursuit of these, when it wasn't possible to pursue them within a practice setting or within their current practice.

The difference in the proportion of members from the two cohorts who had pursued additional veterinary qualifications was a notable finding. Despite having had less time since graduating, almost twice the proportion of the 10-year cohort held additional veterinary qualifications compared to the 20-year cohort. This may indicate that the 10-year cohort placed a greater emphasis on cognitive work values related to ongoing learning and skill development or may reflect increased expectations surrounding veterinarians' skill level in veterinary practice today, compared to past times. However, this difference may also be a result of increased opportunities for gaining additional veterinary qualifications over time. Increased availability and/or accessibility of additional veterinary qualifications, such as the Master of Veterinary Medicine (MVM; available online) may also be a factor in the greater uptake of additional veterinary qualifications among the more recent graduates. Several of the cohort members interviewed held additional veterinary qualifications and spoke of their motivations for pursuing them. An enjoyment of learning was key and further study

was a source of additional challenge and intellectual stimulation beyond day-to-day veterinary work. The desire to feel knowledgeable or gain credibility in a field that related to their work role was a motivating factor for some, while others pursued non-clinical veterinary qualifications as part of their transition away from clinical practice. Several cohort members described how opportunities arose to gain additional veterinary qualifications through scholarships and funding, and through their existing work. Many of the interview participants referred to a general need for mental stimulation and valued new learning opportunities throughout their careers, noting how these factors were influential in their career decisions.

8.2.5.5 Gendered Nature of Opportunities

In the current research, some cohort members suggested that gender bias still influenced job and partnership opportunities for women. Women cohort members gave examples of how their experiences with job applications and job offers differed to that of their husband and how they felt they were disadvantaged in partnership opportunities by working part time, or by having a husband who was already a veterinary partner.

Mitchell (2017) reported that 14% of women British Veterinary Association (BVA) members felt they had been "deprived of opportunities (available to others)" because of their gender, compared with only 3% of men. Girvan (2019) previously noted that perceptions of a 'boys' club' culture persisted within the veterinary profession and, in a study involving women veterinarians in the United Kingdom, Treanor and Marlow (2021) pointed out that men (often younger in age and with less experience) were often identified and prepared for partnership opportunities above their female colleagues, who are often viewed as "deficient in comparison" (p. 122). Knights and Clarke (2019, p. 3) also noted that the structure of the veterinary profession "tends to favour men, particularly when it comes to advancement and promotion" and particularly overlooks women with children for opportunities for promotion. This supported the findings of Begeny and Ryan (2018, p. 8) who reported that women veterinarians are at times "evaluated as less competent" than their male

counterparts and this has flow on effects to the opportunities that they are offered (for instance, for management roles) and the encouragement given to them to pursue career advancement. These insights could further help to explain the discrepancy in practice ownership/partnership and involvement in practice management tasks between the men and women in the current study.

Among cohort members in the current research, there was a significant difference between the proportion of the men and women in veterinary business ownership, partnership, and management roles. Much of this difference could be attributed to the men and women in the 10-year cohort. The difference noted between men and women in these roles was in line with that of previous studies which have noted that a greater proportion of men hold practice ownership or management positions in New Zealand veterinary practice, compared to women (Jackson, 2004; MacKenzie, 2013; VCNZ, 2019). MacKenzie (2013) noted that mixed, production animal, and equine practices experience an even greater gender imbalance among their leadership compared with companion animal practices. The pattern of men holding the majority of ownership roles in veterinary practice has also been noted in Australia (Heath, 2005; Heath & Niethe, 2001), and the United Kingdom (Robinson et al., 2019), although the proportion of women holding ownership or partnership roles in the United Kingdom has increased to 18.1% from 13.8% in the five years to 2019 (Robinson et al., 2019).

Studies from Australia and Canada have also indicated that men tend to enter practice partnership or ownership roles earlier than women (Heath, 2007b; Osborne, 2004). Heath (2007b) noted that rates of practice ownership differed by gender among two cohorts 10-years after graduation, when men in clinical practice were still noted to hold ownership roles at a rate higher than women. However, by 15 years after graduation, although a greater percentage of men (63%) held ownership or partnership roles than women (51%), this difference was no longer statistically significant. These findings suggest that the women from the 10-year cohort may still enter practice ownership or

partnership roles in the future, and the gap in the rates of veterinary business ownership and partnership between the men and women in this cohort may decrease.

A previous study in Australia had indicated that the difference between the number of men and women in partnership or ownership roles persisted, even when working hours and time since graduating were taken into account (Heath & Niethe, 2001). However, Heath (2007b) later reported that women working part time were less likely to be practice owners, and there was no difference in the rate of practice ownership or partnership among men and women who worked full time and had been graduated for 15 years or longer. However, the gap in practice ownership remained between full-time men and women graduated 10-years or less. The cohort data in this research indicated that the overall difference in rates of veterinary business ownership/partnership/participation in management tasks among the men and women, and the difference between the men and women in the 10-year cohort no longer existed when comparing only the men and women who worked full time. This finding suggests that employment status is also a relevant indicator of whether veterinarians are likely to be practice owners or partners, in turn impacting the prospects of women, who are more likely to work part time. Further, individuals who opt to work part time (whether they be men or women) may be less interested in practice ownership/partnership/management.

A relevant question when considering the findings of the current research is how much of the gap between men and women in ownership/partnership relates to a lack of opportunities for women, versus the lack of desire among women (or among part time workers, rather than women specifically) to take up partnership or ownership opportunities. The cohort members interviewed suggested that both aspects play a role, and while some had little interest in pursuing these opportunities, others indicated an interest in partnership, but opportunities were not forthcoming. Further, some of the women had turned down partnership opportunities to travel. The range of individual experiences among the cohort members seems to indicate that individual desire is

influenced by values and circumstances but having an opportunity at the right time is also crucial and for some is the missing link.

Data from the cohort survey indicated that when participants from all work types were included, the desire to become a veterinary business owner or partner was not significantly different between the men and women. This contrasts with the findings of MacKenzie (2013) who reported that a greater proportion of male veterinarians not currently in leadership/ownership positions aspired to hold such a position in the future compared to their female counterparts, although the statistical significance of this difference was not reported. However, among the 10-year cohort, the women were significantly less likely to want to pursue veterinary business ownership or partnership than the men, and this may reflect that women have different priorities at this stage of their careers/lives. Alternatively, it may indicate a decreasing desire among more recent women graduates to pursue business ownership or partnership.

MacKenzie (2013, p. 41) found that among New Zealand veterinarians, women and men largely agreed on the motivating and de-motivating factors that influenced their pursuit of leadership roles and agreed on the both the most influential five motivating factors ("decision-making", "make a difference", "logical career move", "new skills", "higher income") and the most influential three de-motivating factors ("time commitment", "family", and "not wanting the responsibility"). However, women rated the de-motivating factors more highly and the motivating factors less highly than the men. The women also ranked "no opportunities" and "not interested" higher as de-motivating factors than the men (MacKenzie, 2013, p. 43).

8.2.6 Influence of Non-Work Factors on Career Decisions and Work Values

Non-work factors (including family, lifestyle and leisure, and travel) also contributed to the career decisions of many of the cohort members, including the decisions to remain in a job, to leave a job, to change work type, or take a career break. These factors contributed to the decision in several ways. Often having family or caregiving responsibilities changed priorities and influenced what

cohort members valued in their work (e.g. flexible, part-time working arrangements). Some cohort members described how their lifestyle outside of work influenced them to remain in their jobs and many cohort members had left a job in New Zealand to travel and work overseas where their experiences of locum work abroad helped to shape their future careers. Returning from overseas travel was also a significant decision point for many.

8.2.6.1 Family

The role of family in influencing career decisions is perhaps more complex than it first appears and in the wider career literature Cabrera (2007) noted that while almost half of women business graduates left the workforce, most (70%) later returned. Further, only 35% of these women cited caring for children as the sole reason for their decision to cease working. In addition, the need to balance work commitments alongside family needs, and employer attitudes that limited opportunities to facilitate this balance were noted as potential barriers that prevent some women from returning to the workforce (Cabrera, 2007). Adam et al. (2019) also noted that the degree to which family influenced veterinarians' decisions to leave farm animal practice in the United Kingdom was influenced by a lack of support from employers to enable veterinarian employees to meet their family commitments.

There was an ongoing perception, among the women in both cohorts, that the veterinary profession is not family-friendly, a view shared by veterinarians in the United Kingdom (Robinson et al., 2019) and the battle to balance family and work commitments were sources of guilt and stress for some cohort members. Some cohort members described a resistance in their practice (where they had often worked for some years) to allow them to return to work on a part-time basis after taking maternity leave. Others who had taken longer breaks described their return to practice being thwarted or delayed by unsupportive and negative interactions with the Veterinary Council of New Zealand and for one participant this was confounded by the requirement to find a mentor. Some cohort members had offers from their professional networks to assist in their return to practice,

however others, who were distanced from professional networks found the process of returning to clinical practice after time away more daunting. Beyond finding suitable working arrangements, cohort members also noted other barriers in returning to clinical work after taking time away to care for family, including financial barriers to upskilling or refreshing their knowledge, and a loss of confidence.

8.2.6.2 Travel/Overseas Experience (OE)

The desire to travel and embark on a working holiday (OE) also played a role in veterinarians' career decisions. Many felt this was a normal part of life for a young New Zealand professional, mirroring the findings of Parkinson and Gilling (2005a, p. 184) who suggested the overseas experience "is what one does". Many of the cohort members described leaving jobs in New Zealand to travel and work overseas, in some cases turning down partnership offers in the process. Parkinson and Gilling (2005a) also noted the tendency for many New Zealand veterinary graduates to head overseas on a working holiday once they had developed a base level of competence and embarking on an overseas experience was also a common feature of the career of Australian veterinary graduates (Heath, 1996, 2002).

Returning from overseas was often an important time in the careers of the cohort members. It was a time when they took stock and considered their next career move. While Heath (2007c) reported that travel was an unimportant factor among veterinarians who had left clinical practice, or had left the veterinary profession, several cohort members in the current study experienced a significant turning point in their careers on their return to New Zealand, and for some this marked the start of their diversification to roles outside of clinical practice. For others, their experiences during their OE influenced the type of clinical practice they pursued. Most veterinarians who had travelled and worked in the United Kingdom worked in small animal practices, often despite having worked in mixed or large animal practice in New Zealand. Some discovered that they enjoyed living in a larger city, hindering their return to rural practice in New Zealand. This supports the suggestion of Weston

et al. (2007) that veterinarians who had worked in rural practice prior to departing on their OE, do not always return to rural practice and Parkinson and Gilling (2005a) attributed this pattern to veterinarians' experiences of living an urban lifestyle and working in companion animal practice.

However, in the current research, several participants (both from the cohorts and preliminary study) found the experience of working in small animal practice abroad cemented their desire to resume large animal practice on their return to New Zealand. Parkinson and Gilling (2005a) noted that returning to their previous place of employment was the exception, rather than the rule for returning veterinarians and this was largely the case for the cohort members interviewed. However, two individuals had returned to the rural practice that they worked at before they left, having had their job held open for them, or having been approached by their previous employer offering them a job on their return. Parkinson and Gilling (2005b) recommended that active attempts be made to encourage veterinarians to return to rural practice in New Zealand after their OE. Among the cohort members, these approaches from their employees were fruitful in retaining or encouraging them to return to their former (rural) practice.

8.2.7 Temporal Patterns in Factors Influencing Career Decisions

There was a perception among the preliminary study participants that there are certain time periods in a veterinarian's career where they routinely re-evaluate their career direction and subsequently make career changes. Career and life stages have been considered in the general career literature as a basis for understanding career development (Lee, 2020; Martin, 1994; Slocum & Cron, 1985; Super, 1980) and Gilling and Parkinson (2009); Parkinson and Gilling (2005a, 2005b) have given some consideration to temporal factors in New Zealand veterinarians' career decision-making.

Although the time-to-event analysis suggested that people commenced non-clinical or non-veterinary roles at various times during their careers, and the interviews indicated some individual variation among their reasons for doing so, there were also some broad temporal patterns among the factors they considered at different career stages. Using a combination of the interview and

survey work history data, the timing of the cohort members' transitions away from clinical work was calculated. For the purpose of this study involving veterinarians up to 20-years post-graduation, the time periods were categorised as early career (first three years post-graduation), mid-career (four to 15 years post-graduation), or later career (16 years or more post-graduation). One of the cohort members interviewed had transitioned from clinical practice to another work type on more than one occasion and during more than one career stage. The ability to explore temporal changes both quantitatively and qualitatively was a significant contribution of this study and added further context to the discussion of factors that influence veterinarians' career decisions.

The preliminary study participants identified the initial one to two years in practice as an important period during which the realities of working as a veterinarian in practice came to light and experiences were highly influenced by the support available to them in the workplace. Gilling and Parkinson (2009) described this as a "make or break period" where the degree of support offered was key in making a successful transition from veterinary student to veterinarian. Among the cohort members who had shifted away from clinical work early in their careers, material and social work values were important, as was their self-assessment of fit and suitability for clinical work. The most prominent factor was having negative early experiences in practice, particularly relating to the level of support available, which affected their confidence and stress levels. Early changers also considered the general workplace culture, interactions with their employers and clients, and working hours. In addition, some early changers found clinical work was not a good fit for them in terms of their self-assessment of their practical skills, level of knowledge, personality, or ability to physically carry out the work required.

Mid-career re-evaluations were also noted to occur by the preliminary study participants who suggested this was the time period when veterinarians started to question 'what next'? Parkinson and Gilling (2005a) suggested that during the two to five-year period post-graduation, some veterinarians become bored with large animal practice as it may provide little intellectual challenge

once a certain mastery of the key technical skills is achieved. They also noted that this coincided with a plateau in salary and decisions around starting a family, an observation echoed by the preliminary study participants in the current research. Cohort members who shifted away from clinical practice mid-career most often spoke of cognitive work values, along with non-work factors and material work values. They were influenced by their personal motivations and wanting more than a clinical veterinary career could provide. It appears that during this time period there is a particular focus on fulfilment of cognitive work values and experiencing a lack of options for career progression within their workplace or the search for a new challenge or pursuit of an interest/area of enjoyment featured among the reasons listed by this group for leaving clinical work. In addition, prioritising their family needs was a prominent factor particularly among the women and mid-career changers also noted the need to prioritise their work types when they had become involved with non-clinical roles at the same time as working in clinical practice. For one mid-career changer, a serendipitous opportunity was the catalyst for his shift away from clinical practice. Mid-career changers did also consider workplace factors in their decisions including remuneration, after-hours requirements, working hours, and the lack of flexibility in terms of fitting work around the needs of children. Some changers from this time period also reflected on the disillusionment they felt around their perceived value in the workplace and mismatch between the sacrifices they were making for their job (such as after-hours duties and carrying out repetitive physical work) and their level of remuneration. None of the interviewed cohort members that had shifted away from clinical work mid-career were practice partners or owners (although two had received previous partnership offers) and most changed from large animal roles although one worked in companion animal practice, and another had worked in mixed (predominantly large animal) practice in New Zealand and companion animal practice overseas.

For those who transitioned away from clinical practice later in their careers (and several interviewees had made significant career changes 17-20 years post-graduation) a range of factors came to the fore. For one of the later changers, the value they placed on work conditions was

influential and they noted that the repetitive physical nature of large animal work no longer appealed and this, coupled with the physical effects of having done this type of work long-term, was a stimulus for change. The need to prioritise non-clinical responsibilities within a practice resulted in another practice owner ceasing his companion animal clinical duties. However, considerations of workplace culture and remuneration were also relevant to this group, and a negative clinical experience was a contributing factor for one companion animal veterinarian shifting away from clinical work. For another cohort member working in non-clinical veterinary work, a company re-structure was the catalyst for a career re-evaluation and change of direction away from the veterinary profession.

Understanding that different factors are of particular relevance to decision-making at different career stages of veterinarians' careers is valuable when considering what opportunities exist to promote and maintain engagement and fulfilment of veterinarians in their work throughout their careers. Interventions aimed at retaining veterinarians can be tailored according to an individuals' career stage as well as their individual context.

8.3 Career Pathways are Variable and Fluid

Almost all the cohort members in this study began their careers in clinical practice, a finding reported previously in other Australian and New Zealand studies (Heath, 1998; Parkinson & Gilling, 2005b). However, beyond their first jobs, cohort members described varied career pathways. The current research has further extended and built on existing research by examining individual cohort members' lived career pathways. Examining individual careers has highlighted that veterinarians' career pathways are variable and career changes are not always unidirectional or permanent; it was not always as simple as moving from one job to the next. At times, cohort members exited the workforce or a work type before later returning. Thus, any assessment of retention of veterinarians in veterinary work only provides a snapshot in time.

The variability of individual cohort members' career pathways became clear in the work histories they provided. I intended to use time-to-event analysis to assess when respondents left clinical work to search for patterns in the timing of this decision. However, the varied career pathways and numerous individual scenarios meant that it was difficult to define what leaving clinical practice meant. Starting in a non-clinical or non-veterinary role did not always coincide with leaving clinical practice. While in some cases this transition was clear cut there were many instances where it was not. Some cohort members reported linear career pathways, moving from one job to the next (or remaining in the same one) and/or from one work type to another, whereas others held multiple roles (often in multiple work types) at one time or shifted backwards and forwards between work types, or in and out of the workforce. Less linear career pathways were often experienced by women who also reported breaks for paid parental leave or longer breaks to care for children, a finding similar to that of Mainiero and Sullivan (2005) and Cabrera (2007).

8.4 Retention in the New Zealand Veterinary Profession

The rate at which New Zealand veterinarians continue to maintain an APC appears to be similar to that of New Zealand medical and nursing graduates in the first 10-years after graduating (Medical Council of New Zealand, 2019; Nursing Council of New Zealand, 2018; VCNZ, 2013; VCNZ, 2019). Indeed, a large proportion of the cohort members continued to work within the veterinary profession including almost all the 10-year cohort members. As could be expected, relatively fewer of 20-year cohort remained in veterinary work as more time had elapsed for them to explore other careers. However, this finding refutes the assertion that poor retention among more recent cohorts of 'millennials' is the most significant contributor to the current shortage of veterinarians.

As illustrated among the 20-year cohort members, significant career changes occur beyond 10 years post-graduation and it is not only early-career decisions that shape veterinarians' career pathways, something hitherto not explored in existing studies of New Zealand veterinarians. This is important as it indicates that when exploring opportunities to retain veterinarians in jobs and the veterinary

profession, consideration should be given to veterinarians at all career stages. Also, it indicates that examining APC maintenance rates beyond 10-years after first registration would add further information on the degree to which more experienced veterinarians step away from veterinary work in New Zealand. Currently this data is not reported in the VCNZ annual workforce reports.

We may expect to see the 10-year cohort continue to shift away from veterinary work over the next decade. However, the 10-year cohort has had different career experiences, such as greater job opportunities upon graduating, generally improved experiences of early career support, and increased uptake of additional veterinary qualifications compared to the 20-year cohort and these factors have the potential to enhance their retention within the veterinary profession over time.

Evaluating the main work types held by the cohort members at the time of the survey gave some indication of the levels of retention within the veterinary profession. However, not all the cohort members who worked in a veterinary role remained in New Zealand and a substantial proportion held veterinary roles overseas. While this research indicated a loss of veterinarians from veterinary work, particularly among the 20-year cohort, a substantial proportion of loss from the New Zealand veterinary profession could be attributed to a loss of veterinarians from the country.

Two of the interview participants were currently working overseas, one as a veterinarian, the other in non-veterinary work. In both instances, the decision to work overseas related to the greater job opportunities available internationally either for themselves (in their non-veterinary work) or for their partner. Other interview participants had previously worked as veterinarians overseas for reasons other than undertaking a working holiday. They also reported that better job opportunities for their partner was a key factor and in addition revealed that a lack of veterinary job opportunities at the time of graduation and undertaking residencies led them to work overseas. One participant in the preliminary study suggested that higher remuneration packages offered overseas lure New Zealand veterinarians to work outside New Zealand. Improving remuneration packages may help in retaining veterinarians in New Zealand. However, there is limited ability for the New Zealand

veterinary profession to influence the job opportunities that are available for veterinarians' spouses outside of veterinary work. Further, opportunities for providing traditional post-graduate veterinary clinical training such as residencies is somewhat limited by resourcing and the relatively small size of the New Zealand veterinary profession, as is the availability of niche veterinary roles, however increasing such opportunities within New Zealand may help retain veterinarians. Further research examining New Zealand veterinarians' decisions to work overseas beyond the traditional working holiday may elucidate the factors at play and in turn, what could be done to improve the attractiveness of, and opportunities for remaining in veterinary work in New Zealand.

8.5 Loss of Identity/Sense of Failure Around Leaving Clinical Practice

There was a lingering sense among some cohort members that leaving clinical practice was viewed as a failure among their veterinarian colleagues. Others reflected on the loss of identity they felt having left veterinary work. A sense of failure accompanying transitions away from clinical veterinary work has also been noted in the veterinary profession in the United Kingdom (Ridge, 2016). However, contrary to the underlying sense of failure, and general assumptions that leaving clinical practice is bad, many of the veterinarians in this study had shifted away from clinical practice as they wanted more, or to prioritise one type of work over another. The sense of wanting more came through in several different ways, including wanting more financially or intellectually, wanting to follow an interest, wanting more in terms of career progression, or input into their work situation and work flexibility. In contrast to the perceptions of failure associated with shifting away from clinical work, this highlighted that a degree of ambition existed among many of the career changers. This has been alluded to in the international veterinary literature previously with some studies noting that pursuing new challenges and interests, wanting to further skills development or advance their career, and wanting to become self-employed were relevant factors for veterinarians changing career direction, or planning to do so (Andrus et al., 2006; Heath, 2007c; Murray et al., 2005; Osborne, 2009, 2012). Therefore, as previously discussed, it may be useful to consider how

veterinarians' ambitions can be fulfilled within clinical practice environments, and in the broader veterinary profession.

The suggestion that success as a veterinarian is based simply on one's longevity within clinical veterinary work (Grimmett, 2017) is flawed, and as seen in this study, many participants moved into non-clinical veterinary roles and roles outside of the veterinary profession and found work that suited their personal characteristics and fulfilled their work values and aspirations. Furthermore, the veterinary profession and society needs veterinarians to fill important non-clinical roles such as those that relate to research, academia, biosecurity, food safety, animal welfare and other important aspects of veterinary science. Those in non-clinical veterinary roles continue to make valuable contributions to the veterinary profession and many of those working in roles that did not require a veterinary degree continued to contribute to the agriculture industry, and in some cases, to the wider veterinary industry.

8.6 Limitations

The sample size for the cohort survey was determined by the number of cohort members and was relatively small for making inferences from the survey data. As a result, the focus has been on presenting descriptive statistics. As the goal of the survey was to ascertain the patterns of the career pathways of these specific cohorts, the sample size was appropriate. The aim was not to generalise the results to veterinarians outside of the cohorts, but rather to use these cohorts as an example of some of the patterns that may occur.

Care should be taken in generalising the observed career patterns beyond the two study cohorts as different cohorts experience different social and economic factors and examples of this occurred among the two study cohorts. For instance, the job market for veterinarians in New Zealand was weak at the time the 20-year cohort graduated. This group also experienced the phase during which farms in the South Island of New Zealand were rapidly converting to become dairy farms, and the foot and mouth outbreak in the United Kingdom coincided with their early years in practice, and

many of the 20-year cohort members participated in the biosecurity response in the United Kingdom. The 10-year cohort had more job opportunities available to them in New Zealand upon graduation, although they graduated around the time of the global financial crisis. These sorts of external factors may impact job opportunities (number of available jobs and type of jobs) and may influence veterinarians' initial experiences in the veterinary workplace.

Although an excellent survey response rate was achieved and measures were taken to ensure as many cohort members as possible were invited to participate in the research, it was not possible to locate and invite all the cohort members. It is possible that those who were unable to be contacted via the online veterinary register or via their veterinary social networks, may be working in areas outside of the veterinary profession and therefore the proportion of graduates working outside the veterinary profession may have been underestimated. Further, the number of men in the cohorts was relatively low, particularly among the 10-year cohort, and therefore a response from a single male could have a relatively large effect. Care was taken to present the data with both frequencies and percentages, and to use appropriate tests of statistical significance when making comparisons. Where expected frequencies in contingency tables were adequate (five or greater), the chi-squared test was used to determine statistical significance. In some cases, expected values in the frequency tables were less than five and in such instances a Fisher's Exact test was used as a more appropriate measure of significance.

While there were several areas where significant differences were noted among the career pathways of the men and women survey respondents, it is possible that there were confounding factors at play. For instance, a significantly greater proportion of men did on-call work , however there were also a greater proportion of men working in rural/small town locations where there are less likely to be dedicated after-hours clinics. Similarly, while men were more likely to be in veterinary business ownership or partnership, this appears to be confounded by the fact that a

greater proportion of men worked full time compared to women, and in some instances, this may be a requirement to be considered for partnership.

Given the relatively small overall proportion of cohort members in non-clinical or non-veterinary roles, it was difficult to make comparisons between cohort and gender within these work roles and analysis was limited to basic description. There was also a relatively small sample size for the time-to-event analysis and therefore analysis was limited to include only the Kaplan-Meier curves which described the pattern of occurrence of departures from the first job and the time to starting a non-clinical or non-veterinary job.

When working with the work history data, assumptions had to be made and applied across all the data and these were described alongside the results. The survey questions surrounding work type relied on participants distinguishing whether their roles were classed as non-clinical or non-veterinary. Although carefully considered definitions were supplied to guide participants around this categorisation, it became apparent that in some cases, the distinction between non-clinical and non-veterinary roles was not always clear.

Many of the interviewees who volunteered for and were selected to participate in an interview for their involvement in non-veterinary roles worked in roles related to agriculture, or roles that related to the veterinary or animal care industry but did not require a veterinary degree. Fewer held roles completely unrelated to either agriculture or the veterinary profession and there is scope to explore this subset of career changers further.

8.7 Areas for Future Research

This study has highlighted several avenues for further research. Following up with these two cohorts again in five to 10 years' time would help to build a picture of their longer-term careers and would allow further comparison of the differences and similarities of their career patterns over time. In addition, there is potential for future research to explore specific career patterns among a broader

group of cohorts or among the wider veterinary profession. There is scope to carry out further time-to-event analysis using a larger sample size and additional cohorts to further distinguish any temporal patterns around starting work outside of veterinary clinical practice. This may help workforce planning and time-targeted interventions to assist with retaining veterinarians within clinical practice or the veterinary profession.

The current research indicated that a significant number of the New Zealand domestic veterinary graduates worked overseas. Further examination of the factors that influence New Zealand veterinarians to work outside of New Zealand beyond the traditional working holiday may help develop an understanding of how veterinarians may be retained within New Zealand.

Detailed exploration of the reasons for choosing a veterinary career fell outside the scope of this research however, a love of animals or wanting to work with animals were prominent factors identified by cohort members, although these were not the sole reasons. While survey data from overseas has examined the factors that influence veterinary career choice (Cake et al., 2019; Heath et al., 1996; Tomlin et al., 2010a; Villarroel et al., 2010a), to my knowledge, New Zealand specific data is lacking. Some interview participants started their career story with how they came to study veterinary science, and often input from their families or other networks was important. For some, a veterinary career wasn't their first choice or a burning desire and several who commented on this had subsequently left clinical work. A qualitative approach would contribute further understanding of the initial choice to pursue a veterinary career, and if and how an individual's reasons for choosing a veterinary career affected their subsequent career decisions.

This study has gone some way towards exploring both positive and negative experiences of support in the veterinary workplace, however further qualitative research around veterinarians' experiences of support (positive and negative) may assist in understanding how the veterinary profession and employers can enhance the support provided to graduates, furthering the work done by Gates et al. (2020). More experienced veterinarians also value support and this was often described as

mentorship. Developing a further understanding of the dynamics and results of such mentorship relationships and how they influence veterinarians' careers would be beneficial, both in optimising support and assisting those in mentoring roles. In addition, exploration of veterinarians' experiences (both positive and negative) around returning to clinical practice after time away may help to highlight ways in which the veterinary profession and employers can support returning veterinarians, in turn helping to retain them within the New Zealand veterinary profession. Furthermore, exploring what contributes to veterinarians staying in clinical practice in the broader sense may be of additional value.

Chapter Nine: Conclusion

In the first 10 years after graduation, the rate at which New Zealand veterinarians maintain an APC is similar to that of New Zealand medical and nursing graduates. Some degree of career change is a natural progression for many veterinarians, and many are continuing to contribute to New Zealand society in non-clinical roles as well as non-veterinary roles. However, there are indications that a shortage of veterinarians in clinical practice has existed for some time in New Zealand and many other countries. Implementing strategies to reduce attrition of veterinarians from veterinary work, clinical work, or individual jobs, in order to maintain a robust veterinary workforce, requires an understanding of the factors that contribute to career decision-making. This research has made a significant contribution in furthering this understanding.

9.1 Implications of the Multifaceted Nature of Career Decision-Making

Cohort members experienced varied career pathways and the reasons behind their career decisions were complex and multifaceted. Thus, a holistic approach will be required to enhance veterinarian retention. Importantly, not all career changes occurred because of negative workplace experiences. Thus, although enhancing veterinary work environments is important and would be beneficial in reducing attrition and improving job satisfaction, it will not prevent all attrition. Pull factors also played a role in career decisions and having positive workplace experiences did not always prevent veterinarians from changing career direction. Factors outside of the direct work environment including serendipitous opportunities, non-work factors, and professional networks were also influential.

9.2 Opportunities to Improve Workplace Experiences

Considering veterinarians' material, social, and cognitive work values can provide a framework for optimising veterinary work environments. Fulfilment (or lack of fulfilment) of these different categories of work values played a central role in career decisions and this research has highlighted

numerous opportunities for enhancing veterinary work environments. While early experiences working as veterinarians were important influences on future careers, cohort members made significant changes at various stages of their careers. Improving veterinarians' work experiences and fulfilment in the workplace is likely to assist in improving retention at all stages of a veterinarians' career.

This research has identified many opportunities to improve the work experiences of veterinarians. While many cohort members relayed positive experiences in veterinary workplaces, others had significant negative experiences which contributed to their subsequent career decisions. The factors that contributed to these negative experiences indicated that the veterinary profession has some way to go in improving workplace environments and workplace cultures.

Central to improving veterinarians' workplace experiences is the active promotion of a positive, supportive workplace culture and fostering positive workplace relationships, not only between employers and employees but also among colleagues and with clients. The 10-year cohort generally described more positive early career experiences particularly regarding workplace support. This may suggest that the culture and awareness around the need to support new and recently graduated veterinarians has improved over time in some workplaces. In addition, ensuring employees feel valued (both remuneratively and otherwise) in the workplace and supporting them to fulfil their individual aspirations is of relevance.

Employers and managers are integral in defining workplace cultures. Developing sound human resourcing and management practices will assist with improving the work environment for all staff. Implementing leadership training among workplace leaders, employers, and managers, as well as those who are interested in leadership, would support professional development in this area. Furthermore, supporting employees to develop their interests and achieve their cognitive work values such as their desire for ongoing learning and career development is an important consideration. The 10-year cohort had a greater proportion of members who had pursued additional

veterinary qualifications compared to the 20-year cohort. This may indicate an increased focus on cognitive work values among the more recent graduates, changing expectations of the expertise required to work in general practice, or greater opportunities for gaining such qualifications (such as the ability to study online) which were not available to the 20-year cohort earlier in their careers.

Considering ways in which to accommodate flexible, part-time working arrangements, providing veterinarians with a degree of autonomy, and giving them a voice in the day-to-day running of their workplace would be a positive step towards minimising veterinarian attrition. Further, improving remuneration levels to better reflect the level of education, workload, performance, and pressures of the job would help to create a greater sense of value among veterinary professionals. However, the profitability of veterinary practice is another significant and multifaceted problem, which may be a limiting factor for many practices when considering what levels of remuneration can be offered.

Utilising veterinary paraprofessionals to spread the workload and reduce the volume of physical, repetitive tasks and other technical aspects of practice will allow veterinarians to focus on tasks specifically requiring diagnosis and treatment planning. Allowing them to focus on such tasks and reducing their overall workload may help to maintain their interest in veterinary work and ease the longer-term wear and tear on their bodies. Furthermore, utilising veterinary paraprofessionals may help to improve profitability of veterinary practice.

Cohort members who had returned (or had considered returning) to clinical practice after time away had varied experiences and it became clear that there are opportunities for the veterinary profession to better support veterinarians in their transition back to practice. Some cohort members who had taken longer breaks found the process of renewing their practising certificate disheartening whilst others experienced disingenuous behaviour from employers and described how this cast a cloud over their return from maternity leave. Some employers were reluctant to consider part-time working arrangements. Parents will continue to take time away from work to raise their children and others will take breaks for other reasons, so reducing the barriers to returning to practice by

facilitating re-entry pathways, promoting flexible working arrangements, valuing the contribution of part-time employees, and creating family-friendly workplaces may be of benefit in encouraging and supporting their return to the veterinary workforce.

Given that some cohort members suggested that bias against women veterinarians persists in terms of the job and partnership opportunities offered, active consideration of how unconscious (or conscious) bias against women is influencing the recruitment process and partnership offerings is necessary. Given the current veterinarian shortage, recruitment discrepancies may be less apparent however, promoting equal opportunities in the veterinary profession is important to ensure that women are fairly considered for jobs, and those who are interested have opportunities to be considered for leadership roles and as potential business partners.

Overall, a greater proportion of the men were working in roles outside of clinical practice (although the difference between the men and women was not statistically significant). Thus, attrition from clinical practice cannot simply be attributed to women seeking other employment or taking time out of the workforce.

9.3 Loss of Identity/Sense of Failure Around Leaving Clinical Practice

Despite their career decisions being influenced by a range of factors, several cohort members described how their sense of value and identity was challenged when they no longer worked as clinical veterinarians. Some felt that leaving clinical practice was still perceived as a failure by their peers, and the profession in general.

The profession may benefit from celebrating a broader identity, rather than viewing those who leave clinical practice as a failure of the system. The identity of a veterinarian as a clinical practitioner is shaped by society's experiences and perceptions of what a veterinarian is, and the relative visibility of veterinary clinicians compared to their non-clinical counterparts. This identity is further cemented during undergraduate veterinary education where the emphasis is placed on developing competent

clinical practitioners, even though there are many important non-clinical veterinary roles that need to be carried out by veterinarians. There is scope to consider how streams focusing on aspects of non-clinical veterinary science may be incorporated within veterinary education.

At the same time, recognising and valuing the continued contribution of non-clinical veterinarians is important as they continue to fill crucial roles in the veterinary workforce. Those working in non-veterinary roles also continued to make contributions in other areas and many continued their involvement with agriculture, animal health, and the broader veterinary industry, albeit in roles that did not require them to hold a veterinary degree.

9.4 Concluding Comments

Some attrition from veterinary roles, clinical practice, and from the New Zealand veterinary profession is normal and healthy as professional networks provide new opportunities for veterinarians to enter different workplaces, explore non-clinical veterinary work, or pursue interests outside the veterinary profession. Some people find that certain jobs or work types suit them better or find their niche outside clinical work or the veterinary profession. Regardless of this, all people involved in the veterinary industry should strive to create safe, positive, engaging working environments and to optimise working conditions to enhance job satisfaction for all members of the team and ensure that high-quality veterinary services are available for the animals and communities that we serve.

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23rd July 2018

Professor Ray Geor
Pro Vice Chancellor
College of Sciences
Massey University

Re: Permission to undertake PhD research relating to Massey University BVSc Graduates

Dear Professor Geor,

I am writing to request your approval to undertake PhD research relating to career change among Massey University Veterinary graduates. Your approval is required as part of the Massey University human ethics process as research participants will be identifiable as Massey University graduates so there is a potential risk to the reputation of Massey University.

The purpose of this research is to develop an in-depth understanding of the career pathways of New Zealand domestic veterinary graduates. Study participants will be identifiable as Massey graduates due to Massey University being the sole provider of the veterinary degree in New Zealand.

Animal industries are of major economic importance in New Zealand and maintaining a strong veterinary workforce is crucial to their ongoing success. However there are concerns about the potential for shortages of veterinarians in the future, especially in rural practice, and speculation about the role of job satisfaction and the changing gender demographic of the profession in relation to the retention of veterinarians in the workforce.

Some quantitative workforce data is collected by the Veterinary Council of New Zealand. However little is known about how the career pathways of NZ veterinarians change over time and the factors that influence their career decisions. My PhD research will investigate these aspects with a mixed methods study.

The study will involve two graduate cohorts, those who have been graduated 10 and 20 years. Individuals from these cohorts will be identified using the publically available Massey University Graduate database. I will attempt to invite all members of each cohort to take part in the research to enable me to determine the relative frequencies of different career patterns. Through the cohort's social networks I hope to reach members who have left the veterinary profession, who may be missed in profession-wide surveys.

The first phase of the research is a survey that will enable me to develop descriptive statistics around the career patterns of these groups including how many changes in workplace and work type they undertake, what these changes are, and how frequently they occur. Multivariate modelling may be used to assess how various demographic and other factors may influence career pathways.

The second phase of the research will involve interviews with a select number of volunteers from the cohorts. The aim of the interviews is to gather in-depth data relating to veterinarians' career pathways and in particular the factors that have influenced them to change career direction. Data will be analysed using a thematic analysis which will identify key themes of relevance.

The risk of this research to Massey University is considered to be low. There is potential for research participants to suggest they didn't feel adequately prepared for the realities of life as a veterinarian. However the risk to Massey University is reduced by the fact that other veterinary schools are likely to experience similar challenges. The research will benefit the veterinary profession by providing insight into key areas where retention and job satisfaction could be improved.

I will also seek approval for the research from Professor Jon Huxley, Head of the School of Veterinary Science. My supervisors for this research are Associate Professor Jenny Weston, Dr Liz Norman, Professor Kevin Stafford and Associate Professor Juliana Mansvelt.

A full ethics application has been submitted and has been *provisionally* approved by the Massey University Human Ethics Committee Southern B.

Yours Sincerely,

Natalie King
PhD Student
School of Veterinary Science
Massey University

25th July 2018

Professor Jon Huxley
Head of School of Veterinary Science
Massey University

Re: Permission to undertake PhD research relating to Massey University BVSc Graduates

Dear Professor Huxley,

I am writing to request your approval to undertake PhD research relating to career change among Massey University Veterinary graduates. Your approval is required as part of the Massey University human ethics process as research participants will be identifiable as Massey University graduates so there is a potential risk to the reputation of Massey University.

The purpose of this research is to develop an in-depth understanding of the career pathways of New Zealand domestic veterinary graduates. Study participants will be identifiable as Massey graduates due to Massey University being the sole provider of the veterinary degree in New Zealand.

Animal industries are of major economic importance in New Zealand and maintaining a strong veterinary workforce is crucial to their ongoing success. However there are concerns about the potential for shortages of veterinarians in the future, especially in rural practice, and speculation about the role of job satisfaction and the changing gender demographic of the profession in relation to the retention of veterinarians in the workforce.

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The study will involve two graduate cohorts, those who have been graduated 10 and 20 years. Individuals from these cohorts will be identified using the publically available Massey University Graduate database. I will attempt to invite all members of each cohort to take part in the research to enable me to determine the relative frequencies of different career patterns. Through the cohort's social networks I hope to reach members who have left the veterinary profession, who may be missed in profession-wide surveys.

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The risk of this research to Massey University is considered to be low. There is potential for research participants to suggest they didn't feel adequately prepared for the realities of life as a veterinarian. However the risk to Massey University is reduced by the fact that other veterinary schools are likely to experience similar challenges. The research will benefit the veterinary profession by providing insight into key areas where retention and job satisfaction could be improved.

I will also seek approval for the research from Professor Ray Geor, Pro Vice Chancellor of the College of Sciences. My supervisors for this research are Associate Professor Jenny Weston, Dr Liz Norman, Professor Kevin Stafford and Associate Professor Juliana Mansvelt.

A full ethics application has been submitted and has been *provisionally* approved by the Massey University Human Ethics Committee Southern B.

Yours Sincerely,

Natalie King
PhD Student
School of Veterinary Science
Massey University

MASSEY UNIVERSITY
TE KUNENGA KI PŪREHUROA

UNIVERSITY OF NEW ZEALAND

Date: 25 January 2018

Dear Natalie King

Re: Ethics Notification - **4000018875 - Preliminary Study – Views on Career Change Among New Zealand Veterinarians, New Zealand Veterinary Association Conference 2018.**

Thank you for your notification which you have assessed as Low Risk.

Your project has been recorded in our system which is reported in the Annual Report of the Massey University Human Ethics Committee.

The low risk notification for this project is valid for a maximum of three years.

If situations subsequently occur which cause you to reconsider your ethical analysis, please contact a Research Ethics Administrator.

Please note that travel undertaken by students must be approved by the supervisor and the relevant Pro Vice-Chancellor and be in accordance with the Policy and Procedures for Course-Related Student Travel Overseas. In addition, the supervisor must advise the University's Insurance Officer.

A reminder to include the following statement on all public documents:
"This project has been evaluated by peer review and judged to be low risk. Consequently, it has not been reviewed by one of the University's Human Ethics Committees. The researcher(s) named in this document are responsible for the ethical conduct of this research.

If you have any concerns about the conduct of this research that you want to raise with someone other than the researcher(s), please contact Dr Brian Finch, Director - Ethics, telephone 06 3569099 ext 86015, email humanethics@massey.ac.nz. "

Please note, if a sponsoring organisation, funding authority or a journal in which you wish to publish requires evidence of committee approval (with an approval number), you will have to complete the application form again, answering "yes" to the publication question to provide more information for one of the University's Human Ethics Committees. You should also note that such an approval can only be provided prior to the commencement of the research.

Yours sincerely

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Dr Brian Finch
Chair, Human Ethics Chairs' Committee and Director (Research Ethics)

Career change amongst New Zealand veterinary graduates: What factors shape the careers of New Zealand veterinarians?

Information Sheet

What is the research about?

Hi, I'm Natalie King. I am a veterinarian and PhD student with the School of Veterinary Science at Massey University. My PhD research will identify factors that influence the career path decisions of Massey veterinary graduates. I am interested in the reasons why people opt to leave veterinary work, as well as the reasons why others stay. The aim of this preliminary study is to gain insights from vets and others closely involved with the veterinary profession about why they think other people stop working as vets.

How can you help?

I would like to invite you to share your views on the topic in a brief (5-10 minute) interview here at the NZVA Conference. The interview will be recorded and will later be analysed and reported as part of the PhD thesis and may be used to write scholarly articles and conference presentations. You will not be identified by name in any publication of data, as pseudonyms will be used. Interview data will be stored securely.

Your rights

You are under no obligation to accept this invitation. If you decide to participate, you have the right to:

- decline to answer any particular question;
- withdraw from the study at any point up to one week after the interview;
- ask any questions about the study at any time during participation;
- provide information on the understanding that your name will not be used;
- be given access to a summary of the project findings when it is concluded;
- ask for the recorder to be turned off at any time during the interview;

Thank you for taking the time to read the information sheet. If you would like to participate or have questions about the research, please let me know. You can find me around the Career Pathways stand (NZVA/Massey University) during break times.

Regards,

Natalie King
PhD Student
School of Veterinary Science, Massey University
Email: N.King@massey.ac.nz

School of Veterinary Science
Private Bag 11222, Palmerston North 4442, New Zealand **T** 06 350 4525 **F** 06 355 7957 **www.massey.ac.nz**

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PhD Supervisors

Professor Kevin Stafford
School of Veterinary Science, Massey University
Email: K.J.Stafford@massey.ac.nz
Phone: (06) 356 9099 ext. 85173

Associate Professor Jenny Weston
School of Veterinary Science, Massey University
Email: J.F.Weston@massey.ac.nz
Phone: (06) 356 9099 ext. 85135

Dr Liz Norman
School of Veterinary Science, Massey University
Email: E.J.Norman@massey.ac.nz
Phone: (06) 356 9099 ext. 85115

Associate Professor Juliana Mansvelt
School of People, Environment and Planning, Massey University
Email: J.R.Mansvelt@massey.ac.nz
Phone: (06) 356 9099 ext. 83640

This project has been evaluated by peer review and judged to be low risk. Consequently, it has not been reviewed by one of the University's Human Ethics Committees. The researcher(s) named above are responsible for the ethical conduct of this research.

If you have any concerns about the conduct of this research that you wish to raise with someone other than the researcher(s), please contact Prof Craig Johnson, Director, Research Ethics, telephone 06 356 9099 x 85271, email humanethics@massey.ac.nz

MASSEY UNIVERSITY
TE KUNENGA KI PŪREHUROA
UNIVERSITY OF NEW ZEALAND

SCHOOL OF VETERINARY SCIENCE

Career change amongst New Zealand veterinary graduates:

What factors shape the careers of New Zealand veterinarians?

Participant Consent Form

I have read the information sheet and have had the details of the study explained to me. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

☐ I agree to participate in this study under the conditions set out in the Information Sheet.

☐ I agree to the interview being audio recorded.

Signature: ……………………………………………………. Date: ………………………………………………….

Full name – printed: ……..

Optional – please tick and provide email address below.

☐ *I wish to receive a summary of findings at the conclusion of the project.*

☐ *I wish to receive a copy of the audio recording.*

☐ *I am willing to be contacted in relation to the research at a later date, if required.*

Email address: ……

MASSEY UNIVERSITY
TE KUNENGA KI PŪREHUROA
UNIVERSITY OF NEW ZEALAND

Date: 02 August 2018

Dear Natalie King

Re: Ethics Notification - **SOB 18/36 - Career Change Amongst New Zealand Veterinary Graduates – Phase One - Survey**

Thank you for the above application that was considered by the Massey University Human Ethics Committee: **Human Ethics Southern B Committee** at their meeting held on **Thursday, 2 August,**

Approval is for three years. If this project has not been completed within three years from the date of this letter, reapproval must be requested.

If the nature, content, location, procedures or personnel of your approved application change, please advise the Secretary of the Committee.

Yours sincerely

Professor Craig Johnson
Chair, Human Ethics Chairs' Committee and Director (Research Ethics)

Appendix G: Permission to Use Massey University Qualtrics Software

[S95168] Service-Desk : Resolved : Request to distribute survey via ITS - Qualtrics

Service Desk
To King, Natalie

↩ Reply   ↩ Reply All   → Forward   ⋯

Fri 10/08/2018 2:25 PM

ⓘ If there are problems with how this message is displayed, click here to view it in a web browser.

Dear Natalie,

Your request has been resolved from a Service Desk perspective.

Please check that the request is resolved from your perspective - if it is not, please **reply to this email within 5 days** providing details on the on-going issues or queries. After this time, you will need to log a new request through AskUs or by calling the Service Desk (details below).

Reference Number : S95168
Description : Request to distribute survey via ITS - Qualtrics

Action Taken:
Your request has been approved, and your supervisors have been notified via email.

Should you have any questions please visit our self-help website or click AskUs.
Unless advised otherwise, this request will be closed automatically after five working days.

Regards

Service Desk
Massey University
Phone: (06) 356 9099 ext 82111

Note: Please ensure that you have provided as much detail as possible, as described at:
http://www.massey.ac.nz/massey/staffroom/national-shared-services/information-technology-services/help/asking-for-help.cfm

MASSEY UNIVERSITY
TE KUNENGA KI PŪREHUROA

UNIVERSITY OF NEW ZEALAND

Career change amongst New Zealand veterinary graduates: What patterns exist in career pathways of New Zealand veterinarians?

Information Sheet

An invitation

Hi, I'm Natalie King. I am a 2008 veterinary graduate from Massey University, undertaking a PhD in the School of Veterinary Science at Massey University. I would like to extend an invitation to you to take part in my PhD research.

What is this research about?

My PhD research will identify patterns of career pathways and the factors that influence the career path decisions of NZ domestic Massey veterinary graduates. I am interested in the reasons why people stay in the same type of veterinary work, change direction, or leave veterinary work altogether.

The initial phase of the research will aim to identify the extent and type of career changes within two veterinary class cohorts. I will develop descriptive statistics around the career pathways of these cohorts including how many changes in workplace and work type they undertake, what these changes are, and how frequently they occur. The patterns of career path will be characterised and any differences between male and female veterinarians will be compared.

How were you chosen for this invitation?

I would like to invite you to participate in the first phase of the research as you have been identified as being a member of the 1998 or 2008 graduating BVSc class from the public online Massey Graduates database. The same invitation will be extended to all other contactable members of these graduating classes. Class members who were International, Australian domestic and NZ Aid students at the time of first enrolment are invited to answer the opening questions of the survey so all class members are accounted for, however will not be required to complete the entire survey, as the research focus is on NZ domestic veterinary graduates.

If you participate, what would you need to do?

If you would like to participate, you will be asked to complete a survey which will cover various aspects of your career including your first job, types of jobs during your employment history, current job type, future career plans and reflections on your career since graduating as a vet as well as some demographic and background information.

The survey should take approximately 30 minutes to complete, and can be completed online, or I can provide you with a paper version if you prefer. Submitting a completed survey implies that you are giving consent to participate in the study. You will also be invited to indicate your interest in taking part in a future interview.

What happens to the information?

It is important to know that all information collected will be kept confidential. Raw data will be stored securely. Electronic data will be stored on a password protected Massey computer and paper based data in a locked filing cabinet. Only the researcher will have access to identifiable data which will be kept for seven years and then destroyed. Only the researcher and members of the supervisory team will have access to de-identified data. Data will be analysed and the study findings will be reported as part of the PhD thesis and will be used to write scholarly articles and conference presentations.

If you participate, what are the benefits?

Participants may value the opportunity to reflect on their career path to date and by choosing to participate in this research you will be contributing to knowledge of the career paths of New Zealand veterinarians. While the Veterinary Council collects some quantitative workforce data, this study will build on what's already known and contribute a greater understanding of how career paths change over time and what career patterns exist. Future stages of this project will examine the reasons behind career changes. This wider knowledge will benefit the veterinary profession by highlighting key areas where change may help to enhance veterinarian retention and job satisfaction.

As a participant, you will receive a summary of findings on completion of the project if you wish. Please provide a contact email address at the end of the survey if you wish to receive the summary of findings.

If you participate, what are the risks of being involved?

You may be concerned that your survey will not be anonymous. However, only the researcher will have access to identifiable data and all information will be treated as strictly confidential. You will not be identified by name in any publication of data. Data will not be reported in any way that could reasonably be expected to identify you or your clinic or organisation. You will not be asked to refer to workplaces by name during the survey. While public recruitment announcements have identified the class groups involved, the data will be collated and therefore there is minimal risk to individual participants.

If you participate, what are your rights?

You are under no obligation to accept this invitation. Completion and return of the questionnaire implies consent.

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If you decide to participate, you have the right to:

- decline to answer any particular question;
- withdraw from the study at any time up to one week after submitting the survey;
- ask any questions about the study at any time during participation;
- provide information on the understanding that your name will not be used unless you give permission to the researcher;
- be given access to a summary of the project findings when it is concluded;

Who can I contact if I have questions regarding the research?

The researcher:

Natalie King, PhD student, School of Veterinary Science, Massey University
Email: N.King@massey.ac.nz

PhD Supervisors:

Professor Kevin Stafford, School of Veterinary Science, Massey University
Email: K.J.Stafford@massey.ac.nz
Phone: (06) 356 9099 ext. 85173

Associate Professor Jenny Weston, School of Veterinary Science, Massey University
Email: J.F.Weston@massey.ac.nz
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Associate Professor Juliana Mansvelt, School of People, Environment and Planning, Massey University
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Thank you for considering this invitation. Your participation is greatly appreciated. Please feel free to contact us if you would like further information or have questions regarding the project.

Sincerely,

Natalie King
PhD Student
School of Veterinary Science, Massey University

Ethics Statement

This project has been reviewed and approved by the Massey University Human Ethics Committee: Southern B, Application SOB 18/36. If you have any concerns about the conduct of this research, please contact Dr Rochelle Stewart-Withers, Chair, Massey University Human Ethics Committee: Southern B, telephone 06 356 9099 x 83657, email humanethicsouthb@massey.ac.nz.

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Appendix I: Survey Questions

Survey Introduction

Welcome to the survey on career patterns of Massey University veterinary graduates. Thanks for your participation.

The survey will ask about your background, first job, employment history, current employment status/work role, future career and career reflections. For the purposes of this survey, please consider the following definitions when describing your work roles:

Clinical veterinary work – working to diagnose and treat illnesses and injuries of animals in a clinical setting (this may include on farm settings and/or an aspect of practice management alongside clinical work).

Non-clinical veterinary work – working in a veterinary role that does not involve clinical veterinary work.

Non-veterinary work – working in a role that does not require a veterinary degree and is not related to the veterinary industry.

You can opt out of answering any question you are not comfortable with. By submitting the survey you are consenting to take part in this project as outlined in the information sheet.

Providing your name will help me to account for which class members have completed the survey. If you are interested in participating in a future interview regarding your career and the motivating factors that have led you to where you are today, please be sure to supply an email address when prompted at the end of the survey so I can provide further information about the interview process and how to volunteer. A separate consent process will take place for the interview phase of the research at a later date. If you wish to receive a summary of the project findings please supply an email address so I can provide this.

All information will be treated as strictly confidential and no information will be used in any way that could reasonably be expected to identify individual persons, practices or organisations.

If you have any questions or concerns about completing the questionnaire or participating in the study, please contact either myself, or project supervisor Kevin Stafford via the contact details below.

Your time and participation is greatly appreciated. Thank you.

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Phone: (06) 356 9099 ext. 85173
School of Veterinary Science
Massey University

1. Name

    [   ]

2. I was a **FINAL YEAR** BVSc student in the year

    ◯ 1997
    ◯ 2007

3. On **FIRST ENROLLING** in the BVSc at Massey University I was *(please tick one)*

    ◯ A New Zealand domestic student
    ◯ An Australian domestic student
    ◯ A full fee-paying international student
    ◯ A NZ Aid student

4. I am *(please tick one)*

    ◯ Male
    ◯ Female
    ◯ Prefer not to say

5. My age range is *(please tick one)*

    ◯ 30-35 years   ◯ 51-55 years
    ◯ 36-40 years   ◯ 56-60 years
    ◯ 41-45 years   ◯ 61-65 years
    ◯ 46-50 years   ◯ 66+ years

6. My ethnicity is *(please tick as many as apply)*

    ◯ New Zealand European
    ◯ Other European

◯ Māori

◯ Asian

◯ Pacific peoples

◯ Middle Eastern/Latin American/African

◯ Other ethnicity *(please specify)* [   ]

7. My current relationship status is *(please tick one)*

◯ Single

◯ Married or de facto

◯ Separated/Divorced

◯ Widowed

◯ Prefer not to say

8. I have children *(please tick one)*

◯ Yes

◯ No *(Please skip to Question 10)*

◯ Prefer not to say

9. Please state the number of children you have in each age group

0-2 years [   ]   11-17 years [   ]

3-4 years [   ]   18 years + [   ]

5-10 years [   ]

10. I decided I wanted to become a vet when I was *(please tick one)*

◯ 5 years old or younger   ◯ 15-17 years

◯ 6-10 years   ◯ 18 years or older

◯ 11-14 years

11. The **THREE** factors that were **MOST** important for me when deciding to become a vet were

- ◯ Love of animals
- ◯ Wanting to work with animals
- ◯ Interest in science
- ◯ Wanting a professional career
- ◯ Wanting to help people
- ◯ Wanting to help animals
- ◯ Wanting a financially rewarding career
- ◯ Influenced by parents
- ◯ Influenced by experience meeting/working with a veterinarian
- ◯ Other factors *(please specify)* [   ]

12. I came to Massey University to study veterinary science straight after leaving high school
(please tick one)

- ◯ Yes *(please skip to Q 14)*
- ◯ No

13. Please describe what you did between finishing high school and starting in the BVSc programme including any other career/job, travel or study history.

[   ]

14. My **CURRENT** practising status with the Veterinary Council of New Zealand is…*(please tick one)*

- ◯ Registered - Practising
- ◯ Registered - Non-practising
- ◯ Not currently registered
- ◯ Other (please specify) [   ]

15. I have gained (or am currently studying for) additional formal **<u>VETERINARY</u>** qualifications since graduating as a veterinarian. E.g. MVM, membership examinations. *(please tick one)*

     ◯   Yes

     ◯   No *(please skip to Q 17)*

16. Please list the additional **<u>VETERINARY</u>** qualifications you have gained (or are studying for) since graduating as a veterinarian *(please write each qualification on a new line)*.

17. I have gained (or am currently studying for) additional **<u>NON-VETERINARY</u>** qualifications since graduating as a veterinarian *(please tick one)*

     ◯   Yes

     ◯   No *(please skip to SECTION B)*

18. Please list the additional **<u>NON-VETERINARY</u>** qualifications you have gained (or are studying for) since graduating as a veterinarian (*please write each qualification on a new line*).

19. My first job after completion of final year was in *(please tick one)*

- ○ Veterinary clinical practice
- ○ A veterinary internship or residency
- ○ A non-clinical veterinary role
- ○ A non-veterinary role
- ○ Postgraduate study
- ○ Other *(please specify)* [   ]

20. My first job after completion of final year was located *(please tick one)*

- ○ In NZ – urban/city
- ○ In NZ - rural/small town
- ○ Overseas – urban/city *(please specify country)* [   ]
- ○ Overseas – rural/small town *(please specify country)* [   ]

21. I was **OFFERED** my first veterinary job *(please tick one)*

- ○ Prior to September of final year
- ○ September-November of final year
- ○ December-January after completing final year
- ○ February-April after completing final year
- ○ May-July after completing final year
- ○ August-November after completing final year
- ○ After the following November
- ○ I have never worked as a veterinarian *(please skip to SECTION C)*

22. After completing final year in November, I **STARTED** my first veterinary job in *(please tick one)*

- ○ December-January *(please skip to Q 24)*
- ○ February-April
- ○ May-July
- ○ August-November
- ○ After November the following year

23. The **MAIN** reason I did not start my first veterinary job prior to February after completing final year because *(please tick one)*

    ○ Hadn't started to apply for jobs at that stage

    ○ Hadn't been offered a job at that stage

    ○ Wasn't contracted to start my job prior to February

    ○ Took time out to travel

    ○ Took time out to have a break

    ○ Other *(please specify)* [   ]

24. In my first job, the approximate percentage of time that I worked with the following species was… *(please select the appropriate percentage in the table below)*

If you are still in your first job please consider the species mix you were involved with when you first started in the job. If your first job was not clinical, please skip to Q25

	0%	<10%	11-30%	31-50%	51-70%	71-90%	91-100%
Dogs and Cats	○	○	○	○	○	○	○
Dairy Cows	○	○	○	○	○	○	○
Sheep and Beef Cattle	○	○	○	○	○	○	○
Horses	○	○	○	○	○	○	○
Other small animal or companion species	○	○	○	○	○	○	○
Wildlife	○	○	○	○	○	○	○
Other livestock	○	○	○	○	○	○	○
Other (please specify)	○	○	○	○	○	○	○

25. I am still working in my first job *(please tick one)*

    ◯ Yes *(please skip to Section C)*

    ◯ No

26. I stayed working in my first job for *(please tick one)*

    ◯ < 6 months

    ◯ 6-12 months

    ◯ 1-2 years

    ◯ 3-4 years

    ◯ 5-10 years

    ◯ 10-15 years

    ◯ > 15 years

27. **<u>SINCE GRADUATING</u>** as a veterinarian, I have made the following career transitions…
(Please tick as many as apply)

- ◯ Changed **workplaces** within the **same type of work** (e.g. changed from one companion animal job to another)
- ◯ Changed from **one type of clinical practice to another** (e.g. mixed to companion animals)
- ◯ Changed from **clinical to non-clinical** veterinary work
- ◯ Changed from **non-clinical to clinical** veterinary work
- ◯ Changed from **one type of non-clinical veterinary work to another**
- ◯ Changed from **clinical** veterinary work **to non-veterinary** work
- ◯ Changed from **non-clinical** veterinary work **to non-veterinary work**
- ◯ Changed from **non-veterinary work to clinical** veterinary work
- ◯ Changed from **non-veterinary work to non-clinical veterinary work**
- ◯ Changed from **one type of non-veterinary work to another** (e.g. worked as an accountant, then worked as a school teacher)
- ◯ None of the above

28. My employment history is as follows *(please fill in the table on the following page)*

*For each job you have held and career event you have experienced **since graduating as a veterinarian**,*

please select the relevant work type/career event and state the year which you started and finished the job

or career event. (Please include a period of locum work as one job.)

For job type/career event column, choose from the following options

- Clinical veterinarian – small animal
- Clinical veterinarian – mixed animal
- Clinical veterinarian – large animal
- Clinical veterinarian – equine
- Clinical work on home farm
- Other clinical role
- Internship/Residency
- Locum veterinarian (NZ)
- Technical veterinarian
- Government veterinarian
- Veterinary research
- Veterinary education
- Other non-clinical veterinary work

- Non- veterinary work
- Worked as veterinarian overseas
- Career break - paid parental leave
- Career break – travel
- Career break – caring for children
- Career break – other caregiving
- Career break – study
- Career break - looking for work
- Career break – another reason
- Voluntary work
- Retired
- Other (please specify)

Job Type /Career Event (please choose from list above)	Year Started (yyyy)	Year Finished (yyyy)

29. My **<u>CURRENT</u>** employment status is… *(please tick as many as apply)*

○ Employed full time (work 40 hours per week or more)

○ Employed part time (work less than 40 hours per week)

○ Self-employed (please provide details) [   ]

○ Full time student

○ Part time student

○ Taking a career break

○ Looking for work

○ Full time caregiver

○ Part time caregiver

○ Retired

○ Voluntary work

○ Other (please specify) [   ]

If you selected employed part time, please answer Q 30 and 31

30. My full-time equivalent status is (e.g. 0.5 FTE is working half of a FTE position)

[   ]

31. I first started working part time _____ years after graduating *(please write number of years in the space provided).*

If you selected taking a career break, please answer Q 32

32. I am taking a career break for *(please tick as many as apply)*

○ Travel

○ Looking after children

○ Another reason *(please specify)* [   ]

If you selected looking for work, please answer Q 33

33. I am looking for *(please tick one)*
- ○ Clinical veterinary work
- ○ Non-clinical veterinary work
- ○ Non-veterinary work

If you selected part time or full-time caregiver, please answer Q 34.

34. I am caring for *(please tick one)*
- ○ Child/Children
- ○ Spouse
- ○ Parent
- ○ Other family members
- ○ Someone else

35. My **MAIN** area of employment currently is *(please tick one)*

- ◯ Clinical veterinary work
- ◯ Non-clinical veterinary work
- ◯ Non-veterinary work

36. I currently work… *(please tick one)*

- ◯ In NZ– city/urban
- ◯ In NZ – rural/small town
- ◯ Overseas – city/urban *(please specify country)* ⬚
- ◯ Overseas – small town/rural *(please specify country)* ⬚

37. In my **MAIN** work role, my normal weekly work schedule is…

(Please describe below. Include the days you work and the hours you work each day. For example, Mon-Fri

8am-5pm and every second Saturday morning 9am-12pm.)

38. Not including rostered on-call duties, I work outside of my scheduled hours for _____ hours in the average week. *(Please fill in number of hours above. If you do not work outside of your scheduled hours please write 0 and skip to Q 40.)*

39. I receive benefits for the extra time worked outside of my scheduled hours (not including on call work) *e.g. remuneration, time off in lieu (please tick one)*

- ◯ Yes *(Please specify)* ⬚
- ◯ No

40. I participate in on-call duties *(please tick one)*

     ◯   Yes

     ◯   No *(Please skip to Q44)*

41. The frequency that I undertake on-call work is…..

(e.g. one weeknight per week and every third weekend including Friday night.)

```
┌──────────────────────────────────────────────────────────┐
│                                                          │
│                                                          │
└──────────────────────────────────────────────────────────┘
```

42. How satisfied are you with the frequency of your on-call work?
     ◯   Very satisfied
     ◯   Satisfied
     ◯   Neither satisfied or dissatisfied
     ◯   Dissatisfied
     ◯   Very dissatisfied

43. I receive _____ benefits in return for participating in on-call duties *(e.g. a half day off following weekend worked, financial benefits etc. Please describe below)*

```
┌──────────────────────────────────────────────────────────┐
│                                                          │
│                                                          │
└──────────────────────────────────────────────────────────┘
```

44. I do additional **PAID** work on top of my main work role *(please tick one)*

     ◯   *Yes (Please specify)* ┌──────────────────────────┐
     ◯   *No*

45. I plan to stay in my current job for another *(please tick one)*

- ◯ < 6 months
- ◯ 6-12 months
- ◯ 1-2 years
- ◯ >2 years
- ◯ Unsure at this stage

46. I **CURRENTLY** own or share ownership in a veterinary practice or veterinary business *(please tick one)*

- ◯ Yes
- ◯ No

47. I have **PREVIOUSLY** owned or shared ownership in a veterinary practice or veterinary business *(please tick one)*

- ◯ Yes
- ◯ No

48. *If you currently or have previously owned or shared ownership in a veterinary practice or veterinary business, please answer Q48. If not please skip to Q49.*

I **FIRST** bought into a veterinary practice/business _____ years after completing final year.

(Please write number of years in space provided)

49. *If you do not currently own or share ownership in a veterinary practice or veterinary business, please answer Q 49, otherwise please skip to* **SECTION F***.*

I want to become a veterinary practice/business owner or part owner in the future *(please tick one)*

- ◯ Yes
- ◯ No
- ◯ Unsure

If your **CURRENT** work role is in **CLINICAL VETERINARY WORK** please answer this section.
If your **CURRENT** role is **NOT** in **CLINICAL VETERINARY WORK** please skip to **SECTION G**

50. I would best describe my **CURRENT** practice as a *(please tick one)*
    - ◯ Multi-branch practice – privately owned
    - ◯ Multi-branch practice – owned by buying group or corporate
    - ◯ Single branch practice
    - ◯ Club practice
    - ◯ Contract practice
    - ◯ Another type of practice*(please specify)* [ ]

51. I would best describe my role in my **CURRENT** practice as *(please tick one)*
    - ◯ Sole practice principal/Practice partner/Director
    - ◯ Employee (associate) veterinarian
    - ◯ Locum veterinarian
    - ◯ Other (please specify) [ ]

52. As well as clinical work, I am also involved in practice management tasks
    - ◯ Yes
    - ◯ No *(if NO, please skip to Q54)*

53. The percentage of working time that I spend on practice management tasks is *(please tick one)*

    - ◯ <20%
    - ◯ 21-40%
    - ◯ 41-60%
    - ◯ 61-80%
    - ◯ >80%

54. In the clinical aspect of my **CURRENT** job, the approximate percentage of time that I work with the following species is. *(Please tick the percentage that applies for each species)*

	0%	<10%	11-30%	31-50%	51-70%	71-90%	91-100%
Dogs and Cats	○	○	○	○	○	○	○
Dairy Cows	○	○	○	○	○	○	○
Sheep and Beef Cattle	○	○	○	○	○	○	○
Horses	○	○	○	○	○	○	○
Other small animal or companion species	○	○	○	○	○	○	○
Wildlife	○	○	○	○	○	○	○
Other livestock	○	○	○	○	○	○	○
Other (please specify)	○	○	○	○	○	○	○

55. I am considering changing to a different type of work *(please tick one)*
   ○ Yes, to a different type of clinical veterinary work
   ○ Yes, to non-clinical veterinary work
   ○ Yes, to non-veterinary work
   ○ Unsure
   ○ No

56. Please briefly explain the reasons for your answer.

If your **CURRENT** work role is **NON-CLINICAL VETERINARY** work please answer this section
If your **CURRENT** work role is **NOT NON-CLINICAL VETERINARY** work, please **SKIP** to **SECTION H**

57. I would best describe my current work role as *(please tick one)*
   ○ Technical / Industry veterinarian
   ○ Government veterinarian
   ○ Veterinary education
   ○ Veterinary practice manager with no clinical responsibilities
   ○ Veterinary research
   ○ Laboratory work
   ○ Other non-clinical veterinary work (please specify)

58. I have **PREVIOUSLY** worked in clinical veterinary work *(please tick one)*
   ○ No
   ○ Yes

59. I am considering changing to a different type of work *(please tick one)*
   ○ Yes, to clinical veterinary work
   ○ Yes, to another type of non-clinical veterinary work
   ○ Yes, to non-veterinary work
   ○ Unsure
   ○ No

60. Please briefly describe the reason for your answer above.

If your CURRENT work role is in **NON-VETERINARY**, please **answer this section**

If your CURRENT work role is **NOT NON-VETERINARY**, please **SKIP** to **Section I**

61. The industry in which I work in is best described as… *(please tick one)*
    ○ Information technology
    ○ Education
    ○ Agriculture and forestry
    ○ Human healthcare
    ○ Construction
    ○ Business and finance
    ○ Science
    ○ Hospitality
    ○ Other *(please specify)*

62. I would describe my current work role as

63. The organisation for which I work is *(please tick one)*
    ○ Animal-related
    ○ Not animal related

64. I am planning to return to veterinary work *(please tick one)*
    ○ Yes, to clinical work, within the next year
    ○ Yes, to non-clinical work, within the next year
    ○ Yes, to clinical work, longer term
    ○ Yes, to non-clinical work, longer term
    ○ Unsure
    ○ No

65. Please briefly explain your reasons for your answer above.

66. My future career goals/aspirations are

67. In the next 5 years I intend to… *(Please tick all that apply)*

- ◯ Stay on my current career path
- ◯ Change/return to clinical veterinary work
- ◯ Change/return to non-clinical veterinary work
- ◯ Change/return to non-veterinary work
- ◯ Take a career break
- ◯ Reduce my working hours
- ◯ Increase my working hours
- ◯ Become a veterinary practice/business owner or part owner
- ◯ Retire
- ◯ Other *(please specify)*

68. 'If I had my time over, I would definitely become a veterinarian again' *(please tick one)*

- ○ Strongly agree
- ○ Agree
- ○ Neither agree nor disagree
- ○ Disagree
- ○ Strongly disagree

69. 'I would recommend becoming a veterinarian to a friend or family member' *(please tick one)*

- ○ Strongly agree
- ○ Agree
- ○ Neither agree nor disagree
- ○ Disagree
- ○ Strongly disagree

70. If you would like to add any additional comments about your experiences during your veterinary career or about veterinary careers in general, please comment below.

○ I may be interested in taking part in an interview relating to my career path, please send me more information about the interview process and how to volunteer.

○ I would like to receive a summary of findings on completion of the project

Please specify best email address for future contact

Thanks very much for taking the time to respond to the survey. Your participation is greatly appreciated.

Please return your completed survey to the researcher using the self-addressed pre-paid envelope provided

Time to leaving first veterinary job or role

Table showing Kaplan-Meier data for time (years) to leaving first veterinary job or role – all respondents

N	Events	Median	0.95 LCL	0.95 UCL
105	100	2	2	2

Time	n.risk	n.event	Survival	Std.error	Lower 95% CI	Upper 95% CI
0.0	105	1	0.9905	0.00948	0.9721	1.000
0.5	104	13	0.8667	0.03317	0.8040	0.934
1.0	91	26	0.6190	0.04739	0.5328	0.719
1.5	65	2	0.6000	0.04781	0.5132	0.701
2.0	63	29	0.3238	0.04567	0.2456	0.427
3.0	34	14	0.1905	0.03832	0.1284	0.283
4.0	20	4	0.1524	0.03507	0.0971	0.239
5.0	16	1	0.1429	0.03415	0.0894	0.228
6.0	15	3	0.1143	0.03105	0.0671	0.195
7.0	12	1	0.1048	0.02989	0.0599	0.183
8.0	11	3	0.0762	0.02589	0.0391	0.148
9.0	8	1	0.0667	0.02434	0.0326	0.136
10.0	7	1	0.0571	0.02265	0.0263	0.124
17.0	1	1	0.0000	NaN	NA	NA

Time to leaving first job or role – comparison by cohort

	n	events	median	0.95 LCL	0.95 UCL
10-year	58	53	2	1.5	3
20-year	47	47	2	1.0	2

Table showing Kaplan-Meier data for the 10-year cohort – time (years) to leaving first job or role

Time	n.risk	n.event	Survival	Std.error	Lower 95% CI	Upper 95% CI
0.5	58	8	0.8621	0.0453	0.7777	0.956
1.0	50	14	0.6207	0.0637	0.5076	0.759
1.5	36	1	0.6034	0.0642	0.4898	0.743
2.0	35	14	0.3621	0.0631	0.2573	0.510
3.0	21	8	0.2241	0.0548	0.1389	0.362
4.0	13	2	0.1897	0.0515	0.1114	0.323
5.0	11	1	0.1724	0.0496	0.0981	0.303
6.0	10	2	0.1379	0.0453	0.0725	0.262
8.0	8	2	0.1034	0.0400	0.0485	0.221
9.0	6	1	0.0862	0.0369	0.0373	0.199

Table showing Kaplan-Meier data for the 20-year cohort – time (years) to leaving first job or role

Time	n.risk	n.event	Survival	Std.error	Lower 95% CI	Upper 95% CI
0.0	47	1	0.9787	0.0210	0.93833	1.000
0.5	46	5	0.8723	0.0487	0.78197	0.973
1.0	41	12	0.6170	0.0709	0.49259	0.773
1.5	29	1	0.5957	0.0716	0.47074	0.754
2.0	28	15	0.2766	0.0652	0.17420	0.439
3.0	13	6	0.1489	0.0519	0.07520	0.295
4.0	7	2	0.1064	0.0450	0.04645	0.244
6.0	5	1	0.0851	0.0407	0.03333	0.217
7.0	4	1	0.0638	0.0357	0.02136	0.191
8.0	3	1	0.0426	0.0294	0.01096	0.165
10.0	2	1	0.0213	0.0210	0.00306	0.148
17.0	1	1	0.0000	NaN	NA	NA

Time to leaving first veterinary job or role – comparison by gender

	n	events	median	0.95 LCL	0.95 UCL
Female	75	73	2	2	2
Male	30	27	2	1	4

Table showing Kaplan-Meier data for the women – time (years) to leaving first job or role

Time	n.risk	n.event	Survival	Std.error	Lower 95% CI	Upper 95% CI
0.5	75	10	0.8667	0.0393	0.79305	0.947
1.0	65	18	0.6267	0.0559	0.52623	0.746
1.5	47	1	0.6133	0.0562	0.51246	0.734
2.0	46	23	0.3067	0.0532	0.21821	0.431
3.0	23	12	0.1467	0.0409	0.08497	0.253
4.0	11	3	0.1067	0.0356	0.05541	0.205
6.0	8	2	0.0800	0.0313	0.03713	0.172
8.0	6	3	0.0400	0.0226	0.01320	0.121
9.0	3	1	0.0267	0.0186	0.00679	0.105

Table showing Kaplan-Meier data for the men – time (years) to leaving first job or role

Time	n.risk	n.event	Survival	Std.error	Lower 95% CI	Upper 95% CI
0.0	30	1	0.967	0.0328	0.9045	1.000
0.5	29	3	0.867	0.0621	0.7532	0.997
1.0	26	8	0.600	0.0894	0.4480	0.804
1.5	17	1	0.567	0.0905	0.4144	0.775
2.0	17	6	0.367	0.0880	0.2291	0.587
3.0	11	2	0.300	0.0837	0.1737	0.518
4.0	9	1	0.267	0.0807	0.1473	0.483
5.0	8	1	0.233	0.0772	0.1220	0.446
6.0	7	1	.200	0.0730	0.0978	0.409
7.0	6	1	0.167	0.0680	0.0749	0.371
10.0	5	1	0.133	0.0621	0.0535	0.332
17.0	1	1	0.000	NaN	NA	NA

Time to starting in a non-clinical or non-veterinary role

Tables showing Kaplan-Meier data for time (years) to starting in a non-clinical or non-veterinary role – all respondents

1 observation deleted due to missingness

n	events	Median	0.95LCL	0.95UCL
104	36	NA	20	NA

Time	n.risk	n.event	Survival	Std.error	Lower 95% CI	Upper 95% CI
0.0	104	1	0.990	0.00957	0.972	1.000
1.0	103	4	0.952	0.02098	0.912	0.994
2.0	99	1	0.942	0.02286	0.899	0.988
3.0	98	6	0.885	0.03133	0.825	0.948
4.0	92	3	0.856	0.03445	0.791	0.926
5.0	89	4	0.817	0.03789	0.746	0.895
6.0	85	2	0.798	0.03936	0.725	0.879
7.0	83	2	0.779	0.04070	0.703	0.863
8.0	81	3	0.750	0.04246	0.671	0.838
9.0	78	1	0.740	0.04299	0.661	0.830
10.0	77	2	0.721	0.04397	0.640	0.813
15.0	33	1	0.699	0.04776	0.612	0.799
16.0	32	1	0.677	0.05102	0.584	0.785
17.0	31	3	0.612	0.05846	0.507	0.738
20.0	28	2	0.568	0.06192	0.459	0.703

Time to starting in a non-clinical or non-veterinary role – comparison by cohort

1 observation deleted due to missingness

	n	events	median	0.95 LCL	0.95 UCL
10-year	58	16	NA	NA	NA
20-year	46	20	NA	17	NA

Table showing Kaplan-Meier data for 10-year cohort – time (years) to starting in a non-clinical or non-veterinary role

1 observation deleted due to missingness

Time	n.risk	n.event	Survival	Std.error	Lower 95% CI	Upper 95% CI
1.0	58	1	0.983	0.0171	0.95	1.000
2.0	57	1	0.966	0.0240	0.920	1.000
3.0	56	2	0.931	0.0333	0.868	0.999
4.0	54	2	0.897	0.0400	0.822	0.978
5.0	52	2	0.862	0.0453	0.778	0.956
6.0	50	2	0.828	0.0496	0.736	0.931
7.0	48	1	0.810	0.0515	0.715	0.918
8.0	47	2	0.776	0.0548	0.676	0.891
9.0	45	1	0.759	0.0562	0.656	0.877
10.0	44	2	0.724	0.0587	0.618	0.849

Table showing Kaplan-Meier data for 20-year cohort – time (years) to starting in a non-clinical or non-veterinary role

Time	n.risk	n.event	Survival	Std.error	Lower 95% CI	Upper 95% CI
0	46	1	0.978	0.0215	0.937	1.000
1	45	3	0.913	0.0415	0.835	0.998
3	42	4	0.826	0.0559	0.724	0.943
4	38	1	0.804	0.0585	0.698	0.928
5	37	2	0.761	0.0629	0.647	0.895
7	35	1	0.739	0.0647	0.623	0.878
8	34	1	0.717	0.0664	0.598	0.860
15	33	1	0.696	0.0678	0.575	0.842
16	32	1	0.674	0.0691	0.551	0.824
17	31	3	0.609	0.0720	0.483	0.767
20	28	2	0.565	0.0731	0.439	0.728

Time to starting in a non-clinical or non-veterinary role – comparison by gender

	n	events	median	0.95 LCL	0.95 UCL
Female	75	23	NA	NA	NA
Male	29	13	20	16	NA

Table showing Kaplan-Meier data for the women – time (years) to starting in a non-clinical or non-veterinary role

Time	n.risk	n.event	Survival	Std.error	Lower 95% CI	Upper 95% CI
1.0	75	4	0.947	0.0259	0.897	0.999
3.0	71	6	0.867	0.0393	0.793	0.947
4.0	65	3	0.827	0.0437	0.745	0.917
5.0	62	3	0.787	0.0473	0.699	0.885
8.0	59	2	0.760	0.0493	0.669	0.863
9.0	57	1	0.747	0.0502	0.654	0.852
10	56	2	0.720	0.0518	0.625	0.829
17	19	2	0.644	0.0687	0.523	0.794

Table showing Kaplan-Meier data for the men – time (years) to starting in a non-clinical or non-veterinary role

Time	n.risk	n.event	Survival	Std.error	Lower 95% CI	Upper 95% CI
0.0	29	1	0.966	0.0339	0.901	1.000
2.0	28	1	0.931	0.0471	0.843	1.000
5.0	27	1	0.897	0.0566	0.792	1.000
6.0	26	2	0.828	0.0701	0.701	0.977
7.0	24	2	0.759	0.0795	0.618	0.932
8.0	22	1	0.724	0.0830	0.578	0.907
15	12	1	0.672	0.0918	0.515	0.879
16	13	1	0.621	0.0982	0.455	0.846
17	12	1	0.569	0.1028	0.399	0.811
20	11	2	0.466	0.1070	0.297	0.730

MASSEY UNIVERSITY
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UNIVERSITY OF NEW ZEALAND

Date: 11 January 2019

Dear Natalie King

Re: Ethics Notification - **SOB 18/63 - Career Change among New Zealand Veterinary Graduates - Phase Two - Interviews**

Thank you for the above application that was considered by the Massey University Human Ethics Committee: **Human Ethics Southern B Committee** at their meeting held on **Friday, 11 January, 2019**.

Approval is for three years.   If this project has not been completed within three years from the date of this letter, reapproval must be requested.

If the nature, content, location, procedures or personnel of your approved application change, please advise the Secretary of the Committee.

Yours sincerely

Professor Craig Johnson
Chair, Human Ethics Chairs' Committee and Director (Research Ethics)

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SCHOOL OF VETERINARY SCIENCE

Career changes among New Zealand veterinary graduates: What factors and motivations influence veterinarians in their career decisions?

Participant Information Sheet

Hello, my name is Natalie King. I am a 2008 veterinary graduate undertaking a PhD in the School of Veterinary Science at Massey University. I would like to extend an invitation to you to take further part in my PhD research by participating in an interview about your career.

What is this research about?

My PhD research will identify patterns of career pathways and the factors that influence the career decisions of NZ domestic veterinary graduates. I am interested in the reasons why people stay in the same type of veterinary work, change direction, or leave veterinary work altogether.

This interview phase of the research will aim to gain insight into the career experiences of veterinarians and in particular, the factors and motivations that influence their career decisions.

How were you chosen for this invitation?

I would like to invite you to take part in an interview as a member of the 1998 or 2008 graduating BVSc class. You also indicated in the recent survey that you may be interested in taking part in an interview. For the interview phase of the study I am looking to include participants that have had a range of career experiences and you have been selected for this invitation based on the career information you provided in the previous survey.

If you participate what would you need to do?

If you choose to participate, you will be asked to take part in an interview. We would meet one on one at a mutually agreed time and place. If you live overseas we can carry out the interview using Skype or a similar video call platform. The interview will cover various aspects of your career experiences with a focus on identifying what factors and motivations have influenced you along the way.

The interview will last for approximately one hour but may be slightly longer or shorter depending on individual circumstances. With your permission the interview will be recorded. After the interview, the interview recording will be transcribed and you will be offered the opportunity to review your interview transcript and edit it if you wish. It is expected that this process may take around 30 minutes but it is up to you how much time you wish to spend on this.

What happens to the information?

It is important to know that all information will be kept confidential. Raw data will be stored securely. Electronic data will be stored on a password protected Massey computer and hard copies of transcripts and consent forms will be kept in a locked filing cabinet. Only the researcher will have access to identifiable data which will be kept for seven years and then destroyed. Only the researcher and members of the supervisory team will have access to de-identified data. Data will be analysed and the study findings will be reported as part of the PhD thesis and will be used to write scholarly articles and conference presentations.

What are the possible benefits of participating?

Participants may value the opportunity to reflect on their careers to date and by choosing to participate in this research you will be contributing to knowledge of career changes among veterinarians. While the Veterinary Council of New Zealand collects some quantitative workforce data, this study will examine the career change experiences of veterinarians in greater depth. This knowledge will benefit the veterinary profession by highlighting key areas where change or development may help to enhance veterinarian retention and job satisfaction.

As a participant, you will receive a summary of findings on completion of the project if you wish (please indicate on consent form).

What are the possible risks of participating?

You may be concerned that your interview will not be anonymous. However, only the researcher will have access to identifiable data and information for this research will be reported anonymously. Project supervisors will only have access to de-identified data but will have access to consent forms and other identifiable material. You will not be identified by name in any publication of data, pseudonyms will be used. Data will not be reported in any way that could reasonably be expected to identify you or your clinic or organisation. You will not be asked to refer to workplaces by name during the interview. Should you opt to be interviewed at your place of work, you may be identified as an interview participant by other people present and therefore confidentiality cannot be guaranteed. While public recruitment announcements have identified the class groups involved in this research project, the data will be collated and therefore there is minimal risk to individual participants.

What are your rights if you participate?

You are under no obligation to accept this invitation. If you decide to participate, you have the right to:

- decline to answer any particular question;
- withdraw from the study at any time up to two weeks after your interview;
- ask any questions about the study at any time during participation;
- provide information on the understanding that your name will not be used unless you give permission to the researcher;
- be given access to a summary of the project findings when it is concluded;

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If you decide to participate, you have the right to:

- decline to answer any particular question;
- withdraw from the study at any time up to one week after submitting the survey;
- ask any questions about the study at any time during participation;
- provide information on the understanding that your name will not be used unless you give permission to the researcher;
- be given access to a summary of the project findings when it is concluded;

Who can I contact if I have questions regarding the research?

The researcher:

Natalie King, PhD student, School of Veterinary Science, Massey University
Email: N.King@massey.ac.nz

PhD Supervisors:

Professor Kevin Stafford, School of Veterinary Science, Massey University
Email: K.J.Stafford@massey.ac.nz
Phone: (06) 356 9099 ext. 85173

Associate Professor Jenny Weston, School of Veterinary Science, Massey University
Email: J.F.Weston@massey.ac.nz
Phone: (06) 356 9099 ext. 85135

Dr Liz Norman, School of Veterinary Science, Massey University
Email: E.J.Norman@massey.ac.nz
Phone: (06) 356 9099 ext. 85115

Associate Professor Juliana Mansvelt, School of People, Environment and Planning, Massey University
Email: J.R.Mansvelt@massey.ac.nz
Phone: (06) 356 9099 ext. 83640

Thank you for considering this invitation. Your participation is greatly appreciated. Please feel free to contact us if you would like further information or have questions regarding the project.

Sincerely,

Natalie King
PhD Student
School of Veterinary Science, Massey University

Ethics Statement

This project has been reviewed and approved by the Massey University Human Ethics Committee: Southern B, Application SOB 18/36. If you have any concerns about the conduct of this research, please contact Dr Rochelle Stewart-Withers, Chair, Massey University Human Ethics Committee: Southern B, telephone 06 356 9099 x 83657, email humanethicsouthb@massey.ac.nz.

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UNIVERSITY OF NEW ZEALAND

Career changes among New Zealand veterinary graduates: What factors and motivations influence veterinarians in their career decisions?

Participant Consent Form

I have read and understand the information sheet and have had the details of the study explained to me. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I agree to participate in this study under the conditions set out in the Information Sheet.

I agree/do not agree to the interview being audio recorded. *(Please circle)*

I wish/do not wish to have a copy of my recordings returned to me. *(Please circle)*

Signature: ....   Date: ....

Full name – printed: ....

_____

Optional – please circle

I wish/do not wish to receive a summary of findings at the conclusion of the project

Email address: ....

Introduction

Thank you for volunteering to take part in this interview today. Have you had a chance to read through the information sheet?

To summarise, participation is completely voluntary so it is up to you if you wish to participate. The interview is expected to take around 1 hour may be slightly less or slightly more – is that still okay for today? I would like to record the interview with your permission. This is so I can capture everything you say accurately and revisit your thoughts in detail as I go through and analyse the interviews. You can request that the recorder be turned off at any time during the interview. You can also opt not to answer any question. I might make some notes as we go along but these are just reminders for me to ask you more about something you've said so I don't interrupt you. You will have the opportunity to review your interview transcript before it's used for analysis. All information will be reported anonymously and raw data will be stored securely. Your name will not be used in reporting of data but instead I will use a pseudonym (fake name) to identify quotes. If after the interview you decide you no longer want to take part in the study you may opt to withdraw from the study any time up to 2 weeks after your interview. You're welcome to ask any questions you like about the research. Do you have any questions at this stage?

I've got a copy of the information sheet and consent form here with me. If you wouldn't mind reading the information if you haven't already and if you are happy to take part please fill in the consent form.

Main Interview Question – Career history since graduating as a vet

I'm interested today to hear the story of your career since you graduated as a vet.

I'm particularly interested to hear about your experiences in the different roles you have held, any career changes you have made **and the factors and motivations that influenced you to make changes during your career**, whether that be between different jobs, to a different area of practice or out of practice altogether.

Or

I'd like to learn more about the path you've taken since graduation-how you started your career, how it has changed since then and why.

Could you please tell me the story of your career since graduating as a vet?

Aim to cover:

First job/1-2 years after graduation

Would you mind telling me about your experiences in your first job (or 1-2 years after graduation if still in first job)?

Possible prompts

1. What sort of job were you looking for? (What did you think you wanted to do in final year?)
2. What prompted you to take up this particular job?
3. Did it differ from your expectations?
4. What were the best things about it?
5. Most challenging things about it?
6. Is there anything that could have improved your experience in your first job? What things?
7. Did you feel like you fit in? In what way?

What influenced your decision to move on from your first job?

Possible prompts

8. What were the events leading up to…?
9. How did you decide…?
10. Why did you want to leave that first job?

If still in first job

11. How has your role in this job changed over time?
12. What about it has kept you fulfilled and motivated to stay?

……

Career history

What did you do after you left your first job?

For each career/role change what prompted the change/why did you decide to make the change?

Possible prompts

1. What were the events leading up to…?
2. How did you decide…?
3. How did you feel about the career change then/now?
4. Career breaks – return to vet work?/How was the transition back?/Reasons for not returning
5. Explore what people consider as a career break if they've taken one e.g. why they see locum work, multiple jobs etc. as a career break
6. How did you adjust to the new job/role?

Current role

What are you doing now?

When you think of what you are doing now, is this where you thought you'd be as a new graduate, or has your career pathway been quite different to what you had expected? In what way?

………

General Prompts

1. How do you feel about…?
2. Tell me more…
3. How did that make you feel?
4. And then what happened?
5. What sorts of things?
6. Could you give an example?
7. How did you decide…?
8. Who/what/where/why/how
9. Would you elaborate on that a bit more?
10. Clarification

	Motivations	Probe Q	Other probe Q
First job/role			
2nd job/role			
Current role			

Reflections on career

- *Was working as a vet what you expected it to be? If not, why not?*
- *Are there any experiences that stand out in your mind as having been pivotal points in your career? What are they?*
- *When reflecting on your career path is there anything you would have done differently along the way?*
- *Knowing what you know now, if you could go back in time would you choose to be a vet again? What factors would influence this decision?*
- For those no longer in clinical practice –
    - *Are there any circumstances that may have kept you in veterinary clinical work? (Make sure have asked reasons why left clinical practice)*
    - *Would you consider going back to clinical/vet work? Why?/Why not?*

……

Anything else?

That covers the things I wanted to ask. Is there anything else you would like to add about your career experiences?

Anything you thought I might have asked you about career experiences that I haven't asked?

…….

Closing

- Thank you
- Data from these interviews will be reported anonymously.
- I may think of things I need to clarify with you after the interview – is it okay if I contact you?
- Feel free to get in touch if you think of anything else you'd like to add

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TRANSCRIBER'S CONFIDENTIALITY AGREEMENT

I .... (Full Name - printed) agree to

transcribe the recordings provided to me.

I agree to keep confidential all the information provided to me.

I will not make any copies of the transcripts or keep any record of them, other than those required

for the project.

Signature: ....

Date: ....

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Career changes among New Zealand veterinary graduates: What factors and motivations influence veterinarians in their career decisions?

Authority for the release of transcripts

I confirm that I have had the opportunity to read and amend the transcript of the interview(s) conducted with me.

I agree that the edited transcript and extracts from this may be used in reports and publications arising from the research.

Signature: ....

Date: ....

Full Name (printed): ....