



Veterinary Professional Workforce Project

Final Report
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The Province of Alberta is working in partnership with the Government of Canada to provide employment support programs and services.



EXECUTIVE SUMMARY

Introduction

The Alberta Veterinary Medical Association (ABVMA) and the Alberta Veterinary Technologist Association (ABVTA) have commissioned this project through a grant from Alberta Labour and Immigration. The ABVMA is the Professional Regulatory Organization responsible for regulating the practice of veterinary medicine within the province of Alberta under the authority of the *Veterinary Profession Act* and General Regulation. The ABVMA regulates veterinarians and veterinary technologists. The ABVTA is a professional membership association for registered veterinary technologists and animal health technology students in Alberta.

The objective of the Veterinary Professional Workforce Study is to gain a comprehensive understanding of key human resource issues facing the veterinary profession in Alberta. The primary goal for the project was to develop a workforce plan to address the current and projected labour shortage.

Methodology

The Veterinary Professional Workforce Project utilized multiple lines of evidence to triangulate and verify findings. Activities completed as part of this project included:

- A literature review;
- Analysis of key demographic and economic data as related to this sector;
- Survey of ABVMA and ABVTA Members;
- Survey of employers of veterinary professionals;
- Surveys with educational institutions which offer programs in veterinary medicine and animal health technology;
- Key informant interviews with various stakeholder groups; and
- Online discussion groups with various stakeholder groups.

Findings

Trends and Forecasts

It is estimated that there are currently in excess of 850 vacant veterinary professional positions across Alberta. Vacancies are highest for veterinary technologists, although there are also a substantial number of unfilled veterinarian positions. Vacancy rates for these positions are higher than the provincial job vacancy rate of 2.6%, as the vacancy rate for veterinary technologists was estimated to be 18.8% followed by 16.7% for veterinarians. While the labour shortage of veterinary professionals is an issue throughout Alberta, rural practices are particularly impacted by staff shortages due to limited population and recruitment challenges.

Demand pressures and retention challenges are exacerbating veterinary professional human resource shortages. A growing population, growth of disposable income, and greater incidence of pet ownership are the core demand pressures. Professional retention is impacted by a retirement rate of 3% among veterinarians and a large attrition rate of approximately 8% per year of veterinary technologists. Attrition of veterinary technologists is occurring due to poor compensation, a lack of career and salary advancement opportunities and stress or burnout due to the emotional and physical demands of the job.

On average, the number of registered veterinarians has increased by 3% annually; while the number of veterinary technologists has seen an average annual increase of 5%. This implies that among veterinary technologists, most new technologists are simply replacing those who are leaving the profession prior to retirement. With demand pressures and high levels of attrition the sector will need to find approximately 3,956 new veterinarians and 4,822 new veterinary technologists by 2040 to replace veterinary professionals who leave the profession (retirement or other) and to respond to anticipated demand growth. Alberta's domestic training system and international sources of new veterinarians will not meet this surge in demand as it is projected to graduate or recruit only 2,625 new veterinarians and 2,415 new veterinary technologists by 2040.

Education

A passion for animals, people and medicine or science is attracting large numbers of well qualified applicants to veterinary medical programs, which can only accommodate a portion of those that apply. According to key informant interviewees, the University of Calgary Faculty of Veterinary Medicine (UCVM) program receives approximately six applications per seat. In 2021, the UCVM received 327 applications which was a 20% increase from previous years. Due to the significant number of applications, the UCVM only interviews roughly 68% of qualified applicants who apply the program. For Alberta, the number of funded veterinary medicine seats has not increased since 2001; instead, funding was diverted from the Western College of Veterinary Medicine (WCVM) to the UCVM, leaving the total number of funded seats for Alberta students unchanged. In the case of animal health/veterinary technology programs, from 2016 to 2020, the number of applicants per available seat ranged from two to eight with an average of four. The total number of seats available for animal health / veterinary technology programs has increased recently, however, due to the high rate of attrition for workers in the profession; the number of spaces has not increased at a rate that would allow new graduates to meet industry demand. Insufficient budgets, physical infrastructure, and practicum spaces have all prevented adequate program expansion.

Students are not experiencing significant challenges in completing their programs as in-school attrition rates are low. Students are supported during their education as many indicated the availability of health and wellness programs; however, students typically reported only accessing financial supports. For veterinary technologists, the vast majority completed their education within Alberta while the majority of veterinarians completed their education in other Canadian provinces. This is in part because the UCVM is a relatively new program. In the past, most Alberta veterinarians were trained at the WCVM which has been in existence since 1964. Among Alberta's practicing veterinarians, approximately 20% were internationally trained; conversely only a small minority of veterinary technologists are internationally trained. Time, cost and the ability to acquire Canadian work experience are seen as the biggest barriers to the credentialing process for internationally trained veterinarians. There is a national credentialing process for veterinarians, the National Examining Board (NEB). Although the process for animal health/veterinary technologist graduates, from non-accredited colleges, to qualify to work in Alberta is straightforward, a Pan-Canadian credential recognition process would allow increased interprovincial mobility for registered veterinary technologists.

Accredited veterinary professional degree programs and animal health/veterinary technology programs allow new graduates to meet the skills, knowledge and technical demands of the professions. However, when exposed to the work environment, graduates generally struggle with its realities: high workloads, after-hours call coverage, emotionally taxing work and difficulties balancing clients' financial realities with the recommended medical approach.

Transition to the Workforce

When transitioning to the workforce, the majority of veterinary professionals move into clinical practice. New graduates typically develop strong technical and medical record keeping skills during their education, however, practice management and other soft skills (e.g. communication and teamwork skills) are less developed. Recent graduates of veterinary medicine and animal health/veterinary technology programs commented how they only began to understand the customer services aspects of the profession after graduation. In addition, educators noted that the lack of management and soft skills is due, in part, to limited program lengths which must be used to cover extensive technical and medical content. Moreover, educators believed that certain practice areas require ongoing training after graduation. New graduates would thus benefit from a higher level of supervision in the initial phase of their career. As such, many veterinarians and veterinary technologists identified mentorship and professional development in business or practice management as effective ways to support new graduates' transition into the workforce.

Mentorship, as described by recent graduates, was defined as support by experienced veterinarians on the expectations and realities of the profession. Mentors were needed to support new veterinary professionals to develop confidence and understand how to interact with clients and other veterinary team members. While formal mentorship was identified as a need, several recent graduates and employers commented that the high workload in many veterinary practices, resulting from the labour shortage, prevents many employers from providing adequate mentorship support. In addition, practicing veterinarians commented on the importance of establishing mutually respectful relationships between new professionals and mentors. These interviewees noted that new veterinary professionals need to respect the time of the mentor and understand that not all the support should be based solely on the new professional's time or expectations.

Current Work Conditions

The majority of veterinary professionals were employed full-time in a clinical practice. Among veterinarians, one-quarter managed or operated an independent veterinary practice, while one-quarter of veterinary technologists were employed by a consolidated practice.

Currently, the ratio of veterinary technologists to veterinarians, in most practices, was 1:1. Of those surveyed, the optimal ratio, however, was considered to be 2:1; with the ideal ratio being dependent on the type of practice and availability of other professionals, such as veterinary assistants. Having an optimal ratio of veterinary technologists to veterinarians allowed for increases in efficiency, improved workflow and quality of care. Sub-optimal ratios tended to result in inefficiencies, staff 'burn out' and reduced profitability.

Stakeholders routinely noted that veterinary technologists were not being utilized to their full scope of practice due to workplace culture. Survey data showed that 67% of veterinary technologists believed they were working to their full scope of practice, with 28% reporting working outside their scope of practice. According to key informant interviews, the optimal utilization of veterinary technologists was considered highly dependent on the structure of the veterinary team (i.e. assortment of veterinarians, veterinary technologists, veterinary assistants and other support staff), staff availability and staff ratios. Highly functional veterinary teams are comprised of an appropriate number of veterinarians, veterinary technologists and other support staff (e.g. veterinary assistant). Appropriate staff ratios and staff availability ensure that each professional is delegated tasks they are trained to complete. However, due to the labour shortage, veterinary teams are required to complete tasks which fall outside their scope of

practice. For example, veterinarians being required to clean kennels or veterinary technologists asked to provide practice management.

As evidenced by the high number of vacant positions, workplaces commonly suffer from labour shortages. Such shortages were reported to have occurred for a wide variety of workplace conditions, such as: poor business practices; workplace culture; work-life imbalance; a high demand for service accompanied by insufficient public/client understanding of service value or cost; as well as stress and compassion fatigue among veterinary professionals. Among veterinary technologists, insufficient compensation and limited opportunities for advancement are common concerns that often result in staff attrition; for veterinarians, after-hours, on-call requirements were a challenge. Aging of the workforce and retirement of experienced professionals have also resulted in fewer mentors available to guide and support new veterinary professionals.

Independent Practice

One-tenth (11%) of veterinary professionals currently owned or operated an independent veterinary practice with 7% being past owners. Current and past owners of independent practices were more likely veterinarians (89%), however, a small proportion (11%) were veterinary technologists. Ownership of an independent veterinary practice was an interest for approximately one-third of both veterinarians and veterinary technologists who had never been practice owners. The average total start-up costs for an independent practice was estimated at \$587,891, with financing and capital costs, pharmaceutical inventory and medical/surgical equipment being the most significant cost factors. The high start-up costs require a high level of financing which many owners reported was difficult to obtain. Additionally, once established the challenges to independent practice persisted due to:

- the dual workload being a veterinary professional and running a business;
- poor rates of staff retention in the industry;
- price competition from larger consolidated practices;
- an inability of clients to cover the costs of animal care.

Best practices to support independent practices suggested by key informant interviewees included:

- Shared on-call emergency services;
- Developing practice networks;
- Examining veterinary technologist to veterinarian ratios;
- Providing professional development opportunities for staff; and
- Addressing compensation issues for veterinary technologists.

External supports suggested by key informants that could be provided included:

- Continuing education courses in business and practice management;
- Human Resources tools;
- Scholarships for professional development; and
- Networking opportunities with other veterinary professionals;
- supporting international recruitment; and
- The use of telehealth.

These supports could be developed either within, or between, practices; they could also be provided by external organizations, such as educational institutions, local levels of government or associations.

Rural Practice

Over half of veterinarians (63%) and veterinary technologists (51%) had experience in rural practice. Veterinary professionals who grew up on a farm or in a rural community were more likely to have rural practice experience or currently be practicing in a rural community. Veterinary professionals choose rural practice for both professional and personal reasons, including:

- A diverse scope of practice;
- An opportunity to develop ongoing relationships with clients;
- They have family members in or grew up in a rural community;
- They wanted to live in a rural community for the recreation or lifestyle opportunities; and
- Rural environments were considered good places to raise a family.

While many professionals had experienced rural practice, working in rural communities was viewed as more demanding compared to practicing in urban areas. Practitioners are more isolated and must deal with a wider range of practice issues often without support for after-hours on-call coverage or locum coverage. An inability to fully staff rural practices adds to these challenges.

Recruitment and Retention of Veterinary Professionals

Mutually beneficial relationships between educational institutions and professional or regulatory associations were viewed as effective ways of improving the supply of veterinary professionals. These relationships have benefited the profession by supporting consultation on curriculum, skill requirements, and program size (number of available seats). While relationships between educational institutions and professional associations was deemed to be impactful, the degree to which program seats can be increased is limited by educational institution budgets and government funding and even when seat numbers are increased it takes years before the impact is seen in the labour market due to program length.

Employers face significant challenges in terms of recruiting and retaining veterinary professionals as evidenced by high turnover rates, particularly for veterinary technologists. Findings from the Employer Survey show that many employers did not utilize recruitment tools (37%) or provide supports for new employees (27%). These employers could possibly benefit from supports that include recruitment strategies or programs/services to help with on-boarding new employees.

Consumer Attitudes

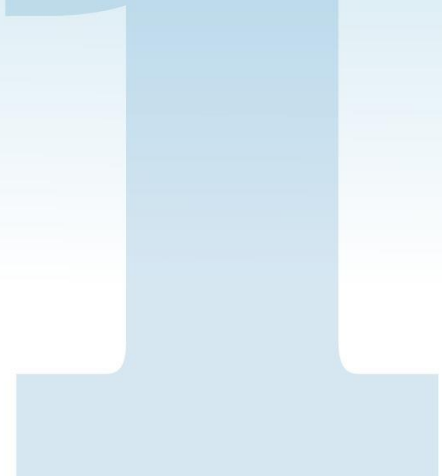
There is evidence that consumers lack an understanding of the value and cost of veterinary services in Alberta. Both Member and Employer Survey respondents reported that on average less than one-fifth of their clients have pet insurance and that many could not afford veterinary services (between 20% and 35% of clients on average). Cost was viewed as a significant barrier, particularly for emergency veterinary services. Furthermore, according to key informant interviews, when service provision is dictated by the client's ability or willingness to pay, as is commonly the case in veterinary medicine, it can be stressful for both the veterinary professional and the animal owner.

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Introduction



1. INTRODUCTION

1.1 ABVMA and ABVTA Background

The Alberta Veterinary Medical Association (ABVMA) and the Alberta Veterinary Technologist Association (ABVTA) commissioned this project through a grant from Alberta Labour and Immigration. The ABVMA is the Professional Regulatory Organization responsible for regulating the practice of veterinary medicine within the province of Alberta under the authority of the *Veterinary Profession Act* and General Regulation. The ABVMA regulates veterinarians and veterinary technologists. The ABVTA is a professional membership association for registered veterinary technologists and animal health technology students in Alberta.

Founded in 1906, ABVMA's mission is to serve the public by regulating, enhancing and providing leadership in the practice of the profession of veterinary medicine in Alberta. ABVMA works to fulfill its primary mandate of regulating and supporting the veterinary profession by focusing on:

- Reviewing the academic, personal and ethical qualifications of all veterinarians and veterinary technologists applying for a license to practice in Alberta;
- Requiring that veterinarians and veterinary technologists continually upgrade their skills by attending a minimum number of continuing education sessions each year;
- Inspecting all veterinary practices in the province to ensure they meet or exceed ABVMA standards; and
- Providing a process for the resolution of complaints by intervening and investigating complaints lodged against the conduct or skills of Alberta veterinarians or veterinary technologists.

Under the authority of the *Veterinary Profession Act* (the Act), the ABVMA is the professional regulatory organization regulating the practice of veterinary medicine in Alberta. As a self-governing profession, ABVMA is required to perform its regulatory and professional functions in accordance with the Act and in a manner responsible to the public of Alberta through the Government of Alberta's Ministry of Labour and Immigration.

Under the Act, veterinary technologists (animal health technologists) are also identified and regulated. As required by legislation, veterinarians and veterinary technologists who wish to practice in Alberta must be registered with ABVMA.

Founded in 1978, the ABVTA (formerly the Alberta Association of Animal Health Technologists) provides member services such as continuing education and public awareness, along with promoting animal care and welfare. The ABVTA is a non-profit, non-union, member driven organization led by a Board of Directors. Its emphasis is on the advancement of animal health technology as a profession so that its members may better serve the industry.

1.2 Research Objective

The objective of this project was to collect and analyze labour market trends in the veterinary industry in Alberta and produce written analysis and a work force plan.

ABVMA and ABVTA require accurate and current information regarding industry labour market trends and challenges facing the professions. In addition, and as demonstrated by ABVMA's anecdotal

workforce information, there is evidence of a labour shortage among veterinarians and veterinary technologists in Alberta. This shortage is further evidenced by the poor response to ABVMA's classified advertisements for veterinarians and veterinary technologist positions. Furthermore, data from ABVTAs 2019 Wage and Benefits survey demonstrated that the wages for veterinary technologists in Alberta averaged approximately \$24.80 per hour and are not competitive with other occupations that require similar levels of education.

The objective of the Veterinary Professional Workforce Study is to gain a comprehensive understanding of key human resource issues facing the veterinary profession in Alberta. The primary goal for the project was to develop a workforce plan to address the current and projected labour shortage.



Methodology

2. METHODOLOGY

This section provides an overview of data collection activities.

2.1 Literature review;

Focusing on the topics associated with the research objective, the literature review drew on ABVMA and ABVTA annual reports, surveys and registration data, as well as associated articles, reports, data sets and other documentation from various sources, including:

- 2020 CVMA Veterinary Workforce Study
- Statistics Canada;
- Government of Alberta; and
- Canadian Animal Health Institute.

Documents were sourced through standard keyword searches of publicly available search tools (e.g. Google Scholar), academic literature databases (e.g. Academic Search Complete, an online repository of more than 9,000 journals to which Malatest maintains a subscription), government websites/sources and news sources. Resulting documents were reviewed for their relevance to the research objectives, and where applicable, their references were mined for additional sources.

2.2 Surveys (member, employer and educator);

Three survey instruments were designed to engage three specific stakeholder groups, which included:

- ABVMA and ABVTA Members;
- Employers of veterinary professionals; and
- Educational institutions which provide veterinary medicine and animal health technology programs.

Survey Design

The member survey was designed to collect information on current work situations, educational backgrounds, experiences transitioning into the workforce, working conditions, rural practice experiences, and ownership of independent veterinary practices. Furthermore, the member survey collected demographic information, such as age, gender and region, as well as perceptions on consumer attitudes with veterinary services. The member survey was administered to both registered veterinarians and veterinary technologists.

The employer survey focused on practice areas, employment of veterinary professionals, vacancies, recruitment and retention activities, employment supports and programs and consumer attitudes when accessing veterinary services.

The educator survey collected information on both veterinary medicine and animal health/veterinary technology target groups, enrollments, applications, attrition rates, graduates, skill development, as well as challenges with program delivery and expansion.

Survey Samples

The member survey was targeted to veterinarians and veterinary technologists registered with the ABVMA. Registered members were sent an email inviting them to participate in the survey by the

project executive committee. Invitation emails included a link to a survey registration page. After registration, members were directed to the member survey. Registration was required to provide consent to participate in the survey, as well as allow Malatest to provide follow-up email invitations.

The employer survey was targeted to employers of veterinary professionals in Alberta. Similarly, the project executive committee sent employers a survey invitation email which included a link to a registration form which ensured respondents provided consent to participate in the survey and allow Malatest to conduct follow-up activities.

For the educator survey, Malatest identified representatives of the various veterinary medicine and animal health/veterinary technology programs across Canada. Educational institution representatives were then contacted to invite them to participate in the educator survey. Respondents had the option of completing surveys over the phone or online.

Survey Administration

Survey administration began on August 24, 2020 and was completed on November 2, 2020. The total number of survey completions by stakeholder group is provided in Table 2..

Table 2.2: Survey Completions by Stakeholder Group

Stakeholder Group	Completions
Veterinarians	452
Veterinary Technologists	708
Educational institutions	7

It is important to note that because of the low number of survey completions for the Educator Survey, results were analyzed and discussed qualitatively in the report.

2.3 Key informant interviews

To obtain information on the perspectives of the labour shortage and issues within the workforce, Malatest conducted a total of 16 key informant interviews. Stakeholder groups involved in the interviews included:

- Current ABVMA and ABVTA members;
- Employers of veterinary professionals or human resource representatives;
- ABVMA and ABVTA Executive Committee members;
- Representatives of educational institutions; and
- Representatives of other Veterinary Medicine or Veterinary Technology associations.

Interview guides collected information regarding the interviewee’s role and their relationship with the ABVMA or ABVTA, their perspectives on the labour shortage, as well as challenges facing the veterinary medicine profession. Furthermore, the guide collected feedback on the impacts of COVID-19 and consumer attitudes towards accessing veterinary services. Interviews were semi-structured so that interviewees could provide feedback on topics they felt most comfortable with, while maintaining focus issues related to the labour force.

Recruitment

The ABVMA and ABVTA provided the key stakeholder sample, including each individual’s contact name, organization and telephone number or email. Malatest contacted a subset of individuals within the sample by email and invited them to participate in an interview. Interviews lasted approximately 45 minutes and were conducted between August 24 and November 2, 2020.

All interviews were conducted by telephone. During each interview, Malatest staff took detailed notes and, with permission, audio recorded the conversation.

2.4 Online discussion groups

To obtain more in-depth perspectives from recent graduates of veterinary medicine and animal health technology programs, current students and high school students, Malatest conducted five online discussion groups. For the online discussion groups Malatest developed three separate moderator guides which focused on the following areas:

- Participant background and professional interests;
- Educational experience;
- Professional expectations;
- Workforce entry; and
- Educational supports.

Participants for the online discussion group with recent graduates of veterinary medicine were recruited through the Member Survey. Respondents who indicated they were interested in participating were sent an email invitation outlining the dates and instructions on how to access the forums. The invitation emails were followed up with additional confirmation emails or telephone calls to ensure participants received the instructions and the forum dates. To recruit current students of post-secondary programs and high school students, Malatest contacted educational institutions and high schools to facilitate sending invitations for participation. Students were asked to contact Malatest if interested in participating in online discussion groups. To facilitate recruitment of online discussion group participants, incentives of \$50 to \$75 gift cards were provided.

In total, 46 individuals were recruited and 38 participated in online discussion groups. The number of participants per group is presented in Table 2.4.

Table 2.4: Online Discussion Group Participants

Stakeholder Group	Completions
Recent graduates – Veterinarians	5
Recent graduates - Veterinary Technologists	6
Current veterinary medicine students	11
Current animal health technology students	7
High school students	9
Total	38

All discussion groups were administered using the platform SLIDO.

2.5 Data Analysis

Data Cleaning and Coding

Following the completion of survey administration, all survey data was cleaned to ensure that responses were logically consistent, as well as to identify data entry errors, response errors, inconsistent information, illogical information and outliers. No outliers were identified during the cleaning of survey data.

For close-ended questions, including all ‘other, please specify’ response options, a review of written responses was conducted to develop a coding list. Using the coding list, written responses were up-coded (aggregated) into existing response options where appropriate. Idiosyncratic and/or un-codable responses were left in the ‘other, please specify’ category. Responses to open-ended questions were coded using inductive content analysis, where open-ended questions were reviewed to identify themes and categories from the raw responses through careful examination and constant comparison.

Quantitative Analysis

Once the survey data were cleaned and coded, closed-ended and coded responses were summarized using descriptive statistics (e.g. frequencies and percentages). For multiple response questions, respondents had the option of providing more than one answer; therefore, the percentages reported in the frequencies for multiple response questions may sum to more than 100% because respondents may have selected more than one response.

In addition to descriptive statistics, cross-tabulations were conducted to compare findings among sub-groups. Z-tests were used to assess whether differences in the proportion of respondents selecting a single response option were statistically significant across sample type and various demographic characteristics. Throughout the report differences that are statistically significant at $p < 0.05$ in the two-sided test of equality for column proportions are noted. Statistical testing utilized valid responses only, and as a result ‘prefer not to answer’ responses were removed from the analysis.

Qualitative Analysis

Content analysis was employed to analyze open-ended data from the online forum and group interviews. Forum data and interview notes were reviewed to identify common and unique themes, which were then coded. This approach used inductive reasoning, whereby themes and categories emerged directly from the participants’ raw responses through rigorous examination and comparison, ensuring that the findings were not unduly skewed to fit a pre-formed framework based on expectation of what the research would find, while also developing enough structure to allow for the clear reporting of results by major theme.



3

Findings

3. FINDINGS

Information for this study was collected from a wide range of stakeholders in the veterinary medical field, including members and representatives of ABVMA and ABVTA, educational institutions that train veterinary professionals and employers. In addition, other sources of data and information were accessed, such as Statistics Canada, Canadian Animal Health Institute, ABVMA and ABVTA annual reports, as well as academic literature and relevant articles from Canada and other jurisdictions.

3.1 Demographics

Gender for both veterinarians and veterinary technologists skew heavily towards female, with over two thirds (69%) of veterinarians and nearly all (97%) of veterinary technologists identifying as female. In terms of age, veterinarians and veterinary technologists were more commonly aged between 25 and 34 years (25% and 44%, respectively) or between 35 and 44 years (25% and 26%, respectively). However, over half (55%) of veterinary technologists were between the ages of 18 and 35 years (compared to 26% of veterinarians), while nearly one quarter (22%) of veterinarians were aged 55 years or older (compared to only 5% of veterinary technologists). Table 3.1.1 presents the gender and age distribution of survey respondents.

Table 3.1.1: Demographic Distribution of Veterinarians and Veterinary Technologists

	Veterinarians (n=452)	Veterinary Technologists (n=708)
Gender		
Male	30%	3%
Female	69%	97%
Prefer not to answer	2%	1%
Age		
18 to 24	1%	11%
25 to 34	25%	44%
35 to 44	25%	26%
45 to 54	20%	12%
55 to 64	15%	4%
65 or older	7%	1%
Prefer not to answer	7%	3%

Source: Member Survey QG1. What year were you born? G2: How do you identify? Note: Totals may not add to 100% due to rounding.

The regional distribution of veterinarians and veterinary technologists by AHS health zone was similar for both, with the majority residing in Calgary (31% and 28% respectively) and Edmonton (21% and 29% respectively). Table 3.1.2 presents the regional distribution of veterinarians and veterinary technologists surveyed.

Table 3.1.2: Regional Distribution of Veterinarians and Veterinary Technologists

	Veterinarians (n=452)	Veterinary Technologists (n=708)
North	7%	10%
Edmonton	21%	29%
Central	16%	17%
Calgary	31%	28%
South	7%	5%
Prefer not to answer	18%	12%

Source: Member Survey: G3. What are the first three digits of your postal code? Note: Totals may not add to 100% due to rounding. Health zone regions are defined in the glossary.

3.2 Trends and Forecasts

The Alberta veterinary medical labour market is experiencing significant human resource pressures, as evidenced by the high vacancy rates for positions. Employer survey results suggest that there are currently 377 unfilled veterinarian positions and 487 unfilled veterinary technologist positions.

The human resource challenges faced by the sector will be further exacerbated by several demand pressures, including a larger provincial population and greater incidence of pet ownership. The sector also has several retention challenges. Among veterinarians, given their relatively older average age, the sector is losing approximately 3% of veterinarians each year to retirement. Among veterinary technologists, while retirements currently account for only 1% of employment losses, the profession is experiencing a large attrition rate of approximately 8% per year. This implies that among veterinary technologists, a significant pool of new technologists is required just to replace those who are leaving the profession prior to retirement.

The combination of increased demand and high levels of turnover suggest that the sector will need to find approximately 3,956 new veterinarians and 4,822 new veterinary technologists by 2040. The current sources of new veterinarians (i.e. Alberta's domestic training system and internationally trained veterinarians) are insufficient to meet this surge in demand. Alberta's and international sources of new veterinarians are projected to provide only 2,625 new veterinarians and 2,415 new veterinary technologists by 2040. Based on this labour market assessment, and in the absence of a proactive human resource strategy, it can be expected that the availability and level of veterinary services provided to Alberta's population will be drastically reduced over the next 20 years.

The veterinary industry is changing in Alberta. Consumer demand is growing as more households choose to include pets. This, in addition to higher disposable income and rising expectations of animal owners, has meant that veterinary practices are seeing increased demand for specialized care aimed at improving the quality and length of pets' lives.

Veterinary practice structure has evolved to meet new practice demands. Practices are now providing specialty care or emergency services that were not offered in the past. A network of specialty and referral practices has developed to support the increased demand, including the demand for after-hours service. Within such a practice, more veterinarians are working to provide the services that a single veterinarian once provided. Veterinarians are increasingly choosing to work part-time, or a shorter work week, to achieve greater work-life balance. Some veterinarians have chosen to provide no after-hours care, instead they refer their clients to emergency practices when such care is needed. Technology use has also changed within practices, although the realities of practicing during a pandemic have hastened the introduction and use of technologies such as telemedicine.

On the supply side, practices face professional staff shortages and are finding it increasingly difficult to fill vacancies. Most graduates of veterinary medical programs are quick to find work. While the labour shortage of veterinary professionals is an issue throughout Alberta, rural practices are particularly impacted by staff shortages due to limited population and recruitment challenges. Key informants stressed that there are two core issues impacting the availability of an adequate veterinary medicine workforce: attrition of veterinary professionals and insufficient domestic education capacity.

Workforce attrition is occurring as experienced veterinarians and veterinary technologists retire and as individuals choose to leave the profession. This is particularly the case for veterinary technologists. Attrition of veterinary technologists is occurring for a wide variety of reasons, including: poor compensation; lack of career and salary advancement opportunities; an inability to work to full scope of practice; stress or burnout due to the emotional and physical demands of the job; and insufficient recognition of their contribution to the field. Veterinary technologists are also leaving the profession, sometimes after maternity or parental leave, to pursue careers in other healthcare professions that offer a better work environment and higher levels of compensation.

Veterinarians, despite reporting a higher level of satisfaction with their career in veterinary medicine, also report experiencing high levels of stress and burnout. Thus, the emotional and physical demands of the work and the demands of running a business, in addition to an inability or unwillingness of clients to pay for services, are impacting veterinarian job satisfaction and retention.

Analysis of demographic trends suggests that the growth in the number of veterinarians in the province has failed to keep pace with the growth in Alberta's total population. Veterinary professional programs are not graduating enough new graduates to keep up with Alberta's growing population, with losses



“Recruitment of students to veterinary medicine is not an issue; however recruitment of the correct type of students may be an issue.”

attributed primarily through retirement and professionals leaving the field. Further, the number of funded spaces for Alberta veterinary medical students has remained unchanged since the inception of the University of Calgary Faculty of Veterinary Medicine (UCVM) program. In 2017, funding for Alberta students attending the Western College of Veterinary Medicine (WCVM) was diverted to the UCVM leaving the number of funded seats unchanged. In contrast, animal health/veterinary technology programs have increased enrolments and are producing greater numbers of graduates; however, they are still unable to meet demand, largely due to turnover in the profession.

The current and future need for veterinarians and veterinary technologists in Alberta will be influenced by three components:

1. Current labour supply;
2. Replacement demand; and
3. Expansion demand.

3.2.1 Labour Supply

The supply of veterinarians and veterinary technologists requires an examination of the key supply sources: the domestic education system and the migration of professionals trained in other jurisdictions who move to Alberta.

New Graduates

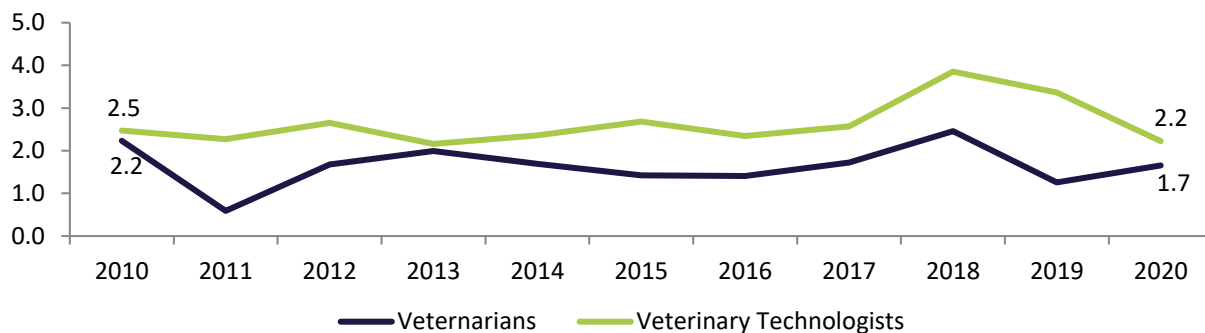
The number of registered veterinarians and veterinary technologists has grown due to a consistent number of new graduates. As shown in Figure 3.2.1, the number of veterinarians and veterinary technologists per Alberta population (per 100,000) has remained relatively constant from 2010 to 2020.

“The underlying factor causing shortages is that the number of graduates has not changed.”



This implies that the number of veterinarians and technologists in Alberta has generally kept pace with population increases; that said, the supply of professionals is not solely the result of expanding provincial programs, as many workers come to the province from other Canadian jurisdictions and/or from international locations.

Figure 3.2.1: Veterinary Professional Graduates Relative to Alberta Population



Source: Members Survey. ABVMA Registration Statistics; Government of Alberta Population Estimates.

The main source of new veterinarians is graduates from the UCMV. The UCMV is the only program in Alberta. Historically, Alberta veterinary medical students primarily attended the Western College of Veterinary Medicine (WCVM) in Saskatchewan. Recently, provincial funding for reserving spaces at the

WCVM for Alberta students was redirected to the UCVM. As a result the total number of funded spaces for Alberta students in veterinary medical programs has remained unchanged.¹

For veterinary technologists, there are four accredited animal health technology programs in Alberta, which include:

- Olds College;
- Northern Alberta Institute of Technology (NAIT);
- Lakeland College; and
- Grande Prairie Regional College.

Other Sources

In addition to Alberta graduates of veterinary medical programs, those who obtain training from programs outside of Canada, as well as established veterinarians who immigrate to Canada also contribute to the supply of new veterinary professionals.²

Furthermore, graduates from other accredited programs within Canada may relocate to Alberta and obtain registration. For veterinarians, there are four accredited veterinary medical programs outside of Alberta, which include:

- Western College of Veterinary Medicine;
- The Atlantic Veterinary College;
- Faculté de Médecine Vétérinaire; and
- The Ontario Veterinary College.

With regards to veterinary technologists, the vast majority of technologists complete their education in Alberta. Among veterinary technologist survey respondents, nearly all (91%) of veterinary technologists completed a program in Alberta, while 8% completed a program in another Canadian province and only 1% completed an international program.

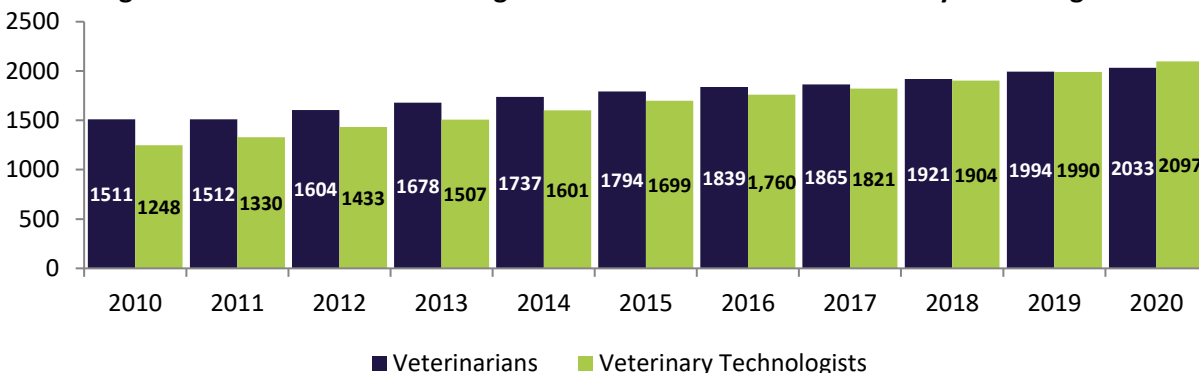
Current Labour Supply

The current labour supply for veterinarians and veterinary technologists can be determined by ABVMA registration statistics. The ABVMA collects and reports current registration statistics for veterinarians and veterinary technologists in their annual reports. Figure 3.2.2 presents registration numbers for veterinarians and veterinary technologists in Alberta from 2010 to 2020. The number of registered veterinarians has increased a total of 15% from 2010 to 2020 representing an annual average rate of approximately 3%. The number of veterinary technologists has grown from 1,248 registered members in 2010 to 2,097 in 2020, representing an overall increase of 31% or an average annual increase of 5%.

¹ UCalgary News (2019). 'UCalgary Faculty of Veterinary Medicine Granted \$7.2 million from province to expand program.' Available at: <https://ucalgary.ca/news/ucalgary-faculty-veterinary-medicine-granted-72-million-province-expand-program>. [Accessed January 15, 2021]

² Veterinary technologist not reported on because less than 1% were recent arrivals.

Figure 3.2.2: Total Number of Registered Veterinarians and Veterinary Technologists



Source: ABVMA Registration Statistics. Note: Total veterinarians and veterinary technologists includes non-practicing category (i.e. retired or non-practicing veterinarians who are still registered with ABVMA).

3.2.2 Estimating the Current and Future Hiring Requirements

The demand for labour involves the analysis of three key trends: the current number of vacant positions (vacancies); the number of positions that need to be filled to replace workers who retire or leave the sector for other reasons (replacement demand); and to meet the growth in the total size of the workforce to meet the growth in population or growth in the demand for services (expansion demand). These trends are discussed below.

3.2.2.1 Job Vacancies

Results from the employer survey indicate that there are current shortages of veterinarians and veterinary technologists in Alberta. Among employers surveyed (n=94), 47% reported vacancies for veterinarians and 52% reported vacancies for veterinary technologists. This equates to an estimated 260 clinical practices with at least one veterinary vacancy and 288 clinical practices with at least one veterinary technologist vacancy. It is important to note that the survey did not distinguish between full- and part-time positions; as such, estimates indicate the number of positions in total and are not standardized to number of positions per FTE. The number of vacancies for veterinarians, by employer, ranged from one to three with an average of 1.45; for veterinary technologists, the number of vacancies ranged from one to nine with an average of 1.69 per employer. Employers who reported having vacancies operated in the areas of companion animal, mixed animal, food, equine and specialty or referral practices.

Applying the survey results to the total number of veterinary practices, as tracked by the ABVMA, it is estimated that there is a current shortage of 377 veterinarians and 487 veterinary technologists in Alberta. Table 3.2.3 presents the calculation of the total number of vacancies by position.

Table 3.2.3: Estimated Total Number of Current Vacancies

	Total number of practices with vacancies Alberta ³	Average number of vacancies per practice	Total number of current vacancies
Veterinarians	260	1.45	377
Veterinary Technologists	288	1.69	487

Source: ABVMA Statistics (Annual Report 2019), Employer Survey. Practice categories which did not report any vacancies were removed from the total number of practices in Alberta.

3.2.2.2 Replacement Demand

Replacement demand refers to the finding of ‘new’ veterinarians or veterinary technologists to replace those who either retire or leave the profession and do not return. Among the members surveyed, 3% of veterinarians reported being retired. This result is consistent with the Canadian Veterinary Medical Association (CVMA) anticipated annual retirement rate of 3%.⁴ Further, 6% of survey respondents reported being on leave, were non-practicing veterinarians or had left the profession to pursue other work. Among these respondents (n=29), half (52%) reported they planned to return to the profession. This suggests that 3% of all veterinarians surveyed had left the profession and were not likely to return.

Conversely, for veterinary technologists the retirement rate was significantly lower while the proportion of those leaving the profession was relatively higher. Member survey results showed that less than 1% of veterinary technologist respondents were retired. This finding can be explained by the age demographics of the veterinary technologists surveyed. A small portion (5%) of veterinary technologists were aged 55 years or older, compared to veterinarians (22%); as such, the relatively young age demographic of veterinary technologists in itself implies a lower retirement rate. Moreover, the low retirement rate for veterinary technologists can be attributed to the fact that a considerable number of technologists leave the profession before retirement. According to key informant interviews completed with members and other stakeholders, veterinary technologists choosing to leave the profession is the greatest contributing factor for shortages in the veterinary workforce. Burnout rates are high because of stress, the workload and insufficient compensation, as well as the high costs of childcare, since many veterinary technologists are working parents. Additionally, the inability to become majority owners in a veterinary practice means that veterinary technologists are less invested in their workplace. Key informants believed that equity participation (ownership) would help retain or attract veterinary technologists to the industry.

In addition, results from the member survey show that almost 12% of veterinary technologists reported being on leave, were non-practicing or had left the profession to pursue other work. Among those who were not currently practicing as a veterinary technologist (n=83), only one-third (33%) indicated they planned to return to the profession. This suggests that approximately 8% of all surveyed veterinary technologists surveyed were not likely to return to the profession. This high turnover rate means that not only do training programs need to fill a gap associated with increased demand, but they also have to replace almost 8% of the veterinary technologist workforce who leave the sector each year.

³ Education and Zoo/wildlife practice types removed since no survey respondents reported having vacancies

⁴ Canadian Veterinary Medical Association (CVMA). (2020). *2020 CVMA Workforce Study*.

3.2.2.3 Expansion Demand

Expansion demand incorporates the increase in the number of workers required to meet current and future demand for veterinary services. In effect it represents the change in the total workforce needed to provide veterinary services to clients. Key informant interviewees across different stakeholder groups noted that the current supply of veterinarians and veterinary technologists was not sufficient to meet the current and future demand for services. For example, educators anticipated there will be an increased demand for veterinary services in the future, in part due to more veterinarians retiring and while the number entering the profession remains relatively stable. The increased number of people choosing to adopt pets, along with higher numbers of livestock in Alberta, is also increasing demand. These factors impact both veterinarians and veterinarian technologists, since veterinary technologists may have limited exposure to working with large animals during their education or many choose to not work with large animals after graduating.

Expansion demand also incorporates the increased number of veterinarians and veterinary technologists required to meet the future growth in demand for veterinary services. Future growth can be influenced by:

- Population growth;
- Disposable income;
- Animal population/pet ownership; and
- Number or value of food production animals.⁵

Population and Disposable Income

Alberta's population is projected to grow by 2.3 million people, and to reach a total population of approximately 6.3 million people, by 2046.⁶ This represents an annual growth rate of around 1.4%.⁷ Population growth can be considered the main driver for increased demand for veterinary services: as the population increases, and even if pet ownership rates remain constant, the demand for veterinary services will increase commensurate to the growth of the general population.

Figure 3.2.4 provides the growth in Alberta's population and disposable income since 2010. These factors all contribute to increased demand for veterinary services. As the figure illustrates, disposable income increased by over 30% from 2010 to 2018, while the Alberta population grew by approximately 15%.^{8,9} While overall disposable income had increased since 2010, the annual percentage change in disposable income has been modest, approximately 2% and has closely matched inflation. This indicates that actual disposable income has not changed drastically in recent years.

⁵ CVMA. (2020). *CVMA Workforce Study*.

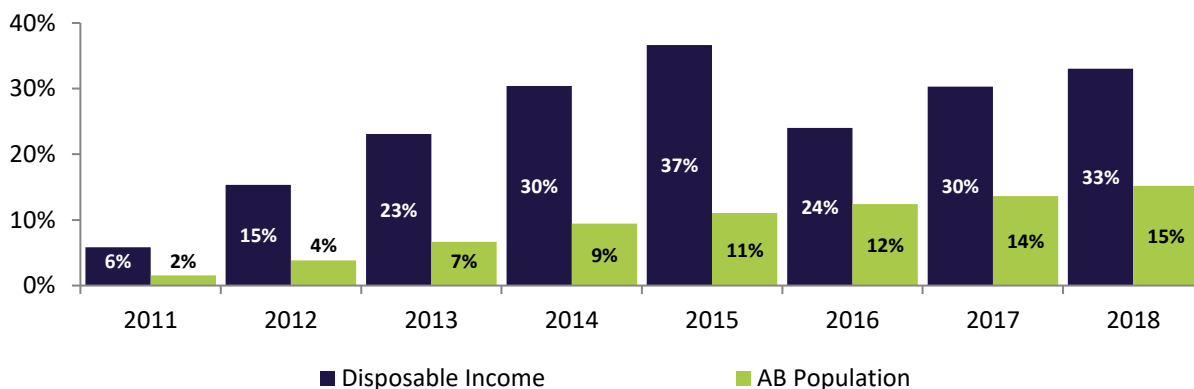
⁶ Government of Alberta. (2020). 'Population Projections Alberta and Census Divisions, 2020-2046.' Available at: <https://open.alberta.ca/dataset/90a09f08-c52c-43bd-b48a-fda5187273b9/resource/bb7c6ef6-ade5-4def-ae55-ef1fd5d4e563/download/2020-2046-alberta-population-projections.pdf>. [Accessed January 15, 2021]

⁷ CVMA. (2020). *CVMA Workforce Study*.

⁸ Statistics Canada. (2021). 'Adjusted household disposable income, Canada, provinces and territories, annual (x 1,000,000).' Available at: <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3610061201>. [Accessed January 15, 2021]

⁹ Government of Alberta. (2020). 'Population.' Available at: <https://economicdashboard.alberta.ca/Population>. [Accessed January 15, 2021]

Figure 3.2.4: Growth in Disposable Income and AB Population from 2010



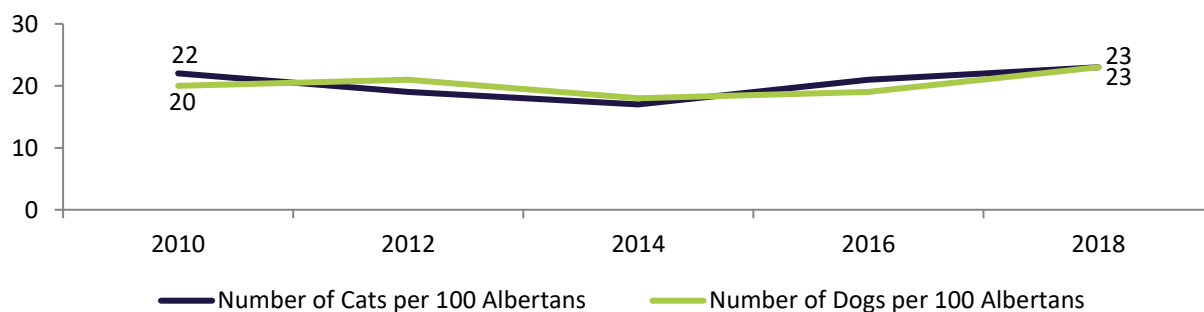
Source: Statistics Canada (Disposable income); Government of Alberta (Population).

Animal Population/Pet Ownership

In Canada, the most common types of household pets have historically been cats and dogs. As such, ownership trends of cats and dogs have the largest impact on the demand for veterinary services.¹⁰ The latest figures from the Canadian Animal Health Institute (CAHI) indicate that in 2018 there were one million dogs in Alberta, with 700,000 households owning at least one dog¹¹; in addition, it was estimated that 600,000 dogs were provided veterinary services.¹² Cat ownership trends similarly, with an estimated population of one million cats in Alberta, and 500,000 households owning at least one cat.¹³ These population growth rates equate to a 4% annual increase of dogs and a 3% annual increase of cats from 2010 to 2018. Further, it was estimated that 600,000 cats received veterinary care.¹⁴ Other estimates show that Alberta has the highest pet ownership rate in Canada (63%) compared to the national total (57%).¹⁵

Figure 3.2.5 presents the cat and dog populations per 100 Albertans. As illustrated, since 2014 there has been an increase in both cat and dog population relative to the Alberta population.

Figure 3.2.5: Cat and Dog Population per 100 Albertans



Source: Canadian Animal Health Institute.

¹⁰ Canadian Animal Health Institute. (CAHI). (2018). *Pet Population Study: Distribution of Dog and Cat Owning Households*.

¹¹ Ibid.

¹² Ibid.

¹³ Ibid.

¹⁴ Ibid.

¹⁵ Pawzy Team. (2019). 'Survey: 95% of Canadians consider pets family.' Available at: <https://pawzy.co/blog/fun/pets-part-of-the-family-Canadian-survey>. [Accessed October 29, 2020]

Pet ownership and accessing veterinary services are primarily driven by increases in disposable income. Prior to the COVID-19 pandemic, Alberta experienced significant growth in disposable income. However, with the onset of the COVID-19 pandemic future economic growth is uncertain. While disposable income may be declining due to the pandemic, recent research suggests that it has had an opposite effect on pet ownership and adoption. Among Canadian pet owners, 18% indicated that they had obtained a new pet since the start of the COVID-19 pandemic.¹⁶

Number or Value of Food Production Animals

Alberta is the largest beef producing province in Canada, as well as being a significant producer of pigs, sheep and lambs. As of July 1, 2018, the province had an estimated 5.1 million head of cattle and calves on farms, down 2% from July 1, 2017. Alberta continues to lead the nation in cattle and calf inventories, accounting for 41% of the national total. While Alberta is a major producer of animals for food in Canada, research from CVMA suggests that the pre-COVID-19 environment for production animal veterinary services did not differ significantly from previous years.¹⁷ As result, the impact on the financial value of animal production on the demand for veterinary services is expected to be limited.

3.2.3 Projected Hiring Requirements

Veterinarians

When projecting the future hiring requirements for veterinarians, several assumptions are made. First the current number of veterinarians, based on ABVMA registration figures is 1,886.¹⁸ Secondly, the retirement rate is estimated at 3% and the separation rate (i.e. the proportion of veterinarians who leave the profession prior to retirement) is estimated at 3%. To project future hiring requirements both the retirement (3%) and separation (3%) rates are applied to each projected year. As a result, it is estimated that by 2030, the number of current veterinarians (2020 practitioners) who will still be practicing will be 1,016, with the number decreasing further to 547 in 2040. In the projections, replacement demand is the estimated number of veterinarians needed to maintain the current level of 1,886 in each of the projected years.

The demand for veterinarians is estimated to increase each year based on Alberta population growth and increases in pet ownership. Based on Government of Alberta projections, the population is estimated to grow approximately 1.4% per year.¹⁹ Pet ownership is estimated to grow based on annual growth rates of cat and dog populations (4% and 3% respectively), as well as the proportion of cats and dogs which received veterinary care (60%). Based on these estimates, the number of veterinarians required to provide services is expected to increase annually by 3.5%. This annual growth rate is applied to the current number of veterinarians (i.e. 1,886) plus the current shortage of 377 veterinarians. Figure 3.2.6 provides the projected hiring requirements for veterinarians from 2020 to 2040.

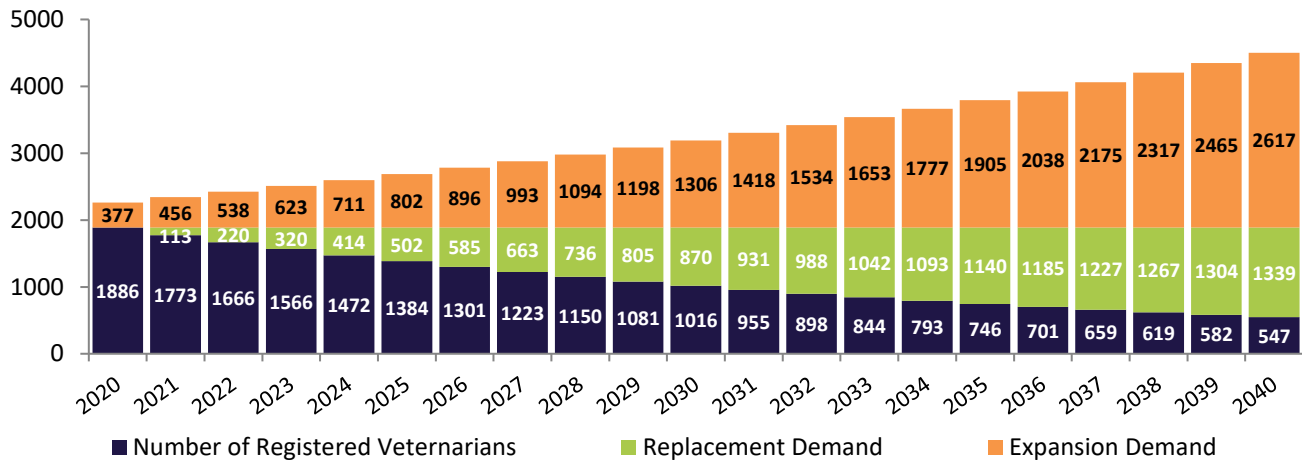
¹⁶ Narrative Research. (2020). 'Canada has seen a significant increase in pet owners since the start of the COVID-19 pandemic.' Available at: <https://narrativeresearch.ca/canada-has-seen-a-significant-increase-in-pet-owners-since-the-start-of-the-covid-19-pandemic/>. [Accessed January 25, 2020]

¹⁷ CVMA. (2020). *CVMA Workforce Study*.

¹⁸ Note: among the 2,033 currently registered veterinarians, 147 were retired and removed from the total.

¹⁹ Government of Alberta. (2020). 'Population Projections Alberta and Census Divisions, 2020-2046.' Available at: <https://open.alberta.ca/dataset/90a09f08-c52c-43bd-b48a-fda5187273b9/resource/bb7c6ef6-ade5-4def-ae55-ef1fd5d4e563/download/2020-2046-alberta-population-projections.pdf>. [Accessed January 15, 2021]

Figure 3.2.6: Projected Hiring Requirements for Veterinarians

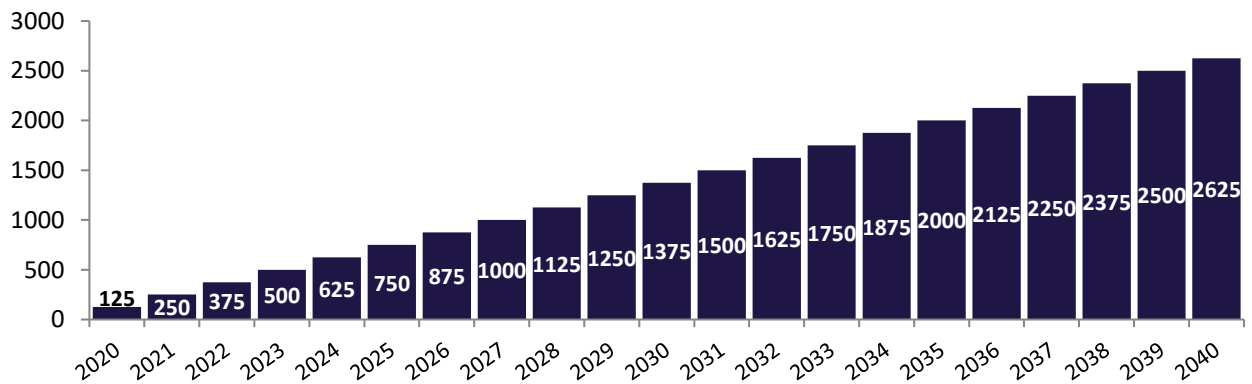


Source: ABVMA Registration Data; Member Survey; Employer Survey; Government of Alberta Population Estimates.

As Figure 3.2.6 shows, to maintain the current level of veterinarians (meet replacement demand), Alberta will require 502 new veterinarians by 2025, 870 by 2030 and 1,339 by 2040. The increase in the number of additional veterinarians required to meet expansion demand is estimated at 802 in 2025, 1,306 in 2030 and 2,617 by 2040.

The supply of new veterinarians will largely come three sources, graduates of the UCVM, graduates from other Canadian veterinary medicine programs and internationally trained veterinarians. Internationally trained veterinarians include Alberta students who complete their education outside of Canada, as well as those who immigrate to Canada. As such, based on ABVMA historical data on new registrations, Alberta expects to add 125 new graduates and immigrant veterinarians each year. Figure 3.2.7 shows that Alberta will obtain approximately 2,625 new veterinarians by 2040.

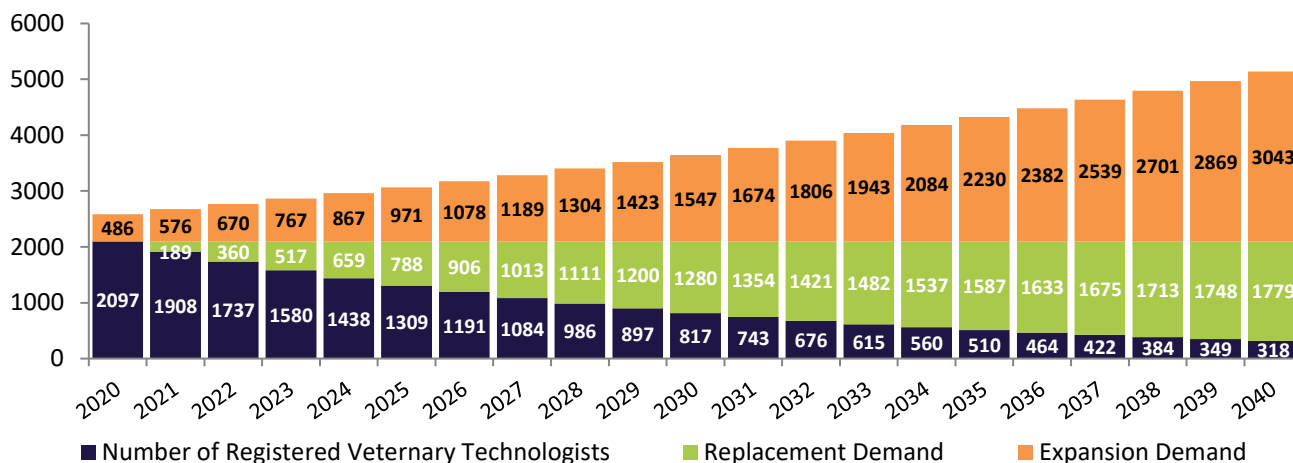
Figure 3.2.7: Projected Number of New Veterinarians in Alberta (Cumulative)



Technologists

For veterinary technologists, the estimated retirement rate (1%) and separation rate (8%) combine to reduce the labour supply by 9% each year. As such, the total number of veterinary technologists who will remain in the profession in 2030 is projected to be 817 and 318 in 2040. Similar to the case of veterinarians, the projected increase in demand for veterinary technologists is estimated to be 3.5% per year applied to the current number of veterinary technologists (2,097) plus the estimated vacancy of 486 positions. Figure 3.2.8 presents the projected hiring requirements for veterinary technologists from 2020 to 2040.

Figure 3.2.8: Projected Hiring Requirements for Veterinary Technologists

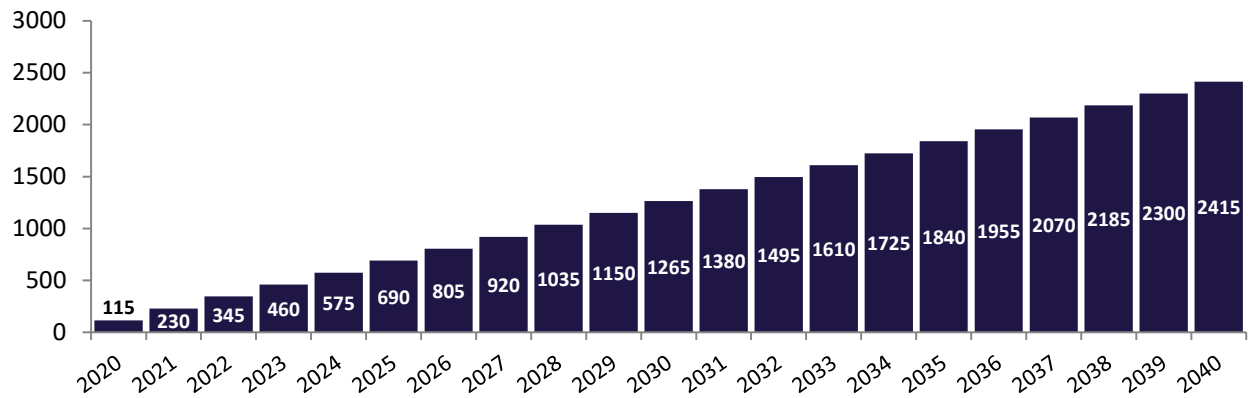


Source: ABVMA Registration Data; Member Survey; Employer Survey; Government of Alberta Population Estimates.

The number of veterinary technologists required to maintain the current labour supply in 2025 is 788 and increases to 1,280 in 2030 and 1,779 by 2040. In addition to replacing veterinary technologists who leave the profession, an additional 971 are required by 2025 to meet the additional demand resulting from increases in population and pet ownership. Moreover, the number of professionals required to meet expansion demand increases to 1,547 in 2030 and 3,043 by 2040.

Based on program quotas for animal health/veterinary technology programs, Alberta graduates approximately 229 new veterinary technologists each year. However, several programs admit a substantial number of out-of-province students who return to their home province after graduation. Furthermore, due to the retention challenges facing the profession, not all students complete their education and not all who graduate chose to pursue careers as a veterinary technologist. As a result, the total number of Alberta graduates based on program quotas would over inflate the number of graduates who would remain in the profession for the entire time horizon considered. Survey data shows that since 2015 on average 5.5% of respondents completed their educational program each year. This finding aligns with ABVMA registration data. Therefore, it is estimated that 115 new graduates register in Alberta as veterinary technologists and are assumed to remain in the profession each year of the time horizon considered (i.e. 2020 to 2040). Moreover, as survey results show, a small proportion (1%) of veterinary technologist complete programs internationally. As such, the forecast presented assumes minimal international immigration from this group. Figure 3.2.9 presents the projected total number of new graduates which will potentially enter and remain in the profession from 2020 to 2040.

Figure 3.2.9: Projected Number of New Veterinary Technologist Graduates in Alberta (Cumulative)



Source: Member Survey; Educator Survey.

3.3 Education

Students decide to study veterinary medicine because it combines a passion for animals, people, medicine or science and wildlife/animal conservation, as well as, offering many different career paths. Interest in veterinary medical and animal health technology programs remains high with UCVM receiving nearly six applications per seat and Alberta animal health/veterinary technology programs receiving on average four applicants per available space. The attrition rates for veterinary medicine and animal health technology programs are low; typically students only access financial supports to complete their program. For veterinary technologists, the vast majority completed their education within Alberta while the majority of veterinarians completed their education in other Canadian provinces.

Internationally trained professionals make up approximately 20% of Alberta's practicing veterinarians; conversely only a minority of veterinary technologists are internationally trained. The credentialing process for internationally trained veterinarians is perceived as long and costly. Supports have been developed to help individuals through the process including limited licensure and courses to upgrade skills, although those who had gone through the credentialing process generally were unaware of these supports. Internationally trained veterinarians struggle to find mentors or work environments where they can gain Canadian work experience. Although the process for non-accredited veterinary technologists to qualify to work in Alberta is straightforward, promotion of the ABVMA and CVMA Pan - Canadian uniform process for registration of technologists, in all provinces, would allow increased interprovincial mobility for registered veterinary technologists.

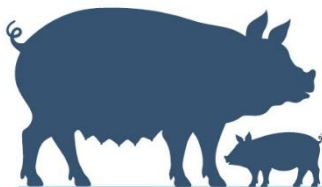
Graduates of Canadian veterinary medical programs are well trained to handle the knowledge, skill and technical demands of the profession, however, new veterinarians are ill prepared for the need to balance recommended diagnostic testing, procedures and treatments with the client's financial realities. Veterinary technologists are generally insufficiently prepared for the workload, low wage, and how mentally and emotionally demanding working in the sector can be.

Veterinary medical programs have not expanded the number of spaces at a rate that would allow new graduates to fill industry demand. Insufficient governments funding, physical infrastructure, practicum spaces and the need to meet the demands of both industry and accreditation while ensuring sufficient quality have prevented adequate program expansion.

3.3.1 *Pursuing Careers in Veterinary Medicine*

Students' interest in veterinary medicine or technology is typically sparked by interactions with animals and a love of animals and science. Additionally, some are exposed to a career in veterinary medicine early on through family members working in the field. Students considering a career in veterinary medicine or technology utilize a variety of resources to learn about the profession including teachers, professors, family members, local veterinary professionals, veterinary or animal health/veterinary technology programs' websites

Most students decided to study veterinary medicine because it combined their passion for animals, people, medicine, science and/or wildlife/animal conservation. Many expressed a desire to help animals, to work with people and to build relationships. Additionally, students were drawn to a career that required them to work with their hands specifically or that included physical work more generally. Some were attracted to working in rural communities or in the field of agriculture. Respondents noted that



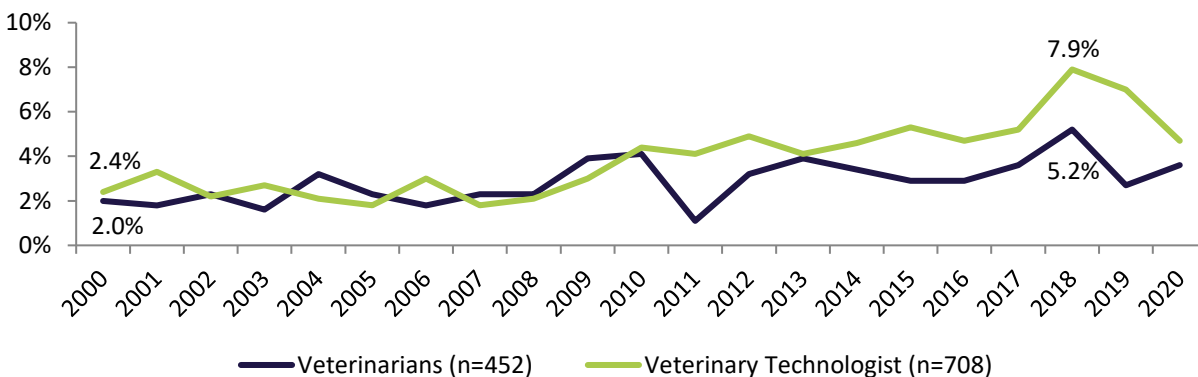
“Students who want to be a vet or work in a vet clinic know from an early age.”

veterinary medicine offers many different career paths once your education is complete, particularly a veterinary degree. Salary was a more important factor for those that selected a veterinary program, as compared to those that selected an animal health/veterinary technology program. Animal health/veterinary technology programs seemed to appeal more to individuals who did not want to spend as many years in school or who were concerned about the entrance requirements for veterinarian programs.

3.3.2 Number of Graduates

As shown in Figure 3.3.1, the proportion of professionals by year of graduation has increased slightly over time, from just over 2% of current veterinarians and veterinary technologists graduating in 2000 to nearly 8% of veterinary technologists and 6% of veterinarians graduating in 2018. These results demonstrate that new graduates are more likely to still be in the profession compared to older graduates.

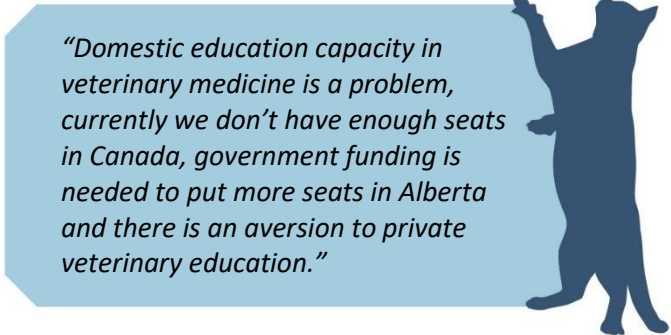
Figure 3.3.1: Proportion of Workers by Year of Graduation (2000 to 2020)



Source: Member Survey: B1b. In what year did you graduate from your program? Note: Totals may not add to 100% due to only reporting graduations between 2000 to 2020.

Key informant interviews with educators and other stakeholders, as well as responses from the educator survey suggest that there continues to be a high interest in veterinary medicine and animal health technology programs. Interviewees routinely noted how the number of applicants for veterinary medicine and animal health technology programs was substantially higher as compared to available enrollment spaces. According to key informants, UCVM typically receives almost six times the number of applicants relative to enrollments. In 2021, the UCVM received 327 applicants which was a 20% increase from the historic average. Of the 327 applicants, the UCVM interviewed less than half (48%) of qualified applicants. For animal health technology programs in Alberta, from 2016 to 2020, the number of applicants per available seat ranged from two to eight with an average of four.

Since the UCVM veterinary medical program is relatively new (first graduating class was in 2012, total number of UCVM graduates to date is 270) compared to other veterinary medical programs, over two thirds (67%) of veterinarian survey respondents had completed their education in a Canadian province other than Alberta, while 18% had completed an international program. For veterinary technologists, the vast majority had completed their education within Canada, with 87% completing a program in Alberta, 11% completing a program in another Canadian province and only 2% completing an international program. Table 3.3.2 presents the region in which survey respondents had completed their education.



“Domestic education capacity in veterinary medicine is a problem, currently we don’t have enough seats in Canada, government funding is needed to put more seats in Alberta and there is an aversion to private veterinary education.”

Table 3.3.2: Region of Graduation

	Veterinarians (n=452)	Veterinary Technologists (n=708)
Alberta	15%	87%
Other Canadian Province	67%	11%
International	18%	2%
Prefer not to answer	<1%	0%

Source: Member Survey: B1a. Where did you complete your education for veterinary medicine or animal health/veterinary technology? Note: Totals may not add to 100% due to rounding. Note: UCVM began graduating students in 2012.

3.3.3 Barriers to Completing Education

Both prospective applicants and current veterinary medicine students were concerned about the barriers to program entry, which included both competitive entrance requirements and a limited number of program spots. Veterinary program students stressed that having to maintain a competitive grade point average (GPA), as well as having to gain volunteer experience for certain programs, disadvantaged those who worked to pay tuition and living costs. Students felt that applications were too heavily weighted on GPA, resulting in individuals, who would be great veterinarians, being unable to reach the interview phase. Limited seats open to Alberta veterinary students, as well as program regional residence requirements, were also thought to prevent students from accessing veterinary programs.

Program cost was also a barrier for prospective and current students, who noted that program costs included both the costs of tuition/books and the loss of income during a lengthy program. Neither veterinary professionals nor current veterinary medicine students considered relocation away from their home community as a barrier to pursuing their education.

3.3.4 Supports for Completing Education

The attrition rates for students in veterinary medicine and animal health/veterinary technology programs are low. According to educators, when students do fail to complete the program it is typically because they are poorly prepared for the intensity of the work or have funding pressures. Although

some students do take medical or maternity leave, most return to complete their program at a later date. Educators noted that although program completion rates are generally high, not all graduates will end up in clinical practice; instead, some may pursue careers in research, pharmaceutical companies or government roles.

Students of veterinary medical programs do not appear to be accessing program completion supports at a high rate. Other than funding supports, such as student loans, grants, awards, scholarships and Métis program funding, veterinary and veterinary technology student interviewees had not accessed any supports to help them complete their education. Specific supports that veterinary medicine students suggested that should be made available to them included:

- Expanded hours at the U of C Wellness Center (as current timeslots conflicted with program hours);
- A government grant that allowed students to gain clinical work experience while still being paid a livable wage (sufficient to allow savings for their next semester);
- Information on awards and scholarships available to veterinary medicine students;
- A repository of veterinary practice summer jobs postings; and
- Additional career mentorship programs.

Students were largely unaware of ABVMA or ABVTA supports for veterinary medical and animal health/veterinary technology students. Respondents suggested that available supports could be promoted to students through social media, career counselors, school or college/university information sessions, program websites and through targeted emails from programs. In addition, students suggested posting information to specific websites, such as: Desire2Learn (D2L); Lakeland College's Learning Management System; U of C's Faculty of Veterinary Medicine; and ABVMA.

3.3.5 *Barriers to Obtaining Accreditation for Non-Accredited Veterinary Professionals*

Veterinary Technologists

For veterinary technologist survey respondents, the vast majority (95%) graduated from an accredited animal health/veterinary technology program. None of the respondents reported completing a non-accredited program; however, a small portion reported that they did not know if their program was accredited or not. Although these respondents were unsure if their program was accredited, nearly all of these respondents had completed a program in Alberta and if a graduate attended an animal health technology program within Alberta, it can be assumed that the program is accredited.²⁰

Most programs that train veterinary technologists are accredited by the Canadian Veterinary Medical Association (CVMA). As a result, graduates who also pass the Veterinary Technologist National Exam (VTNE) are recognized as eligible for registration throughout Canada and the US. Exceptions to this rule are any programs that are registered exclusively with a provincial veterinary technologist association and not accredited by the CVMA. Should an individual graduate from one of these programs, their credentials are not recognized in Alberta. Additionally, some provinces allow individuals to fill the veterinary technologist role without attending an animal health/veterinary technology program. These individuals would not be qualified to work in Alberta.

Veterinary technologists who received their training from non-accredited programs, and that wish to work in Alberta, must submit an application to a joint ABVTA/ABVMA committee. The application includes a curriculum review to ensure equivalency to a CVMA accredited program. Some technical

²⁰ Since no survey respondents reported graduating from a non-accredited animal health technology program, barriers to obtaining accreditation were identified by interviewees and online discussion group participants.

schools only teach certain aspects of the CVMA courses, and as such the individual may receive registration based on educational experience: for example, they may only be permitted to work with small animals. The individuals must then take the VTNE and complete a practical clinical examination. Once they pass these exams, individuals must a) submit 15 hours of professional development annually; and b) remain in good standing.

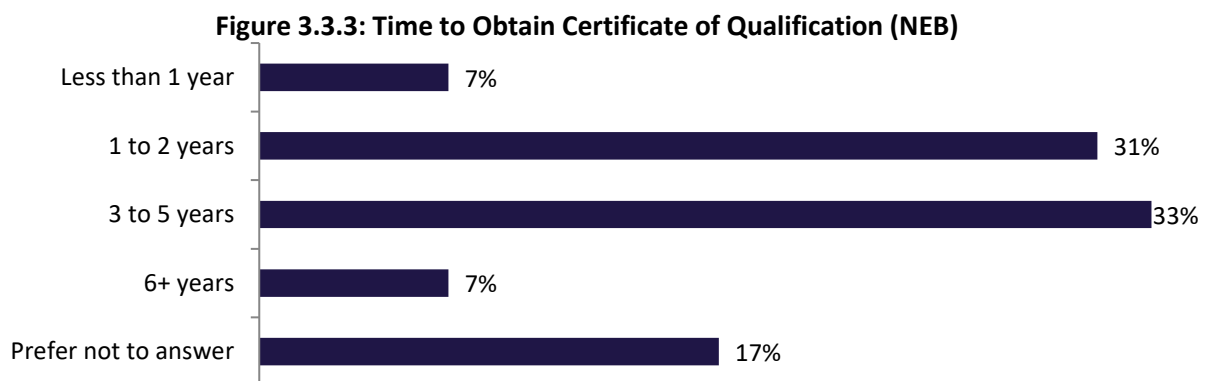
While stakeholders felt that the process for credentialing non-accredited veterinary technology graduates in Alberta was straightforward, it was suggested that a Pan - Canadian uniform process for registration of technologists, in all provinces, would allow increased interprovincial mobility for registered veterinary technologists.

Among interviewees, it was suggested that the barriers faced by non-accredited veterinary technologists differed to barriers faced by non-accredited veterinarians. Since there are no non-accredited programs for veterinarians within Canada, all non-accredited veterinarians wishing to practice in Alberta received their training outside of Canada; on the other hand, a veterinary technologist may obtain a diploma from a non-accredited program within Canada. The ABVTA has recently begun to explore the relationships with international animal health/veterinary technology programs. Currently, a very small proportion of the Alberta veterinary technologist labour force has been trained internationally.

Veterinarians

The majority of veterinarian survey respondents (90%) completed an accredited veterinary medical program. However, a small portion of veterinarians (9%) reported that they did not complete an accredited program and thus were required to complete the National Examining Board (NEB) examination process to obtain a Certificate of Qualification (CQ).

As Figure 3.3.3 shows, the greatest proportion of (33%) respondents who completed a non-accredited veterinary medical program (n=42) typically needed three to five years to obtain their CQ.



n=42. Source: Member Survey B3. How long did it take you to obtain your certificate of qualification through the NEB (veterinarians)? Note: Totals may not add to 100% due to rounding.

It is important to note that two-thirds (69%) respondents who reported obtaining a certificate of qualification completed their educational program prior to 2010. Furthermore, excluding one respondent, all the respondents who completed their education since 2010 were able to obtain their certificate of qualification within 2 years.

According to survey results, the most common challenges in obtaining a CQ reported were time commitment (76%) and cost (76%). Figure 3.3.4 presents barriers to obtaining a CQ, as reported by graduates from non-accredited veterinary medical programs.

Table 3.3.4: Challenges with Obtaining Certificate of Qualification (NEB)

	Veterinarians (n=42)
Time commitment	76%
Cost	76%
Lack of Canadian work experience	24%
Educational upgrading required	10%
Lack of exam availability	7%
Discrimination/poor treatment	7%
Did not experience any challenges	7%
Exam difficulty	2%
Child care	2%
Lack of mentorship	2%
Missing documentation	2%

Source: Member Survey B4. What, if any, challenges did you experience in obtaining registration (license) to practice? Note that totals will add to more than 100% due to multiple response.

While the process to obtain a certificate of qualification can potentially take between 18 to 24 months, given the level of the applicant and meeting all pre-requisites, several stakeholders commented that the process of for those graduating from a non-accredited veterinary medical program, was typically longer (two to four years), extensive and expensive. However, respondents also noted that the process was fair and necessary given the different education levels of some internationally trained veterinary professionals. The length and difficulty of the process was said to correlate directly with the degree to which the curriculum of the foreign program, and that of American Veterinary Medical Association (AVMA) Committee on Education (COE) programs, aligned.

Should the foreign trained veterinarian not speak English as their first language they must first pass the Test of English as a Foreign Language (TOEFL). From there, they can then begin the credentialing process. Provincial legislations across Canada require that a graduate of a non-accredited veterinary school must complete the NEB examination to receive a CQ. This series of exams consists of four parts which must be completed in sequence. The first step is to complete the Basic and Clinical Sciences Examinations (BCSE). Once passed, the individual can then proceed to complete the North American Veterinary Licensing Examination (NAVLE) and then the Preliminary Surgical Assessment (PSA) for the Clinical Proficiency Examination (CPE). The final step is completion of the CPE. When these exams are successfully completed, the individual will receive their CQ. If an internationally trained veterinarian graduated from an accredited veterinary school, they are only required to pass the NAVLE within two attempts to receive their CQ. For individuals applying to practice in Alberta, the cost of completing all NEB exams is approximately \$12,000; additional costs are associated with completing the NAVLE overseas, as well as any exam retakes. Given that the PSA and CPE are hands-on, practical exams, they are administered in-person at predetermined test sites. This was noted by some stakeholders as a barrier.

Further barriers to internationally trained veterinarians becoming credentialed included:

- *Language barriers*: although the language requirements are fairly low, it was identified as a challenge for some;
- *Cost of the exams*: the cost of the exams was considered to be high, particularly when an individual failed an attempt and was required to pay the fee a second time; and
- *Finding mentors and licensed veterinarian supervisors*: the shortage of eligible supervising veterinarians in Alberta made it difficult for foreign-trained veterinarians to find positions in veterinary practices. Stakeholders explained that a practice's workflow can be negatively impacted by the introduction of staff requiring extra support or mentoring. Positions of this kind typically do not pay well, with individuals often having to volunteer to gain the required experience. Some animal welfare organization (humane societies) with certified and inspected veterinary practices are able to provide opportunities for training veterinarians in the NEB exam process. This is often the avenue taken by internationally trained veterinarians to gain Canadian work experience.

Stakeholders noted that, moving forward, it might be prudent to reduce the cost of testing while simultaneously increasing opportunities for additional training to help address skill gaps in foreign trained veterinary professionals.

Some stakeholders felt that focusing on foreign trained veterinarians was not a long-term solution and that the focus should be training Canadian veterinary students domestically. Still others felt that additional supports should be developed to help foreign trained veterinarians meet the requirements to practice in Alberta. Such supports included increasing the number of test times and spots, as well as mentorship programs and practicum opportunities for foreign trained veterinarians.

As of April 1, 2020, two alternative pathways to the Certificate of Qualification were established.

1. NEB and PAVE option. Instead of PSA and CPE examinations, the candidate completes the Qualifying Science Exam (QSE) and evaluated clinical experience through AAVSB.
2. NEB and Clinical Year option. Instead of PSA and CPE examinations, the candidate completes the clinical year in a CVMA/AVMA accredited program.

It should be noted that the NEB process has had excess capacity for several years. When a candidate is well prepared, the examination sequence can be completed in 18 – 24 months.

3.3.6 *Supports for Obtaining Certificate of Qualification*

To assist in the credentialing of internationally trained veterinarians, ABVMA created a 'limited license' category to allow veterinarians in the NEB process to gain experience. ABVMA also funded, through a grant from Alberta Labour and Immigration, the development of anesthesia and surgery courses through U of C, which internationally trained veterinarians could access to upgrade their skills. These courses are no longer being offered though there may be opportunities for collaboration with UCVM.

Survey results suggest that there is either little in the way of supports for graduates of non-accredited programs, or that graduates are not aware of available supports. When asked whether or not respondents accessed supports to obtain their certificate of qualification, over half (56%) of respondents who graduated from non-accredited programs indicated there were no supports for them to access.

A small proportion of respondents reported accessing the following supports:

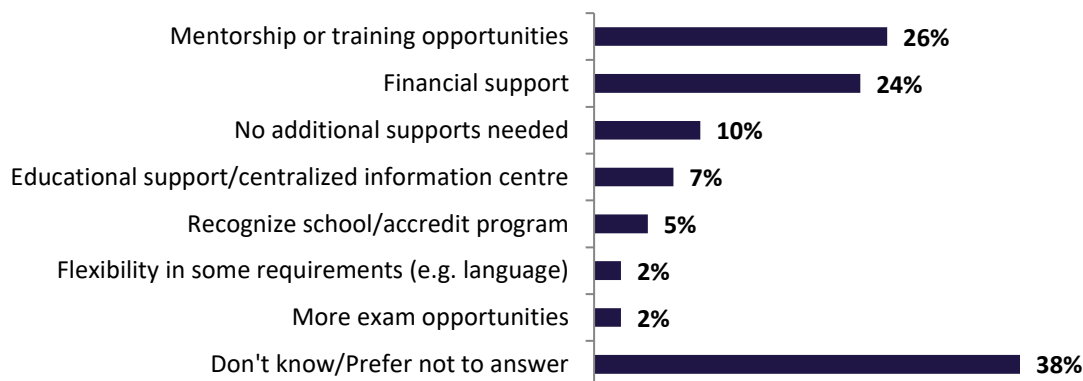
- Support from friends or family (17%);
- Educational support from service provider (e.g. Bredin Institute, prep-courses) (10%);
- Private loans (5%); and
- Informal mentorship support (2%).

Respondents suggested several supports they believed would have been helpful for internationally trained graduates. Most commonly, respondents identified mentorship and training opportunities with experienced professionals (26%) as key supports that would have been helpful for them to obtain their CQ. Further identified supports included:

- Financial supports (24%);
- Educational support or centralized resources (7%);
- Flexibility in some requirements (e.g. English language requirements) (2%); and
- More opportunities to complete the NEB examinations (2%).

While 10% of respondents indicated that no supports were needed, a significant proportion (38%) reported that they were not sure what supports would be helpful (Figure 3.3.5).

Figure 3.3.5: Supports to Obtain Certificate of Qualification (NEB)



n=42. Source: Member Survey B6. [Ask if B2=2 and A1b≠3] What additional supports would have helped you complete registration (licensure) requirements?

3.3.7 Skills Development and Preparation for Work

In terms of skills development, the majority of educator survey respondents noted that communication (written and verbal), leadership, problem solving and teamwork skills were formally taught in courses or module syllabi. Skills such as time management and work ethic were commonly informally taught. Figure 3.3.6 presents how skills are formally or informally taught in respondents' respective programs.

Figure 3.3.6: Skills Taught Formally or Informally

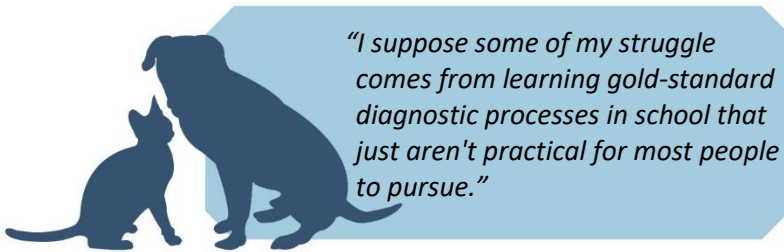
	Yes, formally included in course/ module syllabi	Informally taught (e.g. through class discussion)
Communication (verbal) (e.g. effective messaging, appropriate delivery)	86%	14%
Communication (written) (e.g. effective messaging, appropriate delivery)	100%	0%
Leadership (e.g. delegation, decision-making, drives results, develops talent)	71%	29%
Problem solving (e.g. conflict resolution)	86%	14%
Teamwork (e.g. employee engagement, respect for others, collaboration)	86%	14%
Time management (e.g. goal-setting, planning)	29%	71%
Work ethic (e.g. responsible, dependable, accountable)	57%	43%

n=7. Source: Educator Survey B4. For each of the skills identified below, please identify whether or not your students are offered courses or modules that teach or support their development.

Importantly, students studying to be both veterinary technologists and veterinarians noted that programming matched their expectations. Specifically, animal health/veterinary technology students were learning what they had hoped to learn. They also reported having sufficient opportunities to apply their skills and that they were pleased with the quality of the instruction provided. Although the animal health/veterinary technology programs matched their expectations, respondents noted that, through their studies, they had come to understand that the job of veterinary technologist was more demanding than they had originally envisioned. Veterinary technologists had more responsibilities, participated in all levels of clinical care, and had more interaction with animal owners than originally anticipated. Some had come to appreciate the level of stress that veterinary technologists can experience which they felt might lead to compassion fatigue. That said, many noted that they were excited by the veterinary technologist’s level of responsibility and scope of practice.

Although veterinary students generally agreed that programming was meeting their expectations, they reported that the first year contained more foundational or basic biology than expected, and that they would have preferred more clinical focus. Specifically, students reported wanting more opportunities to practice clinical skills and work with animals in the initial program years. Students reported surprise at the emphasis placed on public health in veterinary medicine. Many were further surprised by the level of stress veterinarians experienced, as well as the degree to which mental health issues impacted those working in the field.

Veterinary medicine students expected the fourth year of the program to provide them with the most "realistic picture" of the job, because it was in the fourth year that students completed rotations in a veterinary practice. That said, students also understood that, ultimately, only working in the field can prepare one for the demands of the profession. Educators concurred that in the fourth year of school, veterinarians working in clinical practices or teaching hospitals, provided students with exposure to the complexities of the profession.



Students felt that professors (practicing veterinarians) in years one to three of their program tried to provide a balanced perspective which included the ideal or "gold standard" approach, as well as the reality of practice in a "real world" setting. Others stressed that the goal of veterinary school was to provide a foundation,

teaching students how to complete research and work through problems. With veterinary medicine being so diverse, students expected to learn more in their areas of interest once practicing. Additionally, students said they understood that veterinarians need to balance thorough diagnostics with the financial constraints of clients. On this point, it was suggested that the program could do a better job of highlighting what clients expect of veterinary medicine.

Animal health/veterinary technology students similarly understood that the environment in which they were learning was "the ideal" and did not necessarily reflect the reality of a practice when the animal and the client were apprehensive or stressed. Students believed that tasks became increasingly realistic as the program progressed. That said, those who had experience working in a clinical practice suggested that the processes they had been taught were not always practical in all clinical settings.

In contrast, recent graduates of veterinary medicine noted that programs could do even more to teach students about the realities of the field. They suggested that focusing on the theoretical, scientific and medical aspects of practice had not sufficiently prepared new veterinarians for the need to balance exhaustive testing/procedures with clients' financial realities. Recent graduates expressed conflict: on the one hand, they had learned gold-standard diagnostic procedures in school which they wished to practice. On the other, such practices were not always financially realistic for most pet owners to pursue. Indeed, many found it difficult to have this discussion with pet owners, thus highlighting the need to target the development of better customer service skills.

New veterinarians who had worked in a veterinary practice while in school felt more prepared for the realities of the profession. Exposure to practicing veterinarians appeared to be of significant benefit when teaching students about the realities of the profession and was appreciated by students. While veterinary technologists who had recently graduated felt that their professors had been transparent about the challenges associated with the job, they did not feel it had prepared them for the workload and the low wage, as well as for how mentally and emotionally demanding the job would be.

3.3.8 Expanding Educational Programs

Respondents stressed that due to the number of applicants to veterinary medical and animal health/veterinary technology programs, filling the seats was not a challenge. In any given year there are nearly six applicants per seat at UCVN and almost double the applicants per seat at animal health/veterinary technology programs. This often results in many qualified applicants being refused program admittance; these applicants will often choose to pursue programs in Australia or the United Kingdom, New Zealand, US, Caribbean, where tuition is much higher, classes are larger and entrance requirements less difficult to meet.

Respondents representing educational institutions in Alberta suggested that they would be able to increase the number of spaces in veterinary programs if specific challenges were addressed. These challenges included: budgeting, physical infrastructure, practicum spaces and the need to meet the demands of both industry and accreditation while continuing to ensure sufficient quality. Program expansion would also require additional instructors, veterinary medical equipment and supplies. Among educator survey respondents, the most common challenges associated with expanding program spaces were limited space of facilities and equipment (86%) and lack of practicum spaces (71%).

Notably, none of these respondents indicated they would be able to increase spaces without additional government funding for operational or infrastructure costs. While the decision to expand a program is normally at the discretion of the institution, representatives from educational institutions suggested that programs could train additional students if programming was offered year-round. This would increase access to class and teaching hospital space, both of which are available during the summer. However, for year-round programming to occur, additional faculty would be required.

According to an educational institution representative, the cost of programming, along with strict practice guidelines were the core challenges in providing veterinary medical programs. Programs related to veterinary medicine are costly to administer and require significant infrastructure including an appropriate teaching environment with the necessary equipment. When a teaching hospital is not available, a higher faculty-to-student ratio is needed. In addition, programs must develop relationships with clinical practices to provide students with necessary access to equipment and animals in need of care. The absence of a teaching hospital also makes it difficult to recruit and retain faculty. Veterinarians working in clinical practice often have conflicting responsibilities that must be prioritized above teaching responsibilities. As a result, practicum spaces were said to be harder to obtain in some areas of the province.

Professional legislation is in place to protect the public and ABVMA must ensure educational programs align with practice standards. Educational representatives noted that for programs to evolve, to meet expanding need and to obtain buy-in for new developments among the veterinary community, an advisory committee must be in place to guide the necessary work. Educators stressed that such committees must include veterinary practices, industry and academic representatives, to ensure that the solutions developed are acceptable to all parties. For example, expanding the number of animal health/veterinary technology graduates will only assist in meeting labour shortages if veterinary practices are willing to compensate technologists commensurate with their skill level, allow them to apply those skills and address issues such as compassion fatigue and burnout.

3.4 Transition to the Workforce

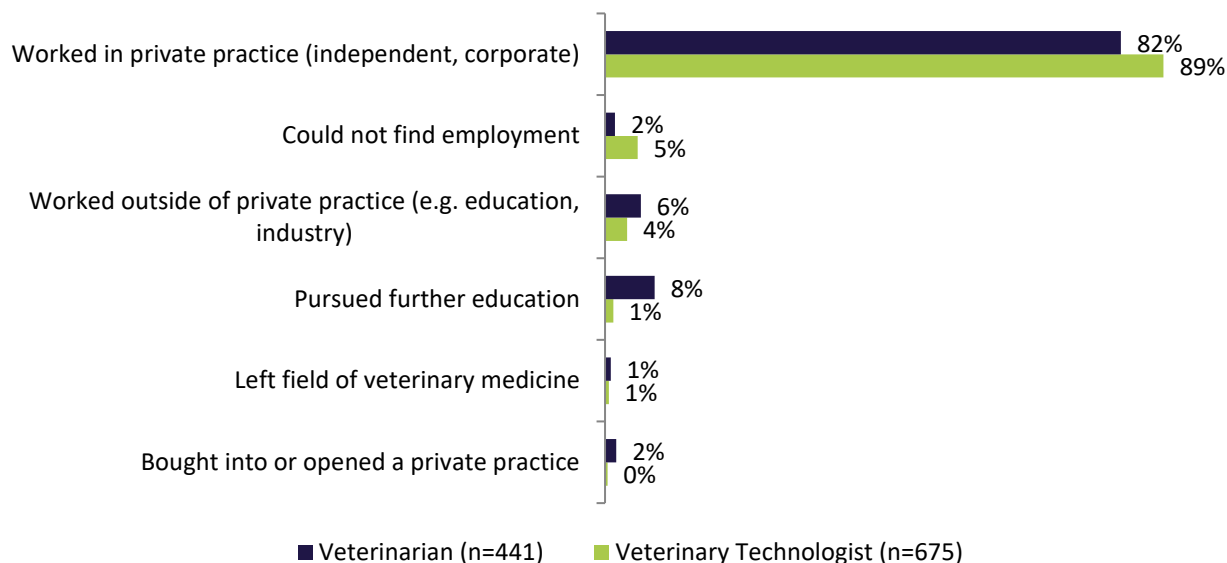
Following graduation, the majority of veterinary professionals go on to work in clinical practice. Employers stated that veterinary professionals acquire strong technical and record-keeping skills while in training, however, their soft skills (such as communication and teamwork), as well as their practice management skills, are lacking. Recent graduates commented on how they began to understand the customer services aspects of the profession after graduation. Moreover, educators believed that certain practice areas require ongoing training after graduation due to the extensive content and technical training provided in educational programs. New graduates would thus benefit from a higher level of supervision in the initial phase of their career. The need for additional support makes new graduates' transition into the workplace challenging, since most clinical practices are too busy or short-staffed to provide mentorship to new graduates. Additional supports are required to transition new graduates into the workplace more successfully. These include mentorship programs, as well as training for soft skills, time-management and practice management.

Mentorship, as described by recent graduates, was defined as support by experienced veterinarians on the expectations and realities of the profession. Mentors were needed to support new veterinary professionals to develop confidence and understand how to interact with clients and other veterinary team members. In addition, practicing veterinarians commented on the importance of establishing mutually respectful relationships between new professionals and mentors. These interviewees noted that new veterinary professionals need to respect the time of the mentor and understand that not all the support should be based solely on the new professional's time or expectations.

3.4.1 *Finding Employment*

Following graduation, the majority of member survey respondents found employment in clinical practice (e.g. an independently owned practice or consolidated practice) while a small proportion of veterinarians (2%) bought into, or opened, an independent practice. A small proportion (6% of veterinarians and 4% of veterinary technologists) found employment in education, another industry (i.e. pharmaceuticals) or with a humane society. Although 1% of respondents reported leaving the field of veterinary medicine, very few veterinarians (2%) and veterinary technologists (5%) were unable to find employment immediately after graduation. Figure 3.4.1 presents the situation of member survey respondents after completing their education.

Figure 3.4.1: Situation after Graduation



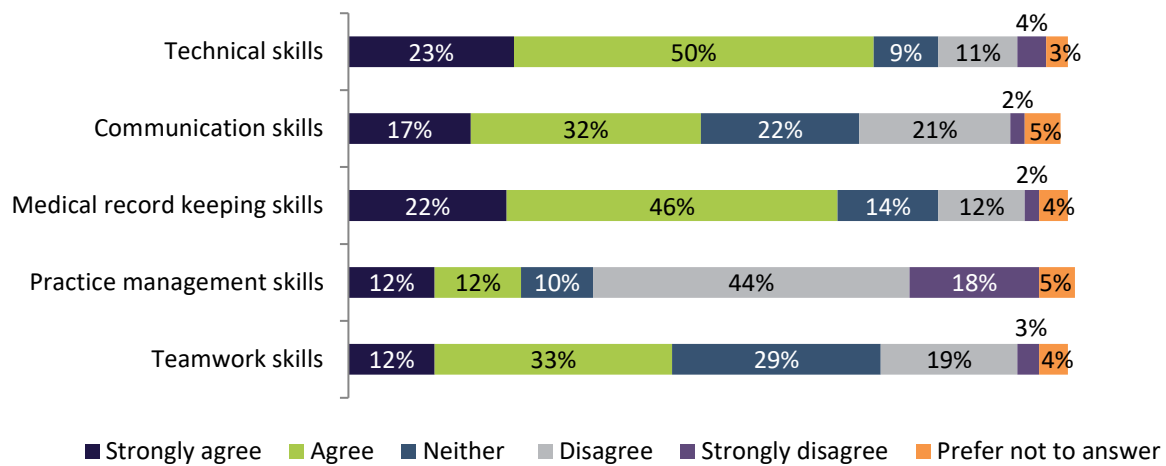
Source: Member Survey C1. When you first graduated from veterinary medicine or veterinary technology, which of the following best applied?

According to key informant interviews, neither veterinarians nor veterinary technologists had to wait long after graduation to find employment; the vast majority were hired almost immediately upon graduation. Many, however, experienced challenges finding a practice with a management team that had the time and ability to provide mentorship and support. Both new veterinarians and veterinary technologists struggled with time management, their workload and coping with the demands of increased responsibility. Compensation was also an issue for both groups; veterinarians due to little financial predictability and a poor debt-to-income ratio, and veterinary technologists because of low wages. Further, veterinary technologists described the challenges associated with finding a well-run practice that valued the work of the veterinary technologist and that had not developed an unhealthy work environment due to stress, burn-out, high workloads or compassion fatigue.

3.4.2 Skills of New Graduates

Among employer survey respondents, 73% agreed or strongly agreed that educational institutions provided new graduates of veterinary medical programs the skills required for their jobs. In addition, 68% of respondents agreed or strongly agreed that practice management skills were well developed. However, only 24% of employer survey respondents agreed or strongly agreed that skills related to practice management were provided by educational institutions. Figure 3.4.2 presents the extent to which employer survey respondents agreed that educational institutions provided technical, communication, medical record keeping, practice management and teamwork skills.

Figure 3.4.2: Skills Acquired During Education - Veterinarians

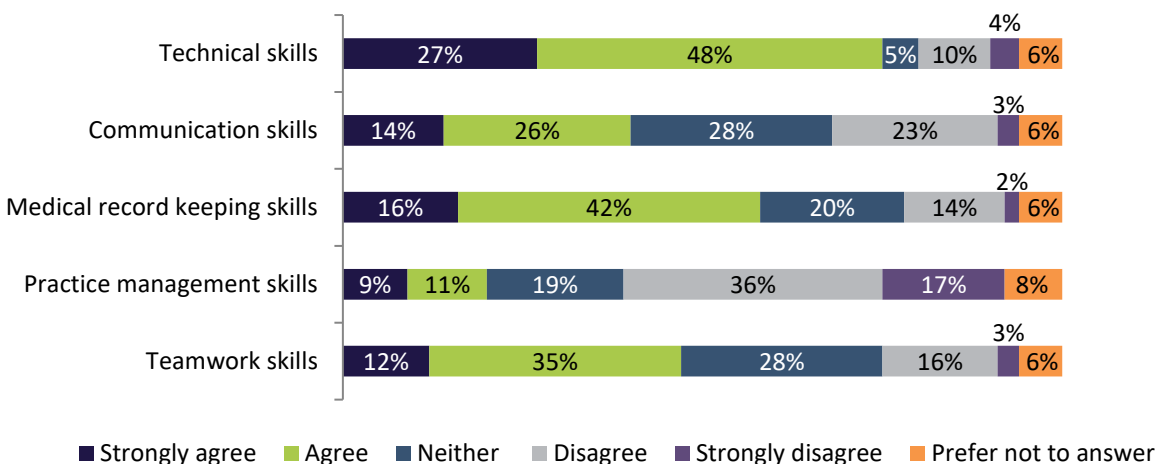


n=452. Source : Member Survey D4. On a scale of 1 to 5, where 1 is strongly disagree and 5 is strongly agree, to what extent do you agree that your educational program provided the following skills needed for your job?

For graduates of animal health/veterinary technology programs, employer survey respondents provided feedback similar to the feedback provided about the veterinary medical programs. According to these respondents, technical skills and medical record keeping skills were well developed, while practice management skills were lacking among new graduates. Figure 3.4.3 presents the extent to which employer survey respondents agreed that educational institutions provided various skills for graduates of animal health/veterinary technology programs.



Figure 3.4.3: Skills Acquired During Education – Veterinary Technologists

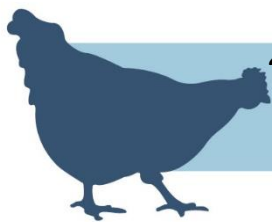


n=708. Source: Member Survey D4. On a scale of 1 to 5, where 1 is strongly disagree and 5 is strongly agree, to what extent do you agree that your educational program provided the following skills needed for your job?

In addition to employer survey respondents, member survey findings also confirm the lack of practice management skills developed during respondents’ educational programs. Only 8% of veterinarians and 15% of veterinary technologists agreed or strongly agreed that their educational programs provided them with practice management skills.

In line with employer and member survey results, educators who were interviewed believed that institutions were providing veterinarians or veterinary technologists with the technical skills they need to successfully transition into the workforce, although certain practice areas (such as equine or emergency care) required increased training following graduation. Educators also felt that, although new veterinarians or veterinary technologists may also require further experience to increase their confidence, this would be gained through work experience, internships and mentoring from experienced veterinary professionals. While it was expected that new graduates would require a higher level of supervision than experienced professionals, respondents agreed that the current level of training allows both veterinarians and veterinary technologists to be productive from day one.

Animal health/veterinary technology students universally reported that what they were learning in their program encouraged them to remain in the profession. Their commitment to the profession had generally increased, despite the realization that they would potentially be earning less than anticipated and that the role had more responsibilities and stress associated with it than what they had been



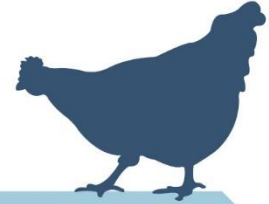
“On call was never discussed [in school].”

expecting. Veterinarian students felt their studies would leave them well-equipped to remain in the profession following graduation. At the same time, however, many found that hearing about the mental health issues and stressors faced by veterinarians, along with overwhelming financial debt, compassion fatigue and difficulties of managing work life balance, made them feel apprehensive about their future career. Students who had been exposed

to the profession prior to entering veterinary medicine, for example through family members or work,

were the least concerned about the challenges associated with the profession. Additionally, learning about the diversity of career options available to them post-graduation was also encouraging for many students.

Both the practicing veterinarians and veterinary technologists interviewed felt that they had acquired the technical skills required to transition to the workforce. Indeed, it was noted that veterinary technologists are now better prepared than in the past. That said, veterinary technologists also felt that they were not sufficiently prepared for the level of responsibility and psychological stress that the job placed on individuals, particularly when dealing with issues related to animal protection. Further, interviewees suggested that the compressed timeframe of the animal health/veterinary technology program made it difficult to sufficiently cover areas such as emergency medicine, anesthesiology and some soft skills. Similarly, while the veterinarian program was considered to provide a well-rounded education, it was limited by its length. To mitigate the identified challenges, it was suggested that work experience was necessary to build upon the skills developed in veterinarian and animal health/veterinary technology programs.



“Client communication and being able to guide and mentor client expectations is very difficult when you first start.”

3.4.3 Skills for Maintaining Employment

Although they had not been practicing long, recent graduates of veterinary medicine were already acutely aware of the factors that could lead someone to consider leaving the profession. The two biggest issues were identified as poor work-life balance and mental health challenges. Veterinary work is demanding, with many late nights, weekend work, grueling call schedules, hectic workday schedules and a significant amount of pressure, along with having to manage adverse interactions with clients. As one respondent noted, a veterinarian’s mental health is “taxed by clients dictating the medicine they can practice.”

While new graduates are coming out of school with superior technical skills, stakeholders agreed that new graduates still require support to address practice challenges. Areas where they believe new graduates require support, along with the reasons why, are provided in Table 3.4.4.



“My education was focused on the scientific and medical aspects of the job, however I am finding that it is primarily customer service.”

Table 3.4.4: Additional Supports Required by New Graduates

Ongoing Support Required by New Graduates	Reasons Why Ongoing Support is Required
Development of soft skills	Further development of communications skills, interpersonal skills, listening skills, management of client expectations, time management and empathy are all important for new graduates.
Development of practice management or business skills	Although not all graduates will start or purchase a practice immediately, many will require practice/business management skills which are not covered in programs due to insufficient time.
Management of time and of workplace expectations	New graduates have difficulty assessing how long a task will take and can be overwhelmed by competing priorities.
Development of job search skills	Many new graduates take the first job they are offered when they leave school, without understanding how to appropriately assess the degree to which the work environment is a good fit for their skills and temperament. New graduates need to understand that it is important to visit practices, ask questions, complete multiple interviews and assess workplace fit. New graduates would also benefit from increased understanding of contract negotiations and employment law.
Networking and professional development	Although networking and professional development are important to any career, new graduates are commonly unclear of the benefits that networking with peers and continuing professional development will afford them.
Hands-on application of technical skills and case management	Programs are not always providing students sufficient time to practice their technical skills in a real workplace setting. New graduates still require time to perfect these skills and learn how to manage and balance multiple cases.
Mentorship	New graduates are looking for mentors. However, veterinary professionals in busy practices rarely have the time needed to provide mentorship.
Wellness and mental health supports	New graduates must learn to deal with the high level of stress associated with the occupation. Access to such supports should be made available to these new workers.

All stakeholder groups believed that mentorship programs were critical to providing new professionals with the emotional support required to increase their confidence and allow them to smoothly transition into the workforce. Schools were noted to have different approaches to developing technical skills among veterinarians and veterinary technologists. Respondents stressed that whatever the approach, new graduates required an opportunity to practice their skills on live animals in a supervised setting, such as clinical rotation in a veterinary hospital. It was thus suggested that mentorship programs should be in place at every hospital to provide oversight and support, allowing the new practitioner to safely ask questions and run through cases with mentors, especially because the environment requires quick and accurate decision-making.

3.5 Current Work Conditions

Just over two-thirds of veterinary professionals are working full time, most commonly in independent practice. One-quarter of veterinarians manage or operate an independent practice, while one quarter of veterinary technologists work in a consolidated veterinary practice. Among stakeholder interviewees, there was a strong perception that veterinary technologists were not working to their full scope of practice due to workplace culture. However, survey data indicated that 67% of veterinary technologists felt they were working to their full scope of practice, while 28% were working outside their scope. Stakeholders felt that the optimal utilization of veterinary technologists was considered highly dependent on the structure of the veterinary team (i.e. assortment of veterinarians, veterinary technologists, veterinary assistants and other support staff), staff availability and staff ratios. Highly functional veterinary teams are comprised of an appropriate number of veterinarians, veterinary technologists and other support staff (e.g. veterinary assistant). Appropriate staff ratios and staff availability ensure that each professional is delegated tasks they are trained to complete. However, due to the labour shortage, veterinary teams are required to complete tasks which fall outside their scope of practice. For example, veterinarians being required to clean kennels or veterinary technologists asked to perform practice management.

The optimal ratio of veterinary technologists to veterinarians was generally reported to be 2:1, as it increases efficiency, workflow and quality of care. Sub-optimal ratios tend to result in inefficiencies, staff 'burn out' and reduced profitability.

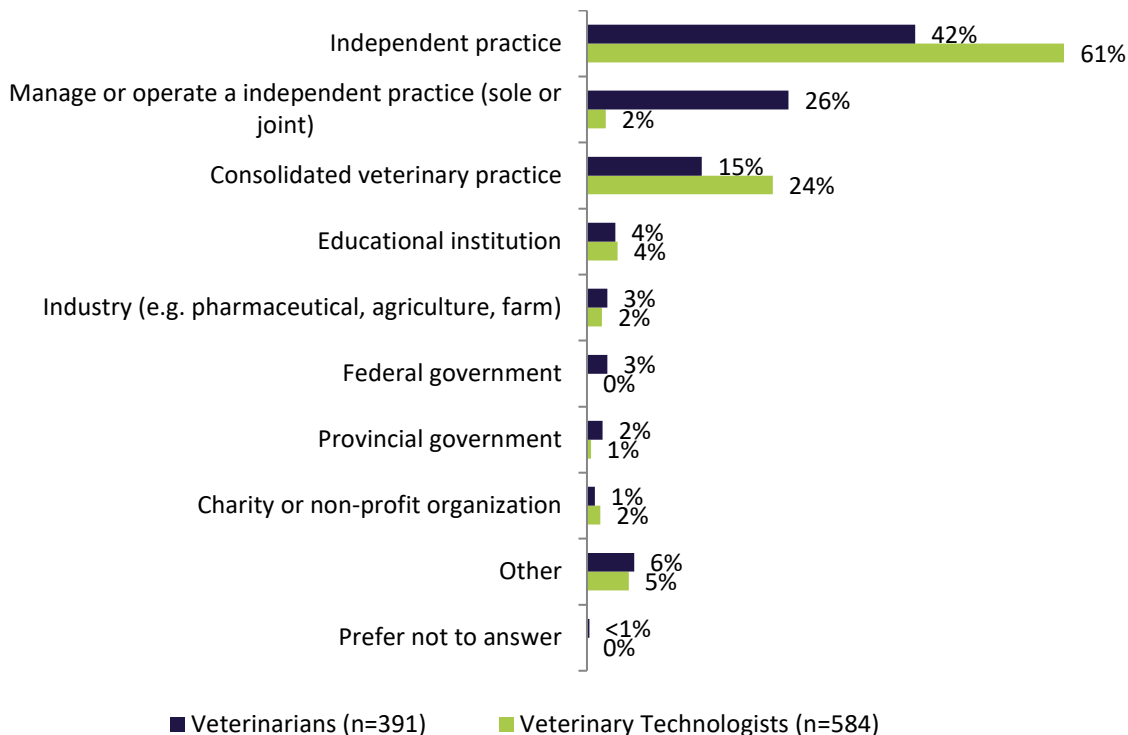
As noted previously, and as evidenced by the high number of vacant positions, workplaces commonly suffer from labour shortages. Shortages were reported to have occurred for a wide variety of reasons, such as: lack of supply of veterinary professionals, poor business practices, workplace culture, work-life imbalance, a high demand for service accompanied by poor public/client understanding of service value or cost, as well as stress and compassion fatigue among veterinary professionals. Among veterinary technologists, insufficient compensation and limited opportunities for advancement are common concerns that often result in staff attrition. For veterinarians, after-hours, on-call requirements can be very taxing. Aging of the workforce, and retirement of experienced professionals, have resulted in fewer mentors available to guide and support new professionals entering the workforce.

3.5.1 *Current Employment Situation*

The majority of survey respondents were employed either full-time (68% of veterinarians and 70% veterinary technologists) or part-time (18% of veterinarians and 13% veterinary technologists). Among veterinarians and veterinary technologists who were employed at the time of surveying, most were employed in an independent practice (42% of veterinarians and 61% of veterinary technologists). Over one quarter (26%) of veterinarians managed or owned an independent practice while 15% worked for a consolidated practice. For veterinary technologists, 2% managed or owned an independent practice, while 24% were employed by a consolidated practice.

A small proportion of employed veterinarians and veterinary technologists were working outside of clinical practice. Employment areas included educational institutions, industry (e.g. pharmaceuticals or agriculture), federal or provincial government, charities, and other organizations. Other employment included municipal agencies, self-employed consultancies, or locum services. Figure 3.5.1 presents current employment situations for veterinarians and veterinary technologists.

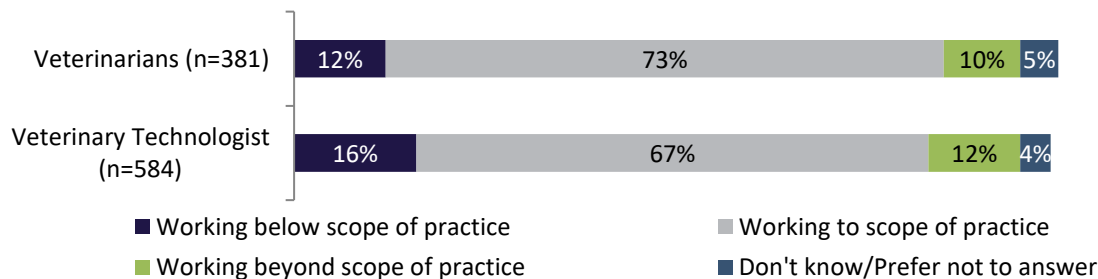
Figure 3.5.1: Current Employment Situation



Member Survey D1. Where do you currently work (if you have multiple jobs, please refer to your main position)? Note: Totals may not add to 100% due to rounding.

As demonstrated in Figure 3.5.2, the majority of both veterinarians and veterinary technologists (73% and 67%, respectively) indicated they were working to their scope of practice. For veterinarians who indicated they work below their full scope of practice (n=48), three quarters (75%) reported that the types of activities they were trained to do, but unable to perform in their current position, related to advanced technical or medical procedures, such as surgeries (on large animals), as well as research and emergency medicine. Conversely, those who reported working beyond or above their scope of practice (n=39) noted that they were required to complete management tasks or specific types of advanced technical procedures, such as the use of new technology, dental surgeries and working on complex surgical cases. In addition, client engagement or interaction activities, as well as marketing on social media, were also tasks being completed by veterinarians which they were not trained to do.

Figure 3.5.2: Scope of Practice



Source: Member Survey: Which of the following best describes your current work situation:

Figure 3.5.3 shows the types of activities veterinarians were trained to do, but were unable to perform, as well as activities veterinarians were not trained to do, but required to do.

Table 3.5.3: Scope of Practice Activities – Veterinarians

	Trained to do, but cannot (n=48)	Not trained to do, but required (n=39)
Advanced technical procedures	67%	26%
Research	4%	-
Management (e.g. staff, inventory)	2%	44%
Marketing	-	2%
Client engagement	-	10%
Prefer not to answer	25%	26%

Source: Member Survey: What types of activities are you trained to do, but are unable to do in your current/ What type of activities that are you not trained to do, but are required to do in your current position? Note: Totals add to more than 100% due to respondents selecting multiple responses.

Examples of advanced technical procedures that veterinary respondents reported they were trained to do, but were unable to included large animal, emergency or other complex surgical procedures. Some of these respondents noted that their practices required them to refer complex cases to referral practices. In addition, rehabilitation and sports medicine were areas that veterinarians were not able to practice in their current roles. Conversely, examples of advanced technical procedures that veterinary respondents were not trained to do, but required to perform included emergency and complex surgeries related to large or exotic animals, evaluation of research protocols, utilizing new equipment or technology (i.e. telehealth, laser surgery, new surgical techniques) and performing *Animal Protection Act* exams.

Similarly, veterinary technologists who indicated that they work below their scope of practice (n=96) reported being unable to perform specific technical or medical procedures, such as advanced emergency procedures, bandaging, drug calculation, vaccination consultation, ultrasounds, or laboratory work. Conversely, those who reported working above their scope (n=71) commonly cited being required to perform tasks related to management of staff, inventory, or advanced technical procedures such as specific dental tasks, transcribing prescriptions and diagnostics.

Table 3.5.4: Scope of Practice Activities – Veterinary Technologists

	Trained to do, but cannot (n=96)	Not trained to do, but required (n=71)
Advanced technical procedures	63%	14%
Research	4%	-
Management (e.g. staff, inventory)	2%	39%
Marketing	-	3%
Client engagement	3%	1%
Guidelines/protocol development	-	-
Administrative tasks	-	1%
Prefer not to answer	34%	26%

Source: Member Survey: What types of activities are you trained to do, but are unable to do in your current/ What type of activities that are you not trained to do, but are required to do in your current position? Note: Totals add to more than 100% due to respondents selecting multiple responses.

According to key informant interviews, the optimal utilization of veterinary professionals, particularly veterinary technologists, was highly dependent on the structure of the veterinary team (i.e. assortment of veterinarians, veterinary technologists, veterinary assistants and other support staff), staff availability and staff ratios. Highly functional veterinary teams are comprised of an appropriate number of veterinarians, veterinary technologists and other support staff (e.g. veterinary assistant). Appropriate staff ratios and staff availability ensure that each professional is delegated tasks they are trained to complete. However, due to the labour shortage, veterinary teams are required to complete tasks which fall outside their scope of practice. For example, veterinarians being required to clean kennels or veterinary technologists asked to perform practice management.

In addition, stakeholders noted that veterinary technologists are not always able to fully leverage their learned skills in the practice environment. This was thought to occur primarily because of workplace culture, rather than as a result of insufficient training or ability on the part of the veterinary technologists. That said, this was not the universal experience for all veterinary technologists. Some indicated they had leveraged all of the skills they had developed through training, in addition to developing new skills in the practice setting. Further, some stakeholders noted that veterinary technologists are better utilized now than in the past, having become involved in tasks such as anesthesia, x-rays and consulting with clients on nutrition or after care. All stakeholders agreed that allowing veterinary technologists to utilize their training as much as possible improves both job satisfaction and retention.

The ability to work to their full scope of practice for new veterinarians and veterinary technologists appeared to be linked to the availability of mentorship and practice supports. In busy practices, senior staff were said to have insufficient time to train or mentor new veterinary professionals. New veterinary professionals reported feeling very lost and anxious about their skills or knowledge base, often exacerbated by an exacting work environment that required staff to immediately work at full capacity regardless of experience. Additionally, stakeholders observed that, within the highly regulated environment in which veterinarians operate, some new graduates could fail to develop or advance their skills by referring clients to more experienced veterinarians out of the fear of making a mistake, resulting in a skills plateau.

3.5.2 Optimal Ratio of Veterinary Technologists to Veterinarians

Member survey respondents were asked to provide the ratio of veterinary technologists to veterinarians at their current place of work. Ratios were then standardized to the number of veterinary technologists per one veterinarian (i.e. x:1). Current ratios reported by member survey respondents ranged from 0.01:1 to 5:1, with an average ratio of 1.28:1. The most common ratios reported across both veterinarians and veterinary technologist were 1:1 (39%) or <1:1 (23%).

Both member and employer surveys also collected feedback on what respondents considered to be the optimal ratio. Among employer survey respondents, the optimal ratios reported ranged from a low of 0.33:1 to a high of 4:1. The average ratio reported across all employer survey respondents was 1.74:1. One-third of employer survey respondents reported that the optimal ratio was 2:1 (32%) and over one-quarter reported an optimal ratio of 1:1 (27%). Similarly, the optimal ratio for member survey

respondents ranged from 0.17:1 to 6:1, with an average ratio of 1.78:1. The most common ratio reported by Members was 2:1 (40%). The reasons why member survey respondents felt having the optimal ratio was important are presented in Table 3.5.5.

Table 3.5.5: Reasons Why the Optimal Ratio is Important

	Veterinarians (n=374)	Veterinary Technologists (n=592)
Improves efficiency/manage caseloads*	30%	23%
Allows support for physical demands*	21%	31%
Develops routines/improves quality of care	20%	18%
Reduces confusion on activities/allows for supervision of tasks	11%	11%
Staff can focus on tasks they are trained for	3%	3%
Work life balance/prevents burnout	1%	2%
Cost effective	1%	0%
Allows practice to follow COVID-19 protocols	0%	0%
Supports team work	0%	0%
Time for additional tasks	0%	0%
Don't know/Prefer not to answer	13%	13%

Source: Member Survey: D6. Why is this ratio optimal? (*) indicates differences between veterinarians and veterinary technologists are significant.

When practices do not have the optimal ratio, employer survey respondents (n=82) reported that this resulted in:

- Poor workflow or inefficiencies (43%);
- Reduced profitability (28%);
- Staff burnout (23%);
- Inability to provide a full range of service (18%);
- Non-qualified staff are employed or there are staff shortages (11%);
- Staff are not supported (7%); and
- Veterinarians focus on inappropriate tasks (5%).

The goal with any ratio (i.e. number of veterinary technologists per one veterinarian (x:1)) was to maximize veterinarians focusing on veterinary work. Among key informants, the optimal ratio of veterinarians to veterinary technologists depended on the type of practice. Within a hospital setting, for example, the optimal ratio varied by department, with ratios of 4:1 for emergency rooms, 3:1 for surgery and 2:1 for cardiology. In a general clinical setting, stakeholders suggested that a ratio of two veterinary technologists to one veterinarian (2:1) was ideal, though ratios of 1:1 and 3:1 were also commonly provided. Workflow, veterinary technologist skills, practice size and layout, as well as the type of veterinary practice, were all noted to impact what was considered to be 'optimal' in terms of ratio. In practices with veterinary technologists and assistants, the ideal ratio was considered to be 2:1:1 (veterinary technologists to veterinarian to veterinary assistant). As with veterinarians and veterinary technologists, poor workflow was considered to result in neither the veterinary technologist nor veterinary assistant working effectively.

It was suggested by stakeholders that any ratio must take into account the ideal team cohort, typically identified as a veterinarian, veterinary technologists, veterinary assistants, and a receptionist.

Stakeholders also stressed that the ideal team could not operate without clear definitions of roles and responsibilities. When veterinary technologists are working to their full scope of practice, and a practice is running smoothly, a veterinarian should only diagnose, prescribe and perform surgery.

While the correct ratio resulted in increased efficiency, revenue and job satisfaction among veterinary professionals, stakeholders noted that without the correct ratio a practice would experience increased wait times, decreasing levels of care, increased stress, dissatisfaction, and burnout. COVID-19 was noted to further exacerbate staff shortages and disrupt the ideal ratio since social distancing and precautionary quarantine reduced the number of staff that could or are available to work at one time.

3.5.3 Clinical Practice Profitability

As noted by key informant interviews and survey respondents, individuals pursue careers in veterinary medicine due to an interest in animals and clinical science as opposed to wanting to be business owners. As such, it is important for practice managers and operators to understand the processes that go into ensuring profitable practices. Specifically, it was suggested that understanding and using specific financial documents and indicators will assist clinical practices in ensuring adequate staff compensation and utilization which will contribute to staff retention and job satisfaction. It was noted that increasing practice profitability may assist in allowing a practice to build and maintain an appropriate care team with all the necessary skills.

Examples of key financial documents and performance indicators which current research shows to be important in managing clinical practices include:

- Balance sheets which show a practice's assets (e.g. bank balances, inventory and equipment), liabilities (e.g. accounts payable, mortgage or lease payments) and equities (i.e. assets minus liabilities).
- Current ratio and "days cash on hand" which is used to evaluate how much cash a practice has available to meet financial obligations while also ensuring that assets are being purchased and utilized effectively;
- Debt-to-equity ratio which is used to evaluate how effectively the veterinary practice use credit to finance their operations;
- Return on assets (ROA) measures how productive assets are at generating revenue.²¹
- Profit Loss Statements which provide key indicators, such as:
 - Gross revenue;
 - Net income;
 - Payroll;
 - Cost of professional services; and
 - Rent or mortgage payments.²²
- Medical ratios, such as the average transaction revenue which is the amount of revenue generated in a particular veterinary service area divided by the opportunity (i.e. invoices) to provide that service.
- The average veterinary transaction (AVT) which is the average transaction revenue divided by the exam fees.²³

²¹ Keiser, S. (2018). "A balancing act: using KPIs and financial smarts to drive your practice toward higher levels of profitability". Today's Veterinary Business.

²² Ibid.


²³ Ibid.

These indicators and documents should be used as benchmarks to compare over time and with national averages.²⁴

3.5.4 Labour Shortage

Issues contributing to workforce shortages were understood to impact both veterinarians and veterinary technologists; further, they occurred at every level of the industry, including workforce education and training, working conditions and professional retention. Collectively, these issues led to veterinarians and veterinary technologists leaving the profession.

Stakeholders noted that the reasons for labour shortages in veterinary medicine were multi-faceted and not necessarily unique to any specific geographic region, although rural areas continue to experience the greatest shortages of veterinarians. Shortages of veterinary technologists were said to be an issue in all regions, in part because the career span of veterinary technologists is short.



“The current model of delivery of veterinary medicine leads to dissatisfaction, which leads to people leaving.”

Few issues impacted veterinarians exclusively, although the ones that did were thought to significantly impact working conditions and, should a veterinarian run a practice, the working conditions of everyone associated with the practice. Issues noted by stakeholders included after-hours call coverage, business models and workplace coverage.

Veterinarians commonly described after-hours service coverage as one of the most difficult aspects of their job. This was particularly true for rural veterinarians practicing in locations where emergency veterinary practices do not exist and/or other veterinarians are not available to share coverage.

Further, and while veterinarians may have the technical skills to run a practice, they may not have developed appropriate business skills. This means that they do not actively plan how to grow their business, retain staff and/or use resources efficiently. Additionally, veterinary practice models have been unable, or slow, to incorporate innovations that would support the changing workforce. Such innovations could include top-ups to maternity or parental leave benefits, as well as initiatives to allow for parents to transition back to the practice after maternity or parental leave, including work-sharing. Stakeholders noted that practices must incentivize women to return to the job after maternity leave, as well as to support work-life balance without animosity.

In addition to business practices, workplace culture was also noted to impact veterinary professional satisfaction. Thus, when a power differential existed between veterinarians and veterinary technologists, or when respectful and collaborative working relationships were not established, worker dissatisfaction ensues.

Retention of veterinary technologists was one of the biggest challenges impacting the profession. Shortages of veterinary technologists were described as widespread and impactful to any practice regardless of location or type. An insufficient opportunity for advancement was one of the key issues

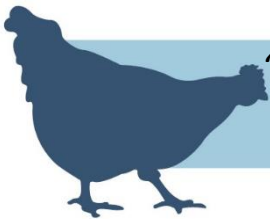
²⁴ Keiser, S. (2018). “A balancing act: using KPIs and financial smarts to drive your practice toward higher levels of profitability”. Today’s Veterinary Business.

impacting veterinary technologists. Veterinary technologists reported having little room for professional advancement, both technically and with respect to practice ownership. Further, their skills were commonly underutilized, leaving no room for them to increase either their compensation or skills.

The lack of opportunity to become a majority practice owner was said to impact veterinary technologist retention, although some practices had developed ways to “work around” this issue. In addition, stakeholders noted that the inability of veterinary technologists to advance their technical skills beyond their prescribed scope of practice meant that there was no room for skill advancement, leading to less support for the veterinarian. In some Canadian provinces (i.e. Ontario), there are no regulations governing which tasks must be completed by a veterinary technologist. As a result, anyone can be designated to complete tasks typically assigned to a veterinary technologist, further devaluing wage levels for veterinary technologists across Canada.

At the workplace level, numerous issues were described as impacting both veterinarians and veterinary technologists, again contributing to individuals leaving the profession.


- An inability to achieve work-life balance: many veterinary professionals are looking to achieve work-life balance and are unwilling to work “long work weeks”. Instead, these professionals opt to work “shorter work weeks”, or part-time, to spend time with their families. Work-life balance was thought to be harder to maintain in rural communities. Stakeholders noted that it may now take two veterinary professionals to do the work that was previously completed by one professional. Adding to changing attitudes towards work, the profession has also seen a shift in the gender of workers. The gender shift has meant that workplaces increasingly need to accommodate maternity or parental leave; they must also provide a work environment that enables parents to balance their job with their child rearing responsibilities. An inability to maintain work-life balance was often said to result in professionals leaving the industry.
- Insufficient compensation: veterinary technologists commonly leave the profession due to low compensation, resulting in their looking for work in other fields. Additionally, pay levels were noted to leave many veterinary technologists feeling as though they are not being recognized for their important contribution to the field. While compensation is not as significant an issue for veterinarians, when compared to human medical professionals they are underpaid for the years of training required to practice.
- Sub-optimal practice work culture: Practice culture impacts staff retention. When veterinarians or veterinary technologists are not sufficiently recognized for their contributions by practice owners, or environments are highly stressful or toxic, staff are more likely to leave the practice.
- Increased demand for services: The number of people with pets is increasing. In addition, as more people are willing to spend time and money looking after their pets, more in-depth or complex care, as well as a wider range of services, is expected. With the added impact of the COVID-19 pandemic, there has also been an upsurge in the number of people choosing to bring an increasingly diverse range of pets into their homes, including exotic pets. This has resulted in increased demands on veterinary practices, as well as increased stress of veterinary professionals.
- Clients who do not understand the cost and value of veterinary services: veterinarians increasingly must deal with clients who do not understand the cost of animal care and turn to



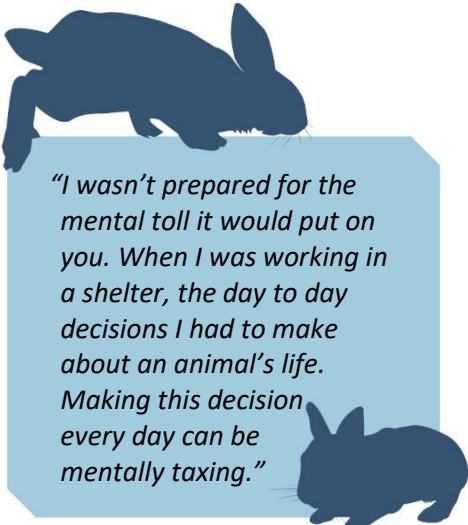
“There is a culture of working till exhaustion.”

social media or friends for advice on animal health, which can be misleading and make the veterinarian’s job more difficult.

- **Skill underutilization:** underutilization of skills was said to impact both veterinarians and veterinary technologists. Stakeholders noted that there is a lack of efficiency in practices since they were historically owned by veterinarians who may not have had business acumen (business courses did not form part of veterinary medicine curricula until recently). Inefficient use of resources commonly results in over utilization of the veterinarians and underutilization of veterinary technologists’ skills.
- **Growth of corporations (consolidated practices):** this was also noted to impact veterinary professional retention. Stakeholders noted that the number of corporations had grown significantly. Further, they reported that when a corporation took over a small practice, the transition was not necessarily easy or smooth. For example, existing practice staff might be resistant to the change, particularly when the takeover involved a centralization of functions such as purchasing or administration. Such resistance could result in a lengthy changeover process. It might also result in staff leaving the practice, particularly when new processes did not appear to align with previous processes.



“The physical demand and hard work can't be done forever, often people have to switch because their bodies can't keep up anymore.”



“I wasn't prepared for the mental toll it would put on you. When I was working in a shelter, the day to day decisions I had to make about an animal's life. Making this decision every day can be mentally taxing.”

- **Aging of the workforce:** veterinary medicine is a very physical job which includes lifting or holding animals. As people age, they may be less able to manage the physical demands of the job. Stakeholders suggested that alternative roles or positions are needed to retain staff, or their knowledge or skills will be lost.
- **Stress, compassion fatigue, mental health issues:** all stakeholders noted that veterinarians and veterinary technologists work in a highly stressful environment that results from overwork, difficulties managing client expectations, and compassion fatigue from working with animals in need (particularly animal protection cases). Additionally, as front-line workers, veterinary technologists were said to have to diffuse emotionally charged situations, such as when pet owners were upset either about the health of their pet or about procedure costs.

3.5.5 Wage and Benefit Perceptions

Member survey results indicated that low wages were the most significant contributor to veterinary technologists leaving the profession and choosing not to return. Among technologist survey respondents who were either on leave or who had left the profession (n=83), 25% reported they did not plan to return to the profession. The most common reasons given for not returning included:

- Low wages (91%);
- Poor benefits (67%);

- Insufficient work-life balance (57%); and
- Limited career advancement opportunities (52%).

In addition to member survey results, findings from the ABVTA Wage and Benefit Survey conducted in 2019 also suggested poor wages being a significant issue for veterinary technologists. The average wage reported was \$24.80, which is much lower than, other comparable occupations. For example: medical laboratory technologists or x-ray technologists in Alberta both averaged \$31.10 per hour and licensed practical nurses averaged \$30.02 per hour.²⁵ Other comparable professions such as dental assistants (average wage of \$29.29 per hour), opticians (average wage \$26.71 per hour) and architectural technologists (average wage of \$35.31 per hour) also had higher average wages than veterinary technologists.²⁶

Findings from online discussion groups with high school students also indicated that high school students believed that pursuing a career in veterinary medicine would provide lower compensation than a career in human medicine; specifically, that veterinarians made less than physicians and veterinary technologists made less than nurses. However, these high school students did not appear to fully comprehend the degree to which veterinary technologists were compensated less than an occupation such as a nurse; indeed, only a few appreciated the significant difference in compensation.

While in school, students studying to be veterinary technologists expected their salary to increase significantly after working for five years – doubling or tripling from the starting wage – although they were aware that low wages are a reality of the profession. By the time they had begun working, newly practicing veterinary technologists only expected their salary to increase between 5% and 20% after working for five years, with the majority anticipating that their wage would increase by about 10%. These same practicing technologists were generally happy with their employee benefits, which typically included health and dental insurance, coverage of annual professional fees, as well as discounts on pet food or pet care.

Overall, all stakeholder groups suggested that low pay was one of the primary reasons for labour shortages among veterinary technologists. In addition, it was noted that veterinary technologist wages quickly reached a ceiling, meaning that additional experience did not necessarily translate into higher wages. In contrast, the wages for veterinarians were thought to increase commensurately with their experience, appropriately reflecting their level of expertise.

3.5.6 *On-Call Services*

After-hours, on-call service requirements were said to have several impacts on professionals. Regardless of whether the practice was urban or rural, after-hours on-call requirements impacted relationships with family members and significant others, and decreased work performance when not managed appropriately within the practice. While larger practices had more staff to support or cover after-hour on-call requirements, smaller rural locations were more significantly impacted by after-hours on-call responsibilities since there were fewer veterinarians to share coverage. Those in rural practice therefore

²⁵ Government of Alberta (2021). alis – Career, learning and employment information for Alberta. Available at: <https://alis.alberta.ca/occinfo/wages-and-salaries-in-alberta/licensed-practical-nurses/3233/>. [Accessed March 9, 2021].

²⁶ Government of Alberta (2021). alis – Career, learning and employment information for Alberta. Available at: <https://alis.alberta.ca>. [Accessed April 1, 2021].

must educate the community about what constitutes an after-hours ‘emergency’, as well as when it is appropriate to contact the practice for after-hours services. Some rural practices, as well as some urban practices, have chosen to send after-hour small animal emergencies to the closest service provider since after-hour on-call requirements can be the most challenging aspect of the job.

To address the pressures of on-call services, shared on-call emergency services among veterinary practices have begun emerging. This increases efficiency and reduces the pressure on single practices or veterinarians. Stakeholders noted that emergency services cost more for clients than services during regular office hours.

3.6 Independent Practice

Approximately one tenth (11%) of veterinary professionals currently own an independent practice, with 7% of veterinary professionals reported having owned an independent practice in the past. Most current and past owners were veterinarians (89%), however, 11% were veterinary technologists. Among those who had never owned an independent practice, one third expressed interest in ownership in the future. Challenges to starting a practice included: legal requirements, high equipment and overhead costs, competition for talent, obtaining start-up capital; insufficient business skills, and building clientele. Additionally, once established the challenges to independent practice persisted due to: the dual workload being a veterinary professional and running a business, poor rates of staff retention in the industry, price competition from large practices, and an inability of clients to cover the costs of animal care.

Most independent practice owners reported that it was difficult to obtain the financing required to start their practice. The average total cost to set up an independent practice was \$587,891, with financing and capital costs, pharmaceutical inventory and medical/surgical equipment costing the most. Once operational, the largest cost pressures on veterinary practices included wages, medical/surgical equipment, rent or mortgage, and pharmaceuticals and inventory. These were typically the highest operational costs from the start of practice onwards.

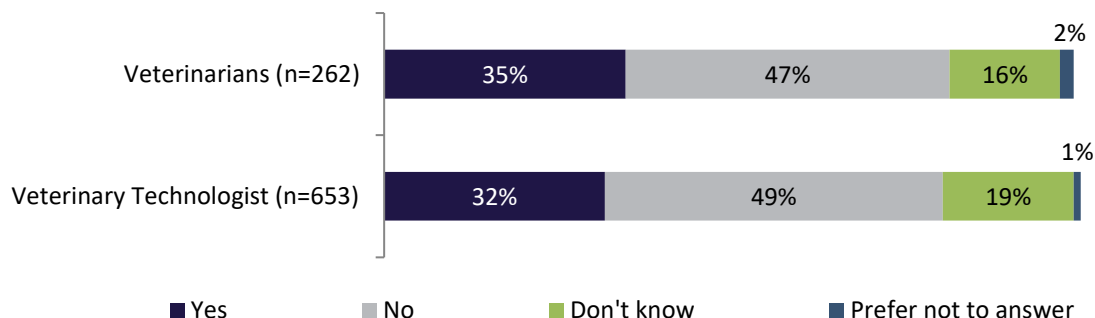
Stakeholders believed that there were many ways that independent practices could be supported. Identified best practices included: shared on-call emergency services, developing veterinary practice networks, examining veterinary technologist to veterinarian ratios, providing professional development opportunities for staff, and addressing compensation issues for veterinary technologists. External supports that could be provided included: continuing education courses in business and practice management, HR tools, scholarships for professional development, networking opportunities with other veterinary professionals, supporting international recruitment, and the use of telemedicine. These supports could be developed either within, or between, veterinary practices; they could also be provided by external organizations, such as associations.

3.6.1 *Practice Owners and Perceptions of Ownership*

Among all member survey respondents who were not currently in post-secondary education (n=1,116), 11% currently owned or operated an independent veterinary practice and 7% owned or operated an independent practice in the past. While most owner/operators were veterinarians (89%), 22% of all respondents who owned or operated an independent practice at some point were trained as veterinary technologists. Current and past owners of independent practices were more likely to be male (57% compared to only 12% of females).

Ownership was somewhat of an interest among respondents who had never been an owner or operator of an independent practice. Figure 3.6.1 shows that almost one-third of both veterinarians and veterinary technologists who had never owned an independent practice would be interested in ownership.

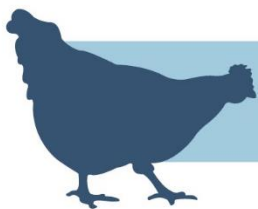
Figure 3.6.1: Ownership Interest



Source: Member Survey: F9. Are you interested in owning, part or all, of a veterinary practice?

Similarly to those who owned an independent practice, those interested in ownership were more likely to be men (46% compared to 32% of women).

A considerable number of veterinary technologists would be interested in owning their own independent practice, however, as regulation currently stipulates, they are unable to be a majority owner. When asked whether veterinary technologists should be able to be a majority owner, 75% of veterinary technologists agreed compared to only 30% of veterinarians. Respondents who were male or over the age of 35 were less likely to agree that veterinary technologists should be majority owners of independent veterinary practices.



“As an owner – sometimes I clean kennels.”

According to members and recent veterinarian graduates who were interviewed, the challenges to starting a practice included practice legal requirements, high equipment and overhead costs, competition for talent, obtaining start-up capital, insufficient business skills and building clientele.

Recent veterinarian graduates viewed this as a herculean task, particularly without the support of a mentor, or experienced veterinarians to invest with. Graduates felt that it was easier to purchase a practice; however, this was not without challenges. Once the practice was established additional challenges associated with continued operation included workload (running a business and practicing), staff retention, price competition from large practices, and an inability of clients to cover the cost of animal care. Despite these challenges, practice ownership was a means by which an individual could remain in the profession should they be unable to withstand the physical demands of the job. Members interviewed noted that a practice owner must be committed to growing the business and did not expect to recoup the large financial commitment in the short term.

3.6.2 Start-up Costs

Across all owner/operators (n=201), almost three-quarters (73%) required financing to open their practice. Among these owners (n=146), one-third (33%) indicated that financing was difficult to obtain. Difficulties in securing financing related to:

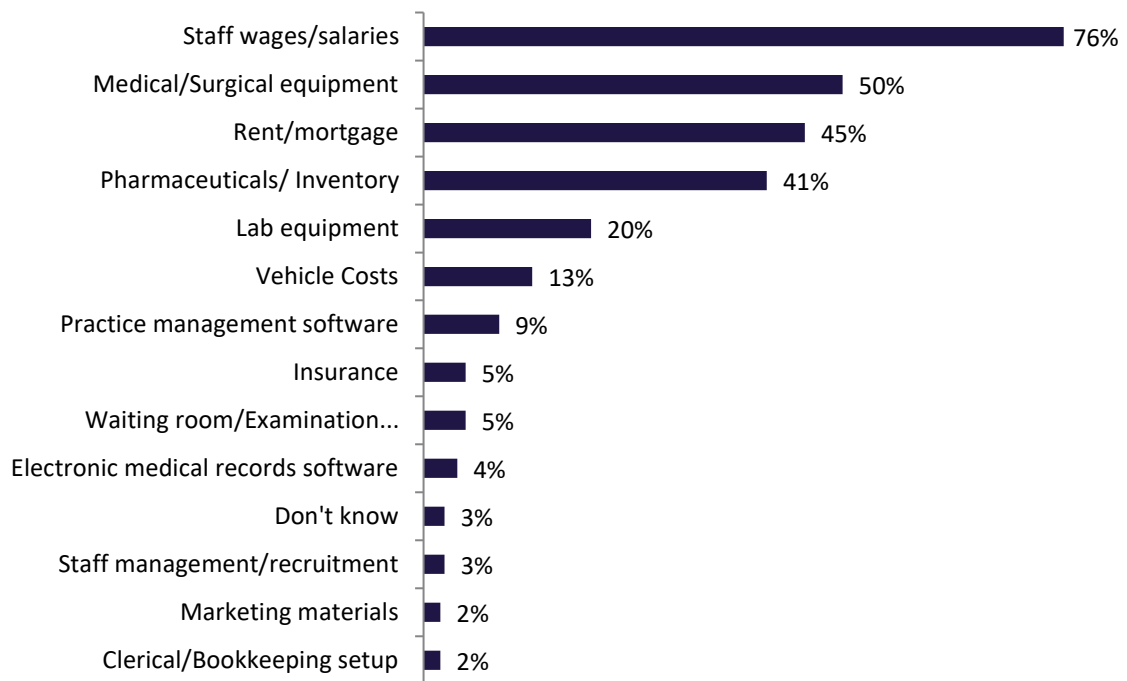
- Bank or lender deemed investment too risky (general comment) (40%);
- Lack of capital, income or collateral (36%);
- Lack of experience (11%);
- Challenges with developing business plan (9%);

- Lack of credit history or poor credit (7%);
- Discrimination (7%);
- Poor practice feasibility (7%);
- Existing student loan or debt (4%);
- Forced to take high cost/unfair financing options (4%); and
- Inadequate loan amount (4%).

When setting up their veterinary practice, a small proportion (15%) of owners had access to shared surgical or medical equipment.

Owners were asked to select the top three cost pressures for operating a veterinary practice. As shown in Figure 3.6.2, the most common cost pressures reported included staff wages/salaries (76%), medical or surgical equipment (50%), rent or mortgage payments (45%) and pharmaceuticals (41%).

Figure 3.6.2: Cost Pressures



n= 94. Employer Survey A4. Please select the top three cost pressures for operating a veterinary practice? Note: totals add to more than 100% due to respondents selecting multiple responses.

Across all owner/operators (n=201), one-fifth (20%) opened their practice within the last 5 years. These respondents were asked about their estimated start-up costs. These costs are presented in Table 3.6.3.

Table 3.6.3: Average Start-up Costs

Cost	n	Average Cost
Financing and capital costs	21	\$341,000
Staff wages/salaries	18	\$154,444
Pharmaceutical inventory	25	\$105,820
Medical/Surgical equipment	24	\$101,583
Lab equipment	20	\$56,700
Waiting room/Examination room setup/LA handling equipment	16	\$53,469
Vehicle/Bowie Box	14	\$48,714
Kennel equipment	17	\$24,500
Marketing materials	17	\$8,653
Practice management software	17	\$7,771
Clerical/Bookkeeping setup	18	\$7,056
Electronic medical records software	16	\$6,050
Legal costs	18	\$4,917
Insurance	25	\$4,340
Total costs	32	\$587,891

Source: Member Survey: F3. What were your estimated start-up costs for:

As shown in Table 3.6.3, the average total cost to set up an independent practice was \$587,891 with the highest costs being associated with financing and capital costs, pharmaceutical inventory, and medical/surgical equipment.

3.6.3 Supports for Independent Practice Ownership

To assist veterinarians and veterinary technologists in owning and operating independent veterinary practices, stakeholders suggested that the following supports or programs could be developed, within or between practices, or provided by the ABVMA and ABVTA. Some practices had already instituted these solutions in their own practices according to stakeholders.

- *Shared on-call emergency services:* practices are coming together to share on-call emergency services. This increases efficiency and reduces the pressure on single practices or veterinarians. Stakeholders noted that emergency services cost more for clients than services during regular office hours.
- *Developing veterinary practice networks:* networks of practices, with shared ownership, have evolved. The model provides operational and financial management support for practices, allows sharing of expenses, expansion of health and wellness supports, and cross training, mentorship, continuing education shared between practices. Additionally, a medical advisory board could be developed to guide the network in its goals.
- *Developing continuing education courses in business, and financial or practice management:* stakeholders suggested the ABVMA and ABVTA could support the development of courses which should include topics such as leadership, best practices in HR and communicating with teams and be made available as continuing education for veterinarians and veterinary technologists. Stakeholders believed that such courses would contribute to the development of more supportive work environments and help reduce workforce attrition. Moreover, various

stakeholders suggested that veterinarians do not pursue careers in veterinary medicine to be business operators, but rather to work with animals or work in clinical settings. As such, many veterinarians lack the financial and management skills to operate a clinical practice efficiently. Many stakeholders suggested that financial and business management courses would assist veterinarians in making independent practices more profitable which could lead to better job satisfaction and staff retention.

- *Developing HR tools or an HR toolkit:* as with PD courses in practice management and HR, stakeholders noted that shared HR tools would benefit practice owners who may not have the time or experience to develop such resources.
- *Provision of scholarships/bursaries to practicing veterinarians and veterinary technologists:* Organizations have created scholarship or bursary program for students, and/or veterinarians, veterinary technologists or veterinary assistants that were excelling in their role to allow them to pursue professional development. Stakeholders stressed the importance of providing veterinarians and veterinary technologists' opportunities to learn and evolve within their roles so that they remained challenged.
- *Investigating changes to the Veterinary Profession Act:* to allow veterinary technologists to have majority ownership shares in a practice. This was seen as a role for the ABVMA and ABVTA.
- *Support international recruitment:* Organization had begun recruiting internationally to fill veterinary professional positions. Under NAFTA employers had found it easier to recruit from the U.S., particularly Canadian students who had moved abroad to pursue their education. However, many stressed that there was a continued role for the ABVMA and ABVTA in working with the government to simplify the Labour Market Impact Assessment process for foreign trained veterinarians and veterinary technologists.
- *Providing networking opportunities:* stakeholders felt there was a need to provide networking opportunities for practice owners, managers and veterinary professionals to build a stronger community of practice.
- *Supporting utilization of virtual telemedicine platforms:* Organizations were looking to leverage virtual telemedicine platforms to support remote access of veterinarians, support prescription refills and generally help clients access the expertise they required particularly when located in rural or remote locations. Further, it was noted that practice guidelines may be required to help practicing veterinary professionals know when and how virtual telemedicine platforms could best be used.

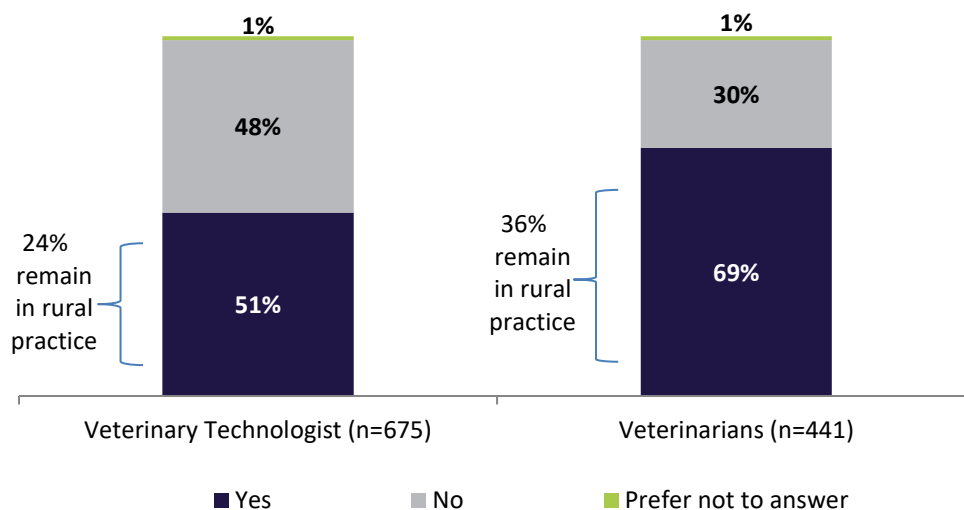
3.7 Rural Practice

Rural practice experience is common in veterinarians (63%) and veterinary technologists (51%). Additionally, individuals who grew up on a farm or rural community were more likely to have rural practice experience (81% compared to 43% of those who did not). Individuals are drawn to rural practice for the broad scope of practice and the employment or financial opportunities. These individuals often grew up in a rural community or wanted to live in a rural community for the recreation or lifestyle opportunities or because it was a good place to raise a family. Rural practices, however, are not without challenges. Practitioners are more isolated and must deal with a wider range of practice issues often without after-hours on-call coverage or locum coverage. An inability to staff rural practices adds to these challenges.

3.7.1 Rural Practice Experience

Over half of both veterinarians and veterinary technologists surveyed indicated they had experience in rural practice (Figure 3.7.1).

Figure 3.7.1: Rural Experience



Source: Member Survey E1. Do you currently, or have you ever, practiced in or serviced a rural community?

Survey results show that respondents who grew up on a farm or rural community were more likely to have rural practice experience (81% compared to 43% of respondents who did not grow up in a rural community) and stay in rural practice (57% compared to 41% of respondents who did not grow up in a rural community).

Reasons for choosing rural practice for veterinarians and veterinary technologists are presented in Table 3.7.2. The most common reason for veterinarians was that they wanted to live in a rural community (61%) and for veterinarian technologists it was because they grew up in a rural community (53%).

Table 3.7.2: Reason for Choosing Rural Practice

	Veterinarians (n=305)	Veterinary Technologists (n=345)
Wanted to live in a rural community	61%	45%
I grew up in a rural community	52%	53%
Broad scope of practice	54%	38%
Exposure to rural practice as a student	43%	34%
Employment opportunities	36%	30%
Recreation or lifestyle opportunities	35%	23%
Wanted to raise children in a rural community	29%	25%
Exposure to rural practice as a professional	25%	28%
Proximity to friends or family	22%	30%
Spouse or partner grew up in a rural community	19%	17%
Financial incentives	7%	6%
Work environment/wanted to pursue specific type of vet medicine	6%	4%

Source: Member Survey E2. For what reasons did you initially choose to practice in a rural location? Note: totals add to more than 100% due to respondents selecting multiple responses.



“You get to do way more variety than in the city or specialist/referral practice.”

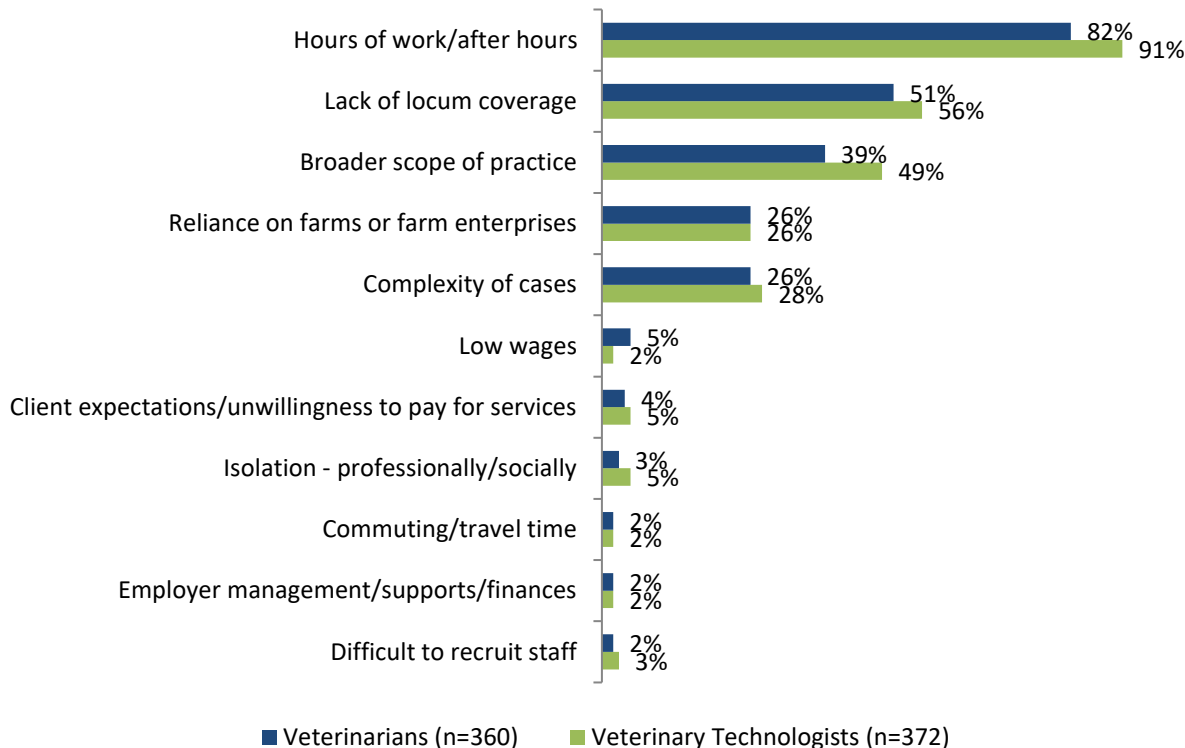
Members and recent graduates interviewed who practiced in rural areas were drawn to the community because it allowed them to engage in complex and diverse work, develop long standing relationships with clients and become part of the fabric of the community. Many preferred to work with large animals or were interested in agriculture and animal production. Additionally, some felt that rural veterinarians were better compensated than their urban counterparts.

Others could not see themselves living without the conveniences of the city, preferred companion animal practices or desired to solely practice emergency medicine; something they felt would be impossible in a rural setting. Still others felt inexperienced or uncomfortable with large animals and production animals. A minority had the perception that rural practice did not use "cutting-edge" methods and thus believed that they would not be sufficiently challenged in their practice. Lack of available supports in a rural community were also a concern for some who noted in rural communities they would have less access to social activities, social supports and professional development.

3.7.2 Challenges with Rural Practice

The most significant challenge associated with rural practice reported by member survey respondents was the longer work hours or after-hours work. Nearly all veterinarians (82%) and veterinary technologists (91%) who had experience in rural practice reported hours of work was a challenge. Members also indicated that the impact of on-call and after-hours work in rural environments were more significant compared to urban settings. In addition to longer hours, rural practice also lacked locum coverage (which results in longer hours), and respondents cited the broader scope of practice and reliance on farm enterprises as additional challenges.

Figure 3.7.3: Impacts of On-Call Requirements on Rural Practice



Source: Member Survey D9b. [Ask if D9a=1] How do after-hour on-call requirements impact those working in rural practices?

Members interviewed noted that rural practices have a wider range of clients including modern agricultural operations, hobby farmers, and pet owners. Additionally, the scope of work was thought to be larger or more complex as there were fewer veterinarians to whom one could refer complex cases. Furthermore, other challenges of working in a rural community included long hours, including after-hours call, and shortages of qualified staff. Locums were not seen as good staffing solution as they lacked work continuity and relationships with clients and staff. Postings in rural practices often remained unfilled for long periods of time, which adds to the stress of practicing in a rural community.



"[My] family, I grew up in a rural community and I would like to eventually move back and work as a vet. However, I want to find a way to do this without doing on call, which to date has seriously taxed my mental health."

3.8 Recruitment and Retention of Veterinary Professionals

Educational institutions and professional/regulatory associations have developed mutually beneficial relationships that have supported consultation on curriculum, skill requirements, and program size (number of available seats). While relationships between educational institutions and professional associations was deemed to be impactful, the degree to which program seats can be increased is limited by educational institution budgets and government funding and even when seat numbers are increased it takes years before the impact is seen in the labour market due to program length.

Employers are facing challenges recruiting and retaining veterinary professionals. Some employers are confident that they can address these challenges and have implemented a variety of strategies to recruit, such as engaging with educational institutions, or to retain staff, such as providing competitive salary, benefits, and other bonuses. Additional steps taken by practices or organizations employing veterinary professionals included: supporting veterinary technologists in working to their full scope of practice, development of internal mentorship relationships or programs, provision of time and/or financial support (e.g. scholarships) for veterinary technologists to complete professional development.

Despite this work a significant proportion of employers reported having no recruitment tools (37%) and no supports for new employees (27%). These employers would benefit from external supports, many of which are being developed or are occurring through the work of associations.

Recruitment of qualified candidates into veterinary practices in Alberta can occur at numerous levels, including:

- Recruitment of program candidates that are well suited for the rigors of training and can successfully transition into the workforce to meet unmet need throughout the province, including rural practices serving large animals and the animal production industry;
- Recruitment of internationally trained veterinarians, and potentially internationally trained veterinary technologists that can meet Alberta registration requirements;
- Recruitment of veterinary professionals from other jurisdictions in Canada, including encouraging students who have left the province to study to return; and,
- Recruitment of new and experienced veterinary professionals into practices, practice areas and locations with the greatest demand, such as rural practice.

The following discussion of recruitment and retention is framed with this lens on recruitment.

3.8.1 *Relationships to Support Recruitment and Retention*

Among educator survey respondents, nearly all respondents indicated that relationships between educational institutions and industry would be very effective in enhancing the supply of high quality personnel into veterinary medicine occupations. Educators and associations noted educational institutions and professional/regulatory associations have developed mutually beneficial relationships designed to improve the quality and quantity of veterinary professionals available to meet industry demand. Given that the educational institutions and professional/regulatory associations have different goals, common ground has been established through ongoing, open communication. Thus, educational institutions are limited in the degree to which program seats can be increased through educational

institution budgets and government funding. (i.e. Canadian Council on Animal Care Guidelines (CCAC)) and regulatory bodies must prioritize protection of society above other goals.

Within Alberta, the ABVMA and ABVTA commonly work with Olds College, Lakeland College, GPRC, NAIT, UCVM and WCVM. Working together has given educators and professional/regulatory associations a greater understanding of the key role that each organization plays in the provision of veterinary medicine. Existing relationships have facilitated consultation on curriculum, skill requirements, and program size (number of available seats) to proactively address labour needs.

The greatest successes in increasing seat numbers have occurred in animal health/veterinary technology programs. The number of veterinary technologists is therefore increasing at a much higher rate than veterinarians. However, even when seat numbers are increased it takes years before the impact is seen in the labour market due to program length. Additionally, demand for veterinary professionals is high across Canada and there is no guarantee that new graduates will choose to work in the Alberta or in rural communities where there is greatest need. Thus, despite the increases in numbers, new graduates from veterinary technology programs, as with those from veterinarian programs, are reluctant to move to rural settings.

To further support recruitment of qualified candidates into veterinary medicine stakeholders have begun exploring relationships with international programs for both veterinarians and veterinary technologists. As well, the ABVMA continues to work with the government to simplify the Labour Market Impact Assessment process for foreign trained veterinarians and veterinary technologists.

3.8.2 Recruitment and Retention Challenges Faced by Employers



“Older veterinarians that used to routinely work 50-60 hours a week are being replaced by people who work slower and are not as experienced.”

As noted early, veterinary professional recruitment and retention is a complex issue requiring intervention at many levels.

Veterinary practices report difficulties with both recruitment and retention of veterinary professionals. Challenges attracting veterinary professionals relate to levels of compensation, lack of workplace mentoring, practice location (i.e. rural practices), lack of appropriate HR tools for recruitment, and workplace culture.

Despite difficulties with both recruitment and retention, a significant proportion (37%) of employer survey respondents reported that they did not have specific programs or supports for recruiting veterinary professionals or retaining existing staff. Among employers who did either have tools for recruiting or offered recruitment incentives (n=38), the most commonly reported were:

- Direct advertisement activities (e.g. attending career fairs, online/social media advertisements);
- Engaging with educational institutions (e.g. post-secondary visits, offer practicum/internships or lecture) (33%);
- Offering competitive salaries and benefits (35%); and
- Offering profit sharing or ownership incentives (3%).

In addition, over one-quarter (27%) of employers surveyed reported they did not provide supports for new employees. Among the 54% of employers who did provide supports for new employees these included:

- Competitive salaries, bonuses or other benefits (80%);
- Mentorship (11%);
- Profit sharing or ownership incentives (9%);
- Social events (7%); and
- Flexible schedules (9%).

Additional examples of how employers were working to develop more supportive work environments were provided in key informant interviews with employers and associations. Steps being taken to develop and maintain more attractive work environments to recruit and retain veterinary professionals included:

- A competitive salary and benefits;
- Supports for a positive work life balance;
- Supporting veterinary technologists in working to their full scope of practice;
- Development of internal mentorship relationships or programs; and
- Provision of time and/or financial support (e.g. scholarships) for veterinary technologists to complete professional development.

3.8.3 Supports for Veterinary Professional Recruitment and Retention

Due to labour shortages veterinarians and veterinary technologists do not have difficulty finding employment. Maintaining employment however is more challenging given the current working conditions in veterinary medicine. Many of the approaches previously discussed to support new graduates' transition to the workforce (Section 3.4) and supports for veterinary professionals to own or operate an independent practice (Section 3.6) would also support veterinary professionals to find or maintain employment.

Focusing specifically on retention, key approaches that stakeholders believed would help veterinary professionals maintain employment include:

- *Mentoring programs:* Members and new graduates interviewed all believed that mentoring would have helped them transition into the workforce by increasing their understanding of work expectations and connecting them with the necessary supports. However, the extent to which veterinary practices are short staffed makes it difficult for mentoring to occur. The lack of formal mentorship programs means that new graduates must take the initiative to develop informal mentoring relationships which are best structured around the mentor's availability and acknowledge a mentor's workload. When new graduates are unwilling to maximize opportunities to learn, perhaps staying later than the job requires; they will be slower to learn or develop new skills. The

“Mentorship is really on the terms of the new grad. New grads need to show initiative and take opportunities to learn. New grads clock out at 5, don't stay over time to learn or develop new skills, they need to respect the mentors time if the relationship is going to work.”



development of mentorship programs would ensure that mentorship was less ad hoc and dependent upon the new graduate's ability to broker a mentoring relationship.

- *Increase the visibility of professional associations:* increasing communication with new graduates and current members was thought to be required to reduce their fear of the associations and promote available association provided supports.
- *Promoting the utilization of veterinary technologists to their full scope of practice:* as noted previously practice culture can prevent veterinary technologists from using and further developing their full complement of skills. Stakeholders noted that some practices had begun to encourage veterinarians to allow veterinary technologists and veterinary assistants to work to their full scope of practice thus enabling veterinarians to focus on tasks for which they are exclusively trained, such as, diagnosis or surgery. Allowing veterinary technologists to work to their scope of practice was thought to help with job satisfaction and allows them to take ownership of their work. In the same vein the Registered Veterinary Technologists and Technicians of Canada (RVTTC) is attending conferences to increase their presence and educate the profession on the important role played by veterinary technologists.
- *Exploring the expansion of the veterinary technologist scope of practice:* many stakeholders suggested that in addition to ensuring the current skills of veterinary technologists are fully utilized in practice, that their role should be expanded to include additional tasks. This would help ensure continual growth and development in veterinary technologists and provide a way for them to career ladder. The ABVTA has already begun exploring specialist training for veterinary technologists to allow them to further expand their skills.
- *Educating veterinary technologists:* RVTTC is working to educate registered veterinary technologists about workplace expectations and opportunities to ensure they are adequately prepared to enter and remain in the field.
- *Developing meaningful career pathways for veterinary technologists:* RVTTC has created a task force designed to plan meaningful pathways through which veterinary technologists can grow their careers. As part of the initiative a companion website is also planned.
- *Developing internship programs:* new graduates could be paid a livable wage but continue to receive mentoring and additional training. This is thought to be important in transitioning new graduates into the field and retaining these workers.
- *Provision of business courses for veterinarians:* To ensure better practice management and the inability for educational institutions to develop practice management skills, key informants thought it beneficial to offer business courses to veterinarians who own or operate a private veterinary practice. Practice management skills were shown to be lacking based on member survey results and both veterinarians and veterinary technologists reported that courses in business management should be offered to practice owners.

In addition, to support employers in the recruitment and retention of veterinary professionals, stakeholders noted that professional/regulatory associations should have a role in the following four areas.

Providing member supports:

- Educating members about the work of and services available through the ABVMA and ABVTA;
- Providing practice supports (e.g. business management supports);
- Providing wellness programs and mental health supports (e.g. psychological safety series);
- Providing professional development opportunities (e.g. practice management and HR practices);
- Development of mentorship programs; and

- Supporting member collaboration through membership events.

Supporting workforce recruitment (veterinary professionals and program applicants):

- Working to simplify the Labour Market Impact Assessment process;
- Facilitating relationships between employers and educational institutions to support hiring of new graduates; and
- Improving the understanding of the realities of veterinary medicine among program applicants and current students.

Education and advocacy:

- Examining the current process for credentialing internationally trained veterinary professionals to ensure that it is fair and aligns with current workforce need; and
- Promoting the profession to the general population and clients who utilize their services to increase awareness of:
 - Veterinary medicine association's role in protecting the public;
 - The role and need for veterinary professionals in small animal care; and
 - The role and value of veterinary professionals in animal production/ food safety; and
 - The true cost of veterinary care.

Regulation and supervision of veterinary professionals' scope of practice:

- Completing a wage study for RVTs, including the economic value an RVT provides to a practice;
- Expanding regulation and oversight to veterinary assistants, who may help address the shortage of veterinary professionals; and
- Exploring expansion of veterinary technologists' scope of practice.

Associations, however, noted they experienced two core challenges in providing supports for recruitment and retention: these being cost and impartiality. The associations have limited resources so it would be difficult to fund such things as mentoring programs without government or industry support. In addition, since associations have responsibilities to practice owners, members, clients and the public they cannot act as a “match maker” between veterinary professionals and practices. They instead can only offer tools that veterinary practices can use to improve their own recruitment and retention practices. Representatives of associations stressed that supports made available from an association should be transparent and not inadvertently assist a small set of veterinary professionals as opposed to the entire profession.

3.9 Consumer Attitudes

Clients and the public have a poor understanding of the value and cost of veterinary services. Clients must be educated about what goes into providing a service and how this is reflected in the cost. When service provision is dictated by the client’s ability or willingness to pay, as is commonly the case in veterinary medicine, it can be stressful for both the veterinary professional and the animal owner. Generally, however, customers are willing to pay for services, even when they cannot afford it. Cost remains a key barrier for most pet owners when accessing regular and emergency veterinary services. Although pet insurance is useful, only a minority of pet owners have it.

Both the member and employer surveys were used to collect information on the perception of consumer attitudes related to accessing veterinary services. Specifically, employer and member respondents were asked about the factors which impacted clients or consumers’ ability to access veterinary services.

Table 3.9.1: Perceptions on Consumer Access of Veterinary Services

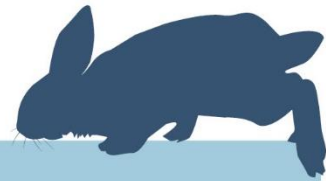
To what extent do you agree with the following statement	Respondent type	Strongly disagree/ Disagree	Neither	Agree/ Strongly agree	Prefer not to answer
Cost is a significant barrier to accessing regular veterinary services for most pet owners	Employer	39%	12%	44%	6%
	Member	16%	9%	72%	3%
Cost is a significant barrier to accessing emergency veterinary services for most pet owners	Employer	14%	12%	65%	10%
	Member	9%	5%	83%	2%
Most customers do not have pet or animal insurance	Employer	3%	3%	85%	8%
	Member	3%	5%	87%	4%
Pet insurance is very useful if someone has a pet	Employer	5%	16%	71%	7%
	Member	5%	10%	81%	4%
Customers are willing to pay for services, however, many cannot afford it	Employer	30%	18%	47%	5%
	Member	14%	14%	70%	3%

Source: Member Survey/Employer Survey H1. On a scale of 1 to 5, where 1 is strongly disagree and 5 is strongly agree, to what extent do you agree with the following statements. Note: totals may not add to 100% due to rounding.

Employer and member respondents also commented on the proportion of their clients who were unable to afford veterinary services. This proportion ranged from 0% to 100%, with an average of 20% reported by employers and an average of 35% reported by members. In addition, the proportion of clients who

had pet insurance ranged from 0% to 90% with an average of 10% reported by employers and 17% reported by members.

For the most part, the public does not understand the cost associated with the delivery of veterinary services; particularly since socialized medicine means Canadians are not exposed to the actual cost of human health care services. Veterinary practices must therefore work harder to demonstrate to clients that they are receiving value for their money. Clients must be educated about what goes into providing a service and how this is reflected in the cost. Detailed breakdowns of costs and detailed estimates pre-care are always required. Stakeholders stressed, however, when clients see veterinary services as having value, they are always willing to pay.



"The public sees us as 'money hungry' but human doctors and nurses as 'heroes'."



"It can be a real challenge to talk about pet insurance."

Unlike with human health care, veterinary practices must scale down services or provide service options for care. This can be difficult for pet owners to understand, particularly when it is an emotionally charged situation because an animal is in distress or pain. Clients' emotional attachment to their pets sometimes means they expect the veterinarian will work for free; an expectation they do not have for other health care providers. Pet insurance is a viable option for pet owners although it must be purchased prior to the onset of an issue and fees can be quite high.

creating them, to paying for veterinary of fiscal restraint and reduced income, clients feel more pressure when faced with the cost of veterinary services. The breakdown of the client/veterinarian relationship (less contact during COVID-19) also impacts clients' willingness to pay since it is more difficult for clients to understand the care being provided. COVID-19 was also said to play on the emotions of providers and clients alike resulting in increased tension, distress, and contentious interactions. Stakeholders suggested that COVID-19 has highlighted the need for increased uptake of pet insurance and for the public to be better informed about its availability

"People setting up personal financial accounts for their pets that they put money into every month to cover vet bills; this is just as important since insurance doesn't cover everything."



Stakeholders noted that COVID-19 has exacerbated existing issues relating to accessing veterinary services rather than particularly in relation services. In this time



"If pet insurance started to become a part of group benefits there would be less compassion fatigue in veterinary professionals and likely better working environments."



Conclusions



4. CONCLUSIONS

Demand for veterinary services in Alberta will continue to outpace population growth.

Results of the study suggest that the demand for veterinary services will grow by approximately 3.5% per year, which is more than double the projected growth in the provincial population (1.4%). This demand growth is being fueled by an expanding population and an increasing incidence of pet ownership in the province. In addition, other factors which also contribute to the increase in demand for veterinary services are increased disposable income and the commercial demands of Alberta's agricultural sector.

The current workforce is challenged to meet current demand, as evidenced by high vacancy rates for veterinarians and veterinary technologists.

The relatively older workforce for veterinarians has resulted in a steady loss (3% per year) of practicing veterinarians due to retirements. Although veterinary technologists are much younger, this workforce faces significant retention challenges as more than 8% of the workforce depart the sector each year to pursue other employment or do not return from leave. The limited ability of the education and training system to respond to these demand pressures has resulted in significant human resource pressures in the industry. It is estimated that the vacancy rate for veterinarians is 16.7% and the vacancy rates for veterinary technologists is 18.8%; there are currently 377 vacant and unfilled positions for veterinarians and 487 unfilled positions for veterinary technologists.

The combination of strong demand and need to address workforce turnover will result in substantial numbers of new hires required for the sector.

As a result of both expansion demand and the need to hire workers to replace those who are either retiring or leaving the sector suggests that the sector will need to hire ever increasing numbers of professionals. For example, by the year 2040, only about one-third (29%) of the current veterinary workforce will still be working. The future workforce will need to find approximately 1300 new veterinarians to replace those who have left the sector, plus an additional 2,600 to meet the increased demand associated with a growing population and increased incidence of pet ownership. The situation for veterinary technologists is even more dire, as only 15% of the current (2020) workforce is expected to be still working in the sector by 2040. For this group, there will be a need to replace almost 1,800 who will leave the sector, plus find an additional 3,000 workers to meet the growth in demand.

Alberta's current education and training system is unlikely to meet the projected demand for veterinarians.

Alberta's education system graduates 50 veterinarians per year and Alberta obtains roughly 75 new veterinarians from other provinces or international sources each year. Between these three sources, there still is a sizeable gap between supply and demand. The cumulative number of graduates (Alberta and other provinces) and new internationally trained veterinarians over the next 20 years (2,625) will not be enough to fill existing vacancies or meet the needed workforce expansion. It is only sufficient to replace those who leave the sector. Without additional seats for veterinary medicine programs within

Alberta, Alberta will become even more reliant on external sources to fill the human resource requirements for the sector, which to this point has not proven effective.

- ❖ **Short term goal:** Alberta should look to immediately increase the number of veterinary medicine seats at the UCVM from 50 seats to 65.
- ❖ **Short term goal:** Leverage relationships with Alberta Agriculture and Forestry, municipalities, and stakeholders to support rural practices so that veterinary professionals can continue to ensure animal production and food safety.
- ❖ **Medium term goal:** ABVMA should work with stakeholders on a Western Canadian approach to veterinary education.
- ❖ **Long term goal:** Stakeholders should work to increase the number of seats at UCVM from 65 to 100 seats.

Increases in the number of new Alberta veterinary medicine graduates would ensure that Alberta creates enough new veterinarians to meet the future demand, while also reducing its reliance on out-of-province or international sources which may fluctuate or be impacted by external factors.

Retention of veterinary technologists has been identified as a major human resource challenge for the sector.

While Alberta does produce a significant number of veterinary technologists, a large proportion of this supply merely replaces the almost 10% of technologists who leave the sector each year. In addition, in recent years, Alberta has increased the number of animal health / veterinary technology program seats significantly. While the number of seats has increased, survey results, as well as evidence provided by key informant interviews illustrates that veterinary technologists are unsatisfied with their wages, lack of mentorship and poor utilization of their skills in clinical practice. To support retention of veterinary technologists in clinical practice, possible strategies include better career orientation in high school so that potential future professionals are more aware of the realities of a career as a veterinary technologist. In addition, more practical work experience or co-op programs, and an approach to increase the value or compensation of veterinary technologists should be considered.

- ❖ **Short term goal:** The ABVMA and ABVTA should conduct further research on how to best optimize and utilize veterinary technologists within clinical practices. This research should then be communicated to veterinary practices to support job satisfaction among veterinary technologists; and
- ❖ **Short term goal:** Market and communicate existing retention and other types of initiatives to ABVMA and ABVTA members. Both veterinarians and veterinary technologists need to increase their awareness and access of initiatives designed to support veterinary professional utilization, workplace satisfaction and retention.
- ❖ **Medium term goal:** Develop and market new retention initiatives to support veterinary practices in retaining veterinary technologists. Retention initiatives should focus on skill development and specialization, as well as creating respectful and inclusive working environments. Initiatives designed to expand clinical skill sets for veterinary technologists will contribute to increased job satisfaction and possible higher wages. Furthermore, initiatives focused on creating inclusive work environments will assist in proper utilization of veterinary technologists in clinical practice resulting in higher staff retention.
- ❖ **Long term goal:** ABVMA should consider legislative amendments for registration of additional categories of veterinary professionals. For example, the nurse practitioner model in human

medicine can be examined to see the possibility of developing a new designation that a veterinary technologist could work towards. This 'career laddering' could enable technologists to expand their roles, responsibilities and compensation level and remain in the veterinary profession. ABVMA would need to work with educational institutions and accrediting bodies to develop this education.

Internationally trained veterinarians make up a small number (7-9%) of professionals registered annually. Alberta will continue to rely on these graduates to some extent and they must be better integrated into Alberta's workforce.

Internationally trained veterinarians who completed programs which were not accredited by the CVMA indicated that time and cost were issues with obtaining their certificate of qualification. In addition, the lack of educational resources and limited opportunities to challenge the National Board Examination sequence were also viewed as challenges. The ABVMA should work with stakeholders to develop a formalized bridging program to support internationally trained veterinarians to obtain their Certificate of Qualification. Bridge training programs are designed to "bridge" eligible immigrants existing skills, knowledge, training and experience while also centralizing supports which can assist them in obtaining credentials to become registered and work in their profession in Alberta. Specifically, bridging programs should provide:

- A skills assessment;
 - Skills development or training;
 - Clinical or job placements to provide Canadian workplace experience;
 - Mentoring or networking with employers;
 - Qualification examination preparation; and
 - Employment supports, like resume preparation, labour market orientation, mock interviews, job search supports, etc.
- ❖ **Short term goal:** The ABVMA should meet with representatives from the UCVM and other key stakeholders in Alberta to support the NEB clinical pathway for internationally trained veterinary medicine graduates to obtain their Certificate of Qualification. This process should also be routinely evaluated to ensure effectiveness and timeliness.
- ❖ **Medium term goal:** Once these supports are in place, the ABVMA and stakeholders should look to recruit internationally trained candidates and support them through the process.

Pet owners and the general public are generally unaware of the role of veterinarians and veterinary technologists, the cost of pet ownership, the cost of animal medical procedures or the benefits of pet insurance.

- ❖ **Short term goal:** Many veterinary professionals report stress and difficulty communicating about the cost of veterinary services to clients. ABVMA and ABVTA should undertake programs to enhance members communicating to clients about the value of veterinary services.
- ❖ **Short, medium and long term goal:** Due to the lack of awareness among the broader public and consumers with regards to the value and cost of veterinary services, the ABVMA should look to undertake a public awareness campaign. To deliver the campaign the ABVMA should partner with other key veterinary services stakeholders, such as animal shelters, human societies, and pet insurance providers to educate the general public on key areas, such as:
- The value of veterinary medicine with regards to animal health and food safety;

- Cost of pet ownership;
- Cost of animal medical procedures; and
- Benefits of pet insurance.

GLOSSARY

Clinical practice – relates to all practices which provide veterinary services (i.e. independently owned clinics, corporate or consolidated practices)

Independent practice – relates to practices owned and operated by a small number of veterinarians or a single veterinarian and veterinary technologists

Consolidated practice – relates to corporate practices which employ a larger number of veterinarians and veterinary technologists

Telehealth/telemedicine – the delivery of health/animal health related services and information at a distance using videoconference or other types of technology

Alberta Health Services Zones:

