

# A Career in Veterinary Medicine – Speaker's notes

These notes are intended for veterinarians and educators delivering the CVMA Career Presentation.

The notes are not required for the presentation, but may provide additional information and guidance.

Notes that are italicized or enclosed in square brackets are intended for the speaker, and should not be read aloud to the audience.

If possible, a one-hour time slot should be set aside for this presentation. The slide show itself (with minor discussion), should take approximately 40-45 minutes, allowing for a 15-minute question and answer session to conclude.

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## <u>Slide 1</u>

## **A Career in Veterinary Medicine**

Possible opening comments might include:

- Thanking the host for the invitation to present
- Welcoming the audience
- Telling the audience a bit about yourself and any animals you have in your life, sharing a special story about why you decided to become a veterinarian, or why you find your career rewarding

In a small group, you might consider involving the audience in a short discussion to open the session:

- Invite them to share stories about the animals in their lives
- Take a show of hands to see how many of them have pets/animals at home or on the farm
- Ask if anyone is considering a career in animal healthcare, or more specifically, as a veterinarian

#### <u>Slide 2</u>

#### **Becoming a Veterinarian**

Today we are going to talk about becoming a veterinarian. So you like animals? That's a start! But it's just the beginning if you are interested in a career in veterinary medicine. Veterinarians are far more than people with a fondness for animals.

A veterinarian is a doctor of animal health who has trained at university for at least six years, and is licensed to provide medical and surgical care for animals.

Most of you are probably familiar with the veterinarians in your community practitioners who work in animal hospitals and clinics to treat your pets or farm animals when they need medical assistance, but you might not be aware that veterinarians are hard at work in many aspects of animal health and welfare. Veterinarians are family doctors for our pets and public health experts who ensure that the food we get from animals is safe and abundant. There are approximately 14,000 veterinarians in Canada.

During this presentation we will introduce you to the many aspects of veterinary medicine.

## <u>Slide 3</u>

## **Career Planning Tips**

Selecting veterinary medicine as a career requires some advance planning. Here are some tips to consider as you prepare for your future career in the veterinary profession:

- First of all, starting in early high school, select courses in science, humanities, and math
- Science courses such as biology, chemistry, and physics form the foundation upon which your future education will be built so take as many of these as possible at the university preparation level
- If you plan to work in clinical practice upon graduation, consider taking some courses in business administration. A veterinary practice is also a business and a veterinarian that owns a practice wears two hats, that of the practitioner and the business owner!
- Some volunteer experience or employment at a veterinary practice is important, and references from these facilities are part of the veterinary college admission requirements. Shadowing a veterinary health care team as they go about their daily tasks will provide valuable insight into the animal healthcare profession and will give you a good idea of the life of a clinical practice veterinarian.
- Try to gain practical experience by working with several species.
- Discuss your career plans with your school's guidance counsellor

#### Slides 4 & 5

#### **Steps to Qualify & Qualifying Standards**

To qualify for practice, one must first complete a doctor of veterinary medicine (DVM) degree from an accredited veterinary college. To enroll in this degree program, a formal application process must be undertaken. Each veterinary college has different entrance requirements and slightly different programs, so it is important to discuss these requirements with the university you plan to attend while you are still in high school.

Before applying to a veterinary college, a student often enrolls in a science or agriculture bachelor's degree program at university.

It takes more than good grades to get into veterinary college. In fact, the five Canadian veterinary colleges accept about 400 students each year – in total!

To obtain a doctor of veterinary medicine degree (DVM), a minimum of six years of university education is required: two years of pre-veterinary study at a regular university followed by four years of courses in veterinary medicine at one of the four Canadian veterinary colleges (five years in Quebec).

The first few years of the DVM program are spent mastering basic life sciences, and the last years focus progressively on clinical skills development. To gain practical experience in clinical practice, students may intern at such practices in the summer preceding the final year. Some students also gain experience during their DVM years by taking positions in a research or animal health industry setting.

In the final year of study, veterinary students must write and pass the North American Veterinary Licensing Exam (NAVLE) and in some cases, complete a clinical skills competence examination as well. These examinations, administered by the National Examining Board (NEB), measure entry-level competence in the theory and practice of veterinary medicine.

Before a new graduate can practice veterinary medicine, he or she must obtain a license from a provincial licensing body. In Canada, there is a reciprocity of veterinary licenses between provinces, which means that a veterinarian licensed in British Columbia can practice in Nova Scotia, Ontario, and so on.

# <u>Slide 6</u>

# Career Rewards

A career in veterinary medicine is an exciting one offering many personal rewards. Some of these rewards include:

- Meeting the challenge of performing highly technical and intellectually stimulating work tasks
- Variety every day in the life of a veterinarian is different [you might want to elaborate with an example here]
- The opportunity to be around animals and to contribute to animal health and welfare
- The satisfaction of a job well done, and of making an important contribution to the community
- Enjoying the camaraderie of a small, supportive profession
- Good income: The annual average salary for a new veterinarian is approximately \$62,000. Annual income for experienced veterinarians may be higher.

# People well suited to a career in veterinary medicine should:

- Have a love of animals and an interest in animal health and well- being
- Have a keen interest in science and medicine
- Enjoy working as part of a team in a fast-paced environment
- Have a willingness to learn and a good eye for detail
- Enjoy client interaction

#### <u>Slide 7</u>

#### The Profession

About **75%** of Canada's veterinarians work in **private clinical practice**. They may work in companion animal practice, equine practice, food or farm animal practice or mixed animal practice (a combination of the three). They may also work in specialized practice where they limit their work to one species or discipline. You might be interested to know that some veterinarians choose to focus on fish, zoo, and wildlife species!

**Government** veterinarians make up about **10%** of the veterinary workforce, with careers at the regional, provincial, and national level. Government veterinarians work to protect the food supply and maintain the health of humans through food-producing animals.

Approximately **6** % of veterinarians hold various occupations in the animal healthcare **industry**.

About **5** % of Canada's veterinarians hold **teaching and research** positions in academic institutions.

The remaining **4%** work in **other related fields** (environmental medicine, consulting etc.)

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## **Private Clinical Practice**

Though most veterinarians work in companion animal facilities, about one third of all Canadian veterinarians work to some extent with food or farm animal species.

A private practice may be as simple as a mobile clinic housed in a truck or a small office space in a strip mall, or may be as complex as a multi-doctor hospital with staff of 20, 50, or even 100 people. A single practitioner may own the facility, or a number of veterinarians may own the practice in partnership.

Veterinary practices in Canada are registered with a provincial licensing body, and are regularly inspected to ensure compliance with high quality standards.

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#### **Types of Practitioners**

#### • General Practitioner – Your family or farm veterinarian

General practitioners may hold full or part-time positions at veterinary clinics or may work as locum (relief) veterinarians who fill-in when practice veterinarians are away from the facility.

#### Specialist - board certified by species or discipline

Certified specialists offer services in local veterinary hospitals or are employed in referral multi-specialist practices or veterinary teaching hospitals. In Canada, a veterinarian cannot be referred to as a specialist without having achieved board certification. These designations require additional study following completion of the DVM degree. The American Board of Veterinary Practitioners (ABVP) or the American College of Veterinary Internal Medicine (ACVIM) are examples of North American boards registering certified specialists.

Some practitioners obtain non-specialist certificates in areas of special interest to them such as acupuncture, dermatology, herd health, or ultrasound.

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## **Types of Private Practice**

There are many types of private practice. Some examples include:

- Companion Animal Practice
- Food or Farm Animal Practice
- Equine Practice
- Mixed Animal Practice—a combination of the above
- Specialty Referral Practice
- Mobile or House Call Practice
- Emergency and Critical Care Practice

We will go through some of these practice types in more detail in the coming slides.

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#### **Companion Animal Practice**

Most companion animal practices accept dogs and cats, while some also accept exotics such as reptiles, birds, and more (pot-bellied pigs, hamsters, etc.) Some veterinarians choose to limit their practice to a single species, for example, CATS ONLY or BIRDS ONLY.

Many companion animal facilities are miniature hospitals, complete with laboratories, X-ray equipment, surgical suites, pharmacies, isolation wards, treatment areas, puppy training classes, and kennels.

Other services provided by this type of facility may include grooming, behaviour and nutrition counselling, and boarding.

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## Farm Animal Practice

These practices treat cattle, sheep, goats, swine—better known as pigs, poultry, alpacas, llamas, and farmed elk and deer.

Some practices have in-hospital surgery suites in addition to on-farm surgery, but others refer complex cases to specialty surgery practices or veterinary colleges. The distance to the nearest referral centre is often a factor in deciding whether to offer these services in-hospital.

Today, food and farm animal practices frequently focus on one of:

- Dairy cattle
- Beef cattle
- Sheep and goats
- Swine
- Poultry

The emphasis in this type of practice is often placed on herd health, including environmental, nutritional, or reproductive medicine.

Preventive herd health and disease outbreak monitoring are other important components of the food and farm animal practice.

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## Equine Practice

Veterinarians who select equine practice generally have some background with this species.

An equine practice may focus on racehorses, pleasure horses, breeding farms, or any combination of these.

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### **Mixed Animal Practice**

The mixed animal practice differs only in that it encompasses both food/farm and companion animal care in one facility.

This type of practice is most common in rural areas and provides basic comprehensive medical and surgical services.

Preventive herd health and disease outbreak monitoring are again important parts of the farm animal component of this practice.

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#### **Other Types of Practice**

Some veterinarians choose to become a species-specific board certified specialist such as a feline specialist, or perhaps a dairy or poultry specialist, while other certified specialists focus on a specific discipline such as cardiology (heart specialist), oncology (cancer specialist), dentistry, or internal medicine.

Specialists may travel to the local veterinary clinic or work in a veterinary college or multi-specialist referral hospital. They may also carry out telemedicine consultations with general practitioners.

Some veterinarians elect to focus on fish, zoo and wildlife, or avian species instead of the more traditional pet and farm animal species.

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#### **Emergency and Critical Care Practice**

Some practices deal exclusively in emergency and critical care; they're similar to a human "ER" facility.

The veterinarians and technicians at these facilities are sometimes certified emergency practice specialists. Veterinary Emergency and Critical Care Society board certified specialists are an example. Veterinarians may also be board certified surgeons.

Companion animal practices in an area will often co-manage an emergency clinic, a facility that handles after hours calls, while others offer their own 24-hour care.

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## The Roles of a Practice Veterinarian

In addition to treating ill patients, practitioners focus on preventive healthcare. They counsel clients on how to maintain their animals' health through all stages of life.

### **Practitioners:**

- Examine animals
- Diagnose and treat diseases. These days we often call on sophisticated diagnostic tools including laboratory tests, X-rays, ultrasound, and endoscopy to help reach a definitive diagnosis.
- Perform surgery and dentistry
- Vaccinate to prevent the spread of diseases
- Educate clients about hygiene, feeding, behaviour, herd health and disease control; including zoonoses - diseases transmitted from animals to humans.

Continuing education is key for veterinarians. Practitioners need to stay well informed about the latest diagnostic tests, case management, treatment and surgery techniques, and emerging diseases in animals.

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#### **Government**

Government veterinarians have an important responsibility in maintaining the health of humans though the health of food-producing animals.

Some government veterinarians work in managerial positions to oversee public and animal health programs and provide input on government policy.

Those in managerial positions may:

- Maintain regional, provincial, or national herd health
- Administer animal and public health policies
- Oversee veterinary biologics and drugs licensing

Other "field veterinarians" cover an animal health district. Field veterinarians:

- Oversee disease control measures for serious diseases including Rabies and Tuberculosis
- Control animal import and export
- Carry out animal product quality assurance

Most government veterinarians have taken additional courses beyond the DVM, and have some previous experience in private practice.

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## **Teaching and Research**

Veterinarians fill teaching and research positions in academic institutions including:

- Veterinary colleges
- Medical schools
- University life science departments
- Veterinary technician programs

Working in this capacity, veterinarians:

- Mentor future veterinarians and scientists
- Teach courses in clinical veterinary medicine, basic sciences, or a combination of both
- Conduct research projects
- Sit on committees and attend meetings, lectures, and professional development events

To be employed as a professor, a veterinarian generally requires a Master's degree, a PhD, board certification, or a Doctor of Veterinary Science (DVSc) in addition to the DVM degree.

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#### **Industry**

Veterinarians hold positions with companies that produce products or services related to the animal healthcare industry. They are usually employed in management, as sales representatives, or in technical support or research positions.

These veterinarians have strong business and interpersonal skills, as well as detailed product knowledge.

It is important for veterinarians working in all aspects of the animal healthcare industry to communicate with and build relationships with animal health organizations, clinic staff and owners, and allied healthcare providers.

Some industry veterinarians have additional degrees in business administration (MBA), or Master's or PhD degrees in epidemiology or pharmacology.

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# **Other Career Options**

A very small percentage of veterinarians (4%) work in other related fields. Some examples include ecosystem and environmental medicine, wildlife management, or consulting.

Another popular career in animal healthcare is that of a Registered Veterinary Technician/Technologist (RVT).

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### **Registered Veterinary Technician**

Licensed veterinary technicians/technologists are highly trained individuals who work as an integral part of the veterinary medical team to provide quality humane animal care.

Training for a career as a technician usually takes two to three years, depending on the institution and province.

Courses involve the basic sciences as well as applied technical courses.

Graduates may work in:

- Private practice
- Animal shelters
- Laboratories
- Zoos
- Wildlife rehabilitation centres
- Feedlots
- Government
- Industry
- Teaching and research

For more information on this career choice, visit the Registered Veterinary Technologists and Technicians of Canada (RVTTC) online at <u>rvttcanada.ca</u>

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## **Roles of a Technician**

Licensed technicians work under the supervision of a veterinarian in a working relationship very much like a physician and nurse. Some of the important tasks carried out by technicians include:

- Assisting with surgical procedures
- Administering and monitoring various anesthetics
- Providing emergency, intensive care, and chronic care nursing
- Implementing pain management
- Performing diagnostic laboratory procedures such as hematology, clinical chemistry, urinalysis and more
- Administering medications and treatments
- Exposing and developing X-rays
- Carrying out dental cleaning and polishing
- Implementing nutritional programs
- Restraining and handling animals safely
- Carrying out public education and client relations
- Implementing business management/administration tasks

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### Veterinary Colleges in Canada

Canada has five excellent veterinary colleges. From east to west, they include the Atlantic Veterinary College (PE), Faculté de médecine vétérinaire (QC), Ontario Veterinary College (ON), the Western College of Veterinary Medicine (SK), and the University of Calgary, Faculty of Veterinary Medicine (AB).

Each veterinary college is regularly inspected and certified by accreditation inspectors. An accredited institution meets stringent quality assurance standards.

To obtain an outline of admission requirements, scholarship, or bursary information students should contact the respective admission offices care of the addresses provided.

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The **Canadian Veterinary Medical Association** (CVMA) is the voice of the Canadian veterinary profession in promoting animal welfare and One Health, to ensure optimal care for animals, people and the environment.

The CVMA focuses on three main priorities:

- Leadership on national veterinary issues
- Animal welfare advocacy
- A successful career, a balanced life

The CVMA offers continuing education to veterinarians through the annual convention and online courses. The association publishes two journals: *The Canadian Veterinary Journal* and the *Canadian Journal of Veterinary Research*. Both provide solid peer-reviewed articles to help veterinarians keep up with news and important new research findings.

In addition, the CVMA maintains <u>canadianveterinarians.net</u>, the Association's official website.

[Thanks, closing comments and questions]

[If audience needs more information, provide the contact information for the CVMA listed below]

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