

PVS Evaluation Report

CANADA

Human, Physical
and Financial
Resources

Technical Authority
and Capability

Interaction with
Interested Parties

Access to Markets



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2017

Dr John Weaver (TL)
Dr Francois Gary, Dr Susanne Münstermann,
Dr Herbert Schneider



**OIE PVS EVALUATION
REPORT OF THE
VETERINARY SERVICES OF
CANADA**

13-31 March 2017

Dr John Weaver (Team Leader)

Dr Francois Gary (Technical Expert)

Dr Susanne Münstermann (Technical Expert)

Dr Herbert Schneider (Technical Expert)

Disclaimer

This mission has been conducted by a Team of OIE PVS Pathway experts authorised by the OIE. However, the views and the recommendations in this Report are not necessarily those of the OIE.

An Approval and confidentiality form is provided by the OIE along with this Report where the level of confidentiality can be selected by the country.

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List of acronyms, abbreviations and/or special terms

Acronyms are used extensively in Canada. Only the more commonly used ones are included in this list. Infrequently used acronyms are defined within the text.

In addition, many organisations have English and French names and have two different acronyms. Generally only the English acronyms are given here.

AAFC	Agriculture and Agri-Food Canada
AAFS	Agriculture and Agri-Food System
AB	Alberta
AI	Avian Influenza
AIRS	Automated Import Reference System
AHRA	Animal Health Risk Assessment Unit
AVMA	American Veterinary Medical Association
BC	British Columbia
BSE	Bovine Spongiform Encephalopathy
BSL	Biosafety Level
BVD	Bovine Virus Diarrhoea
CanNAISS	Canadian Notifiable Avian Influenza Surveillance System
CAHLN	Canadian Animal Health Laboratorians Network
CAHSN	Canadian Animal Health Surveillance Network
CAHSS	Canadian Animal Health Surveillance System
CBSA	Canada Border Services Agency
CC	Critical Competency
CCAC	Canadian Council on Animal Care
CCVB	Canadian Centre for Veterinary Biologics
CCVO	Council of the Chief Veterinary Officers
CCVR	Canadian Council of Veterinary Registrars
CFIA	Canadian Food Inspection Agency
CIPARS	Canadian Integrated Program for Antimicrobial Resistance
CVO	Chief Veterinary Officer
CVMA	Canadian Veterinary Medical Association
CVS	Compliance Verification System
CWD	Chronic Wasting Disease
CWHC	Canadian Wildlife Health Cooperative
EU	European Union
FAO	Food and Agriculture Organization
FMD	Foot and Mouth Disease
FPT	Federal-Provincial-Territorial
FSEP	Food Safety Enhancement Program
HACCP	Hazard Analysis and Critical Control Point
HC	Health Canada
HR	Human Resources
ICS	Incident Command System
IPPC	International Plant Protection Convention
ISSS	International Standards Setting Section
LPAI	Low Pathogenic Avian Influenza
LSTS	Laboratory Sample Tracking System
MAPAQ	Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec

MB	Manitoba
MHMOP	Meat Hygiene Manual of Operating Procedures
MoU	Memorandum of Understanding
NB	New Brunswick
NCFAD	National Centre for Foreign Animal Disease
NEB	National Examining Board
NL	Newfoundland & Labrador
NS	Nova Scotia
OFFLU	OIE/FAO Influenza Network
OIE	World Organisation for Animal Health
OIE PVS	OIE Performance of Veterinary Services Evaluation Tool
ON	Ontario
OTC	Over the Counter
PE	Prince Edward Island
PHAC	Public Health Agency of Canada
PPR	Peste de Petit Ruminants
QC	Quebec
RA	Risk Analysis
RVTTTC	Registered Veterinary Technologists and Technicians of Canada
SCC	Standards Council of Canada
SK	Saskatchewan
SPCA	Society for the Prevention of Cruelty to Animals
SPS	Sanitary and Phyto-Sanitary Agreement
SRM	Specified Risk Material
TB	Tuberculosis
US or USA	United States of America
VDD	Veterinary Drugs Directorate
VM	Veterinary Medicine
VS	Veterinary Service(s)
VSB	Veterinary Statutory Body (see OIE Code definition)
VT	Veterinary Technologist
USDA	United States Department of Agriculture
WHO	World Health Organization
WTO	World Trade Organization

Notes on text:

1. \$ in the text refers to the Canadian dollar (CAD)
2. Provincial and territorial governments use various terms for their agriculture ministries including departments and agencies; in the text they are referred to under the generic term 'ministries'
3. The OIE uses UK English as its reference English language. In Canada this presents some problems as the formal names may include the word 'program' whereas the expected use in the general text is 'programme'. This results in mixed use of program and programmes – as has been used in this report.

Acknowledgements

The conduct of this PVS Evaluation by Dr John Weaver (Team Leader), Dr Francois Gary, Dr Susanne Münstermann and Dr Herbert Schneider (Technical Experts), hereinafter called the PVS Evaluation Team, has been formally authorised by the OIE. The support provided by OIE of this mission is acknowledged with thanks.

The PVS Evaluation Team wishes to express its thanks to Paul Glover, the President, and Carolina Giliberti, Executive Vice-President of the Canadian Food Inspection Agency (CFIA) for their support of the PVS Evaluation of Canada and their attendance at the opening and closing meetings respectively.

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The team was able to meet with a wide array of CFIA staff at central, area and regional levels, most provincial veterinary services, private veterinarians and numerous industry stakeholders who together provided an excellent resource allowing us to review the role of the Canada Veterinary Services and to conduct the PVS Evaluation. The Team would like to thank all those who met with us and supported our mission – we apologise for our many questions and requests for additional information and materials; this was not intended to be critical but merely to enhance our understanding of certain complex aspects of the strong and well-developed Canadian Veterinary Services. A list of places visited and the people we met is attached as Appendix 3 – thank you everyone.

Thank you all for making our mission such a success and making our visit to your wonderful country so enjoyable - even in March!

John Weaver

Francois Gary

Susanne Münstermann

Herbert Schneider

PART I: EXECUTIVE SUMMARY

I.1 Introduction

Following a request to the OIE from the Government of Canada, an evaluation of the Veterinary Services based on the OIE PVS (Performance of Veterinary Services) methodology was conducted from 13 – 31 March 2017 by a team of four independent OIE certified PVS evaluators.

The evaluation began with an opening meeting at the Canadian Food Inspection Agency (CFIA) headquarters in Ottawa with the President and the Associate Vice-President, Operations/Chief Veterinary Officer (CVO)/OIE Delegate and their senior staff and representatives from provinces (some in person and some on-line). Further meetings were held with representatives from other ministries and departments including Public Health Agency of Canada, Health Canada and Agriculture and Agri-Food Canada.

The OIE PVS Team then visited sites and institutions across the country in both the public and private sectors. Discussions were held with government officials, public and private sector veterinarians, livestock producers, traders, consumers and other stakeholders.

The mission concluded with a closing meeting held at the CFIA headquarters attended by the CFIA Executive Vice-President, the CVO/OIE Delegate and senior staff, and representatives from provinces both in person and by teleconference at which the overall findings of the evaluation were presented.

I.2 Key findings of the evaluation

I.2.A Human, physical and financial resources

The Canadian Veterinary Services are well staffed at both federal and provincial/territorial levels. Sufficient veterinarians are employed who are well qualified, mostly through the competent, internationally recognised, Canadian veterinary schools or following a formal qualification process; a significant number of veterinarians have postgraduate qualifications in specialist areas such as epidemiology and microbiology. The veterinarians are well supported by 'veterinary technologists' who are mostly graduates from approved colleges. Staff are well managed, highly motivated and professional. There are some challenges in recruiting and maintaining veterinary staff levels at some provincially registered abattoirs.

Funding for the Veterinary Services is stable and adequate at the federal level and in most provinces – some provinces are coming under budgetary pressure and this is limiting their ability to invest in any major capital projects. Operating budgets allow for baseline and exceptional activities to be undertaken. Emergency funding arrangements are well established and are 'in use' for the ongoing bovine tuberculosis response in Alberta. There is currently only limited financial support from industry and this situation might be reviewed.

Physical resources (facilities, transport, equipment, etc.) are of a high or exceptionally high standard. Monitoring of operations and programme delivery including the use of resources is well structured with ongoing data capture, review and revision as necessary – a series of audit programmes are implemented.

Coordination and management of the Veterinary Services is generally strong with excellent 'internal' coordination between the federal CFIA and provincial/territorial ministries at the ministerial and senior managers/CVO level. Coordination at the

provincial operational level is more variable with sometimes only limited engagement between regional CFIA and provincial/territorial staff.

'External' coordination between the Veterinary Services and other ministries and competent authorities is exemplary with excellent formal and informal communications and the successful development and delivery of joint programmes.

The Veterinary Services have good stability of policies and programmes. Organisational structures and staffing are generally stable allowing for sustainable programmes. CFIA went through a period of organisational changes starting in 2012 and this created some concerns and uncertainty amongst staff and others, and impacted on the delivery of programmes; it is understood that the intention to deliver a more efficient and consistent service has now been achieved.

Full technical independence, that is decision making based purely on science, is impossible to achieve in any political, economic and social environment. The Canadian Veterinary Services generally have a very high level of technical independence with well documented, evidence based policy making and design and delivery/revision of programmes. However, in some circumstances the Veterinary Services have been unable to adopt technically independent policies and activities owing to lobbying from strong opposing industry groups.

1.2.B Technical authority and capability

The technical capabilities of the Canadian Veterinary Services in many activity areas are high; however, there are a number of areas where considerable strengthening should be considered.

The laboratory facilities, diagnostic capabilities and quality assurance are of the highest international standard. The National Centre for Foreign Animal Disease in Winnipeg is internationally recognised for its high biosecurity facilities and the research being undertaken which includes extensive international collaboration and partnerships. A number of other laboratories are recognised as international reference laboratories. Some consideration could be given to improving the efficiency of the federal laboratory service by reducing overheads, limiting splitting and shipping of samples to multiple laboratories and seeking more 'cost recovery'.

The use of risk analysis and the border control of imported livestock and animal products are excellent with strong collaboration with the Canada Border Services Agency

Animal disease surveillance both for the detection of disease outbreaks and monitoring of disease control programmes is risk based, well-structured and effective, recognising that in remote areas surveillance sensitivity will always be low. There is excellent engagement with the wildlife sector and cooperation in joint programmes. Data handling could be improved with greater use of integrated databases to provide more timely and enhanced information on real time changes to the animal health situation. The current situation is rather fragmented with multiple surveillance systems and databases, and in some cases, no database exists. Although some 'network management' is taking place the overall surveillance system could be further strengthened with the development of a nationally mandated information system.

Disease control and eradication programmes are well structured with good collaboration with industry. Good progress has been made in disease control with some diseases eradicated and others controlled. Emergency preparedness and response systems are fully operational with designated 'operations centres', staff training and adequate access to resources. Recent responses to avian influenza and

tuberculosis have shown how competent these systems are. Rabies control has been delegated to the provinces/territories.

Food safety is the primary mandate of the CFIA and is handled well at all levels for the national, inter-provincial market, and for exports. Food safety at the provincial level is more variable with some smaller slaughterhouses having little or even no veterinary professional oversight– this problem should be addressed.

The federal mandate for the evaluation and control of veterinary medicines is strong for most aspects but currently still allows ‘own use importation’ (OUI) and the import of ‘active pharmaceutical ingredients’ (API) by individuals and veterinarians; this gap in control will be addressed in the proposed new legislation. Provincially the control of the sale of veterinary medicines over the counter is variable with some provinces having strict controls and others much less; it is recommended this variability be eliminated. There are strong programmes of monitoring antimicrobial usage and resistance and residue monitoring.

Animal feed manufacturers do not require a federal registration to operate and this creates challenges for the implementation of risk-based inspection of their facilities and operations. Permits are required and issued by one province for the preparation of medicated feed. Animal feeds are regulated and monitored for residues. Specified Risk Materials are segregated at source (slaughterhouse, deadstock facilities, etc.) and redirected to disposal or destruction through a series of permits that ensure they are excluded from the entire terrestrial and aquatic animal feed chains.

Individual animal identification is mandated for most important livestock species with batch identification for pigs and also poultry moving to slaughter plants. The identification programme is working well with good industry commitment and support. Traceability is less than optimal with many transactions only being recorded in hard copy (with the exception of swine and large slaughterhouses who log animal slaughter electronically). This results in an extremely cumbersome process when tracing is required – with the use of RFID tags the ability of universal transaction recording should be developed.

CFIA is responsible for food recalls and has a fully functional system. The identification of food products is generally by site and date and this may limit the ability to undertake timely recalls. Generally there is no ‘through chain’ traceability (that is ‘farm to fork’). There is an opportunity to improve food product traceability.

Animal welfare is well regulated and the programmes of awareness and compliance are fully operational both at federal and provincial/territorial levels. There is strong support from the private sector. CFIA has the mandate over the federally registered slaughterhouses (those that export inter-provincially and/or internationally) and over the transportation of all animals transported into, within or leaving Canada; with the provinces/territories being responsible for on-farm animal welfare, auction markets, assembly yards and provincially registered slaughterhouses (those that do not export out of the province or out of Canada) as well as for the welfare of companion animals. This split creates some uncertainty over the application of the humane transportation regulations and enforcement when incidents are observed in areas that also fall under provincial jurisdiction such as if injured animals arrive at a provincial slaughterhouse.

1.2.C Interaction with interested parties

CFIA and the provincial/territorial ministries all have well established communications and consultation programmes. All the agencies make excellent use of electronic media with well designed, easily accessible websites; social media is also used extensively. Consultations with the private sector are dynamic and ongoing with good

real time communications supported by formal and informal consultations on policy changes, new legislation and the development of joint programmes.

The programme of delegating to the private sector is operating well. CFIA have a programme for accrediting private veterinarians to undertake specified testing and certification of animals. This programme clearly defines tasks and the monitoring required by CFIA staff. A number of private laboratories are authorised to undertake testing of specific pathogens.

The regulation of the veterinary profession is fully functional across Canada with each province/territory, except the Yukon, having a Veterinary Statutory Body (VSB). The VSB is responsible for the registration of both veterinarians and veterinary paraprofessionals, with one exception, and manages professional ethics with disciplinary measures when necessary. Currently there is a lack of clarity over the registration of CFIA veterinarians and no stipulation that they are licensed with a VSB.

The Canadian Veterinary Services participate fully in international organisations, such as OIE, Codex Alimentarius and WTO-SPS, including taking the lead on a number of commissions and for some other activities.

1.2.D Access to markets

The Canadian Veterinary Services operate under extensive legislation both federally and in every province and territory. There is a dynamic programme reviewing current legislation, considering international developments, and revising and redrafting as necessary.

Enforcement and compliance with regulations is well managed with strong consultation and awareness programmes and active enforcement and reporting of non-compliance. Non-compliance is managed through a serial programme of warnings, expiations and prosecutions as required. Results are reported and reviewed; the records of prosecutions are publicly available.

A number of 'sanitary agreements' have been signed with trading partners recognising equivalence in some areas such as alternative testing methodologies. Canada is a major exporter of livestock and animal products and this approach is working well to promote trade.

The Canadian Veterinary Services are exemplary in their communications with international agencies (OIE, WTO-SPS, etc.) and trading partners on their animal health status both with periodic notifications and in real time.

Canada currently has no policy or programmes for permanent free zones or compartmentalisation for terrestrial animals as defined by the OIE – hence these Critical Competencies were not assessed. It was noted that Canada uses zoning concepts as part of disease control programs (e.g. AI disease outbreaks)

Table 1: Summary of OIE PVS evaluation 'Levels of Advancement'¹

I. HUMAN, PHYSICAL AND FINANCIAL RESOURCES	
I.1.A. Staffing: Veterinarians and other professionals	5
I.1.B. Staffing: Veterinary paraprofessionals and other	5
I.2.A. Professional competencies of veterinarians	5
I.2.B. Competencies of veterinary paraprofessionals	5
I-3. Continuing education	5
I-4. Technical independence	4
I-5. Stability of structures and sustainability of policies	5
I-6.A. Internal coordination (chain of command)	4
I-6.B. External coordination	5
I-7. Physical resources	5
I-8. Operational funding	5
I-9. Emergency funding	5
I-10. Capital investment	5
I-11. Management of resources and operations	5
II. TECHNICAL AUTHORITY AND CAPABILITY	
II-1.A. Access to veterinary laboratory diagnosis	5
II-1.B. Suitability of national laboratory infrastructures	5
II-2. Laboratory quality assurance	5
II-3. Risk analysis	5
II-4. Quarantine and border security	5
II-5.A. Passive epidemiological surveillance	5
II-5.B. Active epidemiological surveillance	5
II-6. Emergency response	5
II-7. Disease prevention, control and eradication	5
II-8.A. Regulation, authorisation and inspection of establishments	3
II-8.B. Ante and post mortem inspection	3
II-8.C. Inspection of collection, processing and distribution	4
II-9. Veterinary medicines and biologicals	3
II-10. Residue testing	5
II-11. Animal feed safety	4
II-12.A. Animal identification and movement control	3
II-12.B. Identification and traceability of animal products	3
II-13. Animal welfare	4
III. INTERACTION WITH INTERESTED PARTIES	
III-1. Communications	5
III-2. Consultation with interested parties	5
III-3. Official representation	5
III-4. Accreditation/authorisation/delegation	5
III-5.A. Veterinary Statutory Body Authority	5
III-5.B. Veterinary Statutory Body Capacity	5
III-6. Participation of producers and other interested parties in joint programmes	5
IV. ACCESS TO MARKETS	
IV-1. Preparation of legislation and regulations	5
IV-2. Implementation of legislation and regulations and compliance thereof	5
IV-3. International harmonisation	5
IV-4. International certification	5
IV-5. Equivalence and other types of sanitary agreements	5
IV-6. Transparency	5
IV-7. Zoning	NA
IV-8. Compartmentalisation	NA

¹ Progressive categorical scale from 0 - no or limited capacity/capability to 5 – high capacity and capability, fully compliant with international standards

I.3 Key recommendations

Key recommendations are provided here for more detail the reader should review the main body of the report in which recommendations are made under each Critical Competency, where appropriate.

I.3.A Human, physical and financial resources

Increase high level political advocacy and industry engagement for the veterinary services at national, provincial and territorial levels to reduce ‘non-scientific’ considerations compromising policy and programme decisions and to maintain technical independence, which is sometimes compromised by strong industry lobby groups.

Limited CFIA/federal and provincial/territorial engagement at some operational levels. Increase formal and informal contact between federal and provincial/territorial operational programmes and staff.

Operational funding and capital investment is generally good but there is limited support from industry even for programmes that are largely for ‘private benefit’. Consideration should be given to developing greater ‘cost recovery’ not only to support the financing of operations but also to ensure strong industry support and commitment. The opportunity to increase private sector support and commitment applies both at national (CFIA and others) and sub-national levels (provinces and territories)

I.3.B Technical authority and capability

Extensive disease surveillance programmes are operating well but there is no central integrated information system, which would improve sensitivity and efficiency. It is recommended that a review be conducted of existing systems of data capture/information management and, considering new technologies and opportunities, a programme for a national consolidated integrated animal health information system be developed.

Disease control programmes are well supported and generally operating well with steady progress being made. Consideration should be given to working more closely with industry to develop joint funding, or wholly industry funding for private benefit programmes.

Food safety is well managed nationally. There are limitations and inconsistencies at the provincial and territorial level and these should be addressed. Review gaps in the current provincial/territorial systems and develop national standards that all jurisdictions should apply.

Animal identification is effective but there is limited capability to trace animals. A comprehensive whole-of-life traceability programme should be developed for all livestock species using electronic transaction recording.

Food recalls are effectively managed but product identification lacks specificity. Product identification should be upgraded with specific product codes and batches to enable recalls when required.

Overall veterinary medicines are well managed, but there are gaps in their control. Current federal legislation, in draft, will restrict the importation of unapproved drugs (own use provision) and active pharmaceutical ingredients – this new legislation should be enacted as soon as possible.

Further, the variable management of 'over the counter sales' between provinces (provincial legislation) needs to be improved. It is recommended that national standards are developed and the necessary legislation developed and compliance programmes adopted in all jurisdictions.

Animal welfare is well managed with strong private sector support. The rather confusing mandate with CFIA responsible for the control of animal welfare during transport and on CFIA registered establishments and the provinces/territories everywhere else leaves some ambiguity and this should be reviewed and clear guidelines provided to staff and/or the mandate revised.

1.3.C Interaction with interested parties

The lack of clarity over the registration of CFIA staff should be reviewed and a nationally consistent policy established. All veterinarians and veterinary para-professionals employed professionally should be required to be registered.

A number of strong joint programmes have been developed but, as indicated above, there is limited industry funding support – this should be reviewed especially for programmes largely of 'private benefit'.

1.3.D Access to markets

Canada currently has no policy or programmes for disease free zoning or compartmentalisation for terrestrial animals as defined by OIE in the Terrestrial Animal Health Code. In such a large country with extensive high value exports, well developed production and processing industries, the trade risk posed by a potential foreign animal disease incursion would be mitigated by a zoning and/or compartmentalisation programme. (It is recognised that zoning for the control of disease outbreaks is used.)

It is recommended that the OIE concept of zoning and compartmentalisation to enable trade from disease free zones or compartments be considered and a development programme established with the relevant industries, e.g. in the high genetic value poultry or pig sectors.

PART II: CONDUCT OF THE EVALUATION

At the request of the Government of Canada, the Director General of the OIE appointed an independent OIE PVS team consisting of Dr John Weaver (Team Leader) and Drs Francois Gary, Susanne Münstermann and Herbert Schneider (Technical experts) to undertake an evaluation of the veterinary services of Canada. The evaluation was carried out from 13 to 31 March 2017.

The evaluation was carried out with reference to the OIE standards contained in Chapters 3.1., 3.2., 3.3. and 3.4. of the OIE Terrestrial Animal Health Code (the Terrestrial Code), using the OIE PVS Tool² to guide the procedures. Relevant Terrestrial Code references are provided for each critical competency in Part V, Appendix 1.

This report also indicates the strengths and weaknesses of the Veterinary Services of Canada as compared to the OIE standards, with some recommendations to improve performance.

II.1 OIE PVS Tool: method, objectives and scope of the evaluation

To assist countries assess the performance of their veterinary services, form a shared vision, establish priorities and carry out strategic initiatives, the OIE has developed the OIE PVS Tool for the Evaluation of Performance of Veterinary Services. The OIE PVS Tool consists of four fundamental components:

- Human, physical and financial resources
- Technical authority and capability
- Interaction with interested parties
- Access to markets.

These four fundamental components cover 47 critical competencies, for each of which five qualitative levels of advancement are described. For each critical competency, a list of indicators was used by the OIE PVS Team to determine the level of advancement. A glossary of terms is provided in Part V, Appendix 2.

The report follows the structure of the OIE PVS Tool and the reader is encouraged to review that document to obtain a good understanding of how the evaluation was conducted.

The objective and scope of the OIE PVS Evaluation includes all aspects relevant to the OIE Terrestrial Animal Health Code and the quality of Veterinary Services.

II.2 Country information (geography, administration, agriculture and livestock)

II.2.A Geography

Canada is the second largest country in the world covering an area of 9,984,670sq km. It is bordered to the west by the Pacific Ocean and Alaska, to the east by the Atlantic Ocean, and to the south by the US. The polar ice cap lies to the north.

The Canada-US border is 8,891km, the longest border in the world; the Canada-Alaska border is 2,475km. Canada also has the world's longest coastline, 202,080km. The landscape is diverse, ranging from the Arctic tundra of the north to the great prairies of the central area; west are the Rocky Mountains, and in the southeast the

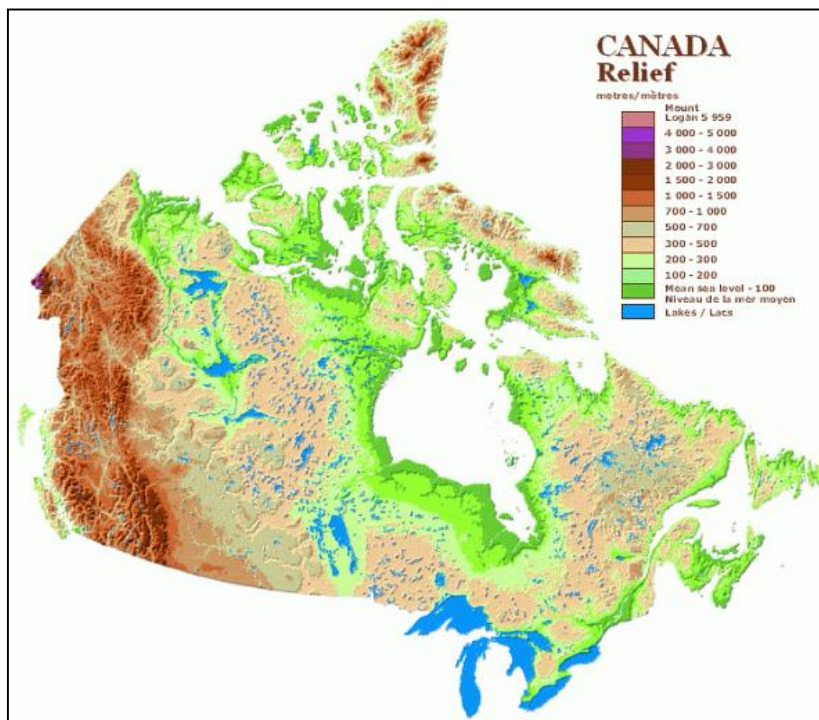
² 6th edition, 2013, http://www.oie.int/eng/oie/organisation/en_vet_eval_tool.htm?e1d2

Great Lakes, the St Lawrence River and Niagara Falls. The country is divided into 10 provinces and three territories³.

Map 1: Canada: provinces⁴



Map 2: Canada: relief⁵



³ <http://www.worldtravelguide.net/canada/weather-climate-geography>

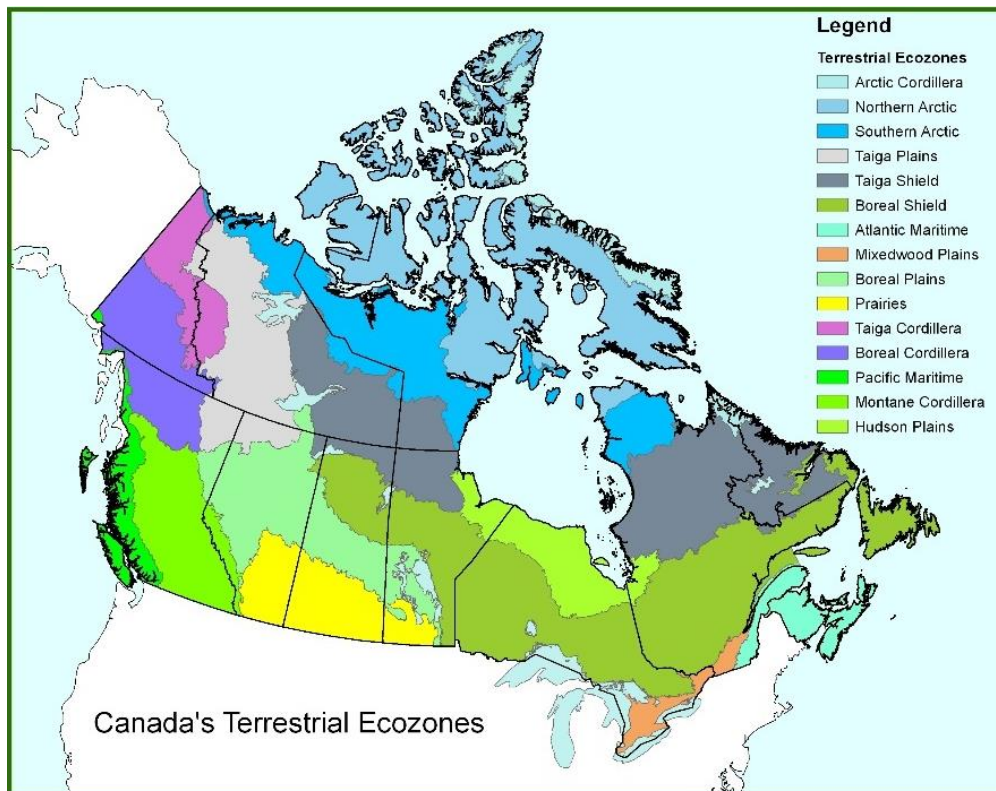
⁴ http://ftp.geogratis.gc.ca/pub/nrcan_rncan/raster/atlas_6_ed/reference/eng/can_eng.pdf

⁵ http://www.tep-online.info/laku/canada/rmap_e.html

II.2.B Climate and Agro-ecological zones

Canada has a diverse climate varying from temperate on the west coast of British Columbia to a subarctic climate in the north. Inland areas have cold winters and tend to have warm dry summers apart from southwest Ontario, which has a hot humid summer. Parts of western Canada have a semi-arid climate, and parts of Vancouver Island are classified as cool summer, Mediterranean climate⁶.

Map 3: Canada: terrestrial ecozones⁷



II.2.C Government and administration⁸

Government

Canada is a constitutional monarchy with three levels of government – federal, provincial or territorial, and municipal.

The federal government is responsible for national and international matters, such as foreign affairs, national defense, aboriginal lands and rights, etc. The provincial and territorial governments have the power to make and implement legislation, manage their own public lands and have responsibilities including education, health care and road regulations. Municipal governments are responsible for city governance and are responsible for issues such as local land use. In addition, 'First Nations' have a separate autonomous governance structure, under federal legislation, which creates 'band councils', decision making bodies that govern their local community.

Agriculture is a shared responsibility between the federal and provincial/territorial governments.

⁶ https://en.wikipedia.org/wiki/Geography_of_Canada#Climate

⁷ <http://cfs.nrcan.gc.ca/assets/file/504>

⁸ <http://www.cic.gc.ca/english/newcomers/before-government.asp>















Agriculture^{9,10}

The Minister of Agriculture and Agri-Food is responsible for key agricultural organisations including Agriculture and Agri-Food Canada (AAFC), the Canadian Dairy Commission and the Canadian Food Inspection Agency (CFIA). CFIA was transferred to the Ministry of Health portfolio in 2013; the Minister of Agriculture and Agri-Food continues to be responsible for CFIA's non-food safety agricultural activities, including economic and trade issues¹¹.

Provinces and territories have their own 'ministries of agriculture' (sometimes departments or agencies) responsible for non-federal activities in their jurisdictions, that is within province production and trade (see section II.3.B.1.1). The federal, provincial and territorial ministers of agriculture meet regularly.

Human demographics

Table 2: Population by province/territory (2016¹²)

Province or territory	Population	Percentage	Total land area (km ²)	Density (people/km ²)
 Alberta	4,067,175	11.57%	640,330	6.4
 British Columbia	4,648,055	13.22%	922,503	5.0
 Manitoba	1,278,365	3.64%	552,370	2.3
 New Brunswick	747,101	2.13%	71,388	10.5
 Newfoundland and Labrador	519,716	1.48%	370,514	1.4
 Northwest Territories	41,786	0.12%	1,143,793	0.04
 Nova Scotia	923,598	2.63%	52,942	17.4
 Nunavut	35,944	0.10%	1,877,778	0.02
 Ontario	13,448,494	38.26%	908,699	14.8
 Prince Edward Island	142,907	0.41%	5,686	25.1
 Quebec	8,164,361	23.23%	1,356,625	6.0
 Saskatchewan	1,098,352	3.12%	588,243	1.9
 Yukon	35,874	0.10%	474,712	0.08
 Canada	35,151,728	100%	8,965,588	3.90

II.2.D Agriculture and livestock

Canada Agriculture and Agri-Food Sector (AAFS)

A summary is provided here – further information can be found in the 'Economic overview of the Canadian agriculture and agri-food system' (2016).¹³

Canada's agriculture and agri-food system is considered to be a 'modern, complex, integrated, competitive and dynamic supply chain' that is important to the national economy. The cited report presents the agriculture and agri-food system in the

⁹ [https://en.wikipedia.org/wiki/Minister_of_Agriculture_\(Canada\)](https://en.wikipedia.org/wiki/Minister_of_Agriculture_(Canada))

¹⁰ <http://www.agr.gc.ca/eng/about-us/partners-and-agencies/meetings-of-federal-provincial-and-territorial-ministers-of-agriculture/?id=1173979162358>

¹¹ <http://www.agr.gc.ca/eng/about-us/minister/?id=1369864009036>

¹² <http://www12.statcan.gc.ca/census-recensement/2016/dp-pd/hlt-fst/pd-pl/Table.cfm?Lang=Eng&T=101&SR=1&S=50&O=A>

¹³ <http://www.agr.gc.ca/eng/about-us/publications/economic-publications/an-overview-of-the-canadian-agriculture-and-agri-food-system-2016/?id=1462288050282>

context of the Canadian economy and international markets, and provides an overview of the composition and performance of the sector. Some brief statistics:

- Agricultural land is 7% of Canada's total land area (64.8 million hectares)
- Agricultural incomes increased by 77% (2004 - 2014) with cattle increasing by 44% and pigs by 25%. Farm net income was estimated to be \$14.2 billion in 2014
- Canada's farmers are innovative and introduce new livestock breeds or practices
- The food and beverage processing industry was the largest manufacturing sector, accounting for \$28 billion (16%)
- Government (federal and provincial) provided \$5 billion to support the AAFC in 2015/16; the largest proportion was to support food safety
- Public investment in research and development in the AAFC was estimated to be \$650 million in 2015/16.

The livestock sector¹⁴

Comprehensive and detailed information on Canada's livestock sector is provided by AAFC and the animal industry associations and organisations. A summary table is provided here.

Table 3: Livestock population by province*

Province	Livestock population						
	Cattle X 1000	Sheep X 1000	Goat	Pig X 1000	Poultry meat X 1000 (birds)	Equidae	Deer
Date of reference	July 2016	July 2016	2011	July 2016	2015	2011	2015
British Columbia	690	50	14,649	86	107,270	45791	,457
Alberta	5,370	185	28,920	1,515	65,596	139,410	14,023
Saskatchewan	2,745	124	10,480	1,190	28,657	54,093	14,960
Manitoba	1,250	77	12,818	3,035	33,980	33,752	1,414
Ontario	1,739	321	116,260	3,197	227,260	86,642	2,500
Québec	1,185	240	38,915	4,315	187,696	25,190	9,117
New Brunswick	69	8	927	50	X	2,449	<1,000 (Atlantic)
Nova Scotia	83	28	2241	X	X	3,346	
Prince Edward Is.	63	7	138	44	X	1,481	
Newfoundland	12	2	113	X	X	186	
TOTAL Canada	13205	1042	225461	13450	704610	392340	43,151

Note: 'X' information suppressed to meet the confidentiality requirements of the Statistics Act

*No data are available on the small livestock populations of the Territories.

For further detailed information on industry demographics and production it is recommended for general information that the reader access the Statistics Canada ('Statcan') website at <http://www.statcan.gc.ca>, the AAFC site at <http://www.agr.gc.ca> and the following websites for more specific detailed information on species/production systems:

Livestock census: <http://www5.statcan.gc.ca/cansim>

Cattle, pigs, sheep and poultry: <http://www.statcan.gc.ca/tables-tableaux>

Goats: <https://canadianmeatgoat.com>

Deer, poultry, rabbits, game and meat

<http://www.agr.gc.ca/eng/industry-markets-and-trade>

¹⁴ E.01.1.1

Bison: http://canadianbison.ca/producer/News_Events/news_archives.htm

Dairy: <http://www.dairyinfo.gc.ca>

Table 4: Livestock population and production (2015)^{15,16}

	Number of farms (approximate)	Production/number slaughtered
Cattle (Beef)	~67,100	2,905,000 heads
Cattle (Dairy)	~11,450	
Pigs	6,990	21,186,200
Deer	750	3,393 elk, 3,272 deer
Bison	NA	14,186
Sheep	NA	562,500
Rabbits (2011)	2,790	669,873

Note: other animals are also reared in captivity including mink (Canada 783,185) and wild boars (Canada 4,150); also other species were slaughtered including horses (66,785) (2015).

Table 5 Poultry and Egg industry¹⁷

	Number of farms	Number slaughtered	Production*
Chicken (2015)	2,700	683,000,000	1,100,000 t
Turkey	530	21,500,000	170,000 t
Hatching eggs (2015)	240	-	707m 132m imported
Table eggs	1,020	-	8.4b

*t - tonnes, m – million, b – billion

Canada produced poultry and egg products worth \$4 billion (7% of total farm incomes).

Over 15 million chicks and poults, worth \$43 million were exported to 14 countries. The US was the largest market, (90%). Canada also exported over 33 million hatching eggs of different species, worth over \$46 million to 16 countries.

II.2.E Economic and financial data

Importance of agriculture and agri-food system (AAFS) to the Canadian economy¹⁸

- In 2014, the AAFS generated \$108 billion, accounting for 6.6% of Canada's Gross Domestic Product – this was made up of food retail/wholesale (1.8%), processing (1.7%). It is estimated that 2.3 million people are employed in this sector (12%).
- In 2014, Canada was the world's fifth-largest exporter of agriculture/agri-foods (\$52 billion, 58% of production). US is the major export market (52%)

¹⁵ <https://www.statcan.gc.ca/daily-quotidien/170510/dq170510a-eng.htm?indid=10441-1&indgeo=0>

¹⁶ <http://www.statcan.gc.ca/pub/96-325-x/2017001/article/54874-eng.htm>

¹⁷ <http://www.agr.gc.ca/eng/industry-markets-and-trade/statistics-and-market-information/by-product-sector/poultry-and-eggs/?id=1361290800923>

¹⁸ <http://www.agr.gc.ca/eng/about-us/publications/economic-publications/an-overview-of-the-canadian-agriculture-and-agri-food-system-2016/?id=1462288050282>

- Canada imports significant quantities of agricultural products (\$39 billion)

Table 6: Main imports – meat (2016)¹⁹

Product	Quantity (kg)	Countries of origin
Beef and veal	188,787,000	USA, Australia, New Zealand, Uruguay, Brazil, others
Pork	200,998,000	USA, Spain, Poland, Germany, Denmark, others
Lamb	15,664,000	New Zealand, Australia, USA, China, Chile, others
Mutton	2,635,000	New Zealand, Australia, Ireland, USA, United Kingdom, others
Goat	1,179,000	Australia, New Zealand, France, others
Bison	758,000	USA, Uruguay, Brazil, United Kingdom, Australia, others

Table 7: Main exports – animals and animal products (2015/2016)²⁰

Species	Quantity	Destination
Heads		
Cattle (2015)	818,000	US
Sheep and lamb (2015)	5,600	US
Hogs (2015)	101,400	US
Horses (2015)	1,000	US
Bison (2015)	26,000	US, others
Product (kg)		
Beef and veal (Nov 16)	330,615,000	US, Hong Kong, Japan, Mexico, South Korea, others
Pork (Nov 2016)	1,136,096,000	US, Japan, China, others
Poultry meat (2015) (chicken, turkey, duck and goose)	166,507,000	US and others
Bison meat (Jan-Oct 2016)	621,853	US, France, Switzerland, Netherlands, Germany, French territories, Belgium, others
Game meat exports (2015)	Deer: 2,790, Elk: 115,580, Bison: 1,196,350 Wild Boar: 44,650, Rabbit: 42,800 – to various countries	

Table 8: Total animals slaughtered at registered establishments in 2015/16²¹

Species	Federal	Provincial
Cattle	2,649,021	142,386
Sheep / Lamb	21,773	334,901
Goats	3,162	57,886
Pigs	20,393,617	864,659
Poultry (heads)	682,222,392	

¹⁹ <http://aimis-simia.agr.gc.ca/rp/index-eng.cfm?action=pR&r=184&pdctc=>

²⁰ <http://www.agr.gc.ca/eng/industry-markets-and-trade/market-information-by-sector/red-meat-and-livestock/red-meat-and-livestock-market-information/exports/red-meat-exports-by-country/?id=1419965032803>

²¹ <http://aimis-simia.agr.gc.ca/rp/index-eng.cfm?action=rR&pdctc=&r=111>

Poultry(kg)	1,139,940,998	
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Financial data²² - Canadian Food Inspection Agency

Table 9: CFIA budget

	2014–15 Expenditures	2015–16 YTD	2016–17 Estimate
Operations and contributions	646,617,028	545,413,013	512,042,839
Capital expenditures	20,608,538	57,162,334	93,074,099
Total voted	667,225,566	602,575,347	605,116,938
Total Statutory	181,267,323	135,486,196	134,622,227
Total budget	848,492,889	738,061,543	739,739,165

At the provincial/territorial level it is not possible to provide specific budgets for animal health/the veterinary services owing to different ministerial and functional structures. Partial financial information is provided below, however reporting parameters are not consistent. The reader is referred to the provincial/territorial websites as listed in section II.3.B.1.1 for further information.

Table 10: Partial financial information from provincial/territorial veterinary services

Province/Territory	budget (\$)	Year/comment
British Columbia	6,295,000	Estimate 2017/18
Alberta	27,000,000	Excludes research and extension
Saskatchewan	5,950,000	
Manitoba	6,037,000	Salaries only
Ontario	44,100,000	
Quebec	57,400,000	2015/16 Animal health and inspection services
New Brunswick	6,500,000	
Prince Edward Island	30,700,000	Min of Agriculture budget 2017/18
Yukon	859,000	

Note: other provinces/territories financial information were not available

II.3 Context of the evaluation

II.3.A Availability of data relevant to the evaluation

A list of documents received by the OIE PVS Team before and during the PVS Evaluation mission is provided in Part V, Appendix 5. Documents and presentations listed in Appendix 5 are referenced to relevant Critical Competencies to support the assessment of the levels of advancement and related findings.

²² <https://www.canada.ca/en/treasury-board-secretariat/services/planned-government-spending/government-expenditure-plan-main-estimates/2016-17-estimates/main-estimates.html#toc7-19>

The following table provides an overview of the availability of the main categories of documents or data needed for the evaluation, taking into account the information requirements set out in the OIE Terrestrial Code.

Table 11: Summary of data available for evaluation

Main document categories	Data available in the public domain	Data accessible only on site or on request	Data not available
→ Animal census:			
○ at 1st administrative level	✓		
○ at 2 nd administrative level	✓		
○ at 3rd administrative level	✓		
○ per animal species	✓		
○ per production systems	✓		
→ Organisations charts			
○ Central level of the VS	✓		
○ 2 nd level of the VS	✓		
○ 3 rd level of the VS	✓		
→ Job descriptions in the VS			
○ Central levels of the VS	✓		
○ 2 nd level of the VS	✓		
○ 3 rd level of the VS	✓		
→ Legislations, regulations, decrees ...			
○ Animal health and public health	✓		
○ Veterinary practice	✓		
○ Veterinary statutory body	✓		
○ Veterinary medicines and biologicals	✓		
○ Official delegation	✓		
→ Veterinary census			
○ Global (public, private, veterinary, para-professional)	✓		
○ Per level	✓		
○ Per function	✓		
→ Census of logistics and infrastructures	✓		
→ Activity reports	✓		
→ Financial reports	✓		
→ Animal health status reports	✓		
→ Evaluation reports	✓		
→ Procedures, registers, records, letters ...	✓		

II.3.B General organisation of the Veterinary Services

II.3.B.1 Canada's Animal Health System

Canada's veterinary system can be considered as three tiers: 1) CFIA is the federal regulatory authority for the control of certain animal diseases (federally regulated diseases) and support the federal public health authorities, 2) provincial and territorial ministries of agriculture and food provide veterinary services in their jurisdictions (including provincially/territorially regulated diseases) and support provincial/territorial public health authorities, and 3) private veterinary practitioners and laboratories provide services, including delivery of some elements of federal and provincial/territorial animal health programmes.

II.3.B.1.1 National veterinary services

Canadian Food Inspection Agency (CFIA)

CFIA^{23 24}, the veterinary authority for Canada is responsible for delivering federal inspection and quarantine programmes for food, plants and animals. CFIA reports to the Minister of Health and to the Minister of Agriculture and Agri-Food.

CFIA has a dynamic up-to-date website that provides comprehensive information on its policies, programmes and activities – <http://www.cfia-acia.agr.ca>. A brief overview is provided here:

CFIA develops and delivers inspection and other services to:

- Prevent and manage food safety risks
- Protect plant resources from pests, diseases and invasive species
- Prevent and manage animal and zoonotic diseases
- Contribute to consumer protection
- Contribute to market access for Canada's food, plants, and animals

CFIA verifies industry compliance with federal acts and regulations through registration and inspection of abattoirs and food processing plants, and the testing of products. CFIA works with industry to minimise food safety risks. CFIA, with Health Canada, provincial agencies and the food industry, provides a food emergency response system.

CFIA has 7,200 staff working centrally and regionally in four areas, 18 regions and 160 field offices. Staff have a range of scientific, technical, operational and administrative skills.

Legislation

CFIA is responsible for the administration and enforcement of food safety and animal health legislation²⁵. CFIA has the legislative authority for food safety (with Health Canada) and to control specified animal diseases (including some zoonoses), regulate animal feed and veterinary biologicals, perform tests on animals exported from and imported into Canada. In addition, CFIA monitors compliance with regulations on the humane transportation of animals.

Organisation

CFIA is structured as three functional branches (Operations, Science, and Policy and Programs) with supporting administration, communications, IT, legal, audit and liaison sections.

The Operations Branch is responsible for delivering CFIA programmes including inspections, issuing permits, certificates, licences, enforcement activities and leads on stakeholder engagement for programme delivery. At the time of the PVS Evaluation on-site visits, the Associate Vice-President of the Operation Branch was also the Chief Veterinary Officer (CVO) and OIE Delegate for Canada.

Area Operations Inspectors and Veterinarians working in the Meat Hygiene Program and/or the Animal Health Program operate either from federally registered meat establishments or a CFIA office. There is a well-defined organisational structure with

²³ <http://inspection.gc.ca/about-the-cfia/organizational-information/at-a-glance/eng/1358708199729/1358708306386>

²⁴ <https://www.canada.ca/en/treasury-board-secretariat/services/planned-government-spending/government-expenditure-plan-main-estimates/2016-17-estimates/main-estimates.html#toc7-19>

²⁵ <http://www.inspection.gc.ca/about-the-cfia/acts-and-regulations/list-of-acts-and-regulations/eng/1419029096537/1419029097256>

a hierarchy of delegation/reporting: Inspectors and Veterinarians report to their Supervisor/Veterinarian-in-Charge, who report to Regional Chief Inspectors, who report Area Chief Inspectors, who report to the Area Director General. The Area Director General reports to the Vice-President/Associate Vice-President of the Operations Branch.

The ‘Science Branch’ provides scientific leadership, advice and laboratory services to support ‘an effective science-based organisation’. CFIA laboratories are also structured using an area approach by which all laboratories in an area report to a laboratory executive director, a member of the Science Branch Executive Committee; reports are then sent on to the Chief Science Operating Officer.

The Animal Health Science Directorate is responsible for providing national leadership in the development and delivery of the Agency's national animal health science programmes and laboratory services. The Directorate works collaboratively in identifying and articulating national animal health priorities, directions, strategies, plans and reporting the Policy and Programs Branch and the Operations Branch as well as external stakeholders supporting the development and delivery of terrestrial/aquatic animal health programs. This Directorate provides the Agency with the following supporting science activities: risk assessment, epidemiology, animal disease surveillance, monitoring and early reporting, coordination of laboratory diagnostic testing services, analysis, and research and development needs, science intelligence and advice; and support for national and international strategic initiatives and committees.

Map 4: CFIA laboratories



The ‘Animal Health Directorate’, of the ‘Policy and Programs Branch’, designs and develops regulations, programmes and policies on animal health including disease control, animal feed, animal welfare, veterinary biologicals and import/export of live animals, germplasm and animal origin products and by-products. The import-export officers of this Directorate are also responsible for international negotiations. In addition, the Food Import, Export and Consumer Protection Directorate develops policies and requirements for food imports and negotiates conditions for exports (including meat and animal products) and labelling. The Domestic Food Safety Systems & Meat Hygiene Directorate oversees programme activities on domestic food safety.

The ‘veterinary biologicals registration program’ is administered by the Canadian Centre for Veterinary Biologics (CCVB), Animal Import/Export Division. CCVB is

responsible for regulatory controls, including the review and approval of new vaccines and other biological products.

Veterinary medicines and biologicals

Regulation of Veterinary Drugs is a joint responsibility in Canada:

- Health Canada is responsible for the evaluation, registration and monitoring of the safety, quality and effectiveness of veterinary drugs including import and manufacturing. Health Canada also determines whether a drug must be sold pursuant to a prescription (versus over the counter). Health Canada has responsibilities regarding compliance and enforcement aspects of the Food and Drugs Act and Regulations.
- CFIA is responsible for the enforcement of federal legislation (Health of Animals Act, Food and Drugs Act, Safe Food for Canadians Act, Feeds Act) focusing on preventing/controlling infection and the monitoring of antimicrobials residues in meat
- Provincial regulations control the practice of veterinary medicine and pharmacy including some use conditions. As it relates to the conditions of sale for veterinary drugs, (i.e over the counter versus prescription), – provinces can impose stricter requirements, but cannot relax the requirements set by the Federal Government.

The Canadian Integrated Program for Antimicrobial Resistance (CIPARS) has been operating for more than 15 years. CIPARS collects, analyses, and communicates trends in antimicrobial use and antimicrobial resistance in selected bacteria from humans, animals, and retail meat across Canada.

Provincial and territorial government responsibilities

Each provincial and territorial government in Canada has a 'Ministry of Agriculture', or equivalent, department or agency.

The individual provincial structures vary with some provinces employing field veterinarians directly to provide field veterinary services for livestock (New Brunswick, Newfoundland and Labrador) whilst others provide the core policy, regulatory, animal health, veterinary public health and welfare services at provincial/territorial level with the private sector providing field services. All jurisdictions provide/coordinate animal inspection, food safety and emergency services. Most of the provincial organisations have signed a Foreign Animal Disease Emergency Support (FADES) Plan with the CFIA, which sets down their roles and responsibilities during a foreign animal disease outbreak.

Table 12: Provincial and territorial governments veterinary and veterinary para-professional staff

Province/Territory	Veterinarians	Veterinary para-professionals
British Columbia	17.5	18
Alberta	16	85
Saskatchewan	8	18
Manitoba	12	43
Ontario	189	240
Quebec	81	240
New Brunswick	23	4
Nova Scotia	4	24
Prince Edward Island	1	9
Newfoundland and Labrador	11	7
North-West Territory	1	0
Yukon	2	0.5
Nunavut	0	0

Note: the reported

parameters are not consistent as numbers might/might not include meat hygiene and/or laboratory staff, managers and/or part time staff in some provinces).

Details on provincial/territorial governance structures and the ministries of agriculture are available on the provincial/territorial websites:

Alberta: <http://www.agric.gov.ab.ca>

British Columbia: <http://www2.gov.bc.ca>

Manitoba: <http://www.gov.mb.ca/agriculture>

New Brunswick: <http://cahss.ca>

Newfoundland and Labrador: <http://www.faa.gov.nl.ca>

Northwest Territory: <http://www.iti.gov.nt.ca/en/agriculture>

Nova Scotia: <http://novascotia.ca/agri>

Nunavut: <http://www.gov.nu.ca>

Ontario: <http://www.omafra.gov.on.ca>

Prince Edward Island: <https://www.princeedwardisland.ca/en/topic/agriculture-and-fisheries>

Quebec: <http://www.mapaq.gouv.qc.ca/en>

Saskatchewan: <http://www.saskatchewan.ca/government/government-structure/ministries/agriculture>

Yukon: <http://www.emr.gov.yk.ca>

Private veterinarians²⁶

The Canadian Veterinary Medical Association (CVMA) estimates that there are 13,300 veterinarians in Canada operating from more than 3,400 private veterinary practices in Canada.

Table 13: Veterinary practices

Practice type	Number of practices
Companion animal	2,218
Mixed animal	909
Large animal	363
Total practices	3,467

To support its role in animal health and animal certification, CFIA has an 'Accredited Veterinarian' programme with some 2,400 veterinarians accredited to perform duties that are limited to a specific province or territory and to the duties specified in the agreement. The Accredited Veterinarian's Manual provides instructions on the duties

²⁶ E.01.1.2

and functions to the accredited veterinarians on the programmes for which they are accredited. The Management of Accredited Veterinarians' Manual promotes consistency in the delivery and oversight of the 'National Accredited Veterinarian Program' by CFIA staff. Accredited veterinarians are trained, supervised, and audited by local CFIA staff.

II.3.B.1.1.2 Canadian animal health partnerships ²⁷

CFIA has established many partnerships with other government agencies. Only the higher profile ones are highlighted here.

CFIA establishes policies and standards for the biosecurity of animal health in Canada with policies and requirements for the import of livestock, animal products and food safety; the Canada Border Services Agency (CBSA) enforces these policies and procedures.

The Canadian Animal Health Surveillance Network (CAHSN) is a network of federal, provincial, and university animal health diagnostic laboratories developed to improve the national capacity to detect emerging animal disease threats. CAHSN focuses particularly on animal disease threats with a zoonotic potential and provides a rapid response to minimise human health and economic risks. CAHSN is based at the National Centre for Foreign Animal Disease (NCFAD) in Winnipeg and links to the Canadian Public Health Laboratory Network. CAHSN combines surveillance data received from multiple sources and can alert both human and animal health authorities when potential animal disease threats are identified.

The Canadian Notifiable Avian Influenza Surveillance System (CanNAISS) and Voluntary Enhanced Notifiable Avian Influenza Surveillance (VENAIS) support Canada's claim of freedom from AI. In CanNAISS, the CFIA combines surveillance data and information from all AI surveillance activities including surveys undertaken to validate the effectiveness of passive surveillance and to detect circulating LPAI in domestic poultry. VENAIS supports the disease freedom claim for exporters of high-value genetic poultry stock.

The National Enteric Surveillance Program (NESP) is a national surveillance programme, under Public Health Agency of Canada (PHAC), designed to provide timely analysis and reporting of laboratory confirmed enteric disease cases in Canada.

The National Farmed Animal Health and Welfare Council (NFAHWC) is an advisory council reporting to the Federal-Provincial-Territorial assistant Deputy Ministers of Agriculture responsible for regulations. The NFAHW Council is funded jointly by federal and provincial/territorial agencies/departments and industry organisations. The Canadian Animal Health Surveillance System (CAHSS) is an initiative of the NFAHW with broad based collaborative support of industry and governments. It has been designed to enhance animal health surveillance in Canada.

II.3.B.1.1.3 Food Safety

Public health is a shared responsibility in Canada, between the federal and provincial/territorial governments. CFIA has developed strong collaborative relationships with Health Canada (HC), Public Health Agency of Canada (PHAC) and Public Safety Canada (PSC).

- PHAC is the organisation responsible for promoting the health of Canadians by responding to public health emergencies, managing cross-sectoral information,

²⁷ E.01.1.2

and by increasing intergovernmental collaboration. The Agency has a range of emergency preparedness and response plans.²⁸ PHAC conducts outbreak surveillance and epidemiology and provides advice to protect people's health.

- Health Canada (HC) is responsible for setting policies and standards for the safety and nutritional quality of food sold and for the assessment of CFIA's programmes in achieving compliance with prescribed standards.
- CFIA is responsible for developing regulations and policies for non-health and non-safety related food labelling and composition standards. Some provinces also have legislation in place for these elements. CFIA carries out monitoring and inspection of the livestock and food industries to promote food safety.

The CFIA, PHAC and HC work with public health officials and provincial/territorial Ministries of Health to investigate food-related illnesses; when cases occur in multiple provinces, federal officials lead the epidemiological investigation. In addition, the federal agencies provide reference laboratory services, conduct food safety investigations and recall actions.

II.3.B.1.1.4 Government–livestock industry organisations, etc.

Livestock associations

In Canada there is a wide array of active industry associations, all of which have active websites. Some of the main associations are:

Cattle: Canadian Cattlemen's Association, Canada Beef Ltd, Canadian Beef Breeds Council, National Cattle Feeders Association, Dairy Farmers of Canada, etc.

Pigs: Canadian Pork Council, Canada Pork International, The Canadian Swine Exporter's Association, Canadian Swine Breeders Association

Poultry: Chicken Farmers of Canada, Egg Farmers of Canada, Turkey Farmers of Canada, Canadian Hatching Egg Producers, etc.

Sheep: Canadian Sheep Federation

Goats: Canadian Meat Goat Association

Meat: Canadian Meat Council, Canadian Poultry and Egg Processors Council, etc.

Alternative livestock: Canadian Livestock Records Corporation, Canadian Bison Association, Incorporated Breed Associations, Llama Canada, Alpaca Canada, Equestrian Canada, Canadian Livestock Genetics Association, etc.

For a full list of associations go to <http://www.agr.gc.ca/eng/industry-markets-and-trade/agri-food-trade-services-for-exporters/agriculture-and-food-trade-contacts-for-exporters/canadian-agriculture-and-food-industry-association/?id=1410072148297>

Canadian Wildlife Health Cooperative²⁹

The Canadian Wildlife Health Cooperative (CWHC) is dedicated to improving wildlife health and increasing awareness. CWHC is a network of expertise (diagnosticians, researchers, ecologists, educators and policy advisors) dedicated to wildlife health. CWHC is based on a partnership between Canada's five veterinary colleges and the British Columbia Animal Health Centre. CWHC provides a national perspective on wildlife health and leads the identification of emerging problems.

Animal welfare committees

²⁸ <http://www.phac-aspc.gc.ca/ep-mu/index-eng.php>

²⁹ <http://www.cwhc-rcsf.ca/>

Animal welfare is a shared responsibility between the federal (CFIA) and provincial/territorial agencies and animal industries. Canadian provinces and territories have the primary responsibility for protecting the welfare of animals, including farm animals on farms, at auction markets, assembly yards and provincially registered slaughter facilities. The Criminal Code of Canada prohibits anyone from willfully causing animals to suffer from neglect, pain or injury. The Criminal Code is enforced by the police services, provincial and territorial societies for protection of animals (e.g. SPCA) and/or provincial and territorial ministries of agriculture. CFIA is responsible for the welfare of all animals during transport and at federally registered (CFIA inspected) abattoirs. All provinces and territories have animal welfare laws and programmes of welfare investigation and enforcement.

The Federal/Provincial Animal Welfare Working Group (FPWW) is a forum that consists of representatives from the federal, provincial and territorial governments who have the responsibility for aspects of animal welfare in their respective jurisdictions. The group meets informally, mostly by monthly teleconference, to help improve communications about animal welfare within and between governments. This sharing of information allows governments to build awareness and response-capacity for animal welfare issues.

A number of Canadian organizations have specific animal welfare mandates and are responsible for various aspects of animal welfare. Among the principal groups are: National Farm Animal Care Council, Canadian Federation of Humane Societies, Canadian Council on Animal Care (CCAC) and Farm Animal Care Councils.

Antimicrobial resistance programmes

Antimicrobial usage and resistance has been monitored in Canada for many years. The Canadian Integrated Program for Antimicrobial Resistance Surveillance (CIPARS) collects, analyses, and communicates trends in antimicrobial use and antimicrobial resistance in selected bacteria from humans, animals, and retail meat across Canada. In some provinces, surveillance for antimicrobials has been in place for many years.

Recently CVMA³⁰ has received funding from a Federal Assistance Program to develop surveillance on antimicrobial use by veterinarians. This work aims to strengthen surveillance systems and help to identify new threats or changing patterns in antimicrobial resistance and use.³¹

II.3.B.1.2 Veterinary schools, Veterinary Regulatory Bodies, private veterinary services and public-private veterinary partnerships

Veterinary Schools³²

There are five veterinary colleges in Canada: the University of Calgary's Faculty of Veterinary Medicine (UCVM), the Ontario Veterinary College (OVC), the Atlantic Veterinary College (AVC), the Faculté de médecine vétérinaire de l'Université de Montréal (FMV – UM) in Quebec and the Western College of Veterinary Medicine in Saskatchewan (WCVM). All five veterinary colleges are fully accredited by the American Veterinary Medical Association (AVMA) Council on Education (on which the CVMA has representation)³³; through the AVMA accreditation, all veterinarians

³⁰ E.17.14

³¹ [Federal Action Plan on Antimicrobial Resistance and Use in Canada: Building on the Federal Framework for Action](#)

³² E.01.1.2

³³ https://www.avma.org/ProfessionalDevelopment/Education/Accreditation/Colleges/Documents/colleges_accredited.pdf.

graduating from a Canadian school are also accredited by the Royal College of Veterinary Surgeons of the United Kingdom.

The veterinary colleges have active research and teaching programs, and operate veterinary diagnostic laboratories. Veterinary students undertake a minimum of two to six years of pre-veterinary study at a recognised university or college and then four or five years of pre-clinical and clinical studies at a recognised veterinary college.

Veterinary Statutory Bodies

In Canada, licensing for the practice of veterinary medicine is the responsibility of the provincial/territorial veterinary associations or a separate licensing body empowered by provincial legislation. The role and authority of the provincial/territorial licensing body is to protect and serve the public interest through the regulation of the practice of veterinary medicine. While the general requirements to practice veterinary medicine are similar, specific requirements differ from province to province. Yukon is alone in not having a veterinary statutory body. In some provinces, the veterinary statutory bodies register both veterinarians and veterinary para-professionals.

Table 14: Total number of veterinarians by province/territory (at the time of the mission)

Province/Territory	Number
Alberta	1,909
British Columbia	1,652
Manitoba	382
New Brunswick	265
Newfoundland and Labrador	114
Nova Scotia	392
Prince Edward Island	180
Ontario	4,973
Quebec	2,940
Saskatchewan	716
Territories	32
National total	13,736

Private Veterinary Services and public-private veterinary partnership

- *Canadian Veterinary Medical Association*³⁴

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

Under the CVMA, the National Examining Board (NEB) manages the assessment of veterinarians in Canada. Approved candidates are then able to register in the provinces/territories following a course and assessment in the local area legislation.

- *Registered Veterinary Technologists and Technicians of Canada*³⁵

³⁴ <http://www.canadianveterinarians.net/about/default>

³⁵ E.05.6.1

The Registered Veterinary Technologists and Technicians of Canada (RVTTTC) is a not-for-profit organisation uniting provincial/regional veterinary technician and technologist associations. The RVTTTC is tasked with promoting the veterinary technologist profession, establishing and maintaining national standards of membership, and being a resource on national and international issues. Six provincial veterinary technician/technologists associations are members of RVTTTC, with over 6000 individual Registered Veterinary Technicians and Technologists.

II.3.C Animal disease occurrence

Federally reportable diseases³⁶ are specified in the Health of Animals Act and Reportable Diseases Regulations. Animal owners, veterinarians and laboratories (or any person) are required to immediately report the presence of an animal that is contaminated or suspected of being contaminated with one of these diseases to a CFIA veterinarian.

Table 15: Federally reportable diseases for terrestrial animals - 2016³⁷

African horse sickness	Lumpy skin disease
African swine fever	Newcastle disease
Anthrax	Highly pathogenic avian influenza and low pathogenicity avian influenza — subtypes H5 and H7
Bluetongue (specific serotypes)	Peste des petits ruminants
Bovine spongiform encephalopathy (BSE)	Pseudorabies
Bovine tuberculosis	Pullorum disease
Brucellosis (abortus, suis, melitensis)	Rabies
Chronic wasting disease	Rift Valley fever
Classical swine fever	Rinderpest
Contagious bovine pleuropneumonia	Scrapie
Contagious equine metritis	Sheep and goat pox
Cysticercosis	Swine vesicular disease
Equine infectious anemia	Trichinellosis
Equine piroplasmiasis (B.equi and B.caballi)	Venezuelan equine encephalomyelitis
Foot-and-mouth disease	Vesicular stomatitis
Fowl typhoid	

Reported 'federally reportable diseases' for terrestrial animals – 2016

Bovine tuberculosis (TB) – Two wildlife populations infected: wood bison in northern Alberta and adjacent Northwest Territories around Wood Buffalo National Park; elk and deer in southwestern Manitoba in and around Riding Mountain National Park.

Chronic wasting disease (CWD) – domestic and wild infected cervids were detected in Saskatchewan and Alberta.

Equine infectious anaemia (EIA) – infected horses detected in British Columbia and Saskatchewan.

Low Pathogenic Avian Influenza (LPAI) H7 – following an outbreak Canada has notified OIE that as of November 30, 2016, Ontario is considered free of notifiable

³⁶ <http://www.inspection.gc.ca/animals/terrestrial-animals/diseases/reportable/eng/1303768471142/1303768544412>

³⁷ <http://www.inspection.gc.ca/animals/terrestrial-animals/diseases/reportable/2016/eng/1329499145620/1329499272021>
<http://laws-lois.justice.gc.ca/eng/regulations/SOR-91-2/page-2.html#docCont>

avian influenza, following eradication and completion of a three month surveillance period.

Rabies – rabies cases were confirmed from wildlife and/or livestock from all provinces/territories in 2016 except, Nova Scotia, Prince Edward Island and the Yukon.




Table 16: Never reported 'federally reportable diseases' for terrestrial animals (2016)

African horse sickness	Pseudorabies (Aujeszky's disease)
African swine fever	Rift Valley fever
Brucella suis (in swine) and melitensis	Rinderpest
Contagious equine metritis	Sheep and goat pox
Lumpy skin disease	Venezuelan equine encephalomyelitis
Peste des petits ruminants	

Reporting to OIE

Canada reports to the OIE as required twice yearly and in real time, as required³⁸, following the identification of 'epidemiologically significant events'.

Table 17: Exceptional epidemiological events (2016)³⁹

Date of Notification	Disease	Reason for notification	Disease manifestation	Outbreaks	Date resolved
08/07/2016	Low pathogenic avian influenza (poultry)	Reccurrence	Sub-clinical infection	1	 20/09/2016
25/08/2016	Rabbit haemorrhagic disease	Reccurrence	Clinical disease	2	 24/11/2016
25/06/2016	Viral haemorrhagic septicaemia	Unexpected change or increase	Clinical disease		

OIE recognises Canada as officially free from African horse sickness, foot and mouth disease, peste des petits ruminants, classical swine fever and contagious bovine pleuropneumonia.

II.4 Organisation of the evaluation

II.4.A Timetable of the mission

Part V, Appendix 3 provides the timetable of the mission, details of the facilities and locations visited by the OIE PVS Team and a list of the discussions held/people met.

Part V, Appendix 4 provides the air travel itineraries for the team members.

II.4.B Categories of sites and sampling for the evaluation

Under the Canadian Constitution, animal health is a shared responsibility between the federal, provincial and territorial governments.

³⁸ http://www.oie.int/wahis_2/public/wahid.php/Countryinformation/Countryreports

³⁹ http://www.oie.int/wahis_2/public/wahid.php/Countryinformation/Countryreports

The OIE PVS Team visited the Commonwealth (federal-national) government in Ottawa and the provinces of Alberta, British Columbia, Manitoba, New Brunswick, Nova Scotia, Ontario, Quebec and Saskatchewan. Discussions were also held with Prince Edward Island and the Yukon.

Given the size of Canada the suggested sampling framework ('ideal' sampling) recommended in the OIE PVS Manual could not be applied. The evaluation included the widest possible spectrum of veterinary activities and addressed stakeholder and public-private partnership participation at all relevant levels.

The pre-mission OIE PVS Training Seminar (December 2016) addressed the concept and methodology of an OIE PVS Evaluation and its requirements and greatly facilitated preparations.

Part V, Appendix 3 provides a detailed list of sites visited and meetings conducted.

PART III: RESULTS OF THE EVALUATION & GENERAL RECOMMENDATIONS

This evaluation identifies the strengths and weaknesses of the veterinary services, and makes general recommendations.

FUNDAMENTAL COMPONENTS

1. HUMAN PHYSICAL AND FINANCIAL RESOURCES
2. TECHNICAL AUTHORITY AND CAPABILITY
3. INTERACTION WITH INTERESTED PARTIES
4. ACCESS TO MARKETS

The activities of the Veterinary Services are recognised by the international community and by OIE Members as a 'global public good'. Accordingly, it is a requirement that each country acknowledges the importance of the role and responsibilities of its Veterinary Services and gives them the human and financial resources needed to fulfil their responsibilities.

This OIE PVS Evaluation examined each critical competency under the four fundamental components, listed strengths and weaknesses where applicable, and established a current level of advancement for each critical competency. Evidence supporting this level is listed in Appendix 5. General recommendations are provided where appropriate.

The current level of advancement for each critical competency is shown in cells shadowed in grey (15%) in the table.

III.1. Fundamental component I: human, physical and financial resources

This component of the evaluation assesses the institutional and financial sustainability of the VS as evidenced by the level of professional/technical and financial resources available and the capacity to mobilize these resources. It is made up of fourteen critical competencies:

Critical competencies:

Section I-1	Professional and technical staffing of the Veterinary Services A. Veterinary and other professionals (university qualification) B. Veterinary para-professionals and other technical personnel
Section I-2	Competencies of veterinarians and veterinary para-professionals A. Professional competencies of veterinarians B. Competencies of veterinary para-professionals
Section I-3	Continuing education
Section I-4	Technical independence
Section I-5	Stability of structures and sustainability of policies
Section I-6	Coordination capability of the VS A. Internal coordination (chain of command) B. External coordination
Section I-7	Physical resources
Section I-8	Operational funding
Section I-9	Emergency funding
Section I-10	Capital investment
Section I-11	Management of resources and operations

Terrestrial Code References:

Points 1-7, 9 and 14 of Article 3.1.2. on Fundamental principles of quality: Professional judgement / Independence / Impartiality / Integrity / Objectivity / Veterinary legislation / General organisation / Procedures and standards / Human and financial resources.

Point 4 of Article 3.2.1. on General considerations.

Point 1 of Article 3.2.2. on Scope.

Points 1 and 2 of Article 3.2.3. on Evaluation criteria for the organisational structure of the Veterinary Services.

Point 2 of Article 3.2.4. on Evaluation criteria for quality system: "Where the Veterinary Services undergoing evaluation... than on the resource and infrastructural components of the services".

Article 3.2.5. on Evaluation criteria for human resources.

Points 1-3 of Article 3.2.6. on Evaluation criteria for material resources: Financial / Administrative / Technical.

Points 3 and Sub-point d) of Point 4 of Article 3.2.10. on Performance assessment and audit programmes: Compliance / In-Service training and development programme for staff.

Article 3.2.12. on Evaluation of the veterinary statutory body.

Points 1-5 and 9 of Article 3.2.14. on Organisation and structure of Veterinary Services / National information on human resources / Financial management information / Administration details / Laboratory services / Performance assessment and audit programmes.

I-1 Professional and technical staffing of the Veterinary Services	Levels of advancement
<i>The appropriate staffing of the VS to allow for veterinary and technical functions to be undertaken efficiently and effectively.</i> A. Veterinary and other professionals (university qualification)	1. The majority of veterinary and other professional positions are not occupied by appropriately qualified personnel.
	2. The majority of veterinary and other professional positions are occupied by appropriately qualified personnel at central and state / provincial levels.
	3. The majority of veterinary and other professional positions are occupied by appropriately qualified personnel at local (field) levels.
	4. There is a systematic approach to defining job descriptions and formal appointment procedures for veterinarians and other professionals.
	5. There are effective management procedures for performance assessment of veterinarians and other professionals.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 5): E.05.1.1, PP.08, PP.11, PP.13, EM.0.3, EM.04, EM.05, EM.13, EM.06.2/3

Findings:

The Canadian Veterinary Medical Association (CVMA) estimates that there are approximately 13,340 veterinarians in Canada. At the time of reporting, the CFIA accredits some 2,400 private veterinarians (see CC III-4) to undertake specific tasks on its behalf.

As of March 2017 there were 612 veterinarians working for the CFIA at national level, of which 561 were full-time and 51 part-time, including 33 hired on an ‘as needed’ basis. Staffing levels are considered appropriate by the OIE and have not changed significantly in recent years.

The age demographic shows that, within the next 5 years, 192 (35%) of the veterinarians in the Veterinary Medicine (VM) classification group are eligible to retire with a full pension at 55 after a minimum of 30 years of service. However, as there is no fixed retirement age, staff can decide to continue to work past their date of eligibility, which is likely if they joined the Agency later in their careers. A strategic workforce planning exercise is regularly conducted across all groups of employees at CFIA to assess succession needs and to develop succession plans.

All CFIA employees have to comply with the Agency’s ‘Code of Conduct’ and the ‘Discipline Policy’ which guides managers faced with employee misconduct issues. An ombudsman is available in case conflict resolution is required. A number of CFIA veterinarians undertake clinical work outside their work hours, mostly in companion animal practice – this activity must be declared under their statement of any conflicts of interest.

The position of veterinarians in the area and regional CFIA organograms is clearly described and similar across the country and covers all important functions. During visits there was no evidence of understaffing.

There is also flexibility for CFIA to employ staff in what is termed ‘double banking’ (more than one person is occupying the same position) allowing for rotation of frontline staff, or to avoid staff shortages due to absentees (assignment, maternity leave, etc.)

CFIA offers a Veterinary Student Internship Program which provides summer job opportunities for students in order to advocate for the mandate of the Agency and to enhance recruitment.

Job opportunities are advertised as: 1) internal – CFIA only, 2) open internal – all federal services, not only CFIA, and 3) open external – general public. It is the manager who decides how widely the position should be advertised. Lower levels (1-3) amongst the 5 VM levels are usually recruited through (2) and (3), the higher levels mainly through (1), except

for very specialised positions which might also be advertised on media that reach outside the country (e.g. LinkedIn).

Vacancies are published on the Federal Government website (jobs-emplois.gc.ca) and applications are received online through the Public Service Resourcing System (PSRS). The recruitment is usually at national level (except for short or part-time positions), the process is harmonised and identical across the country. There are a number of generic job descriptions (~30); to define others, a clear mechanism with guidelines exists. There are clear guidelines for the assessment and recruitment of candidates.

Each VM level has a maximum salary level (e.g. VM1 – reaches a maximum at six years) and for further promotion the onus is on the employee to look for next level positions either within the VM group or in other groups including managerial positions.

Annual employee performance assessment is a formal process and consistent across the CFIA. As part of any staffing process, a manager is able to consider a full range of experience and training of an employee, whether obtained within or outside the CFIA.

There is considerable flexibility in recruiting additional staff in emergency response situations. Recruitment can be directly from an existing pool of agents interested in short term positions – without any external advertisement/recruitment.

The Canadian Veterinary Reserve (CVR), an initiative of the CVMA and CFIA, was founded in 2006 to respond at federal-provincial-territorial (FPT) levels to large scale disease outbreaks. Currently 278 reservists are listed across Canada; these are veterinarians who have completed a set of training modules and have participated in provincial exercises.

It is estimated that by 2020 the number of veterinary graduates will be insufficient to fill the number of vacancies. This is likely to be exacerbated by the gender ratio increasing with many more women than men as women are more likely to specialise in companion animal private practice.

Table 18: Total CFIA and province veterinarians

Province	CFIA	Total veterinarians
Alberta	67	1689
British Columbia	54	1489
Manitoba	39	382
New Brunswick	17	265
Newfoundland and Labrador	4	102
Nova Scotia	7	349
Ontario	248	4600
Prince Edward Island	7	180
Quebec	142	2,940
Saskatchewan	31	716
Total	616	12524

Strengths:

- Stable, well-staffed veterinary authority (CFIA)
- Formal recruitment process
- Staff performance assessment in place with clear objectives and outcomes, levels of development and achievements are clearly defined
- Managers have the flexibility to manage their staff assets e.g. to allow for rotation of frontline staff
- Flexible recruitment in emergency situations

Recommendations

- Undertake a strategic review of future national veterinary needs considering the number of veterinarians, the rate of new graduations/immigration of veterinarians and the rate of retirement/loss to the profession

I-1. Professional and technical staffing of the Veterinary Services <i>The appropriate staffing of the VS to allow for veterinary and technical functions to be undertaken efficiently and effectively.</i> B. Veterinary para-professionals and other technical personnel	Levels of advancement
	1. The majority of technical positions are not occupied by personnel holding appropriate qualifications.
	2. The majority of technical positions at central and state / provincial levels are occupied by personnel holding appropriate qualifications.
	3. The majority of technical positions at local (field) levels are occupied by personnel holding appropriate qualifications.
	4. The majority of technical positions are effectively supervised on a regular basis.
	5. There are effective management procedures for formal appointment and performance assessment of veterinary para-professionals.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 5): E.05.1.1, PP.08, PP.11, PP.13, EM.0.3, EM.04, EM.05, EM.13, EM.06.2/3

Findings:

Veterinary para-professionals are used extensively in Canada by both the CFIA and the provincial/territorial veterinary services. Veterinary para-professionals are also employed by the private sector as veterinary technicians, livestock assistants, in wildlife centres, in research, academia and in the pharmaceutical industry.

Recruitment and performance assessment of technical staff of the CFIA follows the same principles as described under CC 1.1A and is handled by the Human Resources Department; provinces and territories have similar programmes.

There are 19 veterinary technicians training programmes, in seven provinces, accredited by the CVMA. However, there is no requirement for paraprofessionals employed by the CFIA to be trained through these programmes. Non-veterinarians without qualifications as veterinary technologists are sometimes recruited by the CFIA into 'developmental positions' from which they can be promoted into veterinary technician positions after receiving appropriate training.

As of May 2015, CFIA had 2,378 inspectors (animal, plant or food safety) working in the Operations Branch; 443 laboratory technicians were employed by the Science Branch.

CFIA veterinary technicians are supervised by CFIA veterinarians. The number of veterinary technical assistants to veterinarians in CFIA is shown in the table below.

Table 19: CFIA veterinary para-professionals and veterinarians by area

Area	Technical Assistant (TA) by category				Veterinarians (VM) in operational roles	Ratio TA/VM
	Animal Health – Terrestrial	Meat (slaughter & processing ¹)	Animal Health - Science	Total ¹		
Atlantic Provinces	62	57	-	95	31	3
National Capital Region (Headquarters)	2	1	3	6	77	0.1
Ontario	45	343	65	436	140	3.1
Quebec	21	414	15	446	134	3.3
Western Provinces ²	96	438	64	579	175	3.3
Total	226	1253	147	1,562	557	2.8

¹Employees may be counted in more than one category, but are only counted once in total

²Western Provinces include the National Centre for Foreign Animal Disease laboratory

Technicians can register with provincial technologists associations. The Registered Veterinary Technologists and Technicians of Canada (RVTTTC) is a not-for-profit organisation uniting provincial/regional veterinary technicians and technologist associations. Founded in 1989, RVTTTC was tasked with promoting the veterinary technologist profession, establishing and maintaining national standards of membership, and as an information resource on national and international issues – it is not a licensing body. Since its inception, RVTTTC has grown to cover all provincial veterinary technician/technologists associations, except Quebec, with over 6,000 individual Registered Veterinary Technicians and Technologists (RVTs); Quebec has its own strong provincial 'Association des Techniciens en Santé Animale du Quebec' (ATSAQ).

CFIA meat inspectors, if not RVT's, are required to: 1) if already employed with CFIA, to hold a post secondary education in a relevant technical science or education and work experience, or 2) if not employed with CFIA, to have a post-secondary education in a relevant technical science. The candidates are required to attend a Pre-Requisite Employment Program (PREP) programme – a 5-week residential program and one week of virtual training.

The CFIA Code of Conduct is mandatory for veterinary technical personnel as well as for veterinarians.

The provinces/territories employ large numbers of veterinary para-professionals – nationally there are more than 600 veterinary para-professionals. For more details see Table 12. Some provinces also provide veterinary supervision for their veterinary para-professionals.

Strengths:

- The Veterinary Services at federal, provincial and territorial levels have well established programmes using veterinary para-professionals to deliver the meat hygiene, welfare and other programmes
- Veterinary para-professionals have job descriptions and performance reviews
- A wide range of specialisations are recognised
- Effective management procedures are generally in place for the veterinary supervision of veterinary para-professionals

Weaknesses:

- A few instances were identified when veterinary supervision of veterinary para-professionals is limited e.g. meat inspection at smaller provincial abattoirs

Recommendations:

- Review supervision of veterinary para-professionals to ensure adequate veterinary supervision in all situations

I-2 Competencies of veterinarians and veterinary para-professionals	Levels of advancement
<p><i>The capability of the VS to efficiently carry out their veterinary and technical functions; measured by the qualifications of their personnel in veterinary and technical positions.</i></p> <p>A. Professional competencies of veterinarians including the OIE Day 1 competencies</p>	1. The veterinarians' practices, knowledge and attitudes are of a variable standard that usually allow for elementary clinical and administrative activities of the VS.
	2. The veterinarians' practices, knowledge and attitudes are of a uniform standard that usually allow for accurate and appropriate clinical and administrative activities of the VS.
	3. The veterinarians' practices, knowledge and attitudes usually allow undertaking all professional/technical activities of the VS (e.g. epidemiological surveillance, early warning, public health, etc.).
	4. The veterinarians' practices, knowledge and attitudes usually allow undertaking specialised activities as may be needed by the VS.
	5. The veterinarians' practices, knowledge and attitudes are subject to regular updating, or international harmonisation, or evaluation.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E.05.4.1-5, PP.08, PP.11, PP.09, PP.12

Findings:

There are five veterinary colleges in Canada: the University of Calgary's Faculty of Veterinary Medicine (UCVM), the Ontario Veterinary College (OVC), the Atlantic Veterinary College (AVC), the Faculté de médecine vétérinaire de l'Université de Montréal in Quebec and the Western College of Veterinary Medicine in Saskatchewan (WCVL). All five veterinary colleges are fully accredited by the American Veterinary Medical Association Council on Education (AVMA-COE) (on which the CVMA has representation)⁴⁰; through the AVMA accreditation, all veterinarians graduating from a Canadian school are also accredited by the Royal College of Veterinary Surgeons of the United Kingdom.

The veterinary courses are based on international best practice and reference 'OIE Day 1 competencies'. All colleges have active research and teaching programs, and operate veterinary diagnostic laboratories.

The minimum professional standard for practicing veterinary medicine in Canada is graduation from a recognized school of veterinary medicine, defined as:

- Graduation from a veterinary school accredited by the AVMA COE, or
- Graduation from some other veterinary school and completion of the required National Examining Board (NEB) examinations leading to and holding a Certificate of Qualification granted by the National Examining Board (NEB) of the CVMA.

To practice veterinary medicine requires registration with a provincial/territorial veterinary statutory body which are organisations legally established by provincial or territorial law as licensing bodies. Veterinarians must demonstrate that they meet all academic and occupational requirements with respect to degrees, examinations, etc.

Eligibility for an unconditional general license as a veterinarian includes the mandatory requirement of successful completion of the NEB examinations:

- North American Veterinary Licensing Examination (NAVLE) obtained within two attempts for graduates of accredited schools, or
- NAVLE, Basic and Clinical Sciences Examination (BCSE), Preliminary Surgical Assessment (PSA), and Clinical Proficiency Examination (CPE) for foreign-trained individuals from non-accredited schools.

⁴⁰https://www.avma.org/ProfessionalDevelopment/Education/Accreditation/Colleges/Documents/colleges_accredited.pdf

Successful candidates are eligible to apply for licensure in any jurisdiction in Canada. In some provinces, 'restricted general licenses' can also be granted to enable someone to practice with restrictions (e.g. veterinary dentistry, poultry specialists).

For those applying for positions within the CFIA, a copy of their degree, as well as proof of the successful completion of the NEB examinations is required. In circumstances where an individual does not have proof of completion of the NEB examinations, the CFIA will require certification from the appropriate provincial licensing body that the individual is eligible for licensing by the association. The CFIA does not require its veterinarians to be registered/licensed by a veterinary statutory body; it requires eligibility when the veterinarians are hired.

Resources available for specialised training needs are: Terrestrial Animal Health Common Procedures Manual and the Terrestrial Animal Health Hazard Specific Plans and Disease Specific Manuals of Procedure. The CFIA has undertaken a project to develop competency-based training frameworks for its three main activities: Inspectorate, Advisory, and Laboratory. Funding has been received from Parliament through the 'Improving Food Safety for Canadians' initiative. A sub-framework is being developed for Veterinary Inspectors.

CFIA and the provinces employ a large number of postgraduate qualified veterinarians with a range of specialist skills including in pathology, laboratory sciences, epidemiology and risk analysis and food safety.

Veterinary staff may also be trained in specific competencies, such as on Hazard Analysis and Critical Control Point (HACCP), the Food Safety Enhancement Program (FSEP) and the Compliance Verification System (CVS).

Strengths:

- Internationally recognised, high standard of veterinary training
- Wide range of post-graduate, specialist skills available in epidemiology, food safety, laboratory diagnostics, pathology, etc.
- In-service development of professional competencies

B. Competencies of veterinary para-professionals	Levels of advancement
	1. The majority of veterinary para-professionals have no formal entry-level training.
	2. The training of veterinary para-professionals is of a variable standard and allows the development of only basic competencies.
	3. The training of veterinary para-professionals is of a uniform standard that allows the development of only basic specific competencies.
	4. The training of veterinary para-professionals is of a uniform standard that allows the development of some advanced competencies (e.g. meat inspection).
	5. The training of veterinary para-professionals is of a uniform standard and is subject to regular evaluation and/or updating.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E.05.6.1-6, PP.08, PP.11, PP.32, EM.08/9

Findings:

Veterinary para-professionals in Canada are designated as Animal Health Technologists or as Veterinary Technicians/Meat inspectors (AHT/VT). Two categories are distinguished:

- A person who is professionally trained in a college programme for two or three years to earn an AHT/VT diploma. AHT/VT's are regarded as vital members of the veterinary healthcare team. The CVMA website provides a list of the current 19 accredited colleges training veterinary technicians in Canada.
- Minimum qualifications/requirements for individuals designated 'non-veterinary meat and animal welfare inspectors' are:
 - Current employees of CFIA, or those who have inspection experience with CFIA or its precursor departments, with completion of post-secondary education specialising in relevant technical sciences, or an acceptable combination of education, training and/or experience
 - Not current or former employees of CFIA, with completion of post-secondary education specialising in relevant technical sciences
 - In exceptional cases and only with the written authorisation of the responsible Regional Director, the minimum education requirement for 'slaughter positions in remote locations' may be reduced to a secondary school diploma or CFIA-defined alternatives
 - Other conditions may be applied by the provinces

As an example, a typical two-year training programme for veterinary technicians is run by the Dalhousie University Faculty of Agriculture, Department of Animal Science & Aquaculture, Veterinary Technology Program at Truro, Nova Scotia. This training programme is accredited by the CVMA with the accreditation being reviewed/renewed every 5 years. Graduate veterinary technicians are mainly employed by private small animal clinics and the pharmaceutical industry. Technicians can register with Regional Veterinary Technician Association for which they must pass an examination, as set by the American Association of Veterinary State Boards. The registration provides title and status protection in some provinces.

Most provinces have an AHT/VT college accredited by the CVMA. Completion of the course(s) and passing the Veterinary Technician National Examination (VTNE) are prerequisites of joining a provincial veterinary technician association. Registration of veterinary para-professionals is not mandatory in all provinces. In some provinces, there is a move to

have the registration of technologists under the umbrella of the provincial veterinary statutory bodies.

Meat inspectors at the federal level may be hired with limited knowledge or experience in the meat inspection field. As a result, they are hired into 'developmental positions', from which they can be promoted after achieving certain criteria. Inspectors must complete at least one year in the meat hygiene programme as a 'developmental inspector' and complete the orientation training on the legislative authority and a minimum number of training modules. Following this, they are eligible to take a CFIA certification examination, which is offered twice per year. They must pass this examination as well as a training appraisal to be considered for promotion from their developmental position.

In 2012, the CFIA 'Pre-Requisite Employment Program' (PREP) was implemented to demonstrate CFIA's commitment to provide all new inspectors with the core knowledge and skills required to perform their duties on the job. PREP is mandatory for some, particularly frontline, new CFIA employees (both veterinarians and veterinary para-professionals). The programme is a five-week residential program and one week of virtual training that covers a blended learning approach including classroom instruction, e-learning, and discussions with experienced inspectors.

Within the CFIA, training of new meat processing inspectors is primarily accomplished through the National Training Plan for Meat Inspectors which is delivered through the CFIA's National Meat Processing Schools (NMPS).

In addition to the many courses delivered within the National Training Plan, new employees are also required to complete other courses that are managed at the area level such as: food-borne diseases, labelling requirements in meat processing, import control tracking system, recall, labelling, etc. There are also training courses offered to inspectors who perform specialised activities such as: metal can integrity, nutritional labelling and E. coli 0157:H7 policy and sampling.

Once promoted out of the developmental position, they are able to take additional training specific to certain inspection systems and other programmes such as Hazard Analysis and Critical Control Point (HACCP), the Food Safety Enhancement Program (FSEP) and the Compliance Verification System (CVS).

CFIA AHT/VT staff capabilities are monitored by veterinary inspectors and additional training provided as required.

Canadian provinces and territories have the primary responsibility for protecting the welfare of animals, including farm animals according to their provincial/territorial regulations. Para-professionals are provided with appropriate training. The Criminal Code of Canada is enforced by police services, societies for protection of animals and/or provincial and territorial animal welfare inspectors of their ministries of agriculture.

The provincial Veterinary Services employ AHT/VTs to implement food safety programmes at abattoirs. In some provinces, these staff are under the supervision of a veterinarian. However in many provinces para-professional report to non-veterinary managers, particularly in low throughput establishments, that is there is no/limited veterinary supervision. Provincial authorities employing these technicians are responsible for their supervision, training and maintenance of their competencies. Provincial statutory bodies and academics also play a role in the training and continuous education of veterinarians and technicians.

Strengths:

- Uniform training standards with training offered in advanced competencies for meat inspectors
- Accredited training colleges for veterinary technologists

Weaknesses:

- Limited supervision of some provincial meat inspectors at low throughput abattoirs

Recommendations:

- Review and address the limitations of the food safety programme in provincial abattoirs

I-3 Continuing education (CE) ⁴¹	Levels of advancement
<i>The capability of the VS to maintain and improve the competence of their personnel in terms of relevant information and understanding; measured in terms of the implementation of a relevant training programme.</i>	1. The VS have no access to veterinary, professional or technical CE.
	2. The VS have access to CE (internal and/or external programmes) on an irregular basis but it does not take into account needs, or new information or understanding.
	3. The VS have access to CE that is reviewed annually and updated as necessary, but it is implemented only for some categories of the relevant personnel.
	4. The VS have access to CE that is reviewed annually and updated as necessary, and it is implemented for all categories of the relevant personnel.
	5. The VS have up-to-date CE that is implemented for all relevant personnel and is subject to regular evaluation of effectiveness.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 5): E.05.3.1, E.05.4.1-5, EM.13, MS#39

Findings:

Ongoing training for veterinarians and veterinary technicians is an integral part of CFIA's policy for employees. Training needs assessments are carried out to identify: 1) the topics and 2) best methods for the delivery of training. Training is delivered at national (e.g. the 'Foreign Animal Disease Recognition Course' at Winnipeg), area and regional levels. The Learning Division of the Human Resource Branch also develops job category manuals (e.g. Meat Hygiene Manual of Procedures).

CFIA has developed competency based training frameworks for its three core activities: 1) Inspectorate, 2) Advisory and 3) Laboratory which can be considered the 'master plan' for CE for all levels of CFIA. Since 2012 CFIA has implemented the 'Pre-Requisite Employment Program' (PREP) to provide core knowledge and skills to some new employees. It is a five-week residential programme with one week of virtual training.

There are specific orientation programmes for field veterinarians, and a wide range of CE training opportunities such as 'Veterinary Professional Update' courses and foreign animal disease courses. Participation in CE is a key feature in performance assessment and promotion for both veterinarians and non-veterinarians.

For veterinary technicians the respective CFIA regions and provinces as well as the RVTTTC (see CC I.B) offer CE programmes.

For provincial registered veterinarians to renew their license a set number of days must be spent on CE. The time required varies between provinces and territories with most requiring 20 hours a year, others e.g. Quebec require 40 hours every two years (60 hours for specialists), Prince Edward Island requires 20 hours every two years.

Strengths:

- CFIA provides CE opportunities for most of its employees, oriented towards immediately relevant skills for the job
- CVMA and the provincial/territorial associations provide CE courses
- CE is an element of performance assessment and is considered in any application for promotion
- A framework for a master plan for CE exists and is regularly updated

Recommendations:

- Standardise CE requirements across provinces/territories

⁴¹ Continuing education includes Continuous Professional Development (CPD) for veterinary, professional and technical personnel.

I-4 Technical independence	Levels of advancement
<i>The capability of the VS to carry out their duties with autonomy and free from commercial, financial, hierarchical and political influences that may affect technical decisions in a manner contrary to the provisions of the OIE (and of the WTO SPS Agreement where applicable).</i>	1. The technical decisions made by the VS are generally not based on scientific considerations.
	2. The technical decisions take into account the scientific evidence, but are routinely modified to conform to non-scientific considerations.
	3. The technical decisions are based on scientific evidence but are subject to review and possible modification based on non-scientific considerations.
	4. The technical decisions are made and implemented in general accordance with the country's OIE obligations (and with the country's WTO SPS Agreement obligations where applicable).
	5. The technical decisions are based only on scientific evidence and are not changed to meet non-scientific considerations

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 5): PP.01/2, E09.1.1-3

Findings:

Technical decisions are largely based on scientific evidence and without direct intervention from politicians, commercial or financial interests.

The Veterinary Services undertake rigorous assessments of policy and programme options based on scientific evidence (formal risk analysis, collection and review of surveillance data, consideration and reviews of control options, etc.), economic impact, etc. Assessments and decisions are well documented and available on public websites and through direct enquiry.

An example of the high level of technical independence was the response to an AI outbreak in 2014/15. At the beginning of the AI outbreak the CFIA's initial estimates were high and the Agency was not certain it could absorb the costs from within its available budget; the Agency contacted the Treasury Board to indicate that financial relief might be required if the outbreak were to continue as originally estimated. Though not required as the outbreak was quickly controlled, the Treasury were able to endorse this request without referring the request to Parliament.

However some issues that compromised technical independence were identified including:

- Delays in updating welfare legislation for more than 10 years, most particularly the CFIA proposal for better alignment with international standards for transport by drastically reducing the length of time that animals can be transported without food, water and rest. The livestock and poultry industry has been able to 'persuade' the agency that this was not appropriate owing to 'negative economic impacts'.
- In one province, the revision of regulations to the Veterinarians Act, which was to include within the definition of veterinary medicine the castration of horses, was not endorsed. Members of the Legislative Assembly failed to approve this proposal and so castration of horses can still be undertaken by lay people.
- CWD control has been limited by non science-based considerations. The proposed zoning for the control of CWD was rejected by certain sectors of the cervid industry on the basis that it would limit their ability to move animals and trade.
- Progress on property registration, animal identification and movement control has been delayed by industry fearing the costs of its implementation.

Strengths:

- Policy and programme decisions are well documented and publicly available
- History of implementing programmes and responding to outbreaks based on technical considerations

Weaknesses:

- Some politically powerful lobby groups are able to modify technical decisions

Recommendations:

- Continue to maintain technical independence based on documented evidence
- Increase advocacy and promote understanding amongst industry leaders and politicians

I-5 Stability of structures and sustainability of policies	Levels of advancement
<i>The capability of the VS structure and/or leadership to implement and sustain policies over time.</i>	1. Substantial changes to the organisational structure and/or leadership of the public sector of the VS frequently occur (e.g. annually) resulting in lack of sustainability of policies.
	2. Sustainability of policies is affected by changes in the political leadership and/or the structure and leadership of VS
	3. Sustainability of policies is not affected or is slightly affected by changes in the political leadership and/or the structure and leadership of VS.
	4. Policies are sustained over time through national strategic plans and frameworks and are not affected by changes in the political leadership and/or the structure and leadership of VS
	5. Policies are sustained over time and the structure and leadership of the VS are stable. Modifications are based on an evaluation process, with positive effects on the sustainability of policies.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 5): E09.1.1-3, E09.2.1-5, MS#23, EM.12, MS#24

Findings:

Canada has a strong commitment to its agricultural sector including animal health and production and the promotion of trade in animals and animal products. This policy has been sustained over many years and has resulted in Canada being a preferred supplier to many high value, demanding export markets.

Canada has developed a series of development plans for its agricultural and agri-food sector. 'Growing Forward 2 (2013-2018)' is the second five year programme supported by the federal, provincial and territorial governments to strengthen government agricultural programmes and services.

'Growing Forward 2' includes projects covering antimicrobial use and the surveillance of antimicrobial resistance, swine influenza surveillance, a cow-calf surveillance network, Johne's and BVD surveillance and control in cattle, disease surveillance in sheep, provincial rabies response programmes, development of provincial and national surveillance of laboratory information systems, Porcine Epidemic Diarrhoea surveillance, Cache valley virus surveillance, and swine influenza and wild pigs/feral swine disease surveillance.

Animal health leadership in CFIA is stable with only moderate staff movement and departure. Staff changes are independent of any political changes.

CFIA has recently undergone some major organisational changes and this has delayed some activities such as the finalisation of some CFIA-province Foreign Animal Disease Emergency Support (FADES) plans. It is understood that the organisational change has now largely been completed.

Government and CFIA undertake regular audits of animal and veterinary public health programmes and these provide ongoing monitoring. Programmes are revised as necessary as situations change to ensure effectiveness, efficiency and sustainability.

The provincial Veterinary Services have well established policies and programmes under their ministries of agriculture. Legislation governing animal health, production and welfare has been longstanding with periodic updates. Programmes are stable and ongoing but adapt as necessary to changes such as incursions of foreign animal diseases. Some financial pressures are limiting programme activities such as providing additional staffing to address emerging diseases.

Strengths:

- Stable, well documented policies and programmes both federally and provincially
- Policies and programmes adapt as needs and circumstances change

I-6 Coordination capability of the Veterinary Services	Levels of advancement
A. Internal coordination (chain of command) <i>The capability of the VS to coordinate its resources and activities (public and private sectors) with a clear chain of command, from the central level (the Chief Veterinary Officer), to the field level of the VS in order to implement all national activities relevant for the Codes (i.e. surveillance, disease control and eradication, food safety and early detection and rapid response programmes).</i>	1. There is no formal internal coordination and the chain of command is not clear.
	2. There are internal coordination mechanisms for some activities but the chain of command is not clear.
	3. There are internal coordination mechanisms and a clear and effective chain of command for some activities.
	4. There are internal coordination mechanisms and a clear and effective chain of command at the national level for most activities.
	5. There are internal coordination mechanisms and a clear and effective chain of command for all activities and these are periodically reviewed/audited and updated.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 5): E09.1.1-3, E09.2.1-5, E.09.2, E09.2.1-5, E09.3.1-3, EM.14

Findings:

CFIA has a large staff (~6,555) and an extensive national network with four area offices, 18 regional offices, 185 field offices and more than 400 offices at other sites (abattoirs, border sites, etc.).

The CFIA has a clear mandate that all staff are aware of and committed to:

- Prevention and management of food safety risks
- Protection of plant resources from pests, diseases and invasive species
- Prevention and management of certain animal and zoonotic diseases
- Contribution to consumer protection
- Contribution to market access for Canada's food, plants, and animals

Within the CFIA, there is a clear chain of command from the CVO to the field level through the Vice President of Operations, the area and regional offices. However, this structure may change if the CVO holds a different position within the CFIA. CFIA has a matrix chain of command between the various branches (the three main being Operations, Programs and Policies, Science) and the three business lines (Animal Health, Plant Health and Food Safety).

CFIA and provinces have distinct mandates. Coordination and consultation between CFIA and provinces occur through regular meetings between the CFIA and the provincial CVOs through the Council of Chief Veterinary Officers (CCVO). Political direction is provided through biannual face-to-face meetings and bi-monthly teleconferences of the 'Federal-Provincial-Territorial Regulatory Assistant Deputy Ministers Committee'.

A number of MoUs have been signed between the CFIA and the provinces covering emergency preparedness and response including the Foreign Animal Disease Emergency Support (FADES) plans which cover the roles and organisation required from respective agencies to respond effectively to emergencies. Emergency contingency plans have been developed using the Incident Command System (ICS) approach to management and coordination; staff at federal and some provincial level are trained in the principles of ICS management of an emergency. An Umbrella Agreement for information sharing between CFIA and most provinces exists.

A departmental performance review in 2015/16 reviewed CFIA internal coordination mechanisms of the Veterinary Services and identified the need for increased consistency

and harmonisation. To achieve improved consistency CFIA has established the Operational Guidance and Expertise (OGE) programme in which virtual centres/staff with specific expertise have been identified nationally. Queries from field staff or from area specialists are directed to OGEs directly. After some initial problems with long delays in receiving the requested information, the quality of the service provided by the OGE has improved significantly, but inconsistencies between regions still exist.

A number of databases support the activities of CFIA: CVS for certain inspection activities, Laboratory Sample Tracking System (LSTS) for laboratory testing and results, Automated Import Reference System (AIRS) for import conditions and inspection/release/rejection instructions and CAHSN for capturing some surveillance data.

Surveillance reports for Notifiable Diseases (regulated by the CFIA) are sent regularly by the provincial and private laboratories to the CFIA enabling assessment and monitoring of the animal health situation and allowing CFIA to fulfil its OIE obligation for disease reporting.

All provinces comply with federal regulations related to reportable and notifiable diseases. Other diseases are regulated only at the provincial level. There is no systematic reporting of provincially regulated disease control activities, which are not under the mandate of the CFIA. Currently, the CFIA reports only limited information related to provincially regulated diseases that are diagnosed in CFIA laboratories, this is a concern for the provinces and the ability to understand in detail the animal health situation.

Provincial/territorial delivery and internal coordination of veterinary services delivery is more variable with the larger provinces having significant numbers of staff and programmes; smaller provinces have more limited programmes. In two provinces, all livestock veterinarians are employed directly and provide a subsidised service. Within province organisation and coordination is clear with an effective chain of command for all activities.

Strengths:

- Clear organograms with defined roles in CFIA and provincial ministries
- Strong CFIA-provincial collaboration at Assistant Deputy Minister and CVO levels
- MoUs with provinces for some activities

Weaknesses:

- Surveillance reports to the CFIA are limited to OIE listed diseases from some provinces (see CC II 5 A and CC I.11)
- Limited CFIA-provincial coordination at operational/field levels

Recommendations:

- Improve data and information sharing between provinces and CFIA
- Increase CFIA-provincial coordination at the operational/field level

B. External coordination	Levels of advancement
<p><i>The capability of the VS to coordinate its resources and activities (public and private sectors) at all levels with other relevant authorities as appropriate, in order to implement all national activities relevant for OIE Codes (i.e. surveillance, disease control and eradication, food safety and early detection and rapid response programmes). Relevant authorities include other ministries and Competent Authorities, national agencies and decentralised institutions.</i></p>	1. There is no external coordination.
	2. There are informal external coordination mechanisms for some activities, but the procedures are not clear and/or external coordination occurs irregularly.
	3. There are formal external coordination mechanisms with clearly described procedures or agreements for some activities and/or sectors.
	4. There are formal external coordination mechanisms with clearly described procedures or agreements at the national level for most activities, and these are uniformly implemented throughout the country.
	5. There are national external coordination mechanisms for all activities and these are periodically reviewed and updated.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 5): E09.1.1-3, E09.2.1-5, E09.3.1-3

Findings:

CFIA has regular coordination meetings and communications with the other health agencies (Health Canada and the Public Health Agency of Canada), key partners (Agriculture and Agri-Food, Environment and Climate Change, CBSA) and with other key supporting federal ministries including the Treasury Board, Global Affairs Canada and the Royal Canadian Mounted Police.

The different health services regularly have both regular and *ad hoc* meetings as required. Mechanisms and procedures are well established for daily communication and cooperation. For example, Health Canada provides standards and risk assessment to the risk managers of the CFIA; Public Health Agency of Canada coordinates the investigation in cases of foodborne diseases.

Federal-Provincial-Territorial (FPT) governance structures are well established with several different structures for coordination:

- At the policy level Federal Deputy Ministers and Assistant Deputy Ministers meet regularly with the Public Health Network Council, FPT Regulatory Assistant Deputy Ministers of Agriculture and FPT Policy Assistant Deputy Ministers of Agriculture
- The CCVO (Council of Chief Veterinary Officers) engages the Council of Chief Medical Officers of Health on strategic issues, as required
- Regular meetings are also held with other partners such as the National Farmed Animal Health and Welfare Council (NFAHWC), a government-industry partnership

MoUs have been agreed with provinces for sharing some inspection activities and for emergency response to define the mobilisation of provincial resources from other departments (civil security).

CFIA consults regularly with industry stakeholders to review and update disease surveillance and control programmes and propose changes of legislation (see CC III.6).

CFIA recently completed a 'departmental review' that assessed coordination mechanisms within and external to the agency.

A recent example of the level of external coordination is the response to the TB detection in Alberta. Human health services were involved to assess any human health component including conducting intradermal tests and providing mental health support. Industry supported communications was embedded in the emergency response as liaison officers and the veterinary colleges have been supporting test review and validation.

Each province has developed its own organisation and coordination mechanism between the ministries responsible for the Veterinary Services (animal health, food safety inspection, veterinary drugs distribution and use, etc.). In most cases, coordination mechanisms are well established. Sharing data and information could be improved between animal health and food safety. By working across agencies there is also an opportunity to increase oversight and control of veterinary drug use and reporting to the provincial CVOs.

Some specific weaknesses were identified. Meat inspection in Nova Scotia has been transferred to the Environmental Department with no veterinarians and as yet no arrangement (MoU or other agreement) for supervision by the Ministry of Agriculture (see CC II.8B). In Quebec, veterinary pharmacy inspections performed by the provincial VSB are not reported to the provincial ministry (see CC II.9).

Strengths:

- Good coordination between all relevant federal government agencies
- Number of MoUs with provinces especially for emergency response

Weaknesses:

- Some lack of coherent reporting between some federal/provincial activities and provincial ministries

Recommendations:

- CFIA and provinces should review and upgrade coordination mechanisms and the development of joint programmes
- Strengthen reporting to ensure that the provincial CVOs have all the information available on their animal health, veterinary health and animal welfare situation

I-7 Physical resources	Levels of advancement
<i>The access of the VS to relevant physical resources including buildings, transport, telecommunications, cold chain, and other relevant equipment (e.g. computers).</i>	1. The VS have no or unsuitable physical resources at almost all levels and maintenance of existing infrastructure is poor or non-existent.
	2. The VS have suitable physical resources at national (central) level and at some regional levels, and maintenance and replacement of obsolete items occurs only occasionally.
	3. The VS have suitable physical resources at national, regional and some local levels and maintenance and replacement of obsolete items occurs only occasionally.
	4. The VS have suitable physical resources at all levels and these are regularly maintained.
	5. The VS have suitable physical resources at all levels (national, sub-national and local levels) and these are regularly maintained and updated as more advanced and sophisticated items become available.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 5): MS#31-3

Findings:

The Veterinary Services are well resourced at both federal and provincial levels.

CFIA has a network of high quality offices at its headquarters in Ottawa (two offices), its four area offices, 18 regional offices and 185 other offices. All these offices are well appointed with personal computers and peripherals, IT networks and access to the internet and telecommunications. Non-supervisory meat inspectors in federal slaughter establishments usually share a computer during their off-line time. Most employees have a cell phone, some also have pagers. In remote areas CFIA staff have access to satellite phones.

The CFIA has a fleet of approximately 1240 vehicles. CFIA field employees manage their vehicle maintenance and repairs, and ensure safety equipment is maintained. CFIA policy is that vehicles should be replaced regularly – none are to be older than seven years; replacement is assessed against vehicle utilisation and adjusted accordingly. CFIA also owns a number of all terrain vehicles and several small boats.

CFIA leases some 150 offices/facilities through the Public Services and Procurement Canada or from other government departments. A number of major refurbishment programmes are underway to renew/upgrade critical infrastructure.

CFIA has a network of diagnostic laboratories all of which have high quality facilities and equipment. The Winnipeg National Centre for Foreign Animal Diseases is operated jointly with the Public Health Agency of Canada and provides world class facilities for research and diagnostics including BSL3 and BSL4 facilities.

The 'CFIA Investment Plan 2015/16 – 2019/20' sets out a programme for the ongoing investment in four areas: advanced information management and IT technology, facility leasing and management, vehicles and the latest in scientific and laboratory equipment.

The provincial departments of agriculture vary in their management and structure. All provinces have suitable physical resources – offices, vehicles, IT and telecommunications equipment – at their headquarters and also at their regional and district centres. Field veterinary equipment is excellent and within CFIA it includes 'Go Kits' for rapid field assessment of suspected foreign animal disease outbreaks.

Strengths:

- Appropriate, well maintained modern facilities, vehicles and equipment

I-8 Operational funding	Levels of advancement
<i>The ability of the VS to access financial resources adequate for their continued operations, independent of political pressure.</i>	1. Funding for the VS is neither stable nor clearly defined but depends on resources allocated irregularly.
	2. Funding for the VS is clearly defined and regular, but is inadequate for their required base operations (i.e. disease surveillance, early detection and rapid response and veterinary public health).
	3. Funding for the VS is clearly defined and regular, and is adequate for their base operations, but there is no provision for new or expanded operations.
	4. Funding for new or expanded operations is on a case-by-case basis, not always based on risk analysis and/or cost benefit analysis.
	5. Funding for all aspects of VS activities is adequate; all funding is provided under full transparency and allows for full technical independence, based on risk analysis and/or cost benefit analysis.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 5): MS#31-3

Findings:

The CFIA estimated operational funding for 2016/17 is \$740 million. This total covers the CFIA's main operational areas (food safety, plant and animal health programme activities) carried out by Operations, Science, Policy and Programmes and supporting branches (IT/information services, human resources, communications and public affairs, finance, audit and evaluation, etc.). This is an increase of \$40 million from the 2015/16 year owing to increased support from Treasury for infrastructure (a national policy priority), implementation of the 'Electronic Service Delivery Platform Initiative' and increased resources to strengthen Canada's food safety oversight system.

The animal health programme activity had an estimated operational funding of \$137 million in 2016/17.

CFIA has a specified 'spending authority', approved annually by parliament which provides for annual operational funding with capital investment ('voted authority') and for 'responsible revenue' (that is fees raised are retained and how these may be spent by CFIA), compensation payments and employee benefits (statutory authority). (Note 'voted authority' requires annual parliamentary approval whereas 'statutory authority' is set down in law).

Annual reports on CFIA expenditures are required by parliamentarians and Canadians. Two reports are required – a 'Departmental Plan' that sets out objectives, priorities and financial allocations, covering a three-year period beginning with the year of the plan, and a 'Departmental Report' that reports on progress towards objectives and priorities.

Annual resource allocations are adjusted to reflect changing priorities such as the ongoing response to the TB detection in Alberta. Reallocations may require transfers between branches.

CFIA implements a 'Federal Assistance Program' to support programmes and stakeholders. This annual 'small contribution' programme supports stakeholder organisations such as CVMA, OIE and "Veterinarians without Borders". The maximum contribution payable to any one recipient is \$2 million per year. Maximum value of all contributions in any one year is \$4.5 million.

Provincial Veterinary Services budgets have generally been sustainable though varying in absolute and relative terms. Many provinces are now facing significant budget pressures with significant cuts to their agriculture budget and this has caused some producer concerns, notwithstanding this the ministries state that their level of service will be unaffected. (See Table 10 for more details)

All federal and provincial budgets in Canada are publicly available and published on line.

Strengths:

- Well established policies and programmes with ongoing budget support

Recommendations:

- There is an opportunity to review cost recovery and user pay options throughout the Veterinary Services

I-9 Emergency funding	Levels of advancement
<i>The capability of the VS to access extraordinary financial resources in order to respond to emergency situations or emerging issues; measured by the ease of which contingency and compensatory funding (i.e. arrangements for compensation of producers in emergency situations) can be made available when required.</i>	1. No funding arrangements exist and there is no provision for emergency financial resources.
	2. Funding arrangements with limited resources have been established, but these are inadequate for expected emergency situations (including emerging issues).
	3. Funding arrangements with limited resources have been established; additional resources for emergencies may be approved but approval is through a political process.
	4. Funding arrangements with adequate resources have been established, but in an emergency situation, their operation must be agreed through a non-political process on a case-by-case basis.
	5. Funding arrangements with adequate resources have been established and their rules of operation documented and agreed with interested parties.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 5): E.07.1/2, MS#17

Findings:

Emergency response is the responsibility of the CFIA and is supported by the provinces/territories, the Department of Agriculture and Agri-Foods (AAFC) and other stakeholders.

The CFIA has a dedicated annual reserve of \$5.8 million to manage emergency responses. This figure is reviewed annually as part of the Agency's planning process. The annual reserve is reset each year and not aggregated from year to year. The emergency reserve is to be used for 'incremental responses' that is those beyond the normal course of business and so allows for prompt action. CFIA is required to report to the Treasury Board within 60 days of the end of each fiscal year on access to the funds and the results of their use, outcomes and lessons learnt.

CFIA emergency response funding covers operational costs including culling with compensation and disposal but not cleaning and disinfection. Compensation for animals culled at CFIA's direction is paid at market value up to a set maximum. Compensation is funded separately from the emergency reserve as defined by the Health of Animals Act. Compensation funding is nominally \$3.5 million but actual requirements are expected to vary year on year – no further parliamentary approvals are required for payments up to this amount. In 2015/16 over \$15 million was paid out in compensation.

AAFC supports the emergency response through its 'AgriRecovery' programme. AgriRecovery is funded by the federal government and the affected province or territory in the ratio 60:40. AgriRecovery is part of a number of federal-provincial-territorial disaster relief activities intended to help agricultural producers recover from natural disasters and to help producers deal with the income and production losses experienced when disasters occur. The focus of AgriRecovery is the extraordinary costs producers must take on to recover from disasters. Natural disasters considered under AgriRecovery are those resulting from a disease, pest or weather-related events.

The emergency response to the TB detection in Alberta (started in September 2016) has so far resulted in more than \$30 million being paid in compensation. CFIA has set compensation based on fair market value: currently \$10,000 for registered cattle and \$4,500 for commercial cattle. Under the AgriRecovery programme payments are continuing to be made from the \$16.7 million fund established for the Canada-Alberta Bovine Tuberculosis Initiative (CABTAI) which assists producers with extraordinary costs incurred from being under quarantine; it aims to cover a portion of costs related to feed and yardage, interest carrying costs, transportation of water and livestock and temporary infrastructure such as extra feed bins and yards. CABTAI is managed by Agriculture Financial Services Corporation (AFSC), a

provincial Crown corporation with a private sector Board of Directors that provides farmers, agribusinesses and other small businesses farm income disaster assistance.

Provinces all have some contingency funds for addressing unexpected events including foreign animal disease incursions. In addition, some provinces support the detection of province 'reportable diseases' with policy and programme advice and will variously support an outbreak response (biosecurity, tracing, etc.). Examples include the detection and response to Porcine Epidemic Diarrhoea in many provinces and the surveillance programmes in Quebec (Réseau d'Alerte et d'Information Zoosanitaire or RAIZO).

Strengths:

- Well established mechanisms for emergency funding
- Initial additional emergency funding available without any additional political endorsement required
- Demonstrated response to recent outbreaks that have received the necessary emergency funding

Weaknesses:

- CFIA does not fund cleaning and disinfection

Recommendations:

- Include the cost of cleaning and disinfection in CFIA's emergency funding provisions to ensure that the activity is adequately funded, and not over-reliant on industry funding
- Consider the development of cost sharing with industry for CFIA national emergency response to some foreign animal diseases

I-10 Capital investment	Levels of advancement
<i>The capability of the VS to access funding for basic and additional investments (material and non material) that lead to a sustained improvement in the VS operational infrastructure.</i>	1. There is no capability to establish, maintain or improve the operational infrastructure of the VS.
	2. The VS occasionally develops proposals and secures funding for the establishment, maintenance or improvement of operational infrastructure but this is normally through extraordinary allocations.
	3. The VS regularly secures funding for maintenance and improvements of operational infrastructure, through allocations from the national budget or from other sources, but there are constraints on the use of these allocations.
	4. The VS routinely secures adequate funding for the necessary maintenance and improvement in operational infrastructure.
	5. The VS systematically secures adequate funding for the necessary improvements in operational infrastructure, including with participation from interested parties as required.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 5): MS#31-3

Findings:

The 'CFIA Investment Plan 2015/16 – 2019/20' sets out a programme for the ongoing investment in four areas: advanced information management and IT technology, facility leasing and management, vehicles, and acquisition of the latest in scientific and laboratory equipment. This complies with the Treasury Board policy on investment planning.

The CFIA plan focuses on managing risk in animal health, plant health and food safety by anticipating emerging threats through forecasting, surveillance and trend analysis, preventing incidents through planning and effective resource allocation and mitigating and managing emergencies through effective programme and policy design and efficient operational delivery. The investment plan reports that 'steps have been taken to strengthen investment planning and governance' and 'streamline decision making'. CFIA have established the 'Investment Governance Board' to set strategic directions, review plans, make decisions and to provide oversight of CFIA investments. Under this plan the total CFIA capital investment is to be approximately \$470 million for the five years, 2015/16 -2019/20. This CFIA investment plan follows on from the previous period (2012/13 – 2016/17) when 19 projects were implemented with 18 on or below budget and 17 completed on schedule.

The CFIA investment plan was developed based on a 'Corporate Risk Profile' to assess key corporate risks. The risks identified included insufficient legislation, inadequate inspection, limited scientific capability, limited emergency preparedness, and a lack of management and IT infrastructure. Specific needs for capital investment in facilities/equipment were identified to upgrade laboratories at St. Hyacinthe, Toronto, Lethbridge, Calgary, Burnaby, Dartmouth and Charlottetown.

As part of Budget 2016, a total of \$4 million over two years (2016/17 and 2017/18) was announced for CFIA to undertake an infrastructure initiative specifically for the Lethbridge Laboratory. This initiative involves 'structural stabilization of the general services building' at the Lethbridge Laboratory and repair of aging infrastructure such as flooring settlements, electrical and sanitary line leakages to create a safe work environment and maintain the integrity and functional purpose of the building.

Budget is available to replace and upgrade equipment including vehicles and additional laboratory equipment such as autoclaves and more sophisticated equipment such as mass spectrometers.

The provinces have variable access to funds for capital investment and as most are under budgetary pressure these funds are coming under pressure. Provinces may:

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- Have good access to capital funds allowing the replacement and upgrading of facilities and equipment as required
 - Have access to only limited funds allowing replacement of vehicles and baseline equipment but not for the investment in major projects such as refurbishing/rebuilding a laboratory
 - Retain revenue from laboratory charges to allow for increased capital investment

Strengths:

- CFIA review programme identifies critical needs and risks
- CFIA have a strong ongoing capital investment programme

Weaknesses:

- Some provinces have only access to baseline capital investment funds

Recommendations:

- All provinces should develop a pro-active risk based programme for the advocacy of additional capital investment funds

I-11. Management of resources and operations <i>The capability of the VS to document and manage their resources and operations in order to analyse, plan and improve both efficiency and effectiveness.</i>	Levels of advancement
	1. The VS do not have adequate records or documented procedures to allow appropriate management of resources and operations
	2. The VS have adequate records and/or documented procedures but do not use these for management, analysis, control or planning.
	3. The VS have adequate records, documentation and management systems and use these to a limited extent for the control of efficiency and effectiveness
	4. The VS regularly analyse records and documented procedures to improve efficiency and effectiveness
	5. The VS have fully effective management systems, which are regularly audited and permit a proactive continuous improvement of efficiency and effectiveness.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 5): MS#17, E.09.3.1-3, PP.29, MS#38

Findings:

Most of the processes of the CFIA (inspections, animal health programmes) and the activities performed by provincial VS are guided by Manuals of Procedures. These documents are regularly updated and available for all staff according to their tasks, and often directly available on the intranet and usually also on the internet.

A process to evaluate the implementation of the CFIA programmes has been established with reporting every 3 months of Key Performance Indicators (KPIs) by the supervisors to ensure good implementation. The new 'Operational Guidance and Expertise' (OGE) programme, which provides virtual centres of expertise has been developed to support all field staff providing them with advice and recommendations to answer questions and ensure harmonised implementation of the activities and/or to liaise with programme staff to obtain the necessary advice.

Several databases exist to support operational activities: LSTS for laboratory sample management, testing and results; CVS for some inspections; AIRS for import conditions and inspection/release/rejection/instructions; and, CAHSN for surveillance. Some inspections are not yet covered by the CVS, in which case the certification and monitoring is carried out on paper. It was noted that one of the objectives of the 'Project of Electronic Services Delivery Platform' (ESDP) is to improve the integration of data and better real-time delivery of information for policy development and programme design and implementation. There is no IT system to document animal health inspections and no central database to draw information regarding inspections and disease outbreak information together for the coordination of response or epidemiological analysis.

The Government of Canada and the CFIA have a hierarchy of audits that with external government audits, internal CFIA audits by the Inspector General Office, and within CFIA branch audits of operational and financial activities. Audits are routinely undertaken of operational activities and following a risk assessment approach of other CFIA programmes.

Recent CFIA audits include: Audit of CFIA External Stakeholder Complaints Process, Audit of the Growing Forward 2 Assurance Systems Stream Technical Expertise Initiatives, Audit of CFIA's Staffing Framework, Audit of Information Technology Security, Audit of Administrative Monetary Penalties, and an Audit of Investment Planning.

CFIA programme and performance reports are prepared each year and sent to Parliament.

Provinces also carry out assessments of the effectiveness of their veterinary services and the implementation and effectiveness of programme delivery and the efficiency of the use of resources.

Strengths:

- Programmes and activities are well defined with regular and effective lines of reporting

- Ongoing evaluation and audit programmes with feedback to programme design and delivery

Recommendations:

- Increase the sharing of data and information between the provinces and the CFIA
- Increase the sharing of data between the various databases including further promoting the development of the ESDP platform

III.2 Fundamental component II: Technical authority and capability

This component of the evaluation assesses the authority and capability of the VS to develop and apply sanitary measures and science-based procedures supporting those measures. It is made up of eighteen critical competencies.

For all sections in this chapter, the critical competency includes collaboration with relevant authorities, including other ministries and Competent Authorities, national agencies and decentralised institutions that share authority or have mutual interest in relevant areas.

Critical competencies:

Section II-1	Veterinary laboratory diagnosis A. Access to veterinary laboratory diagnosis B. Suitability of national laboratory infrastructures
Section II-2	Laboratory quality assurance
Section II-3	Risk analysis
Section II-4	Quarantine and border security
Section II-5	Epidemiological surveillance and early detection A. Passive Epidemiological surveillance B. Active Epidemiological surveillance
Section II-6	Emergency response
Section II-7	Disease prevention, control and eradication
Section II-8	Food safety A. Regulation, authorisation and inspection of establishments for production, processing and distribution of food of animal origin B. Ante and post mortem inspection at abattoirs and associated premises C. Inspection of collection, processing and distribution of products of animal origin
Section II-9	Veterinary medicines and biologicals
Section II-10	Residue testing
Section II-11	Animal feed safety
Section II-12	Identification and traceability A. Animal identification and movement control B. Identification and traceability of products of animal origin
Section II-13	Animal welfare

----- Terrestrial Code References:

- Chapter 1.4. on Animal health surveillance.
- Chapter 1.5. on Surveillance for arthropod vectors of animal diseases.
- Chapter 2.1. on Import risk analysis.
- Points 6, 7 and 9 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation / General Organisation / Procedures and standards.
- Point 1 of Article 3.2.4. on Evaluation criteria for quality systems.
- Point 3 of Article 3.2.6. on Evaluation criteria for material resources: Technical.
- Points 1 and 2 of Article 3.2.7. on Legislation and functional capabilities: Animal health, animal welfare and veterinary public health / Export/import inspection.
- Points 1-3 of Article 3.2.8. on Animal health controls: Animal health status / Animal health control / National animal disease reporting systems.
- Points 1-5 of Article 3.2.9. on Veterinary public health controls: Food hygiene / Zoonoses / Chemical residue testing programmes / Veterinary medicines/ Integration between animal health controls and veterinary public health.
- Sub-point f) of Point 4 of Article 3.2.10. on Veterinary Services administration: Formal linkages with sources of independent scientific expertise.
- Points 2 and 5-7 of Article 3.2.14. on National information on human resources / Laboratory services / Veterinary legislation, regulations and functional capabilities / Animal health and veterinary public health controls.
- Article 3.4.12. on Human food production chain.
- Chapter 4.1. on General principles on identification and traceability of live animals.
- Chapter 4.2. on Design and implementation of identification systems to achieve animal traceability.
- Chapter 4.12. on Disposal of dead animal.
- Chapter 6.2. on Control of biological hazards of animal health and public health importance through ante- and post-mortem meat inspection.
- Chapter 6.3. on Control of hazards of animal health and public health importance in animal feed.
- Chapters 6.6. to 6.10. on Antimicrobial resistance.
- Chapter 7.1. Introduction to the recommendations for animal welfare.
- Chapter 7.2. Transport of animals by sea.
- Chapter 7.3. Transport of animals by land.
- Chapter 7.4. Transport of animals by air.
- Chapter 7.5. Slaughter of animals.
- Chapter 7.6. Killing of animals for disease control purposes.

II-1 Veterinary laboratory diagnosis	Levels of advancement
A Access to veterinary laboratory diagnosis <i>The authority and capability of the VS to have access to laboratory diagnosis in order to identify and record pathogenic agents, including those relevant for public health, that can adversely affect animals and animal products.</i>	1. Disease diagnosis is almost always conducted by clinical means only, with no access to and use of a laboratory to obtain a correct diagnosis.
	2. For major zoonoses and diseases of national economic importance, the VS have access to and use a laboratory to obtain a correct diagnosis.
	3. For other zoonoses and diseases present in the country, the VS have access to and use a laboratory to obtain a correct diagnosis.
	4. For diseases of zoonotic or economic importance not present in the country, but known to exist in the region and/ or that could enter the country, the VS have access to and use a laboratory to obtain a correct diagnosis.
	5. In the case of new and emerging diseases in the region or world, the VS have access to and use a network of national or international reference laboratories (e.g. an OIE Reference Laboratory) to obtain a correct diagnosis.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 5): E13.1, EM.01, PP.26/7, MS#40

Findings:

Canada has an extensive system of animal health, veterinary public health and food safety laboratories. The federal and provincial laboratories provide sophisticated diagnostic testing for diseases present in the country and also those that pose a threat such as Foot and Mouth Disease and Classical Swine Fever. International reference laboratories are used when developing new test methodologies and when validating tests e.g. BSE confirmations.

CFIA's National Laboratory Services form part of the Science Branch of the CFIA and provide laboratory testing services, methods development, research and scientific advice and expertise to maintain domestic and international confidence in the programmes and standards of the CFIA.

Animal Health testing at CFIA laboratories is conducted to support various national animal health programmes including disease surveillance, disease control, and meeting import or export requirements for international trade.

There are 13 CFIA laboratories across Canada with some 900 staff. Animal health testing services provided by the CFIA are provided by five CFIA laboratories (Lethbridge, Saskatoon, Winnipeg, Ottawa Fallowfield and St. Hyacinthe). There are also nine dedicated food safety laboratories.

There is good coordination of the laboratory network with Laboratory Executive Directors reporting directly to the Chief Science Operating Officer. Data on laboratory sample submissions, management and testing is entered into the Laboratory Sample Tracking System (LSTS) database.

The National Centre for Foreign Animal Disease (NCFAD), Winnipeg, is part of the Canadian Science Centre for Human and Animal Health (CSCHAH) and shares a site with a Public Health Agency of Canada laboratory. NCFAD provides diagnostic services, related technology development and research functions for the detection and prevention of animal diseases which are not necessarily found in Canada, but would pose serious threats to the Canadian livestock and food production industries if they were to enter the country. The NCFAD laboratory has facilities which meet BSL containment level 2, 3 and 4 standards, as outlined in the Canadian Biosafety Standards. NCFAD is part of a network of BSL4 partner laboratories with 18 organisations from UK, Germany, Australia and the US.

NCFAD conducts more than 60,000 laboratory tests each year to diagnose incident disease outbreaks suspicious of foreign animal diseases and also to screen samples collected

through livestock and wildlife surveys to assess disease prevalence/absence with a focus on vesicular diseases, Classical Swine Fever and avian influenza.

NCFAD has a dynamic research programme that addresses priority foreign animal disease threats and their diagnosis. Recently developed tests/research include the validation of the H5 2016 RRT-PCR protocol, development and validation of the Seneca Valley Virus ELISA and validation of the use of accelerated hydrogen peroxide as a disinfectant for high containment viruses.

NCFAD also provides advice to national and international agencies including to OFFLU (the OIE-FAO global network of expertise on animal influenza virus), the Canadian Animal Health Surveillance Network Quality Subcommittee, the provincial laboratories within CAHSN, the national influenza surveillance programme (CanNAISS) steering and technical committees and almost daily science advice for Science Branch staff, directors and executive directors.

A number of CFIA laboratories are designated as OIE and/or FAO reference laboratories including:

- NCFAD, Winnipeg, MB: OIE Reference Laboratory for Avian Influenza and Classical Swine Fever, FAO reference Centre for FMD and other vesicular diseases
- Lethbridge, AB: OIE Reference Laboratory for BSE, anthrax and BVD
- Saskatoon, SK: OIE Reference Laboratory for trichinellosis and OIE Collaborating Centre for food-borne zoonotic parasites
- Fallowfield, ON: OIE Reference laboratory for rabies, scrapie and CWD

The cost of tests is set to allow easy access to the farmers (through veterinarians) – most tests are partially subsidized or free of charge.

Most of the provinces have one or more of their own provincial laboratories, performing diagnostic tests for animal care and participating in official control programmes according to their capacity. In recent years budget pressures in some provinces have resulted in 'rationalisation of services' which has reduced access to timely local diagnostic services.

Eleven external (non-CFIA) laboratories provide diagnostic testing services for equine infectious anaemia (EIA), bovine leucosis virus (BLV) and brucellosis using the brucellosis buffered plate agglutination test (BPAT); these laboratories are approved through an accreditation programme directly administered by the CFIA; three are at veterinary schools and eight are private laboratories.

There are also non CFIA labs which are approved for TSE testing (BSE, scrapie and CWD as well as genotyping for scrapie susceptibility), Foreign Animal Disease screen testing (CAHSN labs) and salmonella testing.

The LSTS database is used to record the sample submitted by the CFIA inspectors and samples picked up from other laboratories.

There is some inefficiency of diagnostic testing with samples sometimes being split between multiple CFIA laboratories; although this may lead to diagnostics being conducted at centres of expertise it reduces the timeliness of diagnostic testing and potentially increase transport costs. Results of diagnostic samples that are split are combined by the LSTS into one report.

There are some limitations to laboratory submissions from the northern territories due to logistic constraints. There are few farm animals in the territories but they do provide early indicators of wildlife diseases and/or pose a threat to wildlife health. Wildlife samples are also submitted through passive and active surveillance programmes.

Strengths:

- An efficient national network of laboratories with high capabilities and capacities for testing and research including for diseases not present in Canada

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- NCFAD has BSL4 facilities and collaborates with an international network of BSL4 laboratories
 - OIE and FAO designated reference laboratories
 - Good cooperation with veterinary faculties on research activities

Weaknesses:

- The LSTS is limited to CFIA
- Samples are frequently split between diagnostic laboratories resulting in delays and possibly increased costs
- Limited access to laboratories for the livestock and wildlife of the Territories

Recommendations:

- Improve information management and sharing with the development of an integrated database to capture the multiple levels of surveillance data and increase capacity for data sharing on non-regulated diseases and food hazards
- Review the practice of frequently splitting diagnostic samples to reduce 'turn around times' and to improve efficiency
- Improve logistics to encourage diagnostic testing of territory livestock and wildlife
- Consider implementing increased 'cost recovery' for diagnostic testing that is primarily of private benefit (production disease testing, export testing)

II-1 Veterinary laboratory diagnosis	Levels of advancement
B. Suitability of national laboratory infrastructures	1. The national laboratory infrastructure does not meet the need of the VS.
<i>The sustainability, effectiveness and efficiency of the national (public and private) laboratory infrastructures to service the needs of the VS</i>	2. The national laboratory infrastructure meets partially the needs of the VS, but is not entirely sustainable, as organisational deficiencies with regard to the effective and efficient management of resources and infrastructure (including maintenance) are apparent
	3. The national laboratory infrastructure generally meets the needs of the VS. Resources and organisation appear to be managed effectively and efficiently, but their regular funding is inadequate to support a sustainable and regularly maintained infrastructure
	4. The national laboratory infrastructure generally meets the needs of the VS and is subject to timely maintenance programmes but needs new investments in certain aspects (e.g. accessibility to laboratories, number or type of analyses).
	5. The national laboratory infrastructure meets the needs of the VS, and is sustainable and regularly audited.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 5): E13.1, EM.01, PP.26/7, MS#40

Findings:

Laboratory facilities and equipment are of a very high standard. All government laboratories and their facilities have been accredited under ISO17025 or equivalent.

All CFIA laboratories are modern and well equipped with ongoing investment plans. A capital investment plan has been approved to upgrade the laboratories of the CFIA Science Branch with \$66.5 million in 2015/16/17 and for \$4million to upgrade the Lethbridge laboratory infrastructure in 2016/17.

Provincial laboratories have good facilities and are well equipped proportionate to the number of animals in their province. A few provincial laboratories are in need of upgrades that have been held up by lack of funds. Facilities for necropsy of large animals exist in most provinces and are generally excellent.

Some private laboratories, and their facilities, are approved by CFIA to perform official tests (e.g. Equine Infectious Anaemia, Bovine Leukosis Virus, brucellosis).

Many private clinics have a basic laboratory capability and are able to perform simple diagnostic tests.

Strengths:

- Laboratories with excellent facilities, updated equipment that is regularly maintained and upgraded
- Most laboratories accredited under ISO17025 or equivalent which includes assessment and auditing of the facilities and equipment
- NCFAD, Winnipeg has fully functional BSL4 facilities

Weaknesses:

- Some provincial laboratory upgrades are held up for lack of funds

Recommendations:

- Support and advocate for the provinces that need to upgrade their laboratories

II-2 Laboratory quality assurance	Levels of advancement
<i>The quality of laboratories (that conduct diagnostic testing or analysis for chemical residues, antimicrobial residues, toxins, or tests for, biological efficacy, etc.) as measured by the use of formal QA systems including, but not limited to, participation in relevant proficiency testing programmes.</i>	1. No laboratories used by the public sector VS are using formal QA systems.
	2. Some laboratories used by the public sector VS are using formal QA systems.
	3. All laboratories used by the public sector VS are using formal QA systems.
	4. All the laboratories used by the public sector VS and most or all private laboratories are using formal QA systems.
	5. All the laboratories used by the public sector VS and most or all private laboratories are using formal QA programmes that meet OIE, ISO 17025, or equivalent QA standard guidelines.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 5): E13.1, EM.01, PP.26/7, MS#40, EM.10-12

Findings:

CFIA laboratories are all accredited by the Standards Council of Canada (SCC) to ISO 17025. Some have dual accreditation through the American Association of Veterinary Laboratory Diagnosticians.

In addition to ISO17025, NCFAD is also following SCC programme specialty areas (PSA) including:

- Requirements for the Accreditation of Agriculture Inputs, Food, Animal Health and Plant Protection Testing Laboratories (CAN-P-1587)
- Requirements for Accreditation of Laboratories Engaged in Test Method Development & Non-routine Testing (CAN-P-1595)

Given successful participation and reassessments in the CAN-P-1595 PSA since its initial 2002 SCC assessment, the NCFAD is also one of the few Canadian laboratories that has been granted a 'flexible scope of accreditation' by the SCC. This scope allows the laboratory to show accreditation by testing activities rather than by specifically named test methods.

The NCFAD Quality Assurance Officer also provides oversight for the activities of the Canadian Animal Health Surveillance Network (CAHSN) Quality Subcommittee.

The SCC website indicates that the number of ISO17025 accredited laboratories is:

- 13 laboratories are accredited for some animal health tests
(five CFIA laboratories, three provincial laboratories, two veterinary colleges, two private laboratories, one in another public agency)
- 115 are accredited for food testing
(50 private laboratories, 20 food companies/industry association laboratories, 13 CFIA laboratories, 13 other federal agencies (Health Canada and Public Health Agency of Canada), eight provincial laboratories)
- 28 laboratories accredited for animal feed testing

For some tests in private laboratories, there is a double system of evaluation with specific approval/test accreditation by CFIA and laboratory/test audit and accreditation by the SCC. This duplication appears unnecessary and the CFIA programme of test approval could be reviewed to address this.

Non-CFIA laboratories are approved through a specific CFIA protocol for Equine Infectious Anaemia, brucellosis and for enzootic bovine leukosis testing; specific requirements for approval are defined by CFIA.

Inter-laboratory comparison/proficiency testing for 2015/16 included the 2015 European inter-laboratory comparison test for Classical Swine Fever, the XII inter-laboratory comparison test for African swine fever 2015, the 2015 OFFLU avian influenza ring trial, and the 2015 proficiency test studies for bluetongue and epizootic haemorrhagic disease and the 2015 Proficiency Test Panel for vesicular diseases (both organized by the OIE Reference Laboratory, Pirbright, UK). In addition there is ongoing proficiency testing and panel exchanges involving Canada, the US and Mexico as part of the AI/Newcastle disease 'Security and Prosperity Partnership of North America' working group. Other proficiency tests were also conducted.

NCFAD also provides an annual series of proficiency testing and quality assurance for CFIA and other Canadian laboratories.

Strengths:

- All CFIA Labs accredited to ISO17025 standard
- Most of the 'food' laboratories are accredited by SCC

Recommendations:

- Simplify the system to assess the quality management of the laboratories
 - Audit by the SCC according to the ISO 17025 with technical auditors provided by CFIA
 - Proficiency tests should be organised and assessed by the designated national reference laboratory
- Work towards harmonizing the CFIA approval and the SCC accreditation processes for relevant laboratories.
- ISO17025 accreditation should be promoted for all the more important animal health tests performed for federal and provincial programmes

II-3 Risk analysis	Levels of advancement
<i>The authority and capability of the VS to base its risk management measures on risk assessment.</i>	1. Risk management measures are not usually supported by risk assessment.
	2. The VS compile and maintain data but do not have the capability to carry out risk analysis. Some risk management measures are based on risk assessment.
	3. The VS compile and maintain data and have the capability to carry out risk analysis. The majority of risk management measures are based on risk assessment.
	4. The VS conduct risk analysis in compliance with relevant OIE standards, and base their risk management measures on the outcomes of risk assessment.
	5. The VS are consistent in basing sanitary measures on risk assessment, and in communicating their procedures and outcomes internationally, meeting all their OIE obligations (including WTO SPS Agreement obligations where applicable).

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 5): E.15.1-8, E.07.1/2, PP.18, MS#18, PP.19, MS#19, MS#32, MS#37, EM.13/14

Findings:

The Animal Health Risk Assessment Unit (AHRA) is based in the Animal Health Science Directorate of the Science Branch of CFIA. The Unit has seven highly specialised staff with postgraduate qualifications in epidemiology, on-the job training and/or further specialised education in Risk Analysis (RA). The RA components and processes follow the OIE standards.

The Unit responds to requests from Risk Managers throughout the CFIA, but mainly to requests from Animal Import/Export Division (AIED) of the Policy and Programs Branch (PPB); a formal request process has been established with a formal RA request form. More than 80% of AHRA's work is on import RA.

The RA requests, after review and prioritisation, are assigned to risk assessors. The final decision and risk management after the RA process has been completed, is made by the Risk Manager/the requester. This follows the OIE recommendations of separation of the conduct of an RA from Risk Management. Risk communication is undertaken by AHRA internally. Finalised RA evaluations are placed in a database accessible to all CFIA staff ('Sharepoint' database). RA communication with the stakeholders is undertaken by the Policy and Programs Branch (PPB), not by the AHRA.

In addition to document based RA, CFIA also undertakes country evaluations. Country evaluations, including on-site visits, are undertaken jointly with the AIED and are prepared with a questionnaire and use PVS components relevant to the aquatic, terrestrial and public health services of the exporting country.

Many of Canada's trading partners have mature domestic food safety systems with public health outcomes that are broadly comparable to Canada's system. Others have commodity specific control programmes and oversight which can provide confidence that Canadian requirements will be met. The CFIA can utilise these systems, programmes and oversight in its risk management approaches for imports using tools such as recognition of foreign food safety systems and programmes.

Besides import RAs, the AHRA unit provides scientific services to the other departments, such as hazard identification, disease spread models, RA during and post outbreaks and risk evaluation for domestic diseases. The AHRA also contributes to CFIA's 'Integrated Risk Management' Framework.

CFIA partners with other organisations in the area of risk analysis. As an example, CFIA and PHAC partner in joint research teams created by the Faculté de Médecine Vétérinaire de l'Université de Montréal (University of Montreal's Veterinary Faculty) focusing on risk analysis for non-enteric zoonoses – Groupe de recherche en épidémiologie des zoonoses et santé publique (GREZOSP), enteric zoonoses – Groupe de recherche et d'enseignement en salubrité alimentaire, (GRESA) and on food inspection. These teams are working on a better use of risk analysis for decision making (improvement of surveillance systems, modernisation of inspection approaches, etc.) A number of outputs of these research activities have been used to update regulations.

All provinces use risk assessment approaches to target communications and risk based surveillance activities. Some provinces have better resourced and more sophisticated programmes of risk assessment;

Recently introduced infections (e.g. Porcine Epidemic Diarrhoea in pigs, *S. enteritidis* in poultry and *S. dublin* in cattle) appear to have entered Canada from the US through imported commodities. It seems that there is an opportunity to work more closely with the US authorities and to review risk pathways and to implement more rigorous risk mitigation measures.

Strengths:

- Well established and used Animal Health Risk Assessment Unit with highly developed competencies
- The Animal Health Risk Assessment Unit is key to the core functions of the Agency and follows international standards for Risk Assessment and Risk Communication

Recommendations:

- The Animal Health Risk Assessment Unit is under-resourced for its workload – additional resources should be provided
- Work with the US to review the risks of disease introduction

II-4 Quarantine and border security	Levels of advancement
<i>The authority and capability of the VS to prevent the entry and spread of diseases and other hazards of animals and animal products.</i>	1. The VS cannot apply any type of quarantine or border security procedures for animals or animal products with their neighbouring countries or trading partners.
	2. The VS can establish and apply quarantine and border security procedures; however, these are generally based neither on international standards nor on a risk analysis.
	3. The VS can establish and apply quarantine and border security procedures based on international standards, but the procedures do not systematically address illegal activities ⁴² relating to the import of animals and animal products.
	4. The VS can establish and apply quarantine and border security procedures which systematically address legal pathways and illegal activities.
	5. The VS work with their neighbouring countries and trading partners to establish, apply and audit quarantine and border security procedures which systematically address all risks identified.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 5): E.14.1/2, E.07.1/2, PP.18, MS#18, PP.19, MS#19, MS#32, MS#37, EM.15/16/17

Findings:

CFIA establishes policies and standards for the import of foodstuffs, live animals and animal products; the CFIA and Canada Border Services Agency (CBSA) enforces the established policies/procedures at the border. CBSA border officials have the legislated power to undertake inspections, seizures, holding, destruction or rejection of products, at ports of entry. For live animals, CBSA border officers inspect, release, reject or refer to CFIA.

Canada has robust comprehensive legislation on import controls mandating inspections and verification of compliance with requirements, in line with international rights and obligations. Canada addresses the risk of imports throughout the pre-border, border, post-border continuum.

Activities include:

- Pre-border – arrangements with an exporting country, certification equivalence determination of requirements
- Shipment – pre-approval of shipments following instructions from the CFIA risk assessment units
- Border – checking of certification, admissibility/inspection of shipments
- Post-border activities – isolation, surveillance, sampling and testing

Under the 'Foreign Food Safety Recognition Framework' the CFIA recognises that many of Canada's trading partners have mature competent domestic food safety systems that are comparable to Canada's system. Other countries have commodity specific control programmes with sufficient oversight to provide confidence that Canadian requirements will be met.

The CFIA, in cooperation with the CBSA, operates the National Import Service Centre (NISC). NISC processes import requests (excluding live animals and germplasm) through documentation/data sent by on-line, or by fax, by the importing agents from across Canada using the 'Electronic Data Interchange' (EDI) database system.

Staff at NISC review the information received through the EDI using the Automated Import Reference System (AIRS), an automated import reference system designed to provide

⁴² Illegal activities include attempts to gain entry for animals or animal products other than through legal entry points and/or using certification and/or other procedures not meeting the country's requirements.

accurate, easily accessible and timely information on import requirements and inspection/acceptance/rejection instructions. AIRS uses a question and answer approach to guide the user through a series of questions about the Harmonized System (HS) Codes, origin, destination, end use and miscellaneous qualifiers of the product they wish to import. AIRS contains detailed import conditions developed within the legal framework; the different legal authorities (Acts and Regulations) are referenced in the system. NISC return the decision on the eligibility of imports electronically to the CBSA, which then relays it to the client or the broker/importer. In addition, NISC staff handle telephone inquiries on import requirements for all commodities regulated by the CFIA and, when necessary, coordinate inspections for import shipments.

Import of live farm animals by land is exclusively from the US and by air from a few other countries evaluated and considered by the CFIA to be a low risk; health requirements and certification procedures are well established and include a requirement to notify of any changes in animal health status. There are no federal quarantine stations in Canada. In cases requiring post-arrival quarantine the CFIA inspects and approves the privately owned destination location as an import quarantine site (for livestock, including horses). The approval is valid only for that specific consignment of animals. Animals imported for slaughter are licensed by CFIA directly to the abattoir.

Canada has an 'Import Risk Policy' with an active programme to increase awareness of the risk of importing food products hazardous to plant and animal health ('Be aware and declare').

Waste from international flights and ships is handled at all ports of entry. CFIA audits the transporters involved once a year, renews licenses every three years. CBSA is responsible for the day-to-day control, e.g. approval of the containers, approves the routing for the transport. There is good collaboration between CBSA and CFIA.

Land border crossings with US are managed by CBSA who have the authority to carry out inspections and the authority to release dogs, cats and certain horses. CFIA inspect all other animals coming from the US, from other countries and horses coming from US states with a different disease status, horses imported via the US or horses for slaughter. Main border crossings are open 24 hours, smaller crossings only open for more limited periods.

CBSA are responsible for initial inspections of all foods of animal origin and search for counterfeit and clandestine objects; follow up investigations may be undertaken by CFIA. At larger border crossings CFIA staff are on-site, if not inspection is by appointment; if a live animal arrives at the border post without prior appointment, it is then up to the discretion of the CFIA officer if inspection is required. Main border posts have animal off-loading inspection facilities where individual inspections can take place. For product, CBSA has large lorry inspection facilities at all main border crossings and carries out routine and random checks on loads. There is close cooperation with United States Department of Agriculture (USDA).

Certain live animals arrive through the international airports – mainly dogs and cats but also horses, zoo animals, fish and reptiles. Only dogs and cats are cleared by CBSA (considered low risk) while the others are all inspected by CFIA, on appointment.

For commodities inspected by CBSA, CBSA officers are instructed to refer to CFIA if they have doubts or concerns. In the case of a disease outbreak in an exporting country, CFIA provides CBSA with additional instructions for imported commodities, including refusal at port of entry or referral to CFIA.

CBSA and CFIA undertake joint 'blitz' inspections. CBSA carries out routine and random checks on food cargo and luggage. Seized material is collected by a contracted international waste removal company for final destruction.

CBSA and CFIA have a strong reporting and audit programme with regular audits of their risk management and border control operations. Recent CBSA and CFIA audits include: Audit of

Food, Animals and Plant Program, Audit of Enterprise Risk Management, Audit of Access to Information and Privacy, Audit of Anti-dumping and Countervailing Program, Audit of Grouped Evaluation of Sport Canada Programs, Audit of Information Management and Audit of the CBSA Targeting Program. CFIA have also recently conducted an Audit of Enforcement and Investigation Services.

Strengths:

- Strong collaboration between CFIA and CBSA with risk management of shipments and periodic public awareness and 'blitz' campaigns
- Excellent facilities at main border posts to inspect shipments of foodstuffs and to offload/inspect livestock
- Very limited import of livestock species from countries other than the USA
- Close coordination with provincial ministries to discuss current issues

II-5 Epidemiological surveillance and early detection	Levels of advancement
<p><i>The authority and capability of the VS to determine, verify and report on the sanitary status of the animal populations, including wildlife, under their mandate.</i></p> <p>A. Passive epidemiological surveillance</p>	1. The VS have no passive surveillance programme.
	2. The VS conduct passive surveillance for some relevant diseases and have the capacity to produce national reports on some diseases.
	3. The VS conduct passive surveillance in compliance with OIE standards for some relevant diseases at the national level through appropriate networks in the field, whereby samples from suspect cases are collected and sent for laboratory diagnosis with evidence of correct results obtained. The VS have a basic national disease reporting system.
	4. The VS conduct passive surveillance and report at the national level in compliance with OIE standards for most relevant diseases. Producers and other interested parties are aware of and comply with their obligation to report the suspicion and occurrence of notifiable diseases to the VS.
	5. The VS regularly report to producers and other interested parties and the international community (where applicable) on the findings of passive surveillance programmes.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 5): E.05.1.2,E.07.1/2, E.08.1-14, E.11.1, E.11.1-4, PP.28, EM.18-22, E.15.5, PP.04/5, PP.15

Findings:

CFIA leads a wide ranging national surveillance programmes to promote specified disease detection primarily based on passive surveillance to monitor for disease presence and prevalence but also using active surveillance and other risk based methodologies (see CC II.5B). Additional surveillance activities are undertaken by the provincial/territorial ministries, the diagnostic laboratories and specialist interest groups such as the Canadian Wildlife Health Cooperative (CWHC). There is close cooperation with the Public Health Agency of Canada for zoonoses and foodborne infections.

Passive surveillance is supported by legislation, the Reportable Diseases Regulations of the Health of Animals Act, which sets out the diseases prescribed as ‘reportable’ and a section of the Health of Animals Regulations, which sets out other diseases as ‘immediately or annually notifiable’. The national Canadian system of reporting (more commonly ‘notifiable’) animal diseases is divided into three categories:

1. Reportable diseases: 31 diseases of importance to human and animal health are required to be reported immediately by any laboratory or person (e.g. farmer, private veterinarian) to a CFIA district veterinarian (suspect or confirmed case). National policies exist for these diseases. Investigation followed by the implementation of control or eradication measures may be applied by the CFIA.
2. Immediately notifiable diseases: typically diseases exotic to Canada for which there may be a control or eradication programme if detected, plus a few endemic diseases for which information is requested in real time for export certification. Laboratories only are required to notify the CFIA upon suspicion or diagnosis.
3. Annually notifiable diseases: these are generally diseases which are present in Canada but are neither reportable nor immediately notifiable diseases. Basic qualitative information on these diseases is collected by the CFIA and is reported to the OIE six-monthly reports (e.g. listeriosis, blackleg).

The lists of diseases for all categories are available on the CFIA “Guidance Document Repository” and CFIA website.

Provincial ministries support the passive surveillance programme with a focus on diseases designated as reportable in their jurisdictions, which is a separate list from the CFIA list, in addition to nationally reportable/notifiable diseases. There is some overlap and some

differences with provincially reportable diseases (e.g. Porcine Epidemic Diarrhoea – not federally reportable; rabies – also federally reportable)

BSE testing of high risk mature animals following the '4D' (dead, down, dying, diseased) risk profile is led by CFIA with samples submitted for testing at designated CFIA laboratories and some approved CAHSN laboratories. Provinces may assist with promotion of testing, or provincial support programs.

In Canada, abattoir surveillance, ante and post mortem inspections, at federal (CFIA) and provincially/territorially inspected establishments are undertaken as an important component of passive surveillance (and active surveillance of bovine tuberculosis and scrapie). These programmes support submission of samples to the provincial and federal laboratories at subsidised cost, or for some diseases at no charge to promote passive and active surveillance.

Saleyards are monitored for disease surveillance by some provincial Veterinary Services and also by CFIA for animal welfare transport and animal identification issues. No consolidated findings of saleyard activities were provided to the mission team

The National Farmed Animal Health and Welfare Council (NFAHWC) supports national surveillance programmes, both passive and active, by facilitating discussions and workshops on topics such as the governance of an effective and sustainable system of animal health surveillance that provides value to stakeholders, and encourages networking and collaboration among key people involved in disease surveillance.

The various industry associations in Canada, including the NFAHWC, play an active role in promoting producer and industry awareness of the need for passive surveillance and their role and lines of reporting. This approach supports the commitment of producers/animal handlers to report unusual animal health events – critical for effective passive surveillance. Various equine associations contribute surveillance data e.g. [Equestrian Canada](#), provincial racing associations

Passive surveillance is further strengthened by the commitment of private veterinarians, including the programme of 'Accredited Veterinarians' (see CC III.4), for reporting suspect 'reportable' animal disease events to provincial and federal authorities.

A recent example of the sensitivity and effectiveness of passive surveillance in Canada is the response by CFIA to a suspect LPAI outbreak (2016) detected by laboratory diagnosis following changes in production parameters – that is, there were no significant clinical signs and reporting was only triggered by close monitoring of husbandry factors and the confidence of the owner to report.

The Community for Emerging and Zoonotic Diseases (CEZD), a CFIA led initiative, is a virtual network that integrates available automated information-mining tools with a human-based multidisciplinary analytical capability. This real-time automated system collects, collates, analyses, and disseminates intelligence information related to zoonotic and emerging infectious diseases from both open and traditional information sources.

The provincial ministries have a range of dynamic disease reporting programmes. E.g. in Quebec 'Équipe québécoise de santé porcine' engages with producers to report on Porcine Reproductive Respiratory Syndrome, Porcine Epidemic Diarrhoea, corona virus and Seneca virus outbreaks and EQCMA (Équipe québécoise de contrôle des maladies avicoles) works with poultry producers to report on Avian Influenza, Newcastle disease, Salmonella pullorum and Salmonella gallinarum. Data is shared with CFIA.

Canada has a very extensive land area with sparse populations across some very remote areas with few services. Disease detection in such areas will always be difficult. By working with hunters and others and running general and focused awareness campaigns this risk is being mitigated.

The Canadian Wildlife Health Cooperative (CWHC) implements and coordinates information gathering from passive and active surveillance programmes on wildlife health. The public, hunters and workers in remote areas are encouraged to report unusual wildlife events and investigations/laboratory testing is well supported. CWHC provides regular updates on its websites and in its newsletters and coordinates with the national animal health information systems.

A number of databases have been developed for the capture of surveillance data including the LSTS for CFIA laboratory sample management, testing and results and the CAHSN for surveillance of a very limited number of diseases. Currently, data are collected by CFIA for federally reportable/notifiable diseases. It is intended to extend the CAHSN collection of data for other diseases from three western provinces to all provinces.

The Canada Wildlife Health Cooperative, an OIE Reference Centre, provides programmes for targeted surveillance for reportable/notifiable diseases such as Avian Influenza, White-nose syndrome, Chronic Wasting Disease and West Nile Virus, and engages also in passive surveillance by offering diagnostic services for dead bird and wildlife found by the public or hunters.

CFIA and the provinces/territories have a policy of transparency and open government and routinely report to producers and other interested parties and the international community on the findings of passive surveillance programmes.

Strengths:

- Well established sensitive passive surveillance programme in all sectors including wildlife and active surveillance programmes for targeted diseases in some sectors.
- CFIA have close cooperation with the Public Health Agency of Canada on reporting zoonoses and foodborne diseases
- Lists of 'reportable' disease nationally (CFIA) and in the provinces/territories
- Some national networks for the capture and management of surveillance data (see CC II.5B)

Weaknesses:

- Limited integration and reporting out of data from multiple sources
- Little collection of field data on endemic diseases

Recommendations:

- Review the multiple separate systems of surveillance data capture and develop a programme for improved integration, analysis and reporting
- Extend data capture to include baseline data from all sources on baseline trends including on endemic diseases

II-5 Epidemiological surveillance and early detection <i>The authority and capability of the VS to determine, verify and report on the sanitary status of the animal populations, including wildlife, under their mandate.</i> B. Active epidemiological surveillance	Levels of advancement
	1. The VS have no active surveillance programme.
	2. The VS conduct active surveillance for some relevant diseases (of economic and zoonotic importance) but apply it only in a part of susceptible populations and/or do not update it regularly.
	3. The VS conduct active surveillance in compliance with scientific principles and OIE standards for some relevant diseases and apply it to all susceptible populations but do not update it regularly.
	4. The VS conduct active surveillance in compliance with scientific principles and OIE standards for some relevant diseases, apply it to all susceptible populations, update it regularly and report the results systematically.
	5. The VS conduct active surveillance for most or all relevant diseases and apply it to all susceptible populations. The surveillance programmes are evaluated and meet the country's OIE obligations.

Terrestrial Code reference(s): Appendix 1

Evidence (Listed in Appendix 5): E.05.1.2, E.07.1/2, E.08.1-14, E.11.1, E.11.1-4, PP.28, EM.18-22, E.15.5, PP.04/5, PP.15

Findings:

CFIA leads a wide ranging national surveillance programme to promote regulated disease detection (primarily passive surveillance – see CC II.5A) and to monitor disease presence and prevalence (active surveillance and other risk based methodologies).

Further surveillance activities are undertaken by the provincial/territorial ministries, a national network of diagnostic laboratories (Canadian Animal Health Laboratorians Network (CAHLN), industry associations and specialist interest groups such as the Canadian Wildlife Health Cooperative (CWHC), and in cooperation with the Public Health Agency of Canada for zoonoses and food borne infections.

The Terrestrial Animal Health Epidemiology and Surveillance Section within the Animal Health Science Directorate of the CFIA Science Branch is in charge of federal active surveillance programmes for the purposes of disease freedom. Other federal active surveillance programmes are run by the Programs Branch staff (e.g. Bovine Tuberculosis, Scrapie, Hatchery program). CFIA active surveillance focuses on providing evidence of freedom from diseases in livestock species and supporting disease control and eradication programmes. Programmes are designed considering scientific principles – understanding disease epidemiology and the principles of statistical analysis; competent staff are available to design and analyse survey results. The emphasis of active surveillance has increasingly changed from planned surveys to risk based surveillance, which is periodically reviewed and adjusted according to findings.

Concerns were expressed over the funding of active surveillance programmes in the medium/longer term. Currently CFIA funds almost all active surveillance with industry support but no industry funding. This situation is regarded as unsustainable and that there needs to be financial support from industry particularly for diseases/health issues primarily of 'private benefit', that is not for the control of zoonoses or for 'public good'. Provincial ministries fund active surveillance for some of the federally reportable diseases e.g. CWD. There is no clear documented overall strategy for active surveillance.

The surveillance activities are supported by a wide, rather complex, range of networks and liaison groups.

Canadian Animal Health Surveillance System

Established recently as an initiative of the National Farmed Animal Health and Welfare Council (NFAHWC) the Canadian Animal Health Surveillance System (CAHSS) has broad

based collaborative support from industry and the federal and provincial/territorial governments. CAHSS has no direct control from government or any one group; individual network groups are self-organizing and self-governing linked by a shared purpose and principles. CAHSS is funded by the federal and provincial governments, to support provincial networks. This system focuses on sharing data but does not address the issue of funding or the logistics of design and implementation of surveillance sampling programmes.

Canadian Animal Health Surveillance Network

The Canadian Animal Health Surveillance Network (CAHSN), a federal funded initiative, partners with academic institutions and governments who operate animal health laboratories, the Public Health Agency of Canada (PHAC) and the Canadian Wildlife Health Cooperative (CWHC); it does not include private laboratories. CAHSN focuses on surveillance (e.g. coordination, uniting expertise, standardising case definitions, use of analytical tools, information sharing agreements), laboratory diagnostics (e.g. creating networks, standardising methodologies, appropriate biocontainment, certified personnel, accredited tests, quality assurance systems), information and technology platforms (e.g. Canadian Network for Public Health Intelligence, collaborative teams of epidemiologists, linkages between animal and human health surveillance) and good governance.

Canadian Animal Health Laboratorians Network

The Canadian Animal Health Laboratorians Network (CAHLN) was created to promote the exchange of information on trends, techniques and research in animal health diagnostics.

CFIA works with industry associations and provincial/territorial government ministries to develop species specific surveillance networks. Some examples are provided here:

Poultry

- Avian Influenza: the CFIA has led the development of the Canadian Notifiable Avian Influenza Surveillance System (CanNAISS) which is an ongoing active surveillance system supporting Canada's freedom status; wild bird surveys are led by Canadian Wildlife Health Cooperative; clinical (passive) surveillance of AI in domestic poultry is in place in all provinces, with the participation of private veterinarians, laboratories and industry and CFIA leading the national programme (Hazard Specific Plan) for the early detection and control of HPAI and LPAI H5/H7.
- Voluntary Enhanced Notifiable Avian Influenza Surveillance (VENAIS), a component of the CanNAISS, is carried out by companies of high-value genetic poultry stock, producing hatching eggs and day-old chicks for worldwide export: high frequency sampling and early warning system

Cattle

- Bovine Serological Surveillance (BSS): surveillance data from periodic surveys, abattoir surveillance, targeted surveillance testing at import/export and insemination programmes to support claims of freedom from brucellosis and bluetongue in cattle
- Bovine Spongiform Encephalopathy (BSE): samples from farm, federal, provincial and territorial abattoirs, rendering and deadstock operations, practitioners and university and provincial veterinary diagnostic laboratories

Pigs

- Canadian Swine Surveillance (CanSwineSurv): active surveillance for porcine brucellosis and Aujeszky's Disease
- Industry network: CSHIN (Canadian Swine Health Intelligence Network)
- Regional swine surveillance networks such as CWSHIN (the Canada-West Swine Health Intelligence Network)

Cervids

- Mandatory testing for Chronic Wasting Disease (CWD) in Alberta, Saskatchewan, Manitoba, Quebec and Yukon and movement control at some provincial borders

Sheep/goats

The active surveillance program for scrapie is part of the federal national eradication program for scrapie and is designed, implemented and, to a large part, funded by the CFIA. Some provincial and industry run initiatives feed into this surveillance program as well.

Wildlife

- Wildlife surveillance for non-reportable and reportable diseases
- Specific wildlife programmes in some provinces (e.g. rabies, CWD, TB, AI in wild birds, and white nose syndrome in bats)

In addition to the national surveillance programmes, provinces have local surveillance programmes, e.g. for endemic diseases and some federally regulated diseases. In addition, the provinces have wildlife surveillance which supports federal eradication programs e.g. bovine tuberculosis, CWD. Producers provide strong support for the active surveillance programme e.g. the Porcine Reproductive Respiratory Syndrome surveillance programme operating in Quebec has 97% of all pig producers subscribed for regular subsidised testing.

CFIA reports animal health information from surveillance data with any changes in animal health status to the OIE and other international agencies and trading partners.

Strengths:

- Multiple wide ranging active surveillance programmes covering all livestock sectors
- Active wildlife surveillance for targeted diseases such as AI
- Strong industry associations and producer commitment to disease surveillance and reporting
- Effective annual BSE, scrapie and bovine tuberculosis surveillance programmes with set annual targets

Weaknesses:

- The establishment of the 'super network', CAHSS, is acknowledged but there is no single integrated national information system or national surveillance database
- Inefficient sample collection/testing with often few tests per sample and samples being sent to multiple laboratories
- Lack of clear strategy (including roles and responsibilities and funding) for active surveillance programmes
- Concern over limited and sustainability of funding

Recommendations:

- Review options and develop a common surveillance database to be used for all diseases including emerging diseases with the objective to create a common database infrastructure for surveillance that could be used to certify the absence of some diseases, to collect epidemiological data on endemic diseases and to monitor trends and the progress of disease control programmes
- A longer-term strategy for active surveillance should be developed with options for increased private sector funding

II-6 Emergency response	Levels of advancement
<p><i>The authority and capability of the VS to respond rapidly to a sanitary emergency (such as a significant disease outbreak or food safety emergency).</i></p>	1. The VS have no field network or established procedure to determine whether a sanitary emergency exists or the authority to declare such an emergency and respond appropriately.
	2. The VS have a field network and an established procedure to determine whether or not a sanitary emergency exists, but lack the necessary legal and financial support to respond appropriately.
	3. The VS have the legal framework and financial support to respond rapidly to sanitary emergencies, but the response is not coordinated through a chain of command. They may have national contingency plans for some exotic diseases but they are not updated/tested.
	4. The VS have an established procedure to make timely decisions on whether or not a sanitary emergency exists. The VS have the legal framework and financial support to respond rapidly to sanitary emergencies through a chain of command. They have national contingency plans for some exotic diseases that are regularly updated/tested.
	5. The VS have national contingency plans for all diseases of concern, including coordinated actions with relevant Competent Authorities, all producers and other interested parties through a chain of command. These are regularly updated, tested and audited

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 5): E.05.1.2, PP.31, E.07.1/2, MS#99, E.O8.1.1-14, E.O8.1.19, PP.13, EM.03/4/5, PP.15/16/17, MS#17

Findings:

Emergency management in Canada is a shared responsibility between all levels of government, the private sector and the public (Federal Emergency Act, 2007). Public Safety Canada defines an emergency as:

'A present or imminent event that requires prompt coordination of actions concerning persons or property to protect the health, safety or welfare of people, or to limit damage to property or the environment.'

The federal agency, CFIA, leads the response to animal disease emergencies and ensures coordination with the various stakeholders. Emergency preparedness and response is recognised as a core activity of CFIA.

Foreign Animal Emergency Disease Support (FADES) agreements are in place between CFIA and most provinces to define the roles and responsibilities and coordination of an emergency response. These agreements are typically more than five years old and there is a recognised need to review and update them.

Guidelines, including a 'decision support tool', have been prepared for the activation of emergency response plans; the guidelines include 'assessment criteria for activation' which include likely impact, scale of the event, significant media or public interest, the need for resource coordination and uncertainty. The emergency response plan may be activated by any CFIA vice-president. The President may declare an emergency to enable the procurement of emergency supplies and to access additional emergency funding – emergency declaration does not require endorsement by the minister or other politician. Emergency declaration is not necessary to mobilise response teams. The CFIA president is supported by a Senior Management Committee and must approve key decisions, new policies or extraordinary expenses.

CFIA has aligned its emergency response structure with its government partners using an Incident Command System (ICS) approach. Training for staff in ICS management (command/controller, planning, operations, logistics and administration managers) has been undertaken. Specific roles within the ICS response are undertaken by experienced personnel

but little specific training has been undertaken for roles such as ‘infected premises manager’, ‘tracing officer’, ‘movement control/permits officer’ and ‘carcass disposal officer’. A database of people available for the ICS is maintained.

Preparedness planning covers knowledge (training and access to information, policies and plans and response structures), response capacity (staff inventory, that is, numbers and training) and equipment (protective clothing, equipment and materials). CFIA holds a stock of materials to enable an immediate response for the first few days and has identified suppliers contracted to supply additional materials when required. CFIA staff have access to ‘Go Kits’ for foreign animal disease outbreaks; these kits contain protective gear, disinfection materials, sampling materials and assorted instruments.

A hierarchy of emergency response centres and teams has been established – the Emergency Operations Centres (EOCs) and Emergency Response Teams (ERTs) operating at National (NEOC, NERT), Area (AEOC, AERT), Regional (REOC, RERT) and at local levels through Incident Command Posts; this hierarchy of emergency response teams manages and coordinates the emergency response according to their jurisdiction.

Simulation exercises are regularly undertaken nationally, with international partners, and by some of the provinces. Following an outbreak, or exercise, an immediate debrief is undertaken – a so-called ‘hot wash’. Results are developed into an ‘After Incident Report’ and a ‘Capabilities Improvement Process’.

CFIA has developed a hierarchy of response plans including a strategic emergency management plan, emergency response plan, functional plans, hazard (disease) specific plans and operational and administrative procedures. A number of response plans for specific animal health incidents have been developed including the North American Plan for Animal and Pandemic Influenza, the Notifiable Avian Influenza Hazard Specific Plan and the FMD Hazard Specific Plan along with all the diseases for which the CFIA has active control or eradication programs (e.g. TB, scrapie, BSE). There are also contingency plans for the response to food safety incidents.

The Canadian Veterinarian Reserve has been established by the CVMA to assist governments respond to outbreaks of foreign animal disease and other large-scale emergencies and disasters that affect animals. In addition, Canada can draw support from the 6-country (Canada, New Zealand, Australia, UK, US and Ireland) agreement on the International Animal Health Emergency Reserve, under which personnel can be provided to other countries in the event of an emergency animal disease.

Canada has access to the ‘North American FMD Vaccine Bank’, which is administered jointly by the US, Mexico and Canada. (This vaccine bank has recently been used to help Korea combat an FMD outbreak.)

Since 2012 the CFIA has added more flexibility to their legal authority to establish zones to contain, control, eradicate, monitor or prevent the spread of diseases (primary and secondary control zones). The CFIA has used zoning as a control measure for the eradication of AI and has proposed zoning for the enhanced control of other diseases. Note that this is not ‘zoning’ of disease free zones as defined by OIE and used in international trade (see CC IV.7).

The recent detection of a TB infected cow in Alberta precipitated an emergency response. The index herd and a number of traced high-risk herds have been culled and compensated; tracing and testing is continuing. At the time of the PVS mission it was estimated that in excess of \$35 million had been paid out in compensation. CFIA has also incurred substantial operating costs of more than \$8 million covering tracing, testing, destruction and disposal. Cleaning and disinfection is not covered by the CFIA emergency response programme and is regarded as the responsibility of the producer – CFIA provides oversight and assesses the effectiveness of the decontamination. A further \$16.7 million has been made available by the Canada-Alberta Bovine Tuberculosis Assistance Initiative (CABTAI), which is assisting with

extraordinary costs (business interruption, decontamination, etc.). The response is continuing.

Provinces also have the capability and capacity to respond to provincial 'reportable diseases'. Examples include the Porcine Epidemic Diarrhoea detection and response programme in Manitoba with the application of ICS principles to coordinate and support the planning, operations, logistics and communications necessary for the response. The disease outbreak response is developed through collaboration with the provincial government, industry, and private veterinarians. Producers manage infected herds utilising normal marketing practices unless euthanasia is required for humane reasons and work with private veterinarians and the province to address biosecurity/biocontainment concerns. Affected producers are variously supported by the ministry, private veterinarians and the swine industry to implement disease control, surveillance and response activities. As an example of the impact of this approach Manitoba has decreased the need for regulatory actions and has improved stakeholder engagement in the outbreak response.

In Quebec, the poultry and pig industries have set up a network representing their entire value-chains (E.g. 'Équipe québécoise de contrôle des maladies avicoles' and 'Équipe québécoise de santé porcine'). These networks facilitate collaboration between provincial (provincial agriculture authorities and regional CFIA) and federal (CFIA) levels allowing for improved disease reporting and emergency intervention in case of an outbreak; they have their own 'emergency centre'.

In Ontario, both provincial and federal governments have worked closely with the poultry industry to address issues as they emerge. In responding to a recent LPAI outbreak the owner of the infected birds, the poultry industry and government all worked together to manage the situation promptly and effectively.

For food safety emergencies, CFIA is responsible for any recall or withdrawal of the contaminated product from the market, with at times support from provinces. There is a high level of coordination across ministries with Health Canada assessing the risk, and the Public Health Agency of Canada, with the provinces/territories, mitigating the risk and informing the population.

In the case of zoonoses, the Public Health Agency of Canada, in collaboration with provinces/territories, undertakes the public health investigation and CFIA, with the provinces/territories, manages the animal health component.

Major audits of emergency preparedness and response have been conducted by the independent Auditor General of Canada. Overall the findings were positive but a number of recommendations were made and these have resulted in changes to preparedness planning, risk assessments, operational guidelines and management.

One audit finding was that the CFIA documented lessons learnt from its management of animal disease emergencies and other events such as exercises; however, it did not have a system that compiled all key issues and recommendations from all the various lessons learnt reports. It was also found that the CFIA did not consistently assign priorities and responsibilities and monitor progress to make sure these issues were resolved.

Emergency preparedness and response is also continually assessed at the provincial/territorial level through a programme of simulation exercises and reviews. The lessons learnt from these exercises are fed back into their programmes of emergency preparedness and response.

Strengths:

- CFIA has a clear, well established mandate with well-defined procedures for the activation and implementation of an emergency response to foreign animal diseases
- In general, CFIA with Health Canada and the Public Health Agency of Canada coordinate large food safety recalls, risk assessment, mitigation and messaging, and the

investigation and response to zoonotic diseases, with the collaboration/support of provincial and territorial governments. In some local or regional situations, provinces provide leadership

- Hierarchy of response plans available including coordination and collaboration with other federal agencies and provincial authorities
- Staff trained in the ICS approach to deliver field emergency responses
- Recent outbreaks of TB and AI handled effectively

Weaknesses:

- National emergency responses are entirely financed by government – primarily federal

Recommendations:

- Consider options for strengthening emergency preparedness and response by introducing cost sharing between government and industry, particularly for diseases where control is primarily a benefit to the private sector. Industry cost sharing should cover direct industry costs such as communications and awareness and operational costs such as surveillance and control activities; government would be expected to facilitate policy setting and support the management of the response.

II-7 Disease prevention, control and eradication	Levels of advancement
<i>The authority and capability of the VS to actively perform actions to prevent, control or eradicate OIE listed diseases and/or to demonstrate that the country or a zone are free of relevant diseases.</i>	1. The VS have no authority or capability to prevent, control or eradicate animal diseases.
	2. The VS implement prevention, control or eradication programmes for some diseases and/or in some areas with little or no scientific evaluation of their efficacy and efficiency.
	3. The VS implement prevention, control or eradication programmes for some diseases and/or in some areas with scientific evaluation of their efficacy and efficiency.
	4. The VS implement prevention, control or eradication programmes for all relevant diseases but with scientific evaluation of their efficacy and efficiency of some programmes.
	5. The VS implement prevention, control or eradication programmes for all relevant diseases with scientific evaluation of their efficacy and efficiency consistent with relevant OIE international standards.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): MS#24, PP.31, E.07.1/2, MS#99, E.08.1.1-14, E.08.1.15-19, E.08.1.19, E.15.5, PP.99

Findings:

Canada has a federal list of priority animal diseases that are ‘reportable’, ‘immediately notifiable’ and ‘annually notifiable’. ‘Reportable diseases’ must be immediately notified by any owner/producer or member of the public, ‘immediately notifiable’ must be immediately reported by the detecting diagnostic laboratory and ‘annually notifiable’ must be reported annually by the detecting diagnostic laboratories. These reports are used to assess the incidence of priority animal diseases and facilitate the implementation of control or eradication programmes.

Control and eradication programmes are well documented and managed with periodic reviews of the disease epidemiology, the cost-effectiveness of response and the progress being made in control and eradication. Assessments are carried out by various parties including CFIA officers, academics and hired consultants; reviews are complicated by the lack of an integrated disease information system.

CFIA has an extensive array of disease control programmes working with other government agencies, industry and the community. Some examples are provided here.

Multi-agency working groups dealing with non-enteric zoonotic diseases

These programmes required collaboration between federal/provincial/territorial public health and animal health authorities and are examples of ‘One Health’ activities.

- **Rabies related activities**

The provinces/territories are responsible for developing and implementing rabies control programmes with CFIA providing diagnostic support. The CFIA Fallowfield Laboratory is an OIE Reference Laboratory for rabies, and a World Health Organization Collaborating Centre for Epidemiology and Control of Rabies in Carnivores

PHAC and CFIA are members of the USDA-led Working Group updating the 2008 North American Rabies Management Plan. CFIA is a member of the PHAC and Ontario co-led updating of the 2009 Canadian Rabies Management Plan (CRMP).

CFIA is contributing to the International Conference on Rabies in the Americas (RITA) Membership on international and provincial rabies working groups

- **Multi-agency working groups including**
 - Influenza
 - West Nile virus and other Mosquito Borne Diseases
 - Lyme and other Tick Borne Diseases
 - Prion diseases
- **Coordination with provincial public health authorities on parasitic diseases such as**

Trichinella spiralis

There is a federal eradication program. All cases of trichinosis in swine are investigated. The animals are ordered to be destroyed by slaughter and the carcasses are frozen to inactivate the parasite. Compensation is paid for any condemnations. More recently the CFIA has investigated a case that came to light through the public health system and investigated the pigs which were raised by the affected individuals.

Cysticercus bovis

A federal control programme has been established which involves identifying the farm of origin and determining the most likely source of the tapeworm eggs. Public health is brought in to deal with the human health concerns. The affected herd is sent to slaughter with enhanced inspection and compensation is paid for any condemnations.

Targeted Animal Disease Control and Eradication Programmes

Canada has a stamping-out policy in place for many foreign animal diseases such as Foot and Mouth Disease, Classical Swine Fever, Pseudorabies, Newcastle Disease, etc. For many diseases that are present the CFIA implements disease control programmes. For example:

- **Bluetongue**

Bluetongue is absent in most of Canada. Over the past 30 years, there have been incursions of bluetongue into the Okanagan Valley, British Columbia, which are believed to be the result of wind-borne introduction of infected midges from the US. In September 2015, bluetongue was confirmed in cattle in south-west Ontario – this resulted in trading partners temporarily banning the import of Canadian livestock genetics and live animals.

CFIA conducts ongoing surveillance for bluetongue but will take no action if serotypes of bluetongue that are present in the USA are detected in Canada. Disease control activities may take place for serotypes that are exotic to the USA and Canada.

- **Bovine spongiform encephalopathy (BSE)**

Since 2007, Canada has been recognized by the OIE as a 'controlled BSE risk' country. The conditions for this category are the same as those for a negligible BSE risk country, except that before countries with indigenous BSE cases can qualify for negligible status, every indigenous case must have been born more than 11 years previously.

Specified Risk Material (SRM) – are segregated at source and redirected to disposal or destruction through a series of permits. For example, a permit is required from CFIA for all trucks and trailers used to transport SRM in any form, including deadstock. Dedicated trucks and trailers must be marked 'SRM' on the outside.

- **National Scrapie Eradication Programme**

The National Scrapie Eradication Programme consists of an internationally recognised and science based approach that includes: 1) a surveillance program aimed at identifying as many scrapie infected flocks/herds in Canada as possible, 2) implementing scrapie disease eradication actions on farms where scrapie is identified, and 3) providing support to the Voluntary Scrapie Flock Certification Program (VSFCP).

The CFIA with several provincial agricultural ministries has launched a surveillance programme to detect scrapie in the national sheep flock and goat herds the active surveillance program is carried out at federal and provincial abattoirs, sales yards and cull ewe feedlots. The testing of deadstock from flocks on the VSFCP provides data into the active surveillance programme but is only a minor component.

The CFIA, in collaboration with the sheep industry, developed national standards for the VSFCP as the basis for Canada's on-farm, voluntary scrapie control programme. It is intended to be a long-term, internationally recognised flock/herd scrapie control programme for the sheep and goat industries. This programme is a CFIA approved disease prevention strategy with CFIA only providing minimum national standards to ensure that the programme retains the key requirements needed to meet international standards and auditing by the programme administrators. The day-to-day management and verification is led by industry.

In general, compensation may be made available for live animals ordered destroyed by the CFIA.

- **Chronic Wasting Disease (CWD) in deer and elk**

Ongoing provincial surveillance for CWD varies with each particular province's perceived threat and infection status. Testing of cervids slaughtered at abattoirs is mandatory in the provinces/territories of Manitoba, Saskatchewan, Alberta, Quebec and the Yukon; it is random elsewhere.

CWD is a reportable disease under the Health of Animals Regulations. This means that all suspected cases must be reported to the CFIA. Currently all confirmed positives are subject to movement controls, ordering the destruction of all animals and cleaning and disinfection of the property. Complete tracing of trace-outs and trace-ins is undertaken with appropriate follow up actions. In addition, there is also a Voluntary Herd Certification Program which is run by the provinces and the industry.

The CFIA sets the minimum national standards and audits the administration of the programme. The basic pillars of the programme are limits on sources of animals, detailed animal inventories and the testing of deadstock.

Some provinces control the introduction of domestic cervids from other provinces.

- **Brucellosis**

Brucella suis (in swine) and Brucella melitensis have never been reported in Canada. Canada is free of Brucella abortus in cattle. Detection of any of these three diseases would trigger disease control actions.

- **Malignant Catarrhal Fever**

Awareness programmes are in place in some provinces. As an example, an information leaflet on preventative husbandry measures in bison and sheep has been prepared by the Alberta Veterinary Medical Association, the Bison Producers of Alberta and Alberta Lamb Producers. Note that bison are particularly affected by ovine herpes virus-2.

- ***Bovine Tuberculosis (TB)***

Mandatory national eradication programme since 1923 with compensation payable.

Two wildlife reservoirs identified:

- Riding Mountain National Park (MB) – CFIA created an eradication zone around the park and has eliminated the disease in the bovine herds around this area. Parks Canada and the provincial ministries in MB have worked to dramatically reduce the disease in the wild cervids in the park.
- Bovine Tuberculosis has been a particular problem in wood bison in the Wood Buffalo National Park but ongoing surveillance with focal area control has reduced its incidence. No dissemination to domestic cattle was ever been detected.

Emergency response to bovine TB detection in 2016-17 (see CC II.6)

- ***Avian Influenza***

CFIA testing in July 2016 confirmed the presence of LPAI on a duck farm in Ontario. An emergency response with stamping-out was implemented. A declaration of freedom was made to OIE, following successful completion of the depopulation, disposal, cleaning/disinfection and a three-month surveillance period, as defined in the Canadian Avian Influenza Hazard Specific Plan.

- ***Infectious layrngotracheitis (ILT)***

ILT is an immediately notifiable disease in Canada and is a reportable disease in some provinces. CFIA has no control programme in place but a number of provinces have developed an ILT control programme with industry support.

- ***Enzootic bovine leukosis (EBL)***

EBL is endemic in Canada. The CFIA oversees and participates in a programme to raise cattle of low risk for EBL for the export market. This programme, the Canadian Health Accredited Herds – Enzootic bovine leukosis (CHAH-EBL), utilizes accredited veterinarians.

- ***Johne's Disease***

The national Johne's Disease Initiative aims to reduce the risk to Canada's beef and dairy industries. The programme has been developed to combat the disease, even though current vaccines, treatment and diagnostic options are problematic. This initiative has been led by the Canadian Cattlemen's Association (CCA), Dairy Farmers of Canada (DFC), and the Canadian Animal Health Coalition (CAHC), with expert input from Johne's disease researchers and support from the federal and some provincial governments which develop control programmes.

Support for disease control and prevention

- The Canadian Animal Health Surveillance Network (CAHSN) is a network of federal, provincial and university animal health diagnostic laboratories. (See CC.II-5.B) CAHSN has three major parts: 1) an early warning surveillance system for animal disease threats to animal health, human health and the security of the food supply, 2) an integrated federal-provincial-territorial laboratory network for the diagnosis of serious infectious diseases of animals, and 3) a common information-sharing platform for linking federal and provincial animal health agencies and departments of human health.
- CFIA disease control programmes are routinely audited internally and reviewed for their effectiveness and progress; reviews are undertaken by CFIA programme staff

and occasionally by Science Branch staff, academics or contracted independent consultants. It is considered that the reviews are made less effective by the lack of an integrated disease information system. The CFIA President has an external advisory group which is consulted to review the effectiveness and efficiency of CFIA programmes.

- Province disease control programmes also operate against diseases such as Porcine Epidemic Diarrhoea and rabies.
- Industry and other stakeholders are consulted throughout the programme design process. Feedback from stakeholders is taken into account when issues with implementation are encountered.

Strengths:

- Documented and reasonably well resourced federal and provincial disease control programmes
- Considerable consultation with stakeholders
- Animal disease programmes based on risk-based strategies with available data being used to assess their efficacy and efficiency
- Animal disease surveillance and rapid response plans

Weaknesses:

- Limited financial support by industry of disease control programmes
- No systematic reporting of provincial disease control activities, which are not under the mandate of the CFIA.

Recommendations:

- Develop cost sharing options with industry
- Require systematic reporting of provincial disease control activities, that are not under the mandate of the CFIA
- Develop and implement integrated database/IT systems that capture animal health activities from inspection, testing and response. Such a system should be available for real time analysis in order to effectively manage disease outbreaks and detect trends and deficiencies in the disease situation or the approach taken in disease control

II-8 Food safety A. Regulation, authorisation and inspection of establishments for production, processing and distribution of food of animal origin <i>The authority and capability of the VS to establish and enforce sanitary standards for establishments that produce, process and distribute food of animal origin</i>	Levels of advancement	
	1.	Regulation, authorisation and inspection of relevant establishments are generally not undertaken in conformity with international standards.
	2.	Regulation, authorisation and inspection of relevant establishments are undertaken in conformity with international standards in some of the major or selected premises (e.g. only at export premises).
	3.	Regulation, authorisation and inspection of relevant establishments are undertaken in conformity with international standards in all premises supplying throughout the national market.
	4.	Regulation, authorisation and inspection of relevant establishments (and coordination, as required) are undertaken in conformity with international standards for premises supplying the national and local markets.
	5.	Regulation, authorisation and inspection of relevant establishments (and coordination, as required) are undertaken in conformity with international standards at all premises (including on-farm establishments).

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 5): E.03.4-7, MS#16, E.06.1-5, E.16.1-7, PP.24/25, MS#22

Findings:

The Meat Inspection Act sets conditions for registration and operation of federally registered establishments and the Meat Inspection Regulations specify the requirements for registration, licensing, maintenance and operations of a federally registered establishment. To obtain a license the regulations state that to operate a federally registered establishment, the operator has to formally submit scheduled work shift agreements, prerequisite programmes, control programmes and a HACCP system to the President of CFIA.

There are 686 establishments registered federally with 467 licensed for exports. Federally registered abattoirs kill approximately 94% of cattle, 96% of pigs, 97% of poultry and close to 100% of horses. Only a small proportion of small ruminants are slaughtered in federally inspected slaughterhouses – approximately 24% for sheep and 5% for goats; some 56% of sheep are slaughtered in provincial slaughterhouses. It was suggested to the PVS mission that a significant number of sheep were being slaughtered without veterinary supervision.

The Food Safety Recognition Program (FSRP) is a collaborative effort funded by AAFC under the 'Growing Forward 2' initiative. The CFIA leads the programme with the participation of industry as well as provincial and territorial governments and other federal departments. The objective is to support the development of the HACCP approach in non-federally registered establishments with funding support and joint programmes with professional organisations.

The provinces have varying processes for licensing. The following are some examples of provincial licensing procedures/activities.

Alberta

In Alberta services rendered at provincial abattoirs include: custom slaughter for farmers/ranchers (personalised cut & wrap), supply to small scale local markets, provision of high quality 'home-style' products, halal/kosher slaughter, slaughter of goats and sheep-for local ethnic markets, slaughter of exotic species and essential service to small scale farmers for emergency slaughter. These facilities are provincially licensed and any sale of meat products must come from inspected carcasses originating from licensed facilities.

British Columbia

Class A slaughter establishments are permitted to slaughter and to cut and wrap meat products. Class B slaughter establishments are permitted to slaughter only. Abattoirs are

required to have the presence of a trained government meat inspector to inspect each animal (livestock) or flock (poultry) beforehand and each carcass after slaughter. Class D and E licences allow on-farm slaughter with retail sales and direct to the consumer' and 'direct to the consumer' only respectively. No licensing is required for own use.

Manitoba

Food processing facilities require permits and registration, and are inspected by Manitoba Agriculture health officers who play an important role in ensuring the safety of all food that is processed and distributed from provincially registered facilities within Manitoba.

Health officers inspect facilities to determine if practices required by provincial legislation are being followed with respect to general food handling, storage temperature, sanitation, employee hygiene, equipment maintenance and environmental controls. They also assess formulations and processing methods to ensure that the food produced will be safe, conduct building assessments for new facilities and respond to public complaints. A health officer will issue a permit to a facility once an inspection shows that acceptable practices are being followed. The facility must continue to meet these requirements to maintain their permit.

Manitoba is also responsible for providing inspection services of provincially registered abattoirs. This includes ensuring compliance with legislation on food safety, as well as animal health and animal welfare.

Nova Scotia

There are about 5,000 restaurants, grocery stores and food service facilities in Nova Scotia. Provincial inspectors conduct inspections and audits on food service establishments using risk based assessments.

Provincial slaughterhouses are inspected by 14 meat inspectors supervised by a senior meat inspector.

New Brunswick

The provincial Department of Health issues licenses to operate food premises, including abattoirs. Food premises licenses are divided into three classes. The type of license class is determined by the types of food prepared and sold, and the way foods are handled. Each of these premises must be licensed to operate in New Brunswick and is subject to inspection by provincial Public Health or Agri-food Inspectors.

Premises are inspected every one to three years depending on the type of food served, the staff training, the premises maintenance and the history of compliance. Operators do not know when the inspections will be conducted. Violations of the regulations generally result in additional follow-up compliance inspections but may also result in license revocation if the violation poses an immediate risk to public health. Individuals operating a food premises without a license are subject to charges under the Public Health Act. Licenses may be renewed online or at any New Brunswick Service location.

Quebec

Quebec has two levels of abattoirs (Category A and 'proximity slaughterhouses'). Regular inspections are performed in provincial slaughterhouses. In most of the proximity slaughterhouses in Quebec (or provincial slaughterhouses in other provinces) the inspection is conducted on a weekly basis (for slaughterhouses with high volume) or on monthly basis (lower volume)

The MAPAQ also performs risk based inspection on provincial food processors and 1,945 retail shops and restaurants.

Saskatchewan

Saskatchewan Ministry of Agriculture undertook a review of its meat hygiene legislation in 2012. This audit report found that the province was out of step with most Canadian provinces

in that all meat did not require inspection before it was sold in the province. Also, Saskatchewan was the only province where the responsibility for meat safety is handled by more than one ministry. The Ministry of Agriculture administers the Domestic Meat Inspection Program, a voluntary program with full ante and post mortem inspection delivered by third party inspectors. All other abattoirs are licensed by the Ministry of Health with facility-only inspection. The report provided a number of recommendations. The leading recommendation was ‘...Government of Saskatchewan formally assess the risks related to uninspected meat and consider updating its regulations for the production of meat that is safe for human consumption.’ A number of these recommendations have been addressed. Though the Ministry of Health drafted updates to the Food Safety Regulations the provincial government decided instead to unify the system under the provincial Ministry of Agriculture. Consultations on unification started in August of 2016 and a survey of affected establishments was completed in November of 2016. Consultations are due to be held with industry in early 2017.

Yukon

Yukon has one mobile and one recently established abattoir both based in Whitehorse; these facilities are inspected by the single Livestock Health Technician supervised by one of the two territory government veterinarians. It is recognised that most livestock slaughter occurs outside these facilities.

In many small slaughterhouses, there is no real ante- and post mortem inspection, and no real control of the competence of the capacity of the operator to identify signs in live animals or in the carcasses that would justify a veterinary inspection. This network of small slaughterhouses provides an important service for the local rural population in preserving traditional lifestyles.

Strengths:

- A process of licensing exists for federally and provincially regulated abattoirs, processors and distributors
- Meat cannot move across provincial borders unless it is processed in a federally licensed facility

Weaknesses:

- Variable province standards – some with very limited/no oversight of smaller throughout abattoirs and slaughter places
- Some provinces allow on-farm sale of meat products with no licensing or inspection

Recommendations:

- CFIA should develop a national meat hygiene standard defining common minimum hygiene standards for application by all provinces
- Provinces and territories should develop a comprehensive strategy for local animal slaughter and meat supply
 - Consideration should be given to providing or supporting the provision of mobile abattoirs for smaller dispersed communities
 - Develop public awareness campaigns on food safety and work with butchers and smaller abattoirs to advocate the changes required
- Develop cost sharing options with industry considering industry employing inspectors with independent oversight and auditing by CFIA or other agencies

B. Ante and post mortem inspection at abattoirs and associated premises (e.g. meat boning/cutting establishments and rendering plants).	Levels of advancement
<i>The authority and capability of the VS to implement and manage the inspection of animals destined for slaughter at abattoirs and associated premises, including for assuring meat hygiene and for the collection of information relevant to livestock diseases and zoonoses.</i>	1. Ante- and post mortem inspection and collection of disease information (and coordination, as required) are generally not undertaken in conformity with international standards.
	2. Ante- and post mortem inspection and collection of disease information (and coordination, as required) are undertaken in conformity with international standards only at export premises.
	3. Ante- and post mortem inspection and collection of disease information (and coordination, as required) are undertaken in conformity with international standards for export premises and for major abattoirs producing meat for distribution throughout the national market.
	4. Ante- and post mortem inspection and collection of disease information (and coordination, as required) are undertaken in conformity with international standards for export premises and for all abattoirs producing meat for distribution in the national and local markets.
	5. Ante- and post mortem inspection and collection of disease information (and coordination, as required) are undertaken in conformity with international standards at all premises (including family and on farm slaughtering) and are subject to periodic audit of effectiveness.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 5): E.03.4-7, MS#16, E.06.1-5, E.16.1-7, PP.24/25, MS#22

Findings:

Legislation mandates CFIA inspection/registration at all national and export slaughterhouses; provinces and territories have legislation covering within province/territory slaughterhouses.

CFIA undertakes ante- and post mortem inspection at all federally licensed abattoirs, that is, those that supply the inter-provincial and export markets. Provinces/territories are responsible for meat inspection in abattoirs that supply only within their province/territory.

Under CFIA legislation no person can export a meat product out of Canada unless:

- It was prepared or stored in a registered establishment that was operated in accordance with the act and the regulations
- That person provides an inspector with evidence satisfactory to the Minister that the meat product meets the requirements of the country to which it is being exported
- That person obtains a certificate from an inspector authorising the export of that meat product.

CFIA is legislated to provide safe food. A Meat Hygiene Manual of Procedures (MHMOP) has been developed and is comprehensive and consistent with international standards. Data on meat inspection and certification at federal abattoirs is captured in the CVS database.

An Animal Information Document is required for poultry and horses, but not for cattle. This document is prepared by the farm of origin and provides the meat inspectors with key information on the health status of the animals (e.g. antibiotic treatment and compliance with the necessary withdrawal periods).

Two systems of inspection exist at federal abattoirs:

- Traditional inspection with 100% of animals inspected
- Modern inspection with double inspection at the beginning for 'calibration' and thereafter CFIA inspection focuses on suspect carcasses

There is an audit system in place for CFIA inspection managed by the Inspector General Office of CFIA.

There is a granuloma surveillance programme in place at federal abattoirs for the detection of TB in cattle and bison.

There is often no routine ante and post mortem inspection at small local slaughterhouses that are managed by the provincial VS; however, there may be an equipment compliance and hygiene inspection of the facility several times per year. The provinces implement different systems such as:

- Meat inspection and ante- and post mortem inspection is under the control of a veterinary inspector (e.g. Category A slaughterhouses in Quebec).
- Meat inspection performed by meat inspectors with the support of accredited veterinary practitioners for ante- and post mortem inspection visiting the slaughterhouses on the days of slaughtering (e.g. provincial slaughterhouses in Nova Scotia).
- Slaughtering performed by an operator without any ante- and post mortem inspection, no checking the capability of the operator to detect infectious diseases during slaughter and no protocol defining when a veterinarian should be consulted (e.g. provincial slaughterhouses in New Brunswick or proximity slaughterhouses in Quebec).

These different situations are known by farmers so they can choose a destination of an animal for slaughtering taking into account the quality of the inspection and the risk of condemnation. It was noted that in one province animals were sent to the next province where there was a lower level of inspection.

Figure 1: Example of national/provincial legislation – Alberta

	Federal	Agriculture and Forestry	Alberta Health
Legislation	Safe Food for Canadians Act 2012 Meat Inspection Regulations 1990	Meat Inspection Act M-9 RSA 2000 Meat Inspection Regulation 116/2009 Fees Regulation 116/2009	Public Health Act Food Regulation 31/2006
Market Access	export	Alberta only	Alberta only
Responsibilities	Slaughter/processing/retail	Slaughter/processing	Processing/retail

In some provinces, no protocol for veterinary professional oversight of ante and post mortem undertaken by meat inspectors was available, even if some supervision of operators is undertaken periodically by provincial abattoirs coordinators.

There is only limited reporting of provincial meat inspection results to CFIA from provincial abattoirs.

Butchers and consumers lobby politicians to maintain access to facilities for local slaughtering.

Strengths:

- Well established, audited meat hygiene programme at all federal abattoirs
- Manuals of meat hygiene procedures for federal inspection are well defined with an efficient database, the CVS, to capture the results of inspections

Weaknesses:

- Absence of ante- and post mortem inspection in some smaller, local provincial abattoirs
- No comprehensive reporting of condemnations and their cause from abattoirs
- Lack of veterinary supervision of meat inspection in many of the provinces, especially at the smaller abattoirs

Recommendations:

- Ensure consistent enforcement of ante and post mortem inspection at all abattoirs with veterinary oversight
- Develop a programme of training and delegation for operators of low throughput abattoirs. (see CC III.4)
- Develop a surveillance data capture programme for the reporting of condemnations and their cause from abattoirs

C. Inspection of collection, processing and distribution of products of animal origin	Levels of advancement
<i>The authority and capability of the VS to implement, manage and coordinate food safety measures on collection, processing and distribution of products of animals, including programmes for the prevention of specific food-borne zoonoses and general food safety programmes.</i>	1. Implementation, management and coordination (as appropriate) are generally not undertaken in conformity with international standards.
	2. Implementation, management and coordination (as appropriate) are generally undertaken in conformity with international standards only for export purposes.
	3. Implementation, management and coordination (as appropriate) are generally undertaken in conformity with international standards only for export purposes and for products that are distributed throughout the national market.
	4. Implementation, management and coordination (as appropriate) are generally undertaken in conformity with international standards for export purposes and for products that are distributed throughout the national and local markets.
	5. Implementation, management and coordination (as appropriate) are undertaken in full conformity with international standards for products at all levels of distribution (including on-farm establishments).

[Note: This critical competency primarily refers to inspection of processed animal products and raw products other than meat (e.g. milk, honey etc.). It may in some countries be undertaken by an agency other than the VS.]

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 5): E.03.4-7, MS#16, E.06.1-5, E.16.1-7, PP.24/25, MS#22

Findings: Legislation mandates CFIA inspection/registration at all national and export food processing facilities; provinces and territories have legislation covering within province/territory operations.

Inspection is performed in processing facilities by a CFIA inspector for federally registered establishments (meat, dairy, eggs and other animal products) and by provincial inspectors for those only trading within the province.

The frequency of inspection is based on risk analysis according to the guidance provided in the MHMOP.

The personal health status of food handlers is defined.

The federal establishment must have implemented a Hazard Analysis Critical Control Point (HACCP) approach and there must be a capacity to recall their products. CFIA has the responsibility for food recall and to verify the complete recall of the affected batches.

A manual of inspection has been defined for federally registered dairy processors.

The list of HACCP/FSEP 'Recognized Establishments' is published on the CFIA website for each category of animal products.

The inspection of restaurants and retail shops is under the provincial inspection agencies. In some large towns, inspection is delegated to municipality inspectors reporting to the provincial level.

Most of the provincial inspectors have access to the federal training organised by CFIA and other federal agencies. However, supervision and continuing education differs from one province to another.

Quebec has developed a network of dairy Small-Medium Enterprise processors. MAPAQ performs risk based inspection on these 90 dairy establishments. The MAPAQ also undertakes audits on dairy farms – on average once every three years.

Strengths:

- Inspections are performed in all federal establishments that export or trade inter-provincially

Weaknesses:

- No sharing of information on inspection results between provinces and the federal level for most of the provinces.

Recommendations:

- Improve data capture and information sharing between provinces and national agencies

II-9 Veterinary medicines and biologicals	Levels of advancement
<i>The authority and capability of the VS to regulate veterinary medicines and veterinary biologicals, in order to ensure their responsible and prudent use, i.e. the marketing authorisation, registration, import, manufacture, quality control, export, labelling, advertising, distribution, sale (includes dispensing) and use (includes prescribing) of these products.</i>	1. The VS cannot regulate veterinary medicines and veterinary biologicals.
	2. The VS have some capability to exercise regulatory and administrative control over veterinary medicines and veterinary biologicals in order to ensure their responsible and prudent use.
	3. The VS exercise regulatory and administrative control for most aspects of the regulation related to the control over veterinary medicines and veterinary biologicals, including prudent use of antimicrobial agents in order to ensure their responsible and prudent use.
	4. The VS exercise comprehensive and effective regulatory and administrative control of veterinary medicines and veterinary biologicals.
	5 The control systems are regularly audited, tested and updated when necessary.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E.03.1-7, EM.28-35, PP.23, MS#26, PP.20/21, E.17.1-14, PP.30, EM.10/11

Findings:

Regulation of veterinary medicines is a joint responsibility in Canada:

- The federal Food and Drugs Act, Controlled Drugs and Substances Act, and related regulatory provisions work together to define the federal legislative framework for veterinary drugs
- Provincial regulations control the practice of veterinary medicine and pharmacy. Provinces can impose stricter requirements with respect to the sale of medicines and biologicals, but cannot relax the requirements set by the federal government.
- Some provinces register and inspect livestock medicine outlets
- Veterinary biologicals are regulated under the authority of the Health of Animals Act and Regulations by the CFIA through the Canadian Centre for Veterinary Biologics (CCVB)

The federal regulatory authority for regulating the approval, sale and labelling of veterinary drugs is the responsibility of Health Canada's Veterinary Drugs Directorate (VDD) under the authority of the Food and Drugs Act and its regulations. The Canadian Food Inspection Agency (CFIA) is responsible for enforcing the health and safety standards related to food safety (e.g. maximum residue limits) set by Health Canada. In the case of veterinary drugs, this is done through the residue monitoring programme and, specifically, sampling and testing of food products of animal origin. The authority and accountability for the prescribing and use of veterinary drugs falls under provincial and territorial jurisdiction.

Authority to dispense

Own Use Importation (OUI) and Active Pharmaceutical Ingredients (API)

- OUI – Health Canada's policy currently allows individuals to import a single course of treatment or a 90-day supply based on the directions for use, whichever is less, of a non-prescription drug for use in their own animals. This policy has resulted in unapproved drugs being imported into Canada by food animal producers.
- API – There are few regulatory controls over the importation of veterinary active pharmaceutical ingredients (API), including antimicrobial drugs important to human medicine. Veterinarians can prescribe and dispense drugs compounded from APIs.

In 2016, Health Canada published proposed regulatory amendments in the Canada Gazette Part 1, to address the importation of APIs and unapproved drugs intended for use in animals. Publication in Canada Gazette Part 2, the precursor to revised or updated legislation, is expected in mid-2017.

It is a requirement that a valid veterinarian-client-patient-relationship exists before a veterinarian can prescribe or dispense a prescription drug for animals. CVMA has developed prudent use guidelines on antimicrobial use.

However, currently there are provincial variations in the legal requirements for 'over-the-counter' (OTC) sale of veterinary drugs. There is considerable variability in the sale of OTC's) across the provinces with variations as follows:

- Not permitted
- Points of sale (outlets) are licensed and inspected and must have a licensed seller on hand at all time. That person must pass an exam. However, anybody can procure these OTCs although sometimes personal contact details are required.
- Points of sale are licensed; however, the buyer must be in possession of a valid Premises Identification (PID) where animals are kept.
- No licensing or oversight of OTC outlets

As per Food and Drugs Act and Regulations, the list of substances prohibited for sale for administration to food-producing animals in Canada has been defined and includes: chloramphenicols, 5-nitrofurans compounds, clenbuterol, 5-nitroimidazole compound and diethylstilboestrol or other stilbene compounds.

Veterinary biologicals

Veterinary biologicals (vaccines, antibody products, and in vitro diagnostic test kits for infectious diseases) are regulated by the CFIA, under the regulatory authority of the Health of Animals Act and the Health of Animals Regulations.

The regulatory programme for veterinary biologicals is administered by the CCVB, which is responsible for development and implementation of regulatory controls for veterinary biologicals, including review and approval/licensing, registration of new products, importation, experimental use of unlicensed products, and inspection of veterinary biologicals manufacturing facilities.

OUI of veterinary biologics is not permitted in Canada. Under certain special circumstances, Canadian veterinarians may apply for an import permit to obtain a veterinary biological that is unlicensed in Canada, for restricted use under their supervision in research or in emergency situations.

Health Canada and CFIA inspectors conduct audits of warehouse facilities holding animal drugs and biologicals to ensure that the facilities meet standards for temperature control, movement of product, security, etc.

Veterinary practice standards include appropriate storage and cold chain maintenance.

Antimicrobial usage and resistance

Health Canada is working with provincial, national and international partners to find solutions to the challenges posed by this issue. Advisory Committees have been established to provide expert advice to Health Canada on a number of issues, including antimicrobial resistance (AMR). Any decisions taken by the Government of Canada are based on the most accurate Canadian interpretation of available scientific evidence.

The Public Health Agency of Canada (PHAC) provides national leadership on the public health aspects of antimicrobial resistance and use, and works with domestic and

international partners in areas of surveillance, laboratory analysis, infectious disease outbreaks, awareness and public health guidance development.

The Canadian Integrated Program for Antimicrobial Resistance Surveillance (CIPARS) has been operating for more than 15 years. CIPARS monitors trends in antimicrobial use and antimicrobial resistance in selected bacterial organisms from human, animal and food sources across Canada. Provincial programmes also exist. As an example, an antimicrobial surveillance program has been in place in Quebec since 1993.

A Federal Framework for Action outlines the Government of Canada's response to the threat of antimicrobial resistance. It provides a cohesive and collaborative approach across federal departments with mandates to address and mitigate antimicrobial resistance.

Within Canada, this Framework will serve as a starting point for cohesive engagement and mobilization of all who are accountable for action on antimicrobial resistance and use. The '2015 Federal Action Plan on Antimicrobial Resistance and Use in Canada' builds on the strategic areas of focus and priority action items outlined in the Framework by identifying steps that will be undertaken by the Public Health Agency of Canada, Health Canada, the Canadian Institutes of Health Research, CFIA, AAFC, the National Research Council, and Industry Canada.

Medicated Feed

Livestock feeds (henceforth referred to as 'feeds') are regulated under the Feeds Act and Regulations and administered by the CFIA. The CFIA verifies that livestock feeds manufactured and sold in Canada or imported are safe, effective and are labelled appropriately.

Medicated ingredients introduced in feed are authorised following the same procedures as for other veterinary drugs. In most provinces, feed medicated with over the counter antibiotics, at a rate indicated in the Compendium of Medicated Ingredients Brochure (CMIB), can be delivered direct to the farm/agriculture shop without prescription. Quebec is the exception, where all veterinary drugs, including over the counter medicated ingredients, require a veterinary prescription. Medication rates outside the CMIB require a veterinary prescription anywhere in Canada. Changes have been proposed to the Prescription Drug List and would require a veterinary prescription for all medically important antimicrobials in all Canada; this updated legislation is expected to come into effect in 2018.

Feed mills are not fully compliant with the principles of Good Manufacturing Practice for veterinary medicines included in medicated feed. There are no clear procedures for disposal of waste of medicated feed (it is usually just composted). Procedures for the storage of active principles (e.g. antibiotics) are also variable.

International cooperation

VICH (Veterinary International Cooperation on Harmonization of Technical Requirements for Registration of Veterinary Medicinal Products) is an international initiative, led by the EU, Japan and US. Canada participates as an observer to the VICH process, represented by the VDD of Health Canada and the CCVB of the CFIA and the Canadian Animal Health Institute (CAHI) representing industry.

The VDD is actively collaborating with other regulatory authorities regarding veterinary medical product (VMP) registration. VDD has agreements for information sharing with other regulators including the US Food and Drug Administration, European Union – European Medicines Agency, New Zealand & Australian authorities).

Strengths:

- Health Canada-VDD and CFIA-CCVB regulation and oversight protocols
- Federal Action Plan on Antimicrobial Resistance and Use In Canada

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- Antimicrobial prudent use guidelines developed by CVMA

Weaknesses:

- Limited and variable provincial/territorial controls and regulatory oversight of OTC sale of antimicrobials
- Importation of unapproved drugs for sale in Canada by veterinarians or producers for 'personal use' (OUI)
- Few regulatory controls over the importation of veterinary active pharmaceutical ingredients (API)

Recommendations:

- Promulgation of the proposed regulatory amendments to repeal the current OUI policy and restrict API importations
- Proceed with proposed changes to Prescription Drug List which will require a veterinary prescription for all medically important antimicrobials
- Increase consistency and provincial/territorial regulatory oversight and restriction of OTC sales of antimicrobials

II-10 Residue testing	Levels of advancement
<i>The capability of the VS to undertake residue testing programmes for veterinary medicines (e.g. antimicrobials and hormones), chemicals, pesticides, radionuclides, metals, etc.</i>	1. No residue testing programme for animal products exists in the country.
	2. Some residue testing programme is performed but only for selected animal products for export.
	3. A comprehensive residue testing programme is performed for all animal products for export and some for domestic consumption.
	4. A comprehensive residue testing programme is performed for all animal products for export and domestic consumption.
	5. The residue testing programme is subject to routine quality assurance and regular evaluation.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E.06.1-5, EM.09, PP.23, MS#26, E.03.4-7, E.16.7 E.17.1-14, EM.10/11

Findings:

Health Canada, CFIA and the provinces share responsibility for ensuring that Canada's food supply is safe. Health Canada scientists are responsible for the assessment of risks to human health from exposure to food borne chemical contaminants and other adulterating substances.

Health Canada, CFIA and some provinces conduct regular surveillance of the levels of chemical contaminants in the Canadian food supply. Health Canada uses this information to estimate dietary exposure of Canadians to these substances. Health Canada scientists also conduct research and evaluate scientific data in order to better understand the effects that chemicals can have on the human body. Each of these activities is an essential component of a risk assessment, which is used to determine if dietary exposure to specific substances would result in a potential safety concern. Risk assessments also provide a basis for developing appropriate strategies to mitigate the risk of adverse health effects from exposure to contaminants in foods.

Health Canada registers and regulates agricultural chemicals, including pest control products, veterinary drugs and food additives. In addition, under the authority of the Food and Drugs Act and Regulations, Health Canada sets the maximum residue limits (MRL) of chemicals in food products and establishes maximum allowable levels of contamination for environmental and industrial pollutants.

Chemical Residues

The CFIA is responsible for the surveillance of chemical residues in foods and adherence to the Regulations. The CFIA chemical residue surveillance programme consists of three components:

- 'Monitoring sampling', which probes the food supply for potential contamination and is managed under the National Chemical Residue Monitoring Program (NCRMP)
- 'Directed sampling' which focuses on identified chemical contamination issues
- 'Compliance sampling', which seeks removal of food in violation of standards from the marketplace

Food Microbiology

The CFIA operates a national microbiological monitoring programme. The monitoring programme includes the random selection and testing of samples for a wide variety of domestic and imported products. Sample tests are done every year to monitor the level of microbiological contamination in the food supply.

Some provinces also have surveillance programmes in place for microbiological and chemical residues in food of animal origin.

Auditing

The CFIA internal audit function provides an independent capability to perform audits of the resources, systems, processes, structures and operational tasks of the CFIA.

The CFIA auditors evaluate and review the National Chemical Residue Monitoring Program and its specific plans, the implementation of these plans, violations and follow-up actions. The CFIA auditors also compare Canadian MRLs and required levels of sensitivity with MRLs with international regulations (such as (EC) 37/2010). Laboratories are also audited.

Strengths:

- A well-established, comprehensive risk-based residue testing programme
- Close engagement and collaboration with Health Canada

II-11 Animal feed safety	Levels of advancement
<i>The authority and capability of the VS to regulate animal feed safety e.g. processing, handling, storage, distribution and use of both commercial and on-farm produced animal feed and feed ingredients.</i>	1. The VS cannot regulate animal feed safety.
	2. The VS have some capability to exercise regulatory and administrative control over animal feed safety
	3. The VS exercise regulatory and administrative control for most aspects of animal feed safety
	4. The VS exercise comprehensive and effective regulatory and administrative control of animal feed safety.
	5. The control systems are regularly audited, tested and updated when necessary.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 5): PP.22, MS#21

Findings:

In Canada, products consumed by livestock species are regulated as livestock feeds or as veterinary drugs.

Livestock feeds (henceforth referred to as feeds) are regulated under the Feeds Act and Regulations, which are administered by the CFIA. The CFIA verifies that livestock feeds manufactured and sold in Canada or imported are safe, effective and are labelled appropriately.

There is no current registration or licencing of feed manufacturing facilities in Canada by CFIA. A licence is required in some provinces for the preparation of medicated feed in feed mills. In 2015 the Feeds Act was updated to provide the authority for the licensing of feed mills. Regulations to support and implement this authority are under development.

Currently, under the authority of the Health of Animals Act, all rendering facilities manufacturing feed ingredients must obtain and operate under a permit issued by the CFIA.

Most of the feed mills are accredited for their HACCP system by an industry certification scheme (e.g. Feed Assure). The current Feeds Act and Regulations are product-based and, as such, system approaches such as HACCP are part of compliance verification activities. The modernized Feed Regulations, when published and implemented, are expected to have a systems-based approach.

Schedules IV and V of the Feed Regulations provide lists of ingredients that have been evaluated and approved by the CFIA for the manufacture, import, and sale for use in livestock feed in Canada. Schedule V is a list of flavouring agents for livestock feed.

All feeds, including novel feeds, are assessed by the CFIA Animal Feed Division before they can be used as livestock feed. This assessment considers the safety of the feed to livestock, humans via worker/by-stander exposure during manufacture and food safety through the consumption of animal products, and any impact on the environment.

Health Canada approves veterinary medicines, including the registration of medicated ingredients for animal feed. CFIA maintains the Compendium of Medicating Ingredients Brochures (CMIB). The CMIB is the document that lists the medicating ingredients permitted for addition to livestock feed. This document specifies the species of livestock, the level of medication, the directions for feeding and the purpose for which each medicating ingredient may legally be used, as well as the brand of each medicating ingredient that is approved for use in Canada. All medicated feed manufactured, used, or sold in Canada must be prepared in such a way as to adhere to the specifications of the CMIB, in order to comply with the Feeds Regulations. The sole exception is feeds prepared according to a veterinarian's prescription.

Traceability is in place from the supplier of the raw materials and ingredients, via the manufacturer to the agriculture shop or producer where the feed is delivered.

The mission observed that the internal control of private sector companies was focused on salmonella control in meat and bone meal. Some tests were conducted for mycotoxins, heavy metals and other contaminants. There was little evidence of internal control of any other contaminants at feed mills or with the suppliers of raw ingredients (soya cake, cereals, etc.). However, CFIA can provide a 'notice' to industry to recommend tests on some ingredients that have been identified as at high risk (e.g. following the detections of aflatoxins in maize from specific origins).

A national feed inspection programme is in place for rendering plants and commercial feed mills. Rendering plants are required to separate SRMs from non-SRM lines and the waste material from the rendering of SRMs is directed to disposal or destruction through a series of permits. The control of SRM is covered under the Health of Animals Regulations which works together with the Feed Regulations and Meat Hygiene Regulations to cover the continuum of SRM management from abattoir to site of final containment or destruction.

The frequency of the inspections of the establishments is based on a risk ranking:

- TSE transmissibility: facilities that manufacture feeds containing prohibited material AND manufacture ruminant feeds are considered as at high risk for TSE.
- Medication risks: facilities that manufacture feeds containing medicated ingredients that have a withdrawal period, or manufacture feeds for multiple species or classes of animals some of which contain medications are considered as high medication risks.

A National Feed Inspector Training Program was launched in 2008 to provide inspectors with the knowledge and skills they need to perform comprehensive, consistent and uniform inspections. Training is based on multiple approaches – self-study, e-learning and face-to-face training supporting by a mentoring programme.

The Modernized Feed Act of 2015 is expected to provide better capacity for CFIA to enforce HACCP principles and risk management at the feed manufacturers with registration and licensing of all establishments. Implementing regulations will be needed.

Feeds for pets are not regulated domestically. However, there are strong controls of imported pet food, which supplies a large part of the Canadian pet food market. Export of pet food is under the CFIA mandate which inspects all pet food establishments wanting to export their products, in order to make sure that pet food is produced in a way that it meets import requirements of third countries.

Strengths:

- A good level of implementation of HACCP
- A national inspection programme
- A sound process for the authorisation of feed ingredients

Weaknesses:

- The new legislation (2015) is not yet fully in force
- No registration of feed manufacturers for domestic use – the CFIA does have a strong oversight on the import and export of pet food.
- No control of pet food manufacture

Recommendations:

- The modernized Feed Acts should be fully implemented as soon as possible
- Regulations should be introduced to cover pet foods

II-12. Identification and traceability	Levels of advancement
A Animal identification and movement control <i>The authority and capability of the VS, normally in coordination with producers and other interested parties, to identify animals under their mandate and trace their history, location and distribution for the purpose of animal disease control, food safety, or trade or any other legal requirements under the VS/OIE mandate.</i>	1. The VS do not have the authority or the capability to identify animals or control their movements.
	2. The VS can identify some animals and control some movements, using traditional methods and/or actions designed and implemented to deal with a specific problem (e.g. to prevent robbery).
	3. The VS implement procedures for animal identification and movement control for specific animal subpopulations as required for disease control, in accordance with relevant international standards.
	4. The VS implement all relevant animal identification and movement control procedures, in accordance with relevant international standards.
	5. The VS carry out periodic audits of the effectiveness of their identification and movement control systems.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E10.1-5, PP.16, MS#15, MS#35, EM.36-45

Findings:

CFIA introduced its National Agriculture and Food Traceability System (NAFTS) to better serve citizens, industry and government in 2006. The system was to provide ‘timely, accurate and relevant traceability information to enhance emergency management, market access, industry competitiveness and consumer confidence’. Considerable progress has been made but significant gaps remain.

Livestock identification

Livestock identification and traceability requirements are included under Part XV of the Health of Animals Regulations administered by the CFIA. The animal species subject to the requirements are bison, cattle, sheep and pigs (including farmed wild boars). Regulatory amendments scheduled to come into force in 2017 would broaden the scope of the programme including the addition of goats and farmed cervids (deer, elk, reindeer).

It is prohibited to transport cattle, bison and sheep that do not bear an approved tag (approved under the Livestock Identification and Traceability Programme and listed on the CFIA website). Cattle, bison and sheep do not need to be identified with an approved tag while living on their farm of origin, with the exception of Quebec for cattle, sheep and cervids.

Cattle

The Canadian Cattle Identification Agency (CCIA) is a not-for-profit, industry-initiated and led organisation incorporated to establish a national livestock identification programme and traceability initiatives to support efficient tracing and containment of serious animal health and food safety concerns.

The programme consists of three main operations: the Canadian Cattle Identification Agency (CCIA) for beef, the National Livestock Identification for Dairy (NLID), which is administered by CCIA, and the Agri-Traçabilité Québec Inc (ATQ) for all dairy and beef cattle in the province of Quebec.

The programme requires cattle in Canada to have a CFIA approved, radio-frequency identification (RFID), ear tag applied prior to leaving their farm of origin. Each RFID tag has a unique identification number that is allocated from a national database. The unique number of each animal is maintained to the point of export or carcass inspection. These three systems ensure unique cattle identification for all cattle in Canada. With this system, information about the owner of animals is captured at the time they purchase tags.

Under provincial regulations, beef cattle and dairy cattle born in Quebec must bear two ear tags, one of which is an RFID tag. Both tags must bear the same identification number which is unique to the animal.

In Alberta, the Canadian Cattle Identification Agency (CCIA) delivers traceability support services to producers and other agri-businesses through a team of highly-specialized Mobile Field Representatives (MFR) with first-hand experience in livestock operations. Their primary role is to educate and assist producers with managing their Canadian Livestock Tracking System (CLTS) database accounts. Cattle age verification is mandatory in Alberta and Quebec.

Dairy cattle

All dairy cattle are currently identified before leaving the farm of origin, and nearly all of the nation's dairy farms have an official premises identification number issued by a provincial government.

Animal movement recording and reporting is the last stage of traceability implementation, and industry is currently working towards achieving this goal. National Livestock Identification for Dairy (NLID) distributes approved dairy cattle tag sets in Canada and all male and female dairy cattle, whether they are registered or non-registered, can be tagged with these tag sets.

Registered dairy cattle must be tagged with approved NLID tag sets (white) within 24 hours of birth, if they are to be registered in the herd book. In Quebec, cattle are tagged within seven days of their birth or within five months if they were born on a pasture. The approved official tag set consists of a panel tag and a radio frequency identification (RFID) button/panel tag. One tag must appear in each ear at all times; a tag pair in only one ear does not satisfy dairy standards and Holstein Canada bylaws.

Sheep

The Canadian Sheep Identification Program (CSIP) is governed by the federal Health of Animals Regulations, and is mandatory for all sheep (RFID tags since 2010) and enforced by CFIA. Records are kept of all sheep/lambs entering flocks for breeding purposes and all sheep aged 18 months or older leaving the farm, other than those sold directly to a federally or provincially inspected abattoir. All animals must be tagged before leaving premises of origin. In Quebec, sheep must be identified within thirty days of their birth.

Goats

The Canadian National Goat Federation (CNGF) is working with the National Goat Traceability Committee (NGTC), other national commodity groups and federal and provincial governments to prepare the Canadian goat industry for mandatory national identification and traceability; it is expected to come into effect in 2018.

Pigs

'PigTrace' Canada is an industry-led initiative of the Canadian Pork Council (CPC). Agri-Traçabilité Québec (ATQ) is the database manager for the national swine traceability system, provincial swine associations assist in providing a direct service to producers. All pigs must be identified with an approved tag bearing an identification number unique to the animal before being moved domestically from a site.

The exceptions are made for:

- Pigs moved from one part of the farm to another contiguous part of the same farm do not need to be identified
- Pigs transported to an abattoir, either directly or via an assembly yard, may be identified with an approved tag bearing a herd mark, an approved slap tattoo or ear tattoos (for weanling pigs going to the US)

- Non-bred pigs moved within the farm or to another farm do not need to be identified if their movement is reported by both the operator of the departure site and of the destination site, and if they are accompanied with a movement document.

Horses

Equine Traceability Canada (ETC) is an industry-led equine identification, tracing and tracking initiative. The programme was developed through the Horse Welfare Alliance of Canada (HWAC) to protect the Canadian horse herd. The database accepts all forms of animal identification including breed group registration number(s), DNA profiles, RF tags, brands, tattoos, photos, iris scanning, etc.

Currently, horses have no single nationally or provincially recognised form of physical animal identification. Government and industry are working together to identify an acceptable standard of animal identification; registration papers, bills of sale, brands, tattoos and microchips can be used to demonstrate ownership.

In Alberta, Livestock Identification Services Ltd (LIS) offers a 'Lifetime Horse Permit' containing photos of the horse, issued following an inspection from a LIS livestock inspector. This is not mandatory.

Bees (Apiculture)

In Canada, legislation concerning bees and beekeeping falls under provincial jurisdiction. For this reason, provincial governments maintain apiculture programmes involved in the administration of bee legislation and the delivery of extension services.

Most Canadian provinces have legislation whose primary purpose is to assist the beekeeping industry to control diseases and pests. Legislation also regulates the movement of colonies across regions and provinces to reduce the risk of disease introduction and spread. In some provinces, registration of hives is mandatory.

Premises Identification (PID)

PID is part of Canada's animal traceability system linking livestock and poultry to land locations or premises. In most of the country, premises identification is voluntary. In the provinces of Alberta, Manitoba, Saskatchewan, Prince Edward Island and Quebec (cattle, ovine and cervids only), premises identification is mandatory. PID compliance is sometimes industry driven, e.g. for dairy cattle.

PID and animal movement falls under the jurisdiction of each province. New CFIA regulations in preparation will make it mandatory for premises where animals are kept to be identified and be active in getting all producers of livestock and poultry registered.

Movement tracking

Movement recording is at an earlier stage of development. Herd owners keep records of movements onto and out from their premises and these are reported to the central databases (CCIA and ATQ) on a voluntary basis, with the exception of Quebec where the reporting is mandatory for cattle, sheep and cervids. Major feedlots premises record all movements in and report them to the CCIA database.

Under federal regulations, the operators of abattoirs, rendering plants, deadstock collection centre must report to the responsible administrators the retirement of ID tags (slaughter, natural death, etc.) of bison, cattle, sheep and pigs, and the disposal of their carcasses. In addition, all import and export of these species must be reported. All the movement of pigs must be reported by both the operator of the departure site and of the destination site within seven days of departure or receipt, whichever applies. Quebec is the only province to require mandatory reporting of all livestock movement and changes in ownership for cattle, sheep and deer. Alberta requires movement reports for cattle entering feedlots of 1,000 animals or more. Mandatory movement tracking at the federal level was targeted to be achieved during 2017, though it is unlikely to be introduced before 2018.

Movement records are based on hard copy, paper 'manifests', that are hard to access quickly when tracing following an emergency e.g. the emergency response to the TB detection in cattle in Alberta. In swine, movement records are mainly completed electronically.

The Cervid Industry Traceability Initiative (CITI) has been undertaken by the Canadian Cervid Alliance to assess the current needs of the farmed cervid industry for traceability tools and systems, the capabilities of current systems and develop a National Strategy and Action Plan. In Quebec, ATQ has overseen full traceability of cervids (all species) since 2009. In Alberta, full traceability within its cervid industry is captured in the Cervid Farm System (CFS).

Dairy farmers are encouraged to follow the guidelines of the Dairy Farmers Code of Practices and the Biosecurity for Canadian Dairy Farms: ProAction includes a traceability module, along with food safety, animal care, biosecurity, and environmental stewardship

Strengths:

- RFID ear tags compulsory for cattle, bison and sheep with information maintained in the Canadian Livestock Tracking System (CLTS) database.
- Complete traceability for pigs (PigTrace)
- Complete traceability for cattle, sheep and cervids in Quebec, cervids in Alberta

Weaknesses:

- Apart from two provinces (Alberta and Quebec), animal movement is not well recorded at this stage – revised legislation is pending but these changes only address some movements
- There is no federal movement control between provinces except for specific disease events such as TB or CWD. The registration of premises is not mandatory as identification refers mainly to the 'keeper' not the location
- Reporting the date of birth is not mandatory with the exception of Quebec for cattle, sheep and cervids and in Alberta where age verification of cattle is mandatory
- Hard copy movement manifests only with the exception of pigs
- Data on the number of animals moving, their origins and destinations, and on the number of batches and animal types is generally not available as animal identification and traceability systems are not adequately developed with the exception of Quebec, Alberta (cattle into feedlots) and for swine in all Canada

Recommendations:

- Proceed with the implementation of mandatory PID, the requirement to report cattle/bison at birth, and the recording and regulation of all livestock movements
- As a priority of transaction recording, require electronic logging of inter-provincial movements

B. Identification and traceability of products of animal origin	Levels of advancement
<i>The authority and capability of the VS, normally in coordination with producers and other interested parties, to identify and trace products of animal origin for the purpose of food safety, animal health or trade.</i>	1. The VS do not have the authority or the capability to identify or trace products of animal origin.
	2. The VS can identify and trace some products of animal origin to deal with a specific problem (e.g. products originating from farms affected by a disease outbreak).
	3. The VS have implemented procedures to identify and trace some products of animal origin for food safety, animal health and trade purposes, in accordance with relevant international standards.
	4. The VS have implemented national programmes enabling them the identification and tracing of all products of animal origin, in accordance with relevant international standards.
	5. The VS periodically audit the effectiveness of their identification and traceability procedures.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 5): E10.1-5, PP.16, MS#15, MS#35, EM.36-45

Findings:

Mandatory traceability for all meat products from ‘farm to fork’ is not yet in place in Canada. A product leaving a federally registered establishment does not have to be traceable back to the individual animal source, although establishments may choose to provide this capability.

In the federal registered, inspected and regulated establishments, traceability is generally good. All products leaving a federally registered establishment must be traceable back to the federally registered meat establishment. These animal products must have a specific mark on the labelling with the number of establishment. Sometimes, the traceability is compromised by companies repacking/relabelling the product.

Traceability is checked during CFIA inspection and completion of CVS; this ensures that product recalls can be undertaken by the companies if required.

Inspection by the team of meat outlets observed that products were variously labelled with some having a unique plant number and a date of expiry only, that is no specific batch was recorded. It is understood that when food is ‘recalled’ (from a shop) or ‘withdrawn’ (from an end user) then the recall will state the product type and name, package size, any plant/establishment number and the use-by date. On this basis, the recall/withdrawal will be for all products on that day – there is no ability to focus more finely on a particular line or series of products.

It is noted that there are many factors that allow the CFIA to identify and focus on which product is affected and to what degree. Some products use solely a date code or shift or hourly code. More frequently products have time stamps by the minute. Depending on the hazard and type of GMP breakdown that leads to the assessment of risk that amount of product recalled affected can vary greatly.

In the poultry sector, it is possible to trace back to the animal source, because all birds arrive at the slaughterhouses with the Animal Information Document with the identification of the farm of origin, the last treatment/medication given and any information pertinent for the meat inspection or food safety. The pig sector also has good traceability, enabled by the high level of industry integration.

Traceability in the dairy sector is a more complex system where milk is collected and sold by Dairy Farmers of Canada to various dairy processors. The dairy processors do not have complete control of the collection of the raw milk and can receive milk from different origins from one day to the next.

Provincial establishments are more variable. In some cases, good traceability is available. However, most of these establishments have no identification number and the traceability is not assured.

Strengths:

- Federal establishments have batch identification of products
- Most poultry and pig products are traceable

Weaknesses:

- Traceability back to the origin of the individual animal is not mandatory
- Some smaller and local provincial abattoirs have no product identification/traceability programme

Recommendations:

- Improve the traceability from 'farm to fork' for all livestock species both at federal and provincially managed establishments

II-13 Animal welfare	Levels of advancement
<i>The authority and capability of the VS to implement the animal welfare standards of the OIE as published in the Terrestrial Code.</i>	1. There is no national legislation on animal welfare
	2. There is national animal welfare legislation for some sectors
	3. In conformity with OIE standards animal welfare is implemented for some sectors (e.g. for the export sector)
	4. Animal welfare is implemented in conformity with all relevant OIE standards.
	5. Animal welfare is implemented in conformity with all relevant OIE standards and programmes are subjected to regular audits.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 5): E.04.1/2, PP.99, MS#25, EM46/47

Findings:

Animal welfare legislation is in place at both the federal and provincial/territorial levels as both have some jurisdiction.

Federal animal welfare law is provided by a range of legislation including the Criminal Code, the Health of Animals Act and Regulations which regulate the transport of animals, and the Meat Inspection Act and Regulations which regulate humane slaughter of animals at federally registered abattoirs. Animal welfare regulations of provinces/territories frequently refer to industry Codes of Practice as their reference point – this allows for more flexible and responsive animal welfare legislation as the Codes can be more easily updated than legislation.

CFIA is responsible for the enforcement of animal welfare legislation at federally registered abattoirs and for all animals during transportation. Animal welfare on farms, at auction markets, assembly yards and shows and for non-livestock species is the responsibility of the provinces/territories (other than the transportation that is governed by the CFIA).

Provincial animal welfare laws vary but generally include: 1) duty of care of animals, 2) prohibition of animal distress, 3) some exemptions from prosecution, and 4) reference various national standards and codes of practice.

There is an identified need for a more consistent approach including: 1) common standards in provincial statutes, 2) the establishment of regulations that meet international standards for the federal transport and humane slaughter, and combining best-practice from federal and provincial regulations) 3) resolving enforcement demarcation between the federal and provincial authorities, 4) adopting more consistent use of compliance orders and other enforcement tools, 5) developing new standards as required, and 6) through national consultation to define welfare terms such as ‘distress’ and ‘care’.

The transportation of all animals (by land, sea and air) is under the legal mandate of the CFIA. Some provinces have additional regulations that apply to the transportation of animals. The majority of animal transportation inspections are performed on arrival at abattoirs, border crossings, auction markets or assembly yards; some roadside ‘blitzes’ are undertaken and at weigh-scales. The split between federal legislation controlling animal welfare during transport and provincial legislation when animals are off-loaded at transition sites (e.g. auction markets and assembly yards) or sites that fall under provincial jurisdiction (e.g. provincially registered abattoirs), leads to some ambiguity. If CFIA staff are first on the scene of a road accident they have no mandate to examine/treat or to euthanize the animals. Further, for example, if an animal is off-loaded with a broken leg at an abattoir, the burden of proof to determine when the fracture occurred is significant because if the animal was loaded with a broken leg, there is a clear violation of the transportation regulations however, if the fracture is acute and occurred *en route* and the carrier transported the animal to the nearest place for casualty slaughter, there may not be any ‘non-compliance’. Notwithstanding these ambiguities the CFIA and provincial staff work well together to get the job done.

CFIA has been proposing updates to its animal transportation regulations for many years but this has been delayed as a result of industry concerns. CFIA's animal transport regulations were initially drafted in 1977 and have not been substantially updated since. The current regulations, depending on the species, allow for transport times of 18 to 72 hours. In 2013, the CFIA proposed reducing the intervals allowed without feed, water and rest, however by the time the proposal was published in the Canada Gazette, this had been changed to 36 hours from the proposed 28 hours for cattle, 28 hours from the proposed 24 hours for pigs and horses, and with spent hens the limit had been doubled to 24 hours from 12 hours.

Note that the federal animal transport regulations are currently in the process of being amended. The revision is expected to address many of these issues. Canada Gazette I was published (December 3, 2016 to February 16, 2017) and final publication of the amendments is anticipated in Canada Gazette Part II (CGII) in the Spring of 2018 with the new legislation coming into force one year following its official publication in CGII.

Humane slaughtering requirements are defined in the Meat Inspection Act. For federally registered establishments, the inspection is performed by CFIA inspectors. For provincial slaughterhouses, the inspection is performed by provincial inspectors; smaller provincially registered abattoirs have little or no inspection or welfare oversight.

CFIA has developed a training programme for its inspectors responsible for enforcing the animal transport regulations. Inspections are to be conducted in accordance with established frequencies as stated in the Humane Transportation Manual of Procedures.

Animal welfare on-farm is under the mandate of the provinces who enforce their provincial legislation. Provincial animal protection officers are also in charge of the inspection of the animal welfare of pets with the support of societies for the prevention of cruelty to animals or humane societies; they often provide animal shelters for cases of stray animals or from forced seizure of animals from their owners.

In addition, to federal and provincial legislation, Codes of Practices have been developed by industry and are led by the National Farm Animal Care Council (NFACC). The NFACC brings together diverse stakeholders to develop Codes of Practice for the care and handling of farm animals, and has created a process for the development of animal care assessment programmes and provides a forum for open dialogue on farm animal welfare. Codes of Practice are available for a wide range of species e.g. beef cattle, bison, chickens, turkeys, laying hens, dairy cattle, equine, farmed deer and fox, goats, mink, pigs etc.

The Criminal Code of Canada prohibits anyone from wilfully causing animals to suffer from neglect, pain or injury.

Canada has a system for the management and welfare of animals used in research, teaching and testing. The Canadian Council on Animal Care (CCAC) was established in 1982 as a non-profit and independent organisation dedicated to overseeing the use of experimental animals in Canada. CCAC has developed standards and policies including the 'Guide to the Care and Use of Experimental Animals', to which all experimental facilities must adhere. CCAC members include veterinarians, the research industry, educators, and scientists. The Canadian Federation of Humane Societies (CFHS) is the only animal welfare organisation represented on the CCAC.

Speciality groups (e.g. fur farming and fur animal slaughter) are not specifically covered in some provinces or may not be covered at all under existing provincial regulations. However, these are still covered under the Criminal Code.

The Federal/Provincial Animal Welfare Working Group (FPAW), which is made up of representatives from the federal, provincial and territorial governments, has the responsibility for animal welfare in the respective jurisdictions; FPAW was established in 2007. The group meets informally, mostly by monthly teleconference, to help improve communications about animal welfare within and between governments. This sharing of information allows governments to build awareness and response-capacity for animal welfare issues.

Quebec has recently modified its legislation to recognise animals as sentient beings, and not 'goods'. In addition to domestic animals, regulations were strengthened to cover all animals including red fox, mink and other species as designated in the future by regulations.

The Compliance Verification System includes the auditing animal welfare in federally inspected slaughterhouses with 'self-audits' by the operator and independent audits conducted by the CFIA and third parties. Audits are carried out particularly on feedlots, livestock transport and slaughter operations. Several industries have added the requirement for on-farm audits to their Codes of Practice.

Strengths:

- Legislation on animal transport, humane slaughter, and Codes of Practices for most livestock production
- Good level of coordination with the different stakeholders with a high level of awareness and understanding of current Codes of Practices
- Strong communication on animal welfare

Weaknesses:

- Some confusion over who is responsible, federal or provincial authorities for animals at transition sites and in road accidents involving animals
- Some transport guidelines fail to meet OIE standards such as duration of travel without rest periods and the requirement to train transporters, to assess risk and to have contingency plans. It is noted that these elements are all part of the proposed amendments to federal animal transport regulations.

Recommendations:

- Finalise and enact proposed updated animal transport regulations
- Strengthen animal welfare for non-core, marginal species and production systems (some fur animals, back yard slaughter, etc.)
- Promote the use of the Codes of Practices by producers

III.3 Fundamental component III: Interaction with interested parties

This component of the evaluation assesses the capability of the VS to collaborate with and involve stakeholders in the implementation of programmes and activities. It is made up of seven critical competencies

Critical competencies:

Section III-1	Communication
Section III-2	Consultation with interested parties
Section III-3	Official representation
Section III-4	Accreditation / Authorisation / Delegation
Section III-5	Veterinary Statutory Body (VSB)
	A. VSB authority
	B. VSB capacity
Section III-6	Participation of producers and other interested parties in joint programmes

Terrestrial Code References:

Points 6, 7, 9 and 13 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation / General organisation / Procedures and standards / Communication.

Point 9 of Article 3.2.1. on General considerations.

Points 2 and 7 of Article 3.2.3. on Evaluation criteria for the organisational structure of the Veterinary Services.

Sub-point b) of Point 2 of Article 3.2.6. on Administrative resources: Communications.

Article 3.2.11. on Participation on OIE activities.

Article 3.2.12. on Evaluation of the veterinary statutory body.

Points 4, 7 and Sub-point g) of Point 9 of Article 3.2.14. on Administration details / Animal health and veterinary public health controls / Sources of independent scientific expertise.

Chapter 3.3. on Communication.

III-1 Communication	Levels of advancement
<i>The capability of the VS to keep interested parties informed, in a transparent, effective and timely manner, of VS activities and programmes, and of developments in animal health and food safety. This competency includes collaboration with relevant authorities, including other ministries and Competent Authorities, national agencies and decentralised institutions that share authority or have mutual interest in relevant areas</i>	1. The VS have no mechanism in place to inform interested parties of VS activities and programmes.
	2. The VS have informal communication mechanisms.
	3. The VS maintain an official contact point for communication but it is not always up-to-date in providing information.
	4. The VS contact point for communication provides up-to-date information, accessible via the Internet and other appropriate channels, on activities and programmes.
	5. The VS have a well-developed communication plan, and actively and regularly circulate information to interested parties.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 5): E.8.2.1, PP.14, EM.06/7/8, PP.15, MS#36, EM.48

Findings:

The Veterinary Services have extensive communication resources at federal and provincial levels.

CFIA have a dedicated 'Communications and Public Affairs Branch' with 80 staff based at their headquarters in Ottawa and with staff also stationed at the four CFIA area offices. CFIA work closely with federal colleagues at Health Canada, the Public Health Agency of Canada and with AAFC to develop joint communications initiatives. The Communications Branch is responsible for all media and public enquiries received by the CFIA. There is a documented 'Policy on Communications and Federal Identity'.

All provinces recognise the importance of effective communications with communications specified in their organisations and with dedicated resources. The CFIA and provincial/territorial websites are well set up, easily accessible and an important tool for communications. Listservers have been developed which particular interest groups can subscribe to.

There is an overall CFIA communication plan which is dynamic and is revised and updated as necessary.

Key messaging areas for the Communications Branch have been identified as:

- Stakeholder education and awareness communications in support of risk prevention and mitigation
- Market access announcements and responses to industry trade issues
- Regulatory and programme communications
- Intra/interdepartmental/international coordination of communications on shared initiatives and joint projects

The Communications Branch promotes compliance by 'informing, motivating and encouraging compliance with the CFIA's regulatory requirements' using 'accessible, plain language documents, products, services and guidance to increase industry understanding of their regulatory responsibilities'. Compliance promotion is targeted strategically focusing on regulatory and programme priorities, industry trends and needs and is based on resource availability.

The Communications Branch has a specialised team dedicated to liaison with the media.

The Communication Branch plays an important role in the Emergency Response. Three people are dedicated full time to emergency preparedness and this number is rapidly increased from the Branch when the need arises.

CFIA publishes a newsletter that can be subscribed to by specialist interest areas. CFIA also uses all the main social media portals with frequent updates and inputs – Facebook, Twitter, LinkedIn, etc. ‘My CFIA’ as a portal for the public to ask questions and ‘AIRS’ the portal for checking import conditions for the public and collaborating agencies, such as CBSA.

There is a direct line of communication with Parliament. The Branch communicates frequently with the provinces and supports Internal and External Coordination and Consultation (see CC I.6A, I.6B and III.2)

The Communication Branch undertakes communication to raise awareness and so supports consultation with stakeholders and other interested parties on new legislation proposals and draft texts (e.g. recently on proposed food labelling, penalty policy and welfare changes).

Effectiveness is assessed through feedback from target ‘customers’, gathered through ‘focus groups’, surveys and individual interviews.

A specialised group for communication has been set up with the US to streamline messages.

A virtual centre of expertise has just been established to provide expertise to field staff answering enquiries, (formerly these experts were based physically in each province, now they can be anywhere in the country. This approach was designed to increase consistency of information at national level and to be more efficient. Initially there were some significant problems but the system now seems to be settling down. All inquiries and responses are documented into a database of Frequently Asked Questions (FAQ).

The industry and producer associations are also very active in communication of animal health messages, promotion of biosecurity, including Codes of Practice, and of disease surveillance, disease control and animal welfare programmes, through websites, articles, newsletters, workshops and public meetings.

Strengths:

- Communication covers all aspects of the Veterinary Services work (federal, provincial and territorial) and reaches out to all stakeholders
- Stakeholders feedback is assessed and messages/message delivery refined for future reference
- Extensive use of electronic, print and social media; websites are well designed, easily accessible/searchable and routinely updated

III-2 Consultation with interested parties	Levels of advancement
<i>The capability of the VS to consult effectively with interested parties on VS activities and programmes, and on developments in animal health and food safety. This competency includes collaboration with relevant authorities, including other ministries and Competent Authorities, national agencies and decentralised institutions that share authority or have mutual interest in relevant areas</i>	1. The VS have no mechanisms for consultation with interested parties.
	2. The VS maintain informal channels of consultation with interested parties.
	3. The VS maintain a formal consultation mechanism with interested parties.
	4. The VS regularly hold workshops and meetings with interested parties.
	5. The VS actively consult with and solicit feedback from interested parties regarding proposed and current activities and programmes, developments in animal health and food safety, interventions at the OIE (Codex Alimentarius Commission and WTO SPS Committee where applicable), and ways to improve their activities.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 5): E.8.2.1, PP.14, EM.06/7/8, PP.15, MS#36, EM.48, EM.33/34

Findings:

CFIA has well established consultation mechanisms with industry associations directly and with overarching coordinating groups such as the National Farmed Animal Health and Welfare Council (NFAHWC) and the Canadian Animal Health Surveillance System (CAHSS). CAHSS was established with broad based collaborative support from industry and federal and provincial/territorial governments. CAHSS has no direct control from government or any one group; individual network groups are self-organizing and self-governing linked by a shared purpose and principles.

The Policy and Programs branch takes the lead on consultations with national and international stakeholders with a focus generally on new or revised legislation, policies or programmes. Operations staff take the lead on consultations with their local stakeholders (e.g. provincial) and either provide a conduit of this information to the Policy and Programs Branch or discuss the implementation of the policies and programmes. The compliance programme engages with stakeholders, provides inquiry services such as 'Ask CFIA', and provides web based and printed fact sheets. The whole compliance and consultation programme is supported by the CFIA Communications Branch.

CFIA consults with and supports the Canadian Wildlife Health Cooperative (CWHC) and its surveillance activities and reporting of wildlife events in programmes such as the Annual Wild Bird Influenza Survey covering operating and laboratory costs.

CFIA consults with industry and others on drafts and changes proposed by the Standard Setting Bodies (OIE, Codex Alimentarius and WTO SPS) on food safety and animal health matters and provides timely feedback.

All proposed and draft legislation is put out for public consultation (see CC IV.1).

In the provinces coordination with industry partners is also very strong, as in the example of 'Equipe Québécoise de Contrôle des Maladies Avicoles (EQCMA) and Equipe Québécoise de Santé Porcine (EQSP) (see also CC II.6) with which CFIA consults on emerging or endemic diseases and emergency response in Quebec.

Strengths:

- Well established formal mechanisms for consultation with industries and others
- Consultation and feedback on proposed changes to international standards
- Consultation on all proposed and draft legislation.

III-3 Official representation	Levels of advancement
<i>The capability of the VS to regularly and actively participate in, coordinate and provide follow up on relevant meetings of regional and international organisations including the OIE (and Codex Alimentarius Commission and WTO SPS Committee where applicable).</i>	1. The VS do not participate in or follow up on relevant meetings of regional or international organisations.
	2. The VS sporadically participate in relevant meetings and/or make a limited contribution.
	3. The VS actively participate ⁴³ in the majority of relevant meetings.
	4. The VS consult with interested parties and take into consideration their opinions in providing papers and making interventions in relevant meetings.
	5. The VS consult with interested parties to ensure that strategic issues are identified, to provide leadership and to ensure coordination among national delegations as part of their participation in relevant meetings.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 5): PP.06/7

Findings:

Canada has been a strong and active member of the OIE since 1952 - providing the OIE Council president (1997 – 2000) and OIE Regional Commission Secretary General (2014 – 2016).

Canada has representatives on all OIE standing Working Groups (Wildlife, Welfare, Animal Production and Food Safety) and on numerous *ad hoc* groups.

Canada has appointed CFIA members for all OIE Focal Point positions and uses them to engage in the OIE standard setting review cycle. Each Focal Point leads the consultation with representatives from government departments and industry considering draft materials, coordinating a national response and also providing inputs on emerging issues.

CFIA leads a WTO Delegation and coordinates Canada's comments on international trade issues on food, animal and plant materials and products to WTO and provides SPS input into Trade Policy Reviews. This input is based on consultation at intra-agency and inter-departmental level. AAFC, with its Technical Trade Division, also participates in the Delegation. AAFC works with WTO-Standards and Trade Development Facility and provides funding to them.

Engagement with Codex is co-led by CFIA and Health Canada. The coordination and consultation process is managed at three levels: 1) the Codex Contact Point Office in Health Canada (Codex Canada), 2) CFIA International Standards Setting Section (ISSS) and 3) Interdepartmental Committee for Codex (IDC/Codex). ISSS is the entry point for all Codex information to the Agency and also coordinates the Agency's engagement with the IPPC and OIE. This section develops together with Codex Canada, an annual 'Codex Engagement Plan' with prioritised key elements for engagement. The consultative process is led by Codex Canada which consults with 187 listed stakeholders from federal, provincial and territorial departments, AAFC, consumer groups, industry, academia etc.

To coordinate horizontal issues, CFIA has an 'International Coordination Committee (ICC)' which discusses the Agency's positions on OIE, IPPC, Codex and WTO-SPS initiatives and provides strategic direction on CFIA's international engagement.

Since 2010 AAFC has increased funding to support Standard Setting Bodies (OIE, Codex, IPPC). AAFC works with CFIA to identify the priorities to invest this funding, e.g. funding of OIE workshops.

Strengths:

⁴³ Active participation refers to preparation in advance of, and contributing during the meetings in question, including exploring common solutions and generating proposals and compromises for possible adoption.

- Long engagement and commitment of working with WTO, SPS, OIE, Codex and IPPC
- CFIA has an established committees to coordinate and establish priorities

III-4 Accreditation / authorisation / delegation <i>The authority and capability of the public sector of the VS to accredit / authorise / delegate the private sector (e.g. private veterinarians and laboratories), to carry out official tasks on its behalf.</i>	Levels of advancement
	1. The public sector of the VS has neither the authority nor the capability to accredit / authorise / delegate the private sector to carry out official tasks.
	2. The public sector of the VS has the authority and capability to accredit / authorise / delegate to the private sector, but there are no current accreditation / authorisation / delegation activities.
	3. The public sector of the VS develops accreditation / authorisation / delegation programmes for certain tasks, but these are not routinely reviewed.
	4. The public sector of the VS develops and implements accreditation / authorisation / delegation programmes, and these are routinely reviewed.
	5. The public sector of the VS carries out audits of its accreditation / authorisation / delegation programmes, in order to maintain the trust of their trading partners and interested parties.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 5): E.05.1.1, E.08.2.1, PP.32

Findings:

Canada has well established, audited programmes for most of the delegation of veterinary services to undertake specified official tasks under the ‘Accredited Veterinarian’ programme and the accreditation of private laboratories to undertake some official testing. Some provinces authorise Animal Protection Officers to conduct welfare investigations.

Accredited veterinarians have a contractual agreement with the CFIA (Health of Animal Act, Art 34). Their contract states the duties, functions and terms and conditions of the accreditation. The Accredited Veterinarian’s Manual provides instruction on the conduct of their duties and functions; this helps establish consistency in delivery across the National Accredited Veterinarian Program. The activities of accredited veterinarians are limited to a specific province or territory and to the duties credited in the agreement. Accredited veterinarians receive specific training (e.g. a CFIA Regional Veterinary Officer from the Atlantic Area teaches at the pre-accreditation course for private veterinarians at the Atlantic Veterinary College of the University of Prince-Edward-Island).

Currently there are 2,232 accredited veterinarians across Canada. Accredited activities include inspection and certification for export of live animals to the US and Mexico, herd health certification testing for reportable diseases (e.g. investigation of a suspect Equine Infectious Anaemia in Nova Scotia), and inspection and certification of animals prior to their entry to AI stations. Sixty-five veterinarians are approved to collect and certify embryos for export under the Embryo Approval Export program (EEAP); however, all export certificates must be endorsed by CFIA veterinarians.

The Operations Branch of CFIA audits and carries out oversight of accredited veterinarians. The audit frequency is a function of the priority of the activity for which the private veterinarian is accredited. Low priority (e.g. Equine Infectious Anaemia testing) occurs once every 5 years, high priority (e.g. export certification to US and TB testing) is conducted once every 3 years; a first audit takes place within one year of becoming accredited. Only minor non-compliance activities are being detected, most commonly related to the consistency of paperwork.

The major ongoing TB response programme in Alberta is being supported by additional staff working as ‘designated veterinarians’. These veterinarians are not part of the Accredited Veterinarian Program but have been recruited directly by the response team to support key activities in the response, particularly tracing support and on farm TB testing and sampling.

A number of private and provincial laboratories (not belonging to CFIA) undertake tests for official control programmes and are accredited or approved by CFIA through a specific CFIA

programme (see CC II.1A). The laboratories must participate in an ongoing quality assurance program run by the CFIA (e.g. undertaking proficiency tests)

Provinces also delegate some activities related to animal health programmes to private veterinarians. Provincial authorities accredit 'Animal Protection Officers' to undertake welfare investigations some of whom operate under the local humane or prevention of cruelty to animals societies, however these are not always audited. Some facilities/kennels managed by societies for the protection of animals are licensed to remove animals from owners if welfare is being compromised.

Strengths:

- Established programme for 'Accredited Veterinarians' that is well documented and undergoes periodic reviews
- Private laboratories accredited or approved to undertake certain tests
- Delegation of some animal welfare activities at provincial/territorial levels
- CFIA has liaison persons with veterinary universities either full-time (Quebec) or part-time (e.g. Prince Edward Island) who provide the pre-accreditation training required by private veterinarians

III-5 Veterinary Statutory Body (VSB)	Levels of advancement
A. VSB authority <i>The VSB is an autonomous regulatory body for veterinarians and veterinary para-professionals.</i>	1. There is no legislation establishing a VSB.
	2. The VSB regulates veterinarians only within certain sectors of the veterinary profession and/or does not systematically apply disciplinary measures.
	3. The VSB regulates veterinarians in all relevant sectors of the veterinary profession and applies disciplinary measures.
	4. The VSB regulates functions and competencies of veterinarians in all relevant sectors and veterinary para-professionals according to needs.
	5. The VSB regulates and applies disciplinary measures to veterinarians and veterinary para-professionals in all sectors throughout the country.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E.05.1-9, E.05.12, E.05.6.1-6, EM.02, MS#23

Findings:

Licensing and regulation of the veterinary profession is the responsibility of the provincial veterinary statutory bodies or a separate licensing body empowered by provincial legislation.

The role and authority of the provincial licensing body is to protect and serve the public interest through the regulation of the practice of veterinary medicine. While the general requirements to practice veterinary medicine are similar, specific requirements differ from province to province.

There are 12 veterinary statutory bodies in the provinces and territories, with none in Yukon.

- Alberta Veterinary Medical Association
- College of Veterinarians of British Columbia
- College of Veterinarians of Ontario
- Manitoba Veterinary Medical Association
- New Brunswick Veterinary Medical Association
- Newfoundland and Labrador College of Veterinarians
- Nova Scotia Veterinary Medical Association
- Government of Northwest Territories - Health and Social Services: The Office of the Registrar
- Government of Nunavut - Registrar, Department of Health and Social Services, Government of Nunavut
- Prince Edward Island Veterinary Medical Association
- Saskatchewan Veterinary Medical Association
- Ordre des médecins vétérinaires du Québec

Yukon veterinarians are licensed in either Alberta or British Columbia

In seven out of ten provinces, the veterinary self-interest groups (also known as Veterinary Medical Associations or VMAs) and the veterinary statutory bodies (licensing bodies) are one and the same organisation. This arrangement is considered to be fully functional in Canada though there is a risk of professional self-interest being paramount over professional integrity. This issue is avoided in some provinces with VMAs dividing operations between the regulatory/licensing/disciplinary activities and professional promotion.

All veterinary statutory bodies (VSBs) in Canada are self-funded and autonomous as legal entities.

VSBs provide an extensive range of services to members and institute regulatory and disciplinary measures within their mandate.

Inter-provincial mobility for licensed veterinarians is subject to licensing in a given jurisdiction, which includes an examination on applicable legislation and may include a language proficiency test (Quebec).

The federal government allows veterinarians in its employment to work without a provincially issued license. It was reported that the Canadian Veterinary Medical Association (CVMA) and the Canadian Council of Veterinary Registrars (CCVR) have been working to address this issue and find solutions so that all CFIA veterinarians are registered with a VSB but the situation has not yet been resolved.

Canada has an advanced system of regulation of veterinary para-professionals. The term 'veterinary para-professionals' applies to animal health technicians and to other non-veterinary staff. It was noted that: 'Except in Quebec, veterinary statutory bodies shall register ...'. In Quebec animal health technicians or other non-veterinary personnel are not governed by the OMVQ (the veterinary statutory body) but by a regulatory 'Order' which authorises designated persons to whom the veterinary surgeons may delegate acts.

Role of the Canadian Veterinary Medical Association (CVMA)

As part of a mandate given by its Act of incorporation, the CVMA administers the national exams for national and internationally trained veterinarians. The CVMA issues a Certificate of Qualification (CofQ) to all candidates who pass the applicable exams making them eligible to apply for licensure in any jurisdiction in Canada, as per the formal, written 2001 agreement between the veterinary regulatory bodies and the CVMA. The CofQ is also recognised by most of the US states.

CVMA and Animal Health Technology/Veterinary Technician Program Accreditation Committee (AHTVTPAC)

The CVMA has been accrediting veterinary technician programmes for over 30 years. Currently, 19 programs are accredited. Most regulatory bodies require veterinary technicians to have graduated from a CVMA accredited program. The AVMA and CVMA recognize each other's veterinary technician programme accreditation.

Canadian Council of Veterinary Registrars (CCVR)

Registrars of 10 provinces and the Canadian Veterinary Medical Association (CVMA) signed a Memorandum of Understanding in July 2014. The objectives were to:

- Collaborate among the veterinary regulatory bodies
- Collaborate between veterinary regulatory bodies and the CVMA
- Contribute as a single voice on national and international issues where veterinarians and regulatory bodies best serve the public
- Provide a forum for discussion and to share best practices in administration of regulatory activities

The CCVR had been discussing the issue of licensure of CFIA veterinarians, recognising the frequent requirement for CFIA veterinarians to practice veterinary medicine in multiple jurisdictions and the understandable desire to avoid the simultaneous licensure in more than one jurisdiction. The position of the regulatory bodies was and remains that the CFIA should make licensure mandatory for all CFIA veterinarians.

The Veterinary Statutory Bodies (VSB) inspect veterinary pharmacy facilities and the dispensing of medicines and can take disciplinary measures. This is appropriate, as defined

in the OIE Code; however, the VSBs do not necessarily report these activities or other veterinary practice inspections to their parliamentary bodies – (e.g. VSB in Quebec do not report to MAPAQ, CFIA or the Ministry of Health).

Strengths:

- Licensing and regulation of veterinarians and veterinary practices
- Licensing of veterinary para-professionals in many provinces

Weaknesses:

- Some VSBs are operating as VMAs so are considered not to be fully autonomous
- Inconsistent licensing of federally employed veterinarians
- No licensing of veterinary para-professionals in some jurisdictions
- No reporting of VSB inspections and findings of non-compliance to a competent authority

Recommendations:

- Re-open discussions between CFIA and CCVR concerning licensure of federal-employed and provincially/territorially-deployed veterinarians
- Institute licensing of veterinary para-professionals in all jurisdictions
- Engage CCVR to investigate and support initiatives for harmonisation of licensing/registration requirements across Canada's VSBs, with a particular focus on inter-provincial/territorial mobility of veterinarians and veterinary para-professionals
- Provincial VSBs should report non-compliance findings to their local ministry or competent authority

B. VSB capacity	Levels of advancement
<i>The capacity of the VSB to implement its functions and objectives in conformity with OIE standards.</i>	1. The VSB has no capacity to implement its functions and objectives.
	2. The VSB has the functional capacity to implement its main objectives.
	3. The VSB is an independent representative organisation with the functional capacity to implement all of its objectives.
	4. The VSB has a transparent process of decision making and conforms to OIE standards.
	5. The financial and institutional management of the VSB is submitted to external auditing.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E.05.1-9, E.05.12, E.05.6.1-6, EM.02, MS#23

Findings:

All VSBs in Canada are self-governing legal entities, funded by member contributions.

Human, administrative and financial resources are available to provincial veterinary licensing bodies and the CVMA to:

- Set and manage standards of veterinary practice and codes of ethics for veterinarians
- Have mechanisms in place for verification of compliance, including inspections and complaints investigations
- Provide continuing education and develop targeted skills and competency courses

Annual license renewal requires proof of a specified number of continuing professional development activities.

The VSBs provide a wide range of services and activities. For example, Alberta provides:

- Legislated Committees
 - Legal Practice Inspection Practice Standards
 - Complaint Review Committee
 - Hearing Tribunal
 - Practice Review Board
- Advisory Committees
 - Animal Welfare Advisory Committee
 - Companion Animal Advisory Committee
 - Equine Advisory Committee
 - Food Animal Advisory Committee
 - Wildlife and Ecosystem Health Advisory Committee
 - Human resources and Development Advisory Committee
 - Member Wellness Advisory Committee

Decision taking follows a transparent process and documentation is available on the internet.

Financial reports are publicly available and auditing of financial and institutional management is conducted by external entities.

Strengths:

- Professionally functioning and well-resourced VSBs

III-6 Participation of producers and other interested parties in joint programmes	Levels of advancement
<i>The capability of the VS and producers and interested parties to formulate and implement joint programmes in regard to animal health and food safety. This competency includes collaboration with relevant authorities, including other ministries and Competent Authorities, national agencies and decentralised institutions that share authority or have mutual interest in relevant areas</i>	1. Producers and other interested parties only comply and do not actively participate in programmes.
	2. Producers and other interested parties are informed of programmes and assist the VS to deliver the programme in the field.
	3. Producers and other interested parties are trained to participate in programmes and advise of needed improvements, and participate in early detection of diseases.
	4. Representatives of producers and other interested parties negotiate with the VS on the organisation and delivery of programmes.
	5. Producers and other interested parties are formally organised to participate in developing programmes in close collaboration with the VS.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 5): E.03.3, E.08.1.15-19, E.08.2.1, EM#33/34, EM.49

Findings:

The CFIA liaises with the national industry organisations and consumer groups through numerous programmes including managing food recalls, antimicrobial use and resistance monitoring, residue testing programmes, developing disease surveillance and control programmes (such as for the control of scrapie, Equine Infectious Anaemia, Johne's disease), livestock identification and in emergency preparedness and response.

The development of joint programmes nationally by CFIA is mirrored at the provincial/territorial level where the jurisdictional ministries of agriculture work closely with industry to promote biosecurity, especially for poultry and pigs, early detection and reporting of notifiable diseases and specific control programmes such as for Porcine Epidemic Diarrhoea .

The Veterinary Services at federal and/or provincial/territorial levels establish joint programmes by working with producers. CFIA works with producer organisations on developing new programmes and initiatives covering the whole spectrum of the Veterinary Services including areas such as trade negotiations/product certification, disease control programmes, emergency preparedness and response, etc. (see also CC II.5, II.6, II.7, II.8, II.9, II.11, II.12, II.4, IV.1, IV.3 and IV.7 and IV.8).

An example of a joint programme is the Canadian Johne's Disease Initiative (CJDI) created to promote awareness and education on Johne's disease and to reduce the prevalence of this disease in Canadian herds. 'CJDI is a collaborative activity primarily driven by industry with participation of governments and veterinary schools.' This initiative is led by Dairy Farmers of Canada (DFC), the Canadian Cattlemen's Association (CCA), and the Canadian Animal Health Coalition (CAHC). Funding is from the Advancing Canadian Agriculture and Agri-Food Program and industry, with leadership from CCA, DFC, and CAHC and resulted in the development of the Canadian Voluntary Johne's Disease Prevention and Control Program. Johne's Disease prevention in Canada is a targeted management assistance approach, not a regulatory programme.

In another joint programme the Alberta Beef Producers (ABP), representing more than 20,000 beef cattle producers, has been working closely with CFIA in emergency response to a TB detection (see CC II.6).

There are many joint programmes between industry and governments in Canada. As examples:

- New Brunswick is working with poultry producers to revise their 'hatchery program'

- In Quebec, the 'Union des Producteurs Agricoles' (UPA) represents 42,077 farmers from across the province covering beef, dairy and pig and other species producers. UPA works closely with CFIA to pass on the key messages to the producers. As an example, the 'Producteurs de bovins du Québec' are members of UPA with their own veterinary expertise who liaise with the CFIA and the provincial Ministry of Agriculture/Ministry of Health. The 'Eleveurs de porc du Québec', also members of UPA, represent the majority of pig farmers and have their own 'sante, qualite, R&D' section which engages with CFIA and the provincial veterinary services in joint programmes such as those established within the surveillance network RAIZO framework or Porcine Reproductive Respiratory Syndrome screening EQCMA and EQSP are also examples of joint programmes in Quebec.
- In Nova Scotia the Provincial Department of Agriculture has an 'Extension and Outreach Branch', which reaches out to producers and advises on all government programmes available to support them. The provincial Ministry of Agriculture has established a not-for-profit organization 'Perennia' which provides extension services to beef, dairy and sheep farmers through extension workers and livestock specialists.
- Manitoba is implementing a control programme for Porcine Epidemic Diarrhoea (PED). In this programme the provincial Veterinary Services are working closely with pig producers to require strict biosecurity and biocontainment practices to limit the spread of the virus. It is recognised that it is critical that the entire industry, including producers, transporters and suppliers work together to reduce transmission through good biosecurity practices. PED is a reportable disease in Manitoba, so producers are required to contact their veterinarian immediately if animals show any signs of PED and the Veterinary Services will then work with the producer to eliminate the disease.
- Ontario mitigates the risk from avian influenza by working with the 'Feather Board Command Centre' (which represents all the poultry marketing boards and poultry farmers) to promote biosecurity of all commercial producers and small flock growers. Ontario poultry farmers are required to regularly monitor flock health and immediately report any suspicion of avian influenza to their veterinarian.
- Saskatchewan Veterinary Services run a 'BVD Screening and Control Program' which provides funding to producers and their veterinarians to cover the costs of testing sick, dead, deformed, or aborted calves. Producers are encouraged to contact a veterinarian for consultation and to develop a BVD control strategy. All Saskatchewan cattle producers are eligible for this programme. Reimbursement is provided for laboratory testing and for appropriate veterinarian consultation fees.

Strengths:

- Numerous, well established, joint programmes with producers, processors and consumers
- Joint programmes developed with both federal (CFIA) and provincial/territorial Veterinary Services
- Joint programmes are well documented, monitored and reviewed and revised as required

Weaknesses:

- Main burden of funding for many of the joint programmes is borne by government

Recommendations:

- Consider reviewing the funding of joint programmes with the view to increasing producer/industry support for programmes that are entirely/largely for private benefit

- Use the joint programme approach to develop zoning and compartmentalisation for high health sub-populations – particularly the application of compartmentalisation for the elite chicken, turkey and pig breeder flocks/herds, and of zoning where health status and movement control can be maintained

III.4 Fundamental component IV: Access to markets

This component of the evaluation assesses the authority and capability of the VS to provide support in order to access, expand and retain regional and international markets for animals and animal products. It is made up of eight critical competencies.

Critical competencies:

Section IV-1	Preparation of legislation and regulations
Section IV-2	Implementation of legislation and regulations and compliance thereof
Section IV-3	International harmonisation
Section IV-4	International certification
Section IV-5	Equivalence and other types of sanitary agreements
Section IV-6	Transparency
Section IV-7	Zoning
Section IV-8	Compartmentalisation

Terrestrial Code References:

Points 6, 7 and 9 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation / General organisation / Procedures and standards.

Points 1 and 2 of Article 3.2.7. on Legislation and functional capabilities: Animal health, animal welfare and veterinary public health / Export/import inspection.

Points 1 and 3 of Article 3.2.8. on Animal health controls: Animal health status / National animal disease reporting systems.

Sub-point g) of Point 4 of Article 3.2.10. on Veterinary Services administration: Trade performance history.

Article 3.2.11. on Participation in OIE activities.

Points 6 and 10 of Article 3.2.14. on Veterinary legislation, regulations and functional capabilities / Membership of the OIE.

Chapter 3.4. on Veterinary legislation.

Chapter 4.3. on Zoning and compartmentalisation.

Chapter 4.4. on Application of compartmentalisation.

Chapter 5.1. on General obligations related to certification.

Chapter 5.2. on Certification procedures.

Chapter 5.3. on OIE procedures relevant to the Agreement on the Application of Sanitary and Phytosanitary Measures of the World Trade Organization.

Chapters 5.10. to 5.12. on Model international veterinary certificates.

IV-1 Preparation of legislation and regulations	Levels of advancement
<p><i>The authority and capability of the VS to actively participate in the preparation of national legislation and regulations in domains that are under their mandate, in order to guarantee its quality with respect to principles of legal drafting and legal issues (internal quality) and its accessibility, acceptability, and technical, social and economical applicability (external quality). This competency includes collaboration with relevant authorities, including other ministries and Competent Authorities, national agencies and decentralised institutions that share authority or have mutual interest in relevant areas</i></p>	1. The VS have neither the authority nor the capability to participate in the preparation of national legislation and regulations, which result in legislation that is lacking or is out-dated or of poor quality in most fields of VS activity.
	2. The VS have the authority and the capability to participate in the preparation of national legislation and regulations and can largely ensure their internal quality, but the legislation and regulations are often lacking in external quality.
	3. The VS have the authority and the capability to participate in the preparation of national legislation and regulations, with adequate internal and external quality in some fields of activity, but lack formal methodology to develop adequate national legislation and regulations regularly in all domains.
	4. The VS have the authority and the capability to participate in the preparation of national legislation and regulations, with a relevant formal methodology to ensure adequate internal and external quality, involving participation of interested parties in most fields of activity.
	5. The VS regularly evaluate and update their legislation and regulations to maintain relevance to evolving national and international contexts.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 5): E.04.1, E.12.1/2, MS#34, EM50

Findings:

The Canadian Veterinary Services have extensive legislation at federal and provincial/territorial levels. All jurisdictions have active legislation programmes that continually review, revise and draft amendments, new laws and regulations. The regulations often reference industry standards and animal production and welfare 'Codes of Practice' which allows more rapid updating of the legislation.

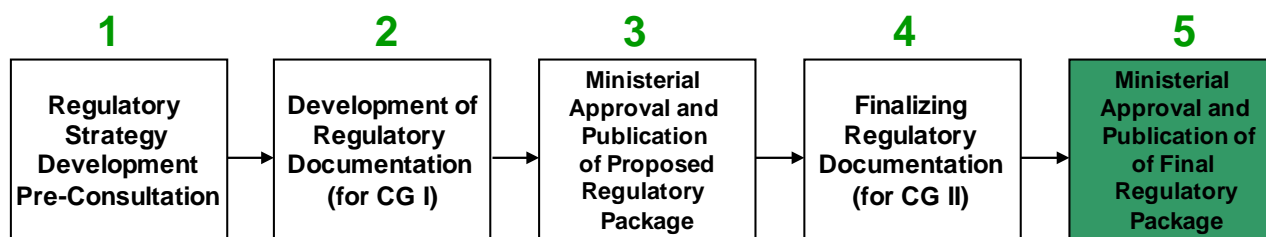
Legislation is in place covering:

- Control over the professionals (veterinarians and veterinary para-professionals)
- Laboratories in the veterinary domain (facilities, reagents)
- Health provisions relating to animal production (Identification and traceability; animal markets and other gatherings; animal reproduction; animal feed; animal by-products; disinfection)
- Animal diseases (surveillance; disease prevention and control; emerging diseases)
- Animal welfare and transportation
- Veterinary medicines and biologicals (general measures; raw materials for use in veterinary medicines and biologicals; authorisation of veterinary medicines and biologicals; quality of veterinary medicines and biologicals; establishments producing, storing and wholesaling veterinary medicines and biologicals; retailing, use and traceability of veterinary medicines and biologicals)
- Human food production chain (general provisions; products of animal origin intended for human consumption; operators responsible for premises and establishments pertaining to the food chain)
- Import/export and border controls

The Treasury Board is responsible for providing federal regulatory policy and oversight, ensuring regulatory cooperation and coordination and supports science based decision

making. The ‘Cabinet Directive on Regulatory Management’ sets out the analytical requirements that must be met when developing regulatory proposals and requires a regulatory ‘life cycle’ approach. The Directive also requires the assessment/consideration of consequences including the administrative burden and the regulatory costs on small businesses and requires transparency and communication of proposed legislation within a specified time frame; it also sets performance and service targets for regulatory authorisations (such as licences, permits and certifications).

Figure 2: ‘Regulatory cycle’ for the introduction of new legislation



CG is Canada Gazette a parliamentary notification of legislative consultation and change

Other important considerations when developing new legislation include international harmonisation (see CC IV.3), potential impacts on various groups (‘Gender Based Analysis +’) and the sustainability of development by incorporating environmental considerations.

CFIA identifies legislative priorities and these are developed into a ‘Forward Regulatory Plan’ – a two year programme of legislation review. In developing this Plan the CFIA considers potential risks, international standards, federal-provincial priorities, industry competitiveness, stakeholder support and regulatory mandate (policy and administrative authority). The Forward Regulatory Plan is reviewed by the Treasury Board and coordinated by them with other agencies.

Extensive communications and consultations are undertaken on proposed and draft legislation. The current review of federal animal transportation legislation has received more than 50,000 comments from over 11,000 respondents.

CFIA have a ‘Regulatory, Legislation, Economic Affairs Division’ that identifies and coordinates with the Department of Justice, including with their lawyers assigned to CFIA. The Division currently has staff of 20 made up of economists (responsible for economic impact assessments), regulatory officers and administration staff.

In animal health, veterinary public health and animal welfare, the CFIA Forward Regulatory Plan is currently focusing on improving biosecurity (including truck washing), and updating regulations on animal feeds, traceability, transport/animal welfare, zoning for disease control and hatchery management.

The Department of Justice are responsible for drafting new or amended legislation, following direction from the CFIA. Consideration is given to WTO-SPS agreements and international standards set by OIE and Codex Alimentarius.

Notwithstanding the CFIA programme of modernising and consolidating its legislative mandate there are a number of gaps in current legislation. A number of these gaps are currently being addressed including the revision of legislation covering animal welfare, the control of veterinary medicines and the management of animal feeds; a number of updates are also underway such as penalties for non-compliance and rates of compensation.

Currently the legislation required to deliver One Health is limited to the human and animal health sectors – there is no legal mandate over wildlife health. The Environment and Climate Change Canada mandate does not cover wildlife health or disease.

Strategic orientation discussions with the provinces/territories and their legislation is led by the Assistant Deputy Ministers of the provinces and territories who meet face to face at least twice yearly and in bi-monthly teleconferences.

Provinces have supporting legislation covering animal health and production, wildlife health, animal welfare, food safety and veterinary public health, and the management of veterinarians and veterinary para-professionals. Provinces vary with some having more rigorous and enforceable legislation than others. Considerable variation exists on:

- The licensing/management/inspection of provincial abattoirs/animal slaughter within the province and the sale of meat/animal products
- The ability to purchase veterinary medicines ‘over the counter’ (OTC)
- The registration of veterinary para-professionals
- Some details of animal welfare and the definition of what is a ‘veterinary activity’

Some reports of political/industry lobbying that compromised the integrity of veterinary legislation or limited the application of international standards, scientific integrity in decision making were reported (see CC I.4). As an example, horse castration is still not defined as a veterinary activity in one province.

Strengths:

- Planned development for the creation/revision of legislation – as the Forward Regulatory Plan
- Transparent consultative process to developing legislation
- Good alignment with international standards

Weaknesses:

- Although there are many tools available to help manage wildlife disease issues, the approaches are currently fragmented across the country
- Some legislation is outdated and in need of revision – much is in the process of revision
- Some blocking of the legislation required to meet international standards by industry lobby groups (see CC I.4)

Recommendations:

- Complete the development of a National Approach to Wildlife Health in Canada and associated implementation plan to help create and fund better linkages among all partners
- Develop stronger liaisons with industry to advocate for the legislation required to meet international standards and national priorities

IV-2 Implementation of legislation and regulations and compliance thereof	Levels of advancement
<i>The authority and capability of the VS to ensure compliance with legislation and regulations under the VS mandate.</i>	1. The VS have no or very limited programmes or activities to ensure compliance with relevant legislation and regulations.
	2. The VS implement a programme or activities comprising inspection and verification of compliance with legislation and regulations and recording instances of non-compliance, but generally cannot or do not take further action in most relevant fields of activity.
	3. Veterinary legislation is generally implemented. As required, the VS have a power to take legal action / initiate prosecution in instances of non-compliance in most relevant fields of activity.
	4. Veterinary legislation is implemented in all domains of veterinary competence and the VS work to minimise instances of non-compliance.
	5. The compliance programme is regularly subjected to audit by the VS or external agencies.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 5): E.04.1, E.12.1/2, MS#34

Findings: Veterinary Services enforcement is based on the Agriculture and Agri-Food Administrative Monetary Penalties Act and its Regulations, and the Health of Animals Act.

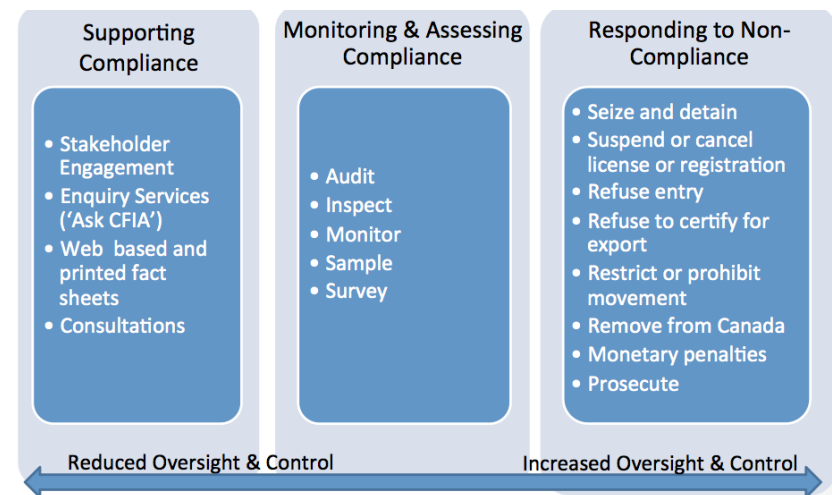
The CFIA's Enforcement and Compliance Policy (1999) established policies and procedures for monitoring compliance and enforcement, and conducting investigations. In addition, an updated Compliance and Enforcement Operational Policy document was put in place in 2015 to promote consistency across the CFIA Regions and Areas. The CFIA is currently updating its national business processes including developing national priorities that will help guide compliance and enforcement activities across Canada, and this is expected to ensure enforcement and compliance is effective, consistent and fair. Currently, incidents of non-compliance may be referred by inspection staff to the regional trained investigators which oversee the gathering and documenting of evidence in support of monetary penalties or prosecution.

Compliance and enforcement activities are guided by:

- The principles of fairness, impartiality and transparency
- The powers and authorities set out in the relevant legislation
- Risk management principles

The 'Compliance and Enforcement Operational Policy' guides CFIA compliance management. Enforcement actions taken depend on programme, legislative authority, potential harm, history and intent. Examples include follow up inspections, letters of non-compliance, revocation of permit, refusal to certify for export, monetary penalties, seizure and detention of animals or products, notice to remove imported product, referral to prosecution. The National Inspection Division of the CFIA Operations Branch implements an inspection programme, based on risk assessment.

Figure 3: Principles of the CFIA compliance programme



Enforcement officials include inspectors, veterinary inspectors, investigation specialists of the EIS and officials of other agencies or departments who are designated to enforce CFIA programmes, including the CBSA.

CFIA have a range of compliance activities including:

- Inspection of imported animals and products
- Inspection of animals and products for export
- Inspection of transport (animal welfare and animal identification)
- Federally registered abattoirs and food processors (ante- and post mortem inspection, HACCP programmes)
- On-site inspections to ensure compliance with regulations, e.g. laboratories biocontainment, artificial insemination centres, rendering plants, feed mills, manufacturers (Good Manufacturing Practice)
- Auditing of alternate service delivery providers (e.g. Accredited Veterinarians)
- Preparation of compliance assessment reports, including corrective action requests
- Follow up inspections to verify corrective actions
- Comprehensive non-compliance reports are publicly available on the CFIA website

CFIA leads the national response to a foreign animal disease incursion. In an emergency response CFIA staff will issue notices of quarantine, movement controls, require live animal testing, animal tracing, humane destruction, compensation, cleaning and disinfection. These activities are mandated in legislation and compliance is strictly enforced.

The CFIA Communications Branch promotes compliance by 'informing, motivating and encouraging compliance with the CFIA's regulatory requirements' using 'accessible, plain language documents, products, services and guidance to increase industry understanding of their regulatory responsibilities'. Compliance promotion is targeted strategically focusing on regulatory and programme priorities, industry trends and needs and is based on resource availability.

The EIS staff of CFIA may investigate or support an investigation to gather evidence for the imposition of penalties or prosecution. An investigation may involve activities such as obtaining search warrants, gathering evidence, conducting surveillance, interviewing witnesses taking statements. Investigators are required to be familiar with the Criminal Code of Canada and the Canada Evidence Act and to respect the Canadian Charter of Rights and

Freedoms. Notices of Violation may be issued for violations of the relevant Act or Regulations as set out in Schedule 1 to the *Agriculture and Agri-Food Administrative Monetary Penalties Regulations*.

Currently the maximum penalty for a person who contravenes the Health of Animals Act is a fine not exceeding \$250,000 and/or imprisonment for a term not exceeding two years. The same applies for the Meat Inspection Act. The CFIA has used judicial recourse. The CFIA non-compliance reports and 'Prosecution Bulletins' are directly available to the public on the CFIA web site.

Provinces/territories enforce their legislation, which includes animal health, animal welfare, food safety and the licensing of veterinarians and veterinary para-professionals. Some provinces utilise their own staff for all activities, others use local humane agencies/SPCAs to investigate welfare concerns. Records are available of inspection/review activities, non-compliance and disciplinary measures taken. Audits to ensure compliance do not occur systematically in every province.

Strengths:

- Effective risk based assessment to target priority investigations/inspections
- Records of non-compliances and prosecutions available for CFIA programmes
- Provinces/territories have effective enforcement programmes

IV-3 International harmonisation	Levels of advancement
<i>The authority and capability of the VS to be active in the international harmonisation of regulations and sanitary measures and to ensure that the national legislation and regulations under their mandate take account of relevant international standards, as appropriate.</i>	1. National legislation, regulations and sanitary measures under the mandate of the VS do not take account of international standards.
	2. The VS are aware of gaps, inconsistencies or non-conformities in national legislation, regulations and sanitary measures as compared to international standards, but do not have the capability or authority to rectify the problems.
	3. The VS monitor the establishment of new and revised international standards, and periodically review national legislation, regulations and sanitary measures with the aim of harmonising them, as appropriate, with international standards, but do not actively comment on the draft standards of relevant intergovernmental organisations.
	4. The VS are active in reviewing and commenting on the draft standards of relevant intergovernmental organisations.
	5. The VS actively and regularly participate at the international level in the formulation, negotiation and adoption of international standards ⁴⁴ , and use the standards to harmonise national legislation, regulations and sanitary measures.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 5): E.06.1-5, E.07.1/2, PP.06/7

Findings:

CFIA monitors and reviews OIE and Codex international standards and the policies, programmes and legislation of key trading partners to establish priorities for their two-year, 'Forward Regulatory Plan' (see CC IV.1).

In support of international harmonisation CFIA promotes compatible approaches, minimising regulatory differences with trading partners (regulatory alignment and mutual recognition) and the adoption of compatible approaches to enhance economic competitiveness.

OIE international standards are used as one consideration when reviewing and developing legislation. For example, animal welfare legislation covering animal production, culling for disease control, animal slaughter and the use of animals in research is based on OIE guidelines and covered by various articles of legislation including the Health of Animals Act, Meat Inspection Act, provincial welfare acts and supporting regulations and codes of practice.

Federal legislation on animal transportation has been in a period of consultation and final drafting is expected to update Canadian regulations and to align them with OIE standards. This updating is expected to address issues such as the requirement that animal handlers and transporters be trained, risks assessed prior to transport and contingency plans developed for emergency situations. It is recognised that one of the reasons for updating this legislation is that it is increasingly necessary to allow Canada 'to be on a more level playing field' with international standards and major trading partners – many of whom have implemented similar or more stringent regulations.

Canada participates fully with Codex, hosting the Codex Committee of Food Labelling and engaging with other government departments and industry stakeholders. Canada has a five year strategic plan for its engagement with Codex to support the review and development of international standards. Working documents are circulated to all relevant government and leading private sector stakeholders; comments are consolidated and submitted to Codex committees. Training and support is provided to CFIA heads of delegations, delegation members and technical experts.

⁴⁴ A country could be active in international standard setting without actively pursuing national changes. The importance of this element is to promote national change.

Evaluation of 'Veterinary Infrastructure and Zoning Processes' including the legislative requirements is based on an agreement between Canada, the US, Australia and New Zealand.

Canada and the European Union have had a Veterinary Agreement in place since 1999. The objective of the Agreement is the facilitation of trade in animal and products, through the establishment of equivalences in measures and the recognition of each party zoning decisions and based on nationally and internationally agreed standards. This agreement has been incorporated into *the recently signed Canada-EU trade Agreement*.

Strengths:

- The Veterinary Services participate internationally on the formulation, negotiation and adoption of international standards, including the harmonisation of national legislation, regulations and sanitary measures
- Recently developed trade agreement with the EU

IV-4 International certification ⁴⁵	Levels of advancement
<i>The authority and capability of the VS to certify animals, animal products, services and processes under their mandate, in accordance with the national legislation and regulations, and international standards.</i>	1. The VS have neither the authority nor the capability to certify animals, animal products, services or processes.
	2. The VS have the authority to certify certain animals, animal products, services and processes, but are not always in compliance with the national legislation and regulations and international standards.
	3. The VS develop and carry out certification programmes for certain animals, animal products, services and processes under their mandate in compliance with international standards.
	4. The VS develop and carry out all relevant certification programmes for any animals, animal products, services and processes under their mandate in compliance with international standards.
	5. The VS carry out audits of their certification programmes, in order to maintain national and international confidence in their system.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 5): E.06.1-5

Findings:

The VS have a well-established export verification and international certification programme that is routinely checked and regularly audited.

Audits are conducted by the CFIA and based on a 'Quality Management System'. The CFIA Operations Branch also conduct audits of their programmes and systems to validate their certification requirements.

The Meat Hygiene Manual of Procedures (MHMOP) describes the procedures to be followed when verifying a meat shipment for export. The procedure requires an 'application for export' and 'verifications', such as application of an export stamp and health certification.

The CFIA Compliance Verification System (CVS) is a tool that provides a standardised risk based inspection approach for the CFIA's meat, feed, rendering, animal transportation and animal traceability inspection programmes. It includes verification tasks with detailed procedures and guidance for CFIA inspectors on the verification process as well as data collection and reporting tools. The CVS tool is used by CFIA inspectors to:

- Verify compliance with regulations
- Record verification results
- Follow-up on non-compliance issues
- Document and communicate verification results
- Take enforcement action as required

The CVS established an efficient and uniform approach to verifying regulated parties' compliance with regulations. The CVS includes verification tasks to assess compliance with regulatory requirements. Each verification task includes detailed procedures for the inspection staff to follow when conducting verifications.

Verification of industry's compliance with regulations includes defined verification tasks and other verification activities. For meat inspection, the reference document is the MHMOP including import inspection (Chapter 10) and export verification (Chapter 11) and covers complaint investigation and product recall. When identified non-compliances are not corrected, the CFIA pursues enforcement options outlined in Chapter 14 of the MHMOP.

Competed export certificates are required for most exports of livestock. Specific instructions are provided for all certifying veterinarians. These are valid only after being endorsed and

⁴⁵ Certification procedures should be based on relevant OIE and Codex Alimentarius standards.

stamped with the official export stamp by an official CFIA veterinary inspector. A log is maintained which tracks the export certificates according to their unique reference numbers. For meat exports, the log accounts for all export certificates received, released to the company to be prepared for export, and their final disposition (utilized or void). The CFIA veterinarian in charge is also responsible for maintaining their official export stamps in a locked cabinet. No corrections are allowed on export certificates. When errors are identified, the certificate must be voided.

An accredited veterinarian is required to inspect the pigs within 14 days of export to the US and to certify freedom from contagious/infectious diseases; the animals are to be identified (by batch and origin). The certificate also requires the veterinary inspector to state:

'The swine for export have not been exposed to communicable disease during the sixty (60) days prior to export.'

This statement presents problems for the veterinary inspectors as they are unable to confirm the history of disease in the herd/flock with any certainty. Veterinary inspectors interpret this clause to mean free of any foreign animal disease.

Further the USDA regulations stipulate that pigs for import from Canada for purposes other than immediate slaughter are to be accompanied by a certificate stating that they were not exposed to any disease during the preceding 60 days. The CFIA is aware of the problems associated with this statement and is addressing this issue with the USDA.

For general use a certificate has also been developed for the export of pet dogs and cats to other countries – the Canadian International Health Certificate. It is recognized that some countries/zones have additional requirements and specific veterinary health certificates have been negotiated with CFIA, or the country has provided its own health certificate.

Strengths:

- Established international certification process that is routinely audited
- Detailed instructions and guidelines on the requirements for international certificates

Recommendations:

- Address the concerns of some unrealistic expectations, such as the '60 day non-exposure to communicable disease clause for pig exports' by renegotiating the requirements to ensure that the certificates can be certified accurately

IV-5 Equivalence and other types of sanitary agreements	Levels of advancement
<i>The authority and capability of the VS to negotiate, implement and maintain equivalence and other types of sanitary agreements with trading partners.</i>	1. The VS have neither the authority nor the capability to negotiate or approve equivalence or other types of sanitary agreements with other countries.
	2. The VS have the authority to negotiate and approve equivalence and other types of sanitary agreements with trading partners, but no such agreements have been implemented.
	3. The VS have implemented equivalence and other types of sanitary agreements with trading partners on selected animals, animal products and processes.
	4. The VS actively pursue the development, implementation and maintenance of equivalence and other types of sanitary agreements with trading partners on all matters relevant to animals, animal products and processes under their mandate.
	5. The VS actively work with interested parties and take account of developments in international standards, in pursuing equivalence and other types of sanitary agreements with trading partners.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 5): E.06.1-5

Findings:

CFIA have an established evaluation process for assessing equivalency which includes: document reviews, on-site evaluations, exchange of letters/formal agreements and inspection/verification of products at the time of importation; CFIA has the legal mandate for this under the Meat Inspection Act and its supporting regulations. A process has also been established for imported products failing to meet the equivalency agreement requirements.

A number of countries are eligible to export meat to Canada including the EU, Australia, US, New Zealand, Japan, Argentina, Brazil and Chile. These countries have been assessed and equivalency agreements reached.

A Treaty has been signed between the European Community and the Government of Canada on sanitary measures to protect public and animal health in respect of trade in live animals and animal products (1999). The agreement includes the application of the principle of regionalisation for the main animal diseases and lists those commodities for which equivalence is recognised. For those commodities where equivalence is not yet recognised, it sets out a programme of work towards recognition and the trade conditions applicable in the interim. The provisions with regard to equivalency determination on health requirements, consultations, exchange of information, notification on disease developments, scientific exchange, verification and audit are all provisions that will help to enhance mutual understanding.

An agreement made in 2005 with the EU simplified certificates for the importation of bovine semen and fresh pig meat from Canada.

Canada has signed a number of free trade agreements including with South Korea, Peru and Colombia and these specifically reference the WTO SPS agreement and the need for evidence based risk management and decision making including the use of equivalent methodologies.

Agreements have also been developed with the US, Australia and New Zealand on mutually acceptable zoning arrangements in the advent of emergency animal diseases.

The laboratories have an ongoing programme of test development and validation and work with international trading partners to develop test equivalency.

The EU identified traceability issues with horses during its audits of Canadian horse slaughter establishments due to the fact that the majority of horses slaughtered in Canada originate from the US, where equids are not regulated as food producing animals so the

controls of the use of veterinary drugs banned for use in food-producing animals are not applied and there is no mandatory veterinary residue testing and record keeping. New EU rules introduced from March 31, 2017, require horses destined for slaughter in non-EU countries but for export of their meat to the EU, to undergo a minimum six-month residency requirement before slaughter.

Strengths:

- Active programme working with trading partners to develop equivalency and sanitary agreements

IV-6 Transparency	Levels of advancement
<i>The authority and capability of the VS to notify the OIE of its sanitary status and other relevant matters (and to notify the WTO SPS Committee where applicable), in accordance with established procedures.</i>	1. The VS do not notify.
	2. The VS occasionally notify.
	3. The VS notify in compliance with the procedures established by these organisations.
	4. The VS regularly inform interested parties of changes in their regulations and decisions on the control of relevant diseases and of the country's sanitary status, and of changes in the regulations and sanitary status of other countries.
	5. The VS, in cooperation with their interested parties, carries out audits of their transparency procedures.

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 5): E.07.1/2, PP.06/7, EM51-56

Findings:

Canada routinely submits annual and 6 monthly reports to OIE, through the WAHIS system. Notifications of disease events in real time are also provided to the OIE as per international obligations.

Canada is officially recognized as free from Classical Swine Fever, African Horse Sickness, Peste des Petits Ruminants, Foot and Mouth Disease, Contagious Bovine Pleuro Pneumonia and has 'controlled status for Bovine Spongiform Encephalopathy'. Annual reconfirmations are submitted each November.

Changes to animal health, veterinary public health and animal welfare legislation including activating regulations are available on the CFIA website and are provided directly to trading partners.

CFIA routinely audits, reviews and revises its disease detection and reporting procedures.

Canada and the US have a number of collaborative agreements on veterinary qualifications, disease surveillance and disease control. Information on changes of disease status are shared promptly between the two countries.

Strengths:

- Ongoing and real-time reporting of changes in animal health status and of legislation

IV-7 Zoning	Levels of advancement
<i>The authority and capability of the VS to establish and maintain disease free zones, as necessary and in accordance with the criteria established by the OIE (and by the WTO SPS Agreement where applicable).</i>	1. The VS cannot establish disease free zones. ⁴⁶
	2. As necessary, the VS can identify animal sub-populations with distinct health status suitable for zoning.
	3. The VS have implemented biosecurity measures that enable it to establish and maintain disease free zones for selected animals and animal products, as necessary.
	4. The VS collaborate with producers and other interested parties to define responsibilities and execute actions that enable it to establish and maintain disease free zones for selected animals and animal products, as necessary.
	5. The VS can demonstrate the scientific basis for any disease free zones and can gain recognition by trading partners that they meet the criteria established by the OIE (and by the WTO SPS Agreement where applicable).

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6): E.01.1.1, E.15.5

Findings:

Canada has yet to decide whether to establish ‘peace time’ regional animal disease control zones, that is zones that could be designated as disease free by trading partners, and hence this CC is not applicable at this stage. Zoning principles are used in the context of emergency response to incursions of foreign animal diseases (e.g. Avian Influenza).

An agreement, the ‘Quads Zoning Arrangement’ was entered into between Canada, Australia, New Zealand and the US in 2016. This agreement ‘*acknowledged and supported each other’s capabilities to zone in the case of an animal health emergency*’. The agreement provides, that in the event of a foreign animal disease outbreak, such as foot-and-mouth or classical swine fever, early identification of disease-free zones, in the disease affected country, would enable the other participating countries to accept the continuation of trade from areas without disease.

The agreement between Canada, the US, Australia and New Zealand is similar to a deal Canada and the United States signed almost three years ago on zoning. This agreement was part of the two countries’ work related to the Regulatory Cooperation Council (RCC), in which each country is to accept the other’s decisions on establishing, maintaining and releasing a disease control and eradication zone in foreign animal disease outbreak situations. The same would apply to the new agreement between the four countries.

Canada did pilot the ‘West Hawk Lake Zoning Initiative’ (2009-2013) but this was dropped primarily because of lack of funding; other concerns raised were confidentiality, impact on industry and the lack of animal/product traceability.

Recommendation:

- Consider the implementation of the OIE Code Standards for Zoning for relevant animal diseases
- Work with industry to assess the benefits of adopting a Zoning policy when responding to foreign animal diseases

⁴⁶ If the VS has the authority and capability but chooses not to implement zoning, this CC should be recorded as “not applicable at this stage”

IV-8 Compartmentalisation	Levels of advancement
<i>The authority and capability of the VS to establish and maintain disease free compartments as necessary and in accordance with the criteria established by the OIE (and by the WTO SPS Agreement where applicable).</i>	1. The VS cannot establish disease free compartments. ⁴⁷
	2. As necessary, the VS can identify animal sub-populations with a distinct health status suitable for compartmentalisation.
	3. The VS ensure that biosecurity measures to be implemented enable it to establish and maintain disease free compartments for selected animals and animal products, as necessary.
	4. The VS collaborate with producers and other interested parties to define responsibilities and execute actions that enable it to establish and maintain disease free compartments for selected animals and animal products, as necessary.
	5. The VS can demonstrate the scientific basis for any disease free compartments and can gain recognition by other countries that they meet the criteria established by the OIE (and by the WTO SPS Agreement where applicable).

Terrestrial Code reference(s): Appendix 1

Evidence (listed in Appendix 6):

Findings:

Canada currently does not have any established animal disease-free compartment and hence this CC is not applicable at this stage.

However, consultations are ongoing with the elite poultry/turkey industry breeders regarding the possibility of compartmentalisation, with particular focus on the continuing ability to export genetic material in the face of localised disease outbreaks, such as AI.

Canada is developing compartmentalisation for farmed salmon and trout.

Recommendation:

- Consider the implementation of the OIE Terrestrial Code Standards for Compartmentalisation and how they might be applied for relevant animal diseases
- Work with industry and provincial/territorial authorities to assess the benefits of adopting a Compartmentalisation policy when responding to foreign animal diseases

⁴⁷ If the VS has the authority and capability but chooses not to implement compartmentalization, this CC should be recorded as “not applicable at this stage”

PART IV: CONCLUSIONS

The PVS Evaluation mission was conducted with excellent support from the CFIA and the provincial and territorial authorities of Canada. Canada posed major empirical and logistic challenges for a PVS Evaluation – it is a very large country, with a federal government system, diverse and sometimes sparse human and animal populations, highly developed animal and veterinary public health services, and the mission was undertaken in late winter, when the weather could be very unpredictable.

A comprehensive programme of meetings, interviews and visits allowed a sound understanding of the very well developed Canadian Veterinary Services.

The Evaluation mission team visited key agencies and places and held discussions with many stakeholders including federal government agencies particularly the CFIA, PHAC, HC, AAFC, CBSA and Environment Canada, regional governments (nine of the ten provinces and one of the three territories) and the private sector including all the main production and processing sectors (beef, dairy, pigs, poultry and some wildlife operations). It can be concluded that the PVS Evaluation mission completed a valid assessment of the Veterinary Services of Canada.

Canada is a major exporter of live animals and animal products and also a significant importer of animal products, and some live animals. Canada appropriately adopts a very rigorous approach to identifying and mitigating possible risks and has strict border controls in place. Despite the low levels of accepted risk Canada has faced a number of major disease challenges in recent years including BSE, AI and TB. These outbreaks of foreign animal diseases have been effectively managed and the diseases either eliminated or are in the process of being controlled. Canada has also implemented a number of effective disease control and eradication programmes including against TB and brucellosis.

Canada has a stated policy of increasing overall agricultural exports by 40% by 2025⁴⁸; this includes increased production of animals and animal products. To achieve this high target will require considerable investment in more efficient and enhanced production systems and in improved animal and veterinary public health. Canada's well developed veterinary services are well placed to provide this support with Levels of Advancement scoring five (the highest score) for most of the assessed Critical Competencies.

Overall the assessment of the Veterinary Services of Canada is that they operate at the highest level internationally with no major weaknesses.

The Canadian Veterinary Services have excellent staffing (numbers and training/competencies), physical resources and funding with strong systems of management, auditing, review and revision. The Veterinary Service programmes have well established functional programmes and capabilities in laboratory diagnostics and research, risk analysis and border control, disease surveillance and control, emergency preparedness and response, food safety at most levels, veterinary medicines control, generally, and the monitoring of antimicrobial resistance, residue testing, animal feed control, animal identification and most aspects of animal welfare.

Interaction with stakeholders is well developed with excellent communication and consultation and numerous joint programmes. Veterinary Statutory Bodies are fully operational in all provinces and territories except one. The legal mandate of the Veterinary Services is well established and updated regularly, international harmonisation and representation is excellent.

⁴⁸ Canada's Budget 2017 <https://www.budget.gc.ca/2017/docs/plan/chap-01-en.html#Toc477707372> Accessed January 17, 2018.

Notwithstanding the excellence achieved, some weaknesses and therefore opportunities for further strengthening were identified. These areas include particularly:

- Technical independence is sometimes being compromised by political and industry interests
- Internal coordination is often limited at operational levels between the CFIA and the provincial/territorial authorities due to insufficient communication and engagement at local levels
- Disease surveillance and control programs could be enhanced through improved information management with the development of IT systems using current technologies and integrated databases allowing multiple types of data entry (SMS, apps, spreadsheets, other database extracts)
- Disease control programmes are well developed but funding by industry should be increased
- The management of food safety is variable at some provincial/territorial slaughterhouses
- Veterinary medicines federal regulations currently still allow 'own use importation' and veterinary active pharmaceutical ingredients (API) with few controls
- The control of 'over the counter sales' (provincial regulations) varies by province and should be strengthened and consistently applied throughout all provinces/territories
- Animal traceability is not life-long, not transaction-based and often only available in hard copy; tracing and movement control is compromised
- Animal welfare has a high priority and is well managed. However, the split between federal and the provincial/territorial agencies results in some ambiguity of responsibility
- The procedure for federally employed veterinarians and veterinary para-professionals to be licensed should be reviewed, with a particular focus on inter-provincial/territorial mobility of veterinarians and veterinary para-professionals

This PVS Evaluation mission is an important step in assessing the level of advancement of a national VS against internationally endorsed OIE standards. Canada's assessment is among the highest achieved internationally.

PART V: APPENDICES

Appendix 1: Terrestrial Code references for critical competencies

Critical Competences	Terrestrial Code references
I.1.A I.1.B I.2.A I.2.B	<ul style="list-style-type: none"> ➤ Points 1-5 of Article 3.1.2. on Fundamental principles of quality: Professional judgement / Independence / Impartiality / Integrity / Objectivity. ➤ Points 7 and 14 of Article 3.1.2. on Fundamental principles of quality: General organisation / Human and financial resources. ➤ Article 3.2.5. on Evaluation criteria for human resources. ➤ Article 3.2.12. on Evaluation of the veterinary statutory body. ➤ Points 1-2 and 5 of Article 3.2.14. on Organisation and structure of Veterinary Services / National information on human resources / Laboratory services.
I.3	<ul style="list-style-type: none"> ➤ Points 1, 7 and 14 of Article 3.1.2. on Fundamental principles of quality: Professional judgement / General organisation / Human and financial resources. ➤ Article 3.2.5. on Evaluation criteria for human resources. ➤ Sub-point d) of Point 4 of Article 3.2.10. on Veterinary Services administration: In-service training and development programme for staff. ➤ Point 9 of Article 3.2.14. on Performance assessment and audit programmes.
I.4	<ul style="list-style-type: none"> ➤ Point 2 of Article 3.1.2. on Fundamental principles of quality: Independence.
I.5	<ul style="list-style-type: none"> ➤ Point 1 of Article 3.2.3. on Evaluation criteria for the organisational structure of the Veterinary Services. ➤ Point 9 of Article 3.2.14. on Performance assessment and audit programmes.
I.6.A I.6.B	<ul style="list-style-type: none"> ➤ Points 6, 7 and 9 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation / General organisation / Procedures and standards. ➤ Article 3.2.2. on Scope. ➤ Points 1 and 2 of Article 3.2.3. on Evaluation criteria for the organisational structure of the Veterinary Services. ➤ Point 4 of Article 3.2.10. on Performance assessment and audit programmes: Veterinary Services administration.
I.7	<ul style="list-style-type: none"> ➤ Point 2 of Article 3.2.4. on Evaluation criteria for quality system: “Where the Veterinary Services undergoing evaluation... than on the resource and infrastructural components of the services”. ➤ Points 2 and 3 of Article 3.2.6. on Evaluation criteria for material resources: Administrative / Technical. ➤ Point 3 of Article 3.2.10. on Performance assessment and audit programmes: Compliance. ➤ Point 4 of Article 3.2.14. on Administration details.
I.8 I.9 I.10	<ul style="list-style-type: none"> ➤ Points 6 and 14 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation / Human and financial resources. ➤ Point 1 of Article 3.2.6. on Evaluation criteria for material resources: Financial. ➤ Point 3 of Article 3.2.14. on Financial management information.
I.11	<ul style="list-style-type: none"> ➤ Points 7, 11 and 14 of Article 3.1.2. on Fundamental principles of quality: General organisation / Documentation / Human and financial resources. ➤ Point 4 of Article 3.2.1. on General considerations. ➤ Point 1 of Article 3.2.2. on Scope. ➤ Article 3.2.6. on Evaluation criteria for material resources. ➤ Article 3.2.10. on Performance assessment and audit programmes.
II.1A II.1B II.2	<ul style="list-style-type: none"> ➤ Point 9 of Article 3.1.2. on Fundamental principles of quality: Procedures and standards. ➤ Point 1 of Article 3.2.4. on Evaluation criteria for quality systems. ➤ Point 3 of Article 3.2.6. on Evaluation criteria for material resources: Technical. ➤ Point 5 of Article 3.2.14. on Laboratory services.
II.3	<ul style="list-style-type: none"> ➤ Chapter 2.1. on Import risk analysis
II.4	<ul style="list-style-type: none"> ➤ Points 6 and 9 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation / Procedures and standards. ➤ Point 2 of Article 3.2.7. on Legislation and functional capabilities: Export/import inspection. ➤ Points 6 and 7 of Article 3.2.14. on Veterinary legislation, regulations and functional capabilities / Animal health and veterinary public health controls.
II.5.A	<ul style="list-style-type: none"> ➤ Points 6, 7 and 9 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation / General organisation / Procedures and standards.

Critical Competences	Terrestrial Code references
II.5.B	<ul style="list-style-type: none"> ➤ Points 1-3 of Article 3.2.8. on Animal health controls: Animal health status / Animal health control / National animal disease reporting systems. ➤ Sub-points a) i), ii) and iii) of Point 7 of Article 3.2.14. on Animal health: Description of and sample data from any national animal disease reporting system controlled and operated or coordinated by the Veterinary Services / Description of and sample reference data from other national animal disease reporting systems controlled and operated by other organisations which make data and results available to Veterinary Services / Description and relevant data of current official control programmes including:... or eradication programmes for specific diseases. ➤ Chapter 1.4. on Animal health surveillance. ➤ Chapter 1.5. on Surveillance for arthropod vectors of animal diseases.
II.6	<ul style="list-style-type: none"> ➤ Points 6, 7 and 9 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation / General organisation / Procedures and standards. ➤ Points 1-3 of Article 3.2.8. on Animal health controls: Animal health status / Animal health control / National animal disease reporting systems. ➤ Sub-point a) of Point 7 of Article 3.2.14. on Animal health and veterinary public health controls: Animal health.
II.7	<ul style="list-style-type: none"> ➤ Points 6, 7 and 9 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation / General organisation / Procedures and standards. ➤ Points 1-3 of Article 3.2.8. on Animal health controls: Animal health status / Animal health control / National animal disease reporting systems. ➤ Sub-point a) of Point 7 of Article 3.2.14. on Animal health and veterinary public health controls: Animal health. ➤ Chapter 4.12. on Disposal of dead animal.
II.8.A II.8.B II.8.C	<ul style="list-style-type: none"> ➤ Points 6, 7 and 9 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation / General organisation / Procedures and standards. ➤ Article 3.4.12. on Human food production chain. ➤ Points 1-5 of Article 3.2.9. on Veterinary public health controls: Food hygiene / Zoonoses / Chemical residue testing programmes / Veterinary medicines/ Integration between animal health controls and veterinary public health. ➤ Points 2, 6 and 7 of Article 3.2.14. on National information on human resources / Veterinary legislation, regulations and functional capabilities / Animal health and veterinary public health controls. ➤ Chapter 6.2. on Control of biological hazards of animal health and public health importance through ante- and post-mortem meat inspection. <p>References to Codex Alimentarius Commission standards:</p> <ul style="list-style-type: none"> ➤ Code of Hygienic practice for meat (CAC/RCP 58-2005). ➤ Code of Hygienic practice for milk and milk products (CAC/RCP/ 57-2004). ➤ General Principles of Food Hygiene (CAC/RCP 1-1969; amended 1999. Revisions 1997 and 2003).
II.9	<ul style="list-style-type: none"> ➤ Points 6 and 9 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation / Procedures and standards. ➤ Points 3 and 4 of Article 3.2.9. on Veterinary public health controls: Chemical residue testing programmes / Veterinary medicines. ➤ Sub-point a) ii) of Point 6 of Article 3.2.14. on Animal health and veterinary public health: Assessment of ability of Veterinary Services to enforce legislation. ➤ Chapters 6.6. to 6.10. on Antimicrobial resistance.
II.10	<ul style="list-style-type: none"> ➤ Points 3 and 4 of Article 3.2.9. on Veterinary public health controls: Chemical residue testing programmes / Veterinary medicines. ➤ Sub-points b) iii) and iv) of Point 7 of Article 3.2.14. on Veterinary public health: Chemical residue testing programmes / Veterinary medicines.
II.11	<ul style="list-style-type: none"> ➤ Chapter 6.3. on Control of hazards of animal health and public health importance in animal feed.
II.12.A II.12.B	<ul style="list-style-type: none"> ➤ Point 6 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation. ➤ Chapter 4.1. on General principles on identification and traceability of live animals. ➤ Chapter 4.2. on Design and implementation of identification systems to achieve animal traceability.
II.13	<ul style="list-style-type: none"> ➤ Section 7 on Animal Welfare
III.1	<ul style="list-style-type: none"> ➤ Point 13 of Article 3.1.2. on Fundamental principles of quality: Communication. ➤ Sub-point b) of Point 2 of Article 3.2.6. on Administrative resources: Communications. ➤ Point 4 of Article 3.2.14. on Administration details. ➤ Chapter 3.3. on Communication.

Critical Competences	Terrestrial Code references
III.2	<ul style="list-style-type: none"> ➤ Point 13 of Article 3.1.2. on Fundamental principles of quality: Communication. ➤ Point 2 of Article 3.2.3. on Evaluation criteria for the organisational structure of the Veterinary Services. ➤ Point 4 and Sub-point g) of Point 9 of Article 3.2.14. on Administration details and on Sources of independent scientific expertise. ➤ Chapter 3.3. on Communication.
III.3	<ul style="list-style-type: none"> ➤ Article 3.2.11. on Participation on OIE activities. ➤ Point 4 of Article 3.2.14. on Administration details.
III.4	<ul style="list-style-type: none"> ➤ Points 6, 7 and 9 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation / General organisation / Procedures and standards. ➤ Point 7 of Article 3.2.3. on Evaluation criteria for the organisational structure of the Veterinary Services. ➤ Article 3.4.5. on Competent Authorities.
III.5.A III.5.B	<ul style="list-style-type: none"> ➤ Point 6 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation. ➤ Point 9 of Article 3.2.1. on General considerations. ➤ Article 3.2.12. on Evaluation of the veterinary statutory body. ➤ Article 3.4.6. on Veterinarians and veterinary para-professionals.
III.6	<ul style="list-style-type: none"> ➤ Points 6 and 13 of Article 3.1.2. Fundamental principles of quality: Veterinary legislation / Communication. ➤ Points 2 and 7 of Article 3.2.3. on Evaluation criteria for the organisational structure of the Veterinary Services. ➤ Point 7 of Article 3.2.14. on Animal health and veterinary public health controls. ➤ Point 4 of Article 3.4.3. on General principles: Consultation.
IV.1	<ul style="list-style-type: none"> ➤ Points 6, 7 and 9 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation / General organisation / Procedures and standards. ➤ Points 1 and 2 of Article 3.2.7. on Legislation and functional capabilities: Animal health, animal welfare and veterinary public health / Export/import inspection. ➤ Point 6 of Article 3.2.14. on Veterinary legislation, regulations and functional capabilities. ➤ Chapter 3.4. on Veterinary legislation.
IV.2	<ul style="list-style-type: none"> ➤ Points 6, 7 and 9 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation / General organisation / Procedures and standards. ➤ Points 1 and 2 of Article 3.2.7. on Legislation and functional capabilities: Animal health, animal welfare and veterinary public health / Export/import inspection. ➤ Point 6 of Article 3.2.14. on Veterinary legislation, regulations and functional capabilities.
IV.3	<ul style="list-style-type: none"> ➤ Point 6 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation. ➤ Article 3.2.11. on Participation in OIE activities. ➤ Points 6 and 10 of Article 3.2.14. on Veterinary legislation, regulations and functional capabilities / Membership of the OIE.
IV.4	<ul style="list-style-type: none"> ➤ Points 6, 7 and 9 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation / General organisation / Procedures and standards. ➤ Point 2 of Article 3.2.7. on Legislation and functional capabilities: Export/import inspection. ➤ Sub-point b) of Point 6 of Article 3.2.14. on Veterinary legislation, regulations and functional capabilities: Export/import inspection. ➤ Chapter 5.2. on Certification procedures. ➤ Chapters 5.10. to 5.12. on Model international veterinary certificates.
IV.5	<ul style="list-style-type: none"> ➤ Points 6 and 7 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation / General organisation. ➤ Sub-point g) of Point 4 of Article 3.2.10. on Veterinary Services administration: Trade performance history. ➤ Chapter 5.3. on OIE procedures relevant to the Agreement on the Application of Sanitary and Phytosanitary Measures of the World Trade Organization.
IV.6	<ul style="list-style-type: none"> ➤ Point 6 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation. ➤ Points 1 and 3 of Article 3.2.8. on Animal health controls: Animal health status / National animal disease reporting systems. ➤ Chapter 5.1. on General obligations related to certification.
IV.7 IV.8	<ul style="list-style-type: none"> ➤ Point 6 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation. ➤ Chapter 4.3. on Zoning and compartmentalisation. ➤ Chapter 4.4. on Application of compartmentalisation.

Appendix 2: Glossary of terms

Terms defined in the Terrestrial Code that are used in this publication are reprinted here for ease of reference.

Animal

means a mammal, bird or bee.

Animal identification

means the combination of the identification and registration of an animal individually, with a unique identifier, or collectively by its epidemiological unit or group, with a unique group identifier.

Animal identification system

means the inclusion and linking of components such as identification of establishments/owners, the person(s) responsible for the animal(s), movements and other records with animal identification.

Animal welfare

means how an animal is coping with the conditions in which it lives. An animal is in a good state of welfare if (as indicated by scientific evidence) it is healthy, comfortable, well nourished, safe, able to express innate behaviour, and if it is not suffering from unpleasant states such as pain, fear and distress. Good animal welfare requires disease prevention and veterinary treatment, appropriate shelter, management, nutrition, humane handling and humane slaughter/killing. Animal welfare refers to the state of the animal; the treatment that an animal receives is covered by other terms such as animal care, animal husbandry, and humane treatment.

Border post

means any airport, or any port, railway station or road check-point open to international trade of commodities, where import veterinary inspections can be performed.

Compartment

means an animal subpopulation contained in one or more establishments under a common biosecurity management system with a distinct health status with respect to a specific disease or specific diseases for which required surveillance, control and biosecurity measures have been applied for the purposes of international trade.

Competent Authority

means the Veterinary Authority or other Governmental Authority of a Member, having the responsibility and competence for ensuring or supervising the implementation of animal health and welfare measures, international veterinary certification and other standards and recommendations in the Terrestrial Code and the OIE Aquatic Animal Health Code in the whole territory.

Disease

means the clinical and/or pathological manifestation of infection.

Emerging disease

means a new infection or infestation resulting from the evolution or change of an existing pathogenic agent, a known infection or infestation spreading to a new geographic area or population, or a previously unrecognised pathogenic agent or disease diagnosed for the first time and which has a significant impact on animal or public health.

Equivalence of sanitary measures

means the state wherein the sanitary measure(s) proposed by the exporting country as an alternative to those of the importing country, achieve(s) the same level of protection.

International veterinary certificate

means a certificate, issued in conformity with the provisions of Chapter 5.2., describing the animal health and/or public health requirements which are fulfilled by the exported commodities.

Laboratory

means a properly equipped institution staffed by technically competent personnel under the control of a specialist in veterinary diagnostic methods, who is responsible for the validity of the results. The Veterinary Authority approves and monitors such laboratories with regard to the diagnostic tests required for international trade.

Meat

means all edible parts of an animal.

Notifiable disease

means a disease listed by the Veterinary Authority, and that, as soon as detected or suspected, must be brought to the attention of this Authority, in accordance with national regulations.

Official control programme

means a programme which is approved, and managed or supervised by the Veterinary Authority of a country for the purpose of controlling a vector, pathogen or disease by specific measures applied throughout that country, or within a zone or compartment of that country.

Official Veterinarian

means a veterinarian authorised by the Veterinary Authority of the country to perform certain designated official tasks associated with animal health and/or public health and inspections of commodities and, when appropriate, to certify in conformity with the provisions of Chapters 5.1. and 5.2. of the Terrestrial Code.

Official veterinary control

means the operations whereby the Veterinary Services, knowing the location of the animals and after taking appropriate actions to identify their owner or responsible keeper, are able to apply appropriate animal health measures, as required. This does not exclude other responsibilities of the Veterinary Services e.g. food safety.

Risk analysis

means the process composed of hazard identification, risk assessment, risk management and risk communication.

Risk assessment

means the evaluation of the likelihood and the biological and economic consequences of entry, establishment and spread of a hazard within the territory of an importing country.

Risk management

means the process of identifying, selecting and implementing measures that can be applied to reduce the level of risk.

Sanitary measure

means a measure, such as those described in various Chapters of the Terrestrial Code, destined to protect animal or human health or life within the territory of the OIE Member from risks arising from the entry, establishment and/or spread of a hazard.

Surveillance

means the systematic ongoing collection, collation, and analysis of information related to animal health and the timely dissemination of information so that action can be taken.

Terrestrial Code

means the OIE Terrestrial Animal Health Code.

Veterinarian

means a person with appropriate education, registered or licensed by the relevant veterinary statutory body of a country to practice veterinary medicine/science in that country.

Veterinary Authority

means the Governmental Authority of an OIE Member, comprising veterinarians, other professionals and para-professionals, having the responsibility and competence for ensuring or supervising the implementation of animal health and welfare measures, international veterinary certification and other standards and recommendations in the Terrestrial Code in the whole territory.

(Veterinary) legislation

means the collection of specific legal instruments (primary and secondary legislation) required for the governance of the veterinary domain.

Veterinary para-professional

means a person who, for the purposes of the Terrestrial Code, is authorised by the veterinary statutory body to carry out certain designated tasks (dependent upon the category of veterinary para-professional) in a territory, and delegated to them under the responsibility and direction of a veterinarian. The tasks for each category of veterinary para-professional should be defined by the veterinary statutory body depending on qualifications and training, and according to need.

Veterinary Services

means the governmental and non-governmental organisations that implement animal health and welfare measures and other standards and recommendations in the Terrestrial Code and the OIE Aquatic Animal Health Code in the territory. The Veterinary Services are under the overall control and direction of the Veterinary Authority. Private sector organisations, veterinarians, veterinary paraprofessionals or aquatic animal health professionals are normally accredited or approved by the Veterinary Authority to deliver the delegated functions.

Veterinary statutory body

means an autonomous regulatory body for veterinarians and veterinary para-professionals.

Wildlife

means feral animals, captive wild animals and wild animals.

Zoonosis

means any disease or infection which is naturally transmissible from animals to humans

Appendix 3: Timetable of the mission, sites/ facilities visited and contact persons met or interviewed

13 March 2017: Opening meeting: CFIA Ottawa

Name	Title/Position	Organization	Branch (CFIA)
Paul Glover	President	Canadian Food Inspection Agency	
Harpreet Kochhar	CVO & OIE Delegate	Canadian Food Inspection Agency	Operations
	Associate Vice President, Operations		
Martine Dubuc	Assistant Deputy Minister	Environment & Climate Change Canada (ECCC)	
Mary Jane Ireland	Director General	Health Canada (HC)	
Shiva Ghimire	Team Leader, Veterinary Drugs Directorate	Health Canada (HC)	
Primal Silva	Acting Vice President	Canadian Food Inspection Agency	Science
Jaspinder Komal	Executive Director, Animal Health Directorate	Canadian Food Inspection Agency	Policy and Programs
Dhanda Jagvinder	Senior Director, Integrated Inspection Delivery	Canadian Food Inspection Agency	Operations
Tony Ritchie	Executive Director, Inspection Support	Canadian Food Inspection Agency	Operations
Andrea Ellis	Veterinary Science Advisor to the OIE Delegate	Canadian Food Inspection Agency	Science
Ian Alexander	Executive Director, Animal Health Directorate	Canadian Food Inspection Agency	Science
Heather Arbuckle	Director, Operational Guidance and Expertise - Animal, Inspection Support	Canadian Food Inspection Agency	Operations
Mohit Baxi	Director, Animal Import/Export Division, Animal Health Directorate	Canadian Food Inspection Agency	Policy and Programs
Debbie Barr	Director, Animal Health, Welfare & Biscuity Division, Animal Health Directorate	Canadian Food Inspection Agency	Policy and Programs
Aline Dimitri	Executive Director / Deputy Chief Food Safety Officer, Food Safety Science Directorate	Canadian Food Inspection Agency	Policy and Programs
Samira Belissacoui	Senior Staff Veterinarian - Imports, Import/Export Live Animals and Germplasm Section, Animal Import/Export Division, Animal Health Directorate	Canadian Food Inspection Agency	Policy and Programs
Claude Turcotte	National Manager, Animal Health Risk Assessment, Animal Health Science Division, Animal Health Science Directorate	Canadian Food Inspection Agency	Science
Carri Ann Candusso	Senior HR Project Manager, Strategic Human Resources Management Directorate	Canadian Food Inspection Agency	Human Resources
Hélène Gagnon	A/National Manager - Accredited Veterinarians Program, Animal Health - Import/Export & Feed	Canadian Food Inspection Agency	Operations
Richard Arsenault	Executive Director, Domestic Food Safety Systems & Meat Hygiene Directorate	Canadian Food Inspection Agency	Policy and Programs
Boubacar Sidibe	Veterinary Program Specialist, Program Design and Modernization, Meat Hygiene Division, Domestic Food Safety Systems & Meat Hygiene	Canadian Food Inspection Agency	Policy and Programs
Ingrid Van der Linden	PVS Coordinator & Senior Advisor to the CVO	Canadian Food Inspection Agency	Office of the Chief Veterinary Officer
André Vallières	PVS Coordinator & Epidemiologist and Scientific Advisor	Canadian Food Inspection Agency	Science
Patricia Nsonwah	PVS Administrative Project Officer	Canadian Food Inspection Agency	Science
By Teleconference:		Province	
Jane Pritchard	Chief Veterinary Officer	British Columbia	
Keith Lehman	Chief Veterinary Officer	Alberta	
Betty Aithouse	Chief Veterinary Officer	Saskatchewan	
Megan Bergman	Chief Veterinary Officer	Manitoba	
Leslie Woodcock	Chief Veterinary Officer	Ontario	
Hélène Trépanier	Chief Veterinary Officer	Quebec	
Carolyn Sanford	Chief Veterinary Officer	Prince Edward Island	
Laura Roger	Chief Veterinary Officer	Newfoundland	
Jim Goltz	Chief Veterinary Officer	New Brunswick	
Catherine Graham	Veterinary Pathologist	Nova Scotia	
Christa Arsenault	Lead Veterinarian- Provincial Biosecurity	Ontario	
Others on the line - not recorded			

13-16 March & 27 March 2017: Ottawa meetings

Session	OIE expert	Presenter / Subject Matter Expert	Title / Position
		Ⓞ = participated by phone	All positions are within the CFIA unless otherwise stated
4. Overview of the organization of CFIA	All	Harpreet Kochhar Jaspinder Komal Heather Arbuckle	Associate Vice President/CVO, Operations Branch Executive Director and Deputy Chief Veterinary Officer Director Operational Guidance and Expertise
5a. Overview of structure & activities, including compliance verification and enforcement actions	All	Heather Arbuckle	Director, Operational Guidance and Expertise
		Evelyn Vachon Ⓞ Balroop Nanhar	Acting National Operations Manager HACCP Program Specialist
5b. Compliance verification system (CVS)	All	Jagvinder Dhandra	Senior Director, Integrated Inspection Delivery
6. Animal Surveillance Activities	FG, SM	Cheryl James Julie Pare Farouk El Allaki Bachir Djilali Tim Pasma Luc Bergeron	Senior Advisor Surveillance, Epidemiologist Epidemiologist & Scientific Advisor Senior Staff Veterinarian (OMAFRA, CAHSS Director) (MAPAQ, CAHSS Director)
7. Engagement in International Organizations	FG, SM	Andrea Ellis Reem Barakat Kristina Hartling	Veterinary Science Advisor to the OIE Delegate Deputy Director A/ Deputy Director
8a. Overview of veterinarians and technicians	JW, HS	Carri-Ann Candusso Kevin Urbanic Todd K. Smith John Copps	Senior HR Project Officer Area Chief Inspector Inspection Manager Director, NCFAD
8b. Training	JW, HS	Jonathan Morgan Guy Gravelle	Manager, Professional and Technical Development Manager – Planning and Coordination Office
9. Canadian Veterinary Medical Association (CVMA)	JW, HS	Jost Am Rhyh Hélène Gagnon Jonathan Page Jack Wilson Sue Hunt Baljit Singh	Chief Executive Officer, Canadian Veterinary Medical Association A/National Manager - Accredited Veterinarians Program National Manager, Operations Emergency Planning and Preparedness National Examination Board (NEB) Chair Chair - Veterinary Technician Program Accreditation Committee CVMA Representative on the AVMA's Council on Education
11. Accredited veterinarian process	JW, HS	Hélène Gagnon	A/National Manager - Accredited Veterinarians Program
12. Communication and Public Affairs Branch	JW, FG	Andrea Moritz Josée Sirols	Director, Program Communications Division Senior Communication Advisor
13. Financial and Physical Resources	JW, FG	Renée Champigny David Svab Pauline Farwell Michelle Morrow	Director, Resource Management Director, Real Property & Environmental Management Manager, Planning & Reporting Acting Senior Environmental Analyst, AAFC
14. Wildlife	HS	Lesley Howes Sharon Calvin	Environment and Climate Change Canada Senior Veterinarian Science Specialist, Animal Health Risk Assessment
15. Identification and traceability	JW, FG	Eric Aubin Mark Burgham Elizabeth Corrigan Marie-Andrée Frédette Emery Leger Sandra Stephens Vanessa Jayne Taylor	National Manager, Livestock Traceability Program Director, Program Policy Integration Senior Regulatory and Policy officer National Operations Veterinary Specialist National Operations Manager National Operations Veterinary Specialist Policy Officer, Traceability Section
16. Policy Programs Branch (PPB) - Domestic Animal Health Programs	JW, SM	Debbie Barr Amy Snow Penny Greenwood Con Kiley Abed Harchaoui	Director, Animal Health, Welfare & Biosecurity Division National Manager Foreign Animal Disease Section National Manager Domestic Disease Control Section National Manager Animal Welfare, Biosecurity and Assurance Programs Senior Staff Veterinarian, Foreign Animal Disease Section
17. Emergency Management	JW, SM	Lorne Jordan Brian Radey Sylvia Flemming Abed Harchaoui	Chief Biosecurity Specialist, Biosecurity and Assurance Programs Section Manager, Emergency Management Director, National Emergency Preparedness and Issues Management Senior Staff Veterinarian, Foreign Animal Disease Section
18. PPB Animal Health Import / Export	HS, SM	Mohit Baxi, Director Alain Bélanger Samira Belaisaoui Faiza Akil Evelyn Vachon Ⓞ Alain Moreau Ⓞ Connie Rajzman Hélène Gagnon Suminder Sani Anne Holmes Claude Turcotte Pascale Aubry Nacereddine Kafidi Faiza Akil Natalie Tessier	Director, Animal Import/Export Program Specialist, Animal Import/Export Senior Staff Veterinarian, Animal Import/Export Veterinary - Animal Health Program Specialist, Import/Export Animal Products and By-Products Section Acting National Operations Manager, Animal Health - Import/Export & Senior Veterinarian, Import/Export Live Animals and Germplasm Section Senior Veterinarian Officer, Import/Export Live Animals and Germplasm A/National Manager - Accredited Veterinarians Program National Manager, Import/Export Animal Products and By-Products Section Veterinary Officer, Import/Export Live Animals and Germplasm Section A/National Manager, Animal Health Risk Assessment Risk Assessment Officer, Animal Health Risk Assessment Senior Export Officer, Import/Export Animal Products and By-Products Veterinary - Animal Health Program Specialist, Import/Export Animal Products and By-Products Section Veterinarian, Import/Export Animal Products and By-Products Section

19. Risk analysis	JW, SM	Claude Turcotte Sharon Calvin Pascale Aubry Alain Bélanger Samira Belaisaoui Paul MacIsaac	A/National Manager Animal Health Risk Assessment Senior Veterinarian Science Specialist, Animal Health Risk Assessment Risk Assessment Officer, Animal Health Risk Assessment Program Specialist, Animal Import/Export Senior Staff Veterinarian, Animal Import/Export Veterinary Science Specialist, Animal Health Risk Assessment
20a. CFIA - Veterinary Biologics	HS, FG	Surinder Saini Sheila Tan Oksana Yarosh	National Manager, Canadian Centre for Veterinary Biologics Senior Veterinary Biologics Evaluator Senior Veterinary Biologics Evaluator
20.b. Health Canada - Veterinary Drugs Directorate	HS, FG	Shiva Ghimire Christine Miller Zerlina Naczynski Paul Gustafson @	Health Canada, Veterinary Drugs Directorate Health Canada, Veterinary Drugs Directorate Veterinary Biologics Evaluator, Canadian Centre for Veterinary Biologics Health Canada, Health Product Inspection and Licensing
21. Animal Feed	HS, FG	Sergio Tolusso Tony Van Vonderen Jennifer Kormos	National Manager, Feed Program Coordination and Outreach Section National Animal Feed Program Coordinator Senior Feed Toxicologist, Risk Analysis and Toxicology Section
22A. Domestic Food Safety Systems & Meat Hygiene	JW, FG	Reine Patenaude Barbara Scherzinger Lorne Waldner Sukhpal S Deol Balroop Nanhar Fred Jamieson	Program Manager - Meat & Poultry Products Veterinary Program Officer, Program Design and Modernization Veterinary Program Officer, Program Design and Modernization Senior Staff Veterinarian, Program Design and Modernization HACCP Program Specialist, National Inspection Division, Operation Branch Food Safety Recall Specialist, Food Safety Investigations and Recalls
22B. Food Import Export and Consumer Protection Directorate	JW, FG	Gary Little Daniel Burgoyne	National Manager, Food Systems Evaluation National Manager, Food Imports
23. Laboratories	HS, SM	Primal Silva Ian Alexander	Acting Vice President, Science Branch Executive Director, Animal Health Science Directorate
24. Research Overview	HS, SM	Jose Lopez	National Manager Animal Health Research & Partnerships Division
25. Public Health Zoonoses	HS, SM	Sharon Calvin Claude Turcotte @ Abed Harchaoui @ Connie Rajzman @ Jennifer Gallant John Copps @ John Pasick @ Julie Paré Christine Fehner-Gardiner @ Joanne Tataryn @ Michael Drebot @ Nobel Varughese @	Senior Veterinarian Science Specialist, Animal Health Risk Assessment A/National Manager Animal Health Risk Assessment Senior Staff Veterinarian, Foreign Animal Disease Section Senior Veterinary Officer, Import/Export Live Animals and Germplasm National Manager, Biohazard, Containment and Safety Director NCFAD National Veterinary Science Authority, Chief Science Operating Officer Surveillance Epidemiologist, Terrestrial Animal Health Epidemiology & Surveillance Section Research Scientist, Ottawa Laboratory (Fallowfield) - Rabies Public Health Agency of Canada, Outbreak Management Division Director, Zoonotic Diseases and Special Pathogens, National Microbiology Laboratory Public Health Agency of Canada, Centre For Food-Borne, Environmental And Zoonotic Infectious Diseases
26. Antimicrobial use and resistance	HS, SM	Aline Dimitri Sam Mohajer	Executive Director / Deputy Chief Food Safety Officer Antimicrobial Resistance Science Leader, Antimicrobial Resistance Task Team, Food Safety Science Directorate
28. Agriculture and Agri-Food Canada (AAFC)	All	Nathalie Durand Nathalie Doré Rebeka Tekle Patti Negrave David Trus Andee Fische	Director, Americas Division, Market and Industry Services Branch, AAFC Senior Trade Policy Analyst, Technical Trade Policy Division, AAFC Agriculture and Agri-Food Canada Agriculture and Agri-Food Canada Agriculture and Agri-Food Canada Agriculture and Agri-Food Canada
Canadian Pork Council	JW, FG	John Ross	Executive Director, Canadian Pork Council
National Farmed Animal Health and Welfare Council (by teleconference)	JW, FG	Ed Empringham Hélène Trépanier Megan Bergman Jim Fairles	Secretariat, National Farmed Animal Health and Welfare Council OVO, Ministère de l'Agriculture, des Pêcheries et de l'Alimentation OVO Manitoba Agriculture Canadian Veterinary Medical Association
Canadian Bison Association and Canadian Sheep Federation (by teleconference)	HS, SM	Terry Kremeniuk	Executive Director, Canadian Bison Association
Pork Value Round Table (PVCRT) (by teleconference)	HS, SM	Corlena Patterson Jorge Corea Dave Penner Martin Bonneau	Executive Director, Canadian Sheep Federation Vice-President, Market Access and Technical Affairs, Canadian Meat Council Swine Integrator Veterinary consultant
30. Legislative Mandate	JW	Tracey Boyd-Brown Ronna Reddick	Director, Regulatory, Legislative and Economic Affairs Division Manager, Regulatory Affairs Section
Human Resources	SM	Carri-Ann Candusso	Senior HR Project Manager
Collaboration and communication with PHAC	FG, SM	Sharon Calvin	Senior Veterinarian Science Specialist
Databases (by teleconference)	FG	Balroop Nanhar Harold Kloeze	HACCP Program Specialist Risk Analyst and Scientific Advisor
National Emergency Response Centre (NEOC) visit	JW	Abed Archaoui	Senior staff veterinarian, Foreign Animal Disease
Yukon Territory (by teleconference)	JW	Mary VanderKop	Yukon Chief Veterinary Officer

16 – 25 March 2017: West itinerary

Name	Title/Position	Organization and Branch
West (Ontario, Manitoba, Saskatchewan, Alberta and British Columbia)		
John Weaver (JW)	PVS Expert	OIE
Herbert Schneider (HS)	PVS Expert	OIE
Ingrid Van der Linden (IVL)	PVS coordinator in Canada	Canadian Food Inspection Agency
Alex McIsaac (AM)	CFIA regional lead for PVS - West	Canadian Food Inspection Agency
16/3/17		
Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA), Guelph - JW, HS, IVL		
Katherine Hoffman	Animal Health Coordinator	Animal Health and Welfare Branch - OMAFRA
Cathy Furness	Lead Veterinarian - Preparedness & Planning	Animal Health and Welfare Branch - OMAFRA
Christa Arseneault*	Lead Veterinarian - Provincial Biosecurity	Animal Health and Welfare Branch - OMAFRA
Christine Coverdale	Coordinator Veterinary Services	Animal Health and Welfare Branch - OMAFRA
Greg Worley	Program Manager - Veterinary Services Unit	Animal Health and Welfare Branch - OMAFRA
Heather Harrison*	Program Manager - Animal Health & Welfare Programs & Issues Unit	Animal Health and Welfare Branch - OMAFRA
Janet Alsop	Lead Veterinarian - Regulatory Response	Animal Health and Welfare Branch - OMAFRA
Janiffer Van Gerwen	Animal Health Coordinator	Animal Health and Welfare Branch - OMAFRA
Jocelyn Jensen	Veterinarian - Disease Prevention Small Ruminants & Beef	Animal Health and Welfare Branch - OMAFRA
Lauren Carter	Administrative Services Representative	Animal Health and Welfare Branch - OMAFRA
Leslie Woodcock	Director, Animal Health & Welfare Branch, Chief Veterinarian for Ontario	Animal Health and Welfare Branch - OMAFRA
Maureen Anderson	Lead Veterinarian - Animal Health & Welfare	Animal Health and Welfare Branch - OMAFRA
Tania Sempel	Animal Health Coordinator	Animal Health and Welfare Branch - OMAFRA
Tim Pasma	Lead Veterinarian - Epidemiology	Animal Health and Welfare Branch - OMAFRA
Luolca Rosca	Regional Veterinarian	Food Inspection Branch - OMAFRA
Michael Eastment	Residue Control Officer	Food Inspection Branch - OMAFRA
Steve Palmer	Program Manager, Veterinary Inspection & Audit Unit	Food Inspection Branch - OMAFRA
Troy Jenner	Program Manager, Food Safety Science Unit	Food Inspection Branch - OMAFRA
Betty Summerhayes	Technology Transfer Specialist	Agriculture Development Branch - OMAFRA
Grant Makie	Director, Animal Health Laboratory	University of Guelph
Elizabeth King	Quality Assurance, Agriculture and Food Laboratory	University of Guelph
Greg Robinson	Manager, Inter-Governmental Affairs, CFIA	Canadian Food Inspection Agency
Balroop Nanhar**	HACCP Program Specialist, NID, CFIA	Canadian Food Inspection Agency
Charanjit Talwar**	District Veterinarian, CFIA	Canadian Food Inspection Agency
* accompanied the OIE mission for all visits in Guelph area		
** accompanied the OIE mission for all visits in ON		
Provincial Abattoir, Drayton - JW, HS, IVL		
Mark Mitchell	Area Manager, Meat Inspection Program, OMAFRA	Ontario Ministry of Agriculture, Food and Rural Affairs
Chris Wallace	Meat hygiene officer, OMAFRA	Ontario Ministry of Agriculture, Food and Rural Affairs
Dalmer Martin	Provincial Abattoir Operator	Provincial Abattoir, Drayton
Luolca Rosca	Regional Veterinarian, OMAFRA	Ontario Ministry of Agriculture, Food and Rural Affairs
Sheep/Goat Farm, East Garafraxa, Grand Valley - JW, HS, IVL		
Heather Little	Sheep Flock Owner and Producer	Sheep Farm, East Garafraxa, Grand Valley
Jocelyn Jensen	Veterinarian, Disease Prevention Small Ruminants & Beef, OMAFRA	Ontario Ministry of Agriculture, Food and Rural Affairs
17/3/17		
CFIA regional and district office, Guelph - JW, HS, IVL		
Kevin Urbanic	Area Chief Inspector, CFIA	Canadian Food Inspection Agency
Kent Craig	A/Regional Chief Inspector, CFIA	Canadian Food Inspection Agency
Todd K Smith	Inspection Manager, CFIA	Canadian Food Inspection Agency
Doug Andrews	Inspection Manager, CFIA	Canadian Food Inspection Agency
Sukhmandar Bains	Inspection Manager, CFIA	Canadian Food Inspection Agency
Fatima Hussein	Acting Veterinarian in charge, Guelph District Office, CFIA	Canadian Food Inspection Agency
David Orr	Veterinary Officer, Guelph District Office, CFIA	Canadian Food Inspection Agency
Armaan Sandhu	Veterinary Officer, Guelph District Office, CFIA	Canadian Food Inspection Agency
Hardip Brar	Veterinary Officer, Guelph District Office, CFIA	Canadian Food Inspection Agency
Semex (AI Centre), 5653 Hwy 6 North Guelph - JW, HS, IVL		
David Orr	Veterinarian CFIA, Guelph District Office, CFIA	Canadian Food Inspection Agency
Robert McRae	CEO/Vice President, Operations, Semex	Semex
Susan Dunk	Director, Operations, Semex	Semex
Tom Kroetsch	Director, Laboratory & Quality Control, Semex	Semex
Patrick Blondin	Director of Embryo Operations, Boviteq & Director of Research & Development, Semex	Boviteq & Semex
Francois-Xavier Grand	Veterinary Specialist, Semex	Semex
Canadian Animal Health Institute (CAHI), Guelph - JW, HS, IVL		
Jean Skiothlodi	President, Canadian Animal Health Institute	Canadian Animal Health Institute
Colleen McElwain	Program Director, Canadian Animal Health Institute	Canadian Animal Health Institute
Randy Bagg	Director Regulatory Affairs, Elanco Canada	Elanco Canada
Jackie Gallant	President, Gallant Custom Laboratories	IDT Biologika and Gallant Custom Laboratories
Brian Thomas	Country Manager, CEVA Animal Health	CEVA Animal Health
Rick Culbert	Chief Executive Officer, Veterinary Purchasing Company Limited (distributor)	Veterinary Purchasing Company Limited
Canadian Integrated Program for Antimicrobial Resistance Surveillance (CIPARS/PHAC), Guelph - JW, HS, IVL		
David Leger	Veterinary Epidemiologist, leads farm component of CIPARS	Public Health Agency of Canada
Carolee Carson	Veterinary Epidemiologist, Risk assessor, leads animal AMU surveillance component of CIPARS	Public Health Agency of Canada
Rebecca Irwin	Veterinary Epidemiologist, Founder and head of CIPARS	Public Health Agency of Canada
18/3/17		
Dairy Farm visit, New Hamburg - JW, HS, IVL		
Jeff Sommers	Private Veterinarian Practitioner, Milverton- Wellesley Veterinary Clinic	Milverton- Wellesley Veterinary Clinic
Dennis Wagler	Owner, Claybrook Dairy Farm	Claybrook Dairy Farm
Wayne Wagler	Owner, Claybrook Dairy Farm	Claybrook Dairy Farm
Betty Ann Wagler	Owner, Claybrook Dairy Farm	Claybrook Dairy Farm
David Orr	Veterinarian CFIA, Guelph DO	Canadian Food Inspection Agency
Sauna Thomas	Veterinary Student, Ontario Veterinary College	Ontario Veterinary College

Mixed animal practice, Milverton-Wellesley Veterinary Clinic Wellesley - JW, HS, IVL		
Jeff Sommers	Private Veterinary Practitioner, Milverton-Wellesley Veterinary Clinic	Milverton-Wellesley Veterinary Clinic
David Orr	Veterinarian, Guelph District Office, CFIA	Canadian Food Inspection Agency
Shauna Thomas	Veterinary Student, Ontario Veterinary College	Ontario Veterinary College
Mississauga District Office and Toronto International Airport - HS		
Misha Soless	District Veterinarian, Mississauga, CFIA	Canadian Food Inspection Agency
Sukhmandar Bains	Inspection Manager, CFIA	Canadian Food Inspection Agency
Beverley Jefferys	Superintendent, Canadian Border Services Agency	Canadian Border Services Agency
Ryan Stennett	Air Canada Manager	Air Canada
Ryan King	Air Canada Manager	Air Canada
Mississauga District Office - National Import Service Centre (NISC) - JW & IVL		
Stella Danilyan	A/Manager, National Import Service Centre (NISC), CRA	Canadian Food Inspection Agency
Andrea Manarang	Supervisor, NISC	Canadian Food Inspection Agency
19/3/17		
Travel to Calgary		
20/3/17		
CFIA Western Area Office - JW, HS, IVL		
Kelvin Mathuk	Area Director General, CFIA	Canadian Food Inspection Agency
Christa Coetsers *	National Operations Veterinary Specialist, CFIA	Canadian Food Inspection Agency
John Muggaburg	District Veterinarian, CFIA	Canadian Food Inspection Agency
Ravinder Arora	District Veterinarian, CFIA	Canadian Food Inspection Agency
Noel Ritson-Bennett	Veterinary Program Officer/Analyst, CFIA	Canadian Food Inspection Agency
Tammy Johnson	Area Planning Tracking and Reporting Officer, CFIA	Canadian Food Inspection Agency
Keith Lehman	CVO, Alberta Agriculture and Forestry	Alberta Agriculture and Forestry
Jagdish Patel*	Director, Animal Health Section, Alberta Agriculture and Forestry	Alberta Agriculture and Forestry
* accompanied JW for all visits in AB		
Canadian Cattle Identification Agency (CCIA) and Canadian Cattleman's Association (CCA) at CCA office - HS & IVL		
John Muggaburg	District Veterinarian, CFIA	Canadian Food Inspection Agency
Ravinder Arora	District Veterinarian, CFIA	Canadian Food Inspection Agency
Keith Lehman	CVO, Alberta Agriculture and Forestry	Alberta Agriculture and Forestry
Rob McNabb	General Manager, Canadian Cattleman's Association (CCA)	Canadian Cattleman's Association
Anne Brunet-Burgess	General manager, Canadian Cattle Identification Agency (CCIA)	Canadian Cattle Identification Agency
West Coast Reduction - Rendering Plant (WCR) - JW		
Harpal Singh	Feed Specialist Inspector, CFIA	Canadian Food Inspection Agency
Ravinder Arora	District Veterinarian, CFIA	Canadian Food Inspection Agency
Paul Pazzi	Operations manager, WCR	West Coast Reduction Ltd
Rob Wilkinson	Sales and marketing, WCR	West Coast Reduction Ltd
Calgary Stockyard, Strathmore - JW		
Mike Tucker	US Brand Inspector	Calgary Stockyard
Kyle Graham	US Brand Inspector	Calgary Stockyard
Soderglen Farms - Cow Calf Operator and Veterinary Agri-Health Services - HS & IVL		
Keith Lehman	CVO - Alberta Agriculture and Forestry	Alberta Agriculture and Forestry
Michael Jaliniski)	Private Veterinary Practice, Veterinary Agri-Health Services (VAHS)	Veterinary Agri-Health Services
Kyle Johnson	Cattle Manager, Soderglen Farms	Soderglen Farms
21/3/17		
Cargill Est. 93 – Federal/Export Abattoir (Beef), High River - JW		
Satnam Dhotar	CFIA Regional Veterinarian Officer, CFIA	Canadian Food Inspection Agency
Brian Karacic	Veterinarian in Charge, CFIA	Canadian Food Inspection Agency
Ryan Clisdeil	Food Safety Quality Regulatory (FSQR) Manager, Cargill	Cargill Limited
Chinook Feeders and Feedlot Health Management Services, High River - JW		
John Muggaburg	District Veterinarian, CFIA	Canadian Food Inspection Agency
Ravinder Arora	District Veterinarian, CFIA	Canadian Food Inspection Agency
Mike Pollard	Feedlot Manager	Chinook Feeders Ltd
Kant Fenton	Feedlot Veterinarian	Feedlot Health Management Services, Ltd.
Kastelen Sausage and Fine Meats - Provincial slaughter/packer facility - HS & IVL		
Salam Shoukath Ali	District Veterinarian, CFIA	Canadian Food Inspection Agency
Keith Lehman	CVO, Alberta Agriculture and Forestry	Alberta Agriculture and Forestry
John Kastelen	Owner, Kastelen Sausage and Fine Meats	Kastelen Sausage and Fine Meats
Bison producer & Alberta Bison Producer Association - HS & IVL		
Tammy Dalzell	CFIA Veterinarian	Canadian Food Inspection Agency
Keith Lehman	CVO - Alberta Agriculture and Forestry	Alberta Agriculture and Forestry
Steven Lundy	Owner, Rangeland Canadian Bison & Director, Bison Producers of Alberta	Rangeland Canadian Bison
Elk producer - Sandy Hills Elk Ranch - HS & IVL		
Salam Shoukath Ali	District Veterinarian, CFIA	Canadian Food Inspection Agency
Keith Lehman	CVO, Alberta Agriculture and Forestry	Alberta Agriculture and Forestry
Connie Suetter	Owner, Sandy Hills Elk Ranch, and Chair of the Alberta Elk Commission	Sandy Hills Elk Ranch
22/3/17		
Animal Health and Assurance Branch of Alberta Agriculture and Forestry (AAF), Office of the Chief Provincial Veterinarian, Edmonton - HS & IVL		
Salam Shoukath Ali	District Veterinarian, CFIA	Canadian Food Inspection Agency
Keith Lehman	CVO, Alberta Agriculture and Forestry	Alberta Agriculture and Forestry
Jagdish Patel	Director, Animal Health Section, Alberta Agriculture and Forestry	Alberta Agriculture and Forestry
Brad Andras	Director, Emergency Management Services	Alberta Agriculture and Forestry
Doug Forge	Emergency Management Officer	Alberta Agriculture and Forestry
Valerie Bohaychuk	Director, of Agri-Food Laboratories Section	Alberta Agriculture and Forestry
Mark Hicks	Manager, Biology Unit	Alberta Agriculture and Forestry
Natasha Stashko	Director, Safe Food Section	Alberta Agriculture and Forestry
Jeff Stewart	Executive Director, Food Safety Branch	Alberta Agriculture and Forestry
Michelle Follenstee	Manager, Animal Welfare Section	Alberta Agriculture and Forestry
Janifer Hannesson	Livestock Traceability Section Project Manager	Alberta Agriculture and Forestry
Allan Pallatier	Director, Livestock Traceability Section	Alberta Agriculture and Forestry
Don Campbell	Manager, Investigation Unit	Alberta Agriculture and Forestry
Jaclyn Schmidt	Director, Legislative Planning and Policy Implementation	Alberta Agriculture and Forestry
Susan Johnstone	Senior Manager, Policy and Regulations	Alberta Agriculture and Forestry

Canadian Council of Veterinary Registrars (CCVR), Alberta Veterinary Medical Association (AVMA) and Alberta Association of Animal Health Technologists (AAAHT), Edmonton - HS & IVL		
Salam Soukath All	District Veterinarian, CFIA	Canadian Food Inspection Agency
Keith Lehman	CVO, Alberta Agriculture and Forestry	Alberta Agriculture and Forestry
Duane Landals	Senior Advisor, Alberta Veterinary Medical Association (ABVMA)	
Phil Buote	Deputy Registrar, Alberta Veterinary Medical Association (ABVMA) & Representing the Canadian Council of Veterinary Registrars (CCVR)	Alberta Veterinary Medical Association
Fenny Staffen	Vice President, Alberta Association of Animal Health Technologists (AAAHT)	Alberta Association of Animal Health Technologists
Nicole Olivier	Treasurer, Alberta Association of Animal Health Technologists (AAAHT)	Alberta Association of Animal Health Technologists
Western College of Veterinary Medicine (WCVM), Saskatoon - JW & AM*		
Douglas Freeman	Dean, WCVM	Western College Veterinary Medicine
Chris Clark	Academic Dean, WCVM	Western College Veterinary Medicine
Uz Shead	Small Animal Clinical Sciences, WCVM	Western College Veterinary Medicine
John Campbell	Department Head, Large Animal Clinical Sciences, WCVM	Western College Veterinary Medicine
Tasha Epp	Large Animal Clinical Sciences, WCVM	Western College Veterinary Medicine
Andy Allen	Veterinary Pathology, WCVM	Western College Veterinary Medicine
Ralph Hildebrandt	Chief Financial Officer, WCVM	Western College Veterinary Medicine
Betty Althouse	CVO, Saskatchewan	Saskatchewan Ministry of Agriculture
* Alex Mclsaac (AM) accompanied the OIE mission for all visits in SK and MB		
Canadian Wildlife Health Cooperative (CWHC) and Park Canada, Saskatoon - JW & AM		
Craig Stephen	Chief Executive Officer, CWHC	Canadian Wildlife Health Cooperative
Patrick Zimmer	Chief Operating Officer, CWHC	Canadian Wildlife Health Cooperative
Todd Shury	Parks Canada Wildlife Veterinarian & Adjunct Professor, Western College Veterinary Medicine	Parks Canada
Betty Althouse	CVO, Saskatchewan	Saskatchewan Ministry of Agriculture
Laboratory – Prairie Diagnostics Services (PDS), Saskatoon - JW and AM		
Carl Johnson	Chief Executive Officer, PDS	Prairie Diagnostic Services Inc.
Gail Krohn	QA Manager, PDS	Prairie Diagnostic Services Inc.
Lola Ridgway	RVT Necropsy Supervisor, PDS	Prairie Diagnostic Services Inc.
Dale Godson	Veterinary Microbiology, PDS	Prairie Diagnostic Services Inc.
Yanyun Huang	Pathologist, PDS	Prairie Diagnostic Services Inc.
Anatolij Trokhymchuk	Disease Surveillance, PDS	Prairie Diagnostic Services Inc.
Molra Kerr	Veterinary Clinical Pathology, PDS	Prairie Diagnostic Services Inc.
Musangu Ngaleka	Veterinary Microbiology, PDS	Prairie Diagnostic Services Inc.
Gloria Pauly	Supervisor Clinical Pathology, PDS	Prairie Diagnostic Services Inc.
Karen Moline	Supervisor Veterinary Microbiology, PDS	Prairie Diagnostic Services Inc.
Betty Althouse	CVO, Saskatchewan	Saskatchewan Ministry of Agriculture
Veterinary Technician College - Saskatoon Polytech - JW & AM		
Susan Thiessen	RVT Program head	Saskatchewan Polytechnic
Bernice Ruf	RVT Instructor	Saskatchewan Polytechnic
Cemaline Tsang	DVM - Instructor	Saskatchewan Polytechnic
Jonathon Naylor	DVM - Instructor	Saskatchewan Polytechnic
Betty Althouse	CVO, Saskatchewan	Saskatchewan Ministry of Agriculture
Saskatchewan Veterinary Medical Association (SVMA), Saskatoon - JW & AM		
Judy Currie	Registrar, SVMA	Saskatchewan Veterinary Medical Association
Lorraine Serlie nko	Admin Coordinator, SVMA	Saskatchewan Veterinary Medical Association
23/3/17		
Office of the Provincial CVO, BC Animal Health Center (laboratory) and College of Veterinarians of BC, Abbotsford - HS, IVL		
Jane Pritchard	CVO, Executive Director, Ministry of Agriculture (MoA), Abbotsford	British Columbia Ministry of Agriculture
Robert Cooper*	Veterinary Program Specialist, Animal Health Programs, Western Area, CFIA	Canadian Food Inspection Agency
Brian Radke	Public Health Veterinarian, MoA	British Columbia Ministry of Agriculture
Nancy DelWeth	Veterinary Epidemiologist, MoA	British Columbia Ministry of Agriculture
Tommy Joseph	Veterinary Virologist, MoA	British Columbia Ministry of Agriculture
Tony Redford	Avian Pathologist, MoA	British Columbia Ministry of Agriculture
Chelsea Himsworth	Veterinary Pathologist, MoA	British Columbia Ministry of Agriculture
Ken Roblesky	Provincial Meat Inspection Veterinarian, MoA	British Columbia Ministry of Agriculture
Glenna MacGregor	Veterinary Pathologist, MoA	British Columbia Ministry of Agriculture
Ann Britton	Veterinary Pathologist, MoA	British Columbia Ministry of Agriculture
Hain Snyman	Fish Pathologist, MoA	British Columbia Ministry of Agriculture
Clayton Botkin	Poultry Specialist, MoA	British Columbia Ministry of Agriculture
Erin Zabek	Unit Manager Microbiology AHC, MoA	British Columbia Ministry of Agriculture
Paul van Westendorp	Provincial Apiculturist, MoA	British Columbia Ministry of Agriculture
Erin Cuthbert	Provincial Dairy Inspector, MoA	British Columbia Ministry of Agriculture
* accompanied the OIE mission for all visits in BC		
National Center for Foreign Animal Disease (NCFAD), CFIA, Winnipeg - JW and AM		
Alfonso Clavijo	Executive Director, NCFAD	Canadian Food Inspection Agency
John Capps	Director, NCFAD	Canadian Food Inspection Agency
Ann Capps	Quality Assurance Officer	Canadian Food Inspection Agency
Aruna Ambagala	Research Scientist	Canadian Food Inspection Agency
Carissa Embury-Hyatt	Veterinary Pathologist	Canadian Food Inspection Agency
Charles Nfon	Veterinary Pathologist	Canadian Food Inspection Agency
Darren Boase	Technologist	Canadian Food Inspection Agency
Hana Weingartl	Head, Special Pathogens Unit	Canadian Food Inspection Agency
Kathleen Hooper-McGrew	Research Manager	Canadian Food Inspection Agency
Oliver Lung	Research Scientist	Canadian Food Inspection Agency
Valerie Smid	Animal Care Veterinarian	Canadian Food Inspection Agency
Yohannes Berhane	Research Scientist - Molecular Virologist	Canadian Food Inspection Agency
Mike Drebot	Director, Zoonotic Diseases and Special Pathogens, PHAC	Public Health Agency of Canada
Dale Douma*	Office of Chief Veterinarian, Manitoba Agriculture	
Marg Seward*	Veterinarian, CFIA	Canadian Food Inspection Agency
Kerry MacDonald*	Inspection Manager Animal Health, CFIA	Canadian Food Inspection Agency
* accompanied the OIE mission for all visits in MB		

Manitoba Agriculture and Animal Industry EOC, Manitoba Pork Council and Swine Herd Health Veterinarian, Winnipeg - JW & AM		
Megan Bergman	CVO, Manitoba Agriculture, Food & Rural Initiatives	Manitoba Agriculture, Food & Rural Initiatives
Dale Douma*	Office of Chief Veterinarian, Manitoba Agriculture, Food & Rural Initiatives	Manitoba Agriculture, Food & Rural Initiatives
Mark Pynn	Mark Pynn, Manager QA Animal care, Canadian Quality Assurance (CQA)	Manitoba Pork
Bred Chappel	Swine practitioner	Producer, Winnipeg
Andrew Dickson	Manitoba Pork Council	Manitoba Pork Council
Marg Seward*	Veterinarian, CFIA	Canadian Food Inspection Agency
Kerry MacDonald*	Inspection Manager Animal Health, CFIA	Canadian Food Inspection Agency
24/3/17		
Dairy Producer and Veterinary Clinic, Abbotsford - HS & IVL		
Jane Pritchard	Chief Provincial Veterinarian, BC	British Columbia Ministry of Agriculture
Robert Cooper	Veterinary Program Specialist, Animal Health Programs, Western Area, CFIA	Canadian Food Inspection Agency
Tom Droppo	Dairy/Pork Specialist, Industry Development Branch, BC Ministry of Agriculture	British Columbia Ministry of Agriculture
Mr Kielstra	Owner, VyeField Farms Ltd	VyeField Farms Ltd
Brent Fawcett	Private veterinarian, Agwest Veterinary Group Ltd	Agwest Veterinary Group Ltd
Poultry associations and veterinary practice, Abbotsford - HS & IVL		
Jane Pritchard	Chief Provincial Veterinarian, BC	British Columbia Ministry of Agriculture
Robert Cooper*	Veterinary Program Specialist, Animal Health Programs, Western Area, CFIA	Canadian Food Inspection Agency
Clayton Botkin	Poultry Specialist, Industry Development Branch, BC MoA	British Columbia Ministry of Agriculture
Steve Heppell	President, BC Turkey Farmers, President, BC Poultry Association	BC Turkey Farmers & BC Poultry Association
Dale Krehn	President, BC Chicken Growers Association	BC Broiler Hatching Egg Commission
Mark Siemens	President, BC Egg Producers Association	BC Broiler Hatching Egg Commission
Brian Brandsmas	President, BC Hatching Egg Producers Association	BC Hatching Egg Producers Association
Stephanie Nelson	Executive Director, BC Broiler Hatching Egg Commission	BC Broiler Hatching Egg Commission
Michel Benoit	General Manager, BC Turkey Marketing Board	BC Turkey Marketing Board
Katie Lowe	Executive Director, BC Egg Marketing Board	BC Egg Marketing Board
Stewart Ritchie	Poultry practitioners / Owner, Canadian Poultry Consultants Inc. Ltd	Canadian Poultry Consultants Inc. Ltd
Lindsay Kehler	Poultry practitioners, Canadian Poultry Consultants Inc. Ltd	Canadian Poultry Consultants Inc. Ltd
Land border post, Park Livestock Assembly Yard and Bluewater Truck Wash Station, Emerson - JW & AM		
Jeryn Peters	Chief of Operations, CBSA	Canadian Border Services Agency
Conrad Reimer	Assembly yard Officer	Park Livestock Of Manitoba Uic
Tom Patenaude	General Manager	Park Livestock Of Manitoba Uic
Rick Peters	Vice President, Steve's Livestock Transport	Steve's Livestock Transport
Dale Douma	Office of Chief Veterinarian, Manitoba Agriculture	Manitoba Agriculture, Food and Rural Initiatives
Marg Seward	Veterinarian, CFIA	Canadian Food Inspection Agency
Kerry MacDonald	Inspection Manager Animal Health, CFIA	Canadian Food Inspection Agency
Crystal Springs Colony, Manitoba Egg Farmers and Niverville Ag. Retail, Niverville - JW & AM		
Lance Kleinsasser	Egg barn boss, Crystal Springs Hutterite Colony	Crystal Springs Hutterite Colony
Cory Ryback	General manager, Manitoba Egg Farmers	Manitoba Egg Farmers
Dale Douma	Office of Chief Veterinarian	Manitoba Agriculture, Food and Rural Initiatives
Marg Seward	Veterinarian, CFIA	Canadian Food Inspection Agency
Kerry MacDonald	Inspection Manager Animal Health	Canadian Food Inspection Agency

16 – 25 March 2017: East itinerary

Name	Title/Position
Francis Gary (FG)	PVS expert - OIE
Susanne Munstermann (SM)	PVS expert - OIE
André Vallières (AV)	PVS coordinator in Canada - CFIA
No indication means that the site was visited by both OIE experts	
16/3/17	
Port of Halifax, NS	
Lane Ferguson	Communication Officer, Port of Halifax
Matthew Crocker	CFIA Kentville Office - Plant/Animal
Tim McQuaid*	CFIA Regional Veterinary Officer – Animal Health Operations
*Tim McQuaid accompanied mission in Nova Scotia and New Brunswick	
17/3/17	
Nova Scotia Department of Agriculture	
Catherine Graham (CG)	Veterinary Pathologist, Veterinary Services
Marion MacAulay	Director, Agriculture Protection
Ruth Grant	Manager, Extension and Outreach
Tim Delaney	Manager, Laboratory Services
Dawn Miller	Traceability Coordinator, Animal & Crop Protection
Stephanie Mackenzie	Manager, Corporate Services
Michelle Sparrow	Quality Assurance Coordinator, Corporate Services
Sarah Turner	Primary Product Inspector, Department of Environment
Jonathan Wort	Ruminant Specialist, Perennia
Dalhousie University, Bible Hill, NS	
Lori Parsons	Veterinary Technician Program Coordinator, Dalhousie University
CFIA Truro District Office (FG, TM)	
Lynn Hood	CFIA Truro District Veterinarian
Atlantic Farm Services Feed Mill, Truro (FG, TM)	
Paul Denton	Manager
Roberta Sanford	QA Supervisor
Lawrence France	Production Supervisor
Kristen Thompson	CFIA Regional Program Officer for Feeds
Folly River Farms (Dairy), Debert (SM, AV, CG)	
Lauchie MacEachern	
Fundy Veterinarians Ltd., Private veterinary clinic, Murray Siding (SM, AV, CG)	
Ed MacAulay	
20/3/17	
CFIA Area Office, Moncton	
Emily O'Reilly	A/Area Director General, Atlantic Operations
Tim McQuaid	Regional Veterinary Officer – Animal Health
Monique Mazerolle	Issues Officer, Quality, Planning and Integration Unit
New Brunswick Veterinary Services Headquarters and Laboratory Services, Fredericton	
Jim Goltz	Chief Provincial Veterinarian, NB Dept. Agriculture, Aquaculture and Fisheries
Colleen Home	Poultry Veterinarian NB Dept. Agriculture, Aquaculture and Fisheries
Greg Sweetland	Director, Animal Health Branch, NB Dept. Agriculture, Aquaculture and Fisheries
Louise Mason	Manager, Agri-Food Inspection Office, NB Department of Health
Nolan Golding*	Field Veterinarian, NB Provincial Veterinary Service, NB Dept. Agriculture, Aquaculture and Fisheries
* Nolan Golding accompanied the OIE experts for all visits in New Brunswick	
Poultry veterinarian, Fredericton	
Colleen Home	Poultry Veterinarian NB Dept. Agriculture, Aquaculture and Fisheries
21/3/17	
Carr's Meat Shop – NB Licensed Provincial Abattoir (Beef, pork, lamb, goats, wild game), Jacksonville	
Donald Carr	Owner/Operator
Jolly Farmer Products Inc. NB Licensed Provincial Abattoir (Poultry), Northampton	
Joy Weir	Primary contact for poultry processing
Land Border and CFIA quarantine station	
Jonathan Cyr	CFIA Moncton field office, veterinarian
Bev Richardson	Canadian Border Services Agency
22/3/17	
ACIA - Centre opérationnel du Québec	
Ange-Aimée Desdênes	Directrice générale
Renée Lavigne	Inspecteur en chef du Centre
Jean-Martin Guay	Coordonnateur des opérations
Cathy Dallaire	Gestionnaire, affaires intergouvernementales
Mélanie Boivin	Gestionnaire, affaires intergouvernementales
Zahida Djafer	Gestionnaire, affaires intergouvernementales
Emmanuelle Charpentier	Vétérinaire Spécialiste aux opérations
France Provost	Vétérinaire Spécialiste aux opérations
Samuel Dagenais	Conseiller principal
Suzanne Perron	Gestionnaire RH
Marie-Claude Messier	Gestionnaire des finances
Luz Mary Isaza	Agente de formation
Marc Touchette	Spécialiste en communication
El Mehdi Haddou (EMH)	Officier vétérinaire SA (ACIA) et accompagnateur pour les visites au Québec
Hélène Gagnon (HG)	Opérations nationales (ACIA) et accompagnatrice
Hélène Trépanier (HT)	Vétérinaire en chef (MAPAQ) et accompagnatrice

Aéroport international de Montréal (SM, EMH, HT)	
Marc Bertrand	Vétérinaire de district Santé des animaux, Mirabel
Gathy Dallaire	Gestionnaire intermédiaire, affaires intergouvernementales
Catherine Renaud	Spécialiste de programmes (Agence des Services Frontaliers du Canada - ASFC)
Mathieu Bujold	Surintendant (ASFC)
Port d'entrée de Lacolle, Saint-Bernard-de-Lacolle (SM, EMH, HT)	
Gathy Dallaire	Gestionnaire affaire intergouvernementale (ACIA)
Éric Groulx	Vétérinaire de district (AOA)
Michel Couillard	Vétérinaire (ACIA)
Denis Bellevue	Spécialiste de programmes (ASFC)
Luc Béland	Surintendant (ASFC)
Centre intégré de santé et de services sociaux de la Montérégie, Longueuil (FG, AV, HG, IL)	
Louise Lambert	Médecin conseil
François Milord	Médecin conseil
Dre Gariépy	Médecin conseil
Les Encans de la Ferme, Saint-Hyacinthe (FG, AV, HG, IL)	
Mario Macciola	Gérant
François Lagacé	Vétérinaire de district ACIA
Marie-Pier Dion	Inspectrice AOA
Marie-Ève Blandchette	Inspectrice AOA
Dre Diane Boucher	Vétérinaire MAPAQ
Le laboratoire Biovet, Saint-Hyacinthe (FG, AV, HG, IL)	
René Lallier	Président
Pierre Hébert	Directeur du laboratoire
André Broes	Directeur R&D et services techniques grands animaux
Isée Descoteaux	Directrice Affaires réglementaires
Vétérinaire équin - compétitions internationales, Saint-Hyacinthe (SM, EMH, HT)	
Yves Rossier	Professeur en médecine sportive équine, Faculté de médecine vétérinaire, Université de Montréal
23/3/17	
Union des producteurs agricoles (UPA) - diverses fédérations, Longueuil (SM, AV, EMH, HT)	
Charles-Félix Ross	Directeur général et économiste en chef de l'UPA
Guylain Charron, Conseiller	Direction recherches et politiques agricoles
Martin Caron	Union des producteurs agricoles du Québec (UPA), Producteur laitier et céréalière et 2e vice-président de l'UPA
Raphael Bertinotti	Les Éleveurs de porcs du Québec, Directeur-Direction/service: Santé, qualité et R&D
Raphael Chevalier	Les Éleveurs d'ovins du Québec, Coordonnateur des activités de mise en marché
Lise-Anne Girard	Les Producteurs d'œufs d'incubation du Québec, Agente en salubrité et santé animale
Dr Rémi Laplante	Les Producteurs de bovins du Québec, Vétérinaire conseil
Catherine Lessard	Les Producteurs de lait du Québec, Directrice adjointe-recherche économique
Armand Plourde	UPA-DREPA, Coordonnateur - planification stratégique et aide aux groupes
Nathalie Robin	Les Éleveurs de volailles du Québec, Agent de formation du Programme d'assurance de la salubrité des aliments à la ferme
Angèle Hudon-Tanguay	Fédération des producteurs d'œufs du Québec, Responsable des programmes de qualité et salubrité
Équipe québécoise de contrôle des maladies aviaires (EQCMA), Longueuil (SM, AV, EMH, HT)	
Martin Pelletier	Coordonnateur
Nadia Bergeron	Chargée de projet
Équipe québécoise de santé porcine (EQSP), Longueuil (SM, AV, EMH, HT)	
Martin Pelletier	Coordonnateur
Nadia Bergeron	Chargée de projet
Agri-traitabilité Québec (ATQ), Longueuil (SM, AV, EMH, HT)	
Marie-Christine Talbot	Directrice générale ATQ
Hélène Gendreau	Conseillère aux relations partenariales et au développement de projet (ATQ)
Monique Barrette	Agente d'administration (ATQ)
ACIA - Bureau régional de Saint-Hyacinthe (SM, EMH, HT)	
Patrik Fréchette	Directeur Stratégique Opérationnel
Anne Lemay	Gestionnaire d'inspection
Nicolas Lusier	Gestionnaire d'inspection
Arnaud Schreyer	Gestionnaire d'inspection
Mitie Bernard	Officier vétérinaire régional
François Lagacé	Vétérinaire de district
Linda Lo-Shing	Coordonnatrice des opérations régional
Centre de distribution des médicaments vétérinaires (CDMV), Saint-Hyacinthe (SM, EMH, HT)	
Pierre Bédard	Directeur Approvisionnement, information technique, administrative et statistique
Hassan Malekeddine	Superviseur qualité, Conformité réglementaire
Faculté de médecine vétérinaire (FMV) et Laboratoire d'épidémiologie animale du Québec (LEAQ), Saint-Hyacinthe (FG, HG, IL)	
Michel Carrier	Doyen
Sylvain Quessy	Vice-doyen à la recherche
Jacques Lusier	Vice-doyen aux affaires académiques et étudiantes
Michèle Doucet	Vice-doyenne adjointe - implantation du programme DMV axé sur les compétences
Estela Cornaglia	Vétérinaire directrice, Service diagnostique FMV
Nick Ogden	Agence de Santé Publique du Canada
Manon Racicot	ACIA
André Ravel	FMV et directeur du GREZOSP
Philippe Fravalo	Chaire de salubrité des viandes
Corine Pétard	ACIA
Sophie Beaulieu	Directrice, LEAQ
Isabelle Lévesque (IL)	Adjointe à la direction (et accompagnatrice des experts de l'OIE), LEAQ
Olivia Labrecque	Vétérinaire microbiologiste
Julie-Hélène Fairbrother	Vétérinaire microbiologiste
Daniel Jobin	Responsable assurance qualité et biosécurité
Mirella Ribotta	Microbiologiste
Simon Tremblay	Microbiologiste

Groupe F. Ménard (intégrateur production porcine), L'Ange-Gardien (FG, AV, HG, IL)	
Julie Ménard	Vétérinaire et directrice
Richard Bilodeau	Agronome et nutritionniste
Jessie Longpré	Microbiologiste, assurance qualité
Association des médecins vétérinaires praticiens du Québec (AMVPQ), Saint-Hyacinthe (FG, AV, HG, IL)	
René Bergeron	Président
Michel Savard	Directeur
Association des vétérinaires en industrie animale du Québec (AVIA), Saint-Hyacinthe (FG, AV, HG, IL)	
Jean-Pierre Vaillancourt	
Ordre des médecins vétérinaires du Québec, Saint-Hyacinthe (FG, AV, HG, IL)	
Joël Bergeron	Président
Suzie Prince	Directrice générale et secrétaire
SPA Drummondville	
Phillipe Labonté	Directeur SPA
Chantal Montigny	Directrice BEA (MAPAQ)
24/3/17	
Demeter Services Vétérinaires inc. (vétérinaires secteur porcine), Lévis (FG, AV, EMH)	
Martin Bonneau	Vétérinaire copropriétaire
Sylvain Messier	Vétérinaire copropriétaire
Claudia Gagné-Fortin	Chef d'équipe et adjointe à la médecin vétérinaire en chef (MAPAQ)
Centre d'insémination porcine du Québec (CIPQ), Saint-Lambert (SM, HG, HT)	
Ronald Drapeau	Directeur général CIPQ
Nick Coudé	Directeur de la production (CIPQ)
Karine Nadeau	Vétérinaire de district ACIA
Direction de la santé animale (MAPAQ) et Ministère des Forêts, de la Faune et des Parcs (MFFP), Québec	
Hélène Trépanier	Vétérinaire en chef du Québec (MAPAQ)
Claude Rivard	Directeur général (DGLSA)
Nathalie Côté	Directrice-adjointe
Alain Aspirault	Dossier rage
Julie Marie-Eve Brochu-Morin	Vétérinaire responsable réseau porcine et aviaire
France Desjardins	Responsable SQSBEA
Julie Ferland	Responsable réseau apicole
Caroline Fortin	Dossier rage
Gaëlle Hélène	Responsable traçabilité
Annick Marier	Responsable réseau canicole
Catherine Munger	Responsable antibiogouvernance
Picard Isabelle	Coordonnatrice aux zoonoses
Pierre Hugo	Chef d'équipe développement, analyse et optimisation
Proulx Chantal	Coordonnatrice aux mesures d'urgence et biosécurité
Rouquet Pierre	MV en épidémiologie
Claudia Gagné-Fortin	Chef d'équipe et adjointe à la médecin vétérinaire en chef (MAPAQ)
Geneviève Côté	Épidémiologie, évaluation des programmes de surveillance
Amélie Grenier	Agente de secrétariat
Salma Behma	Agent de recherche
Frédéric Lelièvre	MFFP
Direction des services vétérinaires et du Bien-être animal (Salubrité des aliments + BEA du MAPAQ), Québec	
Hélène Trépanier	Vétérinaire en chef (MAPAQ)
Carole Simon	Directrice DS VBEA
Mario Couture	Coordonnateur aux interventions d'inspection dans le secteur des viandes
Brigitte Dubé	Substitut responsable des interventions en épidémiologie et en bien-être animal et MV régional
Nathalie Hébert	Réglementation et développement BEA petits animaux
Julie Nolin	Réglementation, codes de pratiques et développement BEA gros animaux
Maude Michaud Dumont	Développement approche d'inspection programme IBR-BEA
Anne Pennors	Réglementation et développement abattoirs
Danielle Thériault	Réglementation et développement
Direction générale du développement et du soutien à l'inspection (DGDSI) - MAPAQ	
Annie LaFrance	Directrice générale
Direction des stratégies d'inspection et de réglementation (DSIR) - MAPAQ	
Pierrette Cardinal	Directrice générale
Centre de développement du porc du Québec (CDPQ), Québec	
Christian Klopfenstein	Responsable santé et biosécurité
Valérie Dufour	Chargée de projet

30 March 2017: Closing meeting: CFIA Ottawa

Name	Title/Position	Organization	Branch (CFIA)
Carolina Gilberti	Executive Vice-President	Canadian Food Inspection Agency	
Harpreet Kochhar	CVO & OIE Delegate Associate Vice President, Operations	Canadian Food Inspection Agency	Operations
Paul Meyers	Vice-President	Canadian Food Inspection Agency	Policy and Programs
Barbara A Jordan	Associate Vice-President	Canadian Food Inspection Agency	Policy and Programs
Primal Silva	Acting Vice President	Canadian Food Inspection Agency	Science
Jaspinder Komal	Deputy CVO, Executive Director, Animal Health	Canadian Food Inspection Agency	Policy and Programs
Debbie Barr	Director, Animal Health Programs	Canadian Food Inspection Agency	Policy and Programs
Mary Jane Ireland	Director General	Health Canada (HQ)	
Steven Sternthal	Director General	Public Health Agency of Canada (PHAC)	
Shiva Ghimire	Team Leader, Veterinary Drugs Directorate	Health Canada (HQ)	
Christine Miller	Drug Evaluator, Veterinary Drugs Directorate	Health Canada (HQ)	
Ian Alexander	Executive Director Animal Health Science	Canadian Food Inspection Agency	Science
Heather Arbuckle	Director, Operational Guidance and Expertise - Animal, Inspection Support	Canadian Food Inspection Agency	Operations
Carri Ann Candusso	Senior HR Project Manager Strategic Human Resources Management	Canadian Food Inspection Agency	Human Resources
Mohit Baxi	Director, Animal Import/Export Division, Animal Health Directorate	Canadian Food Inspection Agency	Policy and Programs
Andrea Ellis	Veterinary Science Advisor to the OIE Delegate	Canadian Food Inspection Agency	Science
Samira Belalissaoui	Senior Staff Veterinarian - Imports, Import/Export Live Animals and Germplasm Section, Animal Import/Export Division, Animal Health Directorate	Canadian Food Inspection Agency	Policy and Programs
Alain Bélanger	Program Specialist, Import/Export Live Animals and Germplasm Section, Animal Import/Export Division, Animal Health Directorate	Canadian Food Inspection Agency	Policy and Programs
Boubacar Sidibe	Veterinary Program Specialist, Program Design and Modernization, Meat Hygiene Division, Domestic Food Safety Systems & Meat Hygiene Directorate	Canadian Food Inspection Agency	Policy and Programs
Jonathan Morgan	Manager, Professional and Technical Development, Learning Directorate	Canadian Food Inspection Agency	Human Resources
Joanne Rieudeau	Director, Animal Health Science Directorate	Canadian Food Inspection Agency	Science
Sergio Talusso	National Manager, Feed Program Coordination and Outreach Section, Animal Feed Division, Animal Health Directorate	Canadian Food Inspection Agency	Policy and Programs
Aline Dimitri	Executive Director / Deputy Chief Food Safety Officer, Food Safety Science Directorate	Canadian Food Inspection Agency	Science
Cheryl James	Senior Advisor, Animal Health Science Directorate	Canadian Food Inspection Agency	Science
Jose Lopez	National Manager, Animal Health Research & Partnerships Division, Animal Health Science	Canadian Food Inspection Agency	Science
René Patenaude	Veterinary Program Specialist, Program Design and Modernization, Meat Hygiene Division, Domestic Food Safety Systems & Meat Hygiene Directorate	Canadian Food Inspection Agency	Policy and Programs
Nina Frid	Executive Director, Strategic Policy and International Affairs	Canadian Food Inspection Agency	Policy and Programs
Con Kiley	National Manager, Animal Welfare, Biosecurity and Assurance Programs Section, Animal Health, Welfare & Biosecurity Division, Animal Health Directorate	Canadian Food Inspection Agency	Policy and Programs
Sylvia Flemming	Director, National Emergency Preparedness and Issues Management, Inspection Support	Canadian Food Inspection Agency	Operations
Eric Aubin	National Manager, Livestock Traceability Program, Traceability Section, Program Policy Integration, Program, Regulatory & Trade Policy	Canadian Food Inspection Agency	Policy and Programs
Elizabeth Corrigan	Senior Regulatory and Policy officer, Traceability Section, Program Policy Integration, Program, Regulatory & Trade Policy	Canadian Food Inspection Agency	Policy and Programs
Brian Radey	Manager, Emergency Management, Program Policy Integration, Program, Regulatory & Trade Policy	Canadian Food Inspection Agency	Policy and Programs
Ingrid Van der Linden	PVS Coordinator & Senior Advisor to the CVO	Canadian Food Inspection Agency	Office of the Chief Veterinary Officer
André Vallières	PVS Coordinator & Epidemiologist and Scientific	Canadian Food Inspection Agency	Science
Patricia Nazwala	PVS Administrative Project Officer	Canadian Food Inspection Agency	Science
Dhanda Jagvinder	Senior Director, Integrated Inspection Delivery	Canadian Food Inspection Agency	Operations
By Teleconference:		Province	
Jane Pritchard	Chief Veterinarian Officer	British Columbia	
Keith Lehman	Chief Veterinarian Officer	Alberta	
Betty Althouse	Chief Veterinarian Officer	Saskatchewan	
Megan Bergman	Chief Veterinarian Officer	Manitoba	
Leslie Woodcock	Chief Veterinarian Officer	Ontario	
Hélène Trépanier	Chief Veterinarian Officer	Québec	
Carolyn Sanford	Chief Veterinarian Officer	Prince Edward Island	
Laura Roger	Chief Veterinarian Officer	Newfoundland	
Jim Goltz	Chief Veterinarian Officer	New Brunswick	
Catherine Graham	Veterinary pathologist	Nova Scotia	
Christa Arseneault	Lead Veterinarian- Provincial Biosecurity	Ontario	
<i>Others on the line - not recorded</i>			

Appendix 4: Air travel itinerary

Map 5: Locations visited by the OIE PVS team



Assessor	Date	From	To	Flight No.	Departure	Arrival
GARY Francois	12.3.2017	Toulouse	Paris CDG	AF 7521	10:30	12:05
		Paris CDG	Montreal	AF 344	14:30	16:05
		Montreal	Ottawa	AC 8973	18:25	19:05
	15.3.17	Ottawa	Halifax	AC 8638	17:50	22:22
	21.3.17	Fredericton	Montreal	AC 8507	18:50	20:00
	30.3.17	Ottawa	Toronto	AC 457	15:00	16:04
		Toronto	Paris CDG	AF 351	18:20	7:50+
31.3.2017	Paris CDG	Toulouse	AF 7518	9:45	11:05	
MUNSTERMANN Susanne	11.3.17	Frankfurt	Montreal	LH 6794	10:30	12:20
		Montreal	Ottawa	LH 6726	13:30	14:14
	15.3.17	Ottawa	Halifax	AC 8638	17:50	22:22
	21.3.17	Fredericton	Montreal	AC 8507	18:50	20:00
		Ottawa	Toronto	LH 6673	16:00	17:04
30.3.17	Toronto	Frankfurt	LH 0471	18:25	08:00+	
	10.3.17	Windhoek	Johannesburg	SA 75	12:35	14:20
Johannesburg		Zürich	LX 289	20:20	06:10+	
11.3.17	Zürich	Montreal	LX 086	12:45	15:20	
	Montreal	Ottawa	LX 4656	17:35	18:19	
31.3.17	Ottawa	Toronto	LH 6673	16:00	17:04	
	Toronto	Frankfurt	LH 471	18:25	08:00+	
6.4.17	Frankfurt	Johannesburg	LH 572	22:05	08:30+	
7.4.17	Johannesburg	Windhoek	SA 76	13:15	14:10	
WEAVER John	10.3.17	Jakarta	Singapore	AF3926	18.15	21.05
		Singapore	Paris	AF257	23.05	06.10+
	11.3.17	Paris	Montreal	AF344	13.50	15.55
		Montreal	Ottawa	AF577	17.35	18.19
	15.3.17	Ottawa	Toronto	AC465	19.00	20.12
	19.3.17	Toronto	Calgary	AC117	08.00	10.18
	21.3.17	Calgary	Saskatoon	AC8588	19.20	20.35
	23.3.17	Saskatoon	Winnipeg	WS3244	06.00	08.41
	25.3.17	Winnipeg	Ottawa	AC8528	19.35	22.58
	1.4.17	Ottawa	Toronto	WS3465	13.45	14.57
	1.4.17	Toronto	Paris	AF351	18.20	07.50+
6.4.17	Paris	Singapore	AF256	20.55	15.45+	
7.4.17	Singapore	Jakarta	AF3935	18.45	19.40	

+ = next day

Appendix 5: Documents used in the PVS evaluation

PRE-MISSION DOCUMENTS

E- electronic version

Ref	Title	Author / Date / ISBN / Web	Relevant section/ critical competences
E.01 General			
E.01.3	PHAC	http://www.phac-aspc.gc.ca/index-eng.php	Part II & III
E.01.4	HC	http://www.hc-sc.gc.ca/index-eng.php	
E.01.5	AAFC	http://www.agr.gc.ca/eng/home/?id=1395690825741	
E.01.6	CBSA	http://www.cbsa-asfc.gc.ca/menu-eng.html	
E.01.7	EC	http://ec.gc.ca/default.asp?lang=En&n=FD9B0E51-1	
E.01.8	Patented Medicines Board	http://www.pmprb-cepmb.gc.ca/home	
E.01.1	2017 FEDERAL Baseline Information & SUMMARY docs	CFIA	
E.01.1.1	2017 JAN 17 CFIA Indicative list of Baseline information	CFIA	
E.01.1.2	Information on Animal and Veterinary Public Health in Canada: A CFIA perspective	CFIA	
E.01.3	http://www.phac-aspc.gc.ca/index-eng.php	CFIA	
E.01.4	http://www.hc-sc.gc.ca/index-eng.php	CFIA	
E.01.5	http://www.agr.gc.ca/eng/home/?id=1395690825741	CFIA	
E.01.6	http://www.cbsa-asfc.gc.ca/menu-eng.html	CFIA	
E.01.7	http://ec.gc.ca/default.asp?lang=En&n=FD9B0E51-1	CFIA	
E.01.2 Province & Territory Baseline info			
E.01.2.1	2017 Alberta Baseline Information	http://www.agric.gov.ab.ca/app21/rtw/index.jsp	Part II & III
E.01.2.2	2017 British Columbia Baseline Information	http://www2.gov.bc.ca/gov/content/governments/organizational-structure/ministries-organizations/ministries/agriculture	
E.01.2.3	2017 Manitoba Baseline Information	http://www.gov.mb.ca/agriculture/	
E.01.2.4	2017 New Brunswick Baseline Information	http://www2.gnb.ca/content/gnb/en/departments/10.html	
E.01.2.5	2017 Newfoundland & Labrador Baseline Information	http://www.faa.gov.nl.ca	
E.01.2.6	2017 Nova Scotia Baseline Information	http://novascotia.ca/agri/	
E.01.2.7	2017 Ontario Baseline Information	http://www.omafra.gov.on.ca/english/index.htm	
E.01.2.8	2017 Prince Edward Island Baseline Information	https://www.princeedwardisland.ca/en/topic/agriculture-and-fisheries	
E.01.2.9	2017 Quebec Baseline Information	http://www.mapaq.gouv.qc.ca/fr/Pages/Accueil.aspx	
E.01.2.10	2017 Saskatchewan Baseline Information	https://www.saskatchewan.ca/government/government-structure/ministries/agriculture	
E.01.2.11	Northwest Territories	http://www.gov.nt.ca	
E.01.3 Regional Baseline info docs			
E.01.3.1	2016 MAR Map WEST AREA	CFIA	Part II

	Slaughterhouses		
E.01.3.2	2015 DEC Map WEST CFIA Offices	CFIA	
E.01.3.3	2017 JAN Map WEST CFIA Labs	CFIA	
E.01.3.4	2016 FEB COQ Sante des Animaux	CFIA	
E.01.3.5	2016 ACIA Bureaux Centre Operationnel	CFIA	
E.01.3.6	2017 JAN COQ Abattoirs	CFIA	
E. 02 Animal Health in general & OIE			
E.02.1	2013 OIE PVS Tool	www.oie.int	All parts
E.02.2	2016 OIE Terrestrial Animal Health Code Vol. I	http://www.oie.int/en/international-standard-setting/terrestrial-code/access-online/	
E.02.3	2016 OIE Terrestrial Animal Health Code Vol. II	http://www.oie.int/en/international-standard-setting/terrestrial-code/access-online/	
E. 03 Finances			
E.03.1	Compensation for Destroyed Animals Regulations	http://laws-lois.justice.gc.ca/PDF/SOR-2000-233.pdf	II.9
E.03.2	Compensation Schedule SOR-2000-233	CFIA/AAFC	II.9
E.03.3	2015 CCA-Annual Report	CCA	III.6
E.03.4	CFIA report on plans	http://www.inspection.gc.ca/about-the-cfia/accountability/reports-to-parliament/2016-17-rpp/eng/1453472983491/1453472984734	II.8, II.9, II.10
E.03.5	CFIA report to Parliament	http://www.inspection.gc.ca/about-the-cfia/accountability/reports-to-parliament/eng/1299845094675/1299845189161	II.8, II.9, II.10
E.03.6	PHAC report on plans	https://www.canada.ca/en/public-health/corporate/transparency/corporate-management-reporting/reports-plans-priorities.html	II.8, II.9, II.10
E.03.7	HC report on plans	https://www.canada.ca/en/health-canada/corporate/transparency/corporate-management-reporting/report-plans-priorities/2016-2017-report-plans-priorities.html	II.8, II.9, II.10
E. 04 Animal welfare			
E.04.1	Provincial and Territorial Legislation Concerning Farm Animal Welfare	http://www.inspection.gc.ca/animals/terrestrial-animals/humane-transport/eng/1300460032193/1300460096845	II.13, IV.1
E.04.2	Code of Practice for the Care and Handling of Beef Cattle	http://www.nfacc.ca/pdfs/codes/beef_code_of_practice.pdf	II.13
E. 05 Veterinarians, Vet Schools, VSBs & CPD & Vet Association			
E.05.1.1	Accredited Veterinarian's Manual	http://www.inspection.gc.ca/animals/terrestrial-animals/diseases/accredited-veterinarians-manual/eng/1343915611518/1343915703253	I.1A, III.4
E.05.1.2	CWHC	http://www.cwhc-rscf.ca/who_we_are.php	II.5, II.6
E. 05.2 Veterinary Statutory Bodies			
E.05.2.1	Alberta	http://abvma.ca/site/page_404?url=http://abvma.ca/content/51/abvmastaff	III.5
E.05.2.2	British Columbia	http://www.cvbc.ca	
E.05.2.3	Manitoba	https://www.mvma.ca	
E.05.2.4	New Brunswick	http://nbvma-amvnb.ca	
E.05.2.5	Nova Scotia	http://www.nsvma.ca	
E.05.2.6	Ontario	http://nbvma-amvnb.ca	

E.05.2.7	Prince Edward Island	http://www.peivma.com	
E.05.2.8	Quebec	https://www.omvq.qc.ca	
E.02.2.9	Newfoundland and Labrador	https://sites.google.com/site/nlvetcollege/	
E.05.2.10	Northwest Territory	NA	
E.05.2.11	Nunavut	NA	
E.05.2.12	Saskatchewan	http://www.svma.sk.ca	III.5
E.05.2.13	Yukon	NA	
E. 05.3 CPD			
E.05.3.1	CVMA	https://www.canadianveterinarians.net/about/default	I.3
E. 05.4 Veterinary Schools			
E. 05.4.1	Guelph	http://ovc.uoguelph.ca	I.2A, I.3
E.05.4.2	St Hyacinthe	http://www.medvet.umontreal.ca/infoGen/aP/ropos.html	
E.05.4.3	Prince Edward Island	http://www.upei.ca/avc/	
E.05.4.4	Saskatoon	http://www.usask.ca/wcvm/	
E.05.4.5	Calgary	http://vet.ucalgary.ca	
E. 05.5 Veterinary Association(s)			
E.05.5.1	CVMA – website with hyperlinks	https://www.canadianveterinarians.net/about/default	Part II & III
E. 05.6 Veterinary Paraprofessionals			
E.05.6.1	Registered Veterinary Technologists and Technicians of Canada (RVTTC)	http://beta.rvtcanada.ca/about-us/	I.2B, III.5
E.05.6.2	British Columbia Veterinary Technologists Association-BCVTA	http://bcvta.com/?page_id=182	
E.05.6.3	Alberta Association of Animal Health Technologists (AAAHT)	http://www.aaaht.com/about-the-aaaht/	
E.05.6.4	Eastern Veterinary Technicians' Association (EVTA)	http://evta.ca	
E.05.6.5	Manitoba Animal Health Technologists Association (MAHTA)	http://www.mahta.ca/	
E.05.6.6	Ontario Association of Veterinary Technicians	http://www.oavt.org/about-oavt/about-us	
E.06 EU Veterinary Office Reports			
E.06.1	DG(SANCO) 2010-8522 Controls over the Production Of Fresh Meat, Meat Products, Minced Meat, Meat preparations And Casings for Human Consumption	https://ec.europa.eu/food/fvo/act_getPDF.cfm?PDF_ID=9208	II.8, II.10, IV.3/4/5
E.06.2	2014 FVO report – Canada: meat and meat products for export in EU	https://foodlawlatest.com/2015/06/16/fvo-report-canada-meat-and-meat-products-for-export-in-eu/	
E.06.3	DG(SANTE) 2014-7216 Controls over the Production of Fresh Meat, Meat Products, Minced Meat, Meat Preparations And Casings for Human Consumption	http://ec.europa.eu/food/audits-analysis/audit_reports/details.cfm?rep_id=3442	
E.06.4	DG(SANCO) 2011-8913 Evaluate the Monitoring Of Residues and Contaminants in Live Animals and Animal Products, Including Controls on Veterinary Medicinal Products	http://ec.europa.eu/food/audits-analysis/audit_reports/details.cfm?rep_id=2836	
E.06.5	EU audit report	http://ec.europa.eu/food/fvo/audit_reports/index.cfm	
E. 07 International Agencies/Organisations			
E.07.1	2011 OECD Management of Risks from Epidemic Livestock Diseases: Overview of Key Issues and Comparison of <u>Compensation and Cost-Sharing Systems</u> In Selected Countries PART 1	Frank Alleweldt. [TAD/CA/APM/WP(2011)26]	I.9, II.3/4/5/6/7, IV.3, IV.6

E.07.2	2011 OECD Management of Risks from Epidemic Livestock Diseases: Review and <u>Comparison of Prevention and Control Systems</u> in Selected Countries	Francois Gary, [TAD/CA/APM/WP(2011)27].	
E. 08 Canada Veterinary Services - Animal Health – Disease Surveillance			
E.08.1	Notifiable diseases	http://www.inspection.gc.ca/animals/terrestrial-animals/diseases/annually-notifiable/eng/1305672292490/1305672713247	
E.08.2	CFIA Bovine Surveillance System	http://www.inspection.gc.ca/animals/terrestrial-animals/diseases/reportable/brucellosis/bovine-surveillance-system-bss-/eng/1399042076293/1431107623814	
E.08.1.3	CAHSS	https://www.cahss.ca	
E.08.1.4	BSE surveillance	http://www.inspection.gc.ca/animals/terrestrial-animals/diseases/reportable/bse/enhanced-surveillance/eng/1323992647051/1323992718670	
E.08.1.5	Manitoba Agriculture, Food and Rural Development Annual Rep. 2015-2016	https://www.gov.mb.ca/agriculture/reports-expenses/.../2015-2016-annual-report.pdf	
E.08.1.6	Agriculture Annual Report 2015-2016	www.finance.gov.sk.ca/PlanningAndReporting/.../2015-16Agric..	
E.08.1.7	2010 Evaluation and delivery of domestic animal health services in remote communities in the Northwest Territories: A case study of status and needs	<i>Can Vet J 2010; 51:1115–1122</i>	II.5, II.6, II.7
E.08.1.8	2010 to 2020 Wood Bison Management Strategy for the Northwest Territories	http://www.nwt-species-at-risk.ca/sites/default/files/wood_bison_management_strategy.pdf	
E.08.1.9	Yukon	https://kyeemafoundation.org/ghana-veterinary-services-department-receives-funds-to-fight-newcastle-disease-in-rural-poultry/	
E.08.1.10	Local Food Strategy for Yukon 2016-2021	http://www.emr.gov.yk.ca/agriculture/pdf/local-food-strategy-for-yukon.pdf	
E.08.1.11	2016 Cattle Health Handbook	http://www.env.gov.yk.ca/publications-maps/documents/Handbook_CattleHealth.pdf	
E.08.1.13.3	2015 Swine Health Handbook	http://www.emr.gov.yk.ca/agriculture/pdf/Swine_Health_Handbook.pdf	
E.08.1.12	2013 Poultry Health Handbook	http://www.emr.gov.yk.ca/agriculture/pdf/Poultry_Health_Handbook_final.pdf	
E.08.1.13.5	2012 Preventing Chronic Wasting Disease	http://www.env.gov.yk.ca/publications-maps/documents/ENVAHPCWDFactSheetDec2012.pdf	
E.08.1.14	2013 Equine Infectious Anemia	http://www.env.gov.yk.ca/publications-maps/documents/ENVAHPEIAFactSheetApril2013.pdf	
OTHER			
E.08.1.15	CWHC	http://www.cwhc-rcsf.ca	II.5, II.6, II.7
E.08.1.16	2016 A Review of Animal Health Policies and its Implications for Salvaging a Captive Breeding Herd of Disease-free Wood Bison (<i>Bison bison athabascae</i>)	http://www.enr.gov.nt.ca/sites/default/files/file_report_146_file_0.pdf	II.7, III.6
E.08.1.17	Wood Bison Management strategy for the Northwest Territories	http://www.nwt-species-at-risk.ca/sites/default/files/wood_bison_management_strategy.pdf	II.7, III.6
E.08.1.18	Scrapie eradication program	http://www.cansheep.ca/cms/en/Programs/NSPrograms/NSProgram.aspx#	II.7, III.6
E.08.1.19	2017 FEB South Okanagan bighorn sheep facing new threat	http://infotel.ca/newsitem/south-okanagan-bighorn-sheep-facing-new-threat/it39441	II.5/6/7, III.6

E. 09 Canada Government Departments			
E.09.1.1	CFIA at a glance	http://inspection.gc.ca/about-the-cfia/organizational-information/at-a-glance/eng/1358708199729/1358708306386	Part II I.5, I.6, I.11, III.1, III.2, III.6
E.09.1.2	Agriculture and AgriFood Canada - List of Programs and Services	http://www.agr.gc.ca/eng/programs-and-services/list-of-programs-and-services/?id=1362151577626	
E.09.1.3	CFIA organisation	http://www.inspection.gc.ca/about-the-cfia/organizational-information/eng/1323224617636/1323224814073	
E.09.2	First Nation Activities		
E.09.2.1	First Nations & Inuit Health – Health Canada	http://www.hc-sc.gc.ca/fniah-spnia/diseases-maladies/index-eng.php	
E.09.2.2	BC - First Nations Agriculture Needs Assessment	http://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/agriculture-and-seafood/farm-management/farm-business-management/first-nations-agriculture/first_nations_agriculture_needs_assessment.pdf	
E.09.2.3	First Nations and Factory Farming	http://www.beyondfactoryfarming.org/get-informed/locations/first-nations	
E.09.2.4	2003 Agriculture: The Relationship between Aboriginal Farmers and Non-Aboriginal Farmers	<i>Western Development Museum and the Saskatchewan Indian Cultural Centre.</i>	
E.09.2.5	First Nations and Inuit Health Program Compendium 2011–2012	publications@hc-sc.gc.ca	
E.09.3.1	OMAFRA organogram		
E.09.3.2	Saskatchewan organogram		
E.09.3.3	BC organogram		
E.08.2 Private Veterinary Services			
E.08.2.1	CVMA	https://www.canadianveterinarians.net	III.1, III.2, III.4, III.6
E. 10 National Livestock Identification			
E.10.1	Traceability ex CCA	http://www.cattle.ca/resources/production-practices/traceability/	II.12
E.10.2	Commingling	http://www.cattle.ca/assets/Uploads/Beef-Fact-Sheet-Commingling-Final-English.pdf	
E.10.3	Cattle Implementation Plan (CIP): Industry's Roadmap	http://www.canadaid.com/documents/CIP_Abridged_2014-07-09_EN.pdf	
E.10.4	2015 Standing Committee on Agriculture and Agri-Food - sheep	http://www.parl.gc.ca/HousePublications/Publication.aspx?Language=e&Mode=1&Parl=41&Ses=2&DocId=7881873	
E.10.5	Canadian Sheep Identification Program (CSIP)	http://www.cansheep.ca/cms/en/CSIPPrograms_new/CSIP/CSIP.aspx#	
E. 11 Stakeholders			
E.11.1	CCA Canadian Cattlemen's Association	http://www.cattle.ca/about-us/structure-and-funding/	II.5, II.7, III.1, III.2, III.6
E.11.1.1	2015 CCA Annual Report	http://www.cattle.ca/assets/2015-AGM-2/CCA-ar-Mar7FINALweb.pdf	
E.11.2	2016 BCRC Animal Health & Welfare	http://www.beefresearch.ca/files/pdf/bcrc_animal_health_and_welfare_priority_area_review_march2016.pdf	
E.11.3	Canadian Animal Health Surveillance System - CAHSS	https://www.cahss.ca/	
E.11.4	2015-2016 CWHC Annual Report	http://www.cwhc-rcsf.ca/docs/annual_reports/2015_2016_CWHC_Annual_Report_EN.pdf	
E. 12 Legislation			
E.12.1	2017 JAN current Health of Animals Act	http://laws-lois.justice.gc.ca/PDF/H-3.3.pdf	IV.1, IV.3

E.12.2	CFIA legislation	http://inspection.gc.ca/about-the-cfia/acts-and-regulations/list-of-acts-and-regulations/eng/1419029096537/1419029097256	
E. 13 Laboratories			
E.13.1	CFIA approved laboratories	http://www.inspection.gc.ca/plants/potatoes/approved-laboratories/eng/1313199075408/1313199137952	II.1, II.2
E. 14 Quarantine & Border control			
E.14.1	http://www.cbsa-asfc.gc.ca/do-rb/		II.4
E.14.2	http://www.cbsa-asfc.gc.ca/do-rb/services/menu-eng.html		
E. 15 Biosecurity & Risk Assessment			
E.15.1	Canadian Beef Cattle On-Farm Biosecurity Standard	http://www.cattle.ca/assets/Uploads/CB-CattleStandard-Eng-web.pdf	II.3
E.15.2	Managing the movement of people, vehicles, equipment and tools	http://www.cattle.ca/assets/Uploads/Beef-Fact-Sheet-Managing-the-me-vehicles-equipment-Final-Eng.pdf	
E.15.3	Movement of high risk and highly susceptible animals	http://www.cattle.ca/assets/Uploads/Beef-Fact-Sheet-Movement-of-high-risk-animals-Final-English.pdf	
E.15.4	Educate, plan and record	http://www.cattle.ca/assets/Uploads/Beef-Fact-Sheet-Educate-plan-and-record-Final-Eng.pdf	
E.15.5	2009-2013 West Hawk Lake Zoning Initiative	http://www.animalhealth.ca/asp/public/publicdocs/WHL_Summary_FINAL.pdf	II.3, II.5, II.7
E.15.6	Canadian Johne's Disease Initiatives (CJDI: 2006 – 2013)	http://www.animalhealth.ca/asp/public/publicdocs/CJDITransitionToBio.pdf	
E.15.7	Animal Health Risk Assessment - Training Trends in Canadian and International Veterinary Colleges	http://www.scienceadvice.ca/uploads/eng/assessments%20and%20publications%20and%20news%20releases/animal%20health/training_trends_en.pdf	II.3
E.15.8	The Expert Panel on Approaches to Animal Health Risk Assessment	ISBN 978-1-926558-34-9 - The Council Of Canadian Academies	
E. 16 Veterinary Public Health & Food Safety & Hygiene			
E.16.1	2014 Feb CFIA Audit 4 EU States re Food Safety Systems	http://www.inspection.gc.ca/food/meat-and-poultry-products/imports/audits-of-meat-inspection-programs/final-report-of-an-audit-eu-eng/1436982193674/1436982490901?chap=0	II.8
E.16.2	Meat Inspection Act	http://laws-lois.justice.gc.ca/PDF/M-3.2.pdf	
E.16.3	Farm Direct Marketing: Know the Regulations Meat and Meat Products	http://www1.agric.gov.ab.ca/\$department/deptdocs.nsf/all/agdex15375/\$file/844_4apr15.pdf?OpenElement	
E.16.4	CFIA registered establishments	http://www.inspection.gc.ca/food/meat-and-poultry-products/registered-establishments/eng/1374560511959/1374560512678	
E.16.5	CFIA product recall system	http://inspection.gc.ca/about-the-cfia/newsroom/food-safety-system/food-recalls/eng/1332206599275/1332207914673	
E.16.6	CFIA labelling regulations (Justice Laws)	http://laws-lois.justice.gc.ca/eng/regulations/SOR-90-288/page-19.html#docCont	
E.16.7	HC residue limits	http://www.hc-sc.gc.ca/fn-an/secureit/chem-chim/adulterating-substances-adulterantes-	

		eng.php	
E. 17 VMPs and Residues			
E.17.1	CFIA-Chemical Residues / Microbiology	http://inspection.gc.ca/food/chemical-residues-microbiology/eng/1331960432334/1331962151945	II.8, II.9, II.10
E.17.2	Veterinary Drugs - Health Canada	http://www.hc-sc.gc.ca/dhp-mps/vet/index-eng.php	
E.17.3	CFIA Chemical Residues in Food	http://www.inspection.gc.ca/food/chemical-residues-microbiology/chemical-residues/eng/1324258929171/1324264923941	
E.17.4	Chemical Contaminants – Health Canada	http://www.hc-sc.gc.ca/fn-an/secureit/chem-chim/index-eng.php	
E.17.5	AMR Surveillance Public Health Agency	http://www.phac-aspc.gc.ca/cipars-picra/index-eng.php	
E.17.6	2015 AUG 01 Report OAG on AMR	www.oag-bvg.gc.ca . ISBN 978-1-100-25880-5	
E.17.7	2012 Ad Hoc Committee on Anti-microbial Stewardship in Canadian Agriculture and Veterinary Medicine,	www.antimicrobialcanada.com	
E.17.8	2012 A petition to improve stewardship of antibiotics in animals	www.antimicrobialcanada.com	
E.17.9	Stewardship of antimicrobial drugs in animals in Canada: How were we doing in 2013?	CVJ / VOL 55 / MARCH 2014	
E.17.10	Editorial: Antibiotic stewardship	CVJ/VOL56/FEB 2015	
E.17.11	2016 JUN 16 Regulations Amending the Food and Drug Regulations (Veterinary Drugs Antimicrobial Resistance) p.2357	Canada Gazette Part I July 2, 2016	
E.17.12	2006 CVMA – Guidelines for the Legitimate Use of Compounded Drugs In Veterinary Practice	CVMA	
E.17.13	Veterinary Oversight Of Antimicrobial Use – A Pan-Canadian Framework Of Professional Standards For Veterinarians	CVMA	
E.17.14	2017 FEB CVMA AM use survey	CVMA Newsletter	

ON-MISSION DOCUMENTS

EM- electronic version, PP- powerpoint presentation, MS-memory stick

	Mission documents	Author / Web	Related CC
PP.01	FINAL - PVS - CFIA Overview	CFIA	All
PP.02	PVS Operations Overview	CFIA	All
PP.03	FINAL_CVS_Presentation_for_PVS	CFIA	All
PP.04	CAHSS PVS March 2017	CFIA	II.5
PP.05	TAHESS PVS presentation March 13	CFIA	II.5
PP.06	CODEX_PVS_Presentation_March_13-2017	CFIA	III.3, IV.3, IV.6
PP.07	Canada_s_engagement_in_OIE	CFIA	III.3, IV.3, IV.6
PP.08	HR - Professional and Technical Staffing of the Vet Services	CFIA	I.1A&B, I.2A&B
PP.09	CFIA Veterinary Training Overview PVS Evaluation of Canada March 2017	CFIA	I.2A&B
EM.01	CFIA_ACIA-#1788678-v7-VM_04_-_Vet_Lab_Authority_-_May_1__2001;007801	CFIA	II.1, II.2
PP.10	CANADIAN FOOD INSPECTION AGENCY	CFIA	All

PP.11	SR-02 - D97957 - PVarious - OPS-Regional Program Officer-Final - WD	CFIA	I.1A&B, I.2A&B
PP.12	OIE PVS (CVMA)	CVMA	I.2A&B, III.5
EM.02	CVMA 2015 Annual Report	CVMA	I.1A&B, I.2A&B, III.5
PP.13	PVS Accredited Vet Program	CFIA	I.1A, II.6
EM.03	Manuel_de_procédures_de_gestion_des_servic es_vétérinaires_accrédités_Mars_2017	CFIA	I.1A, II.6
EM.04	AccreditedVet Manual_EN	CFIA	I.1A, II.6
EM.05	Management_of_accredited_veterinarian_servic es-March_2017EN	CFIA	I.1A, II.6
PP.14	FINAL_ENGLISH_-_PVS_Evaluation_-_ Overview_of_Communications_-_ March_2017	CFIA	III.1, III.2
EM.06	Emergency and Crisis Communications Protocol and Communications Products	CFIA	II.6, III.1, III.2
EM.07	Facebook	CFIA	III.1, III.2
EM.08	Emergency and Crisis Communications Protocol	CFIA	II.6, III.1, III.2
PP.15	2017 Wildlife Issues overview	CFIA, CWHC	II.5, II.6, III.1, III.2
PP.16	CFIA_traceability_presentation_-_ OIE_evaluation_(PVS)_2017-03	CFIA/CCIA	II.12A
MS #15	Traceability - animals	CFIA and others	II.12A
PP.99	PVS_Disease_Prevention_Control_Zoning_Ani mal_welfare	CFIA	II.7, II.13
MS #16	Meat hygiene standards	CFIA and others	II.8A&B&C
MS #99	Disease control & emergency response	CFIA and others	II.6, II.7
PP.17	PVS_Emergency_Management_March_14__20 17	CFIA	II.6
MS #17	Emergency management	CFIA and others	I.9, I.11, II.6
PP.18	FINAL-PPB-_AH_Import__Export	CFIA	II.3, II.4
MS #18	Import/export	CFIA	II.3, II.4
PP.19	AHRA-_2017013-Risk_analysis_presentation	CFIA	II.3
MS #19	Risk	CFIA	II.3, II.4
PP.20	Veterinary_Biologics	CFIA	II.9
PP.21	Vet Drugs_PVS Presentation_14MAR2017	CFIA	II.9
EM.09	Analysis_15-16_Workplan_EN_V3	CFIA	II.10
PP.22	Feed_Overview_OIE_PVS_Eval_March	CFIA	II.11
PP.23	Evaluation on AMRAMU	CFIA	II.9, II.10
MS #21	Animal feed	CFIA	II.9, II.10, II.11
PP.24	FIECPD Overview	CFIA	II.8A&B&C
PP.25	Meat Inspection System Equivalency	CFIA	II.8A&B&C
MS #22	Food safety	CFIA	II.8A&B&C
PP.26	Lab_overview	CFIA	II.1, II.2
PP.27	AH Research at the CFIA	CFIA	II.1
PP.28	Public_Health_Zoonoses	CFIA	II.5, II.6
MS #26	Veterinary drugs	CFIA	II.9, II.10
PP.29	Regional Development	CFIA	1.11
PP.30	CAHI Presentation 2017-03-17	CFIA	II.9, II.10
EM.10	6969_GBS 2015 CA full report	CFIA	II.9, II.10
EM.11	Global Benchmarking working doc 2016	CFIA	II.9, II.10
MS #27	CCVR	CFIA	III.5
EM.12	AAAHT Bylaws September 2015	AAAHT	III.5
MS #28	Alberta	Alberta	1.5, I.6, II.7

EM.13	VSBs_CFIA_ACIA - #8018996 - v2B - AHRA-2016-CEP Powers table Critical competency with attached OIE Key Elements	CFIA	I.2A&B, I.3
PP.31	TB2016 OIE Presentation 2017~03~23	CFIA	II.6, II.7
MS #29	Emergency slaughter	CFIA	II.13
EM.14	Yukon AHU summary OIE evaluation	Yukon	I.6
MS #30	Vet biologicals	CFIA	II.9, II.10
MS #31	Quebec	Quebec	All
MS #32	Risk assessment	CFIA	II.3
MS #33	Ontario	Ontario	All
MS #34	Legislative process	CFIA	II.1, II.2
MS #35	CCIA	CCIA	II.12
MS #36	Canada Sheep Federation	Sheep Federation	II.5, II.6, II.7, III.1, III.2
MS #37	AIRS	CFIA	II.3, II.4
MS #38	Audit branch	CFIA	I.11
MS #39	Training	CFIA	I.3
MS #40	NCFAD	CFIA	II.1, II.2
PP.32	saskpolytech VT presentation to OIE 2017	Polytechnic	I.2B, III.4
EM.06.2	https://www.canadianveterinarians.net/science-knowledge/cvr-about (vet reserve)		I.1.A, I.1.B
EM.06.3	http://beta.rvtcanada.ca/about-us/		I.1.A, I.1.B
EM.08	http://beta.rvtcanada.ca/become-a-rvt/		I.2.B
EM.09	https://www.canadianveterinarians.net/documents/programs/ahtvtpac/college s-with-accredited-programs		I.2.B
EM.09a	http://meatforce.ca/training-education/		I.2.B
EM.10	http://www.inspection.gc.ca/food/chemical-residues-microbiology/laboratory-management/qmof/eng/1342722248818/1342722485391		II.2
EM.11	http://www.inspection.gc.ca/animals/terrestrial-animals/exports/live-animals/external-laboratories/eng/1334692613353/1334692757036		II.2
EM.12	https://www.scc.ca/en/search/palcan/food		II.2
EM.13	Groupe de recherche en épidémiologie des zoonoses et santé publique ; https://www.medvet.umontreal.ca/grezosp/grezosp_f.htm		II.3
EM.14	Groupe de recherché et d'enseignement en salubrité alimentaire ; http://www.medvet.umontreal.ca/gresa/activites.php		II.3
EM.15	http://www.inspection.gc.ca/plants/imports/airs/eng/1300127512994/1300127627409		II.4
EM.16	http://www.inspection.gc.ca/food/imports/commercial-importers/nisc/eng/1364059150360/1364059265637		II.4
EM.17	http://www.inspection.gc.ca/food/information-for-consumers/travellers/risks-to-canada/eng/1389637960188/1389638226596		II.4
EM.18	http://www.cwhc.ca		II.5
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EM.20	https://www.cahss.ca		II.5
EM.21	http://www.cwhc-rsf.ca/report_submit.php#		II.5
EM.22	http://www.inspection.gc.ca/animals/terrestrial-animals/diseases/surveillance/bovine-surveillance-system-bss-/eng/1399042076293/1399042275724		II.5
EM.23	http://inspection.gc.ca/animals/terrestrial-animals/diseases/reportable/2017/eng/1329499145620/1329499272021 http://inspection.gc.ca/animals/terrestrial-animals/diseases/immediately-notifiable/eng/1305670991321/1305671848331 http://inspection.gc.ca/animals/terrestrial-animals/diseaseannually-notifiable/eng/1305672292490/1305672713247		II.5
EM.24	http://www.faa.gov.nl.ca/agrifoods/animals/livestock/pdf/slaughter_unit.pdf		II.8
EM.25	http://www.inspection.gc.ca/english/anima/meavia/mmopmmhv/mane.shtml		II.8

EM.26	http://www.inspection.gc.ca/food/safe-food-production-systems/food-safety-enhancement-program/program-manual/eng/1345821469459/1345821716482	II.8
EM.27	http://www.inspection.gc.ca/food/safe-food-production-systems/food-safety-enhancement-program/recognized-establishments/eng/1299860323382/1299860380217	II.8
EM.28	http://www.hc-sc.gc.ca/dhp-mps/vet/label-etiquet/faq_eldu-umdde-eng.php	II.9
EM.29	http://healthycanadians.gc.ca/alt/pdf/publications/drugs-products-medicaments-produits/antibiotic-resistance-antibiotique/action-plan-daction-eng.pdf	II.9
EM.30	https://www.canada.ca/en/public-health/services/antibiotic-antimicrobial-resistance/antimicrobial-resistance-use-canada-federal-framework-action.html	II.9
EM.31	http://www.phac-aspc.gc.ca/cipars-picra/index-eng.php	II.9
EM.32	http://www.hc-sc.gc.ca/dhp-mps/vet/antimicrob/index-eng.php	II.9
EM.33	<i>Notice to Stakeholders: Collaborative efforts to promote the judicious use of medically-important antimicrobial drugs in food animal production</i>	II.9, III.2, III.6
EM.34	<i>Letter: Advice to producers, veterinarians and animal nutritionists regarding the use of growth promoting antimicrobial drug products</i>	II.9, III.2, III.6
EM.35	http://www.hc-sc.gc.ca/dhp-mps/prodpharma/pdl-ord/pdl_list_fin_ord-eng.php#a2	II.9
EM.36	http://www.progressivedairycanada.com/news-topics/organizations/dairy-farmers-milk-traceability-tools-to-increase-productivity	II.12
EM.37	http://www.betterfarming.com/online-news/report-slams-canada%E2%80%99s-livestock-traceability-system-60860	II.12
EM.38	https://www.canadiancattlemen.ca/2016/12/19/mandatory-livestock-premise-id-on-cfia-agenda/	II.12
EM.39	https://www.albertafarmexpress.ca/2016/11/22/a-full-and-robust-livestock-traceability-system-still-years-away/	II.12
EM.40	http://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/agriculture-and-seafood/animal-and-crops/animal-production/bee-assets/api_fs706.pdf	II.12
EM.41	http://www1.agric.gov.ab.ca/\$Department/deptdocs.nsf/all/trace14212	II.12
EM.42	http://www.horsewelfare.ca/horse-welfare-resources/233-equine-traceability-canada	II.12
EM.43	http://www.inspection.gc.ca/animals/terrestrial-animals/traceability/description/requirements-for-livestock-producers/eng/1398864061655/1398864128830	II.12
EM.44	http://cangoats.com/id-traceability/	II.12
EM.45	http://www1.agric.gov.ab.ca/\$Department/deptdocs.nsf/all/trace14208	II.12
EM.46	http://www.ccac.ca/en/standards	II.13
EM.47	http://cfhs.ca/farm/our_recommendations	II.13
EM.48	http://bovin.qc.ca/ (Les Producteurs de bovins du Québec)	III.1
EM.49	http://www.albertabeef.org/page/about	III.6
EM.50	http://canadagazette.gc.ca/rp-pr/p2/2014/2014-06-04/html/sor-dors127-eng.php	IV.1
EM.51	http://www.inspection.gc.ca/animals/terrestrial-animals/diseases/reportable/ai/2016-investigation-ontario/eng/1468009863147/1468009863813	IV.6
EM.52	http://www.inspection.gc.ca/animals/terrestrial-animals/diseases/reportable/ai/2016-investigation-ontario/eng/1468009863147/1468009863813	IV.6
EM.53	<i>Notice to Industry: Declaration of freedom from Notifiable Avian Influenza for Ontario - country freedom reinstated</i>	IV.6
EM.54	<i>Statement: The Canadian Food Inspection Agency Continues its Investigation into Avian Influenza in Ontario</i>	IV.6
EM.55	<i>Statement: The Canadian Food Inspection Agency Establishes Avian Influenza Control Zone</i>	IV.6
EM.56	<i>News Release: Avian influenza confirmed on farm in Southern Ontario</i>	IV.6

Appendix 6: Organisation of OIE PVS evaluation of the Canada VS

Assessor Team:

- | | |
|--------------------------|------------------|
| ▪ Dr John Weaver | Team leader |
| ▪ Dr Francois Gary | Technical expert |
| ▪ Dr Susanne Münstermann | Technical expert |
| ▪ Dr Herbert Schneider | Technical expert |

References and Guidelines:

- Terrestrial Animal Health Code (especially Chapters 3.1. and 3.2.)
- OIE PVS Tool for the Evaluation of Performance of VS
 - Human, financial and physical resources,
 - Technical capability and authority,
 - Interaction with stakeholders,
 - Access to markets.

Dates: 13 to 31 March 2017

Language of the evaluation and reports: English

Subject of the evaluation:

- VS as defined in the Terrestrial Animal Health Code
 - Not Inclusive of aquatic animals
 - Inclusive of other institutions / ministries responsible for activities of VS

Activities to be analysed: All activities related to animal and veterinary public health:

- Field activities included:
 - Animal health (surveillance, early detection, disease control, etc.)
 - Quarantine (all country borders)
 - Veterinary public health (food safety, veterinary drugs/biologicals, residues, etc.)
 - Control and inspection
- Data and communication
- Diagnostic laboratories and research
- Initial and continuous training
- Organisation and finance

Persons met and interviewed/sites visited: see Appendix 3

Procedures:

- Review of data and documents
- Extensive field trips
- Interviews and meetings with VS staff and stakeholders,
- Analyse of programmes and processes

Provision of assistance by the evaluated country

- Additional data provided
- Administrative authorisation to visit designated sites
- Logistical support

Reports:

- A verbal summary was presented at the closing session
- A report will be sent to the oie for peer-review within one month of the mission
- The current levels of advancement with strengths, weaknesses and references for each critical competence will be described
- General recommendations may be made

Confidentiality and publishing of results

The results of the evaluation are confidential between the country and the OIE and may only be published with the written agreement of the evaluated country.