VetJapan South

Self Evaluation Report 2019

EAEVE European Association of Establishments for Veterinary Education

Full Visitation 9-14/June/2019

TABLE OF CONTENTS

Introduction

Brief History of the Establishment and of its Previous ESEVT Visitations *(if any)*

The first establishment of veterinary education in Japan was founded in Tokyo, 1878, as a branch of the army in order to train the veterinarians for war horses. Establishment of veterinary education in Yamaguchi prefecture was first founded in June 1883 as the Department of Veterinary Science at Yamaguchi Cultivation Test Center. Later in 1944, it developed as Yamaguchi Veterinary Medical School (renamed in the following year as School of Veterinary and Zootechnics) and became the Department of Veterinary Medicine, Faculty of Agriculture at Yamaguchi University (YU). Establishment of veterinary education in Kagoshima prefecture was first founded in April 1939 as the Department of Veterinary Science at the Kagoshima School of Agriculture and Forestry to train veterinarians and animal husbandry specialists. Later in 1949, it became the Department of Veterinary Medicine in the Faculty of Agriculture at Kagoshima University (KU). In 1984, a four-year program of veterinary education in Japan became a six-year program. At the Japanese government level, it was decided to increase the length of the curriculum in order to manage the high demand in veterinarians' roles.

In 2004, eighty-seven national universities including YU and KU in Japan, which used to be a part of the national government, were incorporated by the Cabinet decision for a further independence and freedom of higher education. There are two purposes for this incorporation: first, to improve each university's independence and autonomy to enhance education and research activities; second, not to be subjected to a variety of national regulations including the usage of the budget (from a line-item budget to a block grant). Therefore, each national university was required to change strategies, prioritize how to allocate the operating support funds and to further promote the introduction of external funding sources such as private companies. Around the same time, the evaluation system at the university level was introduced.

As the world becomes more globalized even in the field of veterinary science, more veterinarians who work on diseases that are brought from overseas are in demand. Therefore, advanced educational programs at university level needs to adapt of the change to the veterinarians' profession. Our goals are to promote globalization in liaison with other international educational systems and practice international standardized education. In 2012, the establishment joined the EAEVE evaluation process. VetJapan South (VJS; also JFVM as a Joint Faculty of Veterinary Medicine in YU and KU, see below) was supported by FY2012-2017 Subsidies Program by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) for Enforcing National University Reform, named "Building the Collaboration System for Conducting Veterinary Education Program that Meets the European/American Veterinary Standard by Four National Veterinary Medicine Universities" in alliance with Hokkaido University and Obihiro University of Agriculture and Veterinary Medicine (VetNorth Japan). To meet the International standard for veterinary education, some faculty members have visited several veterinary schools that have been approved/accredited by EAEVE and started to introduce the European standard of veterinary education system/program into the VJS.

For the improvement of education system, "Core Model Curriculum for Veterinary Science Education (CMCVSE)" which was based on the policy and guideline of the veterinary education in Japan and set as national degree standard of Day One Competencies, was created at the national level and implemented in both universities along with specialized subjects created by each university. This new curriculum enables students at both universities to have access to the same subjects and syllabi using the equal time frames. Participatory practical training in clinical veterinary science (clinical rotation) was set by implementing the Veterinary Common Achievement Test (VCAT) such as Computer Based Testing (CBT) and Objective Structured Clinical Examination (OSCE), and the total amount of hands-on practical training in the whole curriculum increased compared to that of the last decade. As for the implement of the new curriculum, the number of faculty members and staff has been increased, and the educational environment was improved by renovation or reconstruction of the new facilities and equipment with support from the Ministry of Agriculture, Forestry and Fisheries (MAFF) and the MEXT.

As the first step of assessment and evaluation of our education system/program at the international level, EAEVE consultative visitation by the ESEVT experts was conducted in 2017 (see the conclusion of the assessment in Annex Intro. 1).

Main Features of the Establishment

In 2008, MEXT allowed the modifications of the various operating structures of the universities and created new forms of academic positions. This decision made it possible for universities (national, public, and private) to combine faculty systems. Therefore, YU and KU established a JFVM in April 2012 to enhance veterinary training between the two universities. Combining efforts of these two universities enabled each university to take an advantage of its strengths. It advanced infectious disease control and large animal clinical medicine in JFVM-YU and JFVM-KU, respectively, and to complement each other. In addition to faculty and students from each university being able to attend topic classes together, students are now able to take bilateral media classes using the simultaneously streamed class system (SSCS) via internet. JFVM is striving towards a higher international quality level of veterinary education as a common goal to enrich the contents of veterinary education, improve curriculum, increase the number of faculty members and provide facilities and adapting to the overall mission.

In 2017, to ensure more effective management of the Faculty, VJS Council, which consists of Presidents, Executive committee members and Deans of both YU and KU, was established and both faculties of veterinary medicine are now operating under the VJS strategy on a daily basis. It has also founded the Joint Graduate School of Veterinary Medicine (JGSVM) of YU and KU, an independent four-year doctoral course, in 2018 with the cooperation of professors and research facilities of both universities.

Main Development Since the Last Visitation *(or, if there has not been a previous one, in the period since the veterinary degree programme began)*

VJS was visited (consultative visitation) on the 23-27 of October 2017 by the ESEVT experts in accordance with the “Uppsala” SOP-May 2016. During the visitation, the ESEVT Visitation Team identified several deficiencies and concluded that four and five deficiencies are considered as the potential major and minor deficiencies, respectively (Annex Intro. 1).

- Corrections of the potential major deficiencies;
    1. Standard 1.5: Both JFVM-YU and JFVM-KU have established JFVM Stakeholder Advisory Council and VJS receives suggestions and feedbacks on the faculty management from the council. In addition, two representative students (in JFVM-YU) or a chair (in JFVM-KU) of Student Committee are now part of members of the Faculty Management Council. Their opinions as the representative of students are incorporated in all aspects of student activities at VJS. The members of Student Committee also participate in Information and Communication Technology (ICT) Committee and several working groups in JFVM-YU, or Academic Affairs Committee, Student Life and Career Committee, and Public Relations (PR) and Information Committee in JFVM-KU as the representatives of students.
    2. Standard 4.8: The YU Animal Medical Center (YUAMEC) in JFVM-YU has established emergency services that operate from 7:00PM to 7:00AM for both companion animals and large animals including equines. Maximum 2 to 3 students are exposed to these emergency cases as a part of participatory clinical training in YUAMEC.
    3. Standard 5.1 and 5.2: The ESEVT Visitation Team remarked insufficient numbers of necropsy cases (companion animals, ruminants and pigs, equine, rabbits & exotics in JFVM-YU, and companion animals in JFVM-KU) as well as clinical cases and its diversity (equine extra- and intra-murally, rabbits & exotics, companion animals seen outside in JFVM-YU, and exotics in JFVM-KU) as below minimal value of ESEVT indicators. Since the last visitation, VJS is making efforts to acquire the sufficient numbers by continuous discussion with Local Practitioners on our requirements/needs and capability, new hiring of professors and academic staffs, and development of local extramural facilities for the practical training. All numbers now satisfies the minimal value of ESEVT indicators and these are available for the students’ clinical educational experience and hands-on training.
- Corrections of the potential minor deficiencies;
    1. Standard 3.1 and 3.2: As noticed by the EAEVE visitation team, the exposure to clinical rotation for students was not enough. Based on the remarks, JFVM-YU has introduced 10 more days for clinical rotation (for exotic animals, horse and livestock

animal clinics) and also drives quality improvement of equine medicine (increase of clinical cases of horses by the introduction of clinical training in the additional horseracing course and horse riding club). In JFVM-KU, the overall amount of clinical rotation is increasing (total 161 more days in 18 more weeks from the last visitation) and students now see more cases and more diversified caseloads. In accordance with the increase of total amount of clinical rotation, VJS has revised curriculum and Day One Competencies, and moved some courses including practical trainings from Y4-6 to Y1-3 to reduce the time load during Y4-6.

2. Standard 9.3 and 9.6: Based on the increase of the external practitioners teaching the students by introduction of much more participatory hands-on clinical training, JFVM-YU and KU set the definitive criteria to hire external practitioners and other external veterinarians, and introduce an equal formal training for them in the designed meeting every year.
3. Standard 11.3: To establish active participation of students in the management and QA of VJS, both JFVM-YU and -KU modified the regulation and organization as described above (see in Standard 1.5 of Correction of the potential Major Deficiencies)

- Other corrections and developments;

1. VJS transports poultry and piglet materials from external facilities for VPH and clinical training to the Pathological Necropsy room at both faculties instead of doing necropsies on-site.
2. As for improvement of the self-directed learning of students, JFVM-YU provides a self-learning room including subsidiary library, DVD-learning kit, and the video contents of topic classes. JFVM-KU introduces Veterinary Education in Video (https://search.alexanderstreet.com/vets) under annual contract and the students can access freely using not only the computer of self-directed e-learning room but also from their own PC via on-campus Wi-Fi network.
3. As the additional training for VPH, JFVM-KU introduced a practical training of VPH surveillance at public Livestock Health Hygiene Center (LHHC) under the agreement with Kagoshima prefecture. Students receive practical hands-on training for herd health management and health surveillance/management of cattle, pigs, and chicken.
4. As for improving the animal welfare, JFVM-YU started a new project named “Zero-Project”. The aim of this project is to eliminate the practical training with highly invasive treatments for animals. As a part of this project, JFVM-YU introduced some animal models, and one of them (horse model) was funded by the crowdfunding (39,000 euro). JFVM-YU also made a joint research and development agreement with MICOTO technology Co. LTD (http://www.micotech.jp/) for developing a new animal dummy (dog tracheal intubation model).

Major Problems Encountered by the Establishment *(whether resolved or not)*

- Global shortage of financial support from the government/minister (MEXT’s FY2012-2017 Subsidies Program ended in March 2018 and we are continuing to negotiate with the MEXT for further support).
- Not enough feedback from the graduates under the new education program of VJS (The JFVM started in April 2012 and first students under the curriculum of VJS graduated in March 2018).
- Insufficient verification of adequacy and appropriateness of the quality improvement in our education program [In addition to that, VJS has been evaluated at faculty level by Japan University Accreditation Association (JUAA) and was accredited in 2019. EAEVE consultative visitation was conducted in 2017 and VJS will go for a full visit of EAEVE in 2019].

Version and date of the ESEVT SOP which is valid for the Visitation

Uppsala SOP, 12 May 2016.

1. Objectives and Organisation

1.1. Factual Information

1.1.1 Details of the Establishment, i.e. official name, address, phone number, Email and website addresses, Establishment's Head, name and degrees of the person(s) responsible for the professional, ethical, and academic affairs of the VTH, official authority overseeing the Establishment.

Official name: VJS with two campus:

- VJS-YU (Address: 1677-1 Yoshida, Yamaguchi-City, Yamaguchi 753-8515, Japan, Phone number: +81-(0)83-933-5943, Email: ve102@yamaguchi-u.ac.jp, Website address: http://www.vet.yamaguchi-u.ac.jp/en/).

  Name and degrees of the person(s) responsible for the professional, ethical, and academic affairs of the VTH: Prof. Koichi SATO, D.V.M., Ph.D., Dean of JFVM in YU, working with Prof. Kenji TANI, D.V.M., Ph.D., Director of VTH in YU.
- VJS-KU (Address: 1-21-24 Korimoto, Kagoshima-City, Kagoshima 890-0065, Japan, Phone number: +81-(0)99-285-8515, Email: nksoumu@kuas.kagoshima-u.ac.jp, Website address: http://www.vet.kagoshima-u.ac.jp/jfvm/eng/index.html), also official address of VJS.

  Establishment's Head: Prof. Akira SANO, M.D., Ph.D., President of KU.

  Name and degrees of the person(s) responsible for the professional, ethical, and academic affairs of the VTH: Prof. Atsushi MIYAMOTO, D.V.M., Ph.D., Dean of JFVM in KU, working with Prof. Yasuyuki ENDO, D.V.M., Ph.D., Director of VTH in KU.

  Official authority overseeing the Establishment: MEXT.

<Location>

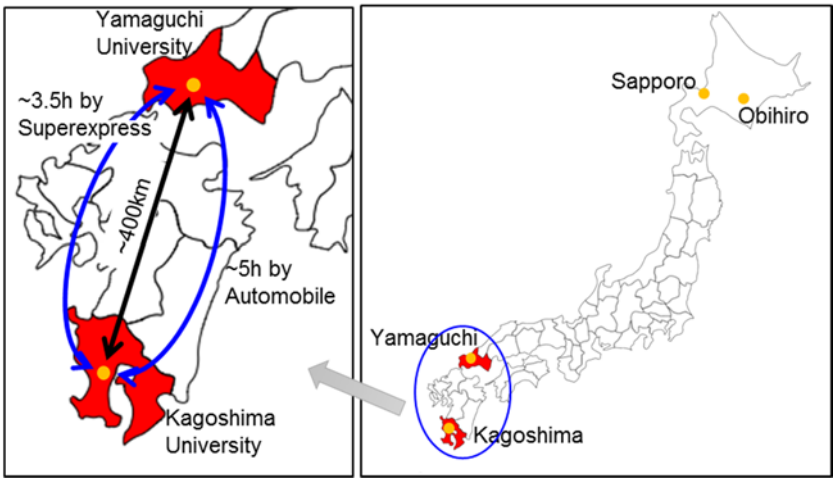


Figure 1. Location of VJS and its 2 campus

1.1.2. Summary of the Establishment Strategic Plan with an Updated SWOT analysis *(Strengths, Weaknesses, Opportunities and Threats)*, the Mission and the Objectives.

- **SWOT analysis of VJS**

• **Strength**:

- Sharing of educational philosophy, objectives, and resources between YU and KU by the establishment of JFVM before funding of VJS.
- Cooperative organization of VJS Council involving the presidents from both YU and KU.
- Stable financial support from each university.
- Regulation to keep small number of students each year.
- Veterinary students possess high basic academic skills and motivation towards veterinary clinical science.
- High percentage of faculty members are veterinarians.

- Well-structured joint faculty system and efficient equipment such as SSCS.
- Strong relationship among the Faculty members between YU and KU in both JFVM and graduate school.
- Well-equipped facilities for students such as libraries and study spaces in each university.
- Advanced arrangement of facilities and high quality equipment, and being able to share resources; for example, the International Center of Veterinary Educational Research (iCOVER) and Integrated Pathology and Diagnosis Laboratory (iPaDL) in JFVM-YU, and VTH and Experimental Animal Center (EAC) in JFVM-KU.
- Many agreements and set-up with extramural facilities such as local farmers and practitioners (in addition, Aquarium in JFVM-KU) for participatory clinical practical training of students to complement EU-listed subjects.
- Good relationships with local livestock raising administrations/organizations that have a lot of primary cases in KU.
- Dedicated education for students on zoonosis such as the highly pathogenic avian influenza in Transboundary Animal Disease (TAD) Research Center of KU.

- **Weaknesses**:

- Different organization and manner of the management.
- Long distance (around 400 km) and expensive transfer cost between YU and KU.
- High management and renewal cost of the SSCS.
- No program for specialist clinical training both at national and international levels and a few of physicians that have specialist license that is approved at the international standard level.
- Lack of faculty members to cover the new needs of the curriculum (exotics for example)
- Not well-organized clinical facilities for small animal in YU (narrow and old in part).
- Unbalanced hours of participatory clinical practical training, especially of large animal, for students between YU and KU.
- Limited numbers of necropsies cases, especially in companion animals, because of the Buddhism mentality.

- **Opportunities**:

- High demand and expectation for safe foods and veterinary medicine in Japan.
- High standard of sanitary control and public consciousness in Japan.
- Active strategic supports from the Japanese government to meet international veterinary educational standards.
- Active financial supports from the government (on a regular basis from MEXT and the special activities from MAFF).
- Well designed for development of the postgraduate and continuing education lectures for private veterinarians.
- Location of YU in a potential market for small animal clinic.
- Easy access to farm animals, slaughterhouses, and the other external facilities for students in KU.
- Large amount of wild and rare animals such as crane in the Izumi crane migration grounds, one of the major wintering spot of crane in the world, of Kagoshima prefecture.
- Accessibility and attractiveness for foreign students from South East Asian countries due to the quality of teaching equipment.

- **Threats**:

- Limited English skills among faculty members and students.
- Less food-producing animals in Yamaguchi prefecture.
- Decline of the young population in Japan.
- Natural disasters such as earthquake.
- Outbreak of emerging/re-emerging transboundary infectious diseases that can be brought from other countries.
- Low status and salary of veterinarian compared to those of medical doctor and dentists in Japan.
- Not very easy to have primary medicine cases of small animals in VTH.

- **Establishment Strategic Plan**

The ongoing strategic plan was designed to introduce international veterinary educational systems/programs by global modification of educational environment and to reach international veterinary education standard recognized by EAEVE accreditation. The new strategic plan for the next five years was discussed with VJS University Council and VJS Faculty Council. They are working towards the following objectives; a) further development of the quality in veterinary education based on external evaluation and contribution to revise a standardized evaluation system of the quality of teaching in veterinary establishments in Japan and throughout Asia; b) promoting veterinary education based on animal welfare; c) being the reference for advanced veterinary medicine and the platform for higher medical treatments of animals in Southwest Japan.

- **Mission and Objectives**

Mission of VJS consists of 1) pursuing research on animal life science, which forms the core of life science; 2) conducting scientific research on environments and societies in which humans and animals coexist; 3) learning to respect life through animal bioethics; and contributing to the creation of an abundant global society. VJS has designated following statements as educational objectives: 1) by systematically creating and implementing a world-class education in veterinary medicine, train highly educated veterinarians with deep knowledge and advanced technical skills, 2) cultivate abilities to contribute to the substantive improvement of human society through broader insight and a sense of ethics, 3) foster individuals who can solve problems and improve themselves continuously, and 4) connect students with their local communities and offer them a wide range of perspectives on global society.

1.1.3. Summary of the Establishment Operating Plan with Timeframe and Indicators of Achievement of its Objectives.

- **Establishment Operating Plan**

a) In order to establish the evaluation system for veterinary education at the global standard level in Japan and Asia for providing a wide range of professional education in veterinarians' duties and all animal species as the objects of veterinary medicine, VJS will contribute to raise the third-party evaluation system in Japan to an international level by taking an active role in the revision of evaluation criteria and methods for veterinary education by JUAA. We will participate actively at Asian Association of Veterinary Schools (AAVS) to build the international evaluation system for veterinary education in Asia based on the experience in the process of quality improvement of veterinary education program in VJS and attempting to have the EAEVE accreditation. In addition, VJS is planning to propose standardization of the evaluation system in the National Veterinary Science Universities Representatives Council (NVSURC) which consists of a representative from each veterinary faculty/department in Japan.

b) In order to reduce practical training with high invasiveness, VJS will expand Skills Laboratory as well as develop animal dummies in the collaboration with private companies and use them for our veterinary education. We are also planning to establish Animal Welfare Course (Department) for the Faculty and JGSVM (master's degree for two years) to fulfill education for animal welfare.

c) The VJS is planning to develop the platform for advanced veterinary education and research based on the regional characteristics. VJS will renovate and/or reconstruct new facilities and equipment for companion animal medicine in West Japan (JFVM-YU) and for animal husbandry and wild life animals in the remote islands area of South Japan (JFVM-KU).

- **Timeframe and indicators**

- In 2017-2021: Establishment and expansion of Skills Laboratory, and development of animal dummies
- In 2018-2019: Evaluation and accreditation by the JUAA
- In 2018-2025: Revision of JUAA evaluation system/criteria and participation in AAVS
- In 2019-2020: Evaluation and accreditation by EAEVE
- In 2019-2021: Establishing centers for cattle fertilized eggs supply and wild animal protection in the remote islands area in Kagoshima Prefecture (JFVM-KU)

- In 2019-2025: Functional enhancement of YUAMEC (JFVM-YU) and establishment of Department of Animal Welfare in VJS

1.1.4. Organization chart *(diagram)* of the Establishment.

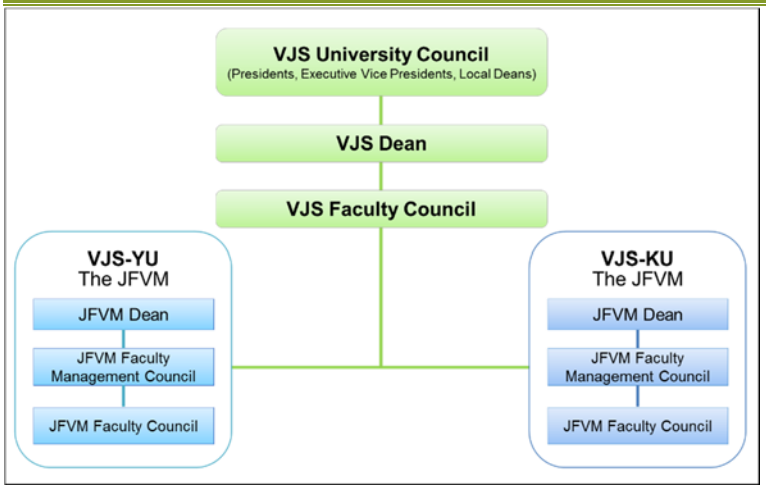


Figure 2. Administrative structure of VJS

1.1.5. List of departments/units/clinics and councils/boards/committees with a very brief description of their composition/function/responsibilities *(further information may be provided in the appendices)*.

- **VJS Level**
- **Councils and responsible person in VJS**
  - VJS University Council: This council is the highest organization in VJS and is composed of eight members including the two Presidents, the two Executive Vice Presidents in charge of general affairs, and two Executive Vice Presidents in charge of finances for both YU and KU, and the two Deans from each JFVM. This council is chaired by the President of the active VJS Dean, and gives the final decision on approval of the budget, personal affairs, and to all relevant regulations in VJS, which are proposed by VJS Faculty Council (see below).
  - VJS Dean: VJS Dean is selected alternatively from the JFVM Deans of both YU and KU for a period of two years. VJS Dean in charge of the chief responsibility for budget implementation, education, administration of the organization and future planning of VJS, submits proposals and plans derived from VJS Faculty Council to VJS University Council for the discussion.
  - VJS Faculty Council: This Council is chaired by VJS Dean and consists of JFVM Deans, JFVM Vice Deans, representatives of Education and Research Council, and directors of related Administration Offices of both YU and KU. In this council, topics such as course subjects and allocation of related faculty members, admission policies and examinations, student's position, welfare and guidance, grading policies, graduation policies, evaluation of conditions for any educational research activities, budgetary matters, and improvement and management of the collaborative educational courses are discussed and decided in cooperation with the JFVM Faculty Councils in both Faculties.

- **University Level at both YU and KU** (detailed in Annexes 1.1 and 1.2)

The boards and councils of both YU and KU at the University level are as follows:

- President: A President is selected and entered by National University Corporation and appointed by the MEXT.
- Board of Directors (Executive committee): The Board of Directors was established as the decision-making organization of the university, consisting of the president, the five directors (of Administration, Human Resources, Finance, Student Education, and Academic Research) and external trustees appointed by the president. The following objectives at the University level are discussed by the Board; strategic objectives and yearly planning, matters on things that needs approval from MEXT, budgetary matters, and matters on University, Department, and other important organization's establishment or discontinuance.

- Management Advisory Councils: The Management Advisory Council was established as a deliberative and proposal organization of the administration, consisting of the president, the Executive Committee members, Vice Presidents (only in YU), director of University's hospital (only in KU), external trustees and experts appointed by the president. The following objectives are discussed by the council; operational objectives and planning related in management to implement the strategy, matters on student regulation, financial affairs, regulations on salary and retirement allowance, budgetary and evaluation matters.
- Education and Research Council: The Education and Research Council was established as a deliberative and proposal organization of the education and research, consisting of the president, the Executive Committee members, external trustees appointed by the president, and representatives of faculty appointed by the President (Deans and Vice Deans including these of JFVM, Department Directors and Attached Facility Directors). The following objectives are discussed by the council; objectives and planning related to education and research, matters on student regulation, educational reforms, study support, admission and graduation policy, evaluation to report any educational or research progresses, and personnel affairs about faculties.

- **Faculty Level at YU and KU** (detailed in Annexes 1.3 and 1.4)

- **JFVM Department/units/clinics at YU**

VJS in YU consists of one department, divided into 3 Units including 20 Laboratories.

- Department of Veterinary Medicine
  - Unit of Basic Veterinary Science

    Laboratories of Veterinary Anatomy (Prof. Yasuo KISO), Veterinary System Physiology (Prof. Naomi WADA), Veterinary Biochemistry (Prof. Midori SHIMADA), Veterinary Pharmacology (Prof. Koichi SATO), Laboratory Animal Science (Prof. Tohru KIMURA), Veterinary Developmental Biology (Prof. Kiyoshi KANO), Veterinary Microbiology (Prof. Ken MAEDA)
  - Unit of Pathogenetic and Preventive Veterinary Science

    Laboratories of Veterinary Epidemiology (Prof. Hajime TOYOFUKU), Veterinary Pathology (Prof. Masahiro MORIMOTO), Veterinary Hygiene (Prof. Hiroyuki IWATA), Veterinary Public Health (Prof. Masahisa WATARAI), Veterinary Parasitology (Prof. Hiroshi SATO), Molecular Immunology and Infectious Diseases (Prof. Kazuo NISHIGAKI)
  - Unit of Clinical Veterinary Science

    Laboratories of Veterinary Surgery (Prof. Yasuho TAURA), Veterinary Radiology (Prof. Munekazu NAKAICHI), Veterinary Internal Medicine (Prof. Masaru OKUDA), Veterinary Clinical Pathology (Prof. Takuya MIZUNO), Veterinary Theriogenology (Prof. Mistuhiro TAKAGI), Preventive Physiology and Management (Dr. Hiroya KADOKAWA), Large Animal Clinic (Prof. Naoki SASAKI)
- YUAMEC (Director: Prof. Kenji TANI); Office of Quality Improvement in Veterinary Education (OQIVE) (Director: Prof. Masahisa WATARAI), Center of Veterinary Diagnosis and Development (CVDD) (Director; Prof. Masahiro MORIMOTO)

- **JFVM Department/units/clinics at KU**

VJS in KU has consists of one department, divided into 3 Units.

- Department of Veterinary Medicine
  - Unit of Basic Veterinary Science (Director: Prof. Mitsuya SHIRAISHI)
  - Unit of Pathogenetic and Preventive Veterinary Science (Director: Prof. Tetsuya TANAKA)
  - Unit of Clinical Veterinary Science (Director: Prof. Chikara KUBOTA)
- KUVTH (Director: Prof. Yasuyuki ENDO); TAD Research Center (Director: Prof. Kyoko KOHARA); EAC (Manager: Prof. Atsushi ASANO); OQIVE (Director: Dr. Takuro ARIMURA); Osumi Large Animal Clinical Center (OLACC) (Manager: Dr. Katsuhisa NAGAI)

- **JFVM Councils/boards/committees at YU and KU**

The boards of VJS in YU and KU are as follows (all nomination of board members are regulated by each official regulation):

- JFVM Deans: Competent JFVM Deans are appointed by respectively each President of YU or KU, based on a proposal of three or two applicants, respectively, elected by JFVM Faculty Council at each University. The JFVM Dean is chairing JFVM Faculty management council and JFVM Faculty council, a member of Education and Research Council at the University level, and in charge of personal affair and future plan, administrative regulation, budgetary matters, and admission examination.
- JFVM Vice Deans: Candidates are selected by the Dean (YU) or by JFVM Faculty Council (KU). Three (YU) or two (KU) are approved by the JFVM Faculty Council and nominated by the President from each University. JFVM Vice Deans are in charge of assistance of the JFVM Dean, general affair and planning for the future, education and research, and international cooperation/exchange (only in YU), security-related matter (only in YU), and budgetary matters (only in KU).
- YU-JFVM Department Director: An applicant is selected by the JFVM Faculty Council of YU, and approved by the President of YU. The JFVM Department Director of YU is in charge of department management, a chair of Department Conference, Department's event, selection of committee members, and student affair.
- YU-Chief of Laboratory: is the full-professor (or associate professor in the Laboratory without full-professor) in each Laboratory.
- KU-Unit Directors: Each unit of Basic Veterinary Science, Pathogenetic and Preventive Veterinary Science, and Clinical Veterinary Science selects a Unit director among full-professors, and they are appointed by the JFVM Dean.
- Director of VTH (YUAMEC in YU and KUVTH in KU): In YU, the director is selected by the JFVM Faculty Council (In KU, JFVM Faculty Council selects candidates among full or associate professors, and a Director is appointed by the JFVM Dean). The director is chairing YUAMEC Management Council and Committee, issue prescription and various certification of YUAMEC in YU (chairing KUVTH Council and all management of KUVTH in KU), and is responsible for the use of the budget of the VTH, appointing staffs and organization of education inside the VTH.
- YU-Director of CVDD: is nominated by JFVM Dean and chairing CVDD.
- KU-Director of TAD Research Center: is selected among full and associate professors, and approved by the JFVM Faculty Council of KU. The Director is chairing TAD Research Center Management Committee, and manages TAD Research Center.
- Director of OQIVE: is a Vice Dean in charge of education (in YU) or selected among the members of OQIVE and nominated by JFVM Dean (in KU), chairing OQIVE, and manages the Office.

VJS in YU and KU consists of several councils and committees regulated by official regulation, and all record of proceedings of the councils/committees at the Faculty level is reported to the JFVM Dean:

- JFVM Faculty Management Council: This council [JFVM Dean, Vice Deans, two representatives (only in YU) or chair (only in KU) of Student Committee, Director of VTH (YUAMEC in YU or KUVTH in KU), JFVM Department Director of YU (only in YU), Director of TAD Research Center (only in KU), Chairs of Academic Affairs Committee, Admission Examination Committee (AEC), PR and Information Committee, and International Relations Committee (only in KU), Director of OQIVE (only in KU), and Director and Vice Director (only in YU), or Director (only in KU) of JFVM Administration Office] discussed mid-term goals and plans, yearly plans, and budgetary matters, QA and evaluation, education courses and management of the facilities.
- JFVM Faculty Council: This council consists of full, associate, and assistant professors in the JFVM, and chaired by JFVM Dean. It discusses about reformation on educational courses; students' admission, graduation, welfare, guidance and giving an award; proposal of JFVM Dean and the VTH (YUAMEC in YU or KUVTH in KU) director, personnel affairs and budgetary matters, decision of promotions, and collaboration between YU and KU.
- JFVM Stakeholder Advisory Council: This council consists of Directors of veterinary sections in the Prefecture and City, the Federation of Agricultural Mutual Aid Association (FAMAA), and Federation of Veterinarians in the Prefecture, representative of local practitioners for companion animals, chair of alumni organization (only in KU), representatives from poultry and pig farms (only in YU), Director of YUAMEC and JFVM Department Director (only in YU), and JFVM Dean and Vice Deans. It discusses about strategic and operating plans, curriculum and educational contents, student admission and assessment, employment of

academic staffs, and international relations. VJS provides a strategy and plan for each matter based on the opinions/suggestions raised from the Council members in the designed meetings that are held once (in YU) or twice (in KU) per year. It also provides feedbacks on the development, implementation, assessment and revision of the QA strategy of VJS.

- VTH (YUAMEC in YU or KUVTH in KU) Council: This council [Director and Assistant Director of the VTH (YUAMEC or KUVTH), members of the Unit of Clinical Veterinary Science (only in YU), Vice Deans (only in KU), one full-time professor at the KUVTH (only in KU), the Heads of the Finance of JFVM Administrative Office and YUAMEC Administrative Office (only in YU), the Head of the General Affairs office of JFVM Administrative Office (only in KU), and the faculty members appointed by the council (only in KU)] manages VTH (YUAMEC or KUVTH), and discusses clinical education and research using the VTH (YUAMEC or KUVTH), personnel affairs and budgetary matters.
- KU-KUVTH Advisory Council: This council consists of Director and Assistant Director of the KUVTH, representatives of the FAMAA, Federation of Veterinarians in the Prefecture, local practitioners for companion animals, humane society in the Prefecture, and clients (pet owners), and a member of the City Council. It provides feedback on the management, finance, quality of staffs and students in KUVTH.
- OQIVE: This office consists of Dean, two JFVM Vice Deans, Director of YUAMEC, Department Director, three full professors from each Unit (in YU), or a dedicated academic staff of OQIVE, two JFVM Vice Deans, three academic staff representatives from each Unit (in KU). It analyzes and discusses the information on international evaluation and accreditation systems for veterinary education, and provides suggestions/opinions to the Faculty Management Council.
- KU-Faculty of Agriculture and JFVM Council: It consists of the Deans and the Vice Deans from the Faculty of Agriculture and JFVM-KU and the Director of the Office of Administration. It discusses about offered courses, usage of educational facilities including Iriki Farm, land and the buildings.
- KU-Epidemic Preventive Measures Council: It consists of the Deans and the Vice Deans of the Faculty of Agriculture and the JFVM-KU, full-professors selected from the Faculty of Agriculture and the JFVM-KU, the Animal Management Committee members at University level, the Farm Management Committee members at University level, and the KUVTH council members. It decides on basic policies and common procedures on epidemic preventive measures of rearing animals and patients.

- Biosecurity/Biosafety Committee: It consists of members of University Biosecurity Committee, members of University Labor Safety Committee, and the faculty members assigned to biosafety level (BSL) 2/3 practices, the representatives of laboratories of Veterinary Pathology, Veterinary Anatomy and Veterinary Clinical Medicine in YU (or the faculty members responsible for Anatomy room, Pathological Dissection room, Large and Small Animal Facilities, practice room for basic science, and EAC in KU). It discusses about: prevention and handling of biosecurity issues, equipment for biosecurity, specific procedures for YU-BSL2/3 rooms, special cares for Practices of Anatomy, Necropsy, and Participated Clinical Medicine for Small Animals and Large Animals, procedures for information to students and staffs in YU (or specific procedures for Anatomy room, Pathological Necropsy room, Large and Small Animal Facilities, basic science practice rooms, and EAC, and edification and teaching of Biosecurity/Biosafety procedures in practical, pre-clinical and clinical hands-on training to students and staffs in KU). It revises Biosecurity and Biosafety SOP every year and announces to the academic staffs and students.
- KU-TAD Research Center Management Committee: It consists of the Director of the center, seven members at the center, and two members from each Unit of Basic and Clinical Veterinary Science. It discusses about Basic Policies, special care of P3A room, budgetary matters, and TAD Research Center seminar.
- KU-Animal Management Committees: It consists of two committees (Animal Experiment Committee and Animal Ethics Committee) with the faculty members responsible for Laboratory Buildings, TAD research center, KUVTH and EAC, three associate professors from each Unit, and three external trustees. It is in charge of management of academic research using animals, animal welfare and ethics of rearing animals and patients in JFVM-KU and KUVTH, and edification and teaching of animal welfare and ethics procedure to students and staffs.

- Student Committee: It consists of 12 students' representatives (two from each academic year Y1 to Y6). It discusses about offered courses, usage of educational facilities, educational program, curriculum and contents for students, student's life as well as strategic and operating plans. Matters raised from this committee are discussed in the meeting (named as Student-Professors Liaison Council) held four times per year (in YU) or monthly (in KU), which consists of the members of this committee, JFVM Dean and two (in YU) or one (in KU) Vice Deans, Department Director (only in YU), the full-professors or associate professors in charge of each academic year and a member of Student Affairs Office of the JFVM Administration (only in KU). Also, two student representatives of it in JFVM-YU or a chair of it in JFVM-KU are members of JFVM Faculty Management Council, and the student members are involved in ICT Committee and several working groups in JFVM-YU, or Academic Affairs, Student Life and Career, and PR and Information Committees in JFVM-KU as the representatives of students.
- Other Committees in YU: There are other committees in place: Academic Affair and AEC; PR and Information Committee; International Relations Committee; Prevention of Radiation Damage Committee; Ethics Committee for Animal Clinical Test; Animal Care and Use Committee; Safety Recombinant DNA Experiment Committee; X-ray Treatment Committee; ICT Committee.
- Other Committees in KU: There are other committees in place: Academic Affairs Committee; Student Life and Career Committee; AEC; PR and Information Committee; International Relations Committee; Faculty Development (FD) Committee; Prevention of Radiation Damage Committee; Common Achievements Tests Committee; EAC Management Committee; ICT Committee.

1.1.6. Description of how *(procedures)* and by who *(description of the committee structure)* the strategic plan and the organisation of the Establishment are decided, communicated to staff, students and stakeholders, implemented, assessed and revised

The strategic plan and organization is first discussed and evaluated by the JFVM Faculty Councils, JFVM Faculty Management Councils, and JFVM Stakeholder Advisory Councils in YU and KU, and decided by the VJS Faculty Council, followed by the approval of VJS University Council. The decision is communicated to Faculty members in JFVM Faculty Council, and to students in the designated meeting between Student Committee and Faculty members. These are discussed among Faculty members in JFVM Faculty Councils and JFVM Faculty Management Councils, members in JFVM Stakeholder Advisory Councils, and students in Student Committee, and revised by the VJS Faculty Council.

1.2. Comments

- There are a lot of challenges to overcome to meet the high global standard in veterinary education in Japan. The organization and strategies developed by VJS recently are designed to face these challenges.
- VJS University Council and Faculty Council are the place where each university reports and confirms their own Faculty decisions, and not the place for daily managing each Faculty. Therefore, a lot of independence remains from each university.
- JFVM Stakeholder Advisory Council provides their advice and feedback on the management of the Faculty.

1.3. Suggestions for Improvement

This new program is the first of its kind in Japan, and is being implemented by four universities to support the development of a better veterinary educational system. The collaborative educational system of VJS is also a part of this program. It attracted public's attention not only from the view of the future of veterinary education in Japan, but also as one of the collaborative educational models in higher education. This system will greatly affect the future of Japanese higher education; therefore, it needs to succeed. It was important to communicate among those four universities to precede the program. The program was in a tight framework due to limited time and budget, so it is necessary to secure additional resources to keep it running. For its success, executives and advisory boards of each university need to fully understand the objectives and need to pursue it as a whole, not only as a single faculty department. In addition, as for collaborative education system, decisions at VJS University Council should come first, then they should be implemented to the

VJS Council, and JFVM Management and Faculty Councils, especially when drawing up a new project or matters on VJS structures. It is also necessary to have the support of the feedback to evaluate the efficiency of the new system, because VJS is a novel and challenging organization. To modify and improve the system continuously, VJS has introduced the new process to develop the quality loop such as getting feedback from the government, students, and stakeholders, and it helps for better function of VJS.

2. Finances

2.1. Factual Information

2.1.1. Description of the global financial process of the Establishment

Following the adoption of the strategic plan, construction of the budget framework is proposed by the JFVM Faculty Management Council in YU or KU. The framework is proposed for approval of the VJS University council. Following the approval, appropriate requests for funding are transferred to each University and to government level. Each University Management Council is in charge of validation of the final budget chart and its allocation to each JFVM. Usage of the allocated budget is under the responsibility of the deans in cooperation with JFVM Faculty Management Council and JFVM Faculty Council.

2.1.2. Degree of autonomy of the Establishment on the financial process

In general, the budget is divided into general expense and designated expense. All expenditure is decided at the JFVM Faculty Management Council, and reported at the Faculty Council. The autonomy on the financial process is completely allowed in JFVM-YU and KU:

- General Expense: It includes research allocation expense; educational expense; general common expense (such as utilities and maintenance fee); special common expense (such as payroll for temporary-part time- faculty staffs); committee activity expense (such as Open Campus Day fee, PR); travel expense; Dean's decision expense (such as updating educational facilities); facilities maintenance expense (renovation, updating).
- Designated Expense: It includes faculty designated expense (such as expense for faculty members working for a limited amount of time, support staff expense, practical work expense) and VTH expense. Already validated amounts are allocated, and there are strict regulations at the University level to how the money is used and what for. The VTH expense occupies the most part of the expense. In the VTH, the budget of the next year including the revenues from the VTH is built, and during the year the correction is made to adapt the revenues to the total figures. Overall, all the annual income of the VTH is allocated in its management budget. The global VTH expense is discussed at the YUAMEC Council in YU and KUVTH Council in KU before approval in each JFVM Faculty Management Council.

2.1.3. % of overhead to be paid to the official authority overseeing the Establishment on revenues from services and research grants

For the revenues from clinical services, in JFVM-YU, 44% of the revenues in YUAMEC is paid back to YU as an overhead expense and the rest (56%) is provided to JFVM as JFVM management fee. However, over this overhead paid to YU, YU pays directly for utility expenses, personal expenses of veterinarians and support staffs, repair costs of medical equipment and building renovation fees of VTH, which reduces significantly the impact of the overhead on YUAMEC. On the other hand, in JFVM-KU, there is no overhead expense from the revenues of KUVTH to KU. In addition, KU provides additional expenses such as JFVM management fee to JFVM if needed. For the revenues from research grants, faculty members at each University must pay overhead expenses to YU or KU from acquired external funds and the ratios of them to be paid are 7% to 30% of research grants such as consignment study funds, collaborative research funds, donations, and scientific research funds. A part of research overhead expenses is reallocated to JFVM.

2.1.4. Annual tuition fee for national and international students

Annual tuition fee for all students and entrance registration fee for students entering in the University are fixed nationally. The entrance registration fee is 2,350 Euros per student for the first year and then annual tuition fee is 4,465 Euros per student every year. These are same for both domestic and international students. It should be noted that all the money from the entrance registration fee and

annual tuition fee are collected once at the University level and it covers partially the annual revenues provided from each University to JFVM.

2.1.5. Estimation of the utilities *(e.g. water, electricity, gas, fuel)* and other expenditures directly paid by the official authority and not included in the expenditure tables

These costs at JFVM in YU and KU are paid by each JFVM. All utilities are included in the expenditure tables.

2.1.6. List of the on-going and planned major investments for developing, improving and/or refurbishing facilities and equipment, and origin of the funding

During last seven years, both government and University expended a large amount of money on the development of facilities and equipment and JFVM of both YU and KU performed many investments as follows. It is also planned to expand YUAMEC by borrowing external funds but the detail is not decided yet.

JFVM-YU

Facility or Equipment	Category	Funding origin	Academic Year	Expense (Euros)
SSCS	Developing	Subsidy for Facilities Expense*	2013	1,204,475
LASER	Developing	Internal funds**	2013	381,694
YUAMEC	Improving	Government Subsidy*** & Internal funds	2014	250,389
SSCS	Developing	Subsidy for Facilities Expense	2015	262,800
iCOVER	Developing	Subsidy for Facilities Expense	2012-2015	14,115,953
LINAC	Developing	Internal funds	2015	1,764,141
LINAC	Equipment	Subsidy for Facilities Expense	2016	1,586,920
YUAMEC	Developing & Improving	Government Subsidy & Internal funds	2016	149,994
Incinerator of carcass	Developing	Subsidy for Facilities Expense	2016	326,650
iPaDL	Developing	Government Subsidy & Subsidy for Facilities Expense	2017	1,632,083
YUAMEC	Refurbishing	External funds****	On going	Undecided

JFVM-KU

Facility or Equipment	Category	Funding origin	Academic year	Expense (Euros)
SSCS	Developing	Subsidy for Facilities Expense	2012	405,576
Incinerator of carcass	Improving	Subsidy for Facilities Expense	2013	500,000
TAD Research Center (P3A room)	Developing	Subsidy for Facilities Expense	2013	743,929
MRI	Developing	Subsidy for Facilities Expense	2013	602,911
CT	Developing	Subsidy for Facilities Expense	2013	708,629
Mobile Clinic for field surgery	Developing	Subsidy for Facilities Expense	2013	135,606
EAC	Developing	Subsidy for Facilities Expense	2015	10,000,000
OLACC	Improving & Equipment	Budget of autonomy***** & Internal funds	2016	170,000
Pathological Necropsy Room	Developing	Internal funds	2017	1,420,000
KUVTH	Developing	Internal funds	2017	7,100,000

*Funds from the government by “MEXT’s FY2012-2017 Subsidies Program for Enforcing National University Reform” to JFVM through each

University; **Funds from YU or KU; ***Funds from the government; ****Funds from outside of University; *****Funds from Osaki-City in Kagoshima Prefecture (none of this expense is made with money generated by Faculty's activity).

Abbreviations: LASER, Large Animal Station for Education and Research; LINAC, Linear Accelerator; MRI, Magnetic Resonance Imaging; CT, Computed Tomography.

2.1.7. Prospected expenditures and revenues for the next 3 academic years

In the next 3 academic years, VJS will maintain the number of students so that the prospected expenditures and revenues for education will be stable. In addition, as every facilities are running smoothly in JFVM-YU, the ratio revenues/expenditures will remain stable. In contrast, the JFVM-KU developed its new VTH in 2017 and operating costs of the new facility increase. In our planning, an increase of 20% of expenditures is expected due to equipment and personal costs such as new employment. However, an increase of revenues in the KUVTH is expected: 2,033,000 Euros in 2019; 2,050,000 Euros in 2020; 2,066,000 Euros in 2021.

2.1.8. Description of how *(procedures)* and by who *(description of the committee structure)* expenditures, investments and revenues are decided, communicated to staff, students and stakeholders, implemented, assessed and revised

Every year, expenditures, investments and revenues are discussed in each committee at the Faculty level and decided in the JFVM Faculty Management Council of YU and KU. The budget framework of budget is then approved by the University Management Council followed by VJS University Council and VJS Faculty Council. Then, the budget becomes public and communicated to staffs in the JFVM Faculty Council and implemented under the assessment by the Financial Division of JFVM Administrative Office. The budget is revised by the Dean based on the discussion between JFVM Faculty Management Council and the Financial Division of JFVM Administrative Office at each University.

Overview expenditures and revenues

Table 2.1.1. Annual expenditures during the last 3 academic years (in Euros)

JFVM-YU

Area of expenditure		AY* (2018)	AY-1 (2017)	AY-2 (2016)	Mean
Personnel	by the Ministry	4,991,616	4,779,070	5,002,164	4,924,283
	by the JFVM	0	0	0	0
Operating costs**		1,936,285	1,670,349	1,577,305	1,727,980
Maintenance costs		787,926	834,912	893,461	838,766
Equipment		392,407	253,928	305,823	317,386
Total expenditure		8,108,234	7,538,259	7,778,753	7,808,416

*The last full academic year prior the Visitation; **It does not include research operating cost.

JFVM-KU

Area of expenditure		AY* (2018)	AY-1 (2017)	AY-2 (2016)	Mean
Personnel	by the Ministry	5,175,000	4,857,609	4,736,120	4,922,910
	by the JFVM	0	316,527	360,377	225,635
Operating costs***		4,980,022	4,409,678	4,197,388	4,529,029
Maintenance costs		291,895	277,995	281,686	283,859
Equipment		481,987	459,035	584,539	508,521
Total expenditure		10,928,904	10,320,844	10,160,110	10,469,953

***It includes research operating cost.

Table 2.1.2. Annual revenues during the last 3 academic years (in Euros)

JFVM-YU

Revenues source	AY* (2018)	AY-1 (2017)	AY-2 (2016)	Mean
Public authorities	6,377,337	5,872,178	6,324,382	6,191,299
Tuition fee (standard students)	0	0	0	0
Tuition fee (full fee students)	0	0	0	0
Clinical services	1,664,366	1,624,039	1,451,358	1,579,921
Diagnostic services	0	0	0	0
Other services	0	0	0	0
Research grants****	93,647	83,142	93,721	90,170
Continuing Education	0	0	0	0
Donations	3,924	1,829	1,827	2,527
Other sources	0	0	0	0
Total revenues	8,139,274	7,581,188	7,871,288	7,863,917

****These are only research overheads to the JFVM-YU.

JFVM-KU

Revenues source	AY* (2018)	AY-1 (2017)	AY-2 (2016)	Mean
Public authorities	6,381,133	6,230,659	6,130,690	6,247,494
Tuition fee (standard students)	0	0	0	0
Tuition fee (full fee students)	0	0	0	0
Clinical services	1,963,674	1,780,267	1,352,121	1,698,688
Diagnostic services	0	0	0	0
Other services	0	0	0	0
Research grants*****	2,551,578	2,315,799	2,763,415	2,543,597
Continuing Education	0	0	0	0
Donations	218,333	267,817	167,469	217,873
Other sources	0	0	0	0
Total revenues	11,114,719	10,594,543	10,413,694	10,707,652

*****These include both global research grants and research overheads.

Table 2.1.3. Annual balance between expenditures and revenues (in Euros)

JFVM-YU

Academic year	Total expenditures	Total revenues	Balance******
AY-2 (2016)	7,778,753	7,871,288	92,535
AY-1 (2017)	7,538,259	7,581,188	42,929
AY* (2018)	8,108,234	8,139,274	31,040

******The surplus includes into the budget for the next year.

JFVM-KU

Academic year	Total expenditures	Total revenues	Balance*******
AY-2 (2016)	10,160,110	10,413,694	253,584
AY-1 (2017)	10,320,844	10,594,543	273,699

AY* (2018)	10,928,904	11,114,719	185,814

*******The deficit is recovered by the University and the surplus includes into the budget for the next year.

2.2. Comments

- The Japanese government and both universities had provided a lot of financial support to improve our education system from the beginning of 2012 to the end of 2017 and it had been expanding every year.
- Compared to other faculties, for example the faculty of Medical Science, the amount of money given to JFVM per area, buildings, numbers of academic staffs and students is equivalent, so the provision of budget from University to JFVM is fair at both YU and KU.
- The income of YUAMEC is high considering its size; therefore, further income may be difficult because of the institution's size. To generate more income, the expansion of land area and/or to the urban area should be discussed. In contrast, the income of KUVTH was relatively modest, however, reconstruction of KUVTH has been helpful to increase the revenues and staffs at the VTH, and to equip with more medical equipment.
- Each JFVM is able to develop self-income from their own activities like VTH, which is directly included in the budget for the next year.
- In JFVM-KU, KUVTH has no need to pay the overhead to KU and KU allocates additional expense to JFVM.
- Although 44% of YUAMEC income is refunded to YU, JFVM-YU is able to receive much more funds from the university.
- VJS does not have much experience on acquiring competitive funding and collaborative funding with private companies.
- Regarding financial matters, VJS possesses the freedom of budgetary decision within the Faculty.
- VJS has covered a part of teaching expenses in VTH by the revenue from clinical work, but we are hoping to have isolated expenses which allow us to cover the needs for the education in VTH.

2.3. Suggestions for Improvement

- It is important to increase the revenues in VTH and Faculty to support the Faculty financially and increase its staffs because JFVM at both YU and KU is definitely lacking the educational staffs, especially clinical staffs at the KUVTH with new facilities.
- In JFVM-YU, YUAMEC needs to expand more space for further increase of income.
- Expansion of budget frame, acquisition of external funds, increase of medical fee, etc. are necessary.
- VJS should make an effective investment plan for further development by utilizing advantage of the collaborative education system.

3. Curriculum

3.1. Factual Information

3.1.1. Description of the educational aims and strategy in order to propose a cohesive framework and to achieve the learning outcome

VJS education system aims to provide students with competencies and tools required for successful career into one of the following career path; 1) public veterinarians working for national or regional (prefecture) government including public health management, 2) farm animal veterinarians involved in animal infectious disease control, food safety, and public health improvement, and 3) companion animal veterinarians. VJS also promotes competencies required for the next generation of faculty members and researchers.

Our educational guidelines are based on CMCVSE setting as national degree standard of Day One Competencies. Training in VJS enables veterinarians to acquire skills, knowledge, competencies and attitudes described in the CMCVSE. After graduation, students need to pass the Japan National Veterinary Examination (JNVE) operated by the MAFF to receive the national veterinary license. In recent years, VJS are working to enrich its curriculum to meet the International standard such as the EU-listed subjects.

The syllabus is decided at VJS level and implemented in the different courses and lectures (Fig.3 and Annex3.1). The curriculum is organized as follows:

- **Non-veterinary basic studies (Y1)**; These courses provide educational background to foster basic knowledge of social and natural sciences. Observation skill and humanity, and wide range of liberal arts courses are offered.
- **Introductory veterinary basic science (Y1)**; These veterinary oriented introductory courses provide general knowledges to foster ethics and communication skills for veterinarians, computer competency, English, and academic ability of veterinary science.
- **Veterinary topic courses (Y1 to Y6)**; Veterinary courses consist of two types: 1) Basic veterinary science courses, and 2) Specific field courses with in-depth specialized courses taught to improve knowledge and skills in veterinary medicine. Practical work is mostly done separately at each campus in order to ensure a close interaction between students and teachers. This includes:
  1) **Overview of Veterinary Science**: including social role of veterinarians. Courses expose students to the wide variety of activities they might face in veterinary sciences, and offer opportunities for students to open their mind for their professional future.
  2) **Basic Veterinary Science**: Courses related to structure and function of animals are taken from the second semester of Y1 to the first semester of Y3.
  3) **Applied Veterinary Science**: Courses related to the pathogen and foundation of diseases are given during the second semester of Y2 and the first semester of Y3. In addition, courses related to diagnosis and prevention of animal diseases in applied veterinary science after acquiring the basic knowledge of animal body and pathogen are taken at the second semester of Y3 and the first semester of Y4.
  4) **Clinical Veterinary Science**: Syllabi is presented based on organ level for companion animals and species level for farm animals. Courses related to diagnosis and treatment of animal diseases are taken as lectures and practices on healthy animals from the second semester of Y3 to the first semester of Y5. Clinical rotations are then undertaken from the second semester of Y5 to the first semester of Y6.
- **Graduation thesis and preparation of JNVE**; Graduation thesis is founded in the part of the research-oriented subjects under supervision of a faculty member and helps students think about and select their future field(s) as veterinarians. Four subjects are available: 1) Basic Veterinary Science, 2) Pathogenetic and Preventive Veterinary Science, 3) Companion Animal Clinical Veterinary Science, 4) Farm Animal Clinical Veterinary Science. Students should choose one of the four subjects using educational contents of each university's original educational resources and connections. To enhance the competencies acquired

during core curriculum courses, all students choose one subject and attend specific lectures and seminars, conduct special laboratory work, write a graduation thesis, and have oral presentation, starting in Y5. During the second semester of Y6, students prepare for JNVE.

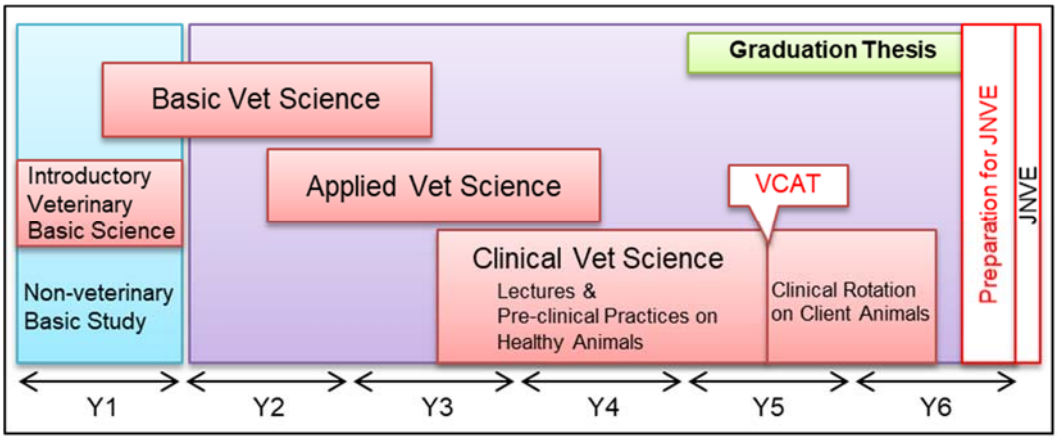


Figure 3. Schematic veterinary curriculum of VJS

3.1.2. Description of the legal constraints imposed on curriculum by national/regional legislations and the degree of autonomy that the Establishment has to change the curriculum

The model core curriculum is fixed at the national level as for medical, dentistry and pharmacy. Therefore, in 2011, the NVSURC (two representatives from each Japanese veterinary faculty/department including JFVM-YU and KU) was held, and in 2012, the first edition of “CMCVSE” was published.

The CMCVSE, the educational guideline describing the minimal knowledge that students need to receive at graduation day, aims to secure the level and educational contents in each field. Based on this CMCVSE, VJS is responsible for the design of the educational process, method, and organization of its curriculum. The JFVM in each university makes sure that students acquire competencies that are able to be awarded according to the CMCVSE.

3.1.3. Description of how curricular overlaps, redundancies, omissions and lack of consistency, transversality and/or integration of the curriculum are identified and corrected

Teaching Working Group in VJS Faculty Council is in charge of the evaluation of overlaps, redundancies, omissions and lack of consistency of educational contents and make the revision of curriculum every year. VJS publishes the syllabus on both websites at YU and KU, which enable faculty members to evaluate educational contents of each other by sharing information. The curriculum is also discussed and evaluated in the student committee and the JFVM Stakeholder Advisory Council followed by a dedicated meeting among faculty members, students, and stakeholders. The remarks are transmitted to the Teaching Working Group by the faculty members who attend the meeting between students and faculty members and the Teaching Working Group discusses and modifies the syllabus if needed.

3.1.4. Description of the core clinical exercises/practicals/seminars prior to the start of the clinical rotations

Before clinical immersion, students receive theoretical and practical training (introduction to animals-ethics and animal protection and introduction to clinical consultation) from the second semester of Y3 to the second semester of Y4 (1 year and half).

For companion animals, students learn basic knowledge and skills, which are needed in companion animal clinic, such as animal handlings, collections of biological materials, various clinical examination, and comprehensive diagnosis methods of various diseases by conducting the clinical history, physical examination, blood examination such as parasitology, radiography, and case studies of cytology and pathological examination, with the lectures followed by practical training using healthy animals. In addition, students

learn basic surgical preparations, practical training on sedation, anesthesia, and perioperative period management using surgical practice models and videos, simulation software, and slaughtered materials. For farm animals and equine, students learn about handling of animals after understanding animal rearing, management system, and species-specific behaviors with the lectures followed by practical training using healthy animals. Students also learn how to collect biological samples, various clinical examination, rectal palpation (only for bovine) and internal and surgical veterinary treatments.

The responsibilities of students increase progressively, as students move from an observational or nursing role in the general examination to one where students exercise their own basic clinical skills which is evaluated by the faculty members to enter the clinical rotation. The Skills Laboratories are developing at both faculties and students also practice to learn basic diagnosis, treatments, therapeutics, and surgical skills using several animal models and simulators under the supervision of faculty members or self-directed learning.

3.1.5. Description *(timing, group size per teacher, ..)* **of the core clinical rotations and emergency services** *(both intramural VTH and ambulatory clinics)* **and the direct involvement of undergraduate students in it** *(responsibilities, hands-on versus observation, report writing, ..)*

- **Overview of core clinical rotation**

- Core clinical rotations are organized from the second semester of Y5 to the first semester of Y6 for 109 days for students in the JFVM at YU or for 256 days at KU.
- During clinical rotation, students work in the clinic during the day. All procedures are supervised and taught by faculty members.
- The size of rotation group is one to three students for companion animal, and one to four students for farm animal per one to three faculty member(s).
- Activities that students conduct are medical inquiry and consultation, retention, medical examination, blood sampling, writing medical records, and assistance of diagnostics, medical cares and surgery. Students also assist in treatment and care for hospitalized animals at YUAMEC and KUVTH, and farm animals at field veterinary medicine (ambulatory clinics). The responsibility and autonomy of students for medical cases increase during the rotation.
- Emergency clinic is set-up for companion animals, bovine and horses at YUAMEC and KUVTH from 7:00PM to 7:00AM, and students are mainly exposed to emergency and primary care cases as primary medicine. Students perform assistance of consultation and take care night round and medical care of hospitalized patients in case of no emergency patients. Only in KU, emergency clinic for bovine and swine also devote to students when they stay at OLACC for three weeks.

- **Core Clinical rotation in YU**

- Clinical rotation of companion animal in YUAMEC is split into two different rounds: internal medicine and surgery. A group of 7 to 8 students is assigned to internal medicine (Fridays, Mondays, and Wednesdays) and another group of the same size to surgery (Thursdays, Tuesdays, and Wednesdays) every week. Students in the surgery round join the outpatients' clinic for surgery on Thursday and the following Tuesdays (average 10 hours/day), and then take part to surgery operations on Wednesdays (average 12 hours) in each rotation. They should take care of the hospitalized patients every morning (1 to 1.5 hour) and evening (1 hour) including Saturdays and Sundays. They are involved in hospitalized patients after surgery only after they were able to practice surgery to follow the outcome of the operation.

Clinical Medicine

Companion Animals*			
Internal Medicine in YUAMEC	20 days	Surgery and ophthalmology in YUAMEC	20 days
Emergency service in YUAMEC	7 days	Primary Medicine in private hospitals	5 days

		(Academic EPT)	
Clinical Examinations (clinical pathology and necropsy)			
Clinical pathology and necropsy	5 days		
Farm Animals**			
Bovine (including emergency service)	14.5 days	Swine	2 days
Poultry	1 days	Equine (including emergency service)	7.5 days
Exotic Animals***			
Zoo and Safari Land (Academic EPT)	5 days		

FSQ&VPH

Food processing of animal origin			
Meat processing	5 days	Dairy products	6 day
Fish processing	3 days		
VPH			
Slaughterhouse	5 days	Intra-mural (on-campus)	3 days

*The clinical rotation is implemented in YUAMEC. All cases during daytime are referral cases. Primary medical cares are performed at EPT and Emergency service in YUAMEC. Furthermore, students implement castration and spay using local cats; **In addition to YUAMEC, clinical medicine of farm animal is implemented in Yamaguchi Prefectural Agricultural College, Yamaguchi Prefectural Agriculture and Forestry General Technology Center and external farms (bovine), and horse riding clubs and horseracing (horse) as ambulatory clinic. Primary medicine and herd health management of pigs and chickens are implemented by the faculty member with management veterinarian at the farm such as Kano Farm and Fukawa Poultry Farm, respectively; ***Clinical medicine of exotic animals is implemented at Tokiwa Zoo, Akiyoshi Safari Land, and Tokuyama Zoo (general consultation, treatment and medication).

- **Core Clinical rotation in KU**

- The clinical rotation in KUVTH is implemented from Monday to Sunday. For the clinical rotation in KUVTH during weekday, students work for all topics of internal medicine and surgery. During weekend, students work only for emergency cases and taking care of the hospitalized patients.
- The clinical rotation in JFVM-KU is divided into nine courses; 1) companion animal internal medicine, 2) companion animal surgery and orthopedics, 3) diagnostic imaging and anesthesia, 4) animal shelter, 5) pathology, 6) night emergency service, 7) bovine medicine, 8) OLACC, and 9) horse medicine. All students should complete four terms (weeks) of each course (8 courses x 4 weeks plus OLACC for 3 weeks).

Clinical Medicine

Companion Animals*			
Internal Medicine in KUVTH	28 days	Surgery and orthopedics in KUVTH	28 days
Animal Shelter	28 days	Emergency service	20 days
Clinical Diagnosis and Examination (Diagnostic imaging/anesthesia and Pathology)**			
Diagnostic imaging and anesthesia	24 days	Clinical pathology and necropsy	20 days
Farm Animals and Equine***			
Bovine (including emergency service)	54 days	Swine	5 days
Poultry	2 day	Equine (including emergency service)	28 days
Exotic Animals******			
Aquarium	1 day	Zoo	1 day

FSQ&VPH

Food processing of animal origin			
Meat processing	3 days	Dairy products	4 day
Fish processing	2 days		
VPH			
Slaughterhouse	5 days	VPH surveillance	3 days

*The clinical rotation is implemented in the KUVTH. Furthermore, students implement medical treatment in animal shelter and learn primary medical care and treatment including castration and spaying; **The clinical examination such as clinical pathology and necropsy of companion animals, bovine, swine, chicken equine, and animals from aquarium and zoo is implemented in the KUVTH and Pathological Necropsy room of JFVM-KU; ***In addition to the inspection, medical treatment, and management of hospitalization of bovine and equine at the VTH, field clinical medicine including reproduction, pregnancy diagnosis and necropsy is also implemented in Kagoshima Prefectural Agricultural College (bovine) and external farms (bovine and equine). A group of two to three students also stay at OLACC for 3 weeks and implement clinical medicine including emergency clinic of bovine and swine. In the clinical rotation of swine and chicken, herd health management (rearing environment, sanitary-control, healthcare, and feeding managements, and primary medicine), primary medicine including insemination (swine) and egg production (chicken) are implemented by the faculty members with management veterinarians at the public and private farms such as Japan Farm Corporation and Kagoshima Prefecture Federation of Agricultural Cooperative Association meadow, etc.; ****Students implement clinical medicine of exotic animals at Kagoshima City Aquarium (measurement of rectal temperature, fecal, urine, breath, vaginal smear and blood examinations of dolphin) and Hirakawa Zoological Park (general consultation, treatment and medication)

3.1.6. Description *(timing, group size per teacher,..)* of the teaching in slaughterhouses and in premises for the production, processing, distribution/sale or consumption of food of animal origin

Students received theoretical basis on food hygiene, environmental hygiene and public health, and procedures of food processing of animal origin during module “Practice of Food Processing” in the second semester of Y2 and “Practice of Meat Hygiene and Inspection” in the first semester of Y5.

- **The teaching in slaughterhouses**

In JFVM-YU, students learn the ante-mortem and the slaughter inspections of cattle and pigs, and the poultry inspections in Kumamoto and other prefecture’s Meat Hygiene Inspection Center (MHIC) and chicken processing facility, respectively (totally for one week). Maximum two students follow one veterinarian. Students are also implemented one-day meat hygiene inspection for pig in Hiroshima MHIC under the supervision of expert veterinarians, and are also implemented at the pathological necropsy room in YU (seven to eight students/faculty member) under the supervision of prefecture’s experts by using transported organs of cattle and chickens (one day each). All practices are held between Y4 and Y5.

In JFVM-KU, students at Y5 make group (consists of two to three students/veterinarian in MHIC), stay at seven public MHIC (Chiran, Kushikino, Akune, Okuchi, Kanoya, Sueyoshi, Shibushi) of Kagoshima prefecture for one week, and practice hands-on meat hygiene inspection of cattle, pigs, and chickens under the supervision of prefecture’s veterinarians after the theoretical teaching of Hazard Analysis Critical Control Point (HACCP) management. Students learn concerning ante-mortem inspection of animals, diagnosis of carcasses, offal and internal organ, detailed examination such as biochemistry, microbiology, and histopathology, and confiscated products.

- **The teaching in premises for the food processing of animal origin**

This practice includes manufacture of meat processing foods, milk processing products, and fish processing products. Meat processing such as sausage, ham and bacon is implemented on-campus facilities during 4 days at Y2 and 1 day at Y5 (YU) or in Kagoshima Prefectural Agricultural College during 3 days (KU). Two days at Y2 also devoted to the manufacture (Yamaguchi

Prefectural Agriculture Collage in YU, or Kagoshima Prefectural College and milk plant of prefecture in KU) of dairy products such as cheese and yogurt. Milk hygiene and safety management system are implemented at milk plant company and/or on-campus facility for 4 days (YU) and 2 days (KU) at Y4. In YU, 3 days at Y3 and Y4, students learn the fish processing (fish canned food) at National Fisheries University and the observations of parasite and toxin-producing plankton at on-campus facility under the supervision of experts and faculty member. In KU, 2 days at Y4 are devoted to fish farming, shipment, and processing at Goto Aquaculture Institute. Students make groups (consists of seven to eight students/Faculty member) and learn predictive microbiology in food, its technology, nutritional quality, risk assessment, catering, and food poisoning under the supervision of faculty members.

3.1.7. Description of the selection procedures of the Electives by students and the degree of freedom in their choice *(e.g. what happens when too many students select one specific track)*

No elective subjects are offered due to already high loaded curriculum.

3.1.8. Description of the organisation, selection procedures and supervision of the EPT

- **Academic EPT in YU (Academic practice in external units)**

For companion animals, two students make one group and perform one-week practice at private veterinary clinics in Yamaguchi prefecture under dedicated agreement. Students learn primary medical cares of companion animals, exotic animals, management of clinics, ethics as a veterinarian and communication skills during the practices. For exotic animals, four to six students make one group and perform 5 days practices at Akiyoshi Safari Land, Tokiwa Zoo and Tokuyama Zoo in Yamaguchi prefecture under the agreement. Students learn primary medical cases of exotic animals. Students submit daily reports and a final report to both the clinical collaborators and the faculty members in charge. For these practices, the JFVM Faculty Council at YU screens veterinarians in the private veterinary clinics and conduct interviews with veterinarians at the zoo and appoints them as clinical collaborators. Clinical collaborators evaluate students based on an evaluation document in accordance with criteria of JFVM-YU. Faculty members in charge of the practices evaluate the program based on the reports from students and the clinical collaborators, and improve the program.

- **Academic EPT in KU (Academic practice in external units)**

Reproductive management and clinical practice of bovine at the private farms, organized by the FAMAA are conducted under the supervision of veterinarians of FAMAA (one student/one veterinarian) as mobile clinic part of Core Clinical Rotation under the agreement between JFVM-KU and FAMMA. Two weeks (second semester of Y5 and first semester of Y6) clinical training is devoted to primary medicine on the field such as communication with farmers, rectal and clinical examinations, castration, medical treatment, surgery and necropsy.

3.1.9. Description of the procedures *(e.g. logbooks)* used to ascertain the achievement of each core practical/clinical activity *(pre-clinical, clinical, ambulatory clinics, EPT)* by each student

In JFVM-YU, each student's achievement is recorded in "Day One Competences progress table" by collecting series of practical training for companion animals including academic EPT cases, farm animals and equine, necropsy, and food processing. Faculty members validate the acquisition level of the Day One Competences based on the progress table and case logs recorded or filled by students in the trainings for companion animals, farm animals and equine, and necropsy. Total validation is requested to validate clinical practice.

In JFVM-KU, many kinds of practice categories for clinical training for companion animals, farm animals, equine, and necropsy are established in accordance with Day One Competences. The skills are divided in "Basic", "Intermediate", or "Advanced". Students must record what they practice during clinical rotation including academic EPT into "Day One Competences evaluation sheet" in order

to follow the progression in the acquisition of competencies, and acquired skills are examined and evaluated by faculty members in charge of each skill. Furthermore, anesthesia management, clinical medicine inspection, and diagnostic imaging have independent follow-ups of the acquisition of competencies. In addition, students submit a report at the end of each rotation (which is every week), and clinical practice records with the comment of faculty members in charge are retained as portfolio.

3.1.10. Description of how *(procedures)* and by who *(description of the committee structure)* the core curriculum is decided, communicated to staff, students and stakeholders, implemented, assessed and revised

The Curriculum Working Group in VJS Faculty Council discusses the whole core curriculum implemented in VJS. The VJS Faculty Council gives the final decision about it following the approval by the JFVM Faculty Councils in both YU and KU. As for the curriculum contents (Syllabus) of each subject, the curriculum working group assessed and revised and VJS Faculty Council gave the final approval. The curriculum contents are published on both school's websites to encourage opinions from students, faculty members, and external facilities used in the practical training of the VJS.

Revision of the curriculum is discussed based on the feedback from the Teaching Working Group, decided by VJS Faculty Council, and implemented after discussion among faculty members in JFVM at both YU and KU. In the student committee and JFVM Stakeholder Advisory Council, the educational contents and procedures are discussed and evaluated by students and stakeholders. In addition, to assess and evaluate implementation of the curriculum in VJS, students evaluated each topic class with questionnaire and faculty members evaluated their own topic classes by themselves and answered questionnaires on implementation of topic classes in VJS. Faculty members received the results of evaluation by students and used them to improve the quality of those topic classes for the next year. JFVM-KU also improved the quality of the topic classes by mutual evaluation process of other faculty members as peer review twice a year.

Table 3.1.1. Curriculum hours in each academic year taken by each student

Academic years	A	B	C	D	E	F	G	H
Year 1	522	30	n.d	15	30	0	45	**642**
Year 2	456	0	n.d	170	190	0	0	**816**
Year 3	408	24	n.d	205	110	45	0	**792**
Year 4	312	24	72	0	60	300	0	**768**
Year 5*	0	0	320 (800)	105 (405)	60	1185 (405)	0	**1670**
Year 6*	0	0	320 (570)	90 (340)	0	900 (400)	0	**1310**

A: lectures; B: seminars; C: supervised self learning; D: laboratory and desk based work; E: non-clinical animal work; F: clinical animal work; G: others (specify); H: total

* Curriculum hours taken by each student in JFVM-YU are shown in brackets, because students of Y5 and Y6 in JFVM-YU spend much less time for Clinical Rotation and much more time for their graduation thesis compared to students in JFVM-KU.

Table 3.1.2. Curriculum hours in EU-listed subjects taken by each student

Subjects	A	B	C	D	E	F	G	H
Basic Subjects								
Medical Physics	12	0	0	0	0	0	0	**12**
Chemistry (inorganic and organic sections)	12	0	0	0	0	0	0	**12**
Animal biology, zoology and cell biology	24	0	0	15	30	0	0	**69**

Feed plant biology and toxic plant	8	0	0	0	0	0	0	**8**
Biomedical statistics	12	0	0	0	0	0	0	**12**
Basic Sciences								
Anatomy, histology and embryology	112	0	0	90	95	0	0	**297**
Physiology	52	0	0	35	15	0	0	**102**
Biochemistry	60	0	0	45	0	0	0	**105**
General and molecular genetics	28	0	0	0	5	0	0	**33**
Pharmacology, pharmacy and pharmacotherapy	52	0	0	30	10	0	0	**92**
Pathology	24	0	0	35	25	0	0	**84**
Toxicology	24	0	0	0	15	0	0	**39**
Parasitology	28	0	0	27	10	0	0	**65**
Microbiology	67	0	0	60	0	0	0	**127**
Immunology	24	0	0	0	0	0	0	**24**
Epidemiology	12	0	0	0	0	0	0	**12**
Professional communication	72	0	0	0	0	18	0	**90**
Professional ethics	18	0	0	0	0	18	0	**36**
Animal ethology	36	0	0	0	0	18	0	**54**
Animal welfare	12	0	0	0	0	18	0	**30**
Animal nutrition	16	0	0	0	0	18	0	**34**
Clinical Sciences								
Obstrics, reproduction and reproductive disorders	12	0	0	0	0	210 (110)**	0	**222 (122)****
Diagnostic pathology	108	0	0	5	35	210 (110)**	0	**358 (258)****
Medicine and surgery including anaesthesiology	92	0	0	0	0	210 (110)**	0	**302 (202)****
Clinical practical training in all common domestic animal species	0	0	0	0	0	840 (160)**	0	**840 (160)****
Preventive medicine	92	0	0	0	15	210 (110)**	0	**317 (217)****
Diagnostic Imaging	36	0	0	0	0	210 (110)**	0	**246 (146)****
State veterinary services and public health	36	0	0	5	0	0	0	**41**
Veterinary legislation, forensic medicine and certification	12	0	0	0	0	30	0	**42**
Therapy in all common domestic animal species	80	0	0	0	0	210 (110)**	0	**290 (190)****
Propaedeutic of all common domestic animal species	36	0	0	0	0	30	0	**66**
Animal Production								
Animal production and breeding	12	0	0	0	0	10	0	**22**

Rural economics	0	14	0	0	0	5	0	**19**
Animal husbandry	12	0	0	0	10	20	0	**42**
Herd health management	12	0	0	0	5	45	0	**62**
Food Safety and Quality								
Inspection and control of food and feed	84	8	0	20	0	0	0	**112**
Food hygiene and food microbiology	75	0	0	20	65	10	0	**170**
Practical work in places for slaughtering and food processing plants	0	0	0	0	90	0	0	**90**
Food technology including analytical chemistry	6	0	0	18	25	0	0	**49**
Professional Knowledge								
Professional ethics & behavior	12	6	0	0	0	18	0	**36**
Veterinary legislation	0	6	0	0	0	18	0	**24**
Veterinary certification and report writing	6	0	0	0	0	18	0	**24**
Communication skills	72	6	0	0	0	18	0	**96**
Practical management & business	0	14	0	0	0	0	0	**14**
Information literacy & data management	18	0	0	0	0	18	0	**36**

A: lectures; B: seminars; C: supervised self learning; D: laboratory and desk based work; E: non-clinical animal work; F: clinical animal work; G: others (specify); H: total

**Curriculum hours taken by each student in JFVM-YU are shown in brackets.

Table 3.1.3. Curriculum hours taken as electives for each student

VJS has no curriculum hours taken as electives for each student

Table 3.1.4. Curriculum days of External Practical Training (EPT) for each student

VJS has only the academic EPT (academic EPT in external units) as written in 3.1.8 and taking hours are included in Table 3.1.5.

Table 3.1.5. Clinical rotations under academic staff supervision (excluding EPT)

JFVM-YU

Types	List of clinical rotations (Disciplines/Species)	Duration (weeks)	Year of programme
Intra-mural (YUAMEC)	**Companion animals (Dogs and Cats)** - YUAMEC: Internal medicine, surgery and ophthalmology - Emergency clinic: Emergency and primary medical care **Farm animals** - Bovine: YUAMEC, Yamaguchi Prefectural Agricultural College, Yamaguchi Prefectural Agriculture and Forestry General Technology Center and external farms (include emergency service, herd health management, ambulatory clinics). - Swine and poultry: Kano farm and Fukawa Poultry Farm	40 days in 12 weeks 7 days in 1 year 14.5 days in 1 year 2 days for swine and one day for poultry in 4 weeks	Second semester of Y5 and first semester of Y6

	Equine - Internal medicine and surgery: YUAMEC and External farm **Clinical Diagnosis and Examination** - Clinical pathology and necropsy	7.5 days in 1 year 5 days in 1 year	
Academic EPT in external units	- Companion Animals: Private hospitals - Exotic Animals: Zoos and Safari Land	5 days in 1 week 5 days in 1 year	First semester of Y6 Second semester of Y5 and first semester of Y6
FSQ & VPH	- Meat processing: Meat hygiene and management of public health and facility/Swine - Dairy product: Milk hygiene and management of public health and facility/Milk - Fish processing: Fish hygiene and management of public health and facility/Fish - Slaughterhouse and on-campus: Meat hygiene and management of public health and facility/Bovine, Swine and Chicken	5 days in 2 weeks 6 days in 4 weeks 3 days in 3 weeks 8 days in 2 weeks	Second semester of Y2 and first semester of Y5 Second semester of Y2 and both semester of Y4 Second semester of Y3 and first semester of Y4 Second semester of Y4 and first semester of Y5
Electives	-	-	-
Others (specify)	-	-	-

JFVM-KU

Types	**List of clinical rotations (Disciplines/Species)**	**Duration (weeks)**	**Year of programme**
Intra-mural (VTH)	**Companion animals (Dogs and Cats)** - KUVTH: Internal medicine and surgery - Animal Shelter: primary medical care and treatment - Emergency clinic: Emergency and primary medical care **Farm animals** - KUVTH: Internal medicine and surgery/Bovine and Swine, and clinical examination/Poultry - OLACC: Internal medicine, surgery, and emergency clinic/Bovine and Swine - External farm: Field clinical medicine, herd health management and necropsy/Bovine, Swine and Poultry **Equine** - KUVTH: Internal medicine and surgery - External farms: Field clinical medicine and necropsy **Clinical Diagnosis and Examination:** - Diagnostic imaging and anesthesia - Clinical pathology and necropsy	56 days in 8 weeks 28 days in 4 weeks 20 days in 4 weeks 16 days for bovine and 1 day each for swine and poultry in 5 week 12 days for bovine and 3 day for swine in 3 weeks 16 days for bovine and 1 day each for swine and poultry in 6 weeks 14 days in 2 weeks 14 days in 2 weeks 24 days in 4 weeks 20 days in 4 weeks	Second semester of Y5 and first semester of Y6

	Exotic animals - Aquarium: Clinical examination - Zoo: Internal medicine	 1 day in 1 week 1 day in 1 week	
Ambulatory clinics (as an academic EPT in external units)	**Bovine** - External farm (FAMAA): Field clinical medicine and necropsy	10 days in 2 weeks	Second semester of Y5 and first semester of Y6
FSQ & VPH	- Meat processing: Meat hygiene and management of public health and facility/Swine - Dairy product: Milk hygiene and management of public health and facility/Milk - Fish processing: Fish hygiene and management of public health and facility/Fish - Slaughterhouse: Meat hygiene and management of public health and facility/Bovine, Swine and Poultry - LHHC (VPH surveillance): Herd health management and management of public health and facility/Bovine, Swine and Poultry	3 days in 2 weeks 4 days in 4 weeks 2 days in 1 week 5 days in 1 week 3 days in 1 week	Second semester of Y2 Second semester of Y2 and first semester of Y4 First semester of Y4 First semester of Y5 First semester of Y5
Electives	-	-	-
Others (specify)	-	-	-

Table 3.1.6. Optional courses proposed to students (not compulsory)***

Subjects	A	B*	C	D	E	F	G	H
Basic Sciences	0	6	0	0	0	0	0	**6**
Clinical Sciences	0	6	0	0	0	0	0	**6**

A: lectures; B: seminars; C: supervised self learning; D: laboratory and desk based work; E: non-clinical animal work; F: clinical animal work; G: others (specify); H: total

***VJS opens the seminars of basic research and clinical sciences by faculty members or invited speakers once a month (for 1-2 hours in each time).

3.2. Comments

- It is the first time in Japan that two universities teach under a common curriculum. Students at both universities take almost all the topic classes equally under the unified syllabus. Topic classes are conducted by face to face lectures, media classes, and non-media classes. Students attend each university's orientation and the collaborative orientation, and learn about the educational system and how to follow the curriculum in detail. Each university has about 30 students per year which are highly restricted at the national level. It allows small groups without much academic differences, therefore classes based on academic level are not needed.
- Cooperation between YU and KU enables sharing of educational resources including members of faculty. The CMCVSE allows to achieve the common competencies of veterinary science education in Japan, and students are also able to learn more advanced and specialized contents. When students graduate from this education program, they are able to find a job not only at the clinical veterinary field, but also at food hygiene, veterinary hygiene, and other fields that use specialized knowledge on basic research of veterinary medicine.
- At each topic class, students evaluate the topic class and professors receive the results to use them to improve the topic class.

Mutual evaluations for both universities are also conducted to avoid any gaps between two universities. As we conduct these evaluations, if there are any problems, it is possible to revise the curriculum after the discussion with both faculties.

3.3. Suggestions of Improvement

- In the last decade, lectures were the base of curriculum in Japanese veterinary education. Therefore, the ratio of theoretical training was high, and supervised practical training, especially hours spent on the clinical work were very low. By the establishment of CMCVSE, the objectives that faculty members should teach and competencies that students should acquire became clearer. The exposure to clinical rotation for students has largely improved even if the total hours of mandatory clinical work have not been decided in CMCVSE. However, VJS needs to further establish a system that can conduct clinical work for companion animals and farm animals at commercial and government organizations, as well as an advanced clinical elective course that students can learn clinical case more deeply. VJS should also improve upon the use of limited time and space constraints.
- Teaching Working Group of VJS makes the revision of curriculum, but there is no dedicated person(s) for tracking and management of the overlap in the curriculum. In order to be able to be more efficient in tracking and managing the overlap, an official representative position could be created.
- For Japan to attain the international standards found in the veterinary education system, it is necessary to increase acquisition of competencies with work on clinical cases.

4. Facilities and Equipment

4.1. Factual Information

4.1.1. Description of the location and organisation of the facilities used for the veterinary curriculum *(surface area, distance from the main campus for extramural facilities, ..) (maps to be provided as appendices)*

The campus of VJS is located in the south-western part of Japan with two main campus: VJS-YU (JFVM-YU) in Yamaguchi City (Yamaguchi prefecture) and VJS-KU (JFVM-KU) in Kagoshima City (Kagoshima prefecture) with 400 km between each other (3.5 hours by bullet train or 5 hours by car (see Figure 2 in Chapter 2). Both campuses include instructional facilities for the DVM program, administrative offices, diagnostic and research laboratories, offices and research laboratories, clinical teaching rooms and VTH.

- **VJS-YU** (Annex 4.1)

JFVM-YU is located in the Northwest side of Yoshida campus of YU (Lot Size: 712,896 square meters, Building Area 54,150 square meters, Total Floor Area 135,316 square meters), which is the major campus for education and research in YU, and the total floor area of the buildings managed by JFVM is 18,529 square meters. The JFVM-YU manages following facilities; Main Teaching Building (shared with faculty of agriculture), The United Graduate School of Veterinary Science Building, iCOVER, iPaDL, Anatomy and Farm Animal Practice Building, YUAMEC, and LASER (Annex 4.2). The extramural facilities are shown in Annexes 4.3 and 4.4

- **VJS-KU** (Annex 4.5)

The JFVM-KU is located in the Northeast side of Korimoto campus of KU (Lot Size: 351,918 square meters, Building Area 63,618 square meters, Total Floor Area 187,130 square meters), which is the major campus for education and research in KU, and the total floor area of the buildings managed by JFVM is 10,269 square meters. JFVM-KU manages following facilities; Agriculture and Veterinary Medicine Building, Laboratory Buildings A, B, and C, Small Animal Medical Center and Large animal medical center of KUVTH, Equine Medical Center (EMC), EAC, and OLACC (Annex 4.6). It also uses Iriki Farm (Lot size: 1,500,000 square meters), which is 30 km northeast from Korimoto campus and managed by the Faculty of Agriculture at KU, for practical work of animal husbandry. The extramural facilities are shown in Annex 4.7 and 4.8.

4.1.2. Description *(number, size, equipment, ..)* of the premises for: -) lecturing, : -) group work *(seminars, tutorials, ..)*, : -) practical work *(laboratories, rooms for clinical skills room on dummies, ..)*

- **Lecturing**: see list in Annex 4.9 for JFVM-YU and Annex 4.10 for JFVM-KU. All lecture rooms have audio and visual (AV) system and teaching materials can be projected on the screen from computers and DVDs. In JFVM-YU, lecture rooms 214, 314, 315, and the practical work room in the YUAMEC have the SSCS and the simplified SSCS is installed in the lecture rooms 406 and 407, which allows the interactive classes with other universities. In JFVM-KU, some lecture rooms have the stationary or mobile SSCS with JFVM-YU and it is associated with the recording equipment for lectures. The recorded lectures are available for e-learning. Wireless local area network (LAN) is set, and is available to the students with their ID and passwords. Wired LAN is also available on the desks in lecture rooms, which allows simultaneous access by a large group.
- **Group work**: There are 12 rooms for group works in JFVM-YU and 11 in JFVM-KU. See list in Annexes 4.11 and 4.12.
- **Practical work**: Practical rooms, laboratories and the skills laboratory used for veterinary curriculum are shown in Annex 4.13 for JFVM-YU and Annex 4.14 for JFVM-KU.

4.1.3. Description *(number, size, species, ..)* of the premises for housing, : -) healthy animals, : -) hospitalised animals, : -) isolated animals

The premises for housing healthy, hospitalized, and isolated animals such as dogs, cats, farm animals, horses, and other laboratory animals are located at YUAMEC, advanced research center laboratory science (ARCLAS), and experimental farm (Faculty of Agriculture) in YU, or EAC, Iriki Farm, and KUVTH in KU. List of housing is shown in Annex 4.15 for YU or Annex 4.16 for KU. The

biosafety/biosecurity procedures at each facility of JFVM-KU is controlled under the biosafety/biosecurity SOP by dedicated person, who is a member of biosafety/biosecurity council and the representative for each facility. This person is in charge of educating students when students start to use the facility.

4.1.4. Description *(number, size, equipment, species, disciplines, ..)* of the premises for: -) clinical activities, : -) diagnostic services including necropsy, : -) FSQ & VPH *(slaughterhouses, foodstuff processing units, ..)*, : -) others *(specify)*

- **VJS-YU**

• **Clinical activities**

1) Facilities for Small Animal Clinic (YUAMEC)

- Waiting room with reception (1 room, 76 square meters)
- Small Animal Consulting Rooms (6 rooms, total 36 square meters)
- Examination/Treatment Room (1 room, 51 square meters)
- Diagnostic Imaging Rooms: an X-Ray room (31 square meters), an Ultrasound examination room (21 square meters), an Endoscopic room (22 square meters), an X-ray CT examination room (36 square meters), a MRI examination room (42 square meters).
- Clinical Examination Room (1 room, 42 square meters).
- Surgery Rooms (2 surgical suites, 97 square meters and 1 central preparation room, 14 square meters): The rooms are positive pressured and NASA Class10000-enabled.
- Radiation therapy Rooms (1 orthovoltage radiation therapy room, 15 square meters and 1 LINAC room, 107 square meters).
- Isolation facility (1 diagnoses Room, 11 square meters and 1 hospitalization Room, 14 square meters): These rooms are separated rooms with its individual entrance and exit to avoid the contact with the animals suffering non-infectious diseases.

2) Facilities for Large Animal Clinic (YUAMEC and Farm Animal Practice Building)

- YUAMEC has a preparation room (25 square meters), a surgery room (16 square meters) and a recovery room (9 square meters). Two recovery rooms (9 square meters each) at LASER are also available. A practice room in Farm Animal Practice Building is also used for treatment for farm animals (89 square meters). Additional two recovery rooms (9 square meters each) will be established in YUAMEC during 2019.
- Isolation facility: It consists of a preparation room (10 square meters), for feed storage and an examination/treatment, and hospitalization rooms (10 square meters) for cattle and horse affected with infectious disease.

• **Diagnostic services including necropsy**

- Diagnostic Imaging System: The YUAMEC offers diagnostic imaging services for small and large animals using the Diagnostic Imaging Room of YUAMEC.
- Clinical Examination: Analyses of clinical pathology, biochemistry, blood chemistry, endocrinology, and cytochemistry are operated in the Clinical Examination Room of YUAMEC.
- iPADL: iPaDL is a facility for necropsy. The total floor area of this building is 276 square meters. It consists of a changing room including a shower room, a preparation room, a Dissection Practical Work Room, a freezer room, a cold room, a formaldehyde handling room and a cadaver incineration room.

• **FSQ & VPH**

- Slaughterhouse Facilities: The JFVM-YU has agreements with two slaughterhouses, Shuto Meat Center (75km from campus of JFVM-YU) and Hiroshima MHIC (120km from campus). Students go there by bus and observe by a group consisting of 15 students. Each practice is implemented under the supervision of three to five veterinarians in the slaughterhouse and takes about

10 hours including transportation and orientation. Practice of meat hygiene tests of cattle and pigs is implemented in Kumamoto Livestock Distribution Center for five days (including transportation) as Hands-On practices in a meat processing unit (240km from campus).

- Foodstuff Processing Unit: The JFVM-YU does not have own foodstuff processing facilities so that the Hands-On practice of tinned fish products is undertaken at National Fisheries University, that of milk processing products is done at Yamaguchi Prefecture College of Agriculture and the observation practice of a milk processing facility is done at Yamaguchi Kenraku Milk Industry. The food product and hygiene practice of sausage, ham, beef jerky, unheated processed meat (sausage) and yogurt production is undertaken on campus by preparing required equipment. The practical room will be renovated in 2019.

- **Others**

- Teaching Laboratory: “Structure and function” practical work room (178 square meters) is used for practices of anatomy, histology and histopathology. “Biological function” practical work room (178 square meters) is used for practices of physiology, biochemistry and pharmacology/toxicology. “Infectious disease” practical work room (205 square meters) is used for microbiology, parasitology, public health and animal hygienic. “Advanced infectious disease” practical work room 1, 2, and 3 (62, 40, and 40 square meters, respectively) is used for practice of animal infectious diseases. “Laboratory animal” practical work room (84 square meters, respectively) is used for practice of laboratory animal science. All of these work rooms are located in iCOVER building (Annex 4.9). Showers, eye washers and first-aids kits are prepared for all practical work rooms and notice for biosafety and biosecurity are posted in each room.

- **VJS-KU**

- **Clinical activities**

1) Facilities for Small Animal Clinic (KUVTH)

- Office room and reception (33 square meters).
- Waiting area: It consists of entrance and general waiting area (100 square meters), and waiting area for dogs (51 square meters) and cats (18 square meters).
- Consultation rooms: It consists of 3 large rooms (21 square meters), 2 small rooms for dogs (9 square meters), and 2 small rooms for cats (9 square meters). The observation area (36 square meters) for students is accompanied with small consultation rooms.
- Examination/Treatment room (161 square meters).
- Clinical examination room (64 square meters).
- Dental surgery and Kinesthetic diagnosis/physiotherapy room (34 square meters)
- Chemotherapy dispensing room (15 square meters).
- Surgery area: It consists of a preparation room (127 square meters) with hand-washing area (14 square meters), 4 surgery rooms (39-48 square meters), and an observable surgery room (39-48 square meters) which is especially used for surgery with students. The surgery rooms are positive pressured.
- Post-surgery room (40 square meters) and intensive care unit (ICU) room (50 square meters).
- Diagnoses area for suspicious infected animals: It consists of a waiting room (9 square meters), a consultation room (9 square meters), and an examination/treatment room (23 square meters). This is separated area with its individual entrance to avoid the contact with the animals suffering non-infectious diseases. If the client is diagnosed as infectious disease, the animal is moved to isolation facility.
- Isolation facility: It consists of a waiting room (12 square meters), a consultation room (12 square meters), and an examination/treatment room (26 square meters), and hospitalization room (18 square meters) for dogs and cats affected with infectious disease.

2) Facilities for Farm Animal Clinic (KUVTH)

- Farm Animal Clinical Examination/Treatment Room (92 square meters): This room is attached with hospitalization rooms for cattle.
- Farm Animal Clinical Area: It consists of a surgery room (28 square meters) with X-ray system, clinical examination/treatment and anesthesia induction room (55 square meters). This area is used to diagnose and treat animals such as cattle, small ruminants, and pigs, and attached with diagnostic imagining facility.
- Isolation facility: It consists of a preparation room (9 square meters), a feed storage room (12 square meters), and an examination/treatment room (44 square meters), and hospitalization rooms (37 square meters) for cattle and horse affected with infectious disease.

3) EMC

- Examination/Treatment Room (50 square meters).
- X-rays Room (20 square meters).
- Anesthesia Induction and Recovery Room (29 square meters).
- Surgery Preparation Room (28 square meters).
- High-clean Surgery Room (40 square meters) and Hygiene Room (33 square meters).
- Clinical Examination Room (31 square meters).

4) OLACC (a branch of KUVTH for farm animal clinic)

- Examination Room (45 square meters).

- **Diagnostic services including necropsy**

- In Small Animal Medical Center of KUVTH, there are an X-Ray room (21 square meters), an ultrasound/electrocardiogram room (33 square meters) with dimming control system, and an endoscopy room (15 square meters). These rooms are used for diagnostic imaging services for small animals.
- In Large Animal Medical Center of KUVTH, there are X-ray CT and MRI facilities used for diagnostic imaging services for all animal species. X-ray CT examination facility consists of CT room (32 square meters) with a CT operation room (14 square meters) and a CT preparation room (17 square meters). MRI examination facility consists of a MRI room (46 square meters) with a MRI operation/preparation room (28 square meters). The MRI is used for not only small and large animals but also exotic animals in zoo.
- Diagnostic services for clinical examination such as analyses of clinical pathology, biochemistry, blood chemistry, endocrinology, and cytochemistry are operated in the Clinical Examination Room of Small Animal Medical Center of KUVTH for small animals, in Farm Animal Clinical Area of Large Animal Medical Center of KUVTH and OLACC for farm animals, or in Clinical Examination Room of EMC for horse.
- The pathological necropsy room is located in Large Animal Medical Center of KUVTH and has equipment to perform euthanasia, necropsy and diagnostic services on all animal species, and storage for cadavers. The room is near to animal waste incinerator (81 square meters).

- **FSQ & VPH**

- Slaughterhouse Facilities: The JFVM-KU has a collaborative contract with Kagoshima prefecture, which organize and manage public MHIC with slaughterhouses in the prefecture. Under the contract, students have access to six public MHIC with slaughterhouses (Chiran, Akune, Okuchi, Kanoya, Sueyoshi, Shibushi: 35km-100km from campus of JFVM-KU) in Kagoshima prefecture and implement practical hands-on training for ante-mortem inspection of cattle, pigs, and chicken, offal and carcasses for detection of legions, diagnosis and meat quality. These facilities is fully approved by dedicated regulation such as HACCP.
- Foodstuff Processing Units: The JFVM-KU has not foodstuff processing facility in main campus. The Hands-On practice of meat

processing is implemented in Kagoshima Prefectural Agricultural College. Practical training of hygiene and safety management for dairy products is implemented in Kagoshima Prefectural College and a milk plant of Kagoshima Prefecture Dairy Industry Cooperation. Students are also devoted to fish farming, shipment, and processing at Goto Aquaculture Institute.

- VPH Surveillance Facilities: The JFVM-KU has another external practical training of VPH surveillance and management under agreement with Kagoshima prefecture. Students have access to six public LHHC (Chuo, Aira, Nansatsu, Hokusatsu, Soo, Kimotsuki: 25km-108km from campus of JFVM-KU) in Kagoshima prefecture and implement practical hands-on training for herd health management and health surveillance (visiting to the farms, on-site sampling of blood, feces, urine and other materials, and viral, bacterial and parasite inspection in the Center) of cattle, pigs, and chicken.

- **Others**

- Teaching Laboratory: Small animal practical work room (81 square meters) is used for practices of physiology and pharmacology/toxicology. Public health, microbiology special practical work room (79 square meters) is used for practices of public health and microbiology.

The biosafety/biosecurity procedures for each facility is controlled according to the biosafety/biosecurity SOP of JFVM-YU or KU or of external facilities. Also, dedicated basic equipment such as fire extinguisher, eye-washer and first-aid kit are set-up at each facility under control by the JFVM-YU or KU.

4.1.5. Description *(number of rooms and places, ..)* of the premises for: -) study and self-learning, : -) catering, : -) locker rooms, : -) accommodation for on call students, : -) leisure

- **VJS-YU**

- **Study and self-learning**: A seminar room (40 seats) in the United Graduate School of Veterinary Science Building is always open as a study room for students. All students who received dedicated education for the use of a simulator are able to use the Skills Laboratory (20 seats) for 7 days/24 hours in the Main Teaching Building. Only students, faculty members, and officers in the VJS-YU can enter the Skills Laboratory, which is normally locked by a key. The Skills Laboratory has retention models of calf and dog, simulators of an intravenous injection, auscultation of a dog, cardiopulmonary resuscitation of a dog, intubation of a dog, and skin suture, equine and bovine theriogenology model and dystocia simulator, an equine palpation/colic simulator, ultrasound examination training model, an upper gastrointestinal endoscope training model, and they are used as supplement teaching materials in clinical practices. Three computers for viewing recorded lectures and veterinary textbooks are also available in the Skills Laboratory.
- **Catering**: Students are available to use 2 canteens and 6 shops shown in Annex 4.17. A new canteen with halal certification will be available in 2019.
- **Locker rooms**: Locker rooms used during practices are shown in Annex 4.18.
- **Accommodation for on call students**: The JFVM-YU has not specific accommodation for on call students, but students are available to use 2 student waiting rooms (for man and woman) in YUAMEC to have a rest and nap during the night (2 beds in each room).
- **Leisure**: Leisure facilities for students are shown in Annex 4.19.

- **VJS-KU**

- **Study and self-learning**: A self-directed e-learning room (subsidiary library, 73 square meters) at the 2nd floor of Laboratory Building B is used as a study room for students. Students during clinical rotation in KUVTH also use a student room (31 square meters) on the 3rd floor of Small Animal Medical Center of KUVTH. The Skills Laboratory (134 square meters) has retention models of calf and dog, simulators of an intravenous injection, auscultation of a dog and skin suture, an upper gastrointestinal

endoscope training model, bovine theriogenology model and dystocia simulator, and they are used as supplement teaching materials in clinical practices. Both rooms are normally locked by a key.

- **Catering**: Students are able to use 4 canteens and 3 shops shown in Annex 4.20.
- **Locker rooms**: Locker rooms used during practices are shown in Annex 4.21.
- **Accommodation for on call students**: The JFVM-KU has specific accommodation for on call students in Small Animal Medical Center of KUVTH (2 bed rooms for man or woman, 11 square meters each). In OLACC, there are also specific accommodations for students (2 bed rooms for man or woman, 10 square meters each)
- **Leisure**: Leisure facilities for students are shown in Annex 4.22.

4.1.6. Description *(number, size, equipment, ..)* of the vehicles used for: -) students transportation *(e.g. to extramural facilities)*, : -) ambulatory clinics, : -) live animals transportation, : -) cadavers transportation

- **VJS-YU**

- **Students transportation**: YU possesses a small van (5 seats), an estate car (8 seats) and a bus (45 seats) to transport students.
- **Ambulatory clinics**: The JFVM-YU possesses a small van (5 seats) and two estate cars (8 and 10 seats) for ambulatory clinics for the Practice of Large Animal Clinical Medicine.
- **Live animals transportation**: The JFVM-YU possesses a lorry (2t for the maximum load, 3 seats) for transportation of live animals.
- **Cadavers transportation**: A lorry (2t for the maximum load, 3 seats) with a winch for towing is equipped for transportation of animal cadavers.

- **VJS-KU**

- **Students transportation**: Two buses (45 seats) and a microbus (28 seats) of KU are used for transportation of students to the external facilities. In addition, three vehicles (2 small cargo vehicles of 5 seats and a cargo vehicles of 8 seats) are also available for transportation of students.
- **Ambulatory clinics**: A van-type automobile (6 seats), which is equipped with blood test, X-ray photography, ultrasonography, and endoscopy equipment depending on examination, is used for practical work at farms. Five vehicles as above are also used for ambulatory clinics (two is in OLACC). In addition, the JFVM-KU has a medical treatment and surgery truck (3 seats) for large animals and it allows to perform basic orthopedic surgery, body surface, and abdominal cavity at fields.
- **Live animals transportation**: A truck-typed vehicle (6 seats) for the transportation of living cattle and horses is equipped and its cargo bed can hold boxes to load animals. A driver can monitor the animals using surveillance camera inside the box.
- **Cadavers transportation**: There is a specific vehicle with leak-proof structured container for transportation of animal cadavers.

4.1.7. Description of the equipment used for: -) teaching purposes, : -) clinical services *(diagnostic, treatment, prevention, surgery, anaesthesia, physiotherapy)*

- **Teaching purposes**

- SSCS: The SSCS is set-up in JFVM at both YU and KU and students are able to take bilateral media classes from the counterpart. Therefore, The SSCS allows students of both Universities to access the same topic class without transportation.

- **Clinical services in VJS-YU**

1) Facilities for Small Animal Clinic (YUAMEC)

- In diagnostic imaging rooms with general anesthesia unit, an X-Ray, gastrointestinal- and broncho- videoscope, a 64-row helical CT, a 0.4T MRI equipment, and 3D workstation are equipped. All of them are connected to DICOM network and available for inspection of the whole Center.

- In clinical examination room, auto-hemacytometers, auto-biochemical analyzers, auto-blood coagulation testers, auto-blood gas and electrolyte analyzers, hormone measures, microscopes with digital image shooting system, and cytocentrifuges are equipped.
- In surgery rooms, an inhalation anesthesia apparatus with ventilator and an operating table are equipped.
- In radiation therapy rooms, the radiation therapy planning system, general anesthesia equipment with an artificial respirator, the patient surveillance system and LINAC are equipped.

2) Facilities for Large Animal Clinic (YUAMEC)

- This facility is equipped with an ultrasonic diagnostic equipment, an X-Ray imaging device, a videoscope system for intestine, rhinopharynx and joint, an anesthesia apparatus for large animals and a hydraulic lifting-type operating table. The X-Ray CT and MRI are shared with use for small animals.

- **Clinical services in VJS-KU**

1) Facilities for Small Animal Clinic (KUVTH)

- In office room and reception, accounting system coupled to the electronic health record system is operated at the reception. Each hospital work is systematically operated by connecting the electronic health record system equipped at all rooms to picture archiving and communication system (PACS).
- In clinical examination room, an auto-hemocytometer, auto-biochemical analyzer, auto-blood gas and electrolyte analyzers, hormone measures, microscopes with digital image shooting system, and cytocentrifuges are equipped. A discussion microscope for three-persons is also equipped and used for clinical practice.
- In X-Ray room, X-ray radiography and fluoroscopy for small animals are equipped.
- In ultrasound/electrocardiogram room, ultrasound and electrocardiogram are equipped.
- In endoscopy room, a fiberscope for gastrointestinal tract and bronchus is equipped.
- In surgery area, each room is equipped with an inhalation anesthesia apparatus with ventilator and an operating table.

2) Facilities for Farm Animal Clinic (KUVTH)

- In Farm Animal Clinical Area, X-ray system is equipped.

3) Common Facilities for Small Animal and Farm Animal Clinic (KUVTH)

- In Large Animal Medical Center, there are X-ray CT and MRI for all animal species. As X-ray CT, a 16-row helical CT scanner is equipped. The CT scanner has a fixed bed (possible to move up and down) and a gantry able to slide, and it allows to use both adult large animals weighted under one thousand kilograms and small animals such as dogs and cats. As MRI, 3TMRI is equipped. The MRI has a bed that the load capacity is 160 kilograms and it is used for exotic animals in addition to small and large animals.

4) EMC

- In X-rays Room, X-ray radiography, ultrasound, and endoscope are equipped.
- In Anesthesia Induction and Recovery Room, inhalation anesthesia instrument is equipped.
- In Surgery Preparation Room, surgical table for horses, Inhalation Anesthesia Instrument, and radioscopy are equipped.
- In High-clean Surgery Room and Hygiene Room, surgical table, Inhalation Anesthesia Instrument, and radioscopy are equipped.

5) OLACC

- In Clinical Examination Room, X-ray radiography, ultrasound, and endoscope are equipped.

4.1.8. Description of the strategy and programme for maintaining and upgrading the current facilities and equipment and/or acquiring new ones

As active strategic supports from the Japanese government and each University to meet international veterinary educational standards, many facilities and equipment such as iCOVER, LINAC, and iPaDL in JFVM-YU, and EAC, Small Animal Medical Center and Large Animal Medical Center of KUVTH in JFVM-KU were funded past 7 years. VJS continues to make efforts to increase revenues of animal clinic and will request to MEXT for further financial support for renewal of facilities and equipment.

4.1.9. Description of how *(procedures)* and by who *(description of the committee structure)* changes in facilities, equipment and biosecurity procedures *(health & safety management for people and animals, including waste management)* are decided, communicated to staff, students and stakeholders, implemented, assessed and revised

The Biosecurity/Biosafety Committee, which consists of representatives from each facility, perform the risk assessment and the risk prevention measures in the facilities for clinic, extramural practical work, anatomy, necropsy, and diagnostic examination, according to Biosecurity/Biosafety SOP which is updated by the Committee every year. The Committee takes measurements to protect students from infection, physical and chemical accidents by creating and posting accident prevention manuals in each practice room and announces it to students not only by the designed lectures when students are first admitted but also when they start clinical rotation. It is also available online. Faculty members in charge of each practical work have dedicated education about risks of equipment and materials such as animals, bacteria, chemicals to students during orientation before each practical work. Students is also able to access to the updated SOP via website. Accidents and incidents which occur in each facility are immediately reported to Local Dean, and discussed and analyzed by each Committee to prevent recurrences as soon as possible. In addition, each room or facility has official responsible person who is in charge of checking regulatory for the equipment, and they ask the renovation to the Faculty if they find something to renovate.

4.2 Comments

- Many facilities and equipment were renovated past several years to meet the international standard for veterinary education.
- The room size for medical care is too small in the YUAMEC. In addition, YU will need to expand its large animal facilities.
- There is no disposing facility for feces of large livestock in the JFVM-KU.

4.3 Suggestions for Improvement

- It is currently discussed to expand the space for medical care or to build a new building of the YUAMEC.

5. Animals Resources and Teaching Material of Animal Origin

5.1. Factual Information

5.1.1. Description of the global strategy of the Establishment about the use of animals and material of animal origin for the acquisition by each student of Day One Competences *(see Annex 2)*

The VJS has a clear strategy about use of animals and material of animal origin to offer the best opportunity for each student to acquire Day One Competencies. The first part of it is to adapt the number of students to the potential clinical cases. JFVM-YU is located in a relatively low population area, but attracts cases from big cities located not too far (Fukuoka and Hiroshima) which gives access to a reasonable number of clinical cases. In contrast, JFVM-YU is not located in a very important area for large animals. The potential deficiency of large animal clinical cases is corrected by contract with extramural facilities offering opportunities to access to a wide diversity of animal resources. This is also the case for VPH teaching material with contract with slaughterhouses.

In JFVM-KU, clinical cases of small animals used to be limited by the previous KUVTH (narrow space and reduced clinical staff), despite good opportunities based on the location. However, with the new facilities of KUVTH built in 2017, the caseloads of small animals are increasing. In addition, JFVM-KU is located in a representative area of livestock animals in Japan and has easy access to farm animals, horses, slaughterhouses, and other facilities under agreements. JFVM-KU has agreement with public animal shelters for hands-on practice using healthy dogs and cats and necropsy of small animals affected with disease.

For laboratory animals, Japanese law allows the use of live laboratory animals such as mice and rats for practices of basic science, but the strategy of VJS is to decrease the number of these animals. VJS aim to reduce practice on healthy animal by introducing hands-on teaching on dummies.

5.1.2. Description of the specific strategy of the Establishment in order to ensure that each student receives the relevant core clinical training before graduation, e.g. numbers of patients examined/treated by each student, balance between species, balance between clinical disciplines, balance between first opinion and referral cases, balance between acute and chronic cases, balance between consultations (one-day clinic) and hospitalisations, balance between individual medicine and population medicine

- **VJS-YU**

The YUAMEC basically does not provide medical care for first opinion but only for referral cases during the day. In contrast, primary cases are accepted in the emergency clinic during night and also include cats under the contract with local government. Patients in the YUAMEC are only dogs and cats and no exotic animals. Therefore, JFVM-YU provides students extramural clinical practices as EPT in private veterinary clinics and the contracted Zoos to have experiences of medical cares of first opinion and exotic animals (see ESEVT indicators I10). For farm animals and horses, JFVM-YU uses several extra facilities to experience primary medical cases and herd health, and specialized medical cases are devoted to students in YUAMEC.

- **VJS-KU**

For small animals, both primary medical cases and referral cases are offered in KUVTH and students participate in both primary and referral medical care as a part of clinical trainings. Currently, consultations of small animals during daytime are mainly referrals from outside practitioners. The primary cases are mainly in emergency clinic during nights. JFVM-KU provides practical training for students in public animal shelters to enhance students' opportunities for primary medical cases and cares such as physical check-up, vaccination, medication of prevention of parasite infection, and surgical castration and spay for dogs and cats. Students can also practice at the zoo and the aquarium for exotic animal practical training. For farm animals and horses, JFVM-KU uses many external facilities to keep the balance because primary medical cases or specialized medical cases are devoted to students in KUVTH. Students also have contact with healthy animals in herd to be able to manage herd health. JFVM-KU appoints a dedicated person to check clinical rotation exposure for all students, and to reorganize and revise the curriculum of clinical rotation under discussion with

faculty members every year.

5.1.3. Description of the organisation and management of the teaching farm(s) and the involvement of students in its running *(e.g. births, milking, feeding, ..)*

- **VJS-YU**

- Farm of the Faculty of Agriculture houses Japanese Black cattle (Fourteen cattle are available for pre-clinical training and clinical rotation), 1 pony, and 1 goat. Two Faculty members in JFVM-YU are members of the Farm Management Council, and one of them is responsible for the Livestock Division. Two technicians in the Farm are responsible for daily management and rearing. Cattle patients in the Farm are sent to the YUAMEC. Students learn cattle handling, test for reproductive function of cows, artificial reproduction, embryo transfer, *in vitro* fertilization, pregnancy diagnosis and birth control, and perform basic tests of cattle. Calving, milking and feeding of cattle are managed by technicians although students participate to medical cares in the Farm.
- Yamaguchi Prefecture Livestock Improvement Research Lab belongs to and is managed by Yamaguchi prefecture, and keeps more than 150-200 cattle such as Japanese Black cattle for breeding purpose. Students learn management of seed bulls, cattle registration, sperm collection, testing and freezing, herd management of cows including pregnancy diagnosis and management of calves in clinical practices in the Lab.
- Yamaguchi Agricultural College belongs to Yamaguchi prefecture and keeps 40 milking cows and 60 beef cattle (35 of breeding cattle for reproduction and 25 of fatting cattle). Students learn management of milking cow, milking, milking hygiene, management of fattening cattle and daily management of cattle in practices in the College.

- **VJS-KU**

- Iriki Farm belongs to the Faculty of Agriculture and houses 190 cattle (90 of breeding cattle for reproduction and 100 of fatting cattle), 40 horses, and 5 goats. Members of the Faculty of Agriculture manage the farm. Students in Y3 of JFVM-KU practice animal husbandry and field management for 1 week at the farm and are involved in the daily management involving milking and feeding during the stay.
- Farm of Kagoshima Prefectural Agricultural College belongs to Kagoshima prefecture and keeps 40 milking cows and 100 beef cattle (40 of breeding cattle for reproduction and 60 of fatting cattle). Students learn field clinical medicine including reproduction, pregnancy diagnosis and necropsy of bovine, and involve in births when it occurs during the practices.

5.1.4. Description of the organisation and management of the VTH and ambulatory clinics *(opening hours and days, on-duty and on-call services, general consultations, list of specialised consultations, hospitalisations, emergencies and intensive care, ..)*

- **YUAMEC at VJS-YU**

- The YUAMEC belongs to JFVM-YU and is managed by the YUAMEC Council chaired by the Director of YUAMEC. Opening Hours are all weekdays. On-call emergency service is offered from 7:00PM to 7:00AM for both small and large animals including weekend.
- General consultation: YUAMEC is divided into Small Animal unit and Large Animal unit, and some diagnostic laboratories (Diagnostic Imagining and Blood Testing) are shared. Small Animal unit is divided into General Internal Medicine and General Surgery section. Students have opportunities to be exposed to new varieties of consultation every day, and perform the whole routine of an interview - examination - diagnoses - process in treatment, and write or present a report. When students engage in the consultation, they conduct it under the approval of client and the supervision of the faculty member.
- Specialized consultations are Ophthalmology, Therapeutic radiology, and Theriogenology
- Hospitalizations: The VTH always accepts many hospitalized patients following treatment of referral cases. Veterinary nurses and

students manage hospitalized patients at night.

- Emergencies and intensive care are also organized and managed 24h and 7 days.
- Ambulatory clinic for farm animals and horses is implemented as a part of clinical rotation.

- **KUVTH at VJS-KU**

- The KUVTH belongs to JFVM-KU and is managed by the KUVTH Council chaired by the Director of KUVTH. Opening Hours are all weekdays. On-call emergency service is offered from 7:00PM to 7:00AM for both small and large animals (Cattle and Horse) including weekend.
- General consultation: KUVTH is divided into Small Animal unit and Farm (Large) Animal unit, and some diagnostic laboratories (Diagnostic Imagining, Blood Testing, and Genetic Testing) are shared. Small Animal unit is divided into General Internal Medicine, General Surgery, and Diagnostic Imaging sections. Farm (Large) Animal unit has the following divisions: - Equine medicine, - Cattle, Goats, and Sheep Medicine, and - Pig and Chicken Medicine. Consultations of farm animals and horses on campus are under appointment. Students have opportunities to be exposed to new varieties of consultation every day, and perform the whole routine of an interview - examination - diagnoses - process in treatment, and write or present a report. When students engage in the consultation, they conduct it under the approval of client and the supervision of the faculty member.
- Specialized consultations are set-up in the Small Animal unit as follows; Infectious Disease, Cardiology, Neurology, Kidney and Urology, Oncology, Soft Tissue Surgery, Orthopedic Surgery, Dentistry including Dental Surgery, Anesthesiology.
- Hospitalizations: The KUVTH always accepts any hospitalized patients following treatment of both primary and referral cases even if it's on weekends or National holidays. Faculty members, veterinary nurses and students manage hospitalized patients at night even during weekends and National holiday.
- Emergencies and intensive care are also organized and managed 24 h and 7 days. In cases of emergency, a client needs to call prior to coming to the VTH. The patients are treated by the Faculty member and student.
- Ambulatory clinic for farm animals and horses is implemented in a part of clinical rotation.

5.1.5. Description of how the cadavers and material of animal origin for training in anatomy and pathology are obtained, stored and destroyed

- **Cadavers and material of animal origin for training in anatomy**

- Obtainment of animals: Cadavers and material of animal origin used for Practice of Veterinary Anatomy are purchased from livestock raisers for pigs, cattle and chicken, or laboratory animal agents for dogs. Horses are obtained from the Japan Racing Association which is an organization of horseracing in Japan.
- Management of materials of animal origin: Animals are used after euthanasia by a professor using bleeding and electric stimulation with adequate sedatives and anesthetics in accordance with "Guidelines on Euthanasia" and "AVMA Guidelines on Euthanasia 2013". The animal wastes are mainly disposed by Animal Waste Incinerator on campus or partially by external dead animal processing plant approved by the Japanese law. A part of animal bodies is kept under formalin following the national regulation in the dedicated room with special aspiration and equipment to avoid exposure of formalin to students, and used as specimens for Veterinary Histology.
- Other materials: VJS recently started making specimens using plastination technique and 3D printers from CT image data and 3D scanner data to avoid usage of formalin. Anatomy images and explanations are used as references and computer supplemental teaching materials are sent to student's iPads. VJS is currently making digital teaching materials using CT images and Osirix software and/or Web Multimedia Learning Management System (WMLMS)-Glexa.
- Skeletal materials: Skeletal specimens used as teaching materials are part of horses, cattle, pigs and dogs, and whole bodies of chicken and other animals. These skeletal specimens are made from animals used in Practices of Veterinary Anatomy.

- Materials for Histology: VJS possesses specimens for microscope of skeletons, cartilages, blood, muscle, central nerves, lymphatic tissues, digestive organs, respiratory organs, urinary organs, genital organs, placentas, endocrine systems, eyeballs, inner ears and skins. Each specimen is captured into a virtual slide system and kept as digital database. Specimens for an electron microscope are made from a part of materials and used as teaching materials for Cytology. Fetuses and placentas of pigs and mice are used as teaching materials for Veterinary Embryology.

- **Animals used for Practices of Veterinary Pathology**

Cadavers and material of animal origin used for Practice of Veterinary Pathology are derived from the VTH or private veterinary hospital/clinic. Dead animals transported from off-campus are also used as teaching materials. Animals for necropsy on campus are kept in a refrigerator and dissected as soon as possible. Dead animals are kept in a freezer and used for practices. All wastes derived from necropsy are disposed to the Animal Waste Incinerator on campus or by external dead animal processing plant approved by the Japanese law. In addition, animal waste of cattle, pigs, chickens, and horses after necropsy in the field are disposed by the farm under the regulation for the usual procedure of cadavers in each farm.

Animal Waste Incinerator

There are Animal Waste Incinerator and animal carcasses storage freezer in both JFVM-YU and KU. The incinerator has recently renewed to meet novel dioxin emission regulations in Japan.

Other waste that cannot be handled with the incinerator are separated into general waste and medical waste. Medical wastes are also separated into infectious medical waste and non-infectious medical waste. They are managed at the designated disposal area (when office is closed, the infectious medical waste are locked to avoid any infections) until the official disposal company which the University has contract with comes to pick them up.

5.1.6. Description of the group size for the different types of clinical training (both intra-murally and extra-murally)

- **VJS-YU**

For companion animal clinical practice, YUAMEC accepts maximum eight students a day and a Faculty member supervises one group with one to two students. In clinical practices of farm animals, a Faculty member supervises one group with maximum of four students both on-campus and off-campus. In practices of night/emergency medical care, YUAMEC accepts maximum of two students per Faculty member. In the extramural clinical practices of companion animals, one or two students are sent to an appointed private veterinary hospital in Yamaguchi prefecture for one training so that one veterinarian supervises one to two group with two students.

- **VJS-KU**

For companion animal clinical practice, each unit of Internal Medicine, Surgery, and Diagnostic Imaging in KUVTH and pathology unit accepts maximum of four students a day and a Faculty member supervises one small group with one to two students. In clinical practices of farm animals and horse, a Faculty member supervises one group with maximum three students both on-campus and off-campus. In practices of night/emergency medical care, KUVTH accepts maximum of two students per Faculty member and the OLACC accepts three students by two Faculty members. In the clinical practices at public animal shelters, a Faculty member supervises one group with maximum of three students. In the extramural ambulatory clinical practices for farm animals, maximum six students are sent to one appointed FAMAA in Kagoshima prefecture for one training and one veterinarian supervises one student.

5.1.7. Description of the hands-on involvement of students in clinical procedures in the different species, i.e. clinical examination, diagnostic tests, blood sampling, treatment, nursing and critical care, anaesthesia, routine surgery, euthanasia, necropsy, report writing, client communication, biosecurity procedures, .. (both intra-murally and extra-

murally)

Students in VJS who pass VCAT (both of CBT and OSCE) are allowed to perform consultation, clinical tests and diagnosis of client animals under supervision of Faculty members in VTH. In YUAMEC, students have the autonomy to perform blood sampling, physical examinations, neurological tests and ophthalmological examinations, diagnostic tests including diagnostic imaging tests such as ultrasound, endoscopy and X-ray radiography, medical treatment, nursing and critical care, anesthesia management, necropsy, report writing, client communication, and biosecurity procedures of companion animals, and perform blood sampling of large animals. Students also participate in CT scan and MRI examinations, surgical procedures, and euthanasia for client animals as technical assistants. In KUVTH, students have autonomy to perform physical and clinical examinations including blood sampling, diagnostic tests including diagnostic imaging tests such as ultrasound and X-ray radiography, medical treatment, nursing and critical care, anesthesia management, necropsy, report writing, client communication, and biosecurity procedures of small animals, farm animals and horses in both intra- and extra-murally. Students also participate in CT scan and MRI examinations, surgical procedures, and euthanasia for client animals as technical assistants, but they have autonomy to perform these procedures for dogs and cats in the public animal shelters under the supervision of Faculty member.

5.1.8. Description of the procedures used to allow students to spend extended periods in discussion, thinking and reading to deepen their understanding of the case and its management

In VJS, there are retention models of a calf and a dog, simulators of an intravenous injection, auscultation of a dog, cardiopulmonary resuscitation of a dog, intubation of a dog and skin suture, equine and bovine theriogenology model and dystocia simulator, an equine palpation/colic simulator, ultrasound examination training model, an upper gastrointestinal endoscope training model in JFVM-YU, and dummy training models a calf, a cattle, and a pig, a dog for cardiopulmonary resuscitation training, simulators of an intravenous injection and skin structure, an upper gastrointestinal endoscope training model in JFVM-KU. Students use them not only as learning materials for clinical practices, but also for self-directed learning. VJS is also developing WMLMS-Glexa, and Faculty members in VJS create e-learning contents such as presentation files, videos, photos, computer-based examinations and quiz. Students use it for self-directed learning about basic veterinary science, pathogenic and preventive veterinary science, and clinical veterinary science including case studies of client animals. The number of contents are increasing (up till now, over 170 and130 contents in JFVM-YU and JFVM-KU, respectively). In addition, students during the clinical rotation attend clinical case conference (twice a week in YU or every morning in KU), case report presentation (twice a year in YU) or round table discussion for the case by several perspectives (once a week in KU), and prospective/retrospective surgical case conference (twice a week in both YU and KU) mainly held in the clinical veterinary practical work room of YUAMEC or the seminar/conference room of KUVTH in order to understand more deeply about the clinical diagnosis, therapeutic strategy and management of the case.

5.1.9. Description of the patient record system and how it is used to efficiently support the teaching, research, and service programmes of the Establishment

The basic patient record systems are as follows;

- All cases are organized by the medical records (kept at least for 5 years). X-ray radiography, CT, and MRI files are also restored by the medical records number, and all diagnostic Imagining is managed as digitalized image files.
- A list of small animal blood test profile is created, and it is used for reading and analyzing of the cases' retrospective data and for case studies for practical work.
- CT and MRI cases are recorded separately in a list by examination parts and diagnosis names, and these are used for reading and analyzing of the cases' retrospective data and for case studies for practical work.

In the VTH, customized electronic medical record system is introduced and PACS is operated for diagnostic imaging information. This customized system allows students and Faculty members to make retrospective analyses and different core studies. Students are able to watch the record and the imaging information anytime, but not allowed to operate it in terms of security. In order to learn the writing methods of medical records, students record all medical and pathological procedures, findings, and treatment during clinical rotation and the records are checked and signed by the Faculty member.

5.1.10. Description of the procedures developed to ensure the welfare of animals used for educational and research activities

VJS gives courses of Animal Welfare and Veterinary Ethics for all students. In addition, in JFVM at both YU and KU, all animal experiments and clinical examinations are performed after approvals from the Animal Management Committees at Faculty level or University level. Students are obligated to take a lecture concerning animal welfare organized by the Animal Management Committees in JFVM-YU or KU every year. Procedures and adequacy of euthanasia of animals such as laboratory animals, companion animals, livestock including cattle, pigs and horses, poultry and other animals including animals in a zoo, wild animals, amphibian animals, fish, reptiles, and aquatic mammals and so on are educated in accordance with the guideline. The Faculty members are obligated to report the methods of euthanasia and engaged procedures after the practices. For the teaching animals, Faculty member at each practical work site is responsible for recording of procedures engaged in animals used for teaching.

In KU, a “Safety Guides for Experiments and Practical Trainings” is created and revised each year by Biosecurity/biosafety Committee in JFVM-KU, and students are educated before each practical training that all animal experiments and clinical examinations should be performed under the guideline including animal welfare. In addition, the EAC and all procedures using animals in this facility are accredited by the Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC) International.

5.1.11. Description of how *(procedures)* and by who *(description of the committee structure)* the number and variety of animals and material of animal origin for pre-clinical and clinical training, and the clinical services provided by the Establishment are decided, communicated to staff, students and stakeholders, implemented, assessed and revised

Faculty members in charge decide the number of animals and materials of animal origin depending on purpose of practices and number of students, and obtain them from extramural facilities for all practices using healthy animals. It is required to get an approval from the Animal Management Committee to use healthy animals. Faculty members in charge of each practice using animals submit experiment plans including the purpose of animal usage, the number of animals, and methods of breeding, anesthesia and euthanasia to the Committee and receive an approval. The faculty members are obligated to report the methods of euthanasia and dispose after the practices. It is also mandatory that every animal used at practices, especially healthy animals for pre-clinical training, are followed regarding the global exposure they receive during the procedures. The faculty members who is responsible for each practical training records all procedures performed on each animal.

Table 5.1.1. Cadavers and material of animal origin used in practical anatomical training

Species	JFVM-YU				JFVM-KU			
	AY* (2018)	AY-1 (2017)	AY-2 (2016)	Mean	AY (2018)	AY-1 (2017)	AY-2 (2016)	Mean
Cattle	1	2	2	1.7	1	1	1	1.0
Small ruminants	1	0	1	0.7	0	0	0	0
Pigs	11	5	5	7.0	5	3	3	3.7
Companion animals	8	16	18	14.0	12	12	12	12.0
Equine	1	1	1	1.0	1	1	1	1.0

Poultry & rabbits	17	20	33	23.3	8	8	8	8.0
Exotic pets	7	0	10	5.7	0	0	0	0
Others (*specify*)	0	0	0	0.0	0	0	0	0

*The last full academic year prior the Visitation.

Table 5.1.2. Healthy live animals used for pre-clinical training *(animal handling, physiology, animal production, propaedeutic, ..)*

Species	JFVM-YU				JFVM-KU			
	AY* (2018)	AY-1 (2017)	AY-2 (2016)	Mean	AY* (2018)	AY-1 (2017)	AY-2 (2016)	Mean
Cattle	58	58	58	58.0	245	241	570	352.0
Small ruminants	0	0	0	0	0	0	0	0
Pigs	4	4	4	4.0	42	87	155	94.7
Companion animals	9	9	9	9.0	30	30	59	39.7
Equine	0	0	0	0	10	6	5	7.0
Poultry & rabbits	14	14	0	9.3	70	42	84	65.3
Exotic pets	16	16	0	10.7	0	0	0	0
Others (*specify*)**	233	262	161	218.7	138	112	66	105.3

** In JFVM-YU, 151 of Mouse, 8 of Rat, 73 of Frog and 1 of Axolotl in 2018; 171 of Mouse, 15 of Rat, 73 of Frog, 1 of Axolotl and 2 of Guinea pig in 2017; 121 of Mouse, 14 of Rat, 25 of Frog and 1 of Axolotl in 2016. In JFVM-KU, 122 of Mouse and 16 of Rat in 2018; 101 of Mouse, 6 of Rat and 5 of Xenopus in 2017; 60 of Mouse and 6 of Rat in 2016.

Table 5.1.3. Number of patients* seen intra-murally *(in the VTH)***

Species	JFVM-YU				JFVM-KU			
	AY* (2018)	AY-1 (2017)	AY-2 (2016)	Mean	AY (2018)	AY-1 (2017)	AY-2 (2016)	Mean
Cattle	75	158	24	85.7	4950	5847	2784	4527.0
Small ruminants	3	2	2	2.3	22	22	9	17.7
Pigs	5	4	14	7.7	106	102	49	85.7
Companion animals	1950	2087	1888	1975.0	3908	3991	2362	3420.3
Equine	109	78	53	80.0	48	46	47	47.0
Poultry & rabbits	12	12	12	12.0	2	3	0	1.7
Exotic pets	53	52	0	35.0	139	91	0	76.7
Others (*specify*)****	4	6	4	4.7	10	10	10	10.0

***Each patient has to be officially recorded in the electronic patient record system of the Establishment and has to be individually examined/treated by at least 1 student under the supervision of at least 1 member of staff. Each live animal affected by one specific clinical episode is counted as 1 single patient, even if it has been examined/treated by several departments/units/clinics.

****In JFVM-YU, 1 of Tiger, 2 of Cheetah and 1 of Capybara in 2018; 1 of Blackbuck, 1 of Pony, 1 of Tiger, 1 of Cheetah, 1 of Kangaroo and 1 of Llama in 2017; 2 of Monkey, 1 of Donkey and 1 of Pony in 2016. In JFVM-KU, 9 of Dolphins and1 of Seal in 2018 and 2017; 10 of Dolphins in 2016.

Table 5.1.4. Number of patients*** seen extra-murally *(in the ambulatory clinics)***

Species	JFVM-YU				JFVM-KU			
	AY* (2018)	AY-1 (2017)	AY-2 (2016)	Mean	AY (2018)	AY-1 (2017)	AY-2 (2016)	Mean
Cattle	1828	1773	341	1314.0	4905	5466	4630	5000.3

Small ruminants	0	0	0	0	1	1	0	0.7
Pigs	224	348	135	235.7	162	348	84	198.0
Companion animals	88	108	58	88.0	256	151	130	179.0
Equine	788	22	45	285.0	245	273	427	315.0
Poultry & rabbits	140	145	270	185.0	268	156	256	226.7
Exotic pets	404	211	0	205.0	0	0	0	0
Others (*specify*)	0	0	0	0	0	0	0	0

*****Each patient has to be officially recorded and has to be individually examined/treated by at least 1 student under the supervision of at least 1 member of staff. Each live animal affected by one specific clinical episode is counted as 1 single patient.

Table 5.1.5. Percentage (%) of first opinion patients used for clinical training *(both in VTH and ambulatory clinics, i.e. tables 5.1.3 & 5.1.4)*

Species	JFVM-YU				JFVM-KU			
	AY* (2018)	AY-1 (2017)	AY-2 (2016)	Mean	AY (2018)	AY-1 (2017)	AY-2 (2016)	Mean
Cattle	98	97	84	93.0	85.2	79.0	90.0	84.7
Small ruminants	100	100	NE	100	100	100	100	100
Pigs	100	100	100	100	95.2	92.4	100	95.9
Companion animals	8.4	8.7	4.4	7.2	22.2	12.5	20.7	18.5
Equine	100	100	100	100	90.4	93.0	91.0	91.5
Poultry & rabbits	100	100	100	100	100	100	100	100
Exotic pets	98	90	-	94.0	100	100	-	100
Others (*specify*)	0	0	0	0	100	100	100	100

NE; not examined

Table 5.1.6. Cadavers used in necropsy

Species	JFVM-YU				JFVM-KU			
	AY* (2018)	AY-1 (2017)	AY-2 (2016)	Mean	AY (2018)	AY-1 (2017)	AY-2 (2016)	Mean
Cattle	18	28	8	18.0	21	24	33	26.0
Small ruminants	0	1	0	0.3	0	0	1	0.3
Pigs	30	10	13	17.7	39	14	27	26.7
Companion animals	96	38	11	48.3	88	38	14	46.7
Equine	8	6	1	5.0	7	8	11	8.7
Poultry & rabbits	37	68	12	39.0	44	53	56	51.0
Exotic pets	3	3	0	2.0	2	4	0	2.0
Others (*specify*)******	13	25	2	13.3	16	46	52	38.0

******In JFVM-YU, 5 of Monkey, 2 of Capybara, 1 of Hooded Crane, 1 of Cattle Egret, 1 of Pelican, 1 of Ostrich, 1 of Bear, 1 of Lion in 2018; 9 of Monkey, 3 of Capybara, 2 of Blackbuck, 1 of Buffalo, 1 of Cheetah, 1 of Tiger, 1 of Kangaroo, 1 of American black bear, 1 of Racoon, 1 of Goldcrest, 1 of Pelican, 1 of Chinese bamboo partridge, 1 of Blue Crane and 1 of Owl in 2017; 1 of Dolphin and 1 of Monkey in 2016. In JFVM-KU, 5 of Iriomote jungle cat, 11 of Crane in 2018; 3 of Iriomote jungle cat, 28 of Crane, and 15 of Badger in 2017; 7 of Iriomote jungle cat, 35 of Crane, 8 of Badger, and 2 of Dolphin in 2016.

Table 5.1.7. Number of visits in herds/flocks/units for training in Animal Production and Herd Health Management

Species	JFVM-YU				JFVM-KU			
	AY* (2018)	AY-1 (2017)	AY-2 (2016)	Mean	AY (2018)	AY-1 (2017)	AY-2 (2016)	Mean
Cattle	29	31	28	29.3	2640	2188	2027	2285.0
Small ruminants	0	0	0	0	0	0	0	0
Pigs	4	4	4	4.0	43	25	21	29.7
Poultry	4	4	4	4.0	5	5	5	5.0
Rabbits	0	0	0	0	0	0	0	0
Others (*specify*)	0	0	0	0	0	0	0	0

Table 5.1.8. Number of visits in slaughterhouses and related premises for training in FSQ

Species	JFVM-YU				JFVM-KU			
	AY* (2018)	AY-1 (2017)	AY-2 (2016)	Mean	AY (2018)	AY-1 (2017)	AY-2 (2016)	Mean
Ruminant's slaughterhouses	5	14	2	7.0	8	9	12	9.7
Pig's slaughterhouses	3	6	2	3.7	8	9	12	9.7
Poultry slaughterhouses	2	4	1	2.3	9	9	12	10.0
Related premises*******	2	2	2	2.0	9	6	6	7.0
Others *(specify)* ********	0	0	0	0	2	0	0	0.7

*******Premises for the production, processing, distribution or consumption of food of animal origin.

******** In JFVM-KU, 2 of Environmental Health Center in 2018.

5.2. Comments

- Numbers of healthy cattle and horses used for pre-clinical training and gross anatomy are enough for small group trainings.
- The numbers of necropsy cases are increasing, especially in those of farm animals, horses, and companion animals in JFVM-YU, and companion animals in JFVM-KU, which were not enough a few years ago.
- The JFVM-KU has opportunities to easily access to public animal shelter, Aquarium, Zoo, and slaughterhouses for the veterinary education.

5.3. Suggestions for Improvement

- It will be necessary to make an annually contract with external facilities/companies for securing the number of animals for pre-clinical training and gross anatomy.
- To further increase the number of necropsy cases, the VJS should ask to the clients if they could donate the bodies that are passed away at the VTH for education.

6. Learning Resources

6.1. Factual Information

6.1.1. Description of the main library of the Establishment: -) staff and qualification, -) opening hours and days, -) annual budget, -) facilities: location in the campus, global space, number of rooms, number of seats, -) equipment: number of computers, number of electrical connections for portable PC, available software's for bibliographical search, -) number of veterinary books and periodicals, -) number of veterinary e-books and e-periodicals, -) number of other (e)books and (e)periodicals

- **VJS-YU**

- **Staff and qualification**: There are 15 full-time staffs, 9 of whom have librarian certifications, and 11 part-time staff, 5 of whom have librarian certifications. There is no librarian dedicated to veterinary students.
- **Opening hours and days**: It is open from 8:30 to 21:15 on weekdays and 11:15 to 18:45 on weekends and holidays. It is open from 8:30 to 17:30 during weekdays and holidays during summer and winter vacation. It is closed for five days around August 15 and December 29 to January 4.
- **Annual budget**: It is 3,324,050 Euros.
- **The library**: It is located at Middle North of YU main campus (Yoshida campus) and total floor area is 8,667 square meters. The number of room is 30 and that of seats is 966.
- **Equipment: number of computers, number of electrical connections for portable PC, available software's for bibliographical search**: The number of computers is 67, that of plug sockets for portable PC is 366 and that of information sockets is about 360. A Wi-Fi network system is available in whole library. The library catalogue retrieval software is installed in 6 computers. Students can retrieve the library catalogue via website of the library both on and off campus.
- **Number of veterinary books and periodicals**: The number of veterinary books and journals are 2,423.
- **Number of veterinary e-books and e-periodicals**: The number of veterinary e-books is 15 and that of veterinary e-journals is 117. Students and faculty members are free to use several Electronic Journals (JSTOR, ScienceDirect, Wiley Online Library, Nature, Science, PNAS and so on) and Literature Database (ICHUSHI WEB, Medical Online, MEDLINE, Scopus, SciFinder and so on) anytime from outside of the campus.
- **Number of other (e)books and (e)periodicals**: There is no other (e)books and (e)periodicals

- **VJS-KU**

- **Staff and qualification**: There are 20 full-time staffs, 10 of whom have librarian certifications, and 14 part-time staff, 10 of whom have librarian certifications. There is no librarian dedicated to veterinary students.
- **Opening hours and days**: It is open from 8:30 to 21:30 on weekdays and 10:00 to 18:00 on weekends (Saturday and Sunday). It is open from 8:30 to 17:00 on weekdays and 10:00 to 18:00 on weekends during summer and winter vacation. It is closed on national holidays and for one week each in the summer (around August 15) and winter (New Year holidays) seasons.
- **Annual budget**: It is 4,132,500 Euros.
- **The library**: It is located at Middle East of KU main campus (Korimoto campus) and total floor area is 12,697 square meters. The total number of room is 43 and that of seats is 923.
- **Equipment: number of computers, number of electrical connections for portable PC, available software's for bibliographical search**: The number of computers is 53, that of plug sockets for portable PC is 368 and that of information sockets is about 38. A Wi-Fi network system is available in whole library. The library catalogue retrieval software, Bookma Catalog, is installed in 7 computers, which makes it possible to retrieve the library catalogue via website of the library both on and off campus.
- **Number of veterinary books and periodicals**: The number of veterinary books and journals are 1,000.

- **Number of veterinary e-books and e-periodicals**: The number of veterinary e-books is 19 and that of veterinary e-journals is 113. Students and faculty members are free to use several Electronic Journals (ScienceDirect, Wiley Online Library, SpringerLink, Nature, Science and so on), Books (EBSCO eBooks, Maruzen eBook Library, Springer eBook Collection, Willey Online Library, ProQuest eBook and so on) and Literature Database (Scopus, Journal Citation Reports, Essential Science Indicators, CiNii Articles, PubMed, ICHUSHI WEB, Medical Online, PubChem, SciVal and so on) anytime via the campus network.
- **Number of other (e)books and (e)periodicals**: There is no other (e)books and (e)periodicals

6.1.2. Description of the subsidiary libraries (*if any*)

There is a subsidiary library (self-directed e-learning room) with 3 (in YU) or 10 (in KU) laptop computers in JFVM-KU, and veterinary books complied with CMCVSE and veterinary journals, which are purchased at the faculty and each laboratory level, are available to all students and faculty members. Students can also watch the video contents of topic classes via the computers in the subsidiary library. There is also a list of books/journals at each laboratory and students can ask to access the books/journals.

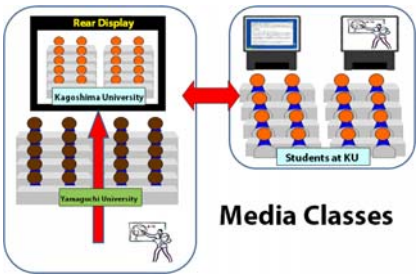
6.1.3. Description of the IT facilities and of the e-learning platform *(dedicated staff, hardware, software, available support for the development by staff and the use by students of instructional materials)*

- **At the University level**

Sixty computers (in YU) and 53 computers (in KU) are free for use in a dedicated space of each main library. As support for students, teaching assistants in the library answer questions from students and give advice to them. Academic Information Offer Service such as academic information database is provided via a Wi-Fi network system. There are 6 (in YU) or 15 (in KU) interactive study spaces in the main library. Computers are also available in the Media Education Building (102 computers in YU) or Computing & Communications Center (190 in KU) and in the Main Building for Liberal Arts (88 computers in YU or 205 in KU). There are dedicated support staffs in each facility to help students.

- **At the Faculty level**

The administration office in JFVM-YU has about 5 laptop computers to lend for students. The JFVM-KU has a lecture room, a Histology Special Practical Work Room, and a self-directed e-learning room with 35, 35, and 10 laptop computers, respectively, which is free to use for students. However, almost all students in VJS possess their own laptop computer as it is required.



- SSCS: Media classes are the main educational system at the VJS. Four lecture courses in the introductory veterinary basic science, 40 lectures and 10 practical works in the veterinary topic courses, and 8 special lectures of major courses use this bilateral media class. Faculty members can look at the screen to make sure that students in both classrooms are understanding and able to follow the lesson via SSCS. When students in the receiving classroom have a question, they can just raise their hand, and the professor can use the system zoom-in-out to better assist them. There are dedicated support staffs to maintain the SSCS.
- WMLMS-Glexa: It supports self-directed learning of students by providing e-learning contents of supplemental teaching materials, pathological cases and movies including surgery. Students can access to it both on- and off-campus using their own account.
- Others: In JFVM-YU, there are some DVD players, which enable the students to watch veterinary educational DVD in the Skills lab. The students in JFVM-KU can access freely to Veterinary Education in Video (https://search.alexanderstreet.com/vets) via on-campus Wi-Fi under annual contract.

6.1.4. Description of the available electronic information and e-learning courses, and their role in supporting student

learning and teaching in the core curriculum

In WMLMS-Glexa, presentation files of lectures, videos such as surgery procedures, photos of anatomy and pathology, and computer-based examinations and quiz for mock examinations of CBT and JNVE are created by Faculty members. Students can access with their account and use it for self-directed learning of all fields of veterinary science. It helps students to brush-up their knowledge.

6.1.5. Description of the accessibility for staff and students to electronic learning resources both on and off campus *(Wi-Fi coverage in the Establishment and access to Virtual Private Network (VPN))*

Students and Faculty members are available to use electronic learning resources anytime on-campus via Wi-Fi with their own account. In addition, undergraduate students, graduate students, faculty members and support staffs in VJS are available to use the university databases from off-campus via VPN access.

6.1.6. Description of how the procedures for access to and use of learning resources are taught to students

Students in Y1 of VJS have lectures of information security moral and information literacy. As for the student service, library orientation and guidance are conducted to explain how to retrieve references and use database for newly entered students at each University. In addition, these guidance opportunities are provided to individuals or student groups when requested. For e-learning system, students receive information on how to use the system during an orientation once a year.

6.1.7. Description of how *(procedures)* and by who *(description of the committee structure)* the learning resources *(books, periodicals, databases, e-learning, new technologies, ..)* provided by the Establishment are decided, communicated to staff, students and stakeholders, implemented, assessed and revised

For the renewal of books/journals, a Faculty member who is a member of Library Committee at University level and responsible for the veterinary books/journals decides and proposes to the Library Committee of University based on the requests for the new books/journals from Faculty members. It needs to be approved by the Library Committee of University to change or introduce new books/journals into the main library of the University. For the databases and e-learning platforms, Faculty members of ICT committee are in charge of the use, technical problems, updates, and introduction of new technology. The usage method of the platform is educated to students by the Faculty members.

6.2. Comments

- Main library at each University is well-equipped and -organized, but opening hours are too limited and the quality of books for supporting veterinary education should be improved because the edition of some books is old.
- University has subscription to several electronic journal editorial companies such as ScienceDirect, Wiley Online Library, Nature, Science, and SpringerLink, and it allows students and Faculty members to access. Some accessible books/journals in veterinary science fields, especially clinical veterinary medicine, are available for students in a dedicated study room at each Faculty.
- The self-directed e-learning contents for students in WMLMS-Glexa is increasing and students use them frequently. Faculty members are still working to improve of the number of contents in it.
- The SSCS is efficiently equipped and the supporting system is well-organized, but the management cost is high.

6.3. Suggestions for Improvement

- To offer more study rooms in order to enrich educational environment for students.
- The books with old edition need to be updated (either physical or electrical)

7. Student Admission, Progression and Welfare

7.1. Factual Information

7.1.1. Description of how the educational programme proposed by the Establishment is advertised to prospective students

VJS's admission policy states its selection process and educational programs including the summary of curriculum and SSCS. It is made public on the annual PR magazine and VJS website. In addition, veterinary education, facilities, and equipment of VJS are introduced to the general public including applicants who come to the campus tours on the Open Campus Day every year.

7.1.2. Description of the admission procedures for standard students: -) selection criteria, : -) policy for disable and ill students, : -) composition and training of the selection committee, : -) appeal process, : -) advertisement of the criteria and transparency of the procedures

- **Selection criteria**: All students who want to apply to VJS first have to take the National Center Test for University Admissions (NCTUA) (tests on Japanese, English, Mathematics, Sciences such as biology, physics, and chemistry, and Social studies such as history, geography, and civics). Then, students need to apply to one of the 3 major types of the admission track:
  - **Admission by recommendation** is intended for students recommended by the principal of his/her high school. The applicant is evaluated by the scores of NCTUA, short essay and an interview with Faculty members, mixed with his/her high school records. For the past 3 years, a total of 9 students among 41 students or 9 students among 36 students who applied to this track were admitted to each JFVM-YU or KU (success rate 22% or 25%), respectively. This track represents 8.8% or 9.4% of students admitted to JFVM-YU or KU, respectively. Students who fail in this examination can reapply through the general examination-first term.
  - **General examination-first term** is open to all students. The applicants are evaluated by the scores of dedicated written examinations of Mathematics and Sciences created at each University level plus the scores of NCTUA. For the past 3 years, a total of 72 students among 313 students or 67 students among 277 students who applied to this track were admitted to JFVM-YU or KU (success rate 23% or 24%), respectively. This track represents 70.6% or 69.8% of students admitted to JFVM-YU or KU, respectively. Students who fail in this examination can reapply through the general examination-second term.
  - **General examination-second term** is also open to all students. The applicants are evaluated by an interview with Faculty members plus the scores of NCTUA. For the past 3 years, a total of 19 students among 202 students or 19 students among 273 students who applied to this track were admitted to JFVM-YU or KU (success rate 9.4% or 7.0%), respectively. This track represents 18.6% or 19.8% of students admitted to JFVM-YU or KU, respectively.

In addition to 3 major types of the admission examination, 2 competitive examinations are also proposed for entering the VJS.

- **Admission examination for foreign students** is designed to recruit foreign students. The applicants are evaluated by the scores of TOEIC or TOEFL, and the Examination for Japanese University Admission for International Students, organized by the Japan Student Services Organization, testing Japanese, Mathematics, and Sciences. The applicants are also evaluated by an interview with Faculty members. For the past 3 years, a total of 2 student among 10 students or no student among 25 students who applied to this track were admitted to JFVM-YU or KU (success rate 20% or 0%), respectively. This track represents 2.0% or none of students admitted to each JFVM-YU or KU.
- **Admission examination with the International Baccalaureate** (only in JFVM-KU) is accessible to the students with International Baccalaureate. The applicants are evaluated by an interview with Faculty members plus the scores of International Baccalaureate. This type of admission examination has just started in 2018 and none has passed this examination (among 1 student who applied through this track were admitted to JFVM- KU).

- **Policy for students with disablity**: VJS clearly states in the Guide of the Student Recruitment that both YU and KU supports students with disability for entrance exam consultations and their campus life. Their rights to receive are protected and supported under the “Basic Policy on Support for Disable Students in National University Corporation YU” and “Basic Policy on Support for Disable Students in National University Corporation KU”. There is a center to support students with disability at each University.
- **Composition and training of the selection committee**: At the University level, the AEC, which is chaired by the Vice President in charge of student education (in YU) or the President (in KU), is consisted of representatives selected from each faculty at YU or an executive board member in charge of education and Deans from every faculties at KU. The AEC decides the rules of admission at the University level and gives trainings to the Faculty members involved in the creations of written examination in general examination-first term. At the Faculty level, VJS Faculty Council discusses the admission policies and criteria to try to unify the admission examination at each University. The AEC in JFVM-YU or KU, which consists of Faculty members, is responsible for the procedures of admission examinations and advertisements. The AEC at the Faculty level manages and operates the admission examinations, and gives trainings to the Faculty members involved in the interviews for recommendation, general examination-second term, and admission examination for foreign students, to harmonize and to maintain the constant level of selection over the years. Almost all Faculty members are engaged in the interviews during the examination process.
- **Appeal process**: VJS discloses the scores of general examination-first term and -second term only at applicants’ request. The procedures on any inquiries about the admission process can be found on the Guide of the Student Recruitment. There is no appeal process on the examination policies.
- **Advertisement of the criteria and transparency of the procedures**: VJS shares the number of available positions in each track of the admission examination, qualifications and procedures for application, the selection process, how criteria is created, evaluation, and selection on the Guides of the Student Selection and the Student Recruitment. All information is available on the official websites for both Universities.

7.1.3. Description of the admission procedures for full fee students *(if different from standard students)*

All students are same status in VJS and there is no difference on the admission procedures. However, in JFVM-KU, a first full fee (government-financed) Brazilian student was admitted in 2018. The applicants are asked to submit application, taken written exams in Japanese, English, Mathematics, Chemistry and Biology, and be interviewed by Japanese diplomatic missions as the first screening process. The applicants who passed the first screening is then enrolled at a preparatory educational institution designated by MEXT and takes the preparatory intensive course which consists of the Japanese language and other subjects such as Japanese affairs, Mathematics, English, and Sciences for a year. The applicants who has completed the preparatory education attend a university designated by MEXT upon passing an interview undertaken by a Faculty member who is a chair of International Relations Committee in JFVM-KU.

7.1.4. Description of how the Establishment adapts the number of admitted students to the available educational resources *(facilities and equipment, staff, healthy and diseased animals, material of animal origin)* and the biosecurity and welfare requirements

The number of admitted students to national universities in Japan is determined by submission to and accreditation from MEXT taking account the size of the university and situations of facilities and equipment. Especially, the number of students in the veterinary faculty is highly restricted to keep the adequate number of veterinarians in Japan. Universities are not allowed to change the number of admitted students by themselves. Therefore, the sizes of lecture and practical training rooms, ICT related facilities, situations of Biosecurity/Biosafety, and the number of the staff and animals including materials of animal origin, are kept adequately in JFVM-YU and KU. VJS is very careful about limiting the number of newly admitted students so that students can have good opportunities in clinical practice.

7.1.5. Description of: -) the progression criteria and procedures for all students; : -) the remediation and support for students who do not perform adequately; : -) the rate and main causes of attrition; : -) the exclusion and appeal procedures; : -) the advertisement to students and transparency of these criteria/procedures

- **The progression criteria and procedures for all students**: The progression criteria are notified in the "Guidebook for Completion of Classes" and the guidebook is distributed to students when they are admitted. In VJS, when students move up from Y2 to Y3, and from Y4 to Y5, students need to pass all the requirements and acquire necessary credits. To secure the quality of students for practicing on clients' animals, students who are exposed to clinical rotation from the second semester of Y5 to the first semester of Y6, should validate all other required courses and passed the VCAT such as CBT and OSCE before the second semester of Y5. The judgment of the student progression is discussed in JFVM Faculty Council at each university and finally approved by the VJS Faculty Council.
- **The remediation and support for students who do not perform adequately**: A Faculty member in charge of a yearly class (one for each yearly class) and a member of the Academic Affair Committee (in YU) or Student Life and Career Committee (in KU) are responsible for students who are not performing adequately. They will provide consultation and supports to their study and campus life. In addition to these academic staffs, medical doctors, public health nurses and clinical psychologists in the University Health Service Center and clinical psychologists in the Student Counseling Center and the Student Special Support Room support students, are there to support students in need.
- **The rate and main causes of attrition**: In JFVM-YU, 6 (among 196 students in 2018), 7 (among 190 students in 2017), and 4 (among 188 students in 2016) students (average rate is 3.0%) repeated a school year, and 0 (in 2018), 1 (in 2017), and 1 (in 2016) students (average rate is 0.3%) have left JFVM-YU during the past 3 years. In JFVM-KU, 6 (among 192 students in 2018), 5 (among 191 students in 2017), and 6 (among 195 students in 2016) students (average rate is 2.9%) repeated a school year, and 2 (in 2018), 2 (in 2017), and 2 (in 2016) students (average rate is 1.0%) have left JFVM-KU during the past 3 years. The main causes for repeating a class year are insufficient results with low motivation and of leaving are change of study track to medicine.
- **The exclusion and appeal procedures**: The exclusion is decided by the President according to National University Corporation YU or KU Regulation under the agreement of the JFVM Faculty Council for the students who do not pay tuition fees or cause a criminal case. VJS allows students to complete the whole curriculum within 12 years in case that they do not pass the requirement nor acquire necessary credits in above periods. If exceeding 12 years, then, students should leave the VJS. There is no appeal procedures on exclusion.
- **The advertisement to students and transparency of these criteria/procedures**: All procedures and regulation on campus life are described in "Guidebook for Completion of Classes" and introduced to students during admission guidance. All regulations in YU and KU are made public on the official websites at both Universities.

7.1.6. Description of the services available for students (i.e. registration, teaching administration, mentoring and tutoring, careers advice, listening and counselling, assistance in case of illness, impairment and disability, clubs and organisations, ..)

- Registration of classes and learning management: Students register in topic classes every semester through the official website with registration system. Students are able to check their records on the website, or able to ask to the support staffs in Academic Affair Office in JFVM-YU or KU. VJS sends the student's records to their parents every semester.
- Mentoring and tutoring: VJS has a Homeroom Teacher System. One Faculty member is responsible for each grade and supports the students throughout the years until the graduation as a home teacher. In addition, the student mutually supportive system is established with a peer support room. Student tutors help freshmen to register to topic classes, and provide advices for any concerns.

- Career advice: VJS supports students to make their future plans through the lectures on the Introduction of Veterinary Science in Y1 and on the Career Development for Veterinarians in Y3. VJS also holds a job fair in each faculty for students for Y5 and Y6 to introduce a variety of veterinary professions every year. Homeroom teachers and supervisors give career advices to students taking account of their aptitudes any time.
- University Health Service Center: The aim of the University Health Service Center both Universities is for maintenance and improvement of physical and mental health for students, Faculty members and support staff. The center provides the following; 1) daily general health consultation/physical examination (Internal medicine, Psychiatry, Psychological consultation, Ophthalmology, Orthopedics, Otorhinolaryngology, Dermatology, Dentistry), 2) consultations of mind and mental health, 3) annual health check-ups, 4) specific and emergency health check-ups, 5) issuing of health certification, 6) application of health management equipment. The Center also promotes knowledge concerning hygiene, safety, and health of students.
- Assistance in case of illness, impairment and disability: Homeroom teachers and the support staffs in the Academic Affair Office are responsible for the support of students who have difficulties on their study due to a long-term hospitalization in case of illness and impairment. The support for students with disability is described in 7.1.2.
- Club activities: In YU, there are three types of organizations for student's extracurricular activities, i) Athletic teams, ii) Cultural club and iii) University Festival Executive Committee, which students organize by themselves and enjoy. The Athletic team authorizes 37 circles and the cultural clubs also authorizes fifteen circles. Two Festivals are held by students every July and November and many JFVM-YU students join these festivals. In KU, there are 54 cultural, 15 music, and 51 sport types' activities. Students manage the club activities by themselves and work for the common objectives. KU Festival is held by students every November and many JFVM-KU students join these festivals.

7.1.7. Prospected number of new students admitted by the Establishment for the next 3 academic years

Thirty to 34 (in YU) and maximum of 33 (in KU) students annually will be admitted annually to JFVM for the next 3 academic year because there is no change in the number of students admitted annually.

7.1.8. Description of how *(procedures)* and by who *(description of the committee structure)* the admission procedures, the admission criteria, the number of admitted students and the services to students are decided, communicated to staff, students and stakeholders, implemented, assessed and revised

Admission procedures, admission criteria and services for students are discussed in relative Committees in JFVM-YU and KU, and JFVM Faculty Councils, and finally decided in the VJS Faculty Council. Situations of admission are also analyzed by AEC and PR and Information Committee in JFVM-YU and KU, JFVM Faculty Councils and VJS Faculty Council, and revised under the agreement of the VJS Faculty Council, if necessary, although revisions of important matters on the admission examination requires agreements by MEXT. JFVM Stakeholder Advisory Council in each JFVM-YU and KU gives their suggestions and opinions at the Faculty level. Also, VJS has alumni organizations (Seizan-kai in JFVM-YU and Shiyu-kai in JFVM-KU) for former students and they give feedback regards to the competence and skills of the graduates in the annual meeting between VJS and the alumni organization.

Table 7.1.1. Number of new veterinary students admitted by the Establishment

Type of students	JFVM-YU				JFVM-KU			
	AY (2018)*	AY-1 (2017)	AY-2 (2016)	Mean	AY (2018)	AY-1 (2017)	AY-2 (2016)	Mean
Standard students	33	34	32	33.0	32	31	32	31.7
Full fee students	0	0	0	0	1	0	0	0.3
Total	33	34	32	33.0	33	31	32	32.0

*The last full academic year prior the Visitation.

Table 7.1.2. Number of veterinary undergraduate students registered at the Establishment

Type of students	JFVM-YU				JFVM-KU			
	AY* (2018)	AY-1 (2017)	AY-2 (2016)	Mean	AY (2018)	AY-1 (2017)	AY-2 (2016)	Mean
First year	33	33	32	32.7	33	31	32	32.0
Second year	34	33	32	33.0	31	32	35	32.7
Third year	32	30	32	31.3	30	33	33	32.0
Fourth year	33	37	34	34.7	34	34	32	33.3
Fifth year	34	30	28	30.7	33	31	27	30.3
Sixth year	30	27	30	29.0	31	30	36	32.3
Total	196	190	188	191.3	192	191	195	192.7

Table 7.1.3. Number of veterinary students graduating annually

Type of students	JFVM-YU				JFVM-KU			
	AY* (2018)	AY-1 (2017)	AY-2 (2016)	Mean	AY (2018)	AY-1 (2017)	AY-2 (2016)	Mean
Standard students	28	26	30	28.0	31	30	33	31.3
Full fee students	0	0	0	0	0	0	0	0
Total	28	26	30	28.0	31	30	33	31.3

Table 7.1.4. Average duration of veterinary studies

Duration	JFVM-YU	JFVM-KU
	% of the students who graduated on AY (2018)	% of the students who graduated on AY (2018)
+0**	89.3% (25)	96.8% (30)
+1 year	10.7% (3)	3.2% (1)
+2 years	0% (0)	0% (0)
+3 years or more	0% (0)	0% (0)

**The total duration of the studies matches the minimum number of years of the programme (e.g. 6 years)

Table 7.1.5. Number of postgraduate students registered at the Establishment

Programmes	JFVM-YU				JFVM-KU			
	AY* (2018)	AY-1 (2017)	AY-2 (2016)	Mean	AY (2018)	AY-1 (2017)	AY-2 (2016)	Mean
Interns	5	5	4	4.7	10	13	12	11.7
Residents	0	0	0	0	0	0	0	0
PhD students	46	49	47	47.3	27	24	25	25.3
Other (*Specify*)	0	0	0	0	0	0	0	0

7.2. Comments

- In JFVM-YU, the average ages of the students when admitted are 19.3 (in 2018), 18.8 (in 2017), and 18.9 years-old (in 2016), and the percentages of women are 54.5 % (in 2018), 54.6% (in 2017), and 36.4% (in 2016) during the past three years. In JFVM-KU, the average ages of the students when admitted are 19.4 (in 2018), 19.0 (in 2017), and 19.5 years-old (in 2016), and the percentages of women are 45.5% (in 2018), 29.0% (in 2017), and 43.8% (in 2016) during the past three years.
- The evaluation system is hard to measure students' motivation. Even there is an interview as a part of admission examination process, there are still some students with low motivation during the school year. We need to find the way to motivate these

students.

- As for the number of students admitted, applicants are selected based on proper and strict standards at the VJS, and management of the number of students admitted is well determined to match the capacity of educational resources.
- The VJS has not evaluated the added value (increased quality made by VJS) of VJS yet since first students under the new education system of VJS have just graduated in March 2018. We are planning to perform questionnaire survey to their employments.
- Students are able to check their records on the website. Homeroom teachers and a member of the Academic Affair Committee (in YU) or Student Life and Career Committee (in KU) also confirm student's records and support student's learning if they have any problems.
- Not enough feedback system in the admission examination process from Faculty members regarding the results of a cohort of students and from stakeholders regarding the quality of graduated students.

7.3. Suggestions for Improvement

- The VJS should consider the ways of which the admission examinations are conducted including the PR activities about roles of veterinarians.
- The VJS should enhance the feedback system on the admission selection from the results of a cohort of students and try to more interact more with Faculty members, students, and stakeholders to receive feedback on the selection process and adapt the selection criteria.
- The VJS should have some discussions on the admission process on the basis of feedbacks from the results on topic classes. The feedbacks should also be received from external veterinary professions.

8. Student Assessment

8.1. Factual Information

8.1.1. Description of the global student's assessment strategy of the Establishment

Features of education in VJS are to provide the same standard for student assessment in JFVM-YU and KU. The base of the student's assessment is to evaluate student's learning results objectively, fairly and transparently. Numbers and types of the examinations in both lectures and practices are fixed on a semester basis by the representative of each topic class and approved by VJS Faculty Council. The results of examinations are validated at each semester level and students are able to try again the examination again when they fail. Students have to earn required numbers of credits when they move up from Y2 to Y3 [all credits of non-veterinary basic studies and introductory veterinary basic science in Y1, and more than 37 among 44 credits (>84%) of veterinary topic courses until Y2], from Y4 to Y5 [more than 114 among 121 credits (>94%) of veterinary topic courses until Y4], and graduate (100% of all credits until Y6). Students also have to pass the CVAT to prove that they are qualified in theoretical knowledge and pre-clinical skills for participation in clinical practices such as clinical rotation.

8.1.2. Description of the specific methodologies for assessing: -) theoretical knowledge; : -) pre-clinical practical skills; : -) clinical practical skills

- **Theoretical knowledge**: Students' theoretical knowledge acquired from lectures is evaluated through written examinations and essays. Written examinations are performed in the end of each quarter (a half of semester). The result of the written examination and the ratio of attendance to topic classes are used for assessment of students.
- **Pre-clinical practical skills**: Pre-clinical skills of students acquired in practices are evaluated by written examinations to check basic knowledge, and oral presentations and discussions about the results of experiments are used to allow students to think and explain how they have understood the process. The result of examinations and the ratio of attendance to topic classes are included in assessment of students. It is also required for students to pass both CBT and OSCE after pre-clinical practical training for participation in clinical practices. OSCE consists of tests of medical interview, physical examinations of dog and cattle using dummy, and operation skills such as suture, and students have to pass each field.
- **Clinical practical skills**: The acquisition status of clinical skills are directly evaluated during clinical rotations on the basis of Day One Competencies established in JFVM-YU or KU. It is also evaluated by case studies presented by students during clinical rotations.

8.1.3. Description of the assessment methodology to ensure that every graduate has achieved the minimum level of competence, as prescribed in the ESEVT Day One Competences *(see Annex 2)*

In VJS, the clinical skills which students have to acquire in clinical practices are based on ESEVT Day One Competences. In JFVM-YU, each student records his/her achievements in "Day One Competences progress table" (Annex 8.1) by collecting series of points when he/she understands these skills. Faculty members in charge evaluate whether and how much students acquire these skills after the practices. It is required for students to complete acquisition of all skills in "Day One Competences progress table" to pass clinical practices. In JFVM-KU, students are evaluated in both pre-clinical and clinical practical skills on the criteria in "Day One Competences evaluation sheet" (Annexes 8.2.1-8.2.3). The skills are divided into "Basic", "Intermediate" or "Advanced" level and it is required for students to acquire all skills of "Basic" and "Intermediate" levels in the sheet (soft skill and medical inspection, internal medicine and surgery including anesthesia management, and diagnostic imaging, etc. of companion animals, farm animals, and equine medicines). During pre-clinical and clinical practical training, acquisition of competencies is evaluated for each skill and the progression is followed-up by Faculty members and all students need to complete the required numbers and pass the examination in each skill. Faculty members in charge also check the report and clinical practice records in each term of clinical rotation. Therefore,

students can confirm progression and achievement in each category by the sheets under the discussion with Faculty members every time.

8.1.4. Description of the processes for: -) ensuring the advertising and transparency of the assessment criteria/procedures; : -) awarding grades, including explicit requirements for barrier assessments; : -) providing to students a feedback post-assessment and a guidance for requested improvement; : -) appealing;

- **Ensuring the advertising and transparency of the assessment criteria/procedures**: Students are able to read contents and the assessment criteria/procedures of all topic classes in syllabus via website. The assessment criteria/procedures of promotion and graduation are made public in "Guidebook for Completion of Classes" distributed to all students.
- **Awarding grades, including explicit requirements for barrier assessments**: Explicit requirements for barrier assessments are described in "Guidebook for Completion of Classes" and informed to students during admission guidance. A Faculty member in charge of a yearly class also gives information to students in his/her yearly class. All results of examinations organized by the representative of each topic class are analyzed by the Academic Affair Office and evaluated by the Academic Affair Committee in JFVM-YU or KU. Then, student's promotion and graduation are decided by JFVM Faculty Councils in both JFVM-YU and KU, and finally approved by VJS Faculty Council.
- **Providing to students a feedback post-assessment and a guidance for requested improvement**: The representative of each topic class provides a feedback post-assessment to students. The representatives also give some advices and suggestions for improvement to students.
- **Appealing**: Students are able to appeal in case they have objections to their records according to "Article on Appealing to Record Assessment" in YU or "Article of Request to Open Student's Record and Appealing" in KU.

8.1.5. Description of how *(procedures)* and by who *(description of the committee structure)* the student's assessment strategy is decided, communicated to staff, students and stakeholders, implemented, assessed and revised

The types and procedures of assessment for students are decided according to National University Corporation YU and KU Regulation. Student's record of each topic class is entered into database and analyzed every year. The Academic Affairs Committee and JFVM Faculty Councils in JFVM-YU and KU, followed by the VJS Faculty Council, discuss biases of record distribution among topic classes and validate the student's assessment strategy based on the assessment data each semester. This process also allows to conduct a cross evaluation concerning student assessment between JFVM-YU and JFVM-KU. The quality of each topic class is evaluated by students using questionnaires each semester. Faculty members who are representatives of the topic class receive the results of questionnaires to improve the quality of topic class for the next year.

8.2. Comments

- Student's assessment criteria are clearly described in syllabus and made public. It is possible for students to appeal in case they are assessed out of criteria explained in topic classes. However, there has been no appealing case from students ever.
- Student assessment is organized by representative Faculty member of each topic class and evaluated by the following Committees/Councils. The feedback from students and stakeholders is applied in the process.

8.3. Suggestions for Improvement

- The VJS should try to build a system to allow much more students and stakeholders to give their feedback on the assessment procedure. It should be more interacted with Faculty members, students, and stakeholders to receive feedback on the assessment criteria/procedures.

9. Academic and Support Staff

9.1. Factual Information

9.1.1. Description of the global strategy in order to ensure that all requested competences for the veterinary programme are covered and that staff are properly qualified and prepared for their roles *(e.g. good teaching and assessing practices, knowledge of up-to-date (e-)learning resources, biosecurity and QA procedures)*

Academic staff in VJS is required for competences to provide extensive and advanced veterinary education by using up-to-date teaching materials effectively. As the employment criteria to ensure competencies requested for the veterinary program, VJS first aim to employ Faculty member with a veterinary license and a PhD. It is not pre-requisite that new Faculty member are able to use new teaching methods. When a Faculty member is retired or leave the position, JFVM Faculty Management Council discusses about the best opportunity for developing VJS, and VJS hire a person at a position in the same discipline or open new position with new discipline.

9.1.2. Description of the formal programme for the selection, recruitment and training to teach and assess students (including continuing education) of the academic staff

For the selection and recruitment of academic staff, the regulation at each University states the methods of how Faculty members are hired and promotion process works. After receiving a permission for the recruitment from the President at each University, a Recruitment Committee is formed. This committee consists of five professors in JFVM-YU, or four professors when in search for a professor, and four professors or associate professors when in search for an associate professor or other positions in JFVM-KU. Once the job description and requested competencies that the committee proposed are discussed and approved by the JFVM Faculty Council, the job opening is posted in public. The committee selects a candidate (maximum two possible in JFVM-YU) among the applicants and create a report about their career experiences and achievements. The report is submitted to the JFVM Faculty Council, and the Faculty members in the Council discuss and finally decides by votes. The decision is approved by VJS Faculty Council and University Council.

For the training at the University level, YU provides FD lecture and Staff Development (SD) lecture, FD workshop for improvement of education, optional workshops by external instructors, and FD workshop and SD workshop. KU provides FD/SD Joint Forum, Student and Staff workshop, and new staff lecture. At the Faculty level, in addition to the annual FD workshop, JFVM-YU provides Veterinary Seminar once a month, Special Invited Veterinary Seminar twice a year, Special Clinical Seminar organized by YUAMEC two times a year. Among them, Veterinary Seminar and Special Invited Veterinary Seminar are distributed to JFVM-KU via the SSCS. JFVM-KU provides Veterinary Seminar four times a year, KUVTH Seminar twice a year, and TAD Research Center seminar twice a year.

9.1.3. Description of the formal programme for the selection, recruitment and training to perform their specific duties (including continuing education) of the support staff

The selection and recruitment of administrative support staff are basically managed at the University level and the allocation of the staff is decided on the basis of strategic plan at each University. In contrast, the selection and recruitment of teaching support staff are discussed and approved by JFVM Faculty Council and JFVM Management Council at the Faculty level, and those of clinical support staff are discussed and approved by YUAMEC or KUVTH Council. The support staff is decided by a job record and an interview with Faculty members including representative of Department/Facility/Office based on the regulation of the United Employment Examination of the Support Staff in National University. For the training of support staff, YU provides FD lecture and SD lecture, optional workshops by external instructors, and FD workshop and SD workshop. KU provides FD/SD Joint Forum, Student and Staff workshop and new staff lecture.

9.1.4. Description of the formal programme for the appraisal, development, promotion criteria and procedures, supporting and mentoring of both academic and support staff

This regulation states the necessary matters in accordance with the selection, appraisal, and promotion of full-time professors, associate professors, assistant professors, and support staff at National University Corporation YU or KU, and it corresponds with the qualification of teachers in the University Establishment Standards.

Qualifications of professors: A person having a PhD (includes an equivalent degree that is awarded overseas), research achievement, professional degree (includes an equivalent degree that is awarded overseas), experiences of practical training in the specific field and teaching.

Qualifications of associate professors: A person having a PhD (includes an equivalent degree that is awarded overseas), a qualification to teach and an experience teaching as assistant professor or an equivalent experience at a university (include an equivalent experience overseas), an experience working at a research institute, a laboratory, or a survey institute, and research achievement, and an excellent knowledge and experience in the specific field.

Qualifications of assistant professors: A person having a PhD (or expected to obtain within one year in JFVM-YU or a DVM degree for a position in clinical veterinary medicine in JFVM-KU), and an excellent knowledge and experience in the specific field

FD Committee brushes-up good teaching and assessing practices, and knowledge of up-to-date learning resources in the annual FD workshop by inviting external specialists. VJS has other workshops organized by ICT Committee and Biosecurity/Biosafety Committee to improve the competencies for education using the SSCS and WMLSM-Glexa, and the knowledge for biosecurity/biosafety on education and research. All academic staffs are obligated to attend these workshops. It is recommended for Faculty members to attend academic conferences and meetings, and present their research to develop their academic competences.

For a small percentage of Faculty members (four in JFVM-YU or five in JFVM-KU), the payroll is linked to their research funds, but for all the other, there is no relation between research activity and salary. However, both YU and KU have a system of raising salary based on one's achievement scores evaluated by a combination of activities in teaching, research and clinical works as well as contribution to society, international exchange and administrative management using the self-evaluation sheet.

9.1.5. Description of the formal rules governing outside work, including consultation and private practice, by staff working at the Establishment

Faculty members at VJS are allowed to have outside work such as consultation, private practice, and part-time teaching under the regulations about a side job at each University as follows; no conflict of interest, no hindrance to work at the University, and no threat to reputation or credibility of the University. A person who is planning to have a side job needs to submit a written application, and he/she needs to get an approval from the Local Dean. When the Dean is to have a side job, he/she needs to get an approval from the President. The written application needs to include a record of the side job, a shift timetable, a written request letter from the side job (name of the company, position, term, working condition, payroll, and any responsibilities that he/she might have). When the person is to be in the position of an executive role at a corporation, he/she needs to turn in a reference document (such as a memorandum) about description of the business.

9.1.6. Description of the formal programme of the Establishment for the assessment of teachers by students and its outcome

Students evaluate all lectures and practices of topic classes by questionnaire survey at the end of each semester and the representatives of the topic classes receive the results to improve their education. The result in each topic class is opened for all Faculty member and each detailed result is discussed at JFVM Faculty Management Council. Students can also discuss the quality of topic class in the designated meeting between Student Committee and Faculty members.

9.1.7. Prospected number of FTE academic and support staff of the veterinary programme for the next 3 academic years

In JFVM-YU, the number of FTE permanent academic and support staff is planned to keep for the next 3 academic years. However, JFVM Local Dean will request to the University to increase the number of support staff if we need. It is also an option to increase the number of the temporary staff when it is difficult to increase the permanent staff. In JFVM-KU, it is expected to have new employment of three FTE academic staffs and three support staffs based on the new facilities of KUVTH and establishment of JGSVM for the next 3 years. Two full-professors (in charge of education in anatomy and veterinary surgery) in JFVM-YU and no full-professor in JFVM-KU will be retiring in next three years, and VJS has a strategy to hire a full-professor or an associate professor who is specialized in the same field. Also, there are options to develop relation with external practitioners to implement some cases such as exotic animals.

9.1.8. Description of how *(procedures)* and by who *(description of the committee structure)* the strategy for allocating, recruiting, promoting, supporting and assessing academic and support staff is decided, communicated to staff, students and stakeholders, implemented, assessed and revised

The strategy for allocating and recruiting is first discussed and decided in JFVM Faculty Management Council and communicated to Faculty members in JFVM Faculty Council. The strategy for promoting, supporting and assessing is discussed, decided, and communicated at the JFVM Faculty Council. The assessment and revision for these strategies based on the feedback from students, Faculty members, and stakeholders are discussed at the VJS Faculty Council and JFVM Faculty Management Council, and implemented under the approval of each Local Dean. In case of clinical support staff in the VTH, the strategy for all is discussed and decided at the YUAMEC Council or KUVTH Council and finally approved by each Local Dean. VJS also relies on the Japanese Veterinary Medical Association composed of veterinary professions to receive information to adapt the recruitments for academic staff and support staff.

Table 9.1.1. Academic staff of the veterinary programme**

Type of contract	JFVM-YU				JFVM-KU			
	AY* (2018)	AY-1 (2017)	AY-2 (2016)	Mean	AY (2018)	AY-1 (2017)	AY-2 (2016)	Mean
Permanent (FTE)***	43	43	43	43.0	46	46	47	46.3
Temporary (FTE)***	0.1	0.1	0.1	0.1	0.4	0.4	0.3	0.4
Interns (FTE)	6	5	4	5.0	1.9	4.1	3.2	3.1
Residents (FTE)	0	0	0	0	0	0	0	0
PhD students (FTE)	3.3	2.5	0.5	2.1	1.6	1.8	2	1.8
Practitioners (FTE)	1	1	1	1.0	0.5	0.5	1.9	1.0
Others (*specify*)	0	0	0	0	0	0	0	0
Total (FTE)	53.4	51.6	48.6	51.2	49.4	52.8	54.4	52.2

*The last full academic year prior the Visitation. **All staff included in this table must have received a training to teach and to assess undergraduate students. Practitioners involved with EPT are not included in this table. ***The list of Permanent and Temporary Academic staff in JFVM-YU and KU are shown in Annexes 9.1 and 9.2, respectively.

Table 9.1.2. Percentage (%) of veterinarians in academic staff

Type of contract	JFVM-YU				JFVM-KU			
	AY* (2018)	AY-1 (2017)	AY-2 (2016)	Mean	AY (2018)	AY-1 (2017)	AY-2 (2016)	Mean
Permanent (FTE)	86	86	86	86.0	91.1	91.3	91.5	91.3
Temporary (FTE)	83.3	81.8	73	79.4	70.0	73.7	68.2	70.6

Table 9.1.3. Support staff of the veterinary programme

Type of contract	JFVM-YU				JFVM-KU			
	AY* (2018)	AY-1 (2017)	AY-2 (2016)	Mean	AY (2018)	AY-1 (2017)	AY-2 (2016)	Mean
Permanent (FTE)	28	25	25	26.0	38	30	29	32.3
Temporary (FTE)	13.8	12.1	7.7	11.2	21.9	19.7	19.7	20.4
Total	41.8	37.1	32.7	37.2	59.9	49.7	48.7	52.8

Table 9.1.4. Research staff of the Establishment

Type of contract	JFVM-YU				JFVM-KU			
	AY* (2018)	AY-1 (2017)	AY-2 (2016)	Mean	AY (2018)	AY-1 (2017)	AY-2 (2016)	Mean
Permanent (FTE)	0	0	0	0	0	0	0	0
Temporary (FTE)	8.3	10	7.3	8.5	3.9	2	3	3.0
Total	8.3	10	7.3	8.5	3.9	2	3	3.0

9.2. Comments

- There are very few applicants in some fields (such as Farm Animals Clinical Veterinary Medicine) which make it is difficult to find good candidates.
- The salary basically depends on the seniority by length of service. There is a system to correspond one's research evaluation to the payroll, but almost of the individual achievement in research does not directly correspond to the salary nor a remuneration. In contrast, both YU and KU have a system of raising payroll with one's achievement scores. It is evaluated with a combination in each activity and that is reflected in one's annual salary.
- The number of support staff is enough except for support staff dedicated for clinical support in the VTH.
- Percentage of veterinarians in the academic staff is fairly high.
- VJS can easily hire dedicated teaching staff based on the direct income form the VTH but this is very weak because of the difficulty to secure the positions.
- As for the specialist plan, in addition to the academic staff, many support staff in a variety of fields are required, especially in clinical field, pathological necropsy, and VPH.
- External veterinarians teaching students extramurally and other external practitioners participate in courses designated at the Faculty level annually, and discuss the designing and contents, and the teaching methods of practical training with the academic staff in VJS.

9.3. Suggestions for Improvement

- Search Committee may support in some cases to help find enough candidates to fulfill some positions.
- VJS should focus more on the diversity in competence and veterinary specialist such as exotic animals to adapt social needs when VJS has an opportunity to hire a new academic staff or a support staff.
- VJS may need to employ more staff by increasing the self-regulatory revenue of VTH.
- VJS will increase the development on how to teach courses especially for external veterinarians/practitioners that teach our students.

10. Research Programmes, Continuing and Postgraduate Education

10.1. Factual Information

10.1.1. Description of how the research activities of the Establishment and the implication of most academic staff in it contribute to research-based undergraduate veterinary education

The United Graduate School of Veterinary Science (UGSVS) in YU was established in 1990 as a four-year PhD program that cooperates professors, researchers, and facilities with KU and Tottori University to foster outstanding researchers with expert knowledge and advanced practical competencies by conducting research and education guidance in highly degree Veterinary Science complementing each other. Almost all Faculty members in both JFVM-YU and KU are engaged in the graduate school as academic staffs, and they contribute their research activities back to undergraduate veterinary education.

To enforce the research and problem-based learning and to offer a strong research basis to our undergraduate education, the JGSVM of YU and KU has been established in April 2018 as an integrated education system combined undergraduate and postgraduate veterinary education. Graduate students who wish to continue their research activities can be included in JGSVM.

10.1.2. Description of how the postgraduate clinical trainings of the Establishment contribute to undergraduate veterinary education and how potential conflicts in relation to case management between post- and undergraduate students are avoided

Graduate students who received the national veterinarian license in the Unit of Clinical Veterinary Science are allowed to be involved in clinical activities with the academic staff. As for the postgraduate clinical training and continuing education, there are two tracks for the internship programs. Interns are registered within a clinical sector (small animal or farm animal) in which they do a rotation involving all disciplines and activities (medicine, hospitals, surgery, anesthesia, emergency, diagnostic imaging, etc.). They also take a role in supporting undergraduate students as they are equivalent with the academic staff as veterinarians. Undergraduate students participate in clinical activities as a clinical team member supported by graduate students under the supervision of the academic staff. Potential conflicts in relation to case management between undergraduate students and graduate students are avoided as the academic staff, graduate students and undergraduate students manage each case as one team, and one or two academic staff manage the team as the responsible person(s).

10.1.3. Description of how undergraduate students: -) are made aware of the importance of evidence-based medicine, scientific research and livelong learning; : -) are initiated to bibliographic search, scientific methods and research techniques, and writing of scientific papers *(e.g. through a graduation thesis)*; : -) are offered to participate to research programmes on a non-compulsory basis

- **Aware of the importance of evidence-based medicine, scientific research and lifelong learning**: Graduation thesis is mandatory for all students in VJS. Undergraduate students in VJS start their research projects from Y4 in JFVM-YU and Y5 in JFVM-KU by studying at their research laboratory. Undergraduate students learn the importance of evidence-based medicine and scientific research by learning the methods and the process to solve problems in research. They can also realize the importance of lifelong learning by being educate all along their studies on how it is important to upgrade their knowledge and competencies regularly. The lists of topics for the graduation thesis of academic year 2018 in JFVM-YU and KU are provided in Annexes 10.1 and 10.2.
- **Initiation to bibliographic search, scientific methods and research techniques, and writing of scientific paper (*e.g. through a graduation thesis*)**: VJS offers Special Course Seminar in Y4 to provide basic knowledge on what research is and how it is conducted to initiate students into research. Then, Faculty members give some advices and suggestions for quality improvement of bibliographic search, scientific methods and research techniques, and writing of scientific papers to

undergraduate students during the term of the graduation thesis.

- **Offering to participate to research programmes on a non-compulsory basis**: Research Programmes in VJS and UGSVS/JGSVM provide many opportunities for undergraduate students such as seminars of various topics and research presentation at national and international conferences, research exchanges with international universities on a non-compulsory basis.

10.1.4. Description of how the continuing education programmes provided by the Establishment are matched to the needs of the profession and the community

By fostering specialists with highly specialized knowledge and enriched common sense, flexible ways of thinking, wide perspectives, and high motivation to achieve its goal, the UGSVS (and JGSVM from 2018) contributes to the domestic and international societies, especially developments, peace-keeping, and the environmental protection against pandemic threat on animal and human health and economic and social stability by emerging infectious disease in Asia. Education programmes in UGSVS (and JGSVM) correspond to these demands from these special communities. To enrich the postgraduate program and advance its educational system, UGSVS/JGSVM has agreements with external organizations for cooperation. Especially in zoonosis field, the UGSVS/JGSVM works with the National Institute of Infectious Diseases and the National Institute of Animal Health for higher level of education and research. As for the field of farm animal and horse study, the UGSVS/JGSVM has good relationship with the National Institute of Agrobiological Sciences and the Japan Racing Association.

As continuing education for public and private veterinarians in the local community, in JFVM-YU, YUAMEC provides seminars more than two times per a year. The subjects of the seminars are decided following the answers to questionnaires from the participants to match the needs of the veterinarians. YUAMEC also holds practical seminars of gastrointestinal endoscope once a year. In JFVM-KU, KUVTH provides KUVTH seminar. KUVTH also holds meetings of studying cases on and off campus and educational seminars two times per a year. In addition, TAD Research Center holds seminars twice a year concerning up-to date topics of transboundary infectious disease such as avian influenza.

10.1.5. Prospected number of students registered at post-graduate programmes for the next 3 academic years

Although enrollment capacity of student number in JGSVM is 12 for two Universities every year, about 20 students per year are accepted because the management of student number is not as limited as those in undergraduate level. However, enrollment capacity of student number in JGSVM is set as six in each YU and KU every year and it will be strictly kept so by admission examination. Therefore, prospected number of students registered annually at JGSVM will be six each for YU and KU for the next 3 academic years.

10.1.6. Description of how *(procedures)* and by who *(description of the committee structure)* research, continuing and postgraduate education programmes organised by the Establishment are decided, communicated to staff, students and stakeholders, implemented, assessed and revised

Education programmes in JGSVM are planned and discussed in the JGSVM Council consisting of Dean and Vice Deans from each JFVM (same members as the VJS Faculty Council). The results are discussed by the Faculty members at each University, revised by the JGSVM Council and finally decided by the Director (VJS Dean). The Decisions are communicated to graduate students, the academic staff and stakeholders at each University via e-mail or copies from the Academic Affair Office of JGSVM. Education programmes are implemented by the academic staff in charge and evaluated by questionnaires from students, and internal and external academic staffs. The results of the evaluation are analyzed and communicated to the academic staff in charge by members of the JGSVM Council for the improvements. Revised education programme is checked by the Council.

Table 10.1.1. Number of students registered at postgraduate clinical training

Trainings: / Interns:	JFVM-YU				JFVM-KU			
	AY* (2018)	AY-1 (2017)	AY-2 (2016)	Mean	AY (2018)	AY-1 (2017)	AY-2 (2016)	Mean
Companion animals	8	8	6	7.0	9	11	10	10.0
Equine	0	0	0	0	0	0	0	0
Production animals	4	6	6	5.0	1	3	2	2.0
Others (*specify*)	0	0	0	0	0	0	0	0
Total	12	14	12	13.0	10	14	12	12.0
Residents: EBVS disciplines (*specify*)	0	0	0	0	0	0	0	0
Total	24	28	24	25.0	20	28	24	24.0
Others (*specify*)	0	0	0	0	0	0	0	0

*The last full academic year prior the Visitation.

Table 10.1.2. Number of students registered at postgraduate research training

Degree:	JFVM-YU				JFVM-KU			
	AY* (2018)	AY-1 (2017)	AY-2 (2016)	Mean	AY (2018)	AY-1 (2017)	AY-2 (2016)	Mean
PhD	46	49	47	47.3	27	24	25	25.3
Others (*specify*)	0	0	0	0	0	0	0	0
Total	46	49	47	47.3	27	24	25	25.3

Table 10.1.3. Number of students registered at other postgraduate programmes (including any external/distance learning courses)

Programmes:	JFVM-YU				JFVM-KU			
	AY* (2018)	AY-1 (2017)	AY-2 (2016)	Mean	AY (2018)	AY-1 (2017)	AY-2 (2016)	Mean
UGSVS/JGSVM seminar	40	45	32	39.0	52	NE	NE	NE
English programme	3	7	8	6.0	7	18	132	52.3

NE; not examined.

Table 10.1.4. Number of attendees to continuing education courses provided by the Establishment

JFVM-YU

Courses:	AY* (2018)	AY-1 (2017)	AY-2 (2016)	Mean
Special Clinical Seminar (more than 2 times/year)	202	242	224	222.7
Veterinary Research Seminar (6 times/year)	280	306	162	249.3
Special Scientist Seminar (6 times/year)	217	162	78**	152.3
GI Endoscopy Seminar (Laboratory exercise)	12	-	18	10.0

**Two times per year in 2016.

JFVM-KU

Courses:	AY* (2018)	AY-1 (2017)	AY-2 (2016)	Mean
KUVTH Seminar	160	160	110	143.3
TAD Research Center Seminar	50	70	23	47.7

Table 10.1.5. List of the major funded research programmes in the Establishment which were on-going during the last full

academic year prior the Visitation (AY*)

Scientific topics:	JFVM-YU		JFVM-KU	
	Grant/year (Euros)	Duration (Yrs)	Grant/year (Euros)	Duration (Yrs)
Basic Veterinary Science	468,848	1	52,300	1
Pathology and VPH	244,462	1	182,550	1
Virology and Infectious Disease	430,170	1	339,790	1
Small Animal Medicine	245,905	1	184,800	1
Large Animal Medicine	105,947	1	161,320	1
Innovative Agricultural Technology	-	-	1,842,040	1-2

10.2. Comments

- Undergraduate students in VJS have great opportunities to participate in research, and there are varieties of themes for graduation thesis to select from. In addition, students can learn scientific techniques and ways of thinking by participating in research.
- For students who continue onto UGSVS/JGSVM, the term of graduation thesis acts as a preparatory training.
- UGSVS/JGSVM has a large number of foreign student from other Asian countries, and about 25% of students are international students.
- Many of students in UGSVS/JGSVM are from faculty (or department) of veterinary medicine; approximately 90% of Japanese students and 95% of international students are from the faculty (or department) of veterinary medicine.
- The quality of continuing education can be enhanced by providing the high quality information at public seminars.
- Clinical veterinarians and veterinarians of the prefectural government join the continuing educational programs.
- Veterinarian residents system for clinical education after graduation is not well defined and not well enforced. Therefore, the numbers of registration as residents are very low.
- Unlike the European and American systems, international veterinary diplomate system consisting in Asian countries for veterinary specialist has just started. Asian College of Veterinary Internal Medicine was established last year in cooperation with European and American Colleges. Japanese Society of Veterinary Pathology, Anesthesia and Surgery, and Experimental Animals gives certification of Japanese diplomate in each field, and Japanese Animal Hospital Association gives certifications of internal medicine and surgery. However, these diplomate systems are not recognized internationally. Recently, the importance of veterinary diplomate system is recognized and establishment of the systems is discussing in some fields.

10.3. Suggestions for Improvement

- When undergraduate students conduct graduation thesis, they tend to rely on research theme of their interest. The Faculty needs to provide research themes that attract all students, or when selecting research theme, it will be better to take their ideas into an account.
- VJS is trying to increase a number of thesis written in English to internationalize their research.
- It is important for the Faculty to have continuing education programs that fosters future veterinarians overseas especially from the east-south Asian countries. The JGSVM will offer programs that international students who study at the JGSVM can return to their own countries with good accreditation values and experiences.
- The VJS should expand their international relationship such as with their sister schools abroad. Also, research exchange programs with foreign veterinary schools can be a good opportunity as a part of the continuing education.
- It is an ideal for VJS to be able to offer a program that have a good resident system that provides consistent education to lead students to the adequate level as certified and specialized veterinarians from undergraduate to the continuing education. Also, programs for specialist clinical training at both national and international levels needs to be established.

11. Outcome Assessment and Quality Assurance

11.1. Factual Information

11.1.1. Description of the global strategy of the Establishment for outcome assessment and Quality Assurance (QA), in order to demonstrate that the Establishment: -) has a culture of QA and continued enhancement of quality; : -) operates *ad hoc*, cyclical, sustainable and transparent outcome assessment, QA and quality enhancement mechanisms; : -) collect, analyse and use relevant information from internal and external sources for the effective management of their programmes and activities *(teaching, research, services);* : -) informs regularly staff, students and stakeholders and involves them in the QA processes; : -) closes the loop of the QA Plan-Do-Check-Act (PDCA) cycle;, -) is compliant with ESG Standards.

- **Outcome assessment and QA at the National level**

All National Universities including YU and KU are obligated to be evaluated by the National Institution for Academic Degrees and Quality Enhancement of Higher Education (NIADQEHE, Annex 11.1) and the National University Corporation Evaluation Committee (NUCEC, Annex 11.2) as objective assessment systems from external institutions. Both systems started in 2004 and are organized at the national level. Everything is under the responsibility of the National rules and are managed by the National organization. Certified evaluation and accreditation by NIADQEHE are implemented every seven years. It assesses the global condition concerning quality and quantity of education and research, organization's management, facilities and equipment of all faculties including JFVM at both Universities. YU was accredited in 2009 and 2015, and KU was also accredited in 2007 and 2014.

In addition, NUCEC evaluates the achievement status of "Six Yearly Plan" of each University including JFVM for continuing quality improvement, social accountability, revision and setting of the goal and strategic plan at the end of a six-year term, and the budget allocation of the operating cost to the University during the next six years. Therefore, JFVM-YU and KU designs global strategic plan every six year and the yearly corresponding acting plan. VJS University Councils and VJS Faculty Councils analyze the progress and achievement on a yearly basis and amends the acting plan for next year through discussions in JFVM Management Council and Faculty Council in each JFVM-YU and KU. Both YU and KU were evaluated by NUCEC in 2010 and 2016.

Specialized evaluation system for specific field under the National regulation in Japan had been established for medicine and pharmacy, but not yet for veterinary medicine. However, the dedicated evaluation system for veterinary education has been found by JUAA (Annex 11.3) in 2017, and VJS has been evaluated following this system and accredited as the first veterinary faculties of the national University in 2019. VJS has also decided to have external evaluation by EAEVE as the international outcome assessment and QA, and it is on-going.

- **Outcome assessment and QA at the University level**

Both YU and KU implemented self-inspection and -evaluation under the regulation at each University. Each University organizes the evaluation system for faculty and for academic staff. In JFVM-YU, it follows the QA system described in the "Self-Inspection Evaluation System for the Activity by the Faculty (Annex 11.4.1)". This analysis quantifies academic staff's activities based on the data from "Self-Inspection Evaluation System for the Activity by Academic Staff (Annex 11.4.2)", assesses outcomes from the academic staff, enables for the director to inspect and evaluate their own whole organization. Each academic staff in charge of the evaluation of its own activity on education, research, social contributions and management following the "Self-Inspection Evaluation System for the Activity by Academic Staff" which is implementing the PDCA cycle for each faculty education and research activities. In JFVM-KU, KU is operating the QA system for every Faculty and checks the working progress every quarter and evaluates the achievement of annual acting plan in each Faculty including JFVM. KU also quantifies activities of all academic staff based on the data from self-inspection and -evaluation of own activities on education, research, contribution to society, international exchange, clinical work and administrative management on "Academic Staff Self-Evaluation Sheet (Annex 11.5)". The results are checked by JFVM Local Dean and General Affair at KU and reported to the President of KU for the improvement of activities and for the achievement of

accountability to the society, which is implementing the PDCA cycle for education and research activities in each faculty. In addition, the one's achievements evaluated with a combination of activities in teaching, research and clinical work as well as contribution to society, international exchange and administrative management, reflect one's salary by a system of rising payroll.

- **Outcome assessment and QA at the Faculty level**

Each topic class is evaluated by students using questionnaire (same format in both Universities as Annex 11.6) and by Faculty members using mutual evaluation process (Annex 11.7 only in JFVM-KU). The detailed process for using these information to QA is described in Chapters 3.1.10, 8.1.5, and 9.1.6. The JFVM Stakeholder Advisory Council and KUVTH Advisory Council (only in KU) evaluate the prospective plan and management including finance and employment in the Faculty and VTH, respectively, and gives their feedback for improvement of the quality. The facilities and equipment of VTH as well as academic/support staffs and students during clinical rotation in VTH are also evaluated using questionnaires and free-comments from Local Practitioners who refer animals to YUAMEC or KUVTH and clients of animals (pet owners) (only in KUVTH) (Annexes 11.8 and 11.9).

11.1.2. Description of the form by which the strategy, policy and procedures are made formal and are publicly available *(website, paper documents, ..)*

All detailed results of the evaluation by NIADQEHE and NUCEC, or JUAA are available on the website of MEXT or JUAA, respectively, and can be downloaded as e-documents. The results are also fully available on the website at each YU and KU.

11.1.3. Description of the regular publication of up to date, impartial and objective information, both quantitative and qualitative, about the educational programmes and awards the Establishment is offering

The information about the quality and quantity of teaching and research such as educational programmes, awards of DVM degree for graduate students and results of JNVE, research projects, and acquired grants, are public on the website and published in the annual PR magazine in JFVM-YU and KU. In YU, the University make up "Active Report" based on the results from self-inspection and -evaluation every year and it is available on the website.

11.1.4. Description of the QA processes not yet described in the other 10 Standards *(with information on how (procedures), when (periodicity) and by who (committee structure) they are completed)*

All QA processes in VJS are already described in the different chapters.

11.1.5. Description of how *(procedures)* and by who *(description of the committee structure)* the QA strategy of the Establishment is decided, communicated to staff, students and stakeholders, implemented, assessed and revised

The QA strategy in VJS is discussed and revised in JFVM Faculty Council and Faculty Management Council in each JFVM-YU and KU, and finally approved by VJS Faculty Council. JFVM Stakeholder Advisory Councils also discuss about it and give their feedbacks. The strategy is then communicated to staff, students, and stakeholders and implemented by the Administrative Office in charge. The progress of QA is analyzed and evaluated using the evaluation system described as above. The results are discussed in JFVM Management Council and Faculty Council, if necessary, and QA is finally amended in the VJS Faculty Council.

11.2. Comments

- Outcome assessment and QA system are clearly organized at the National, University, and Faculty levels.
- The strategic plan to have the accreditation by dedicated evaluation system for veterinary education such as JUAA and EAEVE is now on-going.
- All results of QA are sent to the Local Dean, and the Dean makes global picture and future decision based on them.

- JFVM Stakeholder Advisory Council in each JFVM-YU and KU plays important role in the development, implementation, assessment and revision of the QA strategy of VJS.

11.3. Suggestions for Improvement

- To improve the QA system, VJS needs to better explain how it is used to make the future decision.
- It is important that VJS makes the connection between individual evaluation and what is finally decided at the Faculty level. VJS must show how VJS is finally going to close the quality loop.

12. ESEVT Indicators

12.1. Factual Information

Calculated indicators

Staff and student

Indicator			JFVM at YU	JFVM at KU	VJS
I1	n° of FTE academic staff involved in veterinary training[1] / n° of undergraduate students[2]	=	0.27	0.27	0.27
I2	n° of FTE veterinarians involved in veterinary training[3] / n° of students graduating annually[4]	=	1.32	1.34	1.33
I3	n° of FTE support staff involved in veterinary training[5] / n° of students graduating annually[4]	=	1.33	1.68	1.52

Types of training

I4	n° of hours of practical (non-clinical) training[6]	=	1461.7	1035.0	1248.3
I5	n° of hours of clinical training[7]	=	1116.7	2067.3	1592.0
I6	n° of hours of FSQ and VPH training[8]	=	421.0	421.0	421.0
I7	n° of hours of extra-mural practical in training FSQ and VPH[9]	=	109.0	109.0	109.0

Patients available for intra-mural clinical training

I8	n° of companion animal patients seen intra-murally[10] / n° of students graduating annually[4]	=	70.54	109.2	90.93
I9	n° of ruminant and pig patients seen intra-murally[11] / n° of students graduating annually[4]	=	3.42	147.8	79.65
I10	n° of equine patients seen intra-murally[12] / n° of students graduating annually[4]	=	2.86	1.50	2.14
I11	n° of rabbit, rodent, bird and exotic patients seen intra-murally[13] / n° of students graduating annually[4]	=	1.85	2.82	2.36

Animals/herds/units available for extra-mural clinical training

I12	n° of companion animal patients seen extra-murally[14] / n° of students graduating annually[4]	=	3.02	5.71	4.44
I13	n° of individual ruminant and pig patients seen extra-murally[15] / n° of students graduating annually[4]	=	55.35	165.9	113.7
I14	n° of equine patients seen extra-murally[16] / n° of students graduating annually[4]	=	10.18	10.05	10.11
I15	n° of visits to ruminant and pig herds[17] / n° of students graduating annually[4]	=	1.19	73.87	39.57
I16	n° of visits to poultry and farmed rabbit units[18] / n° of students graduating annually[4]	=	0.14	0.16	0.15

Necropsy available for clinical training

I17	n° of companion animal necropsies[19] / n° of students graduating annually[4]	=	1.73	1.49	1.60

I18	n° of ruminant and pig necropsies[20] / n° of students graduating annually[4]	=	1.29	1.69	1.50
I19	n° of equine necropsies[21] / n° of students graduating annually[4]	=	0.18	0.28	0.23
I20	n° of rabbit, rodent, bird and exotic pet necropsies[22] / n° of students graduating annually[4]	=	1.94	2.90	2.45

Indicators used only for statistical purposes

I21	n° of FTE specialized veterinarians involved in veterinary training[23] / n° of students graduating annually[4]	=	0.11	0.16	0.14
I22	n° of PhD-students graduating annually[24] / n° of students graduating annually[4]	=	0.35	0.14	0.24

12.2. Comments

- VJS has appropriate staff numbers and training hours (I1-I7) which are over the median values.
- Many indicators (I10, I11, I12, I14, I16, I17, I18, I19, and I20 in JFVM-YU, and I11 and I17 in JFVM-KU) are improved during last two year, and all indicators are now over the minimal values although some indicators does not reach the median values. VJS will continue to improve them.

12.3. Suggestions for Improvement

- Although religious reason such as Buddhism mentality discourage people from donating companion animal bodies and can limit the numbers of companion animal necropsies, it should still be improved.

Glossary

List of acronyms

AAALAC	Association for Assessment and Accreditation of Laboratory Animal Care
ARCLAS	Advanced Research Center Laboratory Science
AEC	Admission Examination Committee
AAVS	Asian Association of Veterinary Schools
AV	Audio and Visual
BSL	Biosafety Level
CBT	Computer Based Testing
CMCVSE	Core Model Curriculum for Veterinary Science Education
CT	Computed Tomography
EAC	Experimental Animal Center
CVDD	Center of Veterinary Diagnosis and Development
EMC	Equine Medical Center
FAMAA	Federation of Agricultural Mutual Aid Association
FD	Faculty Development
HACCP	Hazard Analysis Critical Control Point
iCOVER	International Center of Veterinary Educational Research
ICT	Information and Communication Technology
ICU	Intensive Care Unit
iPaDL	Integrated Pathology and Diagnosis Laboratory
JFVM	Joint Faculty of Veterinary Medicine
JGSVM	Joint Graduate School of Veterinary Medicine
JNVE	Japan National Veterinary Examination
JUAA	Japan University Accreditation Association
KU	Kagoshima University
LAN	Local Area Network
LASER	Large Animal Station for Education and Research
LHHC	Livestock Health Hygiene Center
LINAC	Linear Accelerator
MAFF	Ministry of Agriculture, Forestry and Fisheries
MEXT	Ministry of Education, Culture, Sports, Science and Technology
MHIC	Meat Hygiene Inspection Center
MRI	Magnetic Resonance Imaging
NCTUA	National Center Test for University Admissions
NIADQEHE	National Institution for Academic Degrees and Quality Enhancement of Higher Education
NUCEC	National University Corporation Evaluation Committee
NVSURC	National Veterinary Science Universities Representatives Council
OLACC	Osumi Large Animal Clinical Center
OQIVE	Office of Quality Improvement in Veterinary Education

OSCE	Objective Structured Clinical Examination
PACS	Picture Archiving and Communication System
PR	Public Relations
SD	Staff Development
SSCS	Simultaneously Streamed Class System
TAD	Transboundary Animal Disease
UGSVS	United Graduate School of Veterinary Science
VCAT	Veterinary Common Achievement Test
VJS	VetJapan South
WMLMS	Web Multimedia Learning Management System
YU	Yamaguchi University
YUAMEC	Yamaguchi University Animal Medical Center

List of appendices

- Current academic staff, qualifications, their FTE, teaching responsibilities and departmental affiliations: **Annexes 9.1 for JFVM-YU and 9.2 for JFVM-KU.**

- Units of study of the core veterinary programme (including clinical rotations, EPT and graduation thesis): title, reference number, ECTS value, position in curriculum (year, semester), whether it is compulsory or elective, hours and modes of instruction, learning outcomes and their alignment with the ESEVT Day One Competences: **Annex 3.1**

- Maps of the Establishment and the intra-mural and extra-mural facilities used in the core veterinary programme: **Annexes 4.1, 4.2, and 4.4 for JFVM-YU, and 4.5, 4.6, and 4.8 for JFVM-KU**

- Written assessment procedures for QA: **Annexes 11.1, 11.2, and 11.3**

- List of scientific publications from the Establishment's academic staff in peer reviewed journals during the last three academic years: **Annexes List of scientific publications in JFVM-YU and JFVM-KU**

- Other relevant document (List of Agreements): **Annexes List of agreements in JFVM-YU and JFVM-KU**