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INDONESIAN VETERINARY LEADERSHIP INITIATIVE AND THE ESTABLISHMENT OF AN INTEGRATED NATIONAL ANIMAL HEALTH INFORMATION SYSTEM

Valeska*

Australia Indonesia Partnership for Emerging Infectious Diseases
Animal Health Program (AIP-EID)
*Correspondence: valeska@aipeid.org

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BACKGROUND

The Australia Indonesia Partnership for Emerging Infectious Diseases: Animal Health Program (AIP-EID) contributes to an important bilateral development partnership. Its focus is the sustainable strengthening of Indonesia's animal health services to prevent, detect and control priority and emerging infectious diseases of animals. Stronger animal health services and improved control of animal diseases (including those that infect humans) will contribute to the improvement of human health, food security and the prosperity of rural communities.

The AIP-EID program is working synergistically across many technical areas and at all levels of government. The AIP-EID program is supporting the:

- Strengthening of government veterinary institutions at the national and sub-national level, particularly in the areas of planning, management, policy development and coordination
- Enhancement of skills, expertise and capacity to deliver veterinary services.

Key interventions and achievements include the the Indonesia Veterinary Leadership initiative and establishment of Indonesia's integrated animal health information system (iSIKHNAS). This paper introduces the IVL initiative and iSIKHNAS.

INDONESIAN VETERINARY LEADERSHIP INITIATIVE

The Indonesian Veterinary Leadership (IVL) initiative is a phased program which is developing leadership capacity in the Indonesian veterinary services and has established capacity at two leading Indonesian veterinary schools (Bogor Agricultural Institute IPB and University of Gadjah Mada UGM) to deliver training in veterinary leadership.

A need for strengthened leadership capacity in the veterinary profession is recognised in Indonesia. Non-technical skills in leadership and management are essential to enable veterinarians to effectively implement best practice preparedness and response to emergency animal diseases and to improve the control of priority endemic diseases. The principles of organisational management, communication skills and team management have wide application to the Indonesian veterinary profession as it seeks to be better equipped to address current and emerging challenges in animal health across the country.

The inaugural pilot IVL course was delivered early this year. The course was structured as a five-day residential (January), a work place assignment (February–May) and a three-day residential (June). The 17 modules of the course covered three themes: personal leadership, leading others and organisational leadership. The pilot course worked with 25 participants using an 'adult learning' approach including extensive discussions, experiential learning and role plays.

On completion of the course, participants will recognise and learn models and frameworks that describe human behaviour, team buidling and organisational life, and by reflecting on their own experiences at work, apply the strategies for more effective leadership. Participants will be able to apply organisational change management and develop strategies to address problems in animal health.

Tabel 1. Modules of the course of the Indonesian Veterinary Leadership (IVL) initiative

Personal Leadership	Leading Others	Organisational Leadership
Individual differences	Motivation	Work design
Decision making	Power and influence	Organisational culture
Career management	Teams	Change management
Ethics	Communication and negotiation	Knowledge management
Stress and wellbeing	Social intelligence	Time management
Building resilience	Coaching and feedback	

Key points from each of the modules are summarised below:

Individual differences. Recognise and learn about factors that influence behaviours and personality, and how different personality types can be assessed by different methods such as the 'Myers Briggs Type Indicator'.

Decision making. To recognise that decision making is a conscious process, to be undertaken systematically. Participants should recognise personal frameworks that can change decision making and the importance of involving staff in the process.

Career management. Learn about the different types of career progression and recognise the importance of developing a goal, and a plan towards achieving this goal.

Ethics. Learn about moral principles and values, and factors that can influence values.

Stress and wellbeing. Recognise the different types of stress, their triggers and how to effectively manage stress.

Building resilience. How to build relience by enhancing your self-belief, flexibility and adaptability.

Motivation. Recognise that motivation influences people's behaviour and that people are motivated by different things – drivers, higher-level motivators, intrinsic and extrinsic motivators.

Power and influence. Recognise that power is the capacity to influence others and the different types of power bases. Learn how to influence others.

Teams. Gain a good understanding about teams and teamwork: how to build and sustain an effective team.

Communications and negotiations. Learn about purposeful communication and how to undertake effective communication. Learn about the different types of communication media.

Social intelligence. Recognise how culture influences our behaviour and communication.

Coaching and feedback. Learn about the different phases of coaching and feedback, and recognise their benefits.

Work design. Learn about effective work design and job satisfaction: how to undertake meaningful work, to provide motivation and empowerment.

Organisational culture. Learn about the values and assumptions of the organisation, and the importance of having adaptive cultures to meet new challenges and opportunities.

Change management. Recognise the eight essential skills for change management and the use of 'Kanter's wheel' to show a cycle of change.

Knowledge management. Recognise the importance of conscious management of information and the four stages of knowledgement: knowledge creation, knowledge validation, knowledge presentation and knowledge distribution and application.

Time management. Learn about SMART (Specific, Measurable, Achievable, Realistic and Time-bound) goal-setting and prioritisation.

The course was delivered by six Indonesian academics from the two leading veterinary schools, IPB and UGM, and was supported and facilitated by an Australian business/management consultant from the University of Sydney.

The effectiveness of the course was evaluated through reports, in-depth interviews with participants, mentors and line managers, questionnaires and facilitators' debriefing. The pilot course was enormously well received. Discussions are underway to include parts of the IVL course in the graduate and undergraduate veterinary curriculum; a process for formal

accreditation is being developed. A second IVL course is underway (August 2014–January 2015).

ISIKHNAS (SISTEM INFORMASI KESEHATAN HEWAN NASIONAL) YANG TERPADU

Indonesia recognises the importance of having accurate data to support disease control programs, decision-making, policy development, service delivery and other animal health activities. To do this, it needs an information system that allows comprehensive, efficient and effective collection, management and analysis of animal health data.

A review of Indonesia's animal health information systems, conducted in 2012 by DGLAHS with Australian technical support, identified that the performance of existing information systems was not optimal. A number of the existing systems or databases were capable of collecting only specific information—e.g. laboratory data or information about a single disease—or aggregated data which made the information difficult to analyse. These existing information systems were fragmented and slow, paper-based systems were common. Information tended to flow in one direction, usually upwards to the central administrators, with little feedback to users at the field level.

The review led to a 'roadmap' to guide the development of Indonesia's animal health information sytem and an opportunity exists under the AIP-EID program to establish an integrated national animal health information system known as iSIKHNAS.

iSIKHNAS has been developed as a holistic system to meet the information needs of stakeholders at all levels. It is not simply a database, but recognised that people are the most important element of an information system. It seeks to dispel the notion that information is centrally-driven; rather, that information should be accessible to all levels (subdistrict/disrict, provincial and central). Data can then be used effectively to support policy development, disease control activities, service delivery and animal health decision making at all levels of the veterinary services.

With iSIKHNAS, data is collected collected in an electronic (paperless) form as close as possible to the source and these 'atoms' of data (field observations, treatment, diagnosis, vaccination, animal health certification, etc) are submitted directly to a central iSIKHNAS database. Data can be submitted through various portals, including through SMS, instant messaging, e-mail and the web. The data is available to authorised users through a variety of means such as the iSIKHNAS website or via automatically-generated reports, charts, spread sheets and maps, and sent by email or SMS to staff who require them. Disaggregated data can also be downloaded for more specific analyses.

iSIKHNAS has also integrated a number of existing information handling systems like InfoLab and SIKHNAS. For example, laboratory submission data is now linked with disease reports from the field, and with additional population and animal movements data, officers can use this information to manage disease control programs.

The iSIKHNAS platform is designed using an open-source software that negates the need for complex programming and is expandable. This allows administrators to modify the database and develop new iSIKHNAS functions to accommodate the various needs of the users. At this stage, iSIKHNAS usage has included field disease reporting and monitoring of cases, abattoir statistics reporting, laboratory data management and issuance of animal health certificate numbers. Other functions being developed include priority disease investigation and response, monitoring of vaccination campaigns, surveillance, drug registration and artificial insemination

Since early 2013 iSIKHNAS has been piloted in four districts in South Sulawesi, West Sulawesi and West Java. In these pilot areas, village reporters (pelapor desa or 'pelsa') and animal health officers were trained to use iSIKHNAS via coded SMS messages. Field cases reported by 'pelsa' are followed up by animal health officers and the progress of these cases can be tracked through iSKHNAS. Information on field case reports, clinical investigation, treatment, differential diagnosis, final diagnosis are readily available to registered users. In this way, iSIKHNAS is enabling officers to respond to field cases in a timely manner, facilitating better engagement with the livestock owners and delivering improved animal health services to the community.

To date, there is continued and consistent iSIKHNAS usage in these pilot areas. iSIKHNAS is not costly to operate and maintain, and the sustained use of iSIKHNAS without incentives in

these pilot areas shows that the system is ready to be rolled-out more broadly across Indonesia. The first wave of iSIKHNAS roll-out is currently underway across 13 provinces (48 districts) from November 2014 onwards. This iSIKHNAS extension is led and managed by the Indonesian Government, through DGLAHS, with some support from the AIP-EID program. The iSIKHNAS management committee has been established to provide the strategic leadership on iSIKHNAS, supported by iSIKHNAS Champions, epidemiological leaders and national and regional coordinators.

The establishment of iSIKHNAS in pilot areas and the expansion of iSIKHNAS into the other provinces is one of the significant outcomes of the AIP-EID program. iSIKHNAS has tremendous potential to transform veterinary service delivery in Indonesia. With high-level support and genuine, sustained commitment from the government and other stakeholders, the vision of an integrated national veterinary services can be realised, providing benefit to animal health sector and the broader community.

REFFERENCES
[ISIKHNAS] Sistem Informasi Kesehatan Hewan Nasional. http://www.isikhnas.com/

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ROLE OF LABORATORY ANIMAL VETERINARIAN: PAST, PRESENT, AND FUTURE

Dondin Sajuthi[1]*, Yasmina Paramastri[2,3], Montip Gettayacamin[2]

[1]Fakultas Kedokteran Hewan - Institut Pertanian Bogor, Bogor, Indonesia;
[2]Association for Assessment and Accreditation of Laboratory Animal Care International (AAALAC) -
International, Frederick, Amerika Serikat;
[3]Department of Pathology, Microbiology and Immunology, Vanderbilt University Medical Center,
Nashville, Amerika Serikat
*Korespondensi: sajuthi@indo.net.id

Hewan masih memegang peranan penting dalam perkembangan berbagai bidang ilmiah. Walaupun penggunaan hewan untuk tujuan penelitian, pengujian, pendidikan, atau tujuan ilmiah lainnya masih kontroversial, namun dimana metoda alternative non-hewan masih belum memadai atau dapat menggantikan peranan hewan sepenuhnya, penggunaan hewan masih diperlukan dalam kegiatan ini.

Telah banyak publikasi yang membuktikan kualitas pemeliharaan dan penggunaan hewan dalam penelitian, pengujian, dan pendidikan, memberikan dampak yang signifikan terhadap hasil kegiatan ilmiah. Apapun jenis dan berapa pun jumlah hewan yang digunakan, pemeliharaan medis hewan (*veterinary care*) menjadi bagian penting dalam program pemeliharaan dan penggunaan hewan. Dokter hewan bertanggung jawab dalam kesejahteraan hewan dan pemeliharaan medis/ klinis hewan yang digunakan untuk tujuan ilmiah. Dalam hal ini termasuk untuk tujuan penelitian, pengujian, pendidikan, dan produksi/ pemuliaan hewan untuk tujuan ilmiah. Dengan demikian, dokter hewan laboratorium berperan penting dalam menjamin pemeliharaan dan penggunaan hewan yang berkualitas, untuk memenuhi syarat etik penggunaan hewan, dan hasil ilmiah yang berkualitas.

Tanggung jawab utama dokter hewan dalam pemeliharaan dan penggunaan hewan di institusi adalah mengawasi kesejahteraan dan kesehatan hewan. Tanggung jawab ini mencakup perolehan hewan secara legal dan transportasi; secara kompeten memberikan perawatan hewan yang mamadai dalam pencegahan penyakit, penangan kasus darurat, dan serta penangan kasus penyakit; memberikan pedoman dalam penanganan dan perawatan kasus bedah; penanganan yang tepat untuk rasa sakit dan *distress* termasuk penggunaan obat analgesik, *anesthesia*, dan *euthanasia*. Dokter hewan juga bertanggung jawab dalam memberikan pedoman dalam menangani kasus penyakit atau dampak yang berkaitan dengan kegiatan ilmiah, dan berinteraksi dengan peneliti dalam membuat keputusan yang berkaitan dengan kesehatan dan kesejahteraan hewan; dan mengawasi aspek lain termasuk pemeliharaan (*housing, husbandry*). Tanggung jawab ini mencakup mengawasi dan mendukung kesejahteraan hewan setial saat selama masa pemeliharaan dan penggunaan.

Berkaitan dengan pentingnya peranan dokter hewan dalam program pemeliharaan dan penggunaan hewan, kualifikasi dokter hewan sangatlah penting. *The Guide for the Care and Use of Laboratory Animals* dan *Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC)-International Position Statement* menjelaskan persyaratan kualifikasi dokter hewan pengawas program pemeliharaan dan penggunaan hewan, untuk menjamin kesehatan dan kesejahteraan hewan di institusi yang melakukan kegiata ilmiah. Hal ini termasuk sertifikasi, pelatihan, atau pengalaman dalam keilmuan *(laboratory animal science)* atau medis (*laboratory animalmedicine*) hewan laboratorium, atau dalam pemeliharaan jenis hewan yang digunakan di institusi.

Era globalisasi penelitian dan penggunaan hewan berdampak pula pada meningkatnya kesempatan kerjasama antar institusi dalam penelitian, konrak penelitain, atau kesempatan pendanaan penelitian, baik dalam tingak nasional, regional, maupun internasional. Perhatian dalam aspek *sosial-ethical* penggunaan hewan untuk tujuan imliah menjadi salah satu pendorong pengembangan dan implementasi peraturan dalam bidang ini di banyak negara, termasuk di Indonesia. Dengan harapan, program medis pemeliharaan hewan dapat

menegakkan standar yang tinggi dalam pemeliharaan hewan, etik penggunaan hewan, serta kualifikasi dokter hewan.

Dalam presentasi ini, peranan dokter hewan di Indonesia di masa yang lalu dan kondisi terkini akan dibahas. Dengan fokus pentingnya peranan dan tanggung jawab dokter hewan laboratorium dalam menjamin tingginya kualitas pemeliharaan, pengunaan, dan perawatan hewan yang manusiawi dalam penggunaan hewan untuk tujuan ilmiah; serta membahas perspektif tujuan untuk masa yang akan datang dalam meningkatkan kualifikasi dokter hewan laboratorium di Indonesia untuk memenuhi peranan dan tanggung jawabnya, melalui pendidikan formal program spesialis, pengalaman yang berkualias, atau sertifikasi. Perbandingan pendidikan formal dan sertifikasi dokter hewan laboratorium di negara lain akan dibahas secara singkat.

IS-03

AAALAC INTERNATIONAL UPDATE – THE *AVMA GUIDELINES FOR THE EUTHANASIA OF ANIMALS*: 2013 EDITION

Montip Gettayacamin

Senior Director for Southeast Asia, AAALAC International
Correspondence: montipg@aaalac.org

AAALAC International (Association for Assessment and Accreditation of Laboratory Animal Care International) is a private, nonprofit organization that promotes humane treatment of animals in science through a voluntary international accreditation program. AAALAC International has been recognized around the world as a symbol of high quality animal care and use for research, teaching and testing, as well as promoting animal welfare and maintaining safety. More than 900 animal care and use institutions in 39 countries around the world (more than 130 programs in 13 countries in the Pacific Rim region) have earned AAALAC International accreditation. The AAALAC International Council on Accreditation (CoA) evaluates overall performance and all aspects of an animal care and use program, involving anin-depth, multilayered, confidential peer-review process. The evaluators (site visitors) consider compliance with applicable local animal legislation of the particular country, institutional policies, and use a customized approach for evaluating overall program performance using the *Guidefor the Care and Use of Laboratory Animals (Guide*, National Research Council 2011), or the *Guide for the Care and Use of Agricultural Animals in Research and Teaching* (*Ag Guide*, FASS 2010), or the European Convention for the Protection of Vertebrate Animals Used for Experimental and Other Purposes, Council of Europe (ETS 123), and supplemental Reference Resources (www.aaalac.org/accreditation/resources.cfm) as applicable.

The CoA reviewed the *AVMA Guidelines for the Euthanasia of Animals*: 2013 Edition in detail and adopted the new *Guidelines* with full implementation on January 1, 2014. This presentation will describe the caveats from the CoA regarding this resource, the revised areas in the *Guidelines* for common techniques and laboratory animal species, as well as common euthanasia issues observed during site visits conducted in Pacific Rim countries.