

OIE Collaborating Centres Reports Activities

Activities in 2016

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Title of collaborating centre:	Veterinary Services Capacity Building (Asia, the Far East and Oceania)
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ToR: To provide services to the OIE, in particular within the region, in the designated specialty, in support of the implementation of OIE policies and, where required, seek for collaboration with OIE Reference Laboratories

ToR: To identify and maintain existing expertise, in particular within its region

1. Activities as a centre of research, expertise, standardisation and dissemination of techniques within the remit of the mandate given by the OIE

Epidemiology, surveillance, risk assessment, modelling	
Title of activity	Scope
<p>Participatory Epidemiology Approach to One Health - EcoHealth (Introduction)</p>	<p>This is an introductory course for future practitioners of Participatory Epidemiology (PE). The goal of this course is to assist students to become proficient in the use of participatory techniques and tools for the study of epidemiological issues. The course is the first step to becoming a certified PE Practitioner by the Participatory Epidemiology Network for Animal and Public Health (PENAPH).</p> <p>Epidemiology is the study of the patterns of disease in populations in order to understand their impact, cause and identify actions that can mitigate their effect. Participation is an interactive approach that empowers people to identify and solve their own problems. Participatory epidemiology uses participatory techniques to understand the epidemiological information and knowledge contained within community knowledge systems. Its purpose is to contribute to informing health decision-making and action.</p> <p>The training process is tailored to professionals and emphasizes practice and experiential learning. The first 2 days of the course will focus on principles and concepts. Thereafter, approximately 2 days will be devoted to in-class practice of participatory tools and methods. The remainder of the course will be in the field practicing techniques and planning of practical field assignment after the introductory course.</p>

<p>Participatory Epidemiology Approach to One Health - EcoHealth (Community-based)</p>	<p>The continued course of PE (introduction). The objectives of this course was to apply the PE tools to use in the field practice in order to practice with the real problems. The field practice will provide the opportunity for participants to apply PE techniques and tools in the field to solve an epidemiological problem. At least four days will be spent in the field where livestock owners and other key informants will be interviewed.</p>
<p>Food Safety Risk Analysis from Research to Policy</p>	<p>This course will provide the necessary risk- and science-based tools to evaluate and mitigate the microbial and chemical risks in a food production chain-from the farm until consumption. Participants will be divided in small interdisciplinary groups to mimic a real risk analysis team and develop a real-case scenario (different for each group). The attendants will follow the risk analysis process as an integral part of a science-based decision-making (risk prioritization, risk assessment, risk management and risk communication) to estimate and manage the food safety risks. The attendants will apply different qualitative (hazard analysis, decision matrices) and quantitative (risk prioritization, modeling and web-based software) tools by using a computer. The participants will present the main outcomes from the analyses and will evaluate possible mitigation options to reduce the risk in a cost-effective way.</p> <p>The major goal of this course is to introduce the participants to real life applications of microbial and chemical risk assessment in foods to provide science-based answers to complex food safety issues in a multidisciplinary setting.</p>

<p>Geographical Information Systems (GIS) and Spatial Analysis for Disease Outbreak Investigation</p>	<p>The study of the spatio-temporal distribution of cases of disease is one of the basis of epidemiology, and ignoring the spatio-temporal dimension in disease investigations can lead to major biases and mistaken results. This course will provide the basis to understand the usefulness of Geographical Information Systems and spatiotemporal analyses to provide an increased precision to the qualitative and quantitative assessment of disease outbreaks, compare different populations/settings through the use of quantitative and objective criteria and detect significant phenomenon that may be imperceptible otherwise.</p> <p>Participants will be guided through the process of performing a complete outbreak investigation using GIS tools to describe a process, detect underlying spatio-temporal patterns in the presentation of disease using real and generated datasets and open-source software, and interpret the results to extract meaningful results in terms of disease management. Attendants will then replicate the whole process having to choose the most appropriate tools among those reviewed in the course, and interpreting their findings.</p> <p>The goal of the course is to review the main principles of the most commonly used techniques for spatial and spatio-temporal clustering, and to provide the training on the use of different tools for visualizing and applying those techniques.</p>
<p>The Using of Capture-Recapture Method for Biology and Health Study Workshop</p>	<p>The capture-recapture methodology is developed for estimating demographic parameters of animal population and human populations. It is used for determining the population size and estimating completeness of incidence or prevalence of a disease. In addition, it is an excellent method for estimation difficult to identify population.</p> <p>Capture recapture method is non-expensive method can be used for organization with limited budgets. For the workshop, various methods of capture-recapture model such as close capture-recapture, open capture-recapture and spatial capture-recapture were discussed.</p>
<p>Training, capacity building</p>	
<p>Title of activity</p>	<p>Scope</p>

<p>One Health Approach and Leadership at the Convergence at Animal, Human and Environment - Addressing Early Detection and Efficient Surveillance of the Infectious Diseases Workshop</p>	<p>The workshop was designed to explore leadership in the context of 'one health', strengthen relevant technical skills and identify opportunities for fostering collective action for the benefit of public health, food security and ecosystem health. The objectives to:</p> <ul style="list-style-type: none"> • Create an opportunity using leadership technical skills and capabilities to deal with emerging infectious disease. • Enhance understanding of the complex problems in public health, animal health, economic development and environmental health and how to deal with systematic methods. • Create participatory action by developing the leadership skills including communication, cross cultural working, persuading and strategic planning skills.
<p>Veterinary Public Health Education: Building veterinary service capacity for ASEAN public goods workshop</p>	<p>The workshop gather all professionals and experts in Veterinary Public Health in the first time in South East Asia region to build up a potential networking and develop education including research in veterinary public health area. There were the VPH lecturers from 15 universities in 7 countries in SEA attended. The objectives to;</p> <ul style="list-style-type: none"> • Review and explore the Veterinary Public Health component in each curriculum in ASEAN university in order to serve/ the Veterinary Service Capacity Building. and • Build up links and potential networking in Veterinary Public Health education and develop research in veterinary public health area in the group of researcher and academic staff in ASEAN region.
<p>Global Health Institute - Thailand 2016</p>	<p>Global Health Institute - Thailand 2016 offers One Health leadership training and specialized short courses on key skills like risk analysis and participatory epidemiology. The two weeks GHIT-2016 also will include a research conference for sharing of the latest scientific knowledge on timely topics like emerging diseases, antimicrobial resistance, and food safety.</p>

<p>The Using of Capture-Recapture Method for Biology and Health Study Workshop</p>	<p>The capture-recapture methodology is developed for estimating demographic parameters of animal population and human populations. It is used for determining the population size and estimating completeness of incidence or prevalence of a disease. In addition, it is an excellent method for estimation difficult to identify population.</p> <p>Capture recapture method is non-expensive method can be used for organization with limited budgets. For the workshop, various methods of capture-recapture model such as close capture-recapture, open capture-recapture and spatial capture-recapture were discussed.</p>
<p>Application of Rapid Method in Food Processing Workshop</p>	<p>Foodborne disease is a major impact to public health worldwide. Most of all are caused by pathogenic bacteria and some of virus. Each country have developed food quality assurance and monitoring system referring the standard for food safety control (GMP/HACCP) and the requirement of trading partners.</p> <p>The most important step of food safety and quality control is microbiological analysis at critical control points in food chain. The conventional culture method usually time/labor-consuming, and may not response to business strategy that needed to be fast and worldwide. Development of technological innovation results alternative methods which can be used in parallel with the conventional standard method for more rapid, labor-saving, but remaining consistency and accuracy.</p> <p>We had an honor from Prof. Dr. Hisao Kurazono and Asst. Prof. Dr. Kayo Okumura from Obihiro University of Agriculture and Veterinary Medicine and Asst. Prof. Dr. Duangporn Pichpol from Chiang Mai University to instruct the workshop and there were more than 20 participants including the 7th MVPH students attending.</p>

<p>The workshop "Poultry Meat Safety...from Slaughterhouses to Consumers"</p>	<p>The workshop "Poultry Meat Safety...from Slaughterhouses to Consumers" was conducted with the collaboration of the Excellent Center of Veterinary Public Health (ECVPH). Participants in this workshop were stakeholders from small- and large-scale slaughterhouses. The objectives of the workshop to</p> <ul style="list-style-type: none"> • Build knowledge, understanding, and awareness of poultry meat safety as well as foodborne pathogens and diseases that can be occurred in slaughtering production line • Define feasible preventive and control measures in order to prevent and control the contamination in slaughtering production line to the safe level for human consumption <p>The workshop also included keynote presentations (on an update of food security in Thailand, farms and slaughterhouse standards, and the report of laboratory confirmation related to common foodborne pathogens that mostly found in the slaughtering production line) and brainstorming session.</p> <p>After finish the workshop, the poster of proper hand washing and the trilingual signs (Thai, Myanmar, and Tai) were provided to the participants to use in their workplaces.</p>
Zoonoses	
Title of activity	Scope
<p>One Health Approach and Leadership at the Convergence at Animal, Human and Environment - Addressing Early Detection and Efficient Surveillance of the Infectious Diseases Workshop</p>	<p>Besides the Training, capacity building, this workshop also increased knowledge and raise awareness about Tuberculosis in elephants can contact to humans.</p>

<p>Global Health Leadership at the Convergence at Animal, Human and Environment - Addressing Antimicrobial Resistance</p>	<p>The world is interconnected politically, financially, biologically, and socially - and is also connected through trade, travel, and commerce. All of these factors power the convergence of, and impact upon, animal, human, and environmental health. One Health is about working collaboratively across disciplines and professions because it is no longer possible to focus on any single domain without impacting upon, and including, others. The Global Health Institute -Thailand (GHIT) will address these issues by providing an opportunity for students from across the Southeast Asia region to examine the impact of globalization on health - and to identify strategies that support a healthy and productive global workforce.</p> <p>The intensive program of study offered at this GHI will focus on developing One Health leadership and technical capacity, which are both critical elements in transforming the current and future workforce to ensure preparedness for new and emerging public health challenges. Specifically, the course will use the challenge of antimicrobial resistance as a global health issue.</p>
<p>Diagnosis, biotechnology and laboratory</p>	
<p>Title of activity</p>	<p>Scope</p>

<p>Application of Rapid Method in Food Processing Workshop</p>	<p>Foodborne disease is a major impact to public health worldwide. Most of all are caused by pathogenic bacteria and some of virus. Each country have developed food quality assurance and monitoring system referring the standard for food safety control (GMP/HACCP) and the requirement of trading partners.</p> <p>The most important step of food safety and quality control is microbiological analysis at critical control points in food chain. The conventional culture method usually time/labor-consuming, and may not response to business strategy that needed to be fast and worldwide. Development of technological innovation results alternative methods which can be used in parallel with the conventional standard method for more rapid, labor-saving, but remaining consistency and accuracy.</p> <p>We had an honor from Prof. Dr. Hisao Kurazono and Asst. Prof. Dr. Kayo Okumura from Obihiro University of Agriculture and Veterinary Medicine and Asst. Prof. Dr. Duangporn Pichpol from Chiang Mai University to instruct the workshop and there were more than 20 participants including the 7th MVPH students attending.</p>
<p>Food safety</p>	
<p>Title of activity</p>	<p>Scope</p>

<p>The workshop "Poultry Meat Safety...from Slaughterhouses to Consumers"</p>	<p>The workshop "Poultry Meat Safety...from Slaughterhouses to Consumers" was conducted with the collaboration of the Excellent Center of Veterinary Public Health (ECVPH). Participants in this workshop were stakeholders from small- and large-scale slaughterhouses. The objectives of the workshop were</p> <ol style="list-style-type: none"> 1) To build knowledge, understanding, and awareness of poultry meat safety as well as foodborne pathogens and diseases that can be occurred in slaughtering production line 2) To define feasible preventive and control measures in order to prevent and control the contamination in slaughtering production line to the safe level for human consumption <p>The workshop also included keynote presentations (on an update of food security in Thailand, farms and slaughterhouse standards, and the report of laboratory confirmation related to common foodborne pathogens that mostly found in the slaughtering production line) and brainstorming session.</p> <p>After finish the workshop, the poster of proper hand washing and the trilingual signs (Thai, Myanmar, and Tai) were provided to the participants to use in their workplaces.</p>
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<p style="text-align: center;">Food Safety Risk Analysis from Research to Policy</p>	<p>This course will provide the necessary risk- and science-based tools to evaluate and mitigate the microbial and chemical risks in a food production chain-from the farm until consumption. Participants will be divided in small interdisciplinary groups to mimic a real risk analysis team and develop a real-case scenario (different for each group). The attendants will follow the risk analysis process as an integral part of a science-based decision-making (risk prioritization, risk assessment, risk management and risk communication) to estimate and manage the food safety risks. The attendants will apply different qualitative (hazard analysis, decision matrices) and quantitative (risk prioritization, modeling and web-based software) tools by using a computer. The participants will present the main outcomes from the analyses and will evaluate possible mitigation options to reduce the risk in a cost-effective way.</p> <p>The major goal of this course is to introduce the participants to real life applications of microbial and chemical risk assessment in foods to provide science-based answers to complex food safety issues in a multidisciplinary setting.</p>
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ToR : To propose or develop methods and procedures that facilitate harmonisation of international standards and guidelines applicable to the designated specialty

2. Proposal or development of any procedure that will facilitate harmonisation of international regulations applicable to the surveillance and control of animal diseases, food safety or animal welfare

Proposal title	Scope/Content	Applicable area
PODD project	Participatory Onehealth Disease Detection (PODD) is an innovative way of disease outbreak surveillance using mobile application to track any disease outbreaks in animals by volunteer of each sub-district in Chiang Mai province, Thailand (pilot project) to help reduce the chance of human infections.	<input checked="" type="checkbox"/> Surveillance and control of animal diseases <input type="checkbox"/> Food safety <input type="checkbox"/> Animal welfare

ToR: To establish and maintain a network with other OIE Collaborating Centres designated for the same specialty, and should the need arise, with Collaborating Centres in other disciplines

ToR: To carry out and/or coordinate scientific and technical studies in collaboration with other centres, laboratories or organisations

3. Did your Collaborating Centre maintain a network with other OIE Collaborating Centres (CC), Reference Laboratories (RL), or organisations designated for the same specialty, to coordinate

scientific and technical studies?

Yes

Name of OIE CC/RL/other organisation(s)	Location	Region of networking Centre	Purpose
Veterinary Services Capacity Building	University of Minnesota 136 Andrew Boss Laboratory 1354 Eckles Avenue St Paul, Minnesota 55108 UNITED STATES OF AMERICA	<input type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East	-Co-teaching on international training course - Co-organized the international conference - co-teach the internatinla program for Master of Veterinary Public Health -co-research

4. Did your Collaborating Centre maintain a network with other OIE Collaborating Centres, Reference laboratories, or organisations in other disciplines, to coordinate scientific and technical studies?

No

ToR: To place expert consultants at the disposal of the OIE.

5. Did your Collaborating Centre place expert consultants at the disposal of the OIE?

No

ToR: To provide, within the designated specialty, scientific and technical training to personnel from OIE Member Countries

6. Did your Collaborating Centre provide scientific and technical training, within the remit of the mandate given by the OIE, to personnel from OIE Member Countries?

Yes

a) Technical visits: 0

b) Seminars: 1

c) Hands-on training courses: 4

d) Internships (>1 month): 0

Type of technical training provided (a, b, c or d)	Content	Country of origin of the expert(s) provided with training	No. participants from the corresponding country
c	Provided training on Participatory Epidemiology (PE) concept and the use of PE tools. Lecture and field practice were provided 1 week each.	Thailand, USA	11
b	The Researchers Conference of Emerging Disease at Convergence of Animal, Human and Environmental Health - 2 days international conference	Thailand, USA, Malaysia, Indonesia, Vietnam, Sri Lanka, Lao PDR, Cambodia	54
c	A 5-day short training course on risk analysis and risk communication in the scope of food safety	Thailand, USA	14
c	A 5-day short training course on the use of different tools for visualizing and the way to applying those techniques in Epidemiology	Thailand, USA	19
c	A one day training on the use of rapid method in Food Processing. Taught the concept of test kit for laboratory diagnosis and hands-on practice	Thailand, Japan	20

ToR: To organise and participate in scientific meetings and other activities on behalf of the OIE

7. Did your Collaborating Centre organise or participate in the organisation of scientific meetings on behalf of the OIE?

Yes

National/International	Title of event	Co-organiser	Date (mm/yy)	Location	No. Participants
International	Veterinary Public Health Education: Building veterinary service capacity for ASEAN public goods workshop	VPHCAP, Excellent Centre for Veterinary Public Health	November 2016	Chiang Mai, Thailand	37

International	The first Joint International Conference of the Association of Institutions for Tropical Veterinary Medicine (AITVM) and the Society of Tropical Veterinary Medicine (STVM)	Freie Universität Berlin	September 2016	Berlin, Germany	
International	International Conference on One Medicine One Science (iCOMOS)	University of Minnesota	April 2016	Minnesota, USA	

ToR: To collect, process, analyse, publish and disseminate data and information relevant to the designated specialty

8. Publication and dissemination of any information within the remit of the mandate given by the OIE that may be useful to Member Countries of the OIE

a) Articles published in peer-reviewed journals: 2

1. Dang-Xuan S, Nguyen-Viet H, Meeyam T, Fries R, Nguyen-Thanh H, Pham-Duc P, Lam S, Grace D, Unger. Food Safety Perceptions and Practices among Smallholder Pork Value Chain Actors in Hung Yen Province, Vietnam. *Journal of food protection*. 79(9):1490-1497.
2. Tra VT, Meng L, Pichpol D, Pham NH, Baumann M, Alter T, Huehn S. Prevalence and antimicrobial resistance of *Vibrio* spp. in retail shrimps in Vietnam. *Berl Munch Tierarztl Wochenschr*. 2016 Jan-Feb;129(1- 2):48-51. PMID:26904896

b) International conferences: 6

1. Punyapornwithaya V. Social Network Analysis of the Backyard Chicken Systems and Trading Patterns in Rural Areas in Chiang Mai, Thailand. Oral presentation at The 2nd Researchers Conference of Emerging Disease at Convergence of Animal, Human and Environmental Health, Chiang Mai, Thailand.
2. Jainonthee C. The Use of Polymerase Chain Reaction in *Vibrio* parahaemolyticus Identification Applied in Most Probable Number Method. Poster presentation at Tropical Animal Diseases and Veterinary Public Health: Joining Forces to Meet Future Global Challenges, First Joint AITVM – STVM Conference, Berlin, Germany.
3. Chaisowwong W. Antimicrobial Use and Antimicrobial Resistance in Broiler Production in Northern Sri Lanka. Poster presentation at Tropical Animal Diseases and Veterinary Public Health: Joining Forces to Meet Future Global Challenges, First Joint AITVM – STVM Conference, Berlin, Germany.
4. Pichpol D. Model of Remove Surface Bacterial Contamination by Trisodium Phosphate Solution Spraying on Pork with Skin. Poster presentation at Tropical Animal Diseases and Veterinary Public Health: Joining Forces to Meet Future Global Challenges, First Joint AITVM – STVM Conference, Berlin, Germany.
5. Meeyam T. Quinolone and Fluoroquinolone Resistance in *Salmonella* Isolated from Chicken and Swine in Chiang Mai, Thailand. Poster presentation at Tropical Animal Diseases and Veterinary Public Health: Joining Forces to Meet Future Global Challenges, First Joint AITVM – STVM Conference, Berlin, Germany.
6. Pichpol D. Antimicrobial Resistance in *Salmonella* spp. and *Escherichia coli* Isolated from Broiler and Pigs in Northern Thailand. Oral presentation at Research links on antimicrobial resistance in bacteria associated with livestock and animal products for Southeast Asian countries, Research links on antimicrobial resistance in

bacteria associated with livestock and animal products for Southeast Asian countries, Faculty of Veterinary Science, Chulalongkorn University, Bangkok, Thailand.

c) National conferences: 0

d) Other

(Provide website address or link to appropriate information): 0

<http://vphcap.wixsite.com/vphcap/activities>