



# 2018 THOHUN ANNUAL REPORT

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**2018**  
**THOHUN**  
**ANNUAL REPORT**

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# EXECUTIVE DIRECTOR SUMMARY

Since 2012, Thailand One Health University Network or THOHUN has responsibility on pre-service training both in future and current workforce to early prevent and protect emerging/re-emerging diseases in Thailand by integration of collaboration across sectors with respect to One Health approach. The One Health approach is particularly relevant regarding to the control of zoonoses, rabies risk communication and combatting antibiotic resistance. To effectively respond to, and prevent outbreaks of zoonoses, epidemiological data and laboratory information should be shared across sectors.

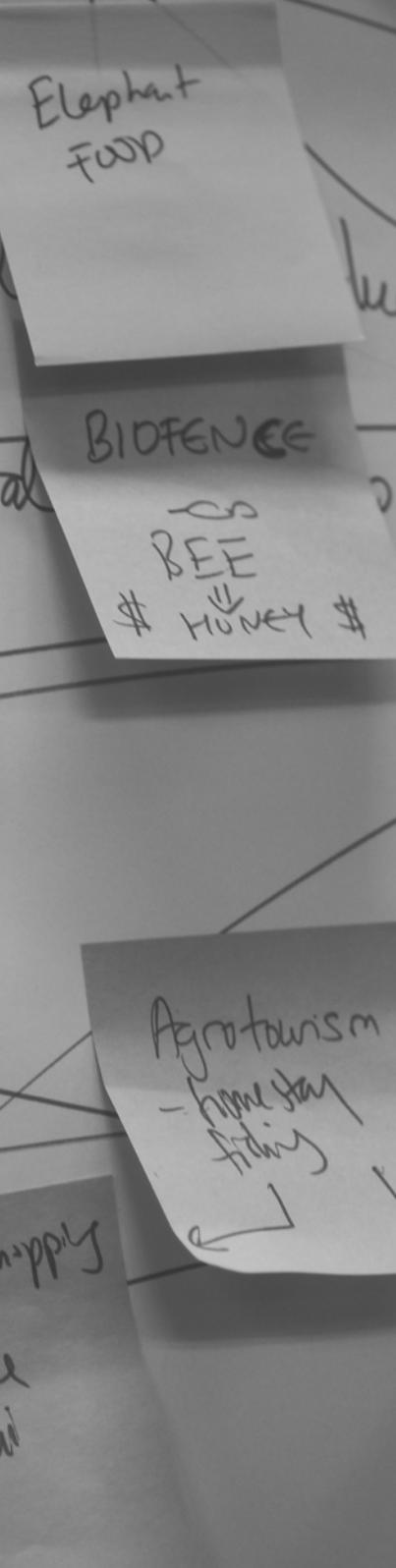
According to strengthen workforce potential, One Health core competencies (OHCCs) were developed for current workforce based on the Memorandum of Understanding on the Implementation of One Health Initiative for National Health Security which is agreement of 7 Thai ministries (Ministry of Agriculture and Cooperatives, Ministry of Natural Resources and Environment, Ministry of Interior, Ministry of Social Development and Human Security, Ministry of Labor, Ministry of Education, Ministry of Public Health) and Thai Red Cross. For preparedness to outbreaks prevention, OHCCs were improved and adjusted that suitable for future workforce who will be a future operational person in public health sector both in private and government.

In year 4, THOHUN trained the workforces through various activities which based on current outbreak issue in Thailand and also provide priority to practice and learn in fieldwork. Those trainings provide them a valuable experience and idea for manipulation to their expertise and future carrier. Moreover, working in group allowed them to participate and develop their OHCCs which important for further collaboration.

This is my great pleasure to present this publication which outlines the success stories and THOHUN's valuable work together with our member universities in supporting us to achieve the goal in creating a new species of health professional with the right attitude to move One Health concept forward.



Assoc. Prof. Dr. Parntep Ratanakorn  
THOHUN Chairman



## ACHIEVEMENTS



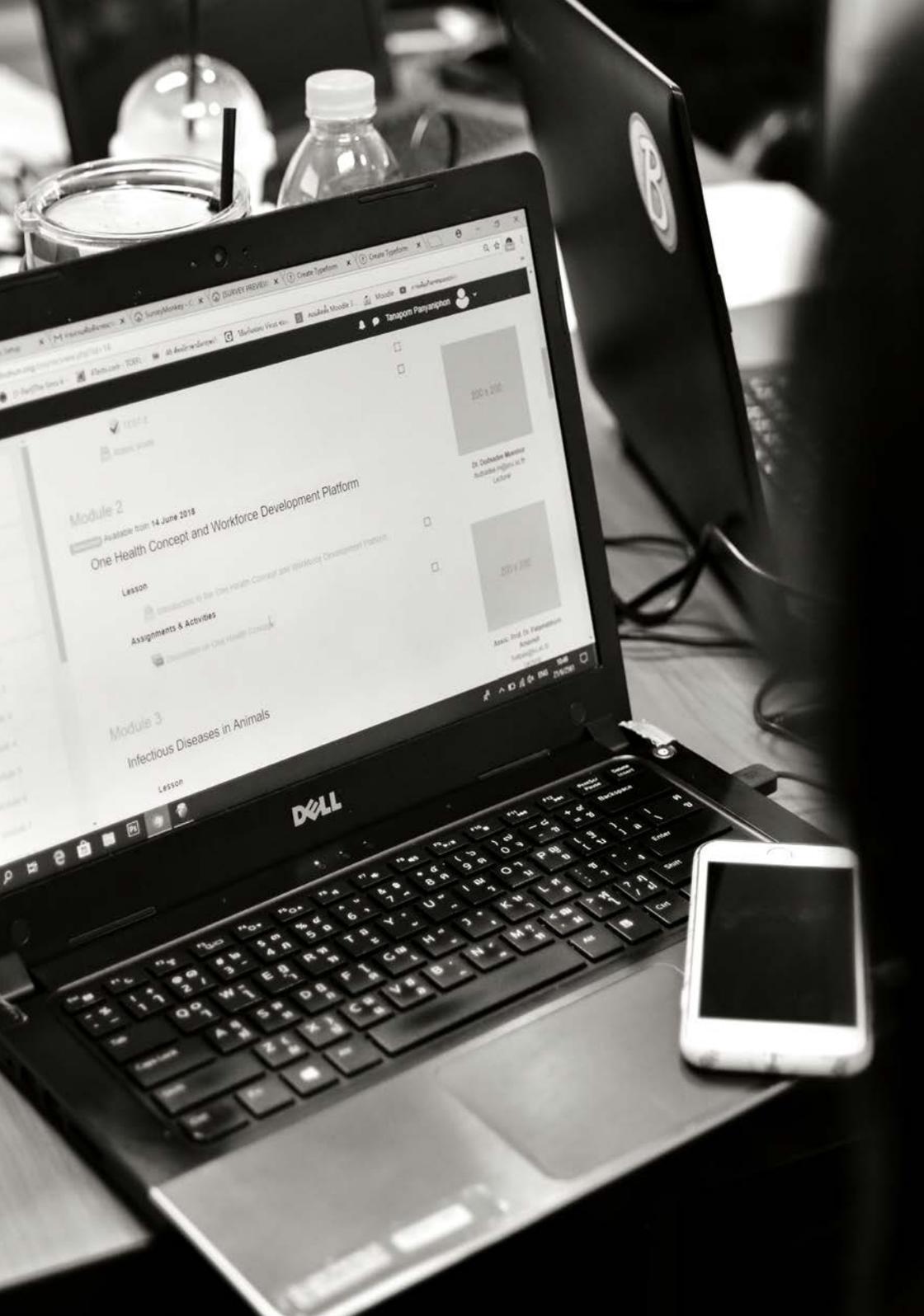
# Design and Develop e-Learning Capacities of THOHUN Member Universities

Since the first year (2015) of the OHW project, the Faculty of Veterinary Medicine and Faculty of Education at Kasetsart University (KU) had successfully created a OHCC activity-based learning course which was integrated General Education requirement for the student at Kasetsart University (KU). Furthermore, in order to carry out the multidisciplinary field, the OHCC concept was widely expanded to other faculty members inside KU. The student and facilitator guides were developed with activities and assessment tools etc.

After first year achievement, we set a goal to train the facilitators in multidisciplinary fields in the second year (2016). To fulfill our goal, we created the project with the title of “Training of the Trainers: Integrating One Health Core Competencies for Multi-disciplines Workforce”. This training of the trainers aimed to enable faculty/staff to better coordinate and implement OH teaching modules. Multidisciplinary faculty/staff were trained to harmonize their professional skills guided by OH Core Competency Domains. Existing THOHUN trainers, together with external experts, assisted KU to coordinate and implement “The Fundamental One Health Core Competency (OHCC) Course” for multidisciplinary students which was set to be a part of KU’s regular curriculum. The facilitator guide of the training course was developed in both hard copy and electronic file. 39 staff from thirteen out of fifteen faculties at KU were trained to be the facilitators for sustainable management of OHCC course developed for multidisciplinary students as regular curriculum of KU (the course developed in the first year). And ten trainers who participated have become as the facilitators on the OHCC Course at KU.

To describe of One Health (OH) integration platform/development of OH course at faculty/university level, we are not only had a successful project in the first two years but also we are continue working on progression of OHCC Course for the current and future workforce. Presently, we are working on the activities under the THOHUN Strategy: Improvement and Development of Teaching/Learning Programs for developing the OHCC e-Learning program. In addition, we are building the network with other universities faculty/staff in multidisciplinary across nation to initiate the OHCC e-Learning Program. This e-Learning program is made possible by successful collaboration by Kasetsart University, Mahasarakham University, Mahidol University, and Prince of Songkla University, to coordinate expertise in e-Learning and set up a blended e-Learning program in their respective universities.

The OHCC e-Learning course is the development of Core Competency through One Health Course for university student. The facilitators and students can access the course anywhere and anytime, which is available on the website at <http://ohcc-elearning.com>. The course provides the flexibility to teach/learn, apply, perform and innovate at the pace of the facilitators and students by using the internet system and smartphone in everyday life as tools for teaching and learning. The OHCC e-Learning course comprises of seven modules as follows 1) One Health Knowledge, 2) Collaboration and Partnership, 3) Leadership, 4) Systems Thinking, 5) Culture and Ethics, 6) Communication and Informatics, and 7) Planning and Management. These modules were divided into two parts; the knowledge and skill. The knowledge part has given basic knowledge of seven modules. Each student could be tested their knowledge by online testing. In addition, using group work to enhance students' OHCC skill and they can submitted all of their works to e-Learning system and the facilitators can evaluate students' work with appropriate rubric score evaluation.



Module 2  
Available from 14 June 2018  
One Health Concept and Workforce Development Platform  
Lesson  
Assignments & Activities  
Module 3  
Infectious Diseases in Animals  
Lesson

DELL





# Development of Multi-disciplinary Training Curriculum on Antimicrobial Stewardship and Antimicrobial Resistance

Since antimicrobial resistance (AMR) is believed to cause approximately 700,000 deaths per year globally. In Thailand, a preliminary study on the burden of AMR caused approximately 38,000 deaths annually and that overall economic losses due to AMR are as much as 1,200 million USD. Therefore, the Thailand's National Strategic Plan on Antimicrobial Resistance 2017 – 2021 focuses mainly on AMR management in bacteria given its urgency, and the widespread impact of the problem. The scope of this strategy is also aligned with the Global Action Plan on Antimicrobial Resistance that was endorsed by Member States in the 68th World Health Assembly. The National Strategic Plan was completed and driven upon the national framework for relevant multi-sectoral stakeholders to join hands in addressing the country's AMR issues. Multi-sectoral stakeholders included the Ministry of Public Health appointed a Coordinating and Integrating Committee on AMR. The committee consists of representatives from the Ministry of Public Health, Ministry of Agriculture and Cooperatives as well as academia, professional societies and civil society. Thailand's National Strategic Plan on AMR 2017-2021 consists of 6 strategies as follows; 1) AMR surveillance system using a 'One Health' approach, 2) Regulation of antimicrobial distribution, 3) Infection prevention and control and antimicrobial stewardship in humans, 4) AMR prevention and control and antimicrobial stewardship in agriculture and companion animals, 5) Public knowledge on AMR and awareness of appropriate use of antimicrobials, and 6) Governance mechanisms to develop and sustain AMR-related actions.

As one of 6 strategies of this plan is “AMR prevention and control and antimicrobial stewardship in agriculture and companion animals”. This influences veterinary profession in Thailand since implementation of antimicrobial stewardship was requested for the first time ever in animal farms, and animal hospitals. Development modules on “antimicrobial stewardship and antimicrobial resistance for current- and future- workforce were initiated in order to updating information and national policy on antimicrobial stewardship and AMR according to One Health core competencies (OHCCs) for current workforce in Thailand. Core competency of the modules included 1) One Health Professionalism, 2) Communication & Informatics, 3) Leadership, 4) Culture, Values, Ethics & Belief, 5) Collaboration & Partnership, 6) Planning & Management, and 7) Antimicrobial stewardship & antimicrobial resistance. We developed two course modules to cover antimicrobial stewardship and antimicrobial resistance as a teaching guideline for 1) instructors in veterinary schools and public health and 2) trainers for One Health workforce training. These 2 course modules were developed to align with International Health Regulations (IHR) of the World Health Organization (WHO), Performance of Veterinary Services (PVS) of the World Organization for Animal Health (OIE), country needs, and current situation in Thailand. We started to develop contents of the modules from gathering existed evidences and expert opinion. We then identified needs obtained from brainstorming of experts and highlighted on AMR/antimicrobial use (AMU), rational drug use, perception and awareness, intervention/prevention and control campaign activities, and fulfillment of soft skill for future- and current- OH workforce in Thailand.

Two modules of AMU/AMR were developed in order to use for training for current workforce and the other for future workforce separately. The module for current workforce focused on small animal, livestock, and aquatic animal; whereas the module for

future workforce provided overview of AMR, antimicrobial and how to develop AMR, laboratory interpretation, AMR in environment, together with AMU/AMR in small animal, aquatic animal, and livestock. Each chapter of the module for future workforce also provide case study and teaching method.

We tried these modules with students and current workforce and modified from feedback obtained and prepared for publication as manuals and will distribute to targeted workforce.



# Development of Multi-disciplinary Training Curriculum in Risk Communication

Risk communication is one of the strategies outlined in Thailand's National Strategic Plan for Emerging Infectious Disease Preparedness, Prevention and Response 2013-2016. It is also one of the goals of the BMA towards rabies eradication by 2020, with the following strategies;

1. Identifying roles and responsibilities of a "rabies community task force" important to local government agencies such as BMA.
2. Gather information and human resources required for pre-service and in-service training for Thai OH workforce capacity.
3. Identify partners and alliances.
4. Work with the community and media.

A multidisciplinary team of experts from Mahidol University, Chulalongkorn University, and Thammasat University has been established to develop a multi-disciplinary training curriculum on risk communication. The series of activities are supported by USAID's One Health Workforce project through the Thailand One Health University Network. The training program aims to strengthen the community and public awareness on rabies infection and to decrease the rabies infections in animals and humans, using risk communication as the core strategy. Case studies will be developed based on current situations in fresh markets, communities, schools, temples, and army residential areas within the Bangkok Metropolitan region. The developed course will be offered as in-service and pre-service programs for workforce development.

Following the submission of the developed curriculum and materials to the experts from the National rabies committee, Health volunteers from different districts, health staff from BMA Health Centers, and THOHUN experts for review, pilot training on rabies emergency response and risk communication will be conducted for 25 health workers and 25 non-health workers from the BMA and 25 health professionals from hospitals in Bangkok. Lastly, the course will be scaled up by merging into existing degree programs in universities. A mobile application on rabies reports and advisories might also be produced for easy access to relevant and up-to-date information.



# Community-based Learning for International Students

Due to the increase in the number of emerging pandemic threats, students (future workforce) must be experienced in the detection, surveillance, control and response of these EIDs under real situations. In 2016, a teaching platform was developed to integrate OH into the field- and community-based learning. Mahidol University piloted the International Short Course on Ecosystem Health (or THOHUN-TELI). As the platform becomes stronger and more robust, students enhanced their learning experience and OHCCs through multidisciplinary teamwork and field exposure with complex health problems (infectious diseases or other public health problems) through the OH approach.

In this year, a total of 22 participants composed of eight international students and government officers joined as follows; 1) MyOHUN 2), VOHUN 3), Lao PDR 4), Myanmar 4), Cambodia and 5) Bangladesh One Health network. They spent first week in e-learning platform that the learned the basic knowledge and principle of One Health concepts. After e-learning course, the practices were managed for two weeks in Kanchanaburi province, Thailand where was a base to practice laboratory and apply knowledge and skills in their respective professions in OH village. The participants also came up with innovative ideas to mitigate the problems identified by the community which are 1) vector borne diseases, 2) food- and water-borne disease, and 3) elephant-human conflict under supervision by multidisciplinary professionals from universities. After presented to villagers and stakeholders, the outputs were submitted to Ta-Tong Na Promoting Health Care Center and distributed to Public Health Volunteers of seven villages. The chief of Bong Pad village said these study results and suggestions from the participants' study was valuable and would be adapted to use in village.



# สำนักงานสาธารณสุขจังหวัดร้อยเอ็ด



จังหวัดร้อยเอ็ด  
ศูนย์วิจัยและพัฒนา  
เปิดแผนผังเมืองขึ้นใหม่  
ความชอบธรรม  
ของจังหวัดร้อยเอ็ด



# Coordination and Risk Communication for Rabies Outbreak Response

Continuing from THOHUN's OHCC Development Years 2 and 3 activities, this activity aims to develop capacities of government staff in response to an outbreak, as well identify appropriate actions as defined by current workforces from a multi-sectoral and multidisciplinary point of view. Government staff from the 7 Thai ministries (Ministry of Agriculture and Cooperatives, Ministry of Natural Resources and Environment, Ministry of Interior, Ministry of Social Development and Human Security, Ministry of Labor, Ministry of Education, Ministry of Public Health) and Thai Red Cross who are part of the Memorandum of Understanding on the Implementation of One Health Initiative for National Health Security. The activity focused on verifying links between government agencies and stakeholders at different levels through simulation, formulate plans in organizing and coordinating a unified response among relevant stakeholders, and formulate outbreak response plans for different settings and/or scenarios. This year, rabies re-emerged as a public health problem nationwide with cases diagnosed from several provinces. Roi Et province which is located in the northeastern region of Thailand recorded several rabies cases in 2017. In response to the rabies outbreak, the local government unit together with public health authorities and members of the private sector worked together to control the outbreak by informing and teaching their citizens how to protect themselves from rabies. The successful implementation of rabies control at Roi Et province has made it a demonstration site for rabies control, which current workforces from other ministries and sectors can learn from. Moreover, participants learned and practiced through the scenarios which gave more understanding in cooperation and communication among government sectors to prevent the outbreak.





# Y5 Work Plan Development

To prepare for Year 5 work plan, while adhering to strategies agreed upon by the Steering Committee, THOHUN-NCO carried out a two-step process to identify suitable activities for the Year 5 work plan.

## 1. Pre-planning workshop

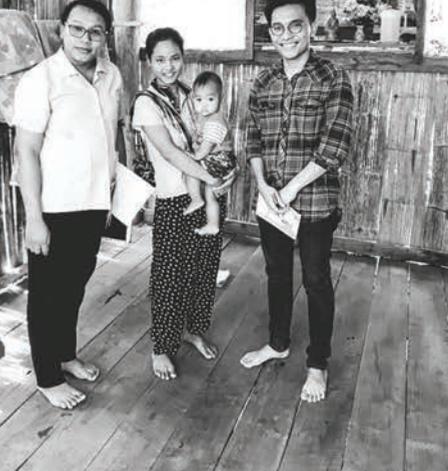
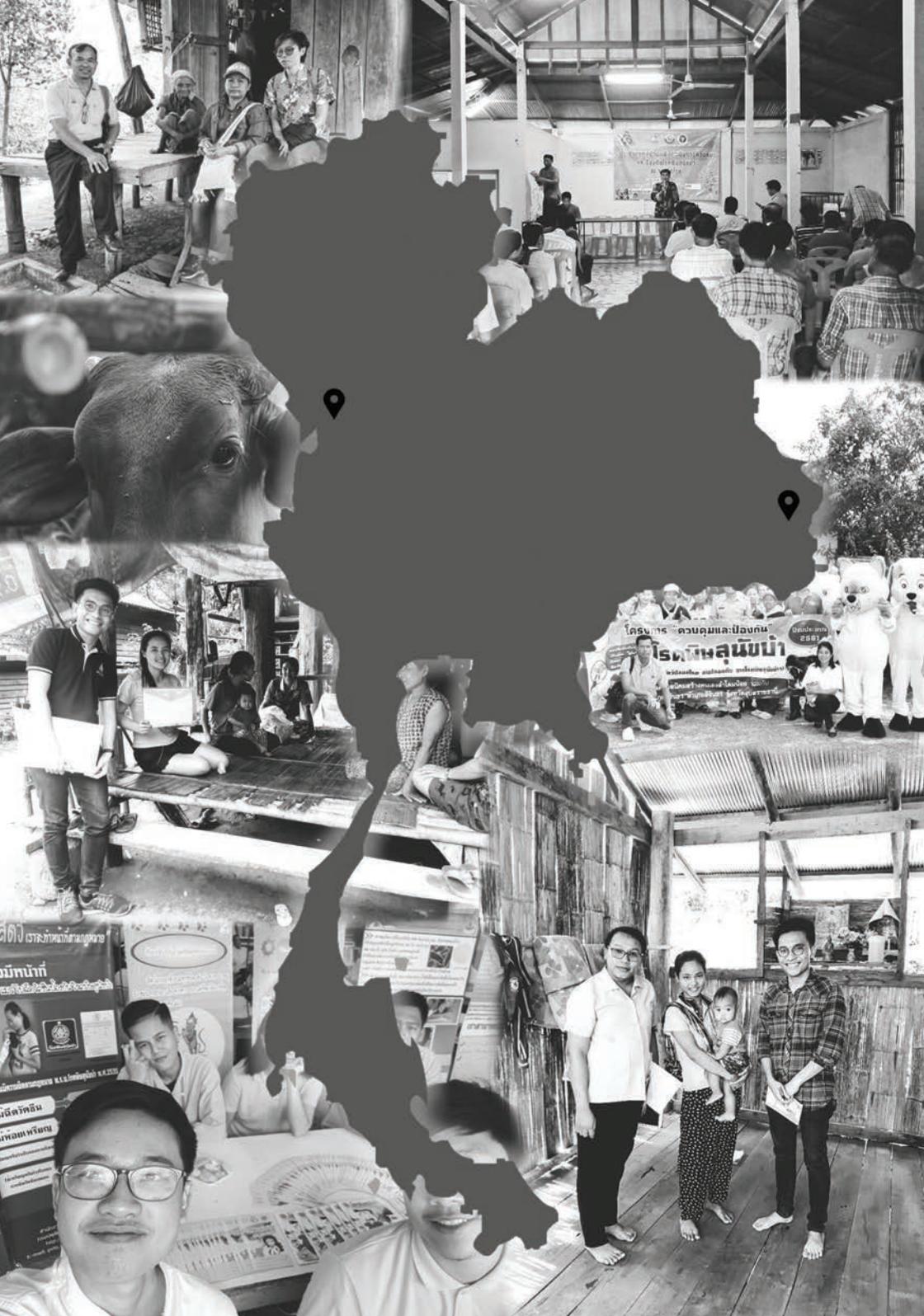
In order to identify and prioritize activities that will be considered for THOHUN's Year 5 work plan, activities organized by THOHUN-NCO from Years 3 and 4 were reviewed and mapped in accordance with identified country needs and the guidance for Year 5 planning (i.e. OHW objectives, and international standards such as IHR, PVS, GHSA, and JEE). After mapping the activities, they were prioritized according to how much they aligned with indicators set in the criteria mentioned above.

## 2. Year 5 project proposal development

The workshop was organized to further develop project proposals previously identified and prioritized by THOHUN-NCO. The senior lecturers from Chiang Mai University (CMU), Kasetsart University (KU), Mahidol University (MU), and Mahasarakham University (MSU) joined to create multidisciplinary and high impact projects within two major areas: antimicrobial resistance and e-learning development. The workshop also gathered government officers from four offices in the Ministry of Education (MOE): Office of the Vocational Education Commission, Higher Education Commission, Office of the Private Education Commission, and Office of the Basic Education Commission. The invited participants from

the MOE combined their efforts to develop an activity for master teachers and primary level students. In this workshop, staff from the MOE defined gaps and needs for their respective target participants: master teachers and students at different levels (primary, secondary, and tertiary and vocational). The table below summarizes the priority of soft skills that need to be improved as perceived by the participants. Participants from the Ministry of Education also presented their ideas and suggestions aimed at building capacities among master teachers and student at all levels.





# Scholarships for Internships at Provincial One Health Network

To develop capacities of future workforce, the Thailand One Health University Network (THOHUN) offered the scholarship to students for improving their professional skill and sharing related experiences with professional workforces on field. Before started the project, THOHUN-NCO visited the Provincial One Health Network for discussing and planning for Year 4 internship fellows. The Provincial One Health Network gave the key problems on their fieldwork and also required the implementation from fellowships according to their expertise. The seven students who received the scholarship needed to work and learn with current One Health Workforce of the livestock offices, public health sectors and local authorities. After attended internship project, the students gained their experience and knowledge in One Health Workforce concept. Some of them have no experiences in Public Health or Veterinary Medicine but they still interested to develop people health with respect to their basic knowledge. During training period, the students learned how the current workforce applied their knowledge to fix the problems in a local area. This experience was valuable for students. Moreover, these experiences help to prepare them to be a future workforce. Seven students who participated in internship project gained their experience in One Health concept especially collaboration, communication and participatory working with workforce in each area. Through internship project, the students also created the network of workforce in multidisciplinary which importance for One Health Workforce approach.



## **Training the current/in-service OHW in provincial level to recognize and respond to EID suspected/ Infected in companion and exotic animals**

Most emerging infectious diseases (EIDs) are zoonotic and a vast number of microbial pathogens exist in various species of wild and domestic animals. While domestic companion animals such as pets and exotic animals may serve as intermediate hosts to expand the extent of human contact, which is the real threat of new emerging pathogens from the animals. MER-CoV from camels in Middle-East countries, Ebola virus from bats, suspected/infected pets in USA and Spain and wildlife animals in Africa, to name a few. Thus, guideline or recommendation, well-trained workers, response teams and a new generation of workforce should be prepared for risks involved to ensure that workers can manage effectively and safely.

To respond quickly and effectively to new outbreaks of zoonotic infectious diseases, workers in the field relating with human health, animal health, environmental health systems and other related fields must have adequate training in the skills required to deal with suspected/infected companion and exotic animals (both legally and confiscated animal) and collaborate across other disciplines in charge of responding to EID outbreaks in humans. The outcomes of this training provided stronger collaboration and communication mechanisms between workers in these fields, especially among university personnel and government workers who are expert in animal health, human health, and environmental health providing the activities in One Health workforce services to prevent and control the EIDs from infected animal to community.

In 2016-2017, we created the recommendation and provided the training for current and future One Health (OH) workforce for responding to EID in suspected/infected companion and exotic animals, and in this 2018, the program aimed to refresh knowledge,

improve the communication, coordination, and technical including practices to manage the emergency event of current/ in service OHW including the provincial level staff who have duties to control and prevent the spreading of pathogen from the suspected/infected companion (dog, cat) and exotic (alien species) animals focusing in the area that have high risk to face with EIDs in pet and exotic animals which are tourist attraction provinces, provinces where the border crossing point is located, such as, Chiang mai, Chiang rai, Nan, Nongkhai, Mukdaharn, Ubonrachatani, Chonburi, Sakaeo, Phuket, Krabi and also hand on practice with the scenario to ensure that the participant will able to work together when face with the real event by using existing recommendation that developed by THOHUN member.

The participants are in-service staff of Ministry of Agriculture and Ministry of National Resources from the provinces mentioned above, plus veterinary students which were trained by the trainer who have expertise in EIDs relating areas which are current OH workforce from The Monitoring and Surveillance Center for Zoonotic Diseases in Wildlife and Exotic Animals (MoZWE), FAO Reference Center for Zoonotic and Wildlife Diseases, Faculty of Veterinary Science, Mahidol University and collaborating organization; Department of Livestock Development and Faculty of Tropical Medicine, Mahidol University. The program trained the participants for the procedure to handle EIDs suspected/infected companion and exotic animal by using the recommendation that developed from previous workshops and also the training program provided an opportunity to share the experience and discussing for further collaboration in One Health activities.

# Scientific Research Publishing Supported by THOHUN

Since 2014, THOHUN has been continuing to develop skills and gain knowledge in composing effective grant proposals among One Health workforce. Dr. Chaithep Poolkhert, one of our successful researcher published his article on Preventive Veterinary Medicine international journal under THOHUN support. In the “Grant agency meeting and writing effective proposals” workshop, potential leaders and researches also learned how to write effective grant/fund proposals. In 2018, more than 11 articles were published on diverse field international journals under THOHUN support as well.

Preventive Veterinary Medicine 158 (2018) 71–77



Contents lists available at ScienceDirect

Preventive Veterinary Medicine

journal homepage: [www.elsevier.com/locate/prevetmed](http://www.elsevier.com/locate/prevetmed)



## Exponential random graph models to evaluate the movement of backyard chickens after the avian influenza crisis in 2004–2005, Thailand

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### ARTICLE INFO

#### Keywords:

Avian influenza  
Backyard chicken  
Exponential random graph model  
Network analysis  
Thailand

### ABSTRACT

The aim of this study was to use exponential random graph models (ERGMs) to explain networks of movement of backyard chickens in provinces which had been hotspots for avian influenza outbreaks in Thailand during 2004–2005. We used structured questionnaires to collect data for the period January to December 2009 from participants who were involved in the backyard chicken farming network in three avian influenza hotspots (Ratchaburi, Suphan Buri, and Nakhon Pathom provinces) in Thailand. From 557 questionnaires, we identified nodes, points of entry and exit from nodes, and activities relating to backyard chicken farming and movement of chickens, and generated ERGMs based on non-festive periods (Model 1) and the Chinese New Year period (Model 2). In Model 1, E-star (the central node is connected to k other nodes) connections were predominant ( $P < 0.001$ ). In Model 2, the frequency of movement increased by 10.62 times, k-star connections were still predominant ( $P < 0.001$ ), and the model was scale-free. Hubs were formed from owners/observers in the arenas/training fields, farmers who raised chickens for consumption only, and traders. In conclusion, our models indicated that, if avian influenza was introduced during non-festive periods, the authorities would need to regularly restrict the movement of chickens. However, during high-frequency periods of movement of backyard chickens, authorities would also need to focus on the network hubs. Our research can be used by the relevant authorities to improve control measures and reduce the risk or lessen the magnitude of disease spread during an avian influenza epidemic.



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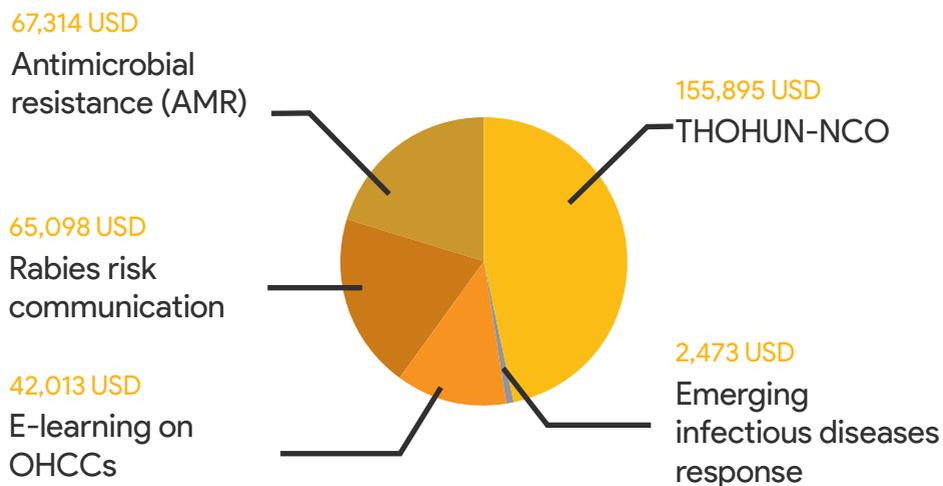
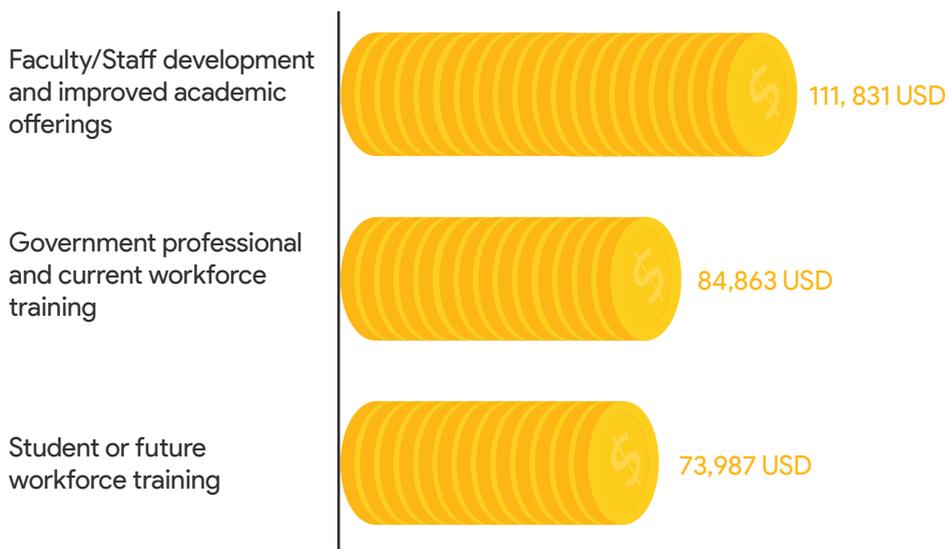


# FINANCIAL MANAGEMENT

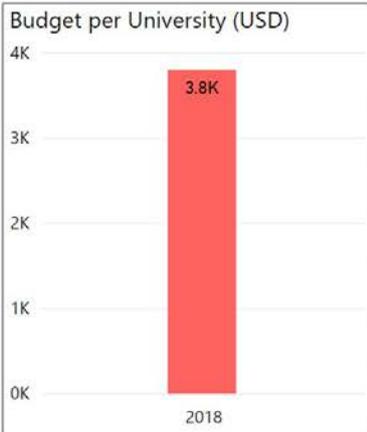
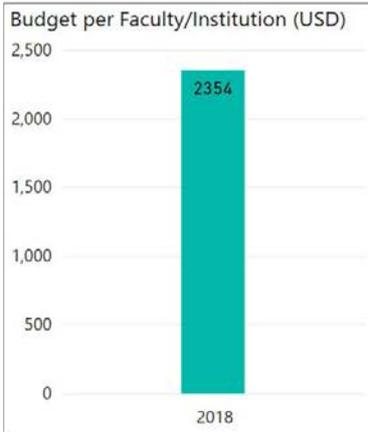
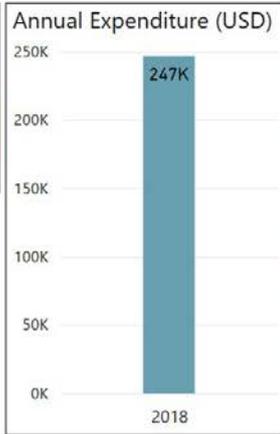
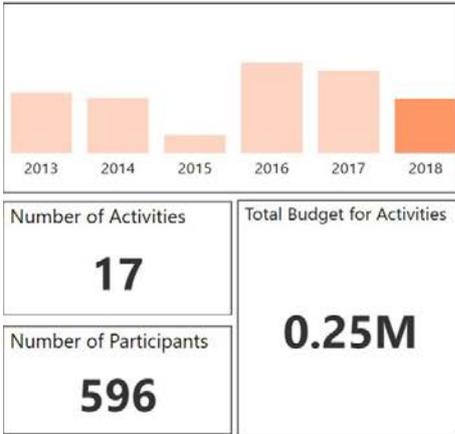
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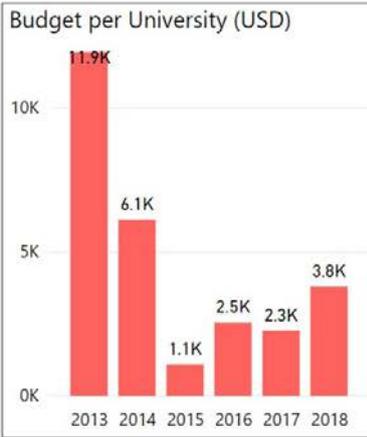
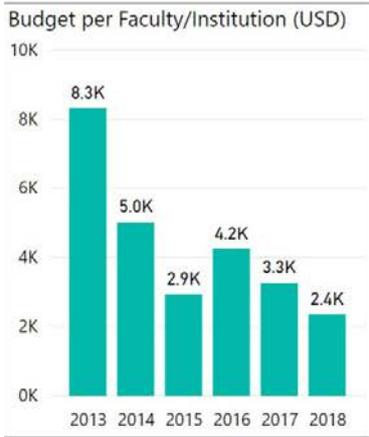
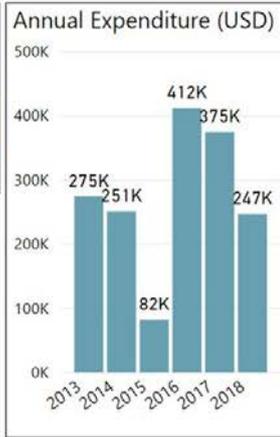
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1234-567-890-1



# Big data analytics of THOHUN financial (2018)



# Big data analytics of THOHUN financial (2013-2018)



# TEAM MANAGEMENT





Assoc. Prof. Dr. Parntep Ratanakorn  
Chairman



Assoc. Prof. Dr. Pratap Singhasivanon  
Consultant



Asst. Prof. Dr. Saengduen Moonsom  
Coordinator



Irwin F. Chavez  
Assistant for International Collaboration



Tanaporn Panyaniphon  
Project Coordination and Management



Wiriya Kongcharoen  
Administrative Manager



**Kittikorn Khunratch**  
Program and Event Manager



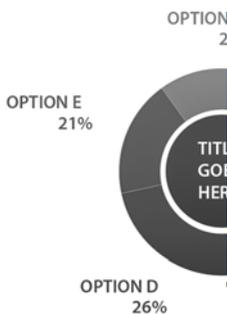
**Waroon Boonyaudomsart**  
Publicity Manager



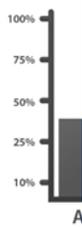
**Sukanya Kaewkanrai**  
Finance and Office Manager



**Veerada Raksanoh**  
Networking and Communications Manager



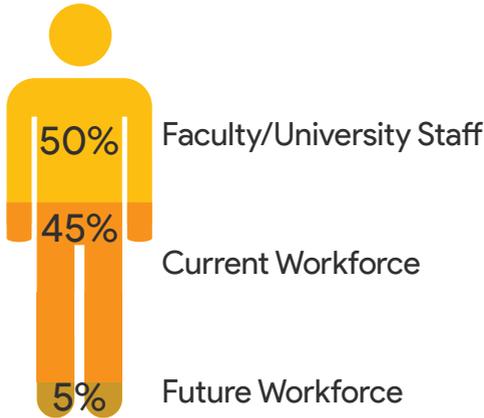
# FEATURED STATISTICS



# Participants

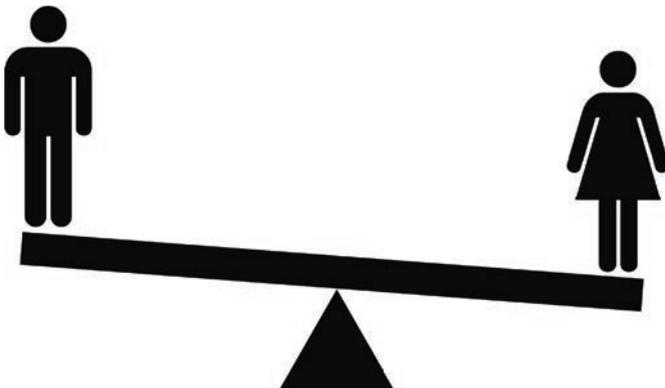
**8** Activities Implemented

**311** Participants Attended



**39%**  
are Male

**61%**  
are Female





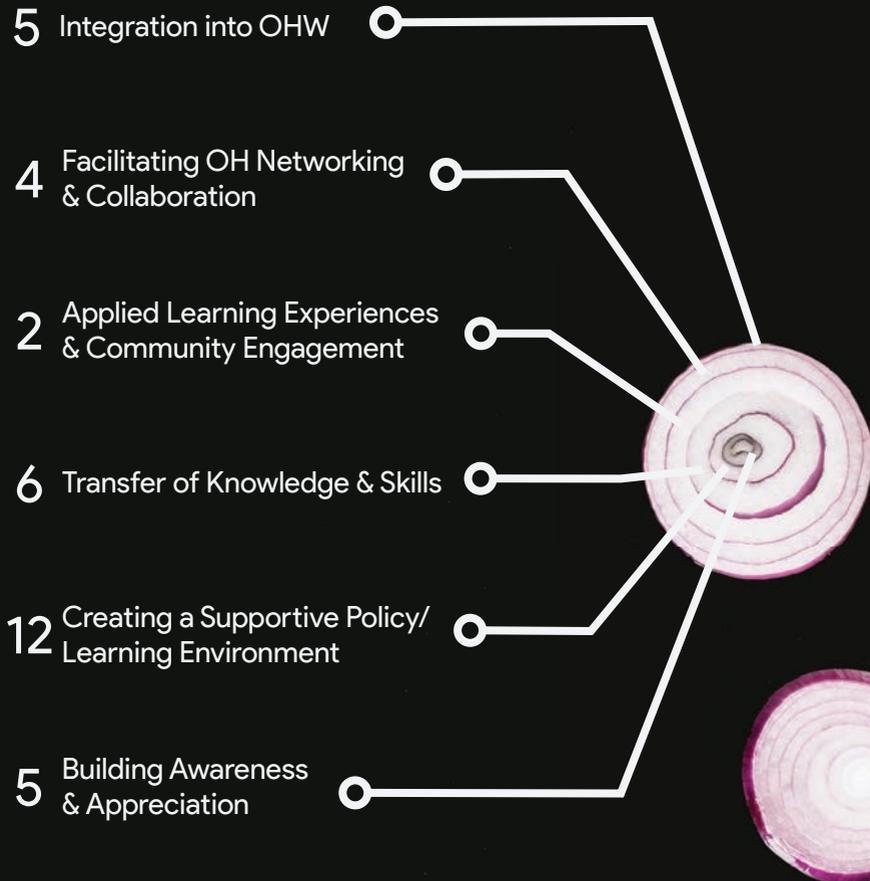
## Field of Expertise

**#1** Veterinary Science/ Medicine

**#2** Aquatic animals

**#3** Education

# ONE HEALTH WORKFORCE TRANSFORMATION LEVEL



THOHUN implemented the activities at different levels of transformation towards the development of the One Health Workforce.

# Activities

## 3

In-service and pre-service training

## 2

Applied education and training

### Education and training

## 6

In-service and pre-service training

## 3

Applied education and training

### University and network strengthening

## 21

Faculty development and university programming

## 7

Network development

### Grants awarded

TUC (Thai MOPH and US CDC Collaboration)



Urban Institute for Disease Prevention and Control for Integrative Surveillance, Prevention and Control of Avian Influenza & Rabies in Bangkok and Border

## 2

LIFE for SEA ED, Erasmus+ Programme



European universities and SEAMEO TROPED network, FTM-MU, KU and CU

# Multi-Sectoral Engagement Movement

## 11

High-level multi-sectoral or multi-lateral engagement events coordinated

## 11

Noteworthy multi-sectoral or multi-lateral engagement events attended

## 11

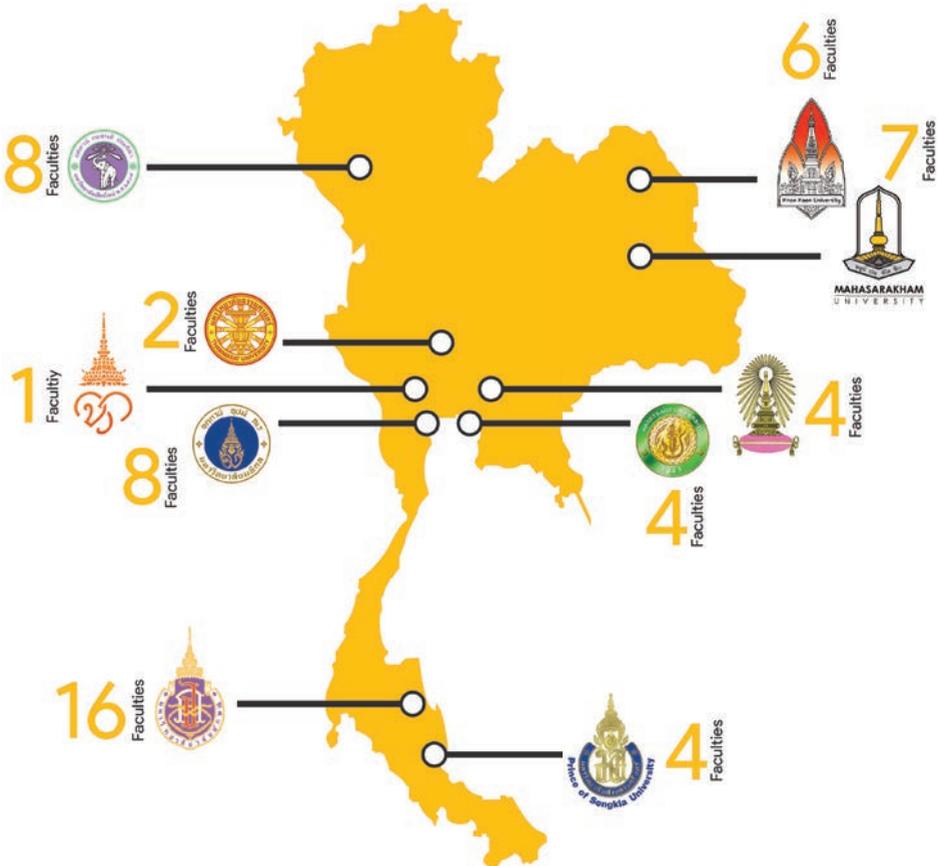
OH evidence-based resources

## 4

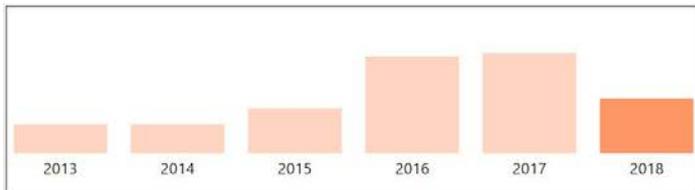
Community outreach activities organized



# Network Expansion

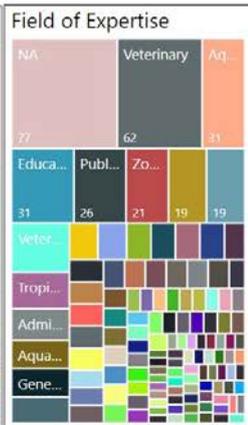
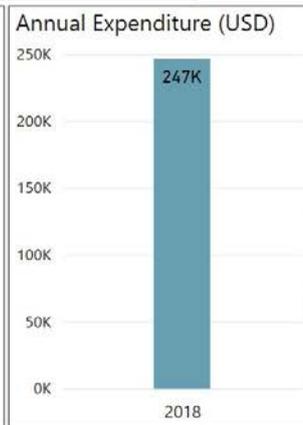
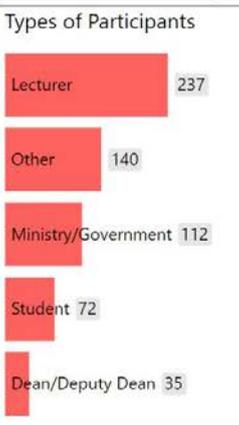
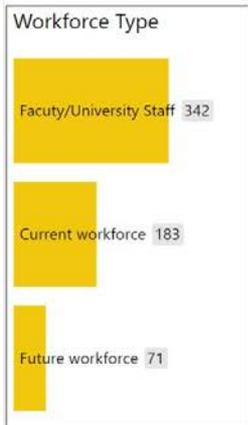
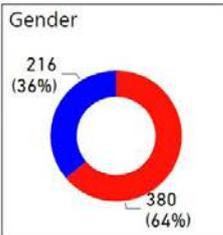


THOHUN was established in 2012 by Mahidol University and Chiang Mai University. By 2018, THOHUN has grown its membership to 60 faculties of 10 Thai lead universities. Mahasarakham University, Walailak University, and Chulabhorn Royal Academy have recently expressed their interest to join the network in this year.

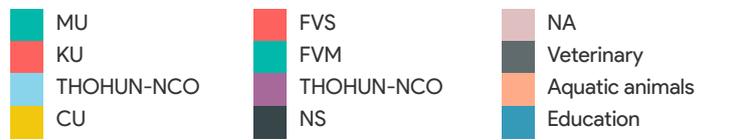


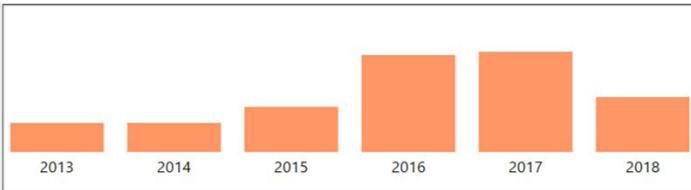
Number of Activities  
**17**

Number of Participants  
**596**



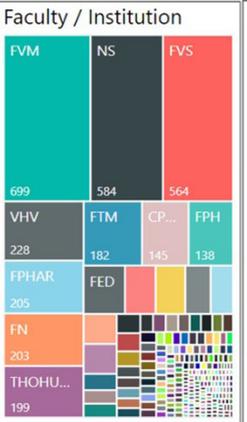
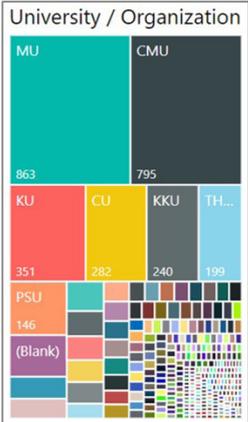
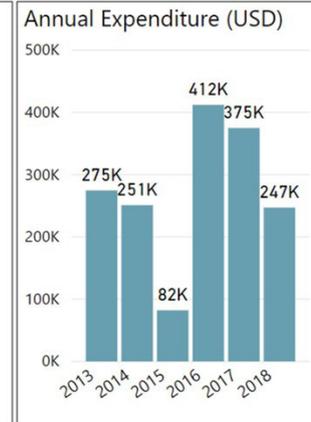
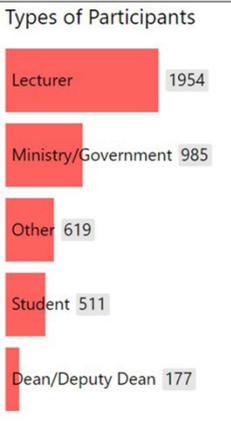
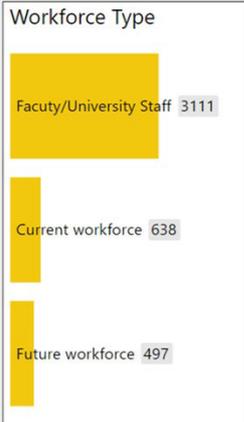
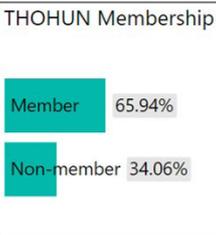
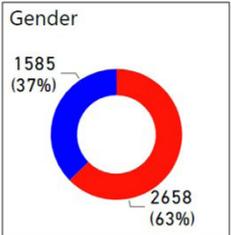
# Big data analytics of THOHUN activities (2018)





Number of Activities  
**107**

Number of Participants  
**4246**



# Big data analytics of THOHUN activities (2013-2018)



# PUBLICATIONS

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29 articles on One Health implementations of THOHUN have published  
in the Southeast Asian Journal of Tropical Medicine and Public Health  
Volume 49 (Supplement 1) 2018

# THAILAND ONE HEALTH UNIVERSITY NETWORK NEWSLETTER

YEAR 2018 VOLUME 1

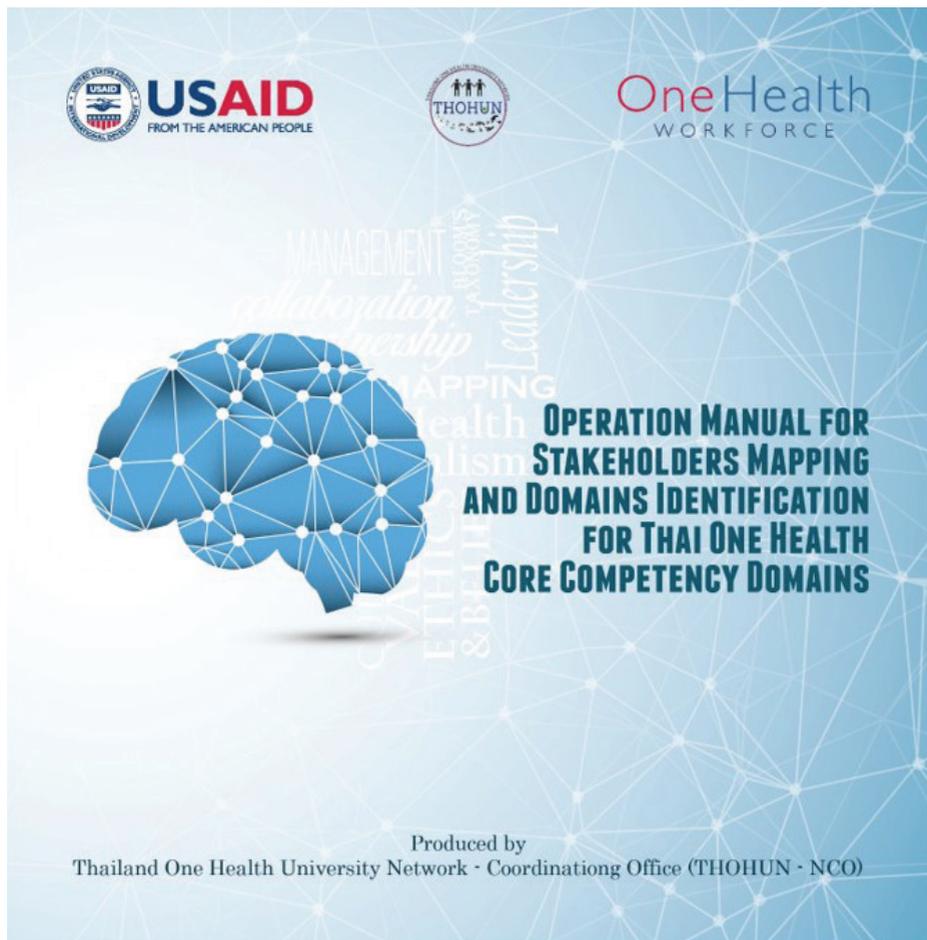


OneHealth  
WORKFORCE

***REAL-TIME EXCHANGE  
COMMUNITY ENGAGEMENT  
AND COMMUNICATION  
COLLABORATE AND ACT  
RISK REDUCTION***



Newsletter Year 2018 on Rabies Risk Communication



Operation Manual for Stakeholder Mapping and Identification of One Health Core Competencies for Current Thai Workforce



Manual of Rational Drug Usage in Small Animals/  
Aquatic Animals/ Ruminants



# *Antimicrobial Stewardship*

and Antimicrobial Resistance in Animals

การใช้ยาต้านจุลชีพและการดื้อยาในสัตว์

Antimicrobial Stewardship and Antimicrobial  
Resistance in Animals Book

# เครือข่ายมหาวิทยาลัย สุขภาพหนึ่งเดียวแห่งประเทศไทย



เครือข่ายมหาวิทยาลัยไทยด้านสุขภาพหนึ่งเดียว  
ที่แข็งแกร่งและยั่งยืนภายใต้ 2563

พัฒนาความสัมพันธ์ของ 5 รั้ว



นำความรู้จากภาคีภาคี  
หรือที่รู้จักกันในนาม



หลักสูตรที่สนับสนุนการดำเนินงาน



เครือข่ายสุขภาพหนึ่งเดียวแห่งประเทศไทย (THOHUN) ได้จัดตั้งขึ้นในประเทศไทยอย่างเป็นทางการเมื่อเดือนสิงหาคม พ.ศ. 2555 ปัจจุบัน สนับสนุนโดยโครงการพัฒนากำลังคนกำลังคนทางด้านสุขภาพหนึ่งเดียว (One Health Workforce) ภายใต้การสนับสนุนของกรรพการพัฒนาระหว่างประเทศแห่งสหรัฐอเมริกาหรือยูเอสเอไอ (United States Agency for International Development) เป็นพันธมิตรพัฒนาระบบงานด้าน "สุขภาพหนึ่งเดียว (One Health)" ในระดับภูมิภาค ระดับประเทศ และระดับโลก เพื่อให้เกิดการมีงานในควบคุมและการตอบสนอง วัตถุประสงค์หลักที่นำออกเพื่อประสิทธิภาพ แนวคิดด้านสุขภาพหนึ่งเดียวในกลยุทธ์ระดับโลกในการขยายงานรับมือและการสื่อสารของผู้นับถืองานจากสาขาวิชาชีพทางด้านสุขภาพ

### ภาคีเครือข่าย

รวมถึงพันธมิตรจากหลายสาขา เช่น มหาวิทยาลัยทิวส์ (Tufts University) มหาวิทยาลัยแห่งรัฐมินเนโซตา (University of Minnesota) และเครือข่ายมหาวิทยาลัยสุขภาพหนึ่งเดียวแห่งวิทยาลัยเซนต์จอห์นส์ (SEAOHUN) มุ่งเน้นการฝึกอบรมนักศึกษา หรือที่รู้จักในชื่อภาคี และส่งเสริมความสามารถในการเตรียมที่ปรึกษา การดำเนินงานและแผนการบูรณาการภายใต้แนวคิด "สุขภาพหนึ่งเดียว" ในประเทศไทย

### การสื่อสารความเสี่ยง

ด้านพิษสุนัขบ้า สนับสนุนโดยเครือข่ายมหาวิทยาลัยสุขภาพหนึ่งเดียวแห่งประเทศไทย



จัดตั้งทีมผู้เชี่ยวชาญจากหลายวิชาชีพ เพื่อพัฒนาหลักสูตรฝึกอบรมเกี่ยวกับ การสื่อสารความเสี่ยงจากโรคพิษสุนัขบ้า



ผลิตโครงการฝึกอบรมที่มีคุณภาพสูงเพื่อสร้างความตระหนักรู้ของชุมชนและประชาชนเกี่ยวกับบทบาทที่เชื่อมโยงกันของภาคีที่เกี่ยวข้องในสัตว์และคนในการสื่อสารความเสี่ยงอันเป็นยุทธศาสตร์หลัก



สถานการณ์พิษสุนัขบ้าที่ต่อเนื่องยังคงมีอยู่ สถานการณ์ต่างๆ เช่น COVID-19 ซุนัข โรงเรือน 2x และชุมชนการขยายในเขตกรุงเทพมหานครและบริเวณใกล้เคียงมีความกังวลใจ



โครงการอบรมเร่งด่วนด้านการรับมือกับภาวะฉุกเฉินและการสื่อสารความเสี่ยงจากโรคพิษสุนัขบ้า ไม่ควรให้คนเลี้ยงดูการด้านสุขภาพและด้านอื่นๆ โดยหน่วยงานด้านสุขภาพระดับปฎิบัติการในโรงพยาบาล

## พิษสุนัขบ้า กิยร้ายจากเพื่อนที่ดีที่สุดของมนุษย์

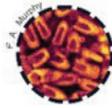
สามารถตายได้ภายในหนึ่งสัปดาห์หากไม่ได้รับวัคซีน

### หากถูกกัด ทำอย่างไร

- ล้างแผลทันที นาน 15 นาทีด้วยน้ำฟอกและสบู่
- รีบฉีดวัคซีนพิษสุนัขบ้าโดยทันที หากถูกกัดจนรุนแรงหรือใกล้สมองจำเป็นต้องฉีดวัคซีนในไขสันหลังด้วย
- ล้างสัตว์ที่กัด
- รีบฉีดวัคซีน

อย่างนั้นของใจหากสัตว์กัดหรือข่วนทันที

อาการเริ่มต้น  
เมื่อ  
ปวดหัว  
เริ่มมีอาการอาเจียน  
คลื่นไส้อาเจียน  
คอแข็ง  
ซึมลง  
นอนไม่หลับ  
ประสาทหลอน  
สิ้นหวัง



ติดต่อได้จากสัตว์ที่ติดเชื้อพิษสุนัขบ้า



โปรตีน-รับ นำลายของสัตว์ที่กัดเชื้อ



ศูนย์ประสานงานเครือข่ายมหาวิทยาลัยสุขภาพหนึ่งเดียวแห่งประเทศไทย  
ใน 9 จังหวัดบนภาคเหนือและ 420/6 บนพื้นที่ สนับสนุนโดย: สถาบันสุขภาพ  
สัตว์: ThaiRac One Health University Network

# CHALLENGES & LESSON LEARNED

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Thailand One Health University Network (THOHUN) was established from this notion as part of Emerging Pandemic Threats (EPT) launched by United State Agency for International Development (USAID) Emerging Pandemic Threats program in 2012. In year 4, THOHUN's worked together with our member universities to achieve the goal in developing health professionals. More than 100 participants were trained based on One Health approach through various activities. They improved their expertise and experience in fieldwork and workshop with skilled facilitators. Moreover, studying on e-learning platform is challenged for THOHUN. In international short course on ecosystem health (THOHUN-TELI), THOHUN created an e-learning course for participants. We found that participants were enthusiastic to learn in our website. However, some of content in the e-learning course has to improve in term of lecture presentation and reference. The improvement should include maintenance of our website.

Collaboration among participants in every workshop is challenge for THOHUN as well. To encourage the participants, THOHUN as an organizer had to prepare the activities that suitable for each of participants group based on their experience and knowledge. We found that good communication and management were an important role in successful of activities target. After workshops, participants made the new collaboration to each other to work against and prevent the outbreak in Thailand with multidiscipline knowledge. This is our big success to bring persons from multisector which correlate in the One Health approach according to the Memorandum of Understanding on the Implementation of One Health Initiative for National Health Security. We believe that the collaboration and communication still be our challenges to improve THOHUN activities next year.

**GARELLY**











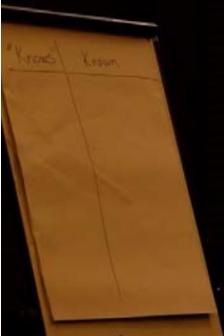




General Education  
**01999051**

# Development of Core Competency Through One Health

Prabpai  
2017 @ AMARI HUAHIN







# Acronyms

AMR	Antimicrobial resistance
AMU	Antimicrobial usage
BMA	Bangkok Metropolitan Administration
CU	Chulalongkorn University
EID	Emerging infectious disease
EPT	Emerging Pandemic Threats
FTM-MU	Faculty of Tropical Medicine, Mahidol University
FVM	Faculty of Veterinary Medicine
FVS	Faculty of Veterinary Science
GHSA	Global Health Security Agenda
IHR	International Health Regulations
JEE	Joint External Evaluation
KU	Kasetsart University
Lao PDR	Lao People's Democratic Republic
MOE	Ministry of Education
MU	Mahidol University
MyOHUN	Malaysia One Health University Network
NA	Not applicable
NS	Not specified
OH	One Health
OHCCs	One Health core competencies
OHW	One Health Workforce
PVS	Performance of Veterinary Services
SEAMEO TROPMED Network	Southeast Asian Ministers of Education Tropical Medicine and Public Health Network
THOHUN	Thailand One Health University Network
THOHUN-NCO	Thailand One Health University Network - National Coordinating Office
USAID	United States Agency for International Development
VHV	Village Health Volunteer
VOHUN	Vietnam One Health University Network





