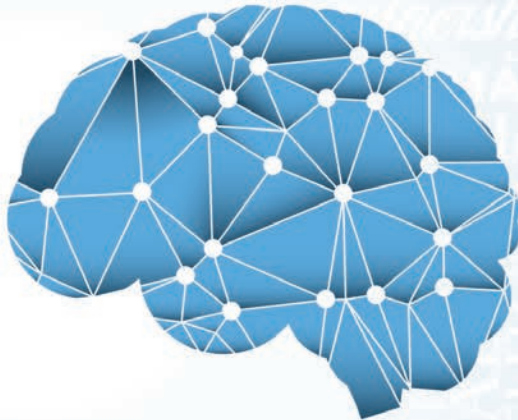




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OneHealth
WORKFORCE



**OPERATION MANUAL FOR
STAKEHOLDER MAPPING
AND IDENTIFICATION OF
ONE HEALTH CORE COMPETENCIES
FOR CURRENT THAI WORKFORCE**

Produced by
Thailand One Health University Network - National Coordinating Office



OPERATION MANUAL FOR STAKEHOLDER MAPPING AND IDENTIFICATION OF ONE HEALTH CORE COMPETENCIES FOR CURRENT THAI WORKFORCE

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2017

BACKGROUND

The mapping and identification of the One Health Core Competencies (OHCCs) was developed by the Thailand One Health University Network (THOHUN) in close consultation with the One Health Collaboration Network (OHCN) that consists of the 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 Society.

The development of the OHCCs was carried out in two stages. The first stage was carried out in the first quarter of 2016 after the formalization of the OHCN through the Memorandum of Understanding on the Implementation of One Health Initiative for National Health Security by the 8 participating organizations. Six OHCC domains were identified in this process which has been approved by the National Emerging Infectious Disease Board and incorporated as a platform for OH workforce development in the Operational plans under the MoU (2017-2021). The second stage was carried out a year later by representatives from the OHCN where the 6 identified OHCC domains were reviewed, defined, and described in detail.

The development of the OHCC domains and other related documents were made available for stakeholders in academic institutions, governmental organizations, and the private sector who have interest in utilizing the identified OHCC domains as a training guideline for One Health capacity building. In addition, this manual outlines how to map the roles of various sectors to facilitate multi-sectoral coordination and collaboration.

The author would like to acknowledge Dr. Stanley Fenwick, Dr. Felicia Nutter, Dr. Katherine Waters and Mr. Irwin F. Chavez who have contributed in the planning and facilitating of the workshops. This project was funded by the One Health Workforce Project of the Emerging Pandemic Threats Program 2 of the United States Agency for International Development.

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CONTENTS

	Title	Page
Chapter I	Procedures to develop One Health Core Competency Domains.....	1
Chapter II	Development of detailed One Health Core Competencies for current Thai workforce.....	20
Chapter III	One Health Core Competencies: Guidelines for target-specific capacity building of health officers, practitioners and professionals involved in detection, prevention, surveillance, control and response of infectious threats for OH implementation for National Health Security.....	25
Chapter IV	Roles and responsibilities and the stakeholder map of each target group during a Highly Pathogenic Avian Influenza outbreak.....	44

CHAPTER I

PROCEDURES TO DEVELOP
ONE HEALTH CORE COMPETENCY DOMAINS

MANAGEMENT
*collaboration
& partnership*
STAKEHOLDER MAPPING
One Health
Professionalism
CULTURE
VALUE
ETHICS
& BELIEF
BLOOMINGDALE
TAXONOMY
Leadership

1. Prior to the workshop, mapping of core (**Table 1**) and functional competencies (**Table 2**) of the seven ministries and the Thai Red Cross Society was performed by the THOHUN-NCO to identify common competency domains listed below
 - 1.1 Service mind (การบริการที่ดี)
 - 1.2 Profession/expertise (การสั่งสมความเชี่ยวชาญในงานอาชีพ)
 - 1.3 Culture, Value and Ethics (วัฒนธรรม คุณค่า และจริยธรรม)
 - 1.4 Collaboration & Partnership (การทำงานร่วมกัน)
 - 1.5 Leadership (การมีภาวะผู้นำ)
 - 1.6 Planning & Management (การวางแผน และการบริหารจัดการ)
 - 1.7 Systems thinking (การคิดเชิงระบบ)
 - 1.8 Professional capacity development (การมุ่งพัฒนาความรู้ความสามารถทางวิชาชีพ)
2. Desired characteristics, core, and functional competencies common among these governmental partners were listed and modified to be “**Competency Domains**” defined as a category or group of knowledge, skills, behavior and, attitude that everyone must have.
3. A survey regarding common core competencies that resulted from the mapping was administered to the members of the seven ministries and the Thai Red Cross Society.
4. Approximately 50 participants representing six Ministries that belong to “**The One Health Collaboration Network (OHCN)**” including representatives from THOHUN university members participated in a 2-day workshop to identify One Health Core Competency Domains of Thailand’s current workforce.
5. On the first day of the workshop, participants were informed of Thailand’s OHCC domains previously identified together with survey results as starting materials to develop OHCC Domains for current workforce.
6. Scenarios on emerging outbreaks of Avian Flu and Rabies in neighboring countries and Thailand were given to the participants.

7. Participants were grouped by ministry/organization to discuss possible roles and responsibilities as well as previously identified competencies required of current workforce to effectively prevent, control and respond to disease outbreaks.
8. Representatives from the 7 groups were tasked to discuss and identify the sets of knowledge, skills and behaviors/attitudes or **OHCC domains** required for multidisciplinary and multi-sectoral collaboration within the One Health Collaboration Network to achieve effective prevention, control, and response to emerging infectious diseases (EID) or national health security.
9. OHCC domains that emerged from the group discussion are listed on **Table 3**. In the second workshop, participants from various ministries were divided into 4 groups to intensively review and criticize the OHCC domains developed. The groups brainstormed to reach a consensus on the critical OHCC domains.



Table 1. Original Core Competencies of Thai ministry staff

Ministry of Agriculture and Cooperatives	Ministry of Natural Resources and Environment	Ministry of Social Development and Human Security	Ministry of Interior
1. การมุ่งผลสัมฤทธิ์ (Achievement Motivation)	1. การมุ่งผลสัมฤทธิ์ (Achievement Motivation)	1. จิตมุ่งบริการ	1. การมุ่งผลสัมฤทธิ์
2. การบริการที่ดี (Service Mind)	2. การบริการที่ดี (Service Mind)	2. พัฒนาดนอย่างต่อเนื่อง	2. การบริการที่ดี
3. การสั่งสมความเชี่ยวชาญในงานอาชีพ (Expertise)	3. การสั่งสมความเชี่ยวชาญในงานอาชีพ (Expertise)	3. ทำงานอย่างมีส่วนร่วม	3. การสั่งสมความเชี่ยวชาญในงานอาชีพ
4. การยึดมั่นในความถูกต้องชอบธรรม และจริยธรรม (Integrity)	4. การยึดมั่นในความถูกต้องชอบธรรม และจริยธรรม (Integrity)	4. มีคุณธรรม	4. จริยธรรม
5. การทำงานเป็นทีม (Teamwork)	5. การทำงานเป็นทีม (Teamwork)	5. มุ่งผลสัมฤทธิ์	5. ความร่วมแรงร่วมใจ
			6. การประสานงาน

Ministry of Labor	Ministry of Education	Ministry of Public Health	Thai Red Cross Society
1. ด้านภาษาต่างประเทศ (ภาษาอังกฤษ และภาษา อาเซียน)	1. การมุ่งผลสัมฤทธิ์ (Achievement Motivation)	1. การมุ่งผลสัมฤทธิ์	1. การบริการที่ดี (Service with Heart)
2. เทคโนโลยีสารสนเทศ ความรู้ เกี่ยวกับอาเซียน ทักษะคิดใน การทำงาน การบริหารองค์กร	2. การบริการที่ดี (Service Mind)	2. การบริการที่ดี	2. คุณธรรมจริยธรรม (Moral & Ethics)
3. การพัฒนาทักษะหลากหลาย ด้าน (Multi-Skill Development)	3. การสั่งสมความเชี่ยวชาญในงาน อาชีพ (Expertise)	3. การสั่งสมความเชี่ยวชาญในงาน อาชีพ	3. การเรียนรู้และพัฒนาตนเอง อย่างต่อเนื่อง (Active Learning)
4. การพัฒนาทักษะเฉพาะด้าน อุปสงค์ Specific Skill (On-Demand) Develop- ment	4. การยึดมั่นในความถูกต้องชอบ ธรรม และจริยธรรม (Integrity)	4. การยึดมั่นในความถูกต้องชอบ ธรรมและจริยธรรม	4. การมุ่งผลสัมฤทธิ์ (Result Oriented)
	5. การทำงานเป็นทีม (Teamwork)	5. การทำงานเป็นทีม	5. การทำงานเป็นทีม (Team Success)

Table 2. Original Functional Competencies of Thai Ministry staff

Ministry of Agriculture and Cooperatives	Ministry of Natural Resources and Environment	Ministry of Social Development and Human Security	Ministry of Interior
1. การคิดวิเคราะห์ (Analytical Thinking)		1. จิตสำนึกในการให้ความช่วยเหลือ	1. การมองภาพองค์รวม (Strategic Thinking)
2. การมองภาพองค์รวม (Conceptual Thinking)		2. พินิจและคุ้มครองสิทธิผู้ใช้บริการ	2. ความยืดหยุ่น (Flexibility)
3. การใส่ใจและพัฒนาผู้อื่น (Caring for others)		3. สามารถปฏิบัติงานภายใต้ภาวะกดดัน	3. ความคิดริเริ่มสร้างสรรค์ (Creativity and Talent)
4. การสั่งการตามอำนาจหน้าที่ (Accountability)		4. การจัดการข้อมูล	4. การมุ่งประโยชน์และแสวงหาความร่วมมือจากประชาชน (Community and Customer Focus)
5. การสืบเสาะหาข้อมูล (Information Seeking)		5. การบริหารจัดการเครือข่ายทางสังคม	5. ความอดกลั้น (Resilience)

Ministry of Labor	Ministry of Education	Ministry of Public Health	Thai Red Cross Society
	1. การเตรียมแผนการสอนที่สอดคล้องกับวิสัยทัศน์และพันธกิจของโรงเรียน	1. พฤตินิสัย เจตคติคุณธรรม และ จริยธรรมแห่งวิชาชีพ (Professional habits, attitudes, moral, and ethics)	1. การบริหารจัดการที่มีประสิทธิภาพ
	2. การสร้างสภาพแวดล้อมการเรียนรู้	2. ทักษะการสื่อสารและการสร้างสัมพันธภาพ (Communication and interpersonal skills)	2. การบริหารการเปลี่ยนแปลง
	3. การพัฒนาและใช้ทรัพยากรสำหรับการเรียนการสอน	3. ความรู้พื้นฐานทางการแพทย์ (Scientific knowledge of medicine)	3. การบริหารความขัดแย้ง
	4. การพัฒนาทักษะการจัดลำดับการคิดระดับสูง	4. การบริบาลผู้ป่วย (Patient care)	4. เทคนิคการนำเสนอ
	5. การอำนวยความสะดวกการเรียนรู้	5. การสร้างเสริมสุขภาพ และระบบบริบาลสุขภาพ: สุขภาพของบุคคล ชุมชน และประชาชน (Health promotion and health care system: individual, community and population health)	

Ministry of Agriculture and Cooperatives	Ministry of Natural Resources and Environment	Ministry of Social Development and Human Security	Ministry of Interior
6. ความเข้าใจข้อแตกต่างทางวัฒนธรรม (Cultural Sensitivity)		6. การจัดการความรู้	
7. ความเข้าใจผู้อื่น (Interpersonal Understanding)		7. การบริหารจัดการงานสังคมสงเคราะห์ทางการแพทย์และสาธารณสุข	
8. ความเข้าใจองค์กรและระบบราชการ (Organizational Awareness)		8. การส่งเสริมศักยภาพและการป้องกันปัญหาทางสังคม	
9. การดำเนินการเชิงรุก (Proactiveness)		9. การให้บริการช่วยเหลือผู้ใช้บริการสังคมสงเคราะห์	
10. การตรวจสอบความถูกต้องตามกระบวนการ (Concern for Order)		10. การฟื้นฟูสภาพของผู้ใช้บริการสังคมสงเคราะห์	

Ministry of Labor	Ministry of Education	Ministry of Public Health	Thai Red Cross Society
	6. การส่งเสริมค่านิยมด้าน ศีลธรรมและจริยธรรม	6. การพัฒนาความรู้ความสามารถ ทางวิชาชีพอย่างต่อเนื่อง (Continuous professional development)	
	7. ส่งเสริมการพัฒนาชีวิตและ ทักษะวิชาชีพแก่ผู้เรียน	Nurse	
	8. การวัดและประเมินพฤติกรรม ของผู้เรียน	1. Clinical judgment ตัดสินใจ ทางคลินิก	
	9. การพัฒนาด้านวิชาชีพ	2. Advocacy and Moral Agen- cy ช่วยเหลือและสนับสนุน หน่วยงาน จริยธรรม	
	10. การสร้างเครือข่ายกับ ผู้เกี่ยวข้องโดยเฉพาะ ผู้ปกครองนักเรียน	3. Caring Practices ดูแลการ ปฏิบัติ	

Ministry of Agriculture and Cooperatives	Ministry of Natural Resources and Environment	Ministry of Social Development and Human Security	Ministry of Interior
11. ความมั่นใจในตนเอง (Self Confidence)			
12. ความยืดหยุ่นผ่อนปรน (Flexibility)			
13. ศิลปะการสื่อสารจูงใจ (Communication & Influence)			
14. คุณภาพทางศิลปะ (Aesthetic Quality)			
15. ความผูกพันที่มีต่อส่วนราชการ (Organizational Commitment)			
16. การสร้างสัมพันธ์ภาพ (Relationship Building)			

Ministry of Labor	Ministry of Education	Ministry of Public Health	Thai Red Cross Society
	11. การจัดสวัสดิการและภารกิจแก่นักเรียน	4. Collaboration การทำงานร่วมกัน	
		5. System Thinking การคิดอย่างเป็นระบบ	
		6. Response to Diversity การตอบสนองต่อความหลากหลาย	
		7. Facilitation of Learning กระตุ้นการเรียนรู้	
		8. Clinical Inquiry (Innovator/Evaluator)	
		Pharmacists	
		1. การให้ความสำคัญกับลูกค้า/ Customer Focus	

Ministry of Labor	Ministry of Education	Ministry of Public Health	Thai Red Cross Society
		2. การมุ่งเน้นผลสัมฤทธิ์/ Result based	
		3. มุ่งการเรียนรู้และพัฒนาอย่างต่อเนื่อง/ Continuous Learning and Improvement	
		4. การทำงานเป็นทีม/ One Team	
		5. ความซื่อสัตย์/ (Integrity)	
		Public Health Officers	
		1. ด้านการวิเคราะห์ระบบงาน สาธารณสุขฯ	
		2. ด้านการวิเคราะห์และการวางแผน	
		3. การทำงานเป็นทีม	

Ministry of Labor	Ministry of Education	Ministry of Public Health	Thai Red Cross Society
		<p>4. งานบริการสาธารณสุขแบบผสมผสานฯ</p> <ul style="list-style-type: none"> - การส่งเสริมสุขภาพเพื่อปรับเปลี่ยนพฤติกรรม - การเฝ้าระวังป้องกันและควบคุมโรค - อนามัยสิ่งแวดล้อมและงานคุ้มครองผู้บริโภค - การรักษาพยาบาลเบื้องต้นและการฟื้นฟู 	
		<p>5. การบริหารจัดการงบประมาณ</p>	
		<p>6. ภาวะผู้นำและการคิดอย่างเป็นระบบ</p>	
		<p>7. งานวิจัยจากงานประจำ</p>	
		<p>8. คุณธรรม จริยธรรม</p>	

Table 3. One Health Competency domains from brainstorming (Day 1)

Group 1	Group 2	Group 3	Group 4
Management for Achievement	Planning, Management & System Thinking	Planning, Management & System thinking	Planning & Management
-	-	-	-
Profession	Profession/ Expertise/ Development	Knowledge/ Profession/ Expertise	-
Culture, Value, Ethics	Culture, Value, Ethics	-	Culture, Value, Ethics
Collaboration & Partnership	Collaboration & Partnership	Collaboration & Partnership, Communication	Collaboration, Partnership, Leadership
Communication	Communication & Informatics	-	Communication & Informatics
System thinking Leadership	Leadership	Leadership	-
-	Service Mind	-	-
-	-	-	-
-	-	Policy & Regulation	-
-	-	-	-
-	-	-	-
-	-	-	-

Table 3. One Health Competency domains from brainstorming (continuation)

Group 5	Group 6	Group 7
Planning & Management	Planning & Management	Planning & Management
System thinking	System thinking	System thinking
-	-	Expertise & Professional development
Integrity	Culture, Value, Ethics	Culture, Value, Ethics
Collaboration	Collaboration & Partnership	Collaboration & Partnership & Service Mind
Communication Skill	Communication & Informatics	-
Leadership	Leadership	Leadership
Service Mind	-	-
Achievement motivation	-	-
-	-	-
Mastery	-	-
-	One Health Knowledge	-
-	-	Information Technology

Table 4. Domains or clusters of the most commonly identified One Health competency domains and subdomains (Day 2)

	Group 1	Group 2	Group 3	Group 4	Common domains
1	Profession, expertise and development	Professional and inter-professional knowledge	Profession, expertise and development	One Health Knowledge (Profession and expertise)	One Health Professionalism # One Health Knowledge: profession, inter-professional knowledge, expertise and development # Soft skills: service mind, systems thinking, achievement motivation, public mind
2	Communication, informatics and information technology	Communication, informatics	Communication, informatics	Communication, informatics Sub: Service mind	Communication & Informatics Subdomain: information technology
3	Culture, values and ethics	Culture, values and ethics	Culture, values and ethics	Culture, values and ethics (Belief)	Culture, values, ethics & belief
4	Collaboration & partnership Subdomain : Collective leadership	Collaboration and partnership	Collaboration & partnership	Collaboration & partnership	Collaboration & Partnership Subdomain : Collective leadership
5	Leadership	Leadership	Leadership	Leadership	Leadership
6	Planning and management	Management Subdomain: Planning, Management, Monitoring & evaluation and Systems thinking	Planning & management	Planning & management	Planning & Management Subdomain: Planning, Management Subdomain: Management, Monitoring & Evaluation, Systems thinking



Figure 1. OHCC domains of Thailand's current workforce

These are crucial in initiating and sustaining collaborative efforts of current Thai workforce for the prevention, detection, surveillance, control and response of EIDs. (Table 4 and Figure 1).

1. Dr. Katherine Waters presented the definition of core competencies and their domains and how to develop a scope or definition for each domain.
2. Each group was assigned to formulate the suitable definition for two domains and then presented their results to the whole group.
3. Suggestions and comments from other participants were considered to modify each group's domain definitions.
4. The final definitions of six OHCC domains for the current Thai workforce are shown on Table 5.
5. The six OHCC domains and their definitions were evaluated and approved by the National EID Board of Thailand and added into the Operational Plan (2017 – 2021) in accordance with the memorandum of understanding (MoU) on the Implementation of One Health Initiative for National Health Security.
6. These OHCC Domains would serve as a framework for capacity development of the current Thai workforce ministries signatory to the MoU plus the Thai Red Cross Society for the next five years.

Table 5. Definitions of OHCC domains (translated from Thai)

OHCC Domain	Definition
One Health Professionalism	The ability to effectively apply, integrate and transfer One Health knowledge consisting of profession, inter-profession, expertise and development, and soft skills including service mind, public mind, systems thinking and achievement motivation
Leadership	The ability to create and communicate a shared trans-disciplinary vision and common decisions to motivate and inspire members in order to optimize problem solving, organize, manage and foster One Health activities. (Open mind)
Communication & Informatics	The ability to effectively communicate and process information's across One Health personnel and stakeholders in all sectors.
Culture, Values, Ethics & Beliefs	The ability to understand, respect and recognition difference cultures, languages, religions, opinions and contexts for achievement in a One Health network and stakeholders covering all sectors of the economic dimension, society and culture
Collaboration & Partnership	The ability to identify, recruit, and work with partners that are diverse and integrated across multiple disciplines within and between departments to achieve maximum efficiency in One Health.
Planning & Management	The ability to set goals, plan, design, implement, monitor; and evaluate systematically to achieve maximum efficiency in One Health goal.

CHAPTER II

DEVELOPMENT OF DETAILED ONE HEALTH
CORE COMPETENCIES FOR CURRENT THAI WORKFORCE

MANAGEMENT
*collaboration
& partnership*
STAKEHOLDER MAPPING
One Health
Professionalism
CULTURE
VALUE
ETHICS
& BELIEF
TAXBLOOM'S
Leadership

In 2016 (Year 2 of the One Health Workforce project), six OHCC domains for current Thai workforce or health officers, practitioner/professionals and other ministry staff, involved in prevention, control, and response of infectious threats were identified. These domains include 1) One Health Professionalism, 2) Communication and Informatics, 3) Culture, Values, Ethics and Beliefs, 4) Collaboration and Partnership, 5) Leadership and 6) Planning and Management. In Year 4, OHCCs in each of the six domains were defined during a 2-day workshop among current workforces from eight member ministries/organizations within the OHCN. These OHCCs will serve as specific guidelines for capacity building of current workforces. According to the Operational Plans, Thailand identified nine (9) target workforces for OH implementation:



Participants were divided into 6 role playing groups with representation from each ministry. Each group selected a target workforce to work on.

Participants were asked to brainstorm and identify the roles of each organization with the selected target workforce and identify stakeholders who might be involved with the target workforce, and draw their connection (see chapter IV) among them.

OHCCs and their levels were defined using proper action verbs according to Bloom's Taxonomy for development of an expected learning outcome of learners/students.



The Highly Pathogenic Avian Influenza (HPAI) outbreak scenario was given to the participants.

Each group defined the One Health competencies and technical skills necessary at different levels for each organization (stakeholder) for surveillance, presentation and control of HPAI outbreak using Thailand One Health Core Competencies for students as a guideline.

Bloom's Taxonomy of Educational Objectives

One of the most widely used methods of organizing levels of expertise (Figure 2) is according to Bloom's Taxonomy of educational objectives. Bloom's Taxonomy uses a multi-tiered scale or various action verbs (Table 6) to express the level of expertise required to achieve a measurable outcome of learners. Organizing measurable outcomes this way will allow teachers or trainers to select appropriate classroom assessment techniques for each course.

Bloom's Taxonomy

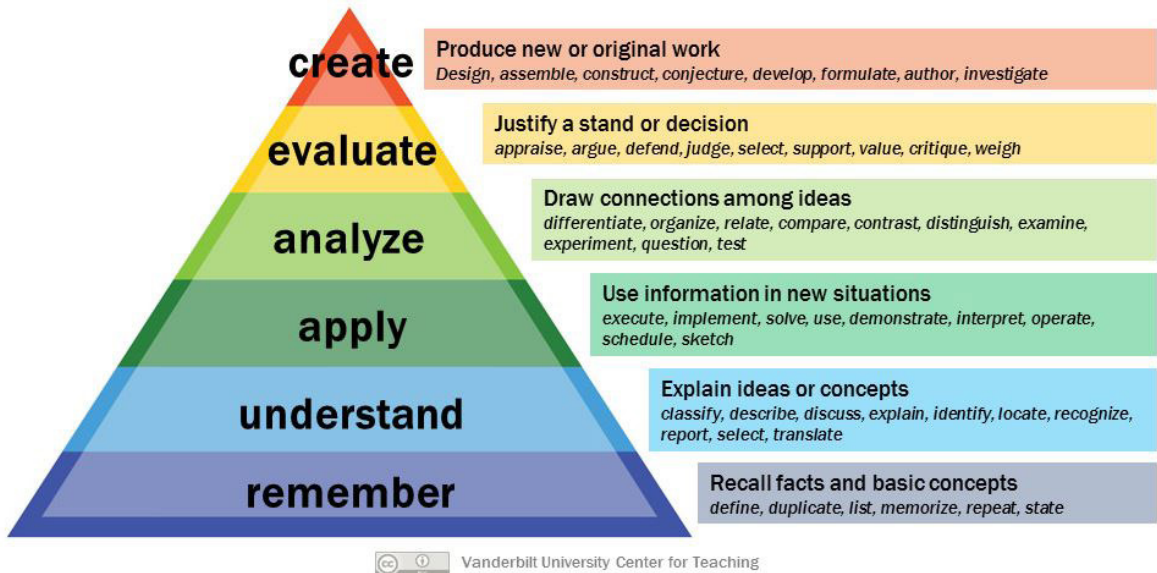


Figure 2: Learning levels according to Bloom's Taxonomy and verb
(<https://cft.vanderbilt.edu/guides-sub-pages/blooms-taxonomy/>)

Table 6. Levels of Bloom’s Taxonomy and their action verbs¹

Level	Responds to the Question	Action Verbs
Remembering	Can the person explain an idea/concept?	Identify, list, define, name, present, write, reproduce, repeat, match extract, organize
Understanding	Can the person use the knowledge in a familiar context?	Interpret, exemplify, summarize, judge, reformulate, report, find, name classify, paraphrase, explain
Applying	Can the person use knowledge in an unfamiliar context?	Apply, practice, resolve, select, explain how, modify
Analyzing	Can the person identify the essential/important points?	Compare, contrast, examine, categorize, justify, breakdown
Evaluating	Can the person make justified assessment or conclusion?	Judge, conclude, compare, justify, interpret
Creating	Can the person create new ideas, viewpoints or products?	Design, devise, produce, develop, generate, derive

¹Source: <http://www.fresnostate.edu/academics/oie/documents/assessments/Blooms%20Level.pdf>

CHAPTER III

ONE HEALTH CORE COMPETENCIES: GUIDELINES FOR TARGET-SPECIFIC CAPACITY BUILDING OF HEALTH OFFICERS, PRACTITIONERS AND PROFESSIONALS INVOLVED IN DETECTION, PREVENTION, SURVEILLANCE, CONTROL AND RESPONSE OF INFECTIOUS THREATS FOR OH IMPLEMENTATION FOR NATIONAL HEALTH SECURITY

MANAGEMENT
collaboration
& partnership
STAKEHOLDER MAPPING
One Health
Professionalism
CULTURE
VALUE
ETHICS
& BELIEF
BLOOMING
TAXONOMY
Leadership

3.1 OHCCs FOR MASTER TEACHERS AND TEACHERS

ONE HEALTH PROFESSIONALISM	Master Teacher	
	Novice level:	Able to effectively label and define One Health knowledge which consists of profession, inter-profession, expertise and development through soft skills such as service mind, public mind, systems thinking and motivation achievement.
	Teacher	
	Novice level:	Able to effectively label and define One Health knowledge which consists of profession, inter-profession, expertise and development through soft skills such as service-mindedness and high regard for public service, systems thinking and motivation achievement.
LEADERSHIP	Master Teacher	
	Mid-level:	<ul style="list-style-type: none"> - Able to operate interdisciplinary communication to reach One Health team goals - Able to negotiate and appreciate the roles and responsibilities among disciplines in One Health team, related stakeholders and teachers - Able to create the motivation and awareness on infectious disease preparation to others
	Teacher	
	Novice level:	<ul style="list-style-type: none"> - Able to recognize the professional and cultural diversities among disciplines in a One Health team - Able to explore the motivation behind participation, withdrawal or replacement of a stakeholder's representatives and take corrective actions as necessary
	Mid-level:	<ul style="list-style-type: none"> - Able to operate within an interdisciplinary communication system to reach the goals of a One Health team - Able to negotiate and appreciate the roles and responsibilities among disciplines in a One Health team, stakeholders, and other teachers
	Expert level:	<ul style="list-style-type: none"> - Able to develop inter-professional relationships among One Health staff - Able to create transdisciplinary activities in One Health projects - Able to formulate the strategic and problem solving plans related to One Health issues

COMMUNICATION & INFORMATICS

Master Teacher

Mid-level:

- Able to disseminate and customize information education communication (IEC) materials, apply various communication media approaches, motivate teaching and willingness to learn new technologies related to infectious disease outbreaks.
- Practice active communication skills that enable to transfer the necessary knowledge and information to teachers.
- Apply knowledge management techniques and use fundamental information methods.

Teacher

Expert level:

- Able to communicate between master teachers and students/parents with different levels of One Health knowledge, so that teachers can justify information and culture & beliefs; organize effective data management as well as to develop appropriate knowledge management strategies.
- Able to present risk communication.

CULTURE, VALUES, ETHICS
& BELIEFS

Master Teacher

Novice level:

- Able to identify the norms and wisdom
- Be able to list differences and similarities from local to global cultures

Mid-level:

Be able to participate in every level of society and different cultures and evaluate One Health to local area

Teacher

Expert level:

Able to explore the impacts of culture and beliefs on One Health issues and implement One Health concepts to social leaders, including development of cultural sensibility

COLLABORATION
& PARTNERSHIP

Master Teacher

Mid-level:

- Able to select and implement appropriate strategies that promote effective collaboration, partnership and networking on infectious disease outbreak preparation.
- Able to solve unexpected problems regarding miscommunication and choose the proper communication method for different audiences.

Teacher

Mid-level:

Able to choose and implement appropriate strategies that promote effective collaboration, partnership and networking on infectious disease outbreak

PLANNING & MANAGEMENT

Master Teacher

Mid-level:

- Able to solve problems and adapt to situations related to infectious disease outbreaks by applying acquired knowledge, facts, techniques, and rules.
- Possess abilities to examine and break information into parts by identifying motives/ causes to attain One Health goals with maximum efficiency

Teacher

Expert level:

- Able to formulate goals and objectives of One Health programs
- Able to organize work plans, rate progress, asses needs, and evaluate the effectiveness of One Health programs

3.2 OHCCs FOR BUSINESSMEN, EMPLOYERS AND EMPLOYEES

Businessmen/employers

Not identified

Employee

Not identified

Ministry of Labor

Not identified

Ministry of Public Health

Expert level:

Be able to effectively compile, integrate, apply and transfer One Health knowledge consisting of profession, inter-profession, expertise and development by having soft skills including service mind, systems thinking, motivation achievement, etc.

Ministry of Education

Not identified

Ministry of Agriculture and Cooperatives

Not identified

Businessmen/employers

Not identified

Employee

Not identified

Ministry of Labor

Expert level:

Be able to create and communicate a shared-disciplinary vision and common decisions regarding infectious disease outbreaks and be ready to inspire workers to optimize problem solving, organize, manage and foster One Health activities

Ministry of Public Health

Not identified

Ministry of Education

Not identified

Ministry of Agriculture and Cooperatives

Not identified

Businessmen/employers

Mid-level:

- Able to effectively communicate and process information across One Health personnel and stakeholders
- Able to choose and simplify vital information and knowledge related to infectious disease to their employees
- Able to use fundamental information technology methods, i.e. labor registration, report of injury or disease, specify a Standard Operating Procedure (SOP)

Employee

Novice level:

- Be able to define and label the causes of diseases
- Be able to explain the basic information of infectious disease
- Be able to interpret the guidelines on disease preventions

Ministry of Labor

Expert level:

Able to effectively communicate and process information across One Health personnel and stakeholders

Ministry of Public Health

Not identified

Ministry of Education

Mid-level:

- Be able to disseminate and customize IEC, apply various communication media approaches, demonstrate the motivation approach's teaching and willingness to learn new technology related to infectious disease outbreak
- Practice active communication skills that enable the transfer of necessary knowledge and information to related stakeholders, i.e. local community, provincial leaders
- Applying knowledge management techniques and using fundamental information methods

Ministry of Agriculture and Cooperatives

Not identified

Businessmen/employers

Mid-level:

Able to coordinate with relevant stakeholders such as the Ministry of Labor (Department of Labor Protection and Welfare, Provincial Employment Office) and Ministry of Public Health to conduct the appropriate trainings for the employee in order to promote effective collaboration, partnership and networking on infectious disease outbreak preparation

Employee

Not identified

Ministry of Labor

Expert level:

- Be able to identify, recruit and work with partners
- Be able to integrate across multidiscipline both within and between departments to achieve ultimate goal in infectious disease outbreak prevention and sustainable collaboration network

Ministry of Public Health

Not identified

Ministry of Education

Mid-level:

Able to choose and implement appropriate strategies that promote effective collaboration with related stakeholders when needed

Ministry of Agriculture and Cooperatives

Not identified

3.3 OHCCs FOR RED CROSS SOCIETY MEMBER

ONE HEALTH PROFESSIONALISM	Red Cross Society Member	
	Mid-level:	Be able to apply and integrate One Health knowledge accord with situations in local community
LEADERSHIP	Red Cross Society Member	
	Expert level:	Be able to construct the strategies and formulate solutions to respond, prevent, and detect infectious diseases, as well as creating the activities in different professional fields
COMMUNICATION & INFORMATICS	Red Cross Society Member	
	Novice level:	Able to define and label levels of infectious disease outbreak situation
CULTURE, VALUES, BETHICS & BELIEFS	Red Cross Society Member	
	Mid-level:	Be able to understand, respect and recognize different cultures, languages, religions, opinions and contexts especially to local community including participate in local activities for achievement in One Health network and

COLLABORATION &
PARTNERSHIP

Red Cross Society Member

Mid-level:

Able to effectively build up a strong network among stakeholders to transmit the knowledge and information on infectious disease outbreak prevention to local people/ community during event/fair i.e. Red Cross Fair

PLANNING &
MANAGEMENT

Red Cross Society Member

Novice level:

Be able to define the situation regarding infectious disease outbreak situation, and classify related workforce to perform in real situation

3.4 OHCCs FOR LIVESTOCK PERSONNEL AND WORKERS AND FARMERS

ONE HEALTH PROFESSIONALISM	Livestock Personnel and Workers and Farmers	
	Expert level:	<ul style="list-style-type: none"> - Effectively create and disseminate strong OH network/structure - Able to transfer multidisciplinary experts into OH network
LEADERSHIP	Livestock Personnel and Workers and Farmers	
	Expert level:	<ul style="list-style-type: none"> - Able to motivate, inspire and foster OH team to eradicate/prevent avian influenza - Design collaborative activities and strengthen relationship among OH staff to control and prevent any outbreak
COMMUNICATION & INFORMATICS	Livestock Personnel and Workers and Farmers	
	Mid-level:	<ul style="list-style-type: none"> - Able to utilize surveillance data - Able to process and present data to difference audience
	Expert level:	To justify the information and communicate health messages to the public effectively (difficult to easy words) supporting an appropriate control and preparation strategy
CULTURE, VALUES, ETHICS & BELIEFS	Livestock Personnel and Workers and Farmers	
		Not identified

COLLABORATION & PARTNERSHIP

Livestock Personnel and Workers and Farmers

Expert level:

- To be able to choose effective person/network/ways/tools to promote the best collaboration & partnership
- To develop strategy/plan for a sustainable collaboration network for surveillance, control and prevention of bird flu

PLANNING & MANAGEMENT

Livestock Personnel and Workers and Farmers

Expert level:

- Be able to formulate goal and objective and action plan for control, prevention and surveillance of avian flu
- Be able to organize work plan for the surveillance, prevention, and control of avian flu
- Be able to evaluate and revise control, prevention and surveillance programs/plans

3.5 OHCCs FROM PERSONNEL OF WELFARE FOSTER HOUSE AND CHILDREN AND YOUTH COUNCIL AT PROVINCIAL AND DISTRICT LEVELS

ONE HEALTH PROFESSIONALISM	Administrative officer	
	Mid-level:	Apply and integrate One Health knowledge to foster homes and related stakeholders and integrate collaboration within the Ministry of Social Development and Human Security
	Multidisciplinary team	
	Expert level:	Adapt multidisciplinary knowledge/skills to disease surveillance in foster homes, related centers and stakeholders
LEADERSHIP	Administrative officer	
	Mid-level:	Communicate, negotiate and distinguish the importance of each Multidisciplinary sector
	Multidisciplinary team	
	Mid-level:	<ul style="list-style-type: none"> - Inspect the infectious disease outbreak within the organization - Analyze and present the infectious disease outbreak information/situation - List the choices of decisions to administrator

Administrative officer

Expert level:

- Justify the information regarding infectious disease outbreak prevention
- Manage the proper communication tools on infectious disease outbreaks across relevant stakeholders and local people to reduce apprehension in the society

Multidisciplinary team

Mid-level:

- Identify factual information related to infectious disease outbreak for appropriate communication among relevant stakeholders
- Transfer the knowledge of disease prevention and exchange data/information between relevant stakeholders for knowledge management (KM)

Expert level:

- Identify factual information related to infectious disease outbreak for appropriate communication among relevant stakeholders
- Transfer the knowledge of disease prevention and exchange data/information between relevant stakeholders for knowledge management (KM)

Administrative officer

Mid-level:

- Understand the workforce cultures within organizations and participate in their social activities
- Evaluate the achievement of One Health understanding and awareness among the local workforces

Expert level:

- Understand the workforce cultures within organizations and participate in their social activities
- Evaluate the achievement of One Health understanding and awareness among the local workforces

Multidisciplinary team

Mid-level:

- Apply the One Health knowledge to local centers/communities
- Raise the awareness in order to protect the human right of Ministry of Social Development and Human Security's target groups

Expert level:

- Apply the One Health knowledge to local centers/communities
- Raise the awareness in order to protect the human right of Ministry of Social Development and Human Security's target groups

COLLABORATION & PARTNERSHIP	Administrative officer	
	Mid-level:	Identify the proper strategies to recruit and work with diverse partners which will achieve the ultimate goals in One Health and a sustainable collaborative network
	Multidisciplinary team	
	Mid-level:	Promote the cooperation with related partners and organizing One Health networking for infectious disease prevention in local community
PLANNING & MANAGEMENT	Administrative officer	
	Expert level:	Formulate the goals and objectives including compiling the project and work plan on infectious disease outbreak prevention
	Multidisciplinary team	
	Expert level:	<ul style="list-style-type: none"> - Compile the work plan for infectious disease outbreak prevention within Multidisciplinary team - Efficiently monitor the work plan, follow up and evaluate the results across relevant stakeholders

3.6 OHCCs FOR EPIDEMIOLOGIC STAFF

ONE HEALTH PROFESSIONALISM	Bureau of Epidemiology, Department of Livestock Development, Office of the Consumer Protection Board	
	Expert level:	Analyze risk due to emerging epidemic diseases
	State Enterprise Policy Office, Provincial Public Health Office, Office of Small and Medium Enterprises Promotion, Sub-district Health Promotion Hospitals	
	Mid-level:	Identify the severe level of infectious disease outbreaks
	Livestock volunteers, Community leaders, National park officers, and Zoo keepers	
	Novice level:	Explain the basic guidelines for disease prevention
LEADERSHIP	Bureau of Epidemiology, Department of Livestock Development, Office of the Consumer Protection Board	
	Expert level:	Effectively perform problem solving, formulate the policy and coordinate with the appropriate laboratories
	State Enterprise Policy Office, Provincial Public Health Office, Office of Small and Medium Enterprises Promotion, Sub-district Health Promotion Hospitals	
		Not identified
	Livestock volunteers, Community leaders, National park officers, and Zoo keepers	
		Not identified

COMMUNICATION & INFORMATICS	Bureau of Epidemiology, Department of Livestock Development, Office of the Consumer Protection Board	
	Novice level:	Define emerging of infectious disease outbreak and classify its level to related officers
	State Enterprise Policy Office, Provincial Public Health Office, Office of Small and Medium Enterprises Promotion, Sub-district Health Promotion Hospitals	
	Mid-level:	Communicate the facts and situation of infectious disease outbreak situation to people and local community correctly, as well as construct the guideline for disease prevention
	Livestock volunteers, Community leaders, National park officers, and Zoo keepers	
	Not identified	
CULTURE, VALUES, ETHICS & BELIEFS	Bureau of Epidemiology, Department of Livestock Development, Office of the Consumer Protection Board	
		Not identified
	State Enterprise Policy Office, Provincial Public Health Office, Office of Small and Medium Enterprises Promotion, Sub-district Health Promotion Hospitals	
		Not identified
	Livestock volunteers, Community leaders, National park officers, and Zoo keepers	
	Not identified	

COLLABORATION & PARTNERSHIP

Bureau of Epidemiology, Department of Livestock Development, Office of the Consumer Protection Board

Expert level:

- Coordinate with the national strategic cooperation
- Rapid response to an emergency situation

State Enterprise Policy Office, Provincial Public Health Office, Office of Small and Medium Enterprises Promotion, Sub-district Health Promotion Hospitals

Not identified

Livestock volunteers, Community leaders, National park officers, and Zoo keepers

Not identified

PLANNING & MANAGEMENT

Bureau of Epidemiology, Department of Livestock Development, Office of the Consumer Protection Board

Expert level:

- Utilize the laws, acts, and prevention strategies in real situations
- Elucidate the strategies to the work performance
- Effectively formulate the activities related to infectious disease outbreak prevention
- Formulate the food safety regulation and authorization and inspection of establishments for processing and distribution of livestock

State Enterprise Policy Office, Provincial Public Health Office, Office of Small and Medium Enterprises Promotion, Sub-district Health Promotion Hospitals

Mid-level:

Efficiently perform the disinfection, decontamination, and vector control

Livestock volunteers, Community leaders, National park officers, and Zoo keepers

Not identified

CHAPTER IV

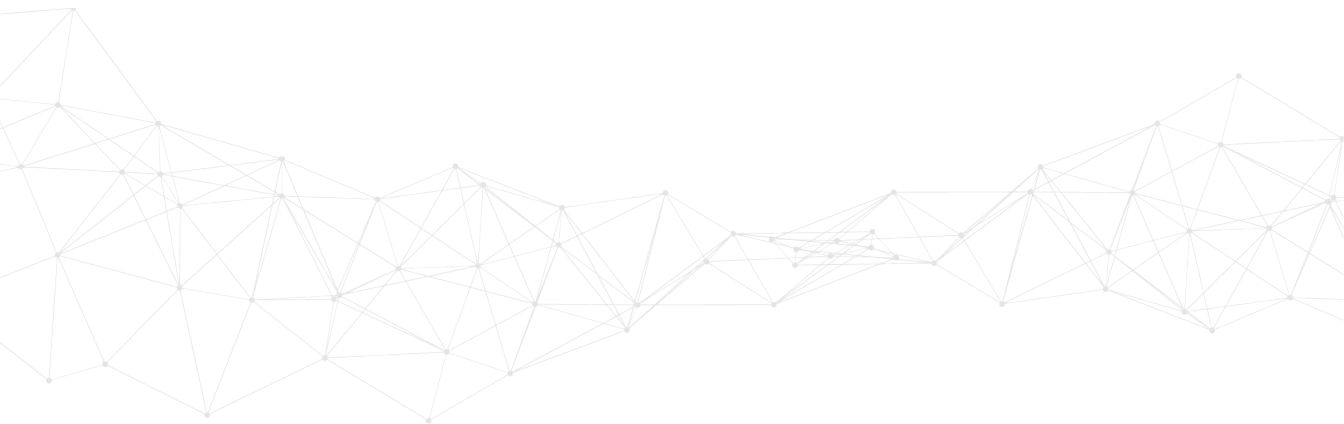
ROLES AND RESPONSIBILITIES AND THE STAKEHOLDER
MAP OF EACH TARGET GROUP IN CASE OF HIGHLY
PATHOGENIC AVIAN INFLUENZA OUTBREAK

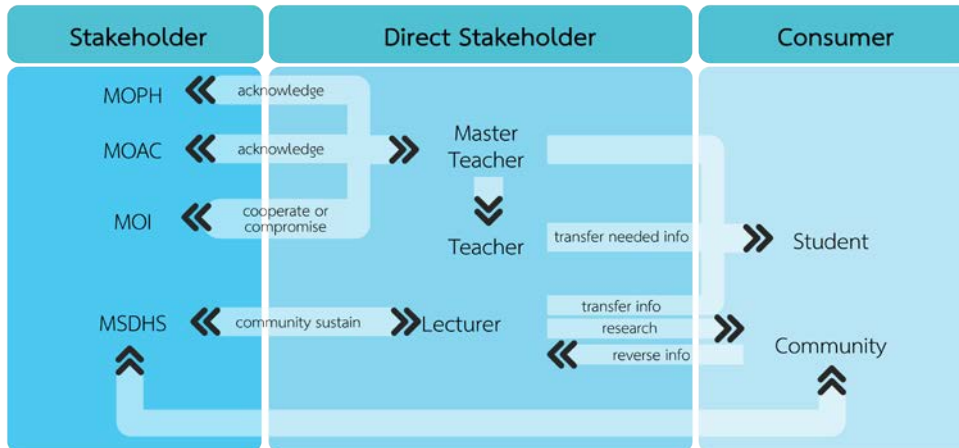
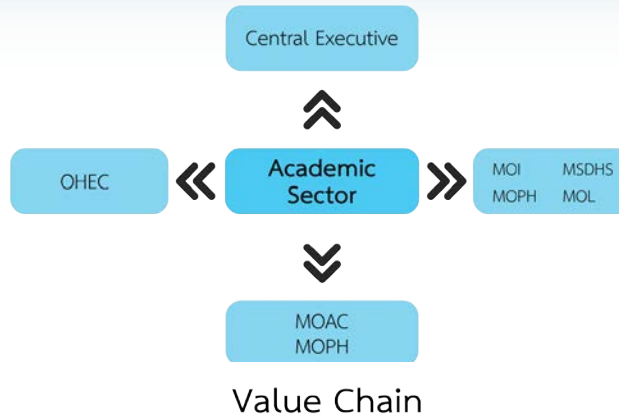
MANAGEMENT
*collaboration
& partnership*
STAKEHOLDER MAP
One Health
Professionals
CULTURE
SCIENCE
EVIDENCE
POLICY

4.1 MASTER TEACHERS AND STUDENTS

Roles of master teachers and teachers (as defined by the Ministry of Education)

1. Commanding on an effective detection, prevention, response and control threats by coordinating closely with the Ministry of Public Health
2. Coordinate with experts, possibly from nearby hospitals, to educate teachers and parents about infectious diseases
3. Workforce development
 - Educate the master teachers
 - Educate local people, i.e. parents
4. Realign Opportunity for Improvement (OFI) of students' health and share with stakeholders





Summary of Academic Roles:

1. Acknowledge/Technical Services (Research)/Soft skills
2. Cooperation/Collaborate
 - Surveillance
 - Prevent
 - Control
3. Collect student health data/Students send it to related sectors

Figure 3. Map of stakeholders involving master teachers and students during an outbreak: Ministry of Public Health - MOPH, Ministry of Agriculture and Cooperatives - MOAC, Ministry of Interior - MOI, Ministry of Social Development and Human Security - MSDHS, Ministry of Labor - MOL, Office of the Higher Education - OHEC.

4.2 BUSINESSMEN OR EMPLOYERS AND EMPLOYEES

Table 7. Roles and responsibilities of businessmen or employers and employees

STAKEHOLDER	ROLES
EMPLOYEE	<ul style="list-style-type: none"> ● Get knowledge about personal hygiene and diseases ● Educate employees about diseases and health ● Disease surveillance <ul style="list-style-type: none"> – Labor registration – Follow disease situation – Disease report (data collection) ● Disease reporting guidelines
MINISTRY OF LABOR	<ul style="list-style-type: none"> ● Educate employers about diseases and health ● Supervise employees and employers
MINISTRY OF PUBLIC HEALTH	<ul style="list-style-type: none"> ● Get knowledge about personal hygiene and diseases ● Educate employees about diseases and health ● Disease surveillance <ul style="list-style-type: none"> – Labor registration – Follow disease situation – Disease report (data collection) ● Disease reporting guidelines
MINISTRY OF EDUCATION	Distribute knowledge to educational institutions
MINISTRY OF AGRICULTURE AND COOPERATIVE	<ul style="list-style-type: none"> ● Get knowledge about personal hygiene and diseases ● Educate employees about diseases and health ● Disease surveillance <ul style="list-style-type: none"> – Labor registration – Follow disease situation – Disease report (data collection) ● Disease reporting guidelines

This group addressed two target stakeholders: 1. Businessmen/employers and employees and 2. Relevant ministries as showed in **Figure 4** and **Table 7**.

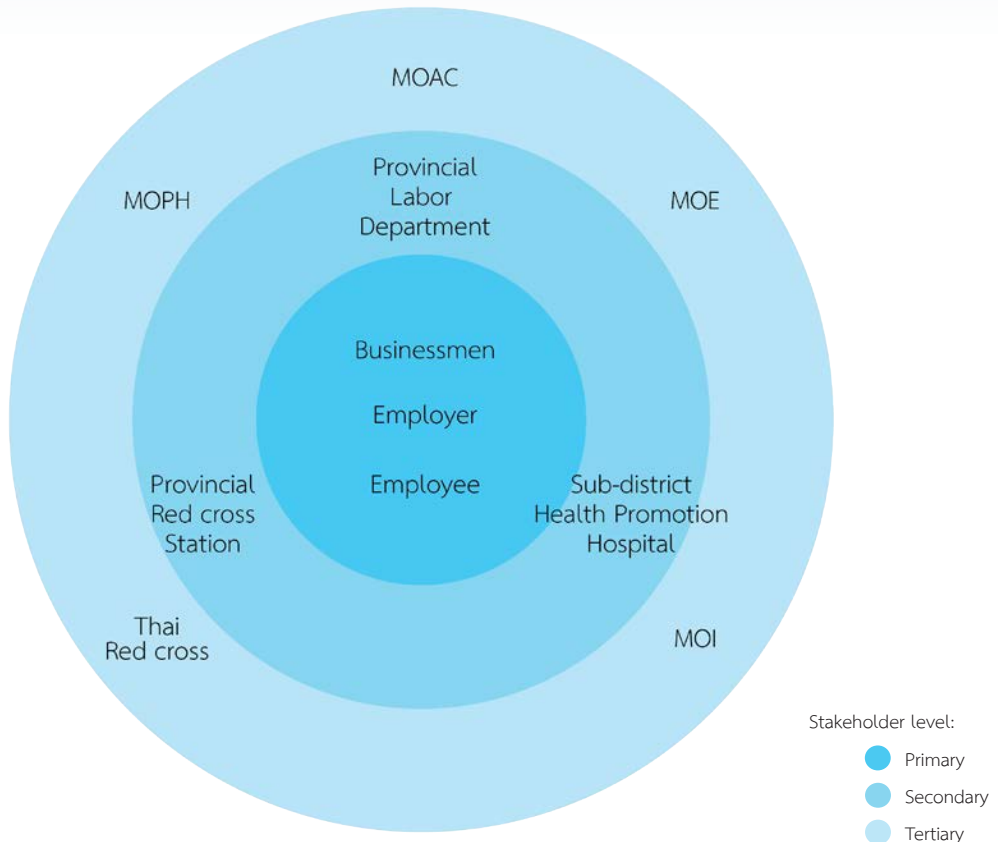
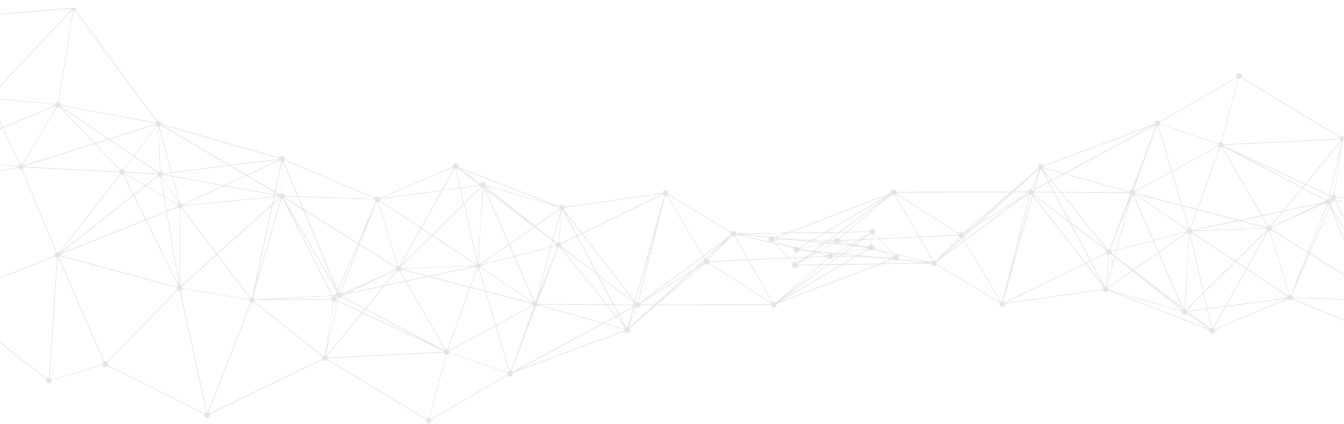


Figure 4. Result of stakeholder analysis of Businessmen or employers and employee. Ministry of Public Health - MOPH, Ministry of Agriculture and Cooperatives - MOAC, Ministry of Education - MOE, Ministry of Interior - MOI.

4.3 RED CROSS SOCIETY MEMBER

Roles and responsibilities of Red Cross Society members

1. Screen suspected patients
2. Collaborate with related multidisciplinary personnel e.g. medical doctor
3. Report to agency in charge of prevention and control to evaluate the situation and investigate the outbreak
4. Report to the Bureau of Epidemiology, Department of Disease Control



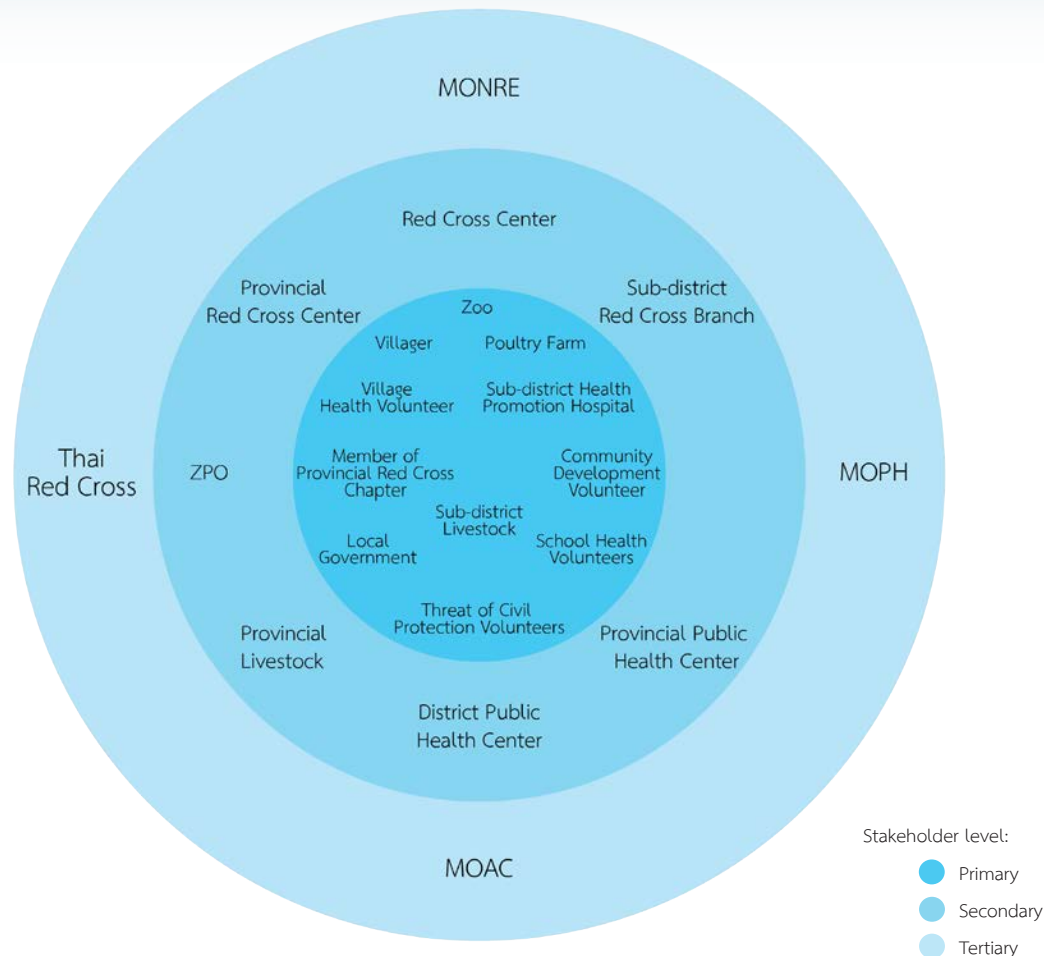


Figure 5. Results of stakeholder analysis of Thai Red Cross Society member. The Zoological Park Organization Under The Royal Patronage of H.M. The King - ZPO, Ministry of Natural Resources and Environment - MONRE, Ministry of Public Health - MOPH, Ministry of Agriculture and Cooperatives - MOAC.

4.4 LIVESTOCK PERSONNEL AND WORKERS AND FARMERS

Table 8. Possible roles of stakeholders of livestock personnel, workers and farmers

STAKEHOLDER	ROLES
EMPLOYEE	<ul style="list-style-type: none"> ● Get knowledge about personal hygiene and diseases ● Educate employee about diseases and health ● Disease surveillance <ul style="list-style-type: none"> – Labor registration – Follow disease situation – Disease report (data collection) ● Disease reporting guidelines
MINISTRY OF LABOR	<ul style="list-style-type: none"> ● Educate employer about diseases and health ● Supervise employee and employer
MINISTRY OF PUBLIC HEALTH	<ul style="list-style-type: none"> ● Educate people about diseases ● Diseases surveillance and control
MINISTRY OF EDUCATION	Distribute knowledge to educational institutions
MINISTRY OF AGRICULTURE AND COOPERATIVE	<ul style="list-style-type: none"> ● Knowledge support ● Set standard for agricultural business ● Diseases surveillance in animal

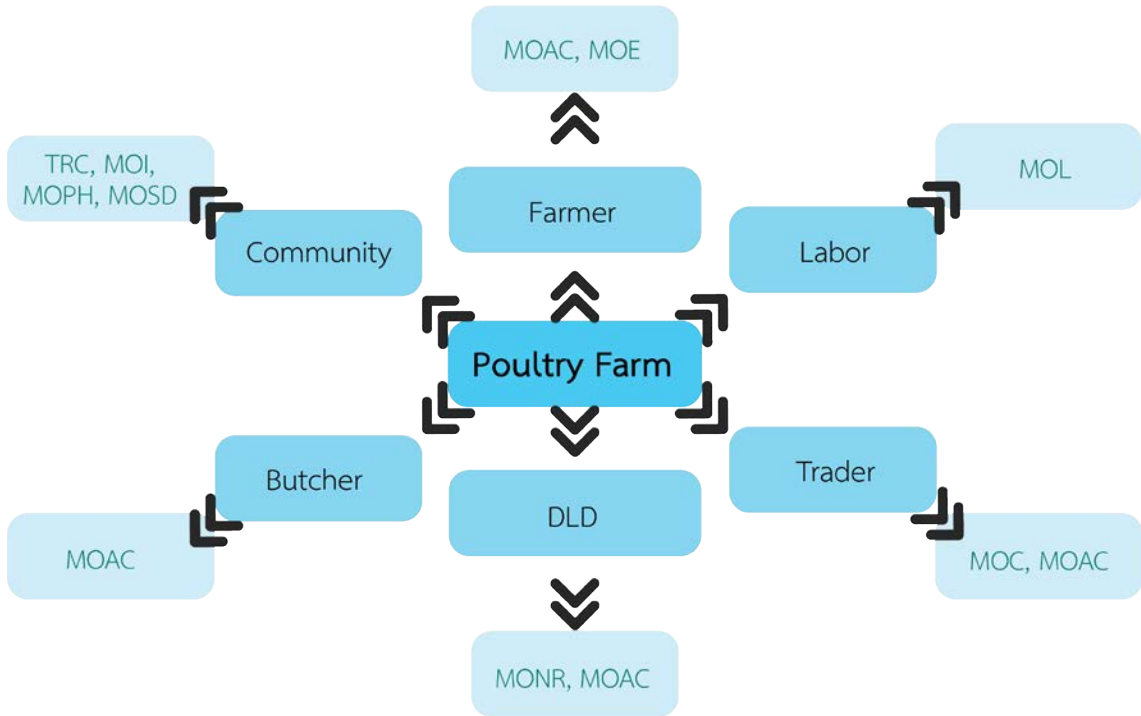


Figure 6. Map of stakeholders involving livestock personnel, workers and farmers during an outbreak. Ministry of Interior - MOI, Ministry of Public Health - MOPH, Ministry of Social Development and Human Security - MOSD, Ministry of Agriculture and Cooperatives - MOAC, Ministry of Education - MOE, Ministry of Labor - MOL, Ministry of Commerce - MOC, Ministry of Natural Resources and Environment - MONR, Thailand Research Center for Health Service System - TRC, Department of Livestock Development - DLD.

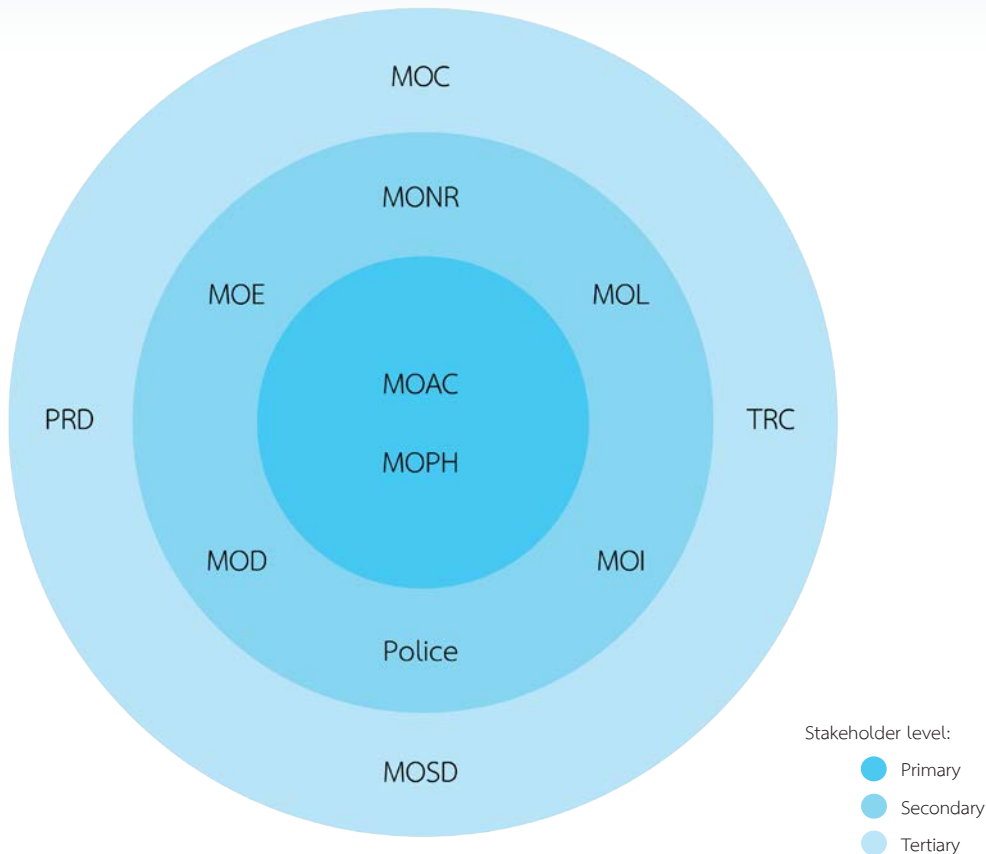


Figure 7. Result of stakeholder analysis of livestock personnel and workers and farmers. Department of Livestock Development - DLD, Ministry of Agriculture and Cooperatives - MOAC, Ministry of Public Health - MOPH, Ministry of Natural Resources and Environment - MONR, Ministry of Interior - MOI, Ministry of Education - MOE, Ministry of Labor - MOL, Thailand Research Center for Health Service System - TRC, Ministry of Commerce - MOC, Ministry of Social Development and Human Security- MOSD, Ministry of Defense - MOD.

4.5 PERSONNEL OF WELFARE FOSTER HOUSE AND CHILDREN AND YOUTH COUNCIL AT PROVINCIAL AND DISTRICT LEVELS

This group defined the workforce target within the welfare foster house into 2 groups: administrative officers (i.e. director and head of department) and multidisciplinary team (i.e. social worker, nurse, psychologist, physiotherapist, social development officer and teacher). Their roles during outbreaks were identified as follows:

- Educate people about avian influenza, prevention and disease status
- Organize training about the disease
- Know the disease reporting process

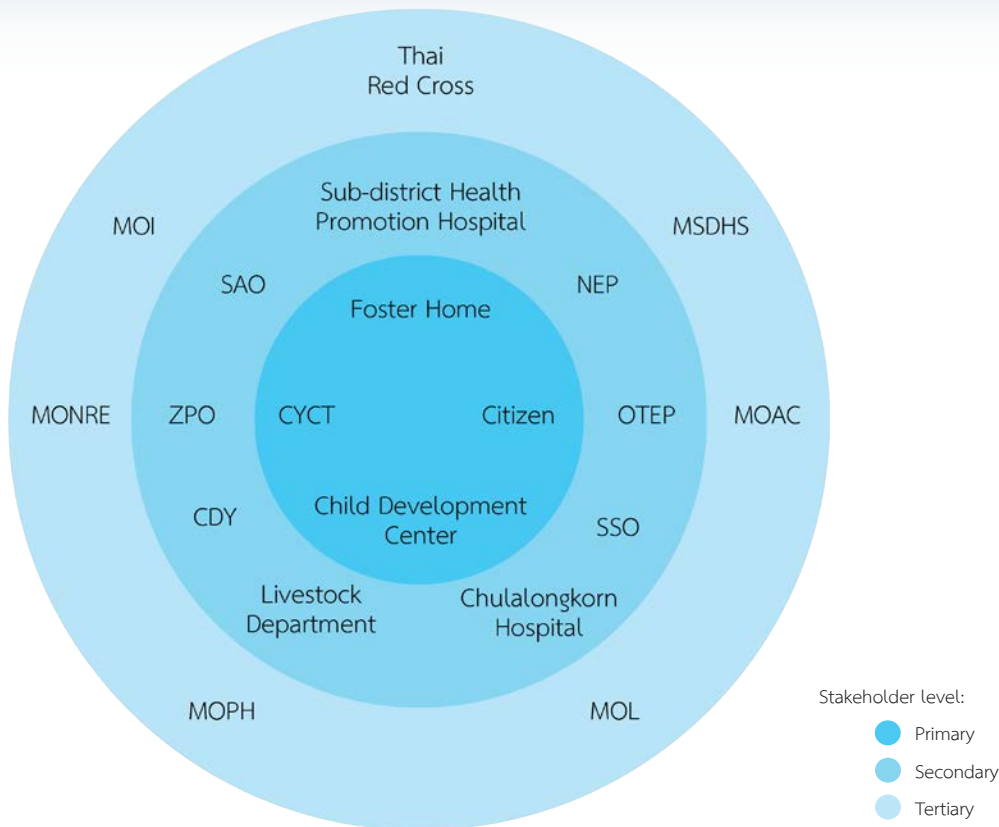


Figure 8. Result of stakeholder analysis of Personnel of welfare foster house and children and youth council at provincial and district levels. The Children and Youth Council of Thailand - CYCT, Child Development Center - CDY, Social Security Office - SSO, Office of the Welfare Promotion Commission for Teachers and Education Personnel - OTEP, National Office for Empowerment of Persons with Disabilities - NEP, Sub district Administrative Organization - SAO, The Zoological Park Organization Under The Royal Patronage of H.M. - ZPO, Ministry of Natural Resources and Environment - MONRE, Ministry of Interior - MOI, Ministry of Social Development and Human Security - MSDHS, Ministry of Agriculture and Cooperatives - MOAC, Ministry of Labor - MOL, Ministry of Public Health - MOPH.

4.6 EPIDEMIOLOGIC STAFF

Table 9. Possible roles of Epidemiologic staff

STAKEHOLDER	ROLES
<ul style="list-style-type: none"> ◆ BUREAU OF EPIDEMIOLOGY ◆ DEPARTMENT OF LIVESTOCK DEVELOPMENT ◆ OFFICE OF THE CONSUMER PROTECTION BOARD 	<ul style="list-style-type: none"> ● Gather information ● Conclude for executive ● Planning
<ul style="list-style-type: none"> ◆ STATE ENTERPRISE POLICY OFFICE ◆ PROVINCIAL PUBLIC HEALTH OFFICE ◆ OFFICE OF SMALL AND MEDIUM ENTERPRISES PROMOTION ◆ SUB-DISTRICT HEALTH PROMOTION HOSPITAL 	<ul style="list-style-type: none"> ● Must possess training in epidemiology ● Communicate information about zoonotic disease between agency ● Use risk communication to raise awareness about disease severity and disease prevention ● Skilled specialist
<ul style="list-style-type: none"> ◆ LIVESTOCK VOLUNTEER ◆ COMMUNITY LEADERS ◆ NATIONAL PARK OFFICERS AND ZOO KEEPER 	<ul style="list-style-type: none"> ● Report incident to related officer and agency ● Communicate severity of the incident ● Explain the outbreak ● Primarily give instruction to reduce disease severity

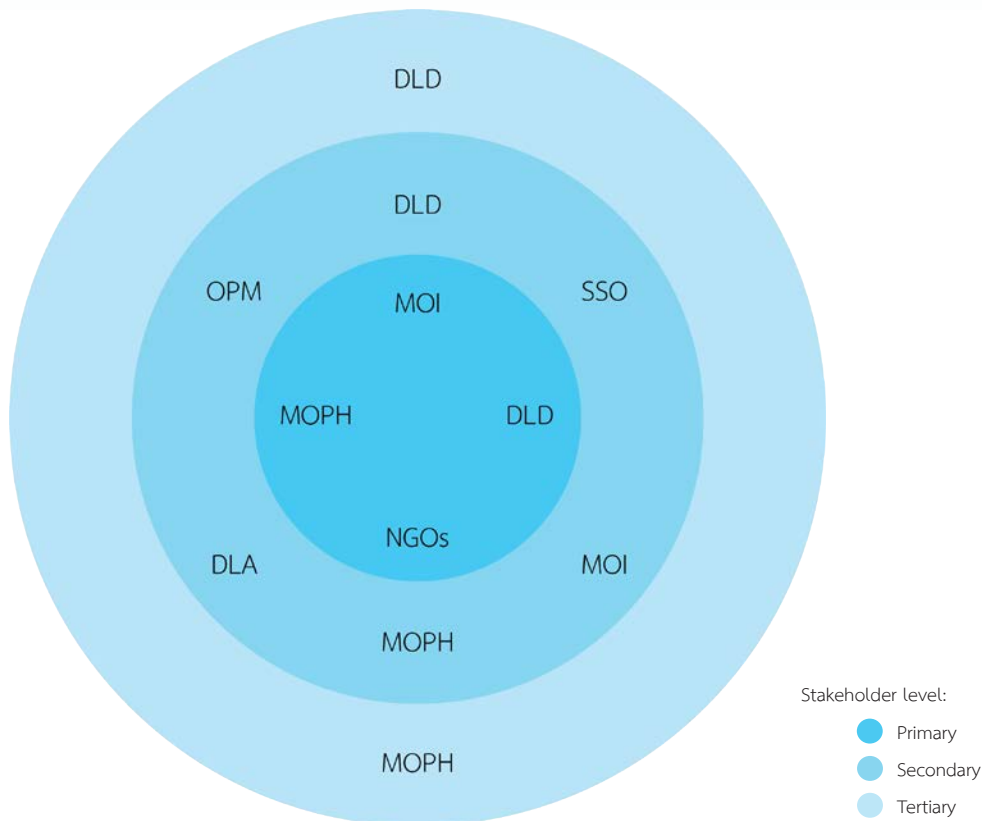


Figure 9. Results of stakeholder analysis of Epidemiologic staff. Ministry of Interior - MOI, The Prime Minister's Office - PMO, Ministry of Defense - MOD, Department of Livestock Development - DLD, Ministry of Social Development and Human Security - MSDHS, Ministry of Education - MOE, Ministry of Labor - MOL, Ministry of Public Health - MOPH.

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