

An initiative of achieving Rabies Free Zones in Thailand

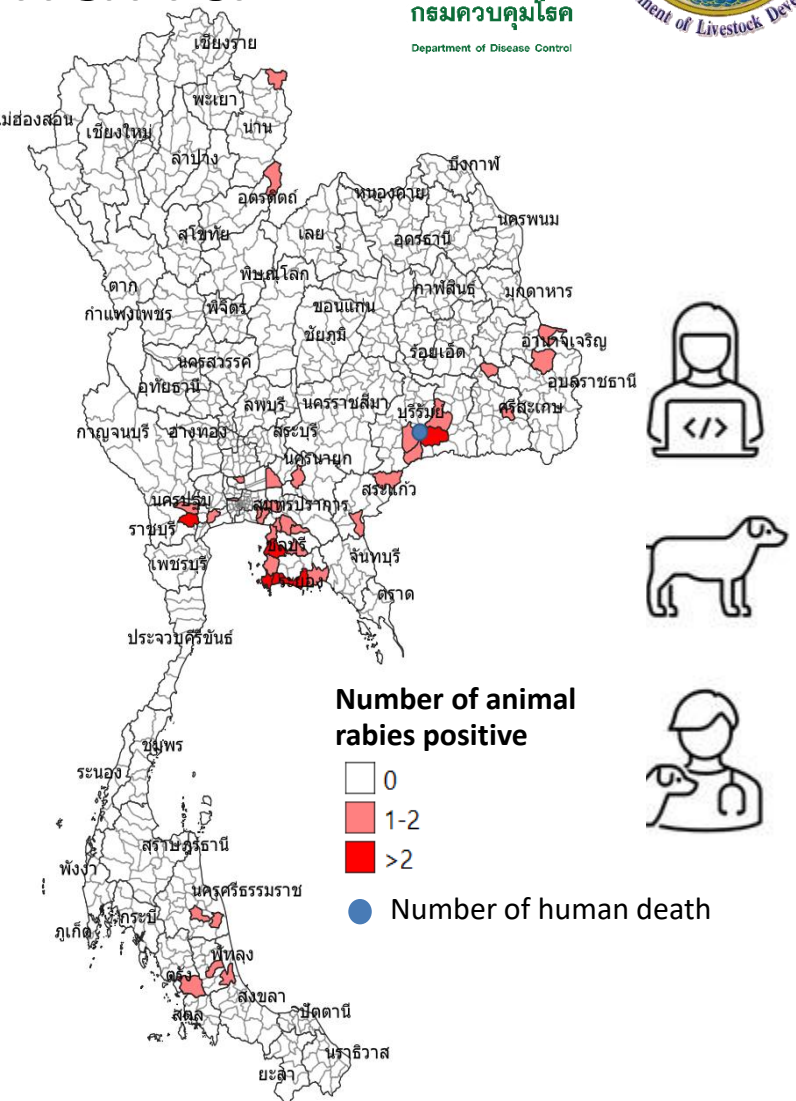
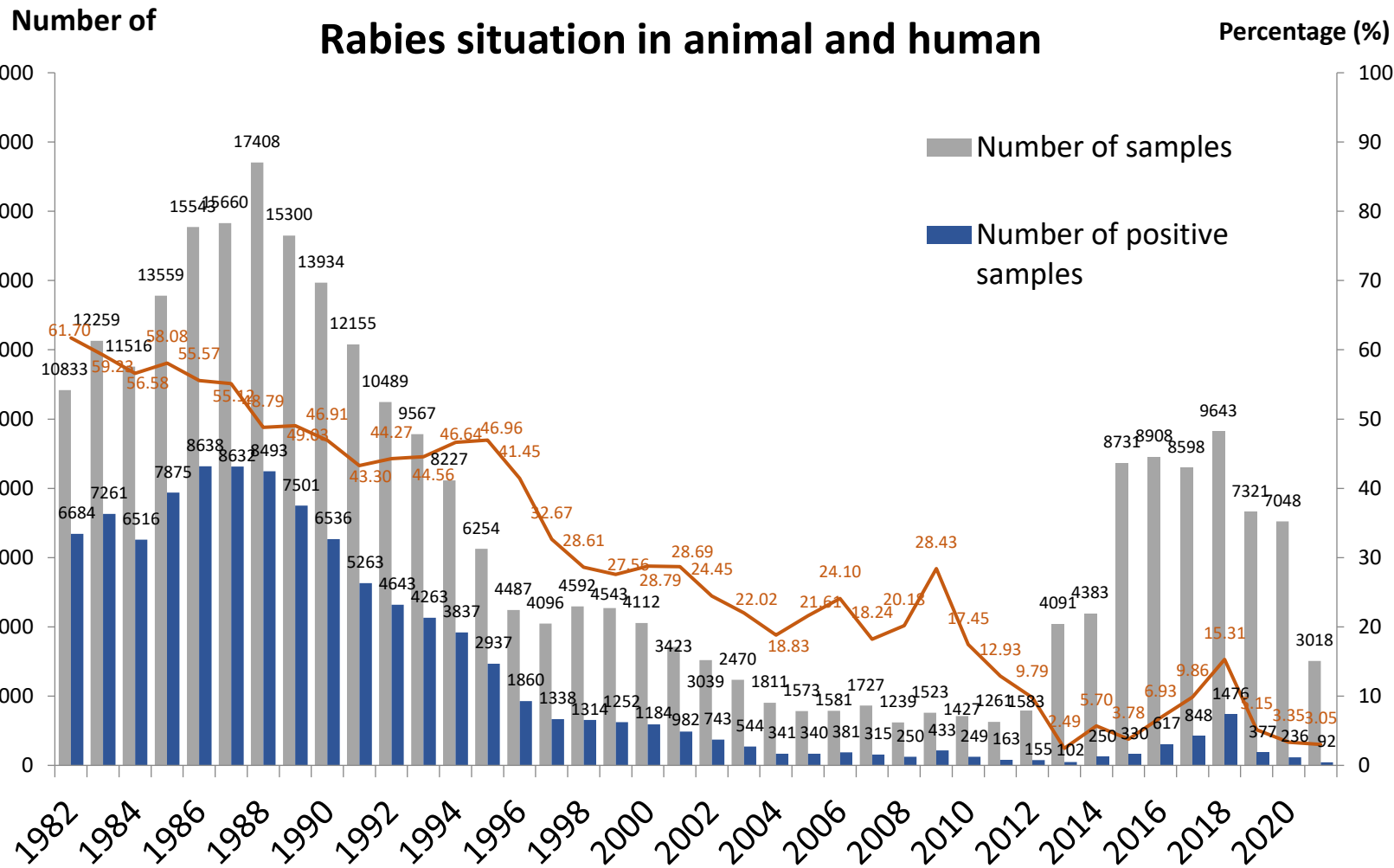
Bureau of Disease Control and Veterinary Services
Department of Livestock Development (DLD)

OIE SEA Sub-Regional Virtual Workshop on
OIE international standards supporting self-declaration
of freedom from rabies,
and endorsement of official control programme
6-8 July 2021

Rabies situation in Thailand



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Department of Disease Control



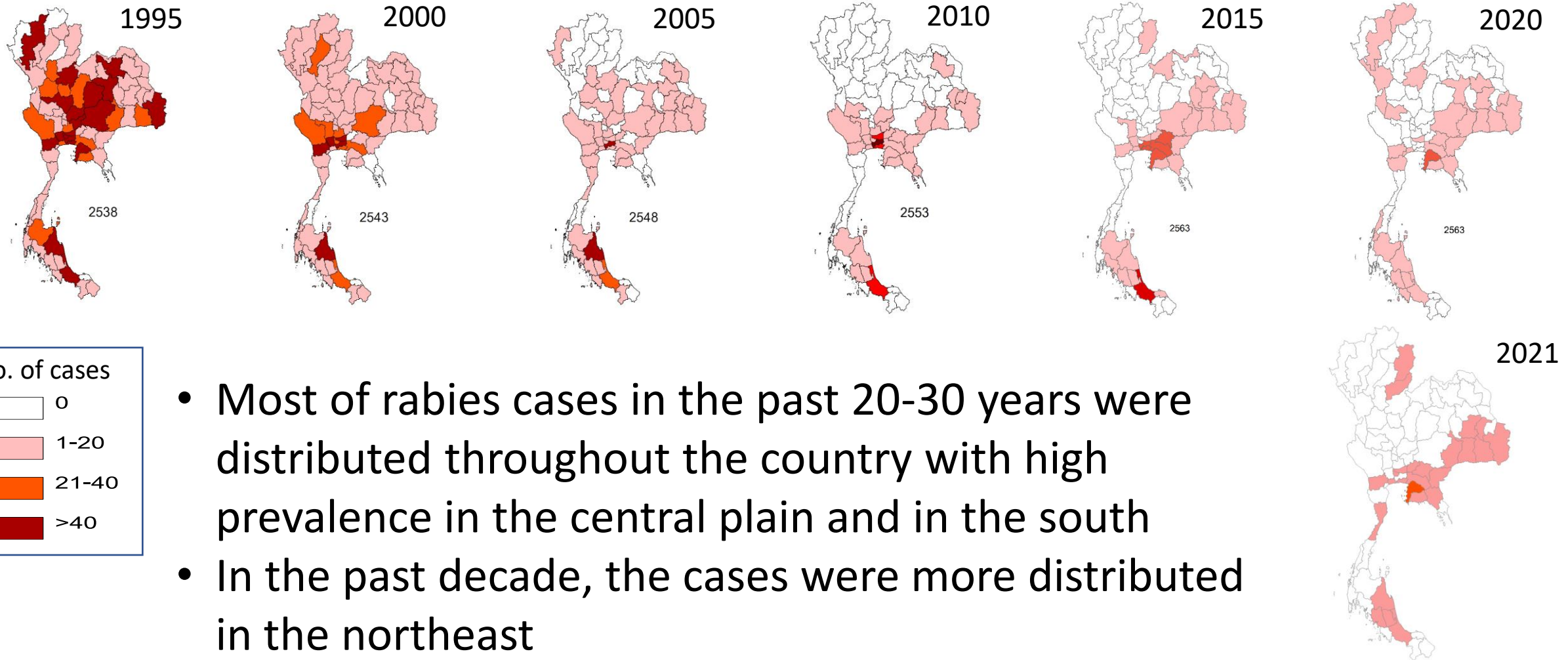
Updated: 1st July 2021

Characteristics of animal rabies

- Dogs were identified as the main affected species (85-90%), followed by cattle (6-8%), cats (3-5%), and others (1-2%)
- Un-vaccinated animals (particularly dogs) were mostly infected



Spatial distribution of rabies in Thailand



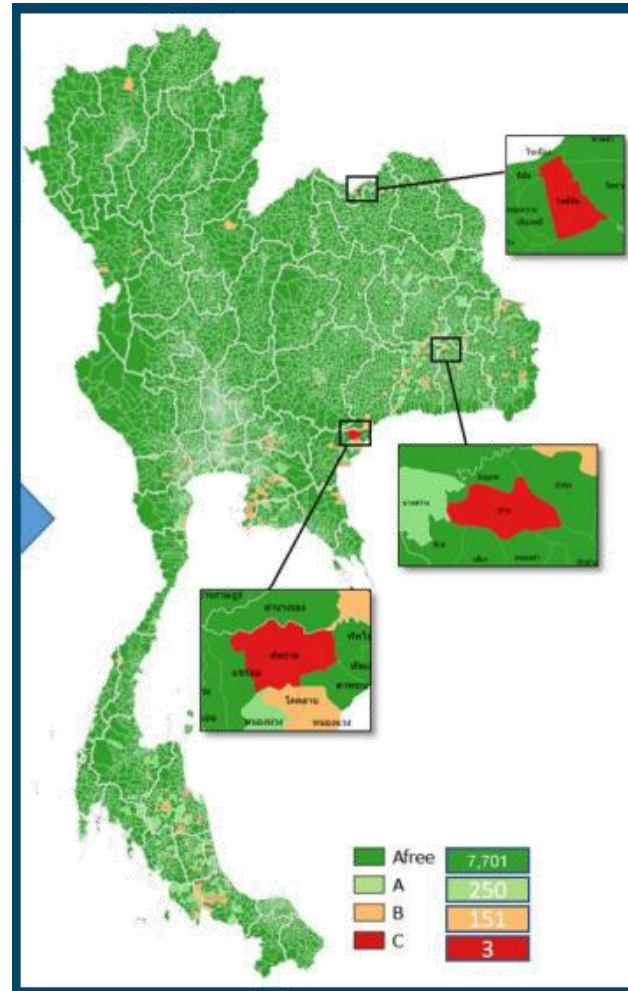


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Department of Disease Control



Rabies Status (based on outbreak situation)

Rabies status in
sub-district level (2020)



Department of Disease Control
Ministry of Public Health



Department of Livestock Development
Ministry of Agriculture and Cooperatives



Department of Local Administration
Ministry of Interior



Criteria for Rabies Free zones





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Multi-sectoral Cooperation



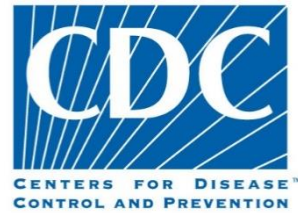
National committee to drive the strategies
chaired by Her Royal Highness Princess
Chulabhon Krom Phra Sriavangavadhana
(สมเด็จพระเจ้าฟ้าฯ กรมพระศรีสวางควัฒน วรขัตติยราชนารี)



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OIE SEA Sub-Regional Virtual Workshop on OIE international standards supporting self-declaration of freedom from rabies, and endorsement of official control programme, 6-8 July 2021

International support



- Border cooperation
- Etc.

Criteria for Rabies Free zones

1 Rabies in human

No deaths from rabies in the last two years

2 Rabies in animals

No positive samples in the last 2 years

3 Dog and cat population survey

Known dog and cat status in the area and register > 80%

4 Animal vaccination

Vaccination coverage >80% of population

5 Dog population management

Management of unowned dogs and system for animal movement control

6 Sustainable of Rabies free

Partnership's Cooperation and sustainable plan for rabies free



1. Rabies in human

“No human deaths from rabies in the last two years”

Make sure that there was no cases and there won't be more cases

- ◆ Joint investigation (public Health and animal Health) occurred, and no human and animal rabies cases identified.
- ◆ 100% Post Exposure Prophylaxis for potentially exposed people
- ◆ Active surveillance in encephalitis dead person



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Ministry of Public Health



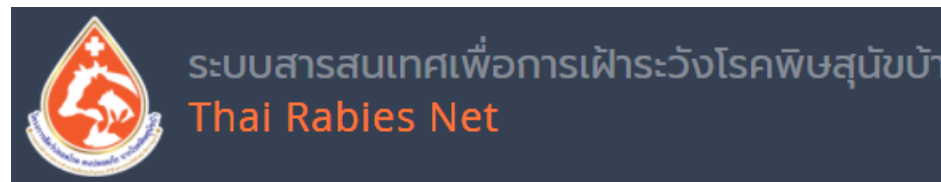
Department of Livestock Development
Ministry of Agriculture and Cooperatives

2. Rabies in animals

“No positive samples from animals in the last two years”

Make sure that there was no rabid animals in the area

- ◆ Passive surveillance
- ◆ Active surveillance for 0.01% of dog population in the area

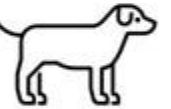
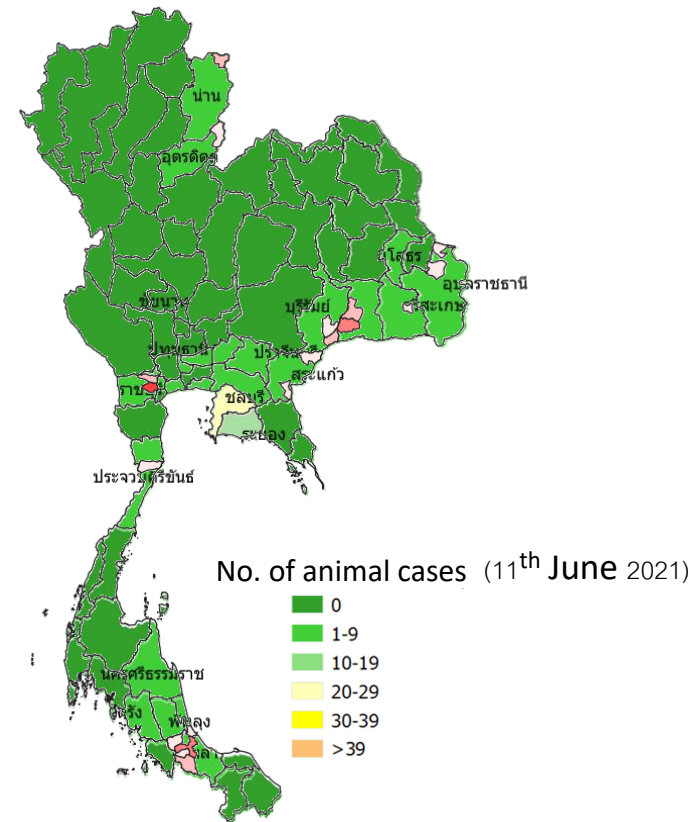


What we do to eliminate the number of cases?

- ◆ Monitor outbreak situation
- ◆ Surveillance /prevent / control disease
- ◆ Education campaign
- ◆ Perform related researches with partnerships



Boundary monitoring and control for rabies spreading



Application for predicting rabies outbreak area



Integrations among

- Study of dog behaviour
- Spatial modelling to estimate the dog distribution areas
- Infectious modelling to predict movement of infected dog
- Computer science



Predicting rabies outbreak area
for outbreak control



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3. Dog and cat population survey

“Know dog and cat status in the area”

- ◆ System of dog and cat population survey (2 times/year)
- ◆ Register and collecting data in database > 80% in the past two year



ศูนย์บัญชาการเพื่อการเฝ้าระวังโรคพิษสุนัขบ้า
Rabies One Data



Department of Local Administration
Ministry of Interior

4. Animal vaccination

**WHO recommendation at least 70% of herd immunity

“Owned dogs vaccinated 100% with vaccination coverage >80% in all dog population ”

Make sure that 80 % of dog and cat vaccinated

- ◆ Reports of vaccinations in the past 24 months
- ◆ Collecting data in database
- ◆ Owned dogs vaccinated 100%
- ◆ Vaccines store in standard cold chain

What we do to improve the number of vaccinated animals?

- ◆ Monitoring rabies vaccination status
- ◆ Training for village livestock volunteer (temporary vaccinator)
- ◆ Free Rabies vaccination campaign
- ◆ Study of using ‘Oral Rabies Vaccine’ in stray dogs
- ◆ Post-vaccination antibody titer monitoring
- ◆ Perform related researches with partnerships

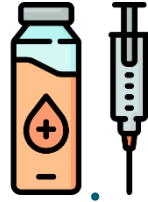




Vaccination



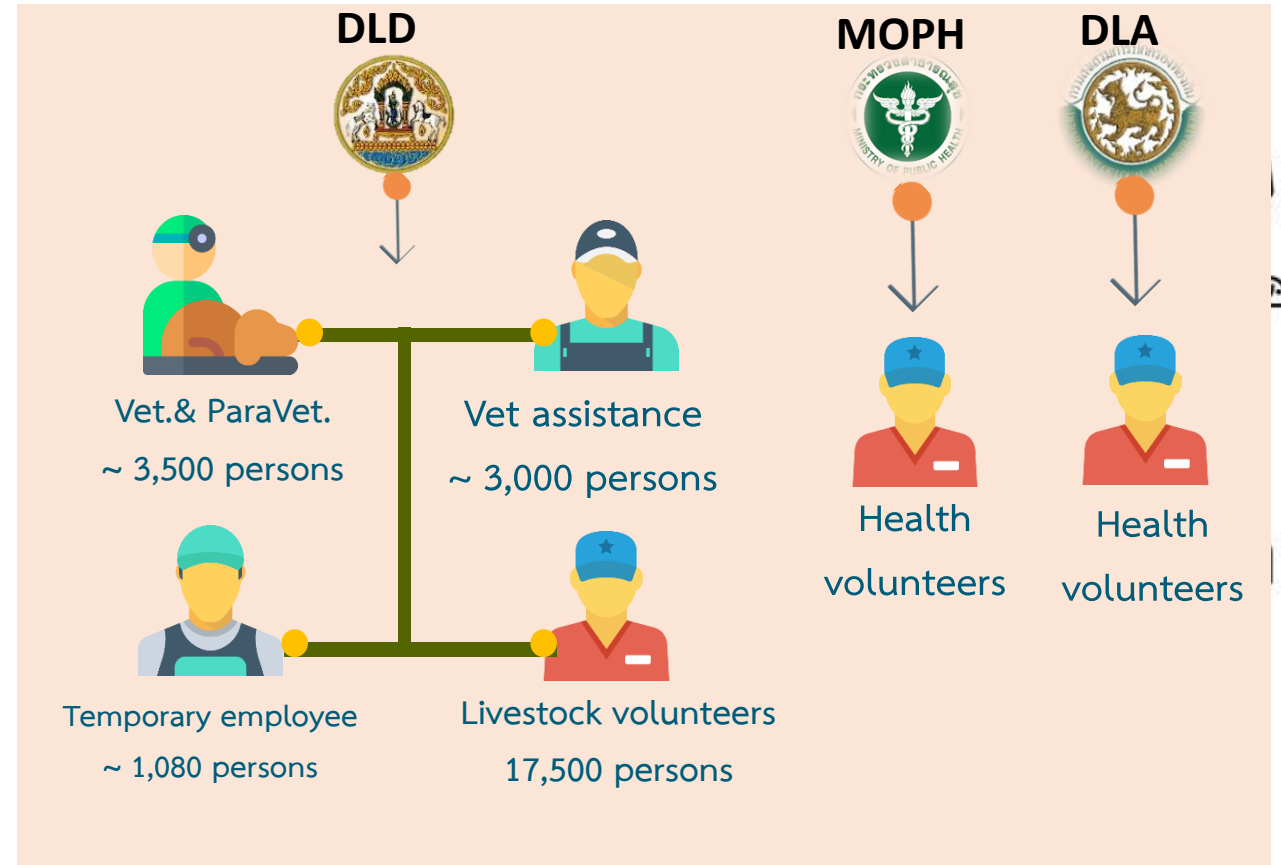
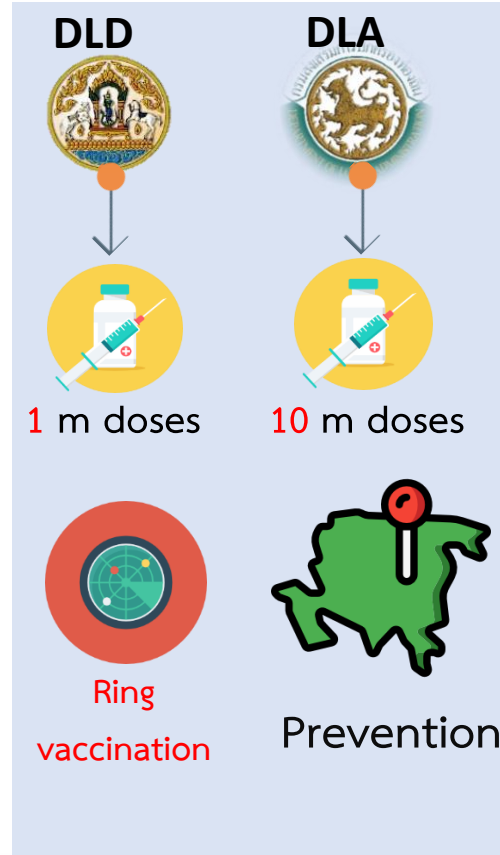
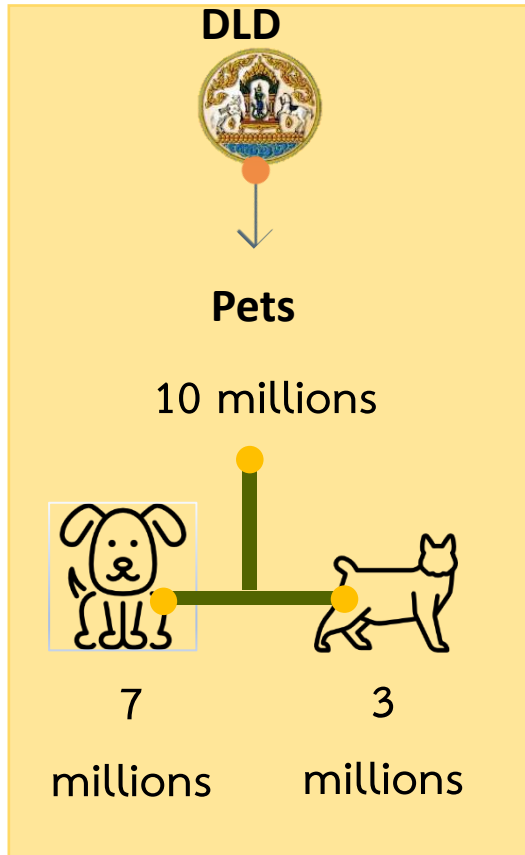
Dog & Cat Population



Vaccine



Vaccinator



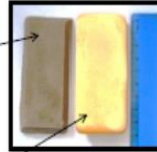
Oral rabies vaccine



****Around 80% of stray dogs accepted the ORV
ORV improved vaccine coverage in stray dog from none to 65%**

Phase 1 Bait acceptance study

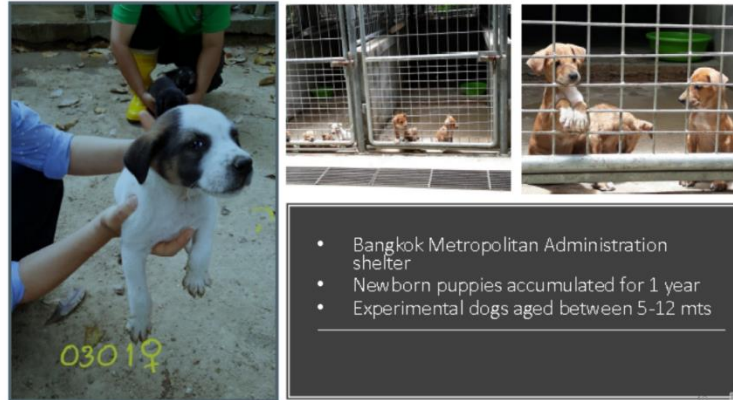
- 206 Fishmeal baits (brown)
- 196 Egg-flavored baits (yellow)
- 206 Intestine baits (in collagen cases)



Phase 2 Serological study



Objective: determine antibody response after ORV in shelter dog.



Phase 3: feasibility study

To evaluate vaccine delivering method, effectiveness, scalability and sustainability of ORV as a complementary tool to mass dog vaccination by the parenteral route in selected areas.



Phase 4 Field trial: ongoing



5. Dog population management

“No. of dog increase less than 10 % each year”

Make sure that population of dog are under control

- ◆ Establishing dog shelters for abandoned dogs or regulations to manage them
- ◆ Sterilization stray dogs to control their reproduction
- ◆ A system for animal movement control exists in the community or related regulation



Control of dog & cat population



Sterilization
(Operation)

Target: 200,000
animals/year

ธนบุรี/ปศ.ร้อยเอ็ด



หมอลี้ก



Pattarin





Dog shelters

- Establishing dog shelters for abandoned dogs
- Registering all shelters (both private and government)
- Improve quality and animal welfare of existing shelters
- Sterilization & Vaccination



Buriram Animal Quarantine Station



Bangkok Metropolitan Administration



Research on dog population control

- Sterilization of dogs without operation
 - Using nanoparticles to induce apoptosis of cells
 - By researchers of Faculty of Veterinary Medicine, Chulalongkorn University and researchers of Faculty of Veterinary Technology, Kasetsart University



6. Sustainable of Rabies free

- ◆ Set up sub-committee and working group that included with staff from multi-sectoral in each area for collaboration and sharing data
- ◆ Set up long term plan in the area to sustain the rabies free status
- ◆ Education campaign and public relation on rabies
- ◆ Evaluate the level of knowledge, perception and awareness of people in the area





Rabies: Share the message.
SAVE A LIFE.



Public awareness

Warning!! People who neglect dogs and cats into

public area will be fine for 40,000-baht

06:39:06

3 HD 33

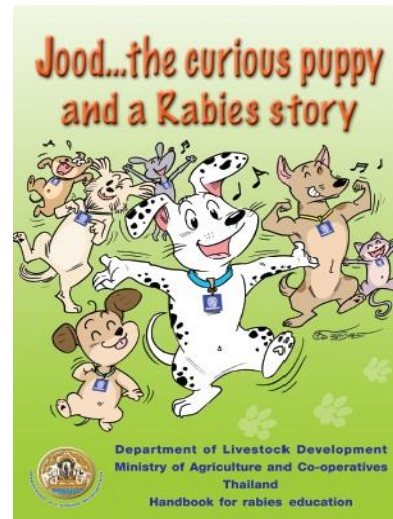
LIVESTOCK NEWS

กรมปศุสัตว์

กรมปศุสัตว์เตือนประชาชนนำสุนัข-แมวไปฉีดวัคซีนป้องกันโรคพิษสุนัขบ้าเป็นประจำทุกปี เป็นส่วนสำคัญในการป้องกันโรค ไม่ทำให้ปล่อยควานที่สาธารณะ

โรคพิษสุนัขบ้าเป็นโรคติดต่อระหว่างสัตว์และคนที่มีอันตรายร้ายแรง หากพบเห็นสุนัข-แมวที่ดุร้ายหรือมีอาการผิดปกติ เช่น น้ำลายไหล น้ำลายเหนียว น้ำลายมีฟอง หรือมีอาการผิดปกติอื่นๆ ให้รีบแจ้งเจ้าหน้าที่ปศุสัตว์ในพื้นที่ หรือโทรแจ้งสายด่วน 1669 เพื่อขอความช่วยเหลือ

เตือนคนปล่อยหมาแมว เข้าข่ายผิด พ.ร.บ.สัตว์ เเจ
การดู 9,748 ครั้ง



"กรรมตุลสัตว์" เราจะทำหน้าที่ตามกฎหมาย

เจ้าของมีหน้าที่ ต้องพาสุนัขและแมวไปฉีดวัคซีนป้องกันโรคพิษสุนัขบ้า

กรมปศุสัตว์ (กระทรวงเกษตรและสหกรณ์)

เครื่องมือหมายประจำตัวสัตว์ (เหรียญ)

ใบรับรองการฉีดวัคซีน

หากฝ่าฝืนไม่ทำตามผิดตามกฎหมาย พ.ร.บ.โรคพิษสุนัขบ้า พ.ศ.2535

ไม่ฉีดวัคซีน	ปรับไม่เกิน 200 บาท
ไม่ห้อยเหรียญ	ปรับไม่เกิน 200 บาท
เหรียญหรือใบรับรองการฉีดหาย	ปรับไม่เกิน 200 บาท
ใช้เหรียญหรือใบรับรองการฉีดวัคซีนปลอม	จำคุกไม่เกิน 1 เดือน หรือปรับไม่เกิน 1,000 บาท หรือทั้งจำทั้งปรับ

แจ้งโรค 0-2653-4444 ต่อ 4144 - 4145

ศูนย์สารสนเทศเพื่อเฝ้าระวัง และควบคุมโรคระบาดสัตว์

หรือทาง www.thairabies.net



OIE SEA Sub-Regional Virtual Workshop on OIE international standards supporting self-declaration of freedom from rabies, and endorsement of official control programme, 6-8 July 2021



An event with social distancing



Award Ceremony

“Thailand Rabies Award” For Local Administrations

Conferences

- “Importance of rabies and goal of rabies elimination”
by International organizations (OIE, FAO, WHO)
- “Rabies, Immunity and Practices”
by University network

Virtual Exhibition



Meet Celebs & Vets



<https://web.facebook.com/WRD2020.dld>



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Department of Disease Control



Samui: the rabies free area



Rabies Free Zone Project, Under Saving Animals and Human Lives from Rabies Project, Following the Determination of Professor Dr. HRH Princess Chulabhorn Mahidol



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2019

Beginning 2nd phase of Saving
Animals and Human Lives from
Rabies Project

- Develop Rabies free zone self assessment for administration with stake holders
- Implement Rabies free zone self assessment for administration
- Improve “Rabies On Data”
- Expand PrEP to health volunteer and operators
- Built communicable media for population and health volunteer
- Educate health care worker on CPG and Rabies surveillance

2020

- Establish “Rabies Free Zone Check list”
- Make understanding on “Rabies Free Zone Criteria” to push the operation among stake holders
- PEP and PrEP management
- Operating “Samui Project” to study the readiness of Rabies Free Zone Declaration

Jan-Apr
2021

Jul 2021

- Shelter management Study



Samui's project



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Department of Disease Control

Push Samui to be a
rabies free area

Project proposing

This project was proposed to executives from department of disease control, department of livestock development and department of local administrative to make an agreement of project conducting

Pre-operation

Executive meeting between 3 department, leader and practitioners from multi-sectors in local was arranged to explain the objectives and methods of the project as well as benefit of rabies free area.

Project development

Rabies measure specific to Samui was developed and presented to mayor and executive in local levels. The project methodology is divided to 2 parts; herd immunity and cold chain tracking system

1st blood collection

In the first blood collection, 136 blood samples were collected. We also collect demographic data for analysis.



Samui free guideline development

working group from 3 department developed guideline, containing 4 main parts; Rabies free zone preparation, municipality law and regulation improvement, animal movement control system and animal shelter management

2nd blood collection

- 150 blood sample were collected and under analyzing
- 129 dogs and cats were neutered by provincial livestock office
- 2914 dogs and cats were vaccinated

The guideline was proposed to provincial governor and practitioner in the last meeting.



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Main finding: Samui Guideline Development



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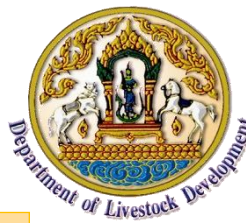
Department of Livestock Development

Criteria	Indicator	Rabies-free area	Samui criteria analysis
1. Human rabies cases	- Deaths due to rabies	No deaths for at least 2 years	No deaths for > 2 years
	- Investigation of all deaths and suspected cases	Investigate all deaths and suspected rabies cases	
2. Animal rabies cases	- Disease detection in animals	No animal rabies detected for at least 2 years	No animal rabies detected for > 2 years
	- Active surveillance results of 0.001 % of total dog population		
3. Dog population survey	Survey coverage all area	Survey and record in the system cover the whole area	Survey and record in the system cover the whole area
4. Animal vaccination	% of animal vaccination coverage	> 80%	> 80%
5. Dog population control	% of dogs registered in Thai Rabies Net	> 80%	> 80%
	Shelter management for unowned dogs	Yes	Not yet done
	Animal movement control in place	Yes	Not yet done

Best practice and way forward



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Best Practice

- Cooperative from NGOs and partners were the huge impact on animal management such as vaccination and neutering
- High percentage of animal population control indicated
 - Awareness and responsibility on their pets among population in Samui Island
 - Participation among owners

Forward

- From criteria analysis in Samui, 4 main parts are needed to be done
 - Rabies free zone preparation
 - Municipality law and regulation improvement by
 - Add dog registration
 - Limit dog population per household
 - Regulate on dog movement
 - Add punishment
 - Animal movement control system by
 - Public relation
 - Law enforcement
 - Animal shelter management



Samui Rabies Free Area Timeline



Rabies declaration
intension letter

Rabies prevention operation by following 5 criteria

Send to Surat Thani province zoonotic prevention and control
committee via provincial livestock office

The committee arrange the
meeting to make an agreement
on Samui free area operation

agree

The committee make a declaration
intension letter signed by governor to
director general of department of livestock
development (DLD)

Provincial rabies free area
assessment committee
and RFA certification
working group appointed
by governor

1st
assessment

2nd
assessment

Met all
criteria

Working group propose
rabies free area certification
to DG of DLD

DG announce Samui to
be rabies restriction zone

**Rabies Free Area
Declaration**



Jul

Aug

Sep

Oct

Apr

Aug

2018

2019

Lesson learned from Samui Project



- Key to achieve “Rabies Free Area”
 - In the first phase, target area should be selected.
 - A detailed and specific criteria should be developed
 - Strength and weakness of rabies situation in specific area should be done, to understand gap
 - A specific strategy should be established to close the gap
 - The period of operation should be scheduled
 - Focal person should be specified and strengthen on Rabies Free Area among stake holders
 - In some area, NGO is an important roll in achieving Rabies Free Area
 - Policy maker is a major key of success





Thank you

“End Rabies: Collaborate, Vaccinate”

