

# SWINE INFLUENZA IN THAILAND

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# Mission

- 1) Diagnose, study, investigate and research on animal diseases.
- 2) Produce and test the quality-safety of biologics for animals.
- 3) Develop and assure the quality of laboratory's system.
- 4) Conserve biological diversity of microorganisms and parasites.
- 5) Be an information center of laboratory epidemiology.
- 6) Collaborate and support other organizations.



# National and international collaborations of NIAH in 2014

- Domestic Collaboration 2 topics
  - The detection of wildlife animal diseases (Influenza virus and Nipah virus) with  
Agent : Department of National Parks, Wildlife and Plant Conservation
  - One health project in Thailand  
Agents : Ministry of public health  
Ministry of agriculture and cooperatives  
Ministry of Natural



# National and international collaborations of NIAH in 2014

- International Collaboration 3 topics
  - Zoonosis Disease Control Center (ZDCC) Project  
Agent : Japan
  - Emerging Infectious Disease (EID) Project  
Agent: AHHL, Australia
  - Influenza A transmission from and to Human associated Animals: AFRIM

# Swine Influenza Viruses Summary in 2013

<b>Province</b>	<b>Samples</b>	<b>H1N1</b>	<b>H3N2</b>	<b>% Pos</b>
<b>Chonburi</b>	524	3	5	1.5
<b>Chachoengsao</b>	606	5	0	0.8
<b>Phayao</b>	120	0	0	0
<b>Chiangrai</b>	120	0	0	0
<b>Khonkane</b>	240	0	0	0
<b>Total</b>	1610	8	5	0.8

# Swine Influenza Viruses Summary in 2014

<b>Province</b>	<b>Samples</b>	<b>H1N1</b>	<b>H3N2</b>	<b>% Pos</b>
<b>Chonburi</b>	202	0	11	5.44
<b>Chachoengsao</b>	202	0	0	0
<b>Total</b>	404	0	11	2.72

# Swine Influenza Viruses Summary in 2015

<b>Province</b>	<b>Samples</b>	<b>H1N1</b>	<b>H3N2</b>	<b>% Pos</b>
<b>Chonburi</b>	202	15	2	8.42
<b>Chachoengsao</b>	202	nd	nd	nd
<b>Total</b>	404	0	0	0

# Swine influenza surveillance in Thailand

## HI antibody Titer

Animal	2012			2013			2014		
	No	pdmH1N1	H3N2	No	pdmH1N1	H3N2	No	pdmH1N1	H3N2
Dog	34	0	0	52	0	2	31	0	0
Cat	2	0	0	8	0	1	7	0	0
Rodent	6	0	1	14	0	0	7	0	0
<b>Total</b>	<b>52</b>	<b>0</b>	<b>1</b>	<b>74</b>	<b>0</b>	<b>3</b>	<b>45</b>	<b>0</b>	<b>0</b>



# Project HAI in 2014

<b>Host</b>	<b>Viruses</b>	<b>Samples</b>	<b>Process</b>
<b>Swine</b>	H1N1 H3N2	5	Sequencing
<b>Duck</b>	H3N1 H3N2 H3N6 H3N9	4	Sequencing
<b>Chicken</b>	H3N8 H9N2 <sub>(Myanmar)</sub>	10	Sequencing
<b>Human</b>	H1N1 H3N2	0	
<b>Bat</b>	400 Samples	0	

# Update reference swine influenza in Thailand

## Candidate reference antigen and vaccine in swine influenza

1. H1N1 swTH\_Apan2010
2. H1N1 swTH\_B2013
3. H3N2 swTH\_C2013



**Thank you**