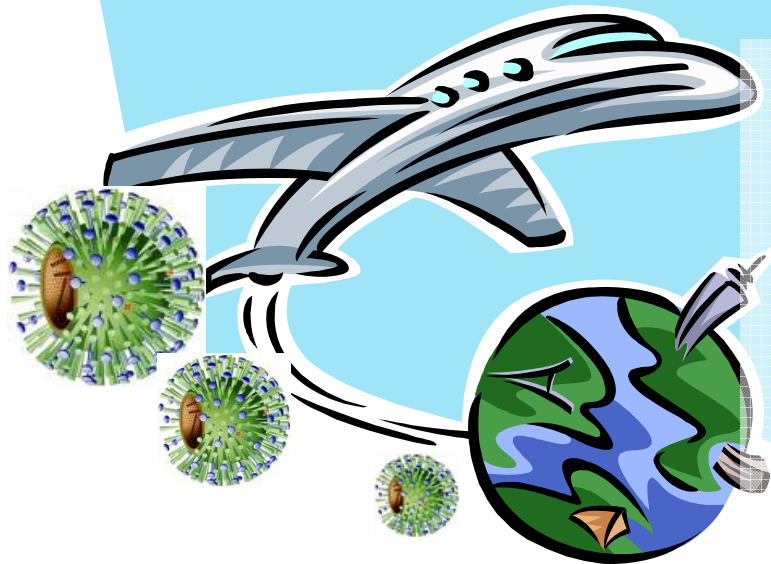


Taking lessons from the preparedness and response to pandemic influenza in Thailand

Supamit Chunsuttiwat
Department of Disease Control
Ministry of Public Health
JITMM, 1 November 2010

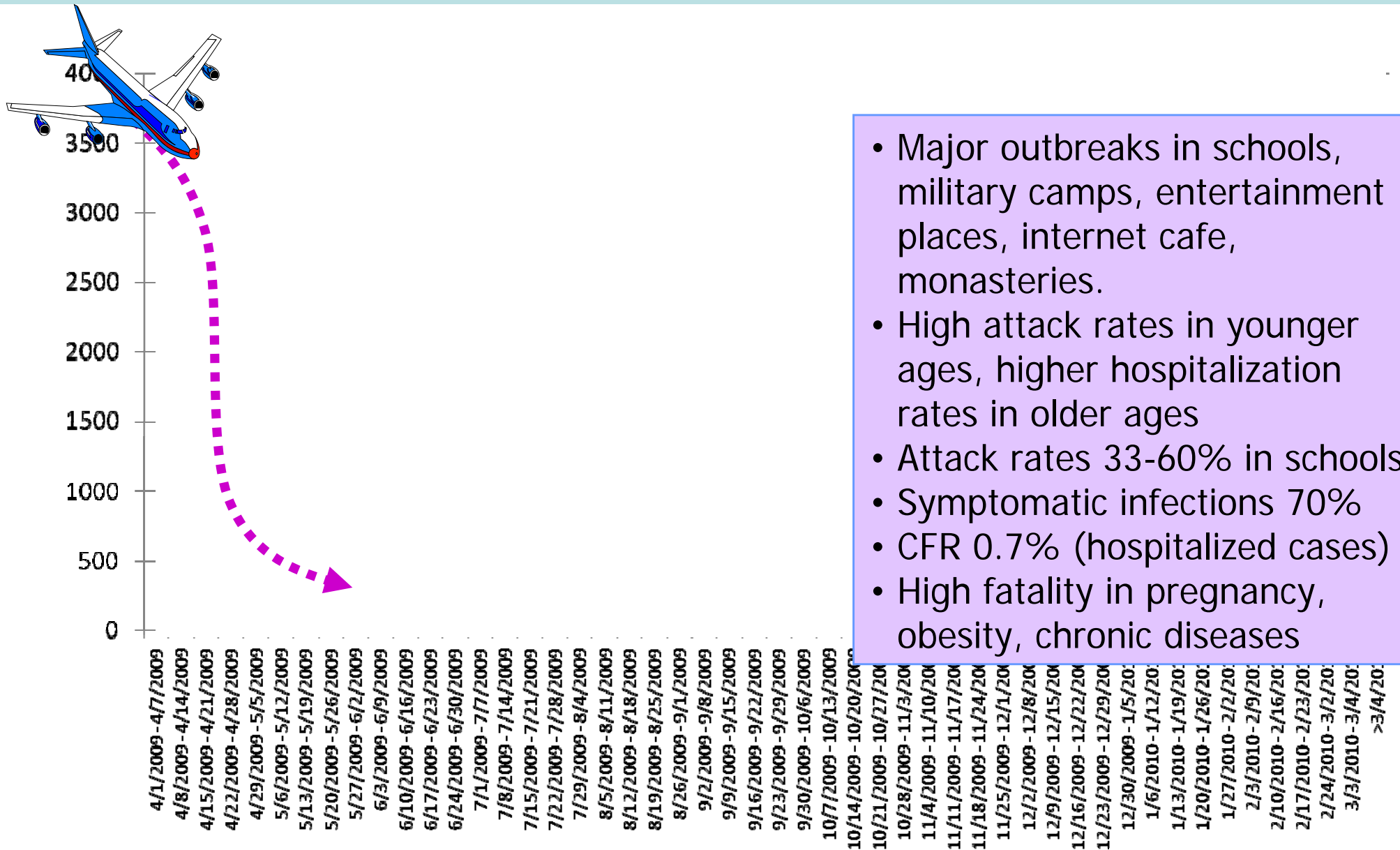
Sharing flu plight through plane flights



Thailand encountered and experienced pandemic influenza H1N1 2009 as a major public health crisis.

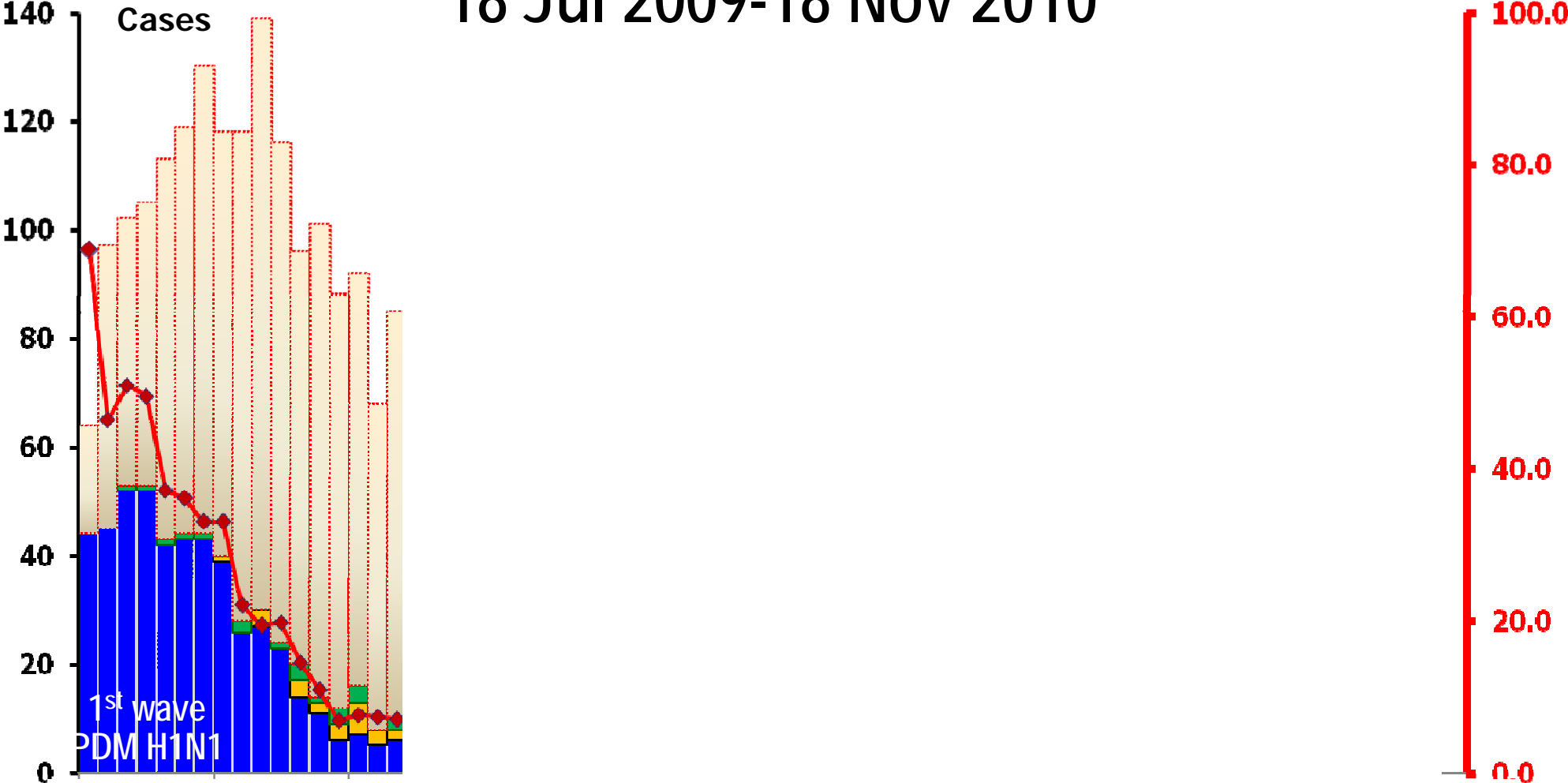
Pandemic H1N1 posed huge social and economic challenges for the country; however, it also provided great opportunities for capacity building.

Pandemic influenza situation and response strategies in Thailand, April 2009 – April 2010



- Major outbreaks in schools, military camps, entertainment places, internet cafe, monasteries.
- High attack rates in younger ages, higher hospitalization rates in older ages
- Attack rates 33-60% in schools
- Symptomatic infections 70%
- CFR 0.7% (hospitalized cases)
- High fatality in pregnancy, obesity, chronic diseases

Confirmed influenza cases from ILI surveillance differentiated by influenza strains (%), 18 Jul 2009-18 Nov 2010

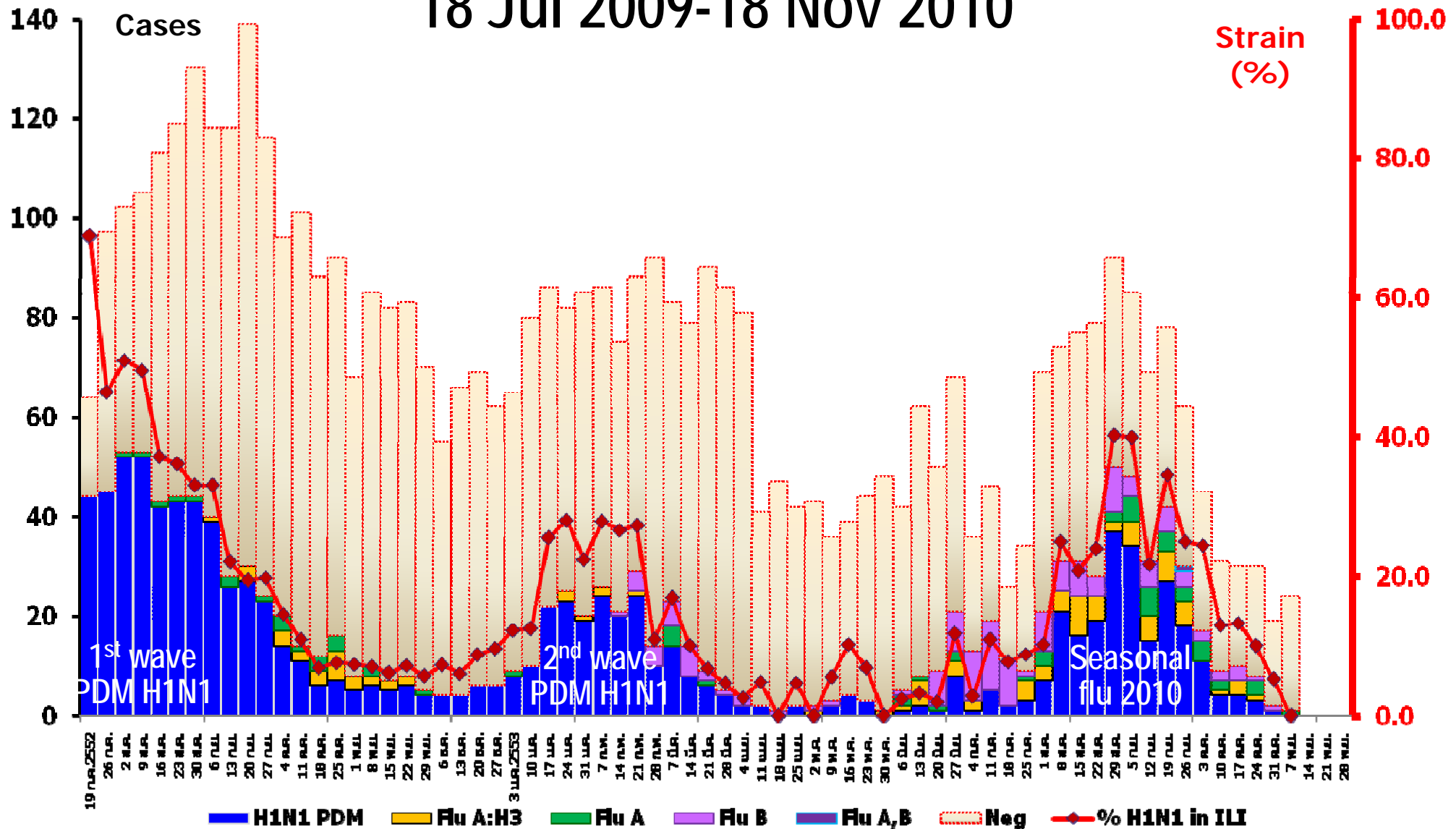


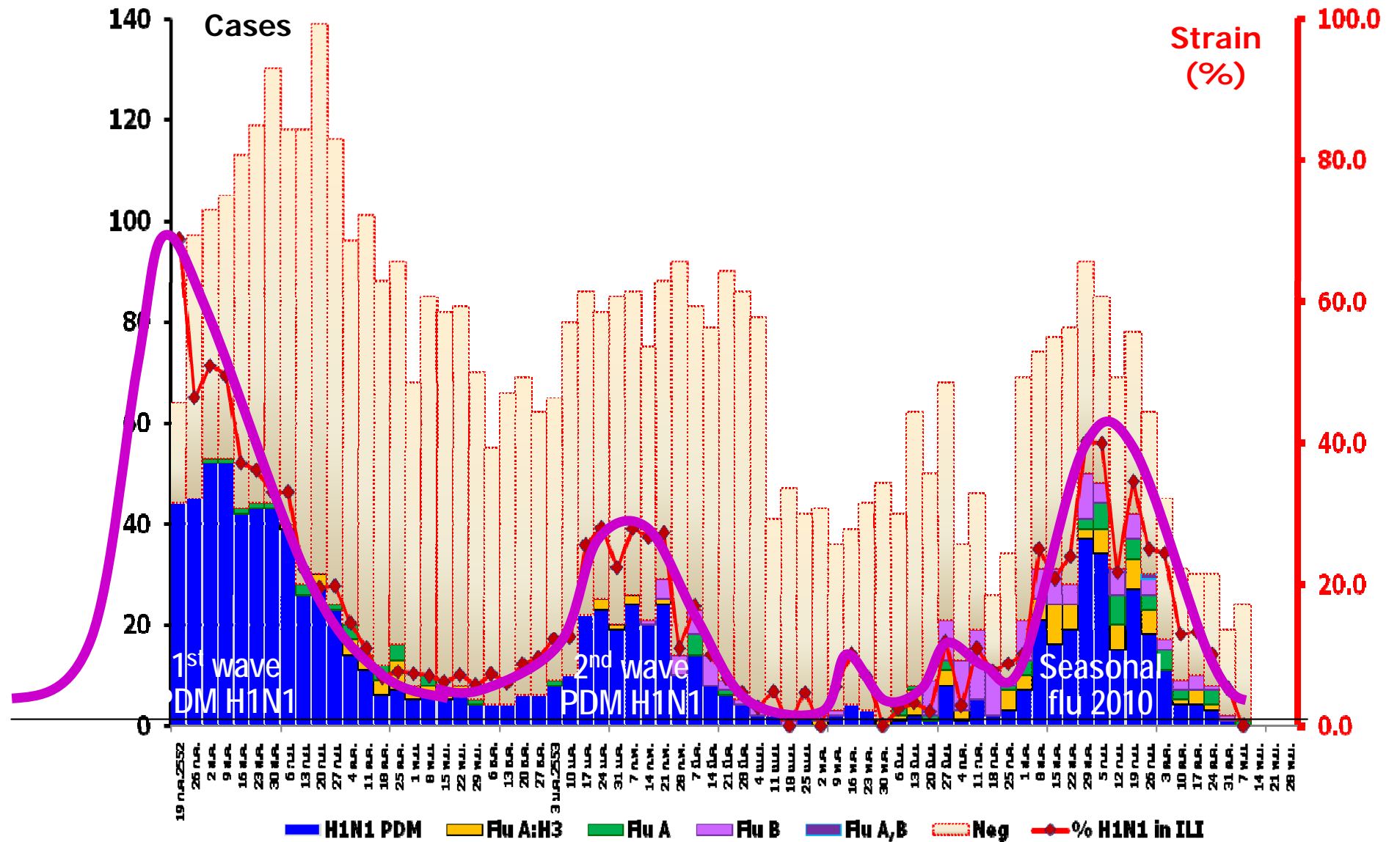
- Estimated 13% pop. infected
- 28,952 cases
193 deaths reported

- Est. add. 8 % pop. infected
- 7,975 cases
32 deaths reported

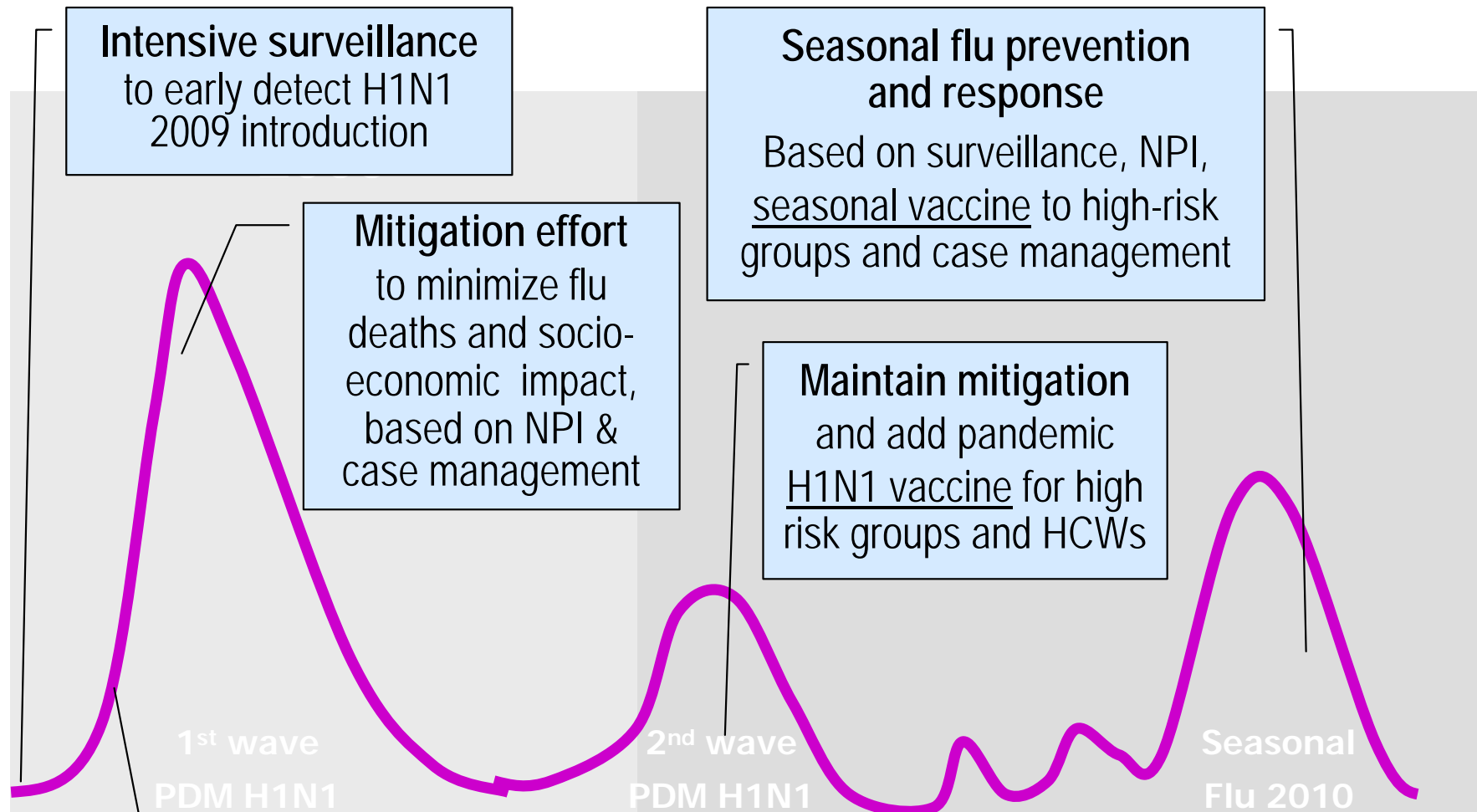
- Est. add. 10 % pop. To be infected
- XXXXX cases, YY deaths reported (20 Nov)

Confirmed influenza cases from ILI surveillance differentiated by influenza strains (%), 18 Jul 2009-18 Nov 2010





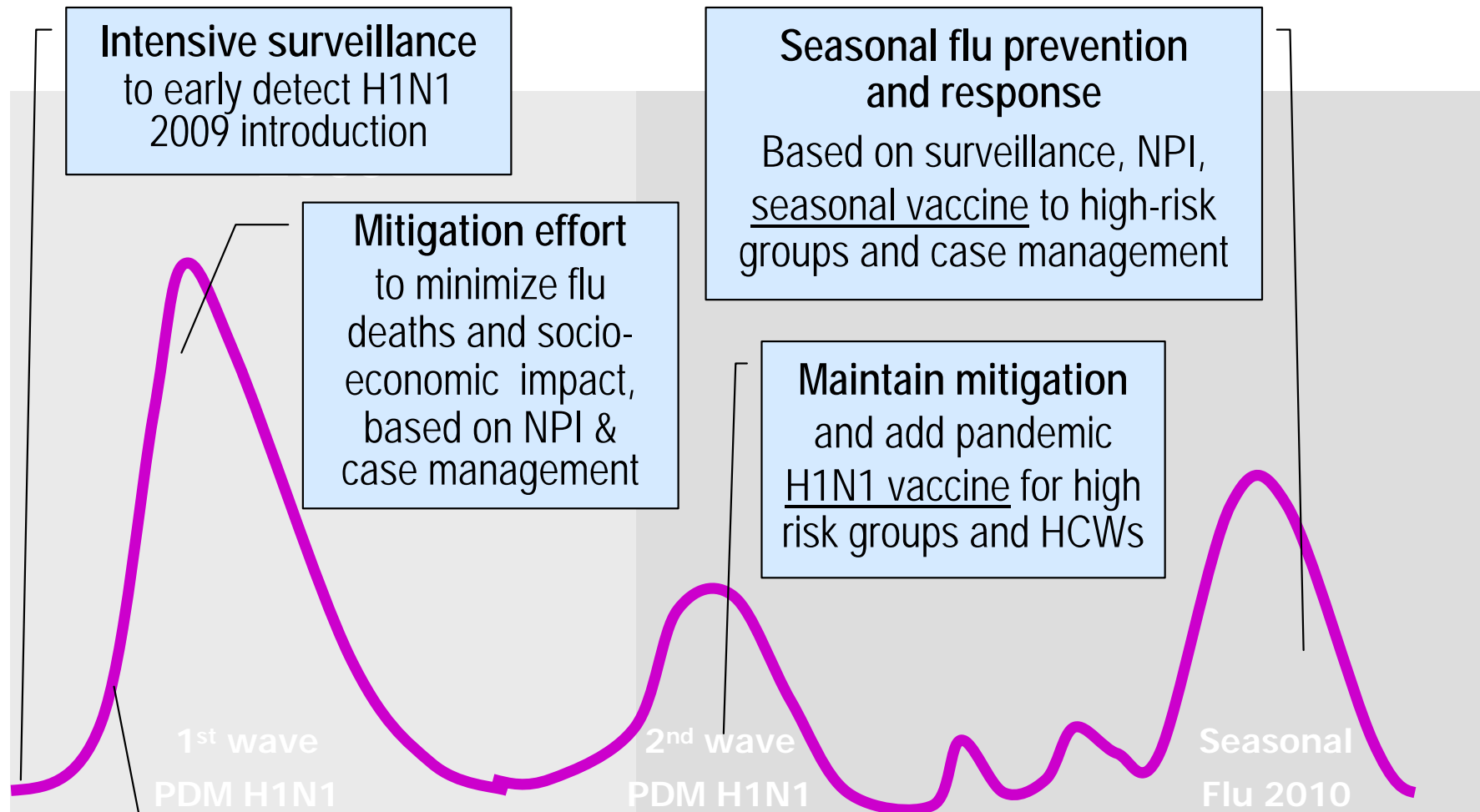
Response to pandemic and seasonal influenza in 2009-2010



Note: this
basically d
not meant
a data bas

Containment effort
to delay spread of local outbreaks, by case
investigations, early management of cases and
contacts, risk communication to promote NPI

Response to pandemic and seasonal influenza in 2009-2010



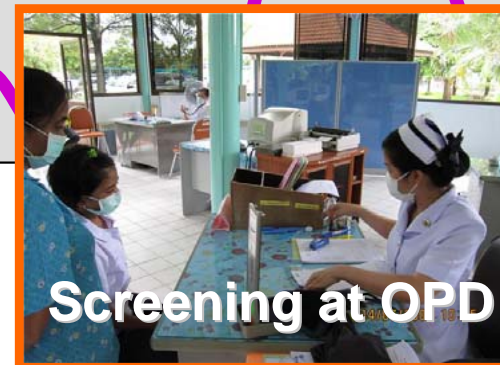
Note: this basically does not mean a data base

Containment effort
to delay spread of local outbreaks, by case investigations, early treatment of cases and contacts, risk communication to encourage NPI

Response to pandemic and seasonal influenza in 2009-2010



Mitigation strategies



Note: this is a basic overview and does not mean to represent a data base

National pandemic influenza preparedness planning eventually paid off

Rapid response to pandemic H1N1 2009 in Thailand was attributed significantly to national policy and preparedness planning initiated since 2005.

Policy mechanism

- National committee on AI and PI Government policy, chaired by DPM – main policy forum
- MOPH and DLD - main partners for technical and strategic input
- Technical support of expert committees and working groups
- Feedback from media, entrepreneur and the public

A portrait of a man in a dark suit and tie, speaking at a podium with microphones. He is looking towards the camera.

Government

**National
Committee on Avian
and Pandemic Influenza**

With representatives of
multi-sectors and support
of experts



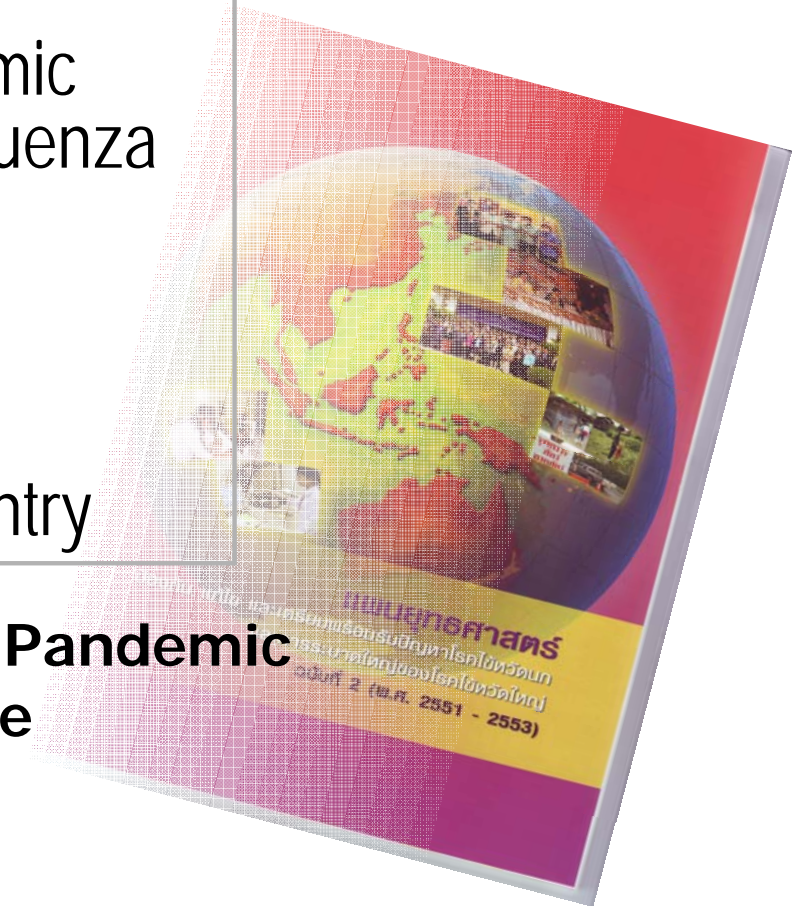
Policy on pandemic influenza preparedness and response

Policy

- Mitigating health, social and economic impact from avian and pandemic influenza
- With maximum multi-sector and international cooperation
- While improving sustainability of the program and self-reliance of the country

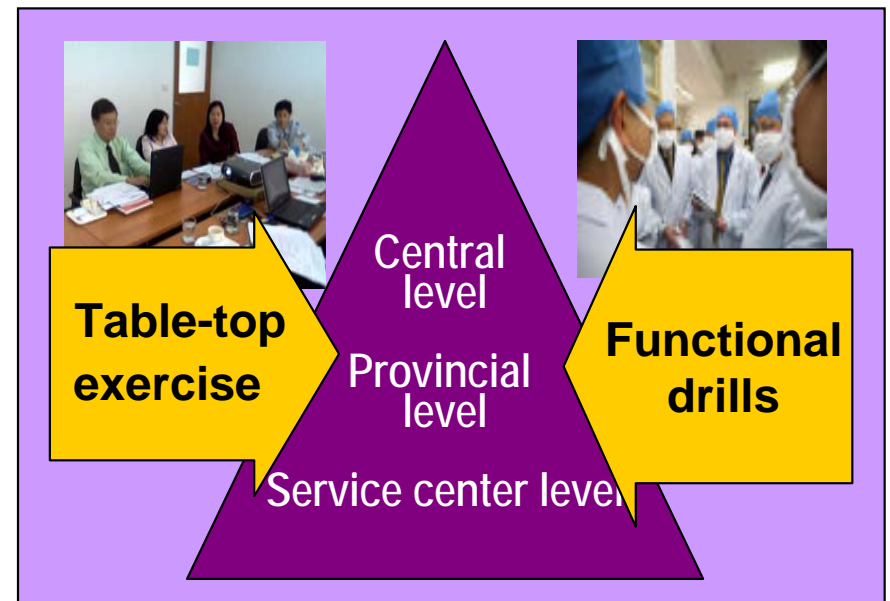
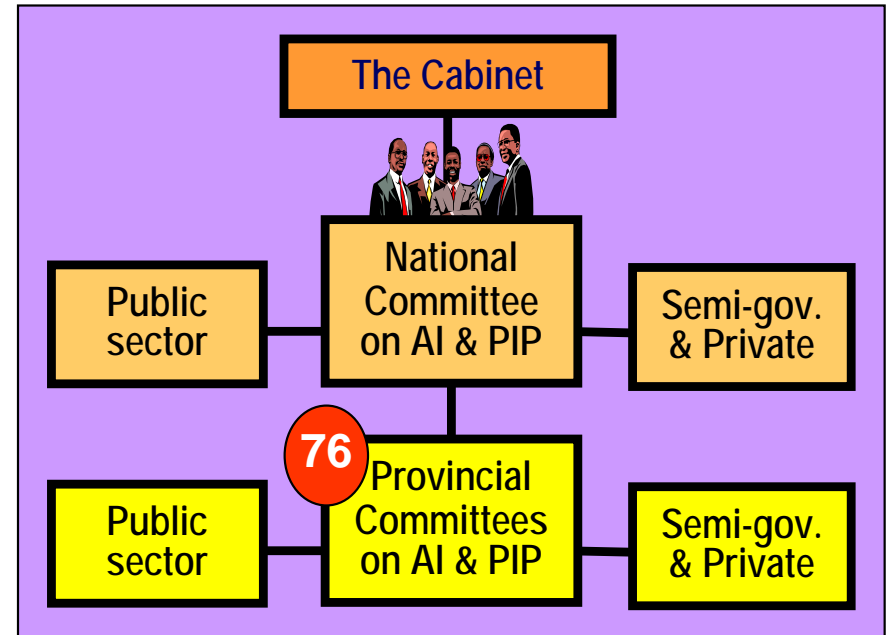
National Strategic Plan on Avian and Pandemic Influenza preparedness and Response

- Revision 1 (2005 – 2007)
- Revision 2 (2008 – 2010)

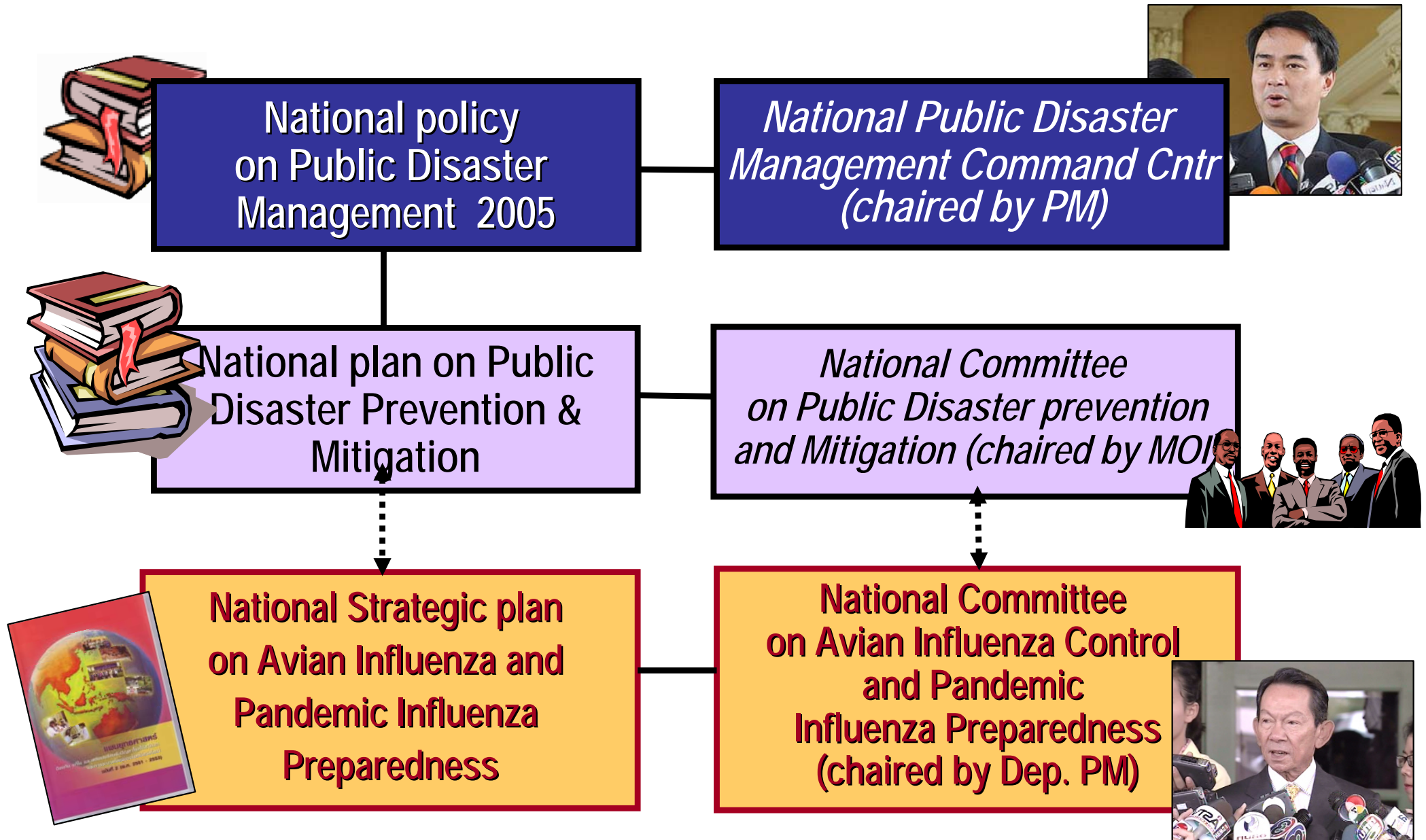


PIP policy implementation

- Policy expressed and elaborated in National Strategic Plan for AI & PI since 2005
- National Strategic Plan serving as framework for multi-sectors corporate/agency plan.
- National budget for pandemic preparedness projects/activities in public sector planned and secured accordingly
- Multi-sector simulation exercises conducted periodically in all provinces.



AI & PI preparedness integrated in National Disaster Management system



BCP put to test in pandemic H1N1 2009



Health

Labour

Commercial

Education

Multi Sectors

Finance

Essential service

Security

Other

Business continuity plans in actions (1)



- Ministry of Education provided flu guidelines to schools, based on MOPH advices; organized training for school administrators and parents stressing on daily check for illness, keeping sick students at home, ensuring sanitation & health education, and consideration for school closure.
- Ministry of Tourism and Sports, with private sector partners , organized pandemic influenza awareness campaigns in major tourist resorts, eg. Chiangmai, Pattaya & Phuket, & promoted physical exercise and sports in public places.
- Thai Airways International strengthened flu prevention and established an internal team to audit prevention measure quality in airline services. Other local airlines joined forces.

Business continuity plans in actions (2)



- Ministry of Labor ran influenza prevention campaigns in 5,000 large and small factories in 20 industrial estates. The Cabinet endorsed sick leave with pay for public and private employees suspected of getting flu.
- Department stores in all provinces organized and maintain flu awareness and prevention campaign for customers & workers. Retail Shop Association, promoted flu prevention for member retail shops countrywide.
- Bank of Thailand spearheaded preparation of BCP for pandemic influenza, setting framework for other local banks. Muang Thai Insurance pioneered flu awareness and prevention campaign, serving as model for other fellow entrepreneurs and the public.

Business continuity plans in actions (3)

PTT's MD opened campaign



- Major state enterprises in energy, eg. PTT, EGAT, REGAT activated emergency response committee to coordinate flu response according to BCP. These enterprises maintained flu prevention throughout the pandemic.
- VHV's countrywide (over 800,000) participated in risk communication and surveillance for flu and ILI. Local administrations, health authorities and NGOs jointly ran villager dialogues on health issues including flu.
- All armed forces (Army, Navy, Air Force and Police) launched campaign, to ensure flu protection of the national forces. Special attention was given to sick personnel during drills, to avoid severity from flu.

Capacity built (1)

The capacity built under pandemic preparedness, and tested in H1N1 2009 response, can be further developed for response to future public health emergencies.

- Hospital management (OPD & IPD) to cope with rapid rise of cases
- Isolation rooms for infectious diseases are set up in all public hospitals
- Clinical practice guidelines quickly developed, widely distributed and periodically updated



Capacity built (2)

- Improved surveillance & investigation
 - Epidemiologic (ILI, pneumonia, AEFI, SRRT)
 - Virological (PCR, virus isolation, genome sequence, AV sensitivity.)
- Risk communication network, through media and community-based (active roles of health volunteers, community leaders and NGOs)
- Business continuity planning and responses for flu in multi-sectors
- Command, control and coordination in public health emergencies at central and provincial levels

Capacity built (3)

- Stockpiles of antivirals and PPE are sufficient and provide timely supply. The national stockpiles are in connection with regional stockpiles (WHO, ASEAN)
- GPO has established Oseltamivir production capacity.
- Influenza vaccine capacity
 - Pilot production of pandemic influenza vaccine under WHO's GAP,
 - Industrial production of seasonal flu vaccine under preparation by GPO
 - National seasonal flu vaccination since 2008



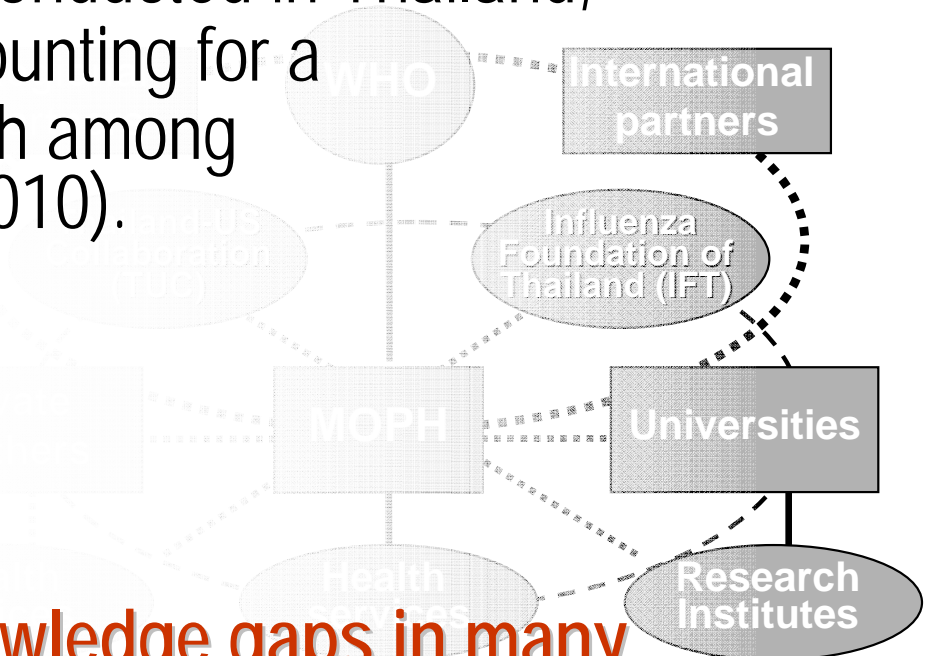
Capacity built (4)

GPO's manufacture plant for influenza vaccine

- Currently under construction in Saraburi Province
- Capacity 2 – 10 million doses / year
- To produce seasonal influenza vaccine annually, and switch to a pandemic vaccine when necessary

Capacity built (5)

- Research partnership and networking on influenza-related areas (eg. clinical, epidemiology, vaccine, diagnostics, behavior, etc) has been established and strengthened.
- Numerous flu research has been conducted in Thailand, especially in the past 5 years, accounting for a significant proportion of flu research among SEAR countries (Jan 2005-June 2010).
 - On seasonal flu - 49%
 - On zoonotic flu - 54%
 - On zoonotic flu - 28%



Although, there remain huge knowledge gaps in many areas including those related to the development of policy, strategy and tools for influenza management.

Learning from successes and failures (1)

MOPH-WHO Joint review of Pandemic Influenza Response in Thailand's

To review strengths and gaps in pandemic influenza preparedness and response in Thailand in 2009 and provide recommendations on areas for improvement

(August – December 2009)

Areas under review
Clinical management
Risk communication
Laboratory capacity
Operation & Logistics
Surveillance
Control measures
Border & migrants



Learning from successes and failures (2)

MOPH-WHO joint review

Control: Surveillance & screening

•Strengths:

Comprehensive case detection systems at local level /
Adaptation to local context / School absenteeism data
could be collected / A range of screening approaches

•Challenges:

Proportionality of extensive screening and exclusion
policies / Cost-effectiveness / Avoiding excessive
burden and fatigue / Defining the goal - reduce severe
morbidity vs reduce transmission

Learning from successes and failures (3)

MOPH-WHO joint review

Control: Border measures

- **Strengths**

- Involvement of multiple stakeholders, across government and private sector (eg, disaster response, TG, EGAT, etc.)
- Includes thermal screening, positive practise, aircraft cleaning etc.

- **Challenges**

- evidence of efficacy (eg thermal screening)
- high volume of travel in and out of Thailand
- Timely starting and stopping

Learning from successes and failures (4)

MOPH-WHO joint review

Control: School closure & screening

- **Strengths:**
 - Comprehensive school screening system
 - Experience of difficulties
 - Evaluable data
- **Challenges:**
 - Effectiveness remains unknown
 - May be required to reconsider policy
 - Inconsistencies with a 'case by case' approach

Learning from successes and failures (5)

Recommendations from MOPH-WHO joint review

- **Surveillance:** Develop 5-year strategic plan for influenza surveillance and control in pandemic and inter-pandemic periods
- **Laboratory:** establish PCR capability in additional provincial centers. NIC and Universities to focus on 'higher level' functions
- **Case management:** All healthcare facilities to further expand outbreak preparedness plan to cover other health disasters and exercise the plan
- **Risk communication:**
 - Train senior spokespersons on emergency communication.
 - Improve utilization of communication "intelligence", including media monitoring, call lines, and information from VHV network.
 - Plan public communication for H1N1 vaccination.

Learning from successes and failures (6)

Recommendations from MOPH-WHO joint review

- **Control: Surveillance & screening:**
 - Stratify intensity of screening by risk setting & benefit
 - Evaluate practicality, utility, cost-effectiveness of screening
- **Control: Border measures:** Consider evaluation of the effectiveness and cost-effectiveness of interventions
- **Control: School closure & screening:** Rigorous evaluation of impact of BMA school closures by District (This will be useful for Thailand but also internationally)
- **Operation & logistics:** Review 'functionality' of incident command system and SOP. Review logistic supply systems in view of future needs.

Another lesson: treat media with care

“MOPH covers up flu deaths”

“Miss-guided MOPH gets lost in fighting deadly flu”

“Health ministers competing for publicity in flu fight.”

“Deadly H1N1 vaccine kills babies”

Media are great partners in flu battle, handle them with care.



Another lesson: background rates strike back



- MOPH secured 2 million doses of H1N1 2009 vaccine to protect high-risk pop. in 2nd wave of pandemic.
- Target groups included: pregnant women / obesity / handicapped / chronic diseases / frontline HCWs
- Public concern quickly mounted over vaccine safety in pregnancy, enhanced by active media, resulting in dramatic drop of vaccine uptake
- This reflected on insufficient preparatory risk communication, especially to address background rates of abnormalities associated with pregnancy (eg. 10% spontaneous abortion, 7 intrauterine deaths per 1,000 LB)
- Also highlighted are crucial role AEFI surveillance and independent experts to verify AEFI.

Another lesson: helping hand of cottage industry

- In the early phase of the pandemic H1N, health protection products such as facemask and alcohol hand rub, mostly imported items, quickly ran out of supply from local markets.
- However, local industry picked up fast in response to rising public demand. Soon, local markets were filled with good supply of these products.
- Cottage level industry countrywide (including OTOP) has also taken part in the production and supply of simple versions of these health products.



Another lesson: Friends in need are friends indeed.



FAO / OIE



Asia-Pacific
Economic Cooperation

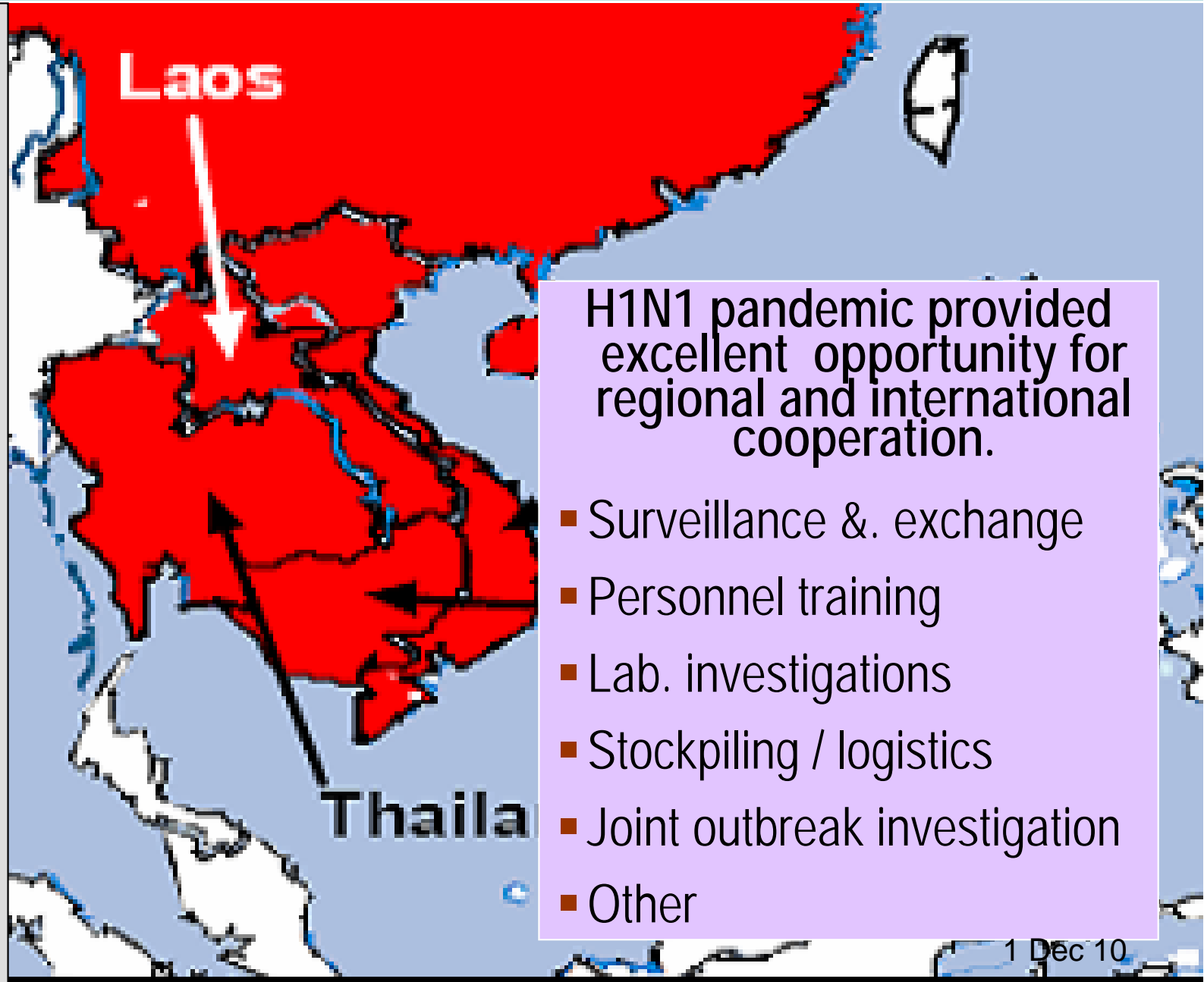


MBDS

JICA

AUSAID

SPF



H1N1 pandemic provided excellent opportunity for regional and international cooperation.

- Surveillance & exchange
- Personnel training
- Lab. investigations
- Stockpiling / logistics
- Joint outbreak investigation
- Other

What next? (1)

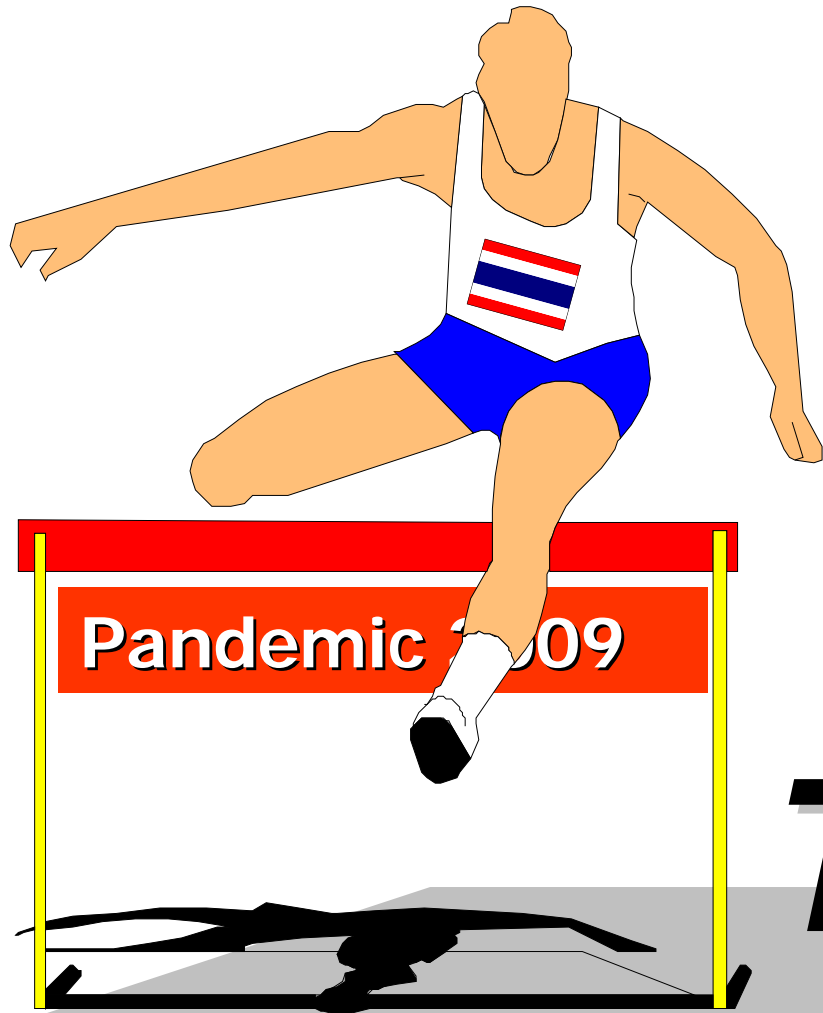
- Utilize findings and recommendations from Joint MOPH-WHO review in policy & strategic planning at different levels.
- Prepare a new national strategic plan for preparedness and response to emerging diseases (2011-2015), also in response to urges at 2009 National Health Assembly
- Establish a national “Public Health Emergency Incident Command Centre” with clearly defined ‘command and control’ functions.
- Revitalize the national Hospital Infection Control Committee responsible for coordinating and strengthening hospital infection control throughout the country.
- Improve the delivery of critical care in hospitals.

What next? (2)

- Consolidate, streamline, and improve the performance and long-term sustainability of national influenza surveillance.
- Strengthen and optimize the Public Health Laboratory Network, expand PCR capability to provincial hospitals.
- Establish MOPH risk communication operations unit.
- Strengthen human resources in key areas, including emergency planning, incident command systems, risk communication, field epidemiology, laboratory and SRRTs
- Enhance promotion and support for multi-sector BCP for EIDs and public health emergencies (PHEs).
- Continue and expand regional and international collaboration for joint actions and enhanced national capacity to prepare and respond to PHEs

Conclusion

- Although influenza pandemics are not predictable, but they are foreseeable and can be prepared for. Pandemic influenza preparedness in most places has paid off nicely.
- H1N1 2009 pandemic has taken its toll and registered tremendous impact globally, although at less profound extents than anticipated.
- The preparedness to pandemic threat and the response to H1N1 2009 pandemic have essentially provided great opportunities for enhancing capacities in public health and other sectors to cope with PHE and other disasters. Manpower capacity constitutes the most vital element.
- H1N1 pandemic has demonstrated the need for continuous disaster / emergency preparedness. Multi-sector and regional / international cooperation is an essential and utmost success factor.



Thank you