

**International Workshop
on H1N1 in South East Asia:
Local Response, Best Practices,
Future Preparedness and Control**

24th February, 2011
The Bellevue Manila,
North Bridgeway, Filinvest Corporate City,
Alabang, Muntinlupa City, Philippines

**Tohoku University
Graduate School of Medicine
The Sasakawa Peace Foundation**



Foreword

The Sasakawa Peace Foundation has been working on pandemic issues since 2008 under its Non-Traditional Security Issues program, which targets common and borderless threats to human life, security and the socio-economy in Asia. The project is led by Dr. Hitoshi Oshitani, Professor of Department of Virology, Tohoku University Graduate School of Medicine and envisions enhancement of preparedness at the local level as well as cooperation at the regional level as strategies to mitigate the impact of pandemic influenza.

In the project, Tohoku University has handled pandemic preparedness at the local level. The university has been working with the Research Institute for Tropical Medicine (RITM) in the Philippines and has been implementing a pneumonia study in Eastern Visayas Region (Region VIII) in the Philippines. They have been working with local hospitals and regional offices of the Department of Health (DOH) of the Philippines. Fully utilizing this platform, the university has conducted studies on risk factors of pneumonia during the pandemic, as well as pilot studies on surveillance and education.

In order to share the findings from the project and discuss lessons learned and future perspectives among Asian countries, the University and the Sasakawa Peace Foundation held the “International Workshop on H1N1 in South East Asia: Local Response, Best Practices, Future Preparedness and Control” in February 2011, Manila. At the first conference on pandemic A (H1N1) in Tokyo March 2010, the workshop focused on lessons learned from local perspectives.

This report is a summary of speakers’ presentations and panel discussions at the workshop. We hope the discussions will be shared with stakeholders in Asian countries and will contribute to better local preparedness against emerging infectious diseases including H5N1 in Asian countries.

We would like to express our special gratitude to Professor Hitoshi Oshitani from Tohoku University and Assistant Professors Dr. Raita Tamaki, Dr. Akira Suzuki, Dr. Taro Kamigaki, Dr. Mariko Saito and Dr. Michiko Okamoto, Ms. Mariko Takashina, Ms. Mary-glor C Guevara and Mr. Takeo Tamura for their dedicated work. We would also like to thank Dr. Remigio M. Olveda and Dr. Socorro P. Lupisan from the Research Institute for Tropical Medicine (RITM) in the Philippines, Dr. Hitoshi Murakami from United Nations System Influenza Coordination and Dr. Kiyosu Taniguchi from the National Institute of Infectious Diseases in Japan for their extensive support.

Jiro Hanyu

Chairman

The Sasakawa Peace Foundation

本ワークショップの背景と要旨

笹川平和財団では、非伝統的安全保障プログラムの一環として、2008 年度より「新型インフルエンザによるパンデミック対策と域内協力」事業を実施してきた。高病原性鳥インフルエンザ(H5N1)が新型インフルエンザに変異した場合に備えて、途上国の地方レベルのパンデミック対策の向上と域内連携の促進を目指すものである。

東北大学大学院医学系研究科の押谷仁教授を事業運営委員長として事業を展開してきたところ、2009 年春に新型インフルエンザ A(H1N1)が発生し、瞬く間に世界的流行(パンデミック)となった。途上国の被害が深刻になると予想されたため、東北大学を主体として途上国のパンデミック対策に関する研究を支援することとなった。フィリピンの東ビサヤ地域(Region 8)では、フィリピン国立熱帯医学研究所をはじめ、地域保健局、保健センターや各レベルの病院などの協力を得て、重症肺炎の危険因子分析、サーベイランス構築、啓発活動の試行とコミュニティでの住民意識調査などを実施した。

本ワークショップは、その研究成果をアジアの周辺国と共有するとともに、H1N1 を通じて得られた教訓や今後の展望について議論することを目的として、2011 年 2 月にマニラで開催したものである。2010 年 3 月に東京で開催したシンポジウムに続く2回目にあたるが、今回は地方レベルのより具体的な対策がテーマとなった。ワークショップには、フィリピンに加え、インドネシア、ラオス、タイ、ベトナムから中央・地方レベルの政府の感染症対策官および世界保健機関(WHO)の西太平洋地域事務局(WPRO)から疫学専門家らが出席し、各国の取り組みや課題などを共有した。

アジア太平洋地域において、各国の異なる政策・保健医療システムに関わらず、パンデミック対策・対応に関して共通した 5 つの問題が提示された。第一に、パンデミックに対する対策として当初は「早期封じ込め」を行ったが、「被害軽減」へと移行するタイミングの問題があった。第二に、医薬品ロジスティック及び医療システムの問題が挙げられる。必要な時にワクチンはなく、抗ウイルス薬や Personal Protective Equipment (PPE)などの供給が不足した。また、病院や地域の保健センターなど臨床システムにおけるキャパシティが飽和した。第三に、サーベイランスについては、ポイント・オブ・ケア・テストング(POCT)等の、地方レベルでの迅速な臨床検査が求められた。第四に、教育とリスク・コミュニケーションについて、情報の行き渡りにくい層や貧困層へのエンパワメントを考慮に入れることが必要である。また、メディアにどのように対応していくかも考慮する必要がある。第五に、新型インフルエンザ対策として、国レベルと地方レベルの連携・協調の重要性が挙げられる。地方レベルでは異なるアプローチが必要であり、国レベルと連携した協調的メカニズムが求められている。

これらの問題点を受けて、今後の方向性が模索された。まず、地方の能力を強化することが重要であるとの共通認識を得た。能力強化のための枠組みとして WHO の東南アジア地域事務局(WPRO)と南西アジア地域事務局(SEARO)ではアジア太平洋新興感染症戦略 2010(APSED2010; Asia Pacific Strategy Emerging Diseases 2010)を策定している。この枠組みは、国レベルだけでなく地方レベルの能力強化にも適用される。次に動物衛生部門との連携というような、異なるセクター間での連携の重要性が認識された。パンデミックに対する準備・計画は独立したものであってはならず、異なる垂直的プログラムではなく、他の感染症の発生や他の公衆衛生上の脅威との統合的アプローチをとらなければならない。また、リスク評価や地方での封じ込めといった、事前対策の重要性を再確認した。本報告書の内容が国内外の関係機関に広く共有され、新型インフルエンザ対策のみならず、アジアの新興・再興感染症の対策の向上に資することを期待する。

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Abbreviations

APSED	Asia Pacific Strategy for Emerging Disease
BOD	Burden of Disease
CDC	Centers for Disease Control and Prevention
CM	Clinical management
CUO	Cases under observation
DOH	Department of Health
FAO	Food and Agriculture Organization of the United Nations
GOs	Government organizations
HCWs	Healthcare workers
IC	Infection control
IEC	Information Education and Communication
IHR	International Health Regulations
ILI	Influenza-Like Illness
KAP	Knowledge, Attitudes, Practices
LGU	Local Government Unit
OIE	World Organization for Animal Health
RHU	Rural Health Unit
RITM	Research Institute for Tropical Medicine, the Philippines
R0	Basic reproduction number
SEARO	World Health Organization Regional Office for South-East Asia
WPRO	World Health Organization Regional Office for the Western Pacific

Keynote speech

Influenza pandemics and pandemic preparedness in South East Asia

Dr. Hitoshi Oshitani, Professor, Tohoku University Graduate School of Medicine



Before 1997 there was no pandemic preparedness plan anywhere in the world, including South East Asia. In 1999, WHO published the outline of a pandemic preparedness plan and many countries developed their own plan. Because of H5N1, many countries have established better laboratory capacities to respond to pandemics with the support of the US CDC. A laboratory network was established before 2003 and this was utilized during pandemic H1N1.

We also identified many gaps during pandemic H1N1. Anti-viral drug shortage was an issue during the 2009 pandemic. Most countries had a problem switching their control strategy from containment to mitigation during the H1N1 pandemic.

Because of H5N1 in South East Asian countries, many pandemic preparedness plans focused on rapid containment. In the rapid containment model, national-level response is more important and the national government is supposed to support local response. This is also the case for other localized outbreaks. Most outbreaks are localized, thus if there is significant outbreak, the national government usually supports the local government's response. But this model didn't work well for pandemic H1N1. H1N1 outbreak occurred simultaneously in many places in each of the countries affected, therefore the respective national governments could not support the local governments sufficiently

That's why the local government response is important. We need to improve local response capacity based on the response to the H1N1 pandemic in 2009. That is the main objective of this workshop.

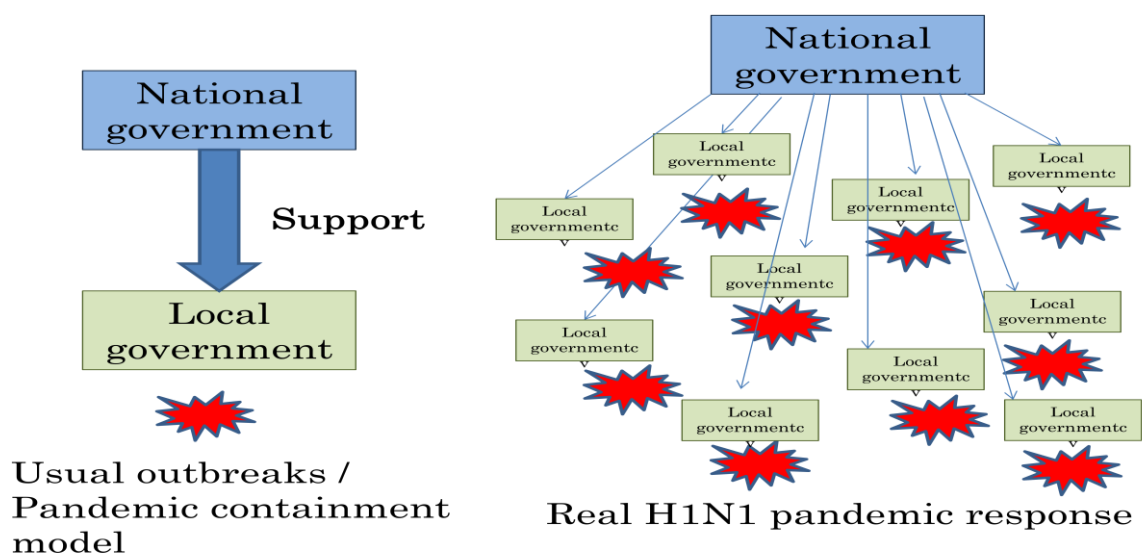


Fig. National and local response

Morning Session

WHO Global Picture of the influenza A (H1N1) Pandemic

Dr. Jeffrey Michael Partridge, Medical Officer, WHO

Overview of global epidemiology

Around 18,400 deaths have been recorded in more than 125 countries from H1N1, though the official number underestimates the actual number. By May 2009, the pandemic had spread to more than 50 countries including southern hemisphere countries. It peaked at the end of 2009 in Middle East and Africa, and a resurgence of transmission occurred in 2010 in parts of the tropics, but it was generally milder than the 2009 wave.

Infection and disease

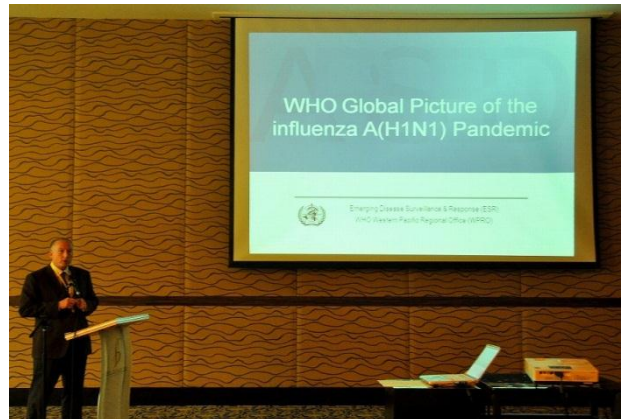
The highest rates of clinical infection were among teens and young adults. Regarding hospitalization, children under five years old had the highest rates, with a median of 20 to 30. Adults between the ages of 50 to 64 with a median of 35 to 51 showed the highest death rates. This age group is young compared to that with seasonal influenza. The highest risk of death once infected increased with age above 65, though there were relatively low absolute numbers of deaths in this age group. People with underlying medical conditions, those at extremes of age, and pregnant women, had higher risk of severe or fatal outcome.

WHO global role in response to the pandemic

WHO has responsibility for the following areas:

- Monitoring and risk assessment
- Technical guidance, support of Regional Offices/Member States, and capacity building
- Coordination of global health response
- Communication and information dissemination
- Mobilizing resources, deploying stockpiles, and

ensuring equitable access to pharmaceutical interventions



In the Western Pacific Region, the framework "Preparing for and Responding to Pandemic (H1N1) 2009, included the following components:

- Surveillance
- Healthcare system response (clinical management)
- Public health intervention
- Communication

WHO global pandemic response

1) Laboratory testing, surveillance, capacity

WHO provided laboratory diagnostic protocols for testing and supported countries in capacity building. Biosafety recommendations were also provided for laboratory diagnostics, virus isolation, and vaccine development and production.

2) Surveillance and epidemiology

After developing guidelines on pandemic surveillance, WHO conducted intense ongoing global monitoring.

WHO published regular situation updates and a Weekly Epidemiology Record online.

3) Clinical management

WHO has a multi-disciplinary patient care team covering areas such as child survival, pregnancy, infection control, and displaced populations. WHO provides guidelines for clinical care at various levels such as national and district hospital, community health centre, and home care.

4) Antivirals

WHO developed antiviral guidelines and monitored antiviral resistance globally. WHO ensured equitable access, coordination, and deployment of antiviral stockpile.

5) Vaccine development, safety and policy

Vaccine virus strain selection and vaccine recommendation, distribution and qualification process were carried out. The WHO Strategic Advisory Group of Experts on Immunization (SAGE) reviewed epidemiology data and made vaccine target group recommendations.

6) Vaccine procurement and deployment

The WHO coordinated distribution of donated pandemic influenza vaccine to eligible countries and prepared countries to receive vaccines. Governments, foundations and manufacturers pledged approximately 200 million doses of vaccine (122 million doses were committed to reach at least 10% population coverage), 70 million syringes, and US\$ 48 million for operations.

What's next?

Review of the WHO response and lessons learned is now underway. We are also interested in advancing the global public health research agenda for influenza. We will refine the framework for assessing pandemic severity and review and update numerous guidance documents.



Q & A

Q: It took quite a long time to deliver vaccines during the pandemic. Is there any prospect to shorten the delivery process in the future?

A: There is a global plan for increasing access to vaccines. There are several components, for example, developing additional manufacturers worldwide through technology transfer; streamlining regulatory processes; and refining deployment plans not only from the WHO side but also from the recipient country side.

Q: In the 2009 pandemic, laboratories were overwhelmed by specimens. Is there any WHO guidance for testing specimens?

A: There is guidance on this with systematic recommendations. However, each country must consider and adapt these recommendations because of differences in capacity. We want to identify some specific lessons learnt on this as part of the regional pandemic review meeting that will take place in Beijing in March.

National response for Pandemic (H1N1) in the Philippines

Dr. Enrique A. Tayag, Director IV, National Epidemiology Center and San Lazaro Hospital,
Department of Health, Philippines



Chronology of Influenza A (H1N1) Events

[2009]

April 30: The secretary of health had a command conference with representatives from all regions to firm up preparedness and readiness to a potential pandemic.

May 4: The first guideline was posted on the website.

May 24: We reported the H1N1 outbreak at a mass gathering. We exchanged information with Taiwan though Taiwan is not recognized as a member state of WHO.

June 3: The first H1N1 outbreak in a university was reported.

June 11: WHO raised pandemic alert to level 6.

June 15: The first sustained transmission following a community outbreak was reported.

June 21: The first H1N1 death was reported with an episode of difficulty in breathing. It was problematic because we could not correlate the death to H1N1.

June 24: DOH shifted its strategy from containment to mitigation. We were waiting for WHO announcement so we delayed moving to mitigation.

September 12: We harmonized influenza reporting together with laboratory surveillance reporting. We were gathering information from the media.

[2010]

March 20: Over 5,000 cases of pandemic H1N1 with 32 deaths were reported. Laboratory testing in the country started to link with treatment.

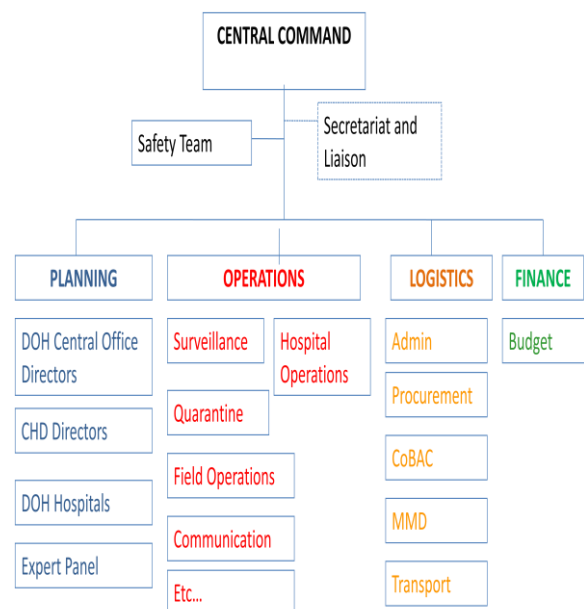
April 26: The Philippines was the first country to receive vaccines - over three million doses - though WHO informed us to reduce that by half.

Early weeks of the pandemic

Organizing response: we established a task force as central command.

First line of defense: surveillance.

Calming public anxiety: risk communication. We had daily media meetings with members of the press to provide briefings



Firming up stockpiles: logistics. The strategy was initially to use stockpiles to contain the pandemic.

Overriding management imperative: containment to prevent virus spread.

The responsibilities of each group of central command were as follows. Planning group is responsible for the plan and guidelines. Operations group is responsible for implementation. Logistics and finance support the implementation.

Points of entry: A containment paradigm

Thermal scanning to screen for febrile illness was conducted but we could not even detect more than 10 cases at points of entry. We advocated voluntary home quarantine for returning residents and other travelers, not to undertake exit screening, and contact tracing where practicable and feasible. For surveillance, we included important parties. CUO (case under observation) investigation form was distributed and filled out for every case.

Towards the peak of the pandemic

We anticipated widespread transmission so we had to enhance surveillance. However, during the peak of the pandemic, the laboratory capacity could not cope with the surge of patients seeking tests. Although laboratory tests were extended to other nations, patients recovered while waiting for tests. Antivirals were not offered because we were waiting for the results.

We used different surveillance forms and this led to different counts of cases and deaths. That was problematic.

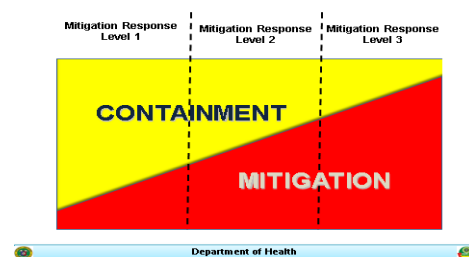
Then we shifted to mitigation and stopped testing everyone. We did not get all specimens any more. We were also isolating other influenza viruses.

Guided response (24 guidelines)

We started from clinical management guideline and developed 24 guidelines on infection control, laboratory diagnosis, mitigation response and so on. They are available on our website.

Stepwise approach

In order to calibrate our response, we investigated the site of cluster infection. Three levels of mitigation response were set and we gradually shifted from containment to mitigation. On level 1, there is no clustering of cases and community level transmission. On level 2, community level transmission is beginning. Information awareness should be the focus here. On level 3, there is sustained community transmission. We have to maintain health facilities and make sure of home care.



Lessons learned

- Early detection, risk assessment, information sharing and response, and global coordination were keys in mitigating the impact of the pandemic.
- We also had to calibrate our response according to the information we were getting from the field.

We have to thank the highly motivated and dedicated key health officials. Many people and organizations were involved in averting a larger disaster.



Influenza Preparedness and Local response in Region VIII

Dr. Nicolas Antonio B. Bautista, Medical Specialist IV, CHD-DOH Tacloban, Philippines

Before the H1N1 pandemic

SARS and H5N1 surveillance and preparedness were in place. Identification of referral hospitals and training of staff on infection control were carried out.

Profile of cases

Cases with pneumonia required mechanical ventilation but we had only less than 20 ventilators.

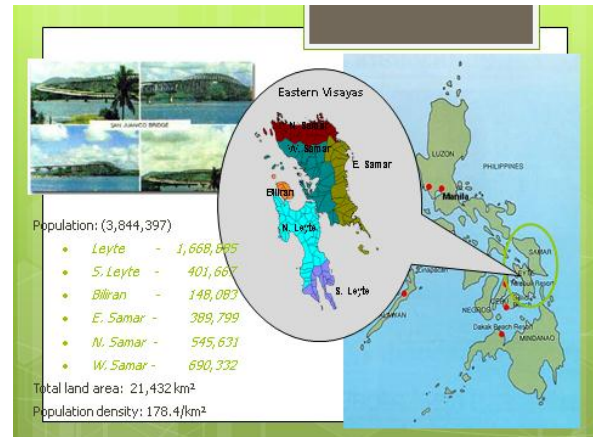
On April 30 we received a call in Manila asking what we would do if H1N1 arrived.

The start of the pandemic

Information dissemination as an advocacy campaign in all six provinces in Region VIII was conducted. Case definition and containment were emphasized. Barangay (Village) health emergency response team which was organized during SARS was reactivated. The team was responsible for monitoring the suspected cases at that time. We had to monitor passengers arriving in Barangay from foreign countries for 14 days and Barangay reported immediately to a higher level.



The operation center at Region VIII was responsible for health management service. A series of meetings with government organizations (GOs) and other regional directors had been conducted.



School closure

A critical issue was coordination with stakeholders, especially the Department of Inter-Local Governance (DILG) and Department of Education (DepEd) on when to close schools. Classes start in June. We tried to separate the students with symptoms inside the schools, though this didn't work.

On June 15, a new shopping mall opened. On June 30 all people went to the fiesta. This might be the reason and / or risk factor why Tacloban city had the highest confirmed cases.

During the height of the pandemic

Only one public referral hospital was admitting cases.

So, we advocated that private hospitals admit



H1N1 cases. We shifted from containment to

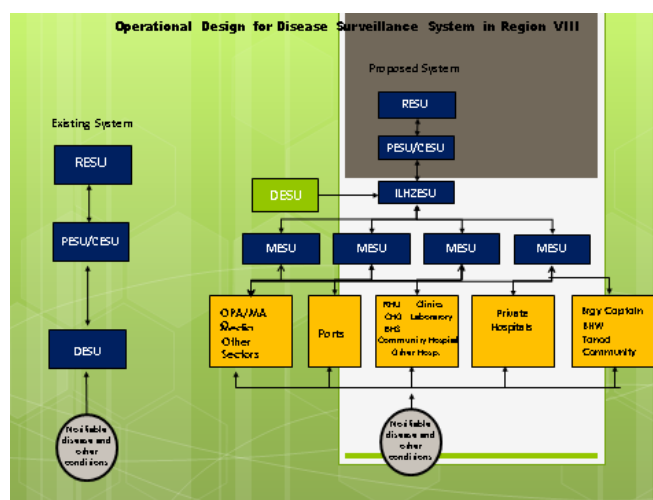
mitigation activities. We performed random sampling for laboratory examinations and advocated voluntary home quarantine. In July we were overwhelmed by recording. In August we practically stopped reporting.

Lessons learned

Good and dynamic leadership is very important. Multi-sector collaboration is important such as joint response from several GOs. We established good communication. There was a conference at least 2 or 3 times a week. Health system should be developed to build up capacity and capability

Institutionalization of response

Surveillance reached Barangay level. We proposed a new surveillance level at Inter Local Health Zone. This is composed of 3 or 4 municipalities. Each municipality reported notifiable diseases to the Inter Local Health Zone Unit.



Challenges

Our challenges are:

- Political
- Technical capability to meet new emerging diseases
- Availability and timely prepositioning of appropriate resources
- When to shift from containment to mitigation

Comments

In the province of Leyte in the Philippines, we made a point of closing schools. Because during mitigation phase the Provincial Health Office was the one giving the information to close the schools but when the schools reopened there was always a stress of briefing different schools.

Local response in Cordillera Autonomous Region (CAR)

Dr. Nicolas R. Gordo, Medical Specialist IV, CHD-DOH, CAR, Philippines

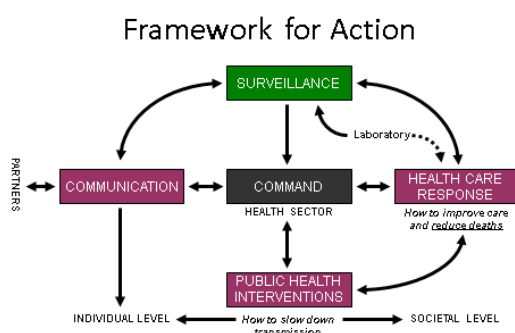


National Pandemic Preparedness Response Plan

Based on national response, we have the influenza task force. For the risk communication plan, we only tasked one official spokesperson on H1N1.

Regional structure for planning and decision making

Initially, the regional structure for planning and decision making followed the existing CHD-CAR Health Emergency Management Staff (HEMS) structure. On 15 June 2009 the unified regional command was created for pandemic response to Influenza A (H1N1). We followed the framework provided by DOH. The framework for action was strong “surveillance” at the start of pandemic, strengthening “Command”, “Communication”, “Healthcare Response” and “Public Health Intervention” to mitigate the impacts. We were prepared for SARS and experienced a meningococcal outbreak before H1N1.



Scenario Building

We estimated the cases by scenario building and knew the relevant proportions. Since Baguio General Hospital could not accommodate the surge in cases, we included some private hospitals in Baguio City later on, considering poor road conditions.



Fig. Scenario Building

Facility preparedness

Logistics including PPEs, specimen collection supplies and antivirals were allocated, distributed and pre-positioned in all provinces through the Provincial Health Offices. A series of trainings on Facility Preparedness Planning and response, Infection Control and Triaging for Health workers in public health and hospitals, and table top exercises were conducted. Continuous surveillance and detection, contact tracing during containment phase, diagnosis and management were also conducted.

Risk communication

Only the identified spokesperson provided official communications on the H1N1 information and updates. All 23 interim guidelines were circulated



region-wide. Tri-media campaigns on describing the flu pandemic and basic prevention and control measures for the public were carried out.

Pandemic Response

May 26: We had the first confirmed case of H1N1.

June 24: Shifting from containment to mitigation.

July 8: Some schools in Baguio City suspended classes due to increasing ILI cases.

During containment phase cases were reported to health facilities for care. During the mitigation phase the strategy was home care. All pregnant women and other high risk groups like the elderly were targeted for vaccination.

Our pandemic responses were:

- Medical intervention
- Non-medical interventions
- Social services (to keep society running)



Knowledge, Attitudes, Practices (KAP) on Non-Pharmaceutical Interventions against Influenza A (H1N1) Region VIII, Philippines

Dr. Raita Tamaki, Assistant Professor, Tohoku University Graduate School of Medicine

Introduction/Rational of KAP

KAP studies are qualitative and/or quantitative cross-sectional surveys to assess mostly health-related events for health planning/evaluation for policy makers.

Non-pharmaceutical interventions/ preventive measures such as mask use, hand washing and social distance might be essential strategies along with good community awareness and compliance.

To create an effective strategy against pandemics requires understanding of the factors associated with community KAP for health planning. However, little is known about KAP regarding Influenza A (H1N1) pandemic among people in the Philippines.



Communication (IEC) materials was conducted by JICA. In other sites passive intervention was performed by placing IEC materials in Rural Health Unit.

Prevention and Protection from Novel Influenza A (H1N1)

39 countries affected/72 people died/8480 people sick/still spreading (as of May 17)

What is Influenza A (H1N1) ?

Influenza A (H1N1) is caused by a novel flu virus that resulted from the reassortment of 4 viruses from pigs, humans and birds. This virus is spreading from person-to-person, probably in much the same way that regular seasonal influenza viruses spread. There is no vaccine yet to protect humans from this virus. But there are existing and recommended medicines that are effective in treating these Influenza A(H1N1) viruses.

What are the symptoms and signs of A (H1N1) ?

- ✓ Influenza like symptoms
- * Fever
- * Fatigue
- * Runny Nose
- * Muscle or Joint Pains
- * Sore throat
- * Lack of Appetite
- * Cough
- * Nausea Vomiting
- * Headache
- * Diarrhea

Who are the high risk individuals ?

- ✓ Pregnant woman
- ✓ TB/HIV patients
- ✓ Children less than 5 years
- ✓ Persons 65 or older
- ✓ People with Chronic lung disease, Cardiovascular disease, Disease of kidney/liver/blood and metabolism.

Who can be infected with A (H1N1) ?

Initial case can be a patient with Influenza like symptoms and history of travel to an A (H1N1) affected country. OR resides in a community with confirmed cases of A (H1N1) OR close contact with a suspect human case of A (H1N1) within 10 days of symptom onset

How is it transmitted ?

Exposure to droplets from the cough and sneeze of the infected person
* Influenza A (H1N1) is NOT transmitted by eating thoroughly cooked pork

How can disease be prevented ?

- ✓ **Respiratory (cough) etiquette**
- * Cover your nose and mouth, and turn away from people when coughing and sneezing.
- * If you have a cough, wear mask not to transmit to other person.
- ✓ **Wash hands with soap and water when you get home**
- ✓ Avoid close contact with sick people
- ✓ Increase your immunity (power of resistance)
- * Eat nutritious food
- * Take enough rest
- * Manage your stress
- * Break away from the crowd
- ✓ Avoid extra gathering

Logos: MCH, JICA, SPF, TOHOKU

An advocacy campaign was carried out, supported by the Japan International Cooperation Agency (JICA) and the Sasakawa Peace Foundation. In Biliran Province, active intervention and house to house visit for health education with Information Education and

Objectives

The objectives of the study are to determine/ assess

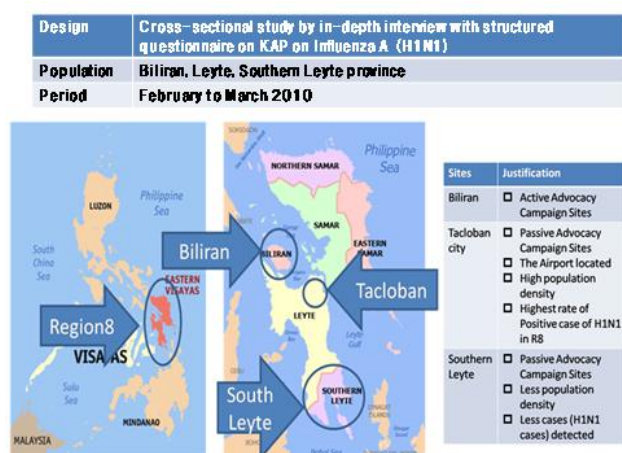
1. KAP on Non Pharmaceutical Intervention against Pandemic Influenza A (H1N1) in Region VIII
2. Factors that influence KAP
3. Effectiveness of IEC campaign

Methods

Study design was a cross-sectional study by in-depth interview with structured questionnaire on KAP on Influenza A (H1N1). The target population was Biliran for active advocacy campaign sites, Leyte and Southern Leyte province for passive advocacy campaign sites. The study was conducted from February to March 2010. The contents of the questionnaire were demographic background data and KAP on H1N1. Scoring was done as follows:

1. Each question had one (1) point assigned.
2. For each question, the point is divided into the number of choices.

3. Points are summed up and scored as a percentage (%).



Results and discussion

Starting from demographics of study population, 73% of the respondents were female. Income level of 85% of households as 7\$ a day. Nearly 40% of households had a risk group (such as pregnancy, asthma and cardiovascular disorder in the family. Average number of family members was 4.69.

The percentage of correct answers or expected response was the highest in the attitude score of mask use (93%) but the knowledge score on mask use was low (16%). Health seeking behaviour was quite good (84%).

Compared to active and passive intervention sites, correlation between knowledge and attitude and practice was low in urban site (Tacloban City). It means more strict regulation or policy decision should be made with people in urban areas. Regarding information sources, TV was the most effective tool but in rural areas printed material was also effective because about 40% of the population in active and

passive sites do not have TV. Employment level is negatively associated. This means employed people got higher score.

Conclusion

1) KAP on H1N1

Mask: Attitude is good but not correlated with knowledge and practice

Hand wash: While knowledge is not good, attitude and practice are better accepted and correlated

Social Distance: KAP are correlated with lower acceptance

2) Factors that positively influence KAP

Individual factors are higher education and female gender. Household factors are higher income and living with risk group. Most used information sources are TV, followed by leaflets and radio.

3) Effectiveness of IEC campaign

The score of each K, A, P in the active intervention sites are strongly correlated with each other. It can be said that IEC campaign is effective for behavior modification that is the most essential part of preventive measures.



Epidemiology of Pandemic (H1N1) 2009 in Baguio; Early phase estimation

Dr. Taro Kamigaki, Assistant Professor, Tohoku University Graduate School of Medicine

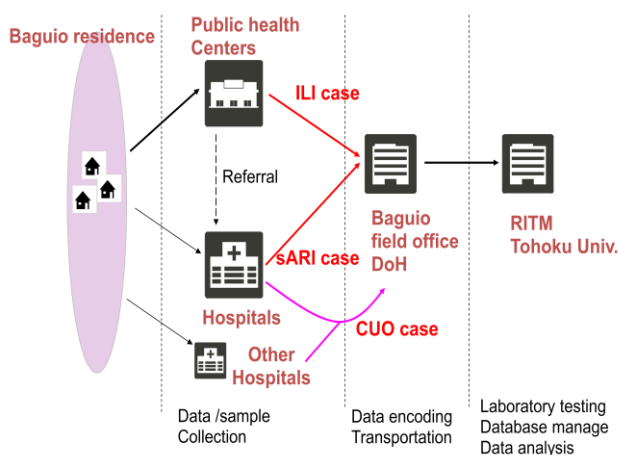
Objectives of the presentation

We have been conducting a disease burden study in Baguio city since April 2008. We monitor the ILI cases through all 16 health centers. If they develop severe symptoms, we enroll them in one of six hospitals and they are registered to collect data set. Principally, we focus more on ILI in our BOD study, and use ILI and CUO data separately. However, during the pandemic (H1N1)2009 we decided to include cases under observation (CUO) since October 2009 and unified this reporting form to existing data base.

The objectives of the presentations are:

1. To describe cases of pandemic (H1N1) 2009 detected through Burden of Disease (BOD) surveillance
2. To demonstrate the transmissibility of pandemic (H1N1) 2009 in Baguio city

Summary of study flow



Methods

Data collection and encoding on ILI, severe acute respiratory infections and CUO were performed from June 2009 to March 2010.



Result

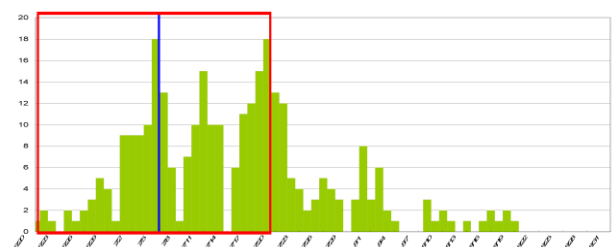
As with other countries, many people realized that we have a very low level of community transmission. We need to identify and discuss how low the transmissibility was by using some parameters.

Result (1) Estimating R0

Intrinsic growth rate and basic reproduction number (R0) is an example for measures of transmissibility in the community.

Result (1) : Estimating R0

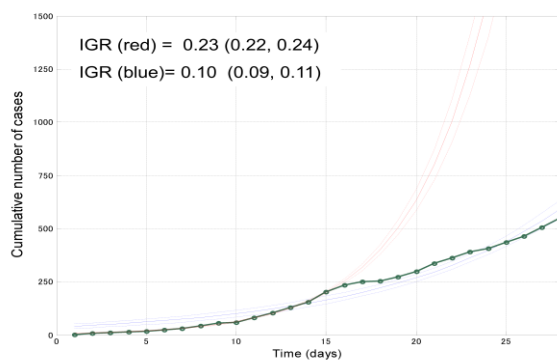
	Generation time Mean 3.0 (sd 0.5)	Generation time Mean 2.8 (sd 1.4)
Estimated R0 for first 15 day	1.08 (1.05-1.28)	1.10 (1.02-2.30)
Estimated R0 for first 30day	1.03 (1.02-1.11)	1.05 (1.01-1.49)



In a very graphical way to estimate intrinsic growth rate, we can estimate R0. In our estimates, we found an increase around July. An initial case was identified on June 20 and increased up to 18 cases

level. Using this data set we estimated R_0 as 1.08 with the generation time of 3 days or 1.1 with the generation time of 2.8. Even If we extend the period up to 30 days, it is still at quite slow level. We need to see carefully how we estimated this number because several estimation formulas are currently available. There are similar techniques used in Thailand and also in La Union Province in the Philippines. While results about current influenza were published, R_0 in La Union was quite similar to this level. On the other hand, the data in Thailand was a little bit higher in early phases like 1.4 or 1.6.

Result (2) : exponential growth rate



Result (2) exponential growth rate

Another way to estimate is to use the exponential growth rate. We fit cumulative number into the exponential growth rate. We observed it fitted well in the first 15 days but after 15 days the initial exponential rate did not fit. On the other hand, if we expand to 30 days it fits less but still we can assume the trend is quite compatible. There seems to be some changing point existing around 15 days, in early July. One possible explanation for result (2) is that the geographic distribution was different. If we pick up the parameter of the number of public health centers newly reporting cases, that means if the center reported in day 1 and in day 2, we counted the same

case twice. In that sense, many RHU reported before 15 days. In geographic terms, probably H1N1 spread quite rapidly or widely.

Another possibility is susceptible population characterization. We compare case report ratio. This can be calculated simply: case today/case tomorrow – just divide and make a ratio. We estimate by each age group around this change point.

There are three (3) peaks.

(Peak 1) The case in 5 to 9 age group continuously reported over 1 that means always double count in 1 day. After 15 days the 5-9age group decreased to around 1 or even less than 1.

(Peak 2, 3) The other 2 peaks were occupied by cases aged under 5 mainly. That probably means we were observing the previous peak which was probably occupied by 5-9 age group. The second group was occupied by cases aged under 5. This kind of non-synchronization explains why they did not follow initial growth rate. If that is initial evaluation I use different finding phenomenon.



PM Session (1): Lessons learned and future plans

1. Philippines

**Dr. Myrna C. Cabotaje, Director IV, Center for Health Development, Cordillera Autonomous Region,
Department of Health, Philippines**

What have we learned?

It may not be possible to determine what happens during a flu pandemic. Based on previous pandemics, we can say pandemics typically occur in waves. The first wave is expected to last six to eight weeks. A second wave may follow six to nine months later. There may also be a third wave. When a pandemic occurs, communities can expect to deal with its effects for 12 - 18 months.

What have been our strengths?

We used Avian Influenza Preparedness to respond to Pandemic A (H1N1) by establishment of a unified private sector network, primarily civil society organizations and the business sector and capability building of key people from the central and regional offices of Department of Agriculture, Department of Health and Department of Environment and Natural Resources and of Agricultural and Health Officers in 20 critical sites covering 103 municipalities.

Consultative Forum for DOH Regional Coordinators and training for DOH, selected local hospitals and local government units on preparedness for SARS, Avian Influenza and other emerging infectious diseases had been conducted.


Orientation of Barangay Health Emergency Response Teams on Avian Influenza was conducted. Prior surveillance work was assessed and surveillance activities were institutionalized.

We were able to provide effective risk communication to the public from the beginning of the A (H1N1) pandemic.





What still needs to be done?

- Mobilize the local government units to disseminate information about the influenza pandemic
- Emphasize the need for isolation of cases at home and the need for quarantine of contacts
- Sustain surveillance for new cases of influenza
- Monitor communities for clustering of severe cases (i.e. pneumonias resulting in an excessive number of deaths)



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National Center for Disease Prevention and Control, DOH

- Continue prioritizing management and treatment of high-risk groups including vaccination
- Coordination with international agencies about reporting of cases and deaths as well as the appropriateness of the implementation of mitigation measures and public health interventions
- Training of Barangay Health Emergency Response and Rapid Action Teams
- Establishment of laboratories which can detect Avian Influenza viruses in Luzon, Visayas and Mindanao to complement activities of the National Influenza Center (RITM): 1 PCR each in Visayas and Mindanao

- Expanding areas for disease surveillance

Comment

(Dr. Tayag) If we are really looking into future preparedness and control, maybe we can look at one of those things that need to be done. Let's focus this time on behavioral change and communication. We have been looking just at information, education and communication. Let's shift now to behavioral change and communication.

Answer: That's a point we will relay to the national office as they enhance their plans. I think the presentation earlier about the practice will help you and we can also assist in the refinement of the plans.



2. Indonesia

Dr. Andi Muhadir, MPH, Project Director, Surveillance and Response, Southern Sulawesi province



History of H1N1 in Indonesia

June 16: First confirmed case was reported in Jakarta.

Up to September 2, 2009: Total number of H1N1 was 1097 with 10 deaths.

Case management

1. In the beginning: All suspected cases were isolated. Only certain hospitals (referral hospitals) accepted hospitalization.
2. Ultimately determined: Not all suspected cases were isolated. All hospitals were allowed to treat H1N1 cases.

Best practices

1. Initially all cases have a history of travel to foreign countries.
2. Spread of H1N1 was very fast.
3. Case detection at Points of Entry was limited.
4. Underlying factors for case of death were obesity, pregnancy and hypertension.

Modeling of strengthened surveillance system

1. Strengthening the detection, reporting and recording of communicable diseases for each level at

- health center, district, province and Ministry of Health
2. Investigation for all outbreaks by Rapid Response Team (RRT)
3. Taking and sending specimens for suspected cases of H1N1 & their contacts
4. Collaboration with link sectors, such as animal sector and laboratories

Modeling of Strengthening Surveillance System
(Collaboration Indonesia-JICA in South Sulawesi Province)

1. Strengthening the detection, reporting and recording of comm prone diseases for each level (Health center, District, Province, MoH).
2. Investigation for all outbreaks by Rapid Response Team (RRT).
3. Taking and sending specimen for H1N1 suspect & their contacts.
4. Collaboration with link sectors, such as; animal sector and laboratory.

National preparedness and control on H1N1

The 6 Indonesian strategies on H1N1

1. Strengthening of screening at port health office:
1) health alert card implementation, 2) radio communication practice, 3) health officer awareness, thermal scanner for passengers, 4) PPE and 5) clinical room set up.
2. Logistic preparation (drugs & PPE): adequate tamiflu availability and logistic distribution
3. Preparation and support for selected hospitals: 1) 100 referral hospitals, 2) availability of adequate drugs and equipment, 3) availability of isolation room/centre, 4) adequate skills of health officers and 5) diagnostic & treatment procedure

4. Strengthening the surveillance epidemiology: 1) intensifying ILI and ARI surveillance, 2) new development of ILI sentinel site, 3) develop pneumonia and ARI surveillance in health facilities, 4) intensifying port health surveillance focusing on selected international ports, 5) community based surveillance
5. Laboratory strengthening: 1) intensification of regional laboratory and 2) reagent and equipment laboratory support
6. IEC: 1) poster development for public information, 2) periodical media communication and 3) community awareness and participation through Desa Siaga (Village alert)

Q & A

Q: What could be the priority of Indonesia?

A: We make a surveillance system in every district. Community health centers report to a district health office. This would work as a warning alarm system.



3. Vietnam

Dr. Nguyen Thi Thi Tho, MPH, National Institute of Hygiene and Epidemiology



Overview of Pandemic A (H1N1)

May 31: The first pH1N1 case reported.

Mid July: There was evidence of virus transmission in the community.

By the end of 2010, more than 11,000 H1N1 cases were confirmed and there were 61 deaths.

Preparedness

Steering committees and partnership initiatives were set up at different levels. Directives, guidelines were provided in a timely manner via guideline documents, meetings, workshops and monitoring/supervision. Laboratory systems at all levels were strengthened. Mass trainings for related health staff were carried out. Resources were mobilized, and material and equipment were provided in a timely manner.

Surveillance

Surveillance activities were intensified at all levels through related surveillance systems such as a health quarantine system, routine surveillance system for communicable diseases, and national influenza surveillance system. Surveillance strategy was adjusted according to the pandemic stages and situation. All possible cases were tested in the early

stage, while in the stage of community transmission, selected cases in clusters, cases in high risk groups and severe cases were tested.

Outbreak management

Non-medical interventions such as personal hygiene, environmental sanitation, and social distancing (early stage) were applied. Medical intervention was partially applied since vaccines were available at late stage in small amounts and antiviral drugs were available for treatment rather than for prophylaxis. Cases were also isolated.

Curative care

All levels of health facilities were strengthened. Curative care was decentralized for different levels

- + National and provincial hospitals were principal health facilities for managing pH1N1 patients
- + District hospitals were supporting facilities when higher level hospitals were overloaded
- + Mobile clinics were set up when necessary

Communication

A hotline system was set up. Mass communication campaigns were carried out through not only mass media but also provided by house visits.

Lessons learned

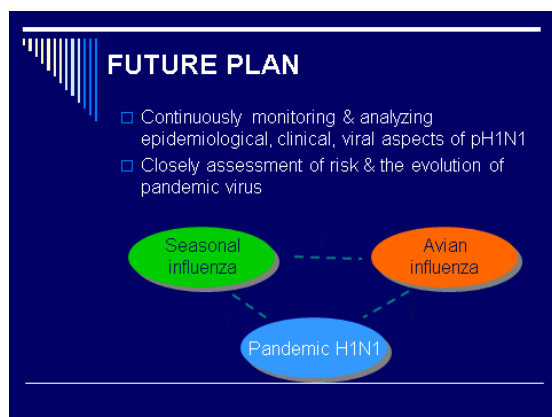
Advantages: The leadership of the government, support from political system and collaboration with partners are critical for effective pandemic preparedness and response. We used lessons learnt from controlling SARS and H5N1. Directives and guidelines were adjusted in a timely manner and

provided according to different stages of the Pandemic.

Difficulties: Health system was overloaded during the peak time. Vaccines were only available at later stages.

Future plan

- Continuously monitoring & analyzing epidemiological, clinical, viral aspects of pH1N1
- Revising plan for pandemic prevention & control
- Strengthening national influenza surveillance system and routine surveillance system for communicable diseases.
- Improving capacity of health workers on disease surveillance, outbreak investigation/management
- Raising awareness of community on pandemic prevention & control



Q & A

Q: We always have problems in giving the drug at the right time. What is your measure on this?

A: We placed tamiflu not only in hospitals where we could monitor the compliance with treatment. However, prevention measures were always conducted in the communities. It was sometimes too late to give drug.

4. Lao PDR

Dr. Ounaphom Phonepaseuth, Deputy Director of the Vientiane's Department of Health



Time Line in Lao PDR

June 16: First case in Vientiane Capital was detected.

July 17: First reported pandemic-related death

July 31: Community transmission in Vientiane Capital was detected

Preparation for response

1. Coordination and decision making

National Emerging Infectious Diseases Coordination Office (NEIDCO) was set up as an effective coordinating body with high level political support.



2. Surveillance and response: We used existing surveillance notification mechanism for nationally notifiable diseases. A '166 hotline' for severe illness and death reporting by health care workers and communities was set up.

3. Clinical management (CM) and infection control (IC): We developed and conducted training on CM and IC guidelines for the pandemic. We set up an on-call duty system for clinicians from provincial hospitals and for national authorities.

4. Set-up screening system: We isolated asymptomatic patients at in-patient wards.

Set-up Screening System

- Referral of patients to designated area in OPD if ILI symptoms
- Designated Screening Room
- Isolation and cohorting of in-patients
- Availability of PPE and IEC material
- Regular cleaning and disinfection



5. Risk communication: Communications were carried out through IEC, TV and radio. Workshops for journalists were conducted and they were involved in media briefing. We stressed proper hand washing and cough etiquette upon returning to school.

Risk Communication

- IEC material for public and HCW
- Press releases, TV and radio spots
- Workshops for journalists and those involved in media briefing



Future plans and direction

- Strengthen the collaboration with stakeholders
- Strengthen the coordination between epidemiology and laboratory
- Enhance surveillance to use existing system at all levels
- Improve provincial/regional lab capacity for testing other outbreak-prone diseases
- Inventory and monitoring system of supplies and equipment is crucial

Public health interventions

The interventions were performed through 1) isolation of patients, 2) border control and international travel, 3) school closure, 4) mask use for sick people, health care workers and care givers.

Vaccines

Vaccination began on 4 May 2010 and is still underway in some provinces. It will be finished within the next few weeks.

Lessons learnt

1) Strong political commitment and a forum for open dialogue are crucial. 2) Strong teamwork & partnerships lead to efficiency and progress e.g. Govt, International groups, NGOs. 3) Pandemic Preparedness Plans should not only be developed but actually used. 4) Epidemiology and laboratories should not be seen as separate entities. 5) Public health risk communication is a cross-cutting strategy that should increase awareness but not fear e.g. H1N1 situation. 6) Ongoing small group activity-oriented training is better than large group didactic training.

5. Thailand

Dr. Anek Mungaomklang, Medical Epidemiologist, Deputy Director, Nakhonratchasima Hospital

Dr. Suthanun Suthachana, Department of Disease Control, Ministry of Public Health



Exercises of pandemic influenza preparedness plans

Table-top exercises and functional drills were performed at central, provincial and service center level. We set up 1,030 Surveillance and Rapid Response Teams (SRRT) nationwide for surveillance, early detection, investigation and outbreak containment. Avian influenza control and pandemic influenza preparedness were integrated in National Public Emergency Preparedness in 2005.

Lessons learned

During the first wave:

- Multi-sector cooperation is feasible.
- Health behavior changes in crisis are feasible, but temporary.
- Risk communication is essential and to be handled with care.

During the second wave:

- Strengthen coordination, especially at provincial and local levels
- Continue public communication and multi-sector coordination to further support NPI
- Revise risk communication strategy, further strengthen RC network, seek community

involvement, improving media relation

During the third wave:

- More experienced from the previous two waves
- Management as seasonal influenza was appropriate but some deaths still occurred
- Reduced awareness among healthcare workers and citizens, so education campaign must be continued and assessed periodically
- Trivalent influenza vaccinations were widely acceptable but a limited number of doses

A case study of Nakhon-Ratchasima Province

In order to mitigate morbidity and mortality in our province, we activated SRRT of the provincial health office with 32 health workers.



In cooperation with municipalities, schools, factories, health volunteers, media, drugstores, prisons, game centers and karaoke venues, we conducted activities such as:

- Passive surveillance: Regular analysis of situation and assessment intervention (ILI/confirmed case and HCWs)

- Communication of Information for Public Awareness and Improvement of Respiratory Hygiene
- Communication of Information in High Risk Places such as game centers, entertainment places and factories for A (H1N1) Outbreaks
- Strengthening Hospital Infection Control System



Communication of Information in High Risk Places for Pandemic Influenza A (H1N1) Outbreaks



- Rapid Assessment of Intervention and Influenza Surveillance/ Prevention and Control Program
- Special Training for SRRT to prevent and control of influenza outbreaks during the pandemic
- Response to Outbreak of Pandemic Influenza A H1N1 in a Military Training Center (3 events)
- Model Development for Prevention of Influenza Outbreak in a Military Training Center
- Use of Surgical Mask in all Activities



Conclusion

- Thailand experienced three waves of influenza (H1N1) 2009 pandemic in a two year period

- High morbidity but low mortality was observed following intensive multi-sector interventions from national to local level
- Surveillance, early detection and timely assessment of influenza situation were critical for effective response to the pandemic

Future plans

- Development of better risk communication strategy at all levels
- Social mobilization for preparedness and response to emerging infectious diseases at local level
- Full implementation of proactive surveillance system in institutes e.g., school, military camp, factory and prison
- Vaccine development and production in the country

Q & A

Q: How did you use the surgical masks? Is that to protect others from you?

A: We use that to stop human to human contact through droplets. No second use of mask for other persons. This prevented infection in military camps.

Q: How long are they used? Are they used every day?

A: One mask is used per day.



PM Session (2)
Formulating a Regional Response Framework in the Southeast Asia
Dr. Jeffrey Michael Partridge

Asia Pacific Strategy for Emerging Disease (APSED)

APSED is a bi-regional strategy to provide a common framework for countries to strengthen their capacity to manage emerging disease threats. This was originally developed in 2005 and updated in 2010 to reflect the expanded scope of the revised International Health Regulations or IHR (2005). APSed (2010) plan was endorsed by technical advisory group of the region so this is not a WHO plan.

The goal of APSed (2010) is to build sustainable national and regional capacities and partnerships to ensure public health security through preparedness planning, prevention, early detection and rapid response to emerging diseases and other public health

emergencies.

The five objectives of APSed are; 1) to reduce the risk of emerging diseases, 2) to strengthen early detection, 3) to strengthen rapid response, 4) to strengthen effective preparedness, and 5) to build technical partnership

Expanded scope (8 focus areas)

APSED would be used as a common framework to guide national and local capacity building and as a strategic document to mobilize financial and technical resources. Each focus area contains a small number of key components.

Focus Area	Key Components
1. Surveillance, Risk Assessment and Response	<ul style="list-style-type: none"> • Event-based surveillance • Indicator-based surveillance • Risk assessment capacity • Rapid response capacity • Field epidemiology training
2. Laboratory	<ul style="list-style-type: none"> • Accurate laboratory diagnosis (including laboratory reference function and external quality assessment) • Laboratory support of surveillance and response • Coordination and laboratory networking • <u>Biosafety</u>
3. Zoonoses	<ul style="list-style-type: none"> • Coordination mechanism: <ul style="list-style-type: none"> ◦ Sharing of surveillance information ◦ Coordinated response ◦ Risk reduction ◦ Research
4. Infection Prevention and Control	<ul style="list-style-type: none"> • National Infection Prevention and control (<u>IPC</u>) structure • <u>IPC</u> policy and guidelines • Enabling environment (e.g. equipment and supplies) • Supporting compliance with <u>IPC</u> practices
5. Risk Communication	<ul style="list-style-type: none"> • Health emergency communication • Operation communication • Behaviour change communication & social mobilization
6. Public Health Emergency Preparedness	<ul style="list-style-type: none"> • Public health emergency planning • National IHR Focal Point Function • Points of Entry • Response logistics • Case (clinical) management • Health care facility preparedness
7. Regional Preparedness, Alert and Response	<ul style="list-style-type: none"> • Regional surveillance and risk assessment • Regional information-sharing system • Regional preparedness and response
8. Monitoring and Evaluation	<ul style="list-style-type: none"> • Country level monitoring (including work plan and APSed/IHR indicators) • Technical Advisory Group (TAG) • Evaluation



Conclusion

APSED provides a common framework for countries to strengthen national and local capacities required for managing all emerging infectious diseases and public health emergencies and is a road map for member states in the Asia Pacific Region to build up the IHR core capacity requirements, address emerging disease threats, and address pandemic threats.

Open Forum Discussion



1. Collaboration / Coordination

Vietnam (Dr. Nguyen Thi Thi Tho):

I want to ask the experiences of other countries regarding collaboration between animal health and

human health.

Philippines (Dr. Eric Tayag):

Animal health and human health professionals are coordinated and they are cooperating in the Philippines. One opportunity we had to work with our animal health counterparts was Rabies elimination. We can build relationships slowly but surely. For example bird flu was a big opportunity for human health people to work with animal health people. If you have counterparts from the national office, it's going to work. As they can actually work together and plan together, you can involve human and animal health people in pandemics. One advantage of the Philippines is that we have an inter-agency zoonosis committee to share between agencies and they make regular reports. Furthermore you also have the support from OIE, FAO and WHO. They are working on one health perspective (*) at the global level and it is coming down to regional level and eventually country has model of One Health perspective.

*The one health is a concept for expanding interdisciplinary collaborations and communications in all aspects of health care for humans, animals and the environment.

2. Guideline

Philippines (Dr. Olveda):

There are clinical management guidelines on H1N1 and there are several scenarios which can be used as a model. We can use the management of suspected patients such as rapid development of severe pneumonia. We may not be able to wait for laboratory results because we know that H1N1 is still circulating in the community after the pandemic. There should be more information disseminated about the guidelines because not all are aware of them.

Thailand (Dr. Anek):

I wonder if our current guideline can be used in a new influenza outbreak. We also have annual diseases like leptospirosis, ILI and other many tropical diseases. I want to know when to keep to the clinical guidelines and when to stop using them.



Philippines (Dr. Cabotaje):

We really need to sit down and see what we have done. We have to look into a generic guideline. Tamiflu is not only for H1N1. Actually there was a higher cost for patients who were not hospitalized. We need to tie up diagnosis and treatment and also tie up with PhilHealth. We might need to review this from the national office.

3. Laboratory

Philippines (Dr. Olveda):

Some national laboratories had a very difficult situation during the outbreak. We could not cope at that time because we were doing diagnostic work as well. But we were able to put up five sub-national labs. Flu outbreak experiences should be used for other diseases including dengue and leptospirosis. They should continue to use the technology actively.



WHO (Dr. Jeffrey):

Laboratory strengthening within APSED has four key components as I mentioned; 1) rationalize laboratory system by development of national referral system, 2) develop capacities down to local level, 3) coordinate priorities across the region (we don't have national dengue center for example), 4) bio safety.

Indonesia (Dr. Andi)

I'm wondering now how laboratory capacity can be assessed. In our experience there were so many limitations in our laboratories. We have nine regional laboratories, but the capacities are still low.



Lao (Dr. Ounaphom)

From our experience, we still have more problems left. We have only one laboratory center. It may be difficult to control a pandemic in time.

WHO (Dr. Jeffrey):

We are now developing a work plan that still has to go past the technical advisory group and be approved by the regional committee.

Philippines (Dr. Veneracion):

We were in dilemma whether to treat patients immediately or not, since we were waiting for the laboratory results. If we put up laboratories at the provincial level, it will be costly for the local government. If we buy the drugs, it is also expensive for us.



Philippines (Dr. Edel):

The purpose of setting up laboratories - one in the south, one in the north and one in the central part of the country - is to make them strategic because it probably takes around five million pesos to put up one laboratory. If there is a way to coordinate the shipment or send the samples and results within the region or site, we can save costs in setting up the laboratories. Even there is no pandemic we need to sustain the operation of laboratories.

Philippines (Dr. Eric. Tayag):

On establishing laboratory network, RITM should have capacity for emergent diseases but for provinces there should be basic laboratory capacity. There is a hierarchy of pathogens and it should be identified in different levels.



Japan (Dr. Oshitani):

Everybody knows we need point of care testing. Unfortunately we didn't have a feasible rapid test at that time. Most laboratory tests are quite expensive. Probably one test costs 7 or 8 dollars. For HIV we do not need to test millions of cases but for H1N1 and seasonal influenza do. We cannot afford this for both H1N1 and seasonal flu. Its sensitivity and specificity is also issue. Current laboratories cannot differentiate between H1N1 and other seasonal flu As. We do need to improve our rapid test or point of care testing. Many research groups are working on this. There are many promising results. We have to develop tests with better sensitivity and specificity that are easy to use.

Philippines (Dr. Lupisan):

We made a five year strategic plan for laboratories. There should be a laboratory in the regions. RITM can provide training on lab testing.



4. Training

Vietnam (Dr. Nguyen Thi Thi Tho):

As for capacity building, we implemented a field epidemiology training program (FETP) two years ago with support from WHO and CDC. We divided that by levels. Officials at higher levels could take a Master's degree by this while others could take short courses. In the future we intend to strengthen the laboratory capacity at the provincial level including online training.

Philippines (Dr. Eric. Tayag):

For example, in the Philippines as well as in Thailand and other countries we have a program for epidemiology training but we introduced short courses because for the people in the field a two year course is too long.

WHO (Dr. Jeffrey):

Mongolia as well as Laos started short courses because they lose their valuable staff during training. We are currently evaluating the program and of course have to balance with program quality. We are committed to the ongoing process to institutionalize the program for the entire country.

Philippines (Dr. Olveda):

Because of the overwhelming situation during the pandemic, our contingency plan said we are going to train second and third line staff. Not only the people in laboratories but also other people around the lab can augment the capacity.

Philippines (Dr. Veneracion):

We found that most of the LGUs were not capable as far as the situation at the provincial level. It was being discussed that most of the LGUs do not want to send people for training because it takes two years. It is

more appropriate to have distance education.



Philippines (Dr. Eric. Tayag):

Distance or e-learning won't work. MPH is in all classrooms but this one is application in the field. Right now we are focusing on the team approach. Thailand has a lot of experience on this. They have several rapid response teams down at local level. It's good practice which can be duplicated by other countries.

Vietnam (Dr. Nguyen):

In our field epidemiology training program, we combined face to face training and distance training. We invite trainees in the 1st week for face to face training and send them home for field practice with close monitoring from a supervisor. They then come back to class for discussion and assessment. For laboratory training we send them a CD after participating a short time in class so that they can learn from the CD. After that they also come back for assessment.

5. Lessons from Local level

Philippines (Dr. Eric. Tayag):

It's a trap for every country to have the strategy of just looking up what happened because we wouldn't have learnt from the lessons. We haven't gathered information especially from LGU regarding serious problems in pandemics.

Philippines (Dr. Opinion):

We have to remember by experience. During SARS, the province of Leyte was hit hardest. We have to visualize again where and who is most vulnerable. If we have enough KAP, we could probably solve the problems.



Philippines (Dr. Tayag)

In the presentation of APSED Dr. Jeffrey mentioned about surveillance. Mapping the country for risk is also one of the activities. Leyte had the worst situation in H1N1 and the high incidence was true.

Summary of the Workshop

Dr. Hitoshi Oshitani, Professor, Tohoku University Graduate School of Medicine



In the presentation of five countries in South East Asia, common issues on pandemic response were identified despite different political and public health systems in each country.

The first one is the shift from containment to mitigation. In the original plan aggressive measures for severe pandemic were taken but there was the issue of the timing of switching from containment to mitigation. We also faced difficulties to implement non-pharmaceutical interventions in the decision making process as well as the extent of measures. For example, it was hard to

decide and get consensus among stakeholders when to close/open the schools.

The second one is the shortage of vaccines and antivirals. No vaccine was available when needed and no uptake when it arrived. Not only antivirals but also PPE and other supplies were scarce. There was not enough clinical care system capacity. A better system to tackle these problems is needed.

The third one is surveillance. As for laboratory testing, point of care testing was lacking during the pandemic A (H1N1). A rapid test at the local level should be more developed in terms of its ease, sensitivity and specificity. ILI surveillance and pandemic surveillance should be balanced.

The fourth one is public education and risk communication. How to approach and empower those who are hard to reach and poor and how to work with media should be considered.

The last one is coordination. A whole-society approach is necessary, including national-local level coordination. Different efforts for coordination at local level should be made and a better mechanism needs to be established.

As the way forward, local capacity should be strengthened. WHO Regional Offices (WPRO and SEARO) are now developing the Asia Pacific Strategy for Emerging Diseases (APSED2010) which provides a framework for capacity building. This should be applied not just at central level but also at local level. Coordinated response between national and local level and among multiple sectors including animal health should be needed. We should not have a vertical program structure but rather an integrated program among infectious diseases and other public health threats. Lastly, we have to shift from a reactive response to a more proactive response by conducting risk assessment and strengthening local preparedness.



THE SASAKAWA PEACE FOUNDATION

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Tohoku University Graduate School of Medicine
2-1 Seiryō-machi, Aoba-ku, Sendai 980-8575, Japan
TEL:+81-22-717-8213 FAX:+81-22-717-8212
<http://www.virology.med.tohoku.ac.jp/index-en.html>

The Sasakawa Peace Foundation
1-2-2, Akasaka Minato-ku, Tokyo 107-8523, JAPAN
TEL:+81-3-6229-5476 FAX:+81-3-6229-5473
<http://www.spf.org>