



Despite the experience of battling the outbreak of SARS and avian flu, when H1N1—a new strain of flu spread to Thailand, and as the number of patients and deaths escalated, panic gripped the nation. The only solution against this new pandemic was a vaccination.

3 Thailand and the H1N1 Flu

From Mexico to a Borderless Virus

In mid-March 2009, countless villagers in La Gloria, Veracruz, Mexico became sick with an acute respiratory illness of unknown provenance. The outbreak intensified and the number of deaths continued to increase. On 25 April 2009, Dr. Margaret Chan, Director-General of the World Health Organization (WHO), announced that there was a new virus outbreak and that the health emergency situation should be closely monitored by the international community.¹

The United States which shares a border with Mexico also found patients with similar symptoms. In a short while, the virus strain was identified as type A H1N1 from an American patient who had returned from Mexico. The new flu has a genetic code similar to swine flu found in the past, leading to the name “swine flu” being used initially.

Since then, the virus has rapidly spread across borders from one country to another. On 27 April 2009, WHO issued a statement that containment of the outbreak was not feasible, and elevated the pandemic alert from Phase 3 to Phase 4. Phase 4 indicates

sustained human-to-human transmission. Only two days later, WHO raised its pandemic alert level from Phase 4 to Phase 5, its second highest phase. Phase 5 is a strong signal that a pandemic is imminent.²

WHO's elevation of the pandemic alert sent a clear signal worldwide including to Thailand that there was an immediately threat from this virus, setting off a flow of news about the spread of “swine flu”.

Numbers Infected Rises, Deaths Soar... People Alarmed

The fear of “swine flu” spread worldwide as the number of reported patients and deaths from “swine flu” continued to rise. In Mexico where the outbreak originated, the number of deaths was over 180 cases and the number of people infected was 1,614 persons at that time, prompting the Mexican government to declare 1–5 April 2009 as a special holiday. People were ordered not to leave their home unless necessary and businesses were requested to temporarily close and cease all activities. All schools and universities were closed and masks were handed out in communities to prevent the virus from spreading further.

Afterwards, the Mexican Finance Minister spoke of the impact of the announcement of the special holiday on Mexico's economy. "Mexico's losses from the H1N1 flu are estimated at US 2,300 million dollars, or almost 0.3% of GDP."³

Meanwhile, the United States which experienced rising cases of infection; also announced a health emergency situation and distributed 12 million tablets of Oseltamivir nationwide.

The European Commission called an emergency meeting of EU health ministers. ASEAN also announced the 'ASEAN One Health' statement with measures to prevent and fight the outbreak in the ASEAN region and 500,000 courses of antivirals stockpiled in Singapore.⁴

One measure implemented by many countries was screening patients at the airport with a thermal scanner. At the same time, masks and alcohol gel for hand cleansing immediately became best-selling products.

Paul Kelly, Associate Professor of Epidemiology at the Australian National University, warned, "Swine flu is more dangerous than avian flu even though it has a lower fatality rate because it can more easily and rapidly spread among humans". He also said that the next few days would be crucial as the world would know whether "swine flu" would be a global pandemic.⁵

Meanwhile, the term "swine flu" caused misunderstanding and became "destructive" to pig farmers around the world. Many people did not dare to eat pork. In Egypt, the government ordered more than 400,000 pigs to be slaughtered to prevent the spread of swine flu. The World Organization for Animal Health (OIE) said that the term 'swine flu' was a serious misnomer since the virus was not transmitted from pigs to humans. As a result, countries began to rename the disease.

In Thailand, Dr. Kamnuan Ungchusak, an expert at the Department of Disease Control, Ministry of Public Health, said that the disease control experts at the World Health Organization called the new flu found in Mexico as the 'new 2009 flu'. The strain is genetically sequenced as A/California/04/2009 as it is an influenza virus type A, first identified in California in 2009.⁶

The H1N1 Flu Arrives in Thailand

When the news of the H1N1 flu outbreak reached Thailand, the Ministry of Public Health assured the Thai people by announcing measures to prevent the spread of the disease as well as immediately establishing the H1N1 Flu Prevention and Control Center.

Two committees were set up to monitor the situation daily and revise prevention and control measures to effectively handle the situation. In addition, measures that were previously used to battle the SARS and avian flu outbreaks were used again such as the Rapid Response Team, virus detection center, mobile detection units, and laboratory networks with Chulalongkorn Hospital and Siriraj Hospital. The Cabinet approved 100 million baht to the Ministry of Public Health to use in combating the H1N1 flu outbreak.⁷

At the time, Thai society calmly followed the news of the H1N1 flu outbreak. It could be said that most Thais were confident in the Ministry of Public Health's experience in effectively handling the SARS and avian flu outbreaks.

However, a large number of Thais went for flu vaccinations at hospitals, resulting in the one million doses of flu vaccine that the National Health Security Office had originally prepared for the population at risk to rapidly disappear and be insufficient. Consequently, Dr. M.L. Somchai Chakrabhand, Director of the Department of Disease Control came out to clarify that "the H1N1 flu is a new strain that does not yet have a vaccine to prevent it". The best prevention is to maintain strong health, avoid crowded places, and follow the Ministry of Public Health's recommendations, namely to eat hot food, use a serving spoon when eating together, and frequent hand washing. Those who have a cold should wear a mask to prevent spreading the disease to others.⁸

Despite the measures, on 9 May 2009 Thailand recorded the first suspected case of the H1N1 flu, which was a person who had traveled back from Mexico, and became the 31st country in the world with reported cases of the H1N1 flu.⁹

Confidence in the country's prevention and control of the H1N1 flu was greatly shaken when the first Thai person died from the H1N1 flu on 20 June 2009, before the number of infected persons and fatalities would soar, ranking Thailand the 2nd highest

with the number of infected persons in the Asia Pacific region and the first rank with the number of fatalities in the Asia region. Mr. Amara Sriphayak, Senior Director of Bank of Thailand's Domestic Economy Department commented, "The new H1N1 flu is another negative factor for the Thai economy."¹⁰

Since the end of June 2009, fear and news about the number of H1N1 flu patients and deaths gripped the nation. As a result, the Prime Minister ordered the Ministry of Public Health to publicize how to handle the outbreak. In addition, the Cabinet approved a budget of 850 million baht to procure ten million tablets of the anti-flu drug Oseltamivir and another 600 million baht to order two million doses of the H1N1 flu vaccine.¹¹

Amid criticism of the Ministry of Public Health's "failure" to fight the H1N1 flu outbreak, there is another interesting outlook. "The United States with a lot more modern tools than Thailand; also could not do anything. Swine flu spread to over 50 states. China, with strict quarantine regulations, has as many swine flu patients as Thailand. Of course, there may be errors, but we have to understand that this is a new disease and the behavior of the disease is not the same in every country."¹¹

Number of Patients and Deaths in Thailand and Worldwide

Up until 12 March 2010, there were 16,713 confirmed deaths worldwide (see Table). The number was tabulated from the WHO regional offices (<http://www.who.int>). WHO expects that the number of deaths from the H1N1 flu "is definitely a lot higher than reported".¹² In the United States alone, the United States Center for Disease Control on 14 November 2009 estimated that the number of deaths from the H1N1 flu is 9,820 cases.¹³

In Thailand, the outbreak is divided into two waves. The first wave was from May to September 2009. Since the first week of February 2010, the Department of Epidemiology announced the second wave of the outbreak. From 3 May 2009 to 10 March 2010, the accumulated number of confirmed H1N1 flu patients totaled 35,446 persons. The number of deaths amounted to 208 persons, 105 males and 113 females.

The number of deaths as of 12 March 2010
Worldwide from H1N1 Flu

Region	No. of Deaths
Africa	167 people
Americas	at least 7,567 people
Eastern Mediterranean	1,019 people
Europe	at least 4,571 people
South-East Asia	1,664 people
Western Pacific	1,716 people
Total	at least 16,713 people

Source: World Health Organization http://who.int/csr/don/2010_03_12/en/index.html

Vaccines Are the Solution

At the end of July, ten million tablets of the anti-viral drug Oseltamivir which was originally available at government hospitals was distributed to private clinics across the country that joined the Ministry of Public Health's program. The trend of infections and fatalities from the H1N1 flu gradually declined.

On 11 November 2009, Withaya Kaewparadai, Minister of Public Health at the time, reported that the past week was the first week in six months that Thailand had no fatalities from the H1N1 flu. The accumulated number of fatalities was 184 people. "The Ministry of Public Health has been able to successfully beat the H1N1 flu." This is due to two reasons, that is, (1) the number of patients has declined in all areas and the public have knowledge and understanding on how to protect themselves and (2) the people who are sick have been able to get treatment faster.¹⁴

Even though it seemed that the H1N1 flu outbreak situation in Thailand had improved at the end of 2009, the Ministry of Public Health continued to closely monitor the situation and issued measures to prevent another outbreak.

Professor Prasert Thongcharoen, President of the Influenza Foundation of Thailand said, "The situation in 2010 is still unpredictable. However, the severity of the disease and the decline in the outbreak during this period indicate that the severity of the H1N1 flu is decreasing and becoming a seasonal flu."¹⁵ The best preventive measure is vaccination. Two million vaccine doses have been ordered from France to prevent against the H1N1 flu for the two million high risk people who can be divided into six groups.

- (1) Doctors, nurses and staff responsible for looking after patients
- (2) Women who are over 3 months pregnant
- (3) People weighing over 100 kg
- (4) Disabled people who are unable to help themselves
- (5) Those aged between six months and 64 years with chronic diseases such as chronic obstructive pulmonary disease, asthma, all types of heart disease, cerebrovascular disease, renal failure, cancer patients undergoing chemotherapy, thalassemia with severe symptoms, immune deficiency, and diabetes

People Who Work with Animals, Especially Pigs

With the decline in the outbreak and news about an infant dying in the womb from the vaccination, those at risk became hesitant to receive the vaccination. From 11 January - 16 February 2010, only 290,000 people in the risk groups, or approximately 15% of the target group, received vaccination. The majority were doctors, nurses and health officers. There were 279 reports of adverse reactions with 19 people who experienced severe side effects including two health officers, 14

pregnant women, and three patients with chronic disease. Considering the number of people with severe side effects to the number of normal cases, it can be concluded that the vaccination is still highly safe. Therefore, campaigns to encourage high risk groups to voluntarily receive the vaccination will continue.¹⁶

In early February, the Ministry of Public Health reported that since a new outbreak is more severe, the Ministry will continue to carefully control the outbreak. There are approximately 500 flu patients and three to five deaths per week. One patient may infect around 300-400 people. Therefore, 150,000-200,000 people are at risk of infection every week.¹⁷

Meanwhile, the Government Pharmaceutical Organization successfully tested its live attenuated vaccine on the first group volunteers and found no severe side effects. The second trial will be conducted at the end of April 2010. If this program is successful, Thailand will be able to manufacture 500,000-10,000,000 doses of the vaccine.¹⁸ It will be considered as a great national achievement in flu vaccine development, that is, (1) the country has been able to develop its technology to manufacture flu vaccines from both live and dead viruses and (2) at the international level, there has been technology transfer from a technologically-advanced country to a developing country such as Thailand through a middle agent such as the World Health Organization and Thailand has further transferred the technology to India. Most important, the technology transfer was free, with real humanitarian concern about fighting the outbreak together.¹⁹

In approximately one year, the H1N1 flu spread to every region across the globe, it is still uncertain whether the virus will spread rapidly again. However, the World Health Organization continues to urge all countries to closely monitor whether the H1N1 flu virus will mutate into a more deadly strain. What is certain is that it won't be long before the H1N1 flu becomes a seasonal flu that everyone is familiar with.



Source: nationmedia