



Highlights of diseases and event in October 2016

Influenza Situation in Thailand

Since 1 January to 25 October 2016, total 130,332 influenza cases were reported from all 77 provinces across the country, with attack rate of 199.2 per 100,000 population. Total 43 people died from influenza, including 14 cases from Nakhon Ratchasima, eight cases from Ayuthaya, five cases from Udon Thani, two cases each from Petchaburi, Nong Bua Lamphu, Narathiwat, Nakhon Sawan, Phang Nga and Phitsanulok, and one case each from Pattani, Phuket, Surin and Phetchabun Provinces. Case fatality rate was 0.03%. Among the deaths, there were 23 deaths with influenza A H1N1/2009, five with influenza A/H3, 10 with influenza A of unknown serotype and two with influenza B while three were not sent for laboratory testing. The age group with the highest attack rate was 0-4 years old (774.10 per 100,000 population). During the previous four weeks, the northern part revealed as the area with the highest attack rate (50.11 per 100,000 population), followed by the central part with 37.50 per 100,000 population.

On 16-22 October 2016 (week 42), data on influenza-like illness (ILI) and pneumonia cases from the sentinel hospitals were analyzed in the Department of Medical Science and 12 (52.17%) out of total 23 cases were tested to have influenza infection. Among the confirmed influenza cases, there were 25.00% of influenza A (H1), 41.67% of influenza A (H3N2) and 33.33% of influenza B infection.

The influenza cases reported in this year were about three times higher than that of reported in the same period of 2015 and the 5-year median. Moreover, more deaths were also reported in this year. There were 13 deaths reported in September 2016 and 12 deaths in October 2016. According to the surveillance data on serological changes of influenza viruses from the Department of Medical Science, from January to July 2016, influenza A/(H1N1)pdm09 identified was still the A/California/7/2009 (H1N1)pdm09 strain which is used for the influenza vaccine. Nevertheless, HA gene of the viruses identified in October 2016 were analyzed using the phylogenetic tree program, and six strains were found to be closely similar to A/Michigan/45/2015 (H1N1)pdm09 which is the recommended virus strain to be used for vaccines in the southern hemisphere by World Health Organization.

Hence, unusual higher number of influenza cases reported in the rainy season might be due to serological changes of the influenza viruses. In addition, people who have already received the influenza vaccination are still infected by influenza viruses. Many researchers found that influenza vaccination could protect the infection for only less than 60% of the vaccinated elderly, children and people with underlying disease, and did not provide full protection for adults and people in working age although the virus strain responsible for influenza outbreaks in Thailand was same as the strain used in the vaccines. Despite that influenza vaccination might not provide full protection in some people such as some elderly people, it could prevent severe infection and complications, and reduce fatalities. In the future, more number of cases with A/Michigan/45/2015 (H1N1) pdm09 are likely to be identified in Thailand. The vaccines with the new strain are currently under production and will be imported to Thailand around April 2017.

Influenza outbreaks usually occur in the rainy and winter seasons. People should take care of themselves well to prevent infection from the new strain as the currently circulating A/Michigan/45/2015 (H1N1)pdm09 strain is not included in the vaccines provided to the people and could not prevent the infection from the new strain. During this rainy season, influenza outbreaks were detected in prison, hospital, school and many communities. People from all parts of the country gather to mourn the death of King Bhumibol Adulyadej Rama 9, which might facilitate the spread of influenza virus around the country. Therefore, the health department in Bangkok and provincial health offices in every province should prepare for prevention and monitoring of outbreaks in the respective areas.