## INFLUENZA VIRUS ISOLATION

Thailand 1972\*

Pirat Panpatana, M.D.\*\*

Kanai Chartiyanond, M.D.\*\*\*

Vibuisri Jartikavanich, M.D.\*\*

Pairoj Oonsombat, M.D., M.P.H.\*\*

Prakob Tuchinda, M.D.\*\*\*

Prasert Thongcharoen, M.D., D.T.M., Dr. med.\*\*

Several outbreaks of influenza have been described in Thailand. During the most severe pandemic in 1918-1919, which caused at least 20 million deaths in the world, there were 2,317,663 reported cases in Thailand population 8,478,566) with 80,263 deaths. The peak of epidemic was on October 25, 1918<sup>(1)</sup>. The next severe outbreak occurred in 1957. As influenza is not a notifiable disease in this country, the accurate incidence of this disease is, therefore, not known. However, according to reports of the Health Authorities, it has been recorded that the epidemic in Bangkok-Thonburi (now Bangkok Metropolis) lasted about one month from the middle of May to the third week of June, with a total incidence of over 140,000 cases and 60 deaths among admitted cases in various hospitals. The incidence for the whole country as re-

ported from all hospitals and recorded by the

Department of Health was 1,280,000 cases with 118 deaths<sup>(2)</sup>. This number was actually under-estimated, due to the fact that a large number of cases were either untreated, or treated without record at private clinics (total population of Bangkok—Thonburi in 1957 was 1,908,059 and of Thailand 23,669,459). The etiologic agent of this cutbreak was Influenza virus A which resembled A/Singapore/1/57 (H2N2) and A/Japan/305/57 (H2N2).

There has been another outbreak of influenza reported as occurring in Thailand between August and November 1968<sup>(3)</sup>. There were approximately 150,000 estimated cases in Bangkok Metropolis (population in 1968, 3,247,339), and all age groups were affected. Influenza virus A of Hong Kong variant (A/Hong Kong/1/68 (H3N2)) was responsible for the epidemic. There have also been reports

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<sup>\*\*</sup> Departments of Microbiology and Preventive and Social Medicine, Faculty of Medicine, Siriraj Hospital, Bangkok 7, Thailand.

<sup>\*\*\*</sup> National Influenza Center, Virus Research Institute, Department of Medical Science, Ministry of Public Health, Bangkok 1, Thailand.

Table 1. Age and sex distribution of patients with positive virus isolation.

Age Group	Male	Female	Total
〈 1 <b>4</b>	10	6	16
5-9	7	6	13
1019	3	4	7
2029	5	6	11
30-39	1 .	3	4
40 - 49	2	2	4
5059	1	1	2
60	<u>0</u>	<u>1</u>	<u>1</u>
	29	29	58*

The youngest age-4 months; the oldest 70 years.

of other small outbreaks of Influenza A Hong Kong virus in the following years<sup>(4,5)</sup>. The authors recovered a strain of Hong Kong variant as late as March 1972.

A new distinct variant, Influenza A/England/42/72 (H3N2), was isolated from a patient residing in Bangkok on August 30, 1972, approximately one year after the recovery of this subtype of virus in Coonoor, Southern India<sup>(6,7)</sup>. Since the beginning of September 1972, influenza has been observed to increase its activity in Bangkok. The number of patients increased gradually and reached

Table 2. Weekly record of Influenza virus recoveries (A/Bangkok/2-62/72 (H3N2))\*

Week of 1972	Male	Female	Total
36 (Aug. 28-Sept. 3)	1	0	1
37	0	0	0
38	0	2	2
39	0	0	0
40 (Sept. 25-Oct. 1)	23	10	33
41	3	5	8
42	2	1	3
43	-	4	4
44	1	1	2
45 (Oct. 30-Nov. 5)	1	3	4
46	-	1	1
47	1	2	3
48	0	0	0
49 (Nov. 27-Dec. 3)	<u>0</u> 32	<u>0</u> 29	<u>0</u> 61

A/Bangkok/1/72 is identical with A/Hong Kong/1/68 (H<sub>3</sub>N<sub>2</sub>)
 A/Bangkok/2-62/72 are identical with A/England/42/72 (H<sub>3</sub>N<sub>2</sub>)

the highest peak by the end of September (40th week of 1972). However, the number of influenza patients declined to the normal seasonal level at the end of November. From September 30 to November 13, more than 60 strains of Influenza virus A had been recovered and all were identical with the prototype A/England/42/72. The infection also seemed to affect all age groups. The clinical symptoms were mild and no death was recorded. The age, sex and weekly incidence of the patients yielding Influenza viruses during this outbreak are tabulated in Table 1 and 2.

## REFERENCES

- 1. Wangspa, S.: Thai Medicine: Influenza in King Rama VI. Siriraj Hosp. Gaz. 1967, 19: 615.
- Vardhanabhuti, S.: An Attempt to Isolate Influenza Virus Causing the Recent Epidemic in Thailand.
   J. Med. Ass. Thailand. 1958, 41: 253.
- Thongcharoen, P., Thepitaksa, M., Prakobpol, C., Tuchinda, U., Maranetra, N., and Roongpitarangsri,
   V.: 1968-Outbreak of Influenza in Thailand. Epidemiological and Laboratory Investigations. J. Med. Ass. Thailand. 1969, 52:724.
- 4. Panpatana, P., Wasi, C., and Thongcharoen, P.: Notes on the Influenza Outbreak in Bangkok and Dhonburi 1969. J. Med. Ass. Thailand. 1970, 53:629.
- Sarasombath, S., Panpatana, P., Thongcharoen, P., Tuchinda, S., Suntornpoch, V., and Oonsombath,
   P.: Brief Note on Influenza Virus Isolation in the Year 1970. Siriraj Hosp. Gaz. 1971. 23:1061.
- 6. Influenza. Wkly. Epidem. Rec. 1972, 46: 167.
- 7. Influenza. Wkly. Epidem. Rec. 1972, 46: 53,62,82,83.

<sup>\*</sup> Age unknown in 3 cases.