### FOR ADMINISTRATIVE USE

CDC INFLUENZA SURVEILLANCE REPORT No. 49 November 18, 1959

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### SPECIAL NOTE

Information contained in this report is a summary of data reported to CDC by State Health Departments, Epidemic Intelligence Service Officers, the influenza diagnostic laboratories collaborating with the International Influenza Center for the Americas, and other pertinent sources. Much of it is preliminary in nature and is intended primarily for those involved in influenza control activities. Anyone desiring to quote this information is urged to contact the person or persons primarily responsible for the items reported in order that the exact interpretation of the report and the current status of the investigation be obtained. State Health Officers, of course, will judge the advisability of releasing any information from their own States.

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## I. Summary of Information

During the 6 month interval since the publication of the last CDC Influenza Surveillance Report in May, 1959, the occurrence of influenza in the United States has been extremely limited, both in distribution and frequency. The laboratory confirmed cases are tabulated by States in Section II. The majority of these reports were received in early and mid-summer, and, although no dates of onset are included in the laboratory reports, the predominance of Type B infections and the time suggest that most of these cases represent the last few sporadic infections of the Type B outbreaks last spring. As of this date there is no evidence that influenza is again becoming active in the United States.

The analysis of influenza and pneumonia deaths from 108 selected cities, detailed in Section III, reveals an essentially normal curve, with no significant excesses in influenza and pneumonia mortality.

Elsewhere during the summer months, widespread outbreaks were reported from Central and South America, Australia, the Philippines, India, and Africa. These reports are presented in Section IV. The outbreaks in the Far East and Western Pacific were primarily due to type  $A_2$ , whereas those occurring in the Americas were of a mixed etiology,  $A_2$  and B.

The present Public Health Service policy regarding influenza immunization is defined in a statement by the Surgeon General, appearing in Section V. Selected groups are described for whom influenza vaccination may be desirable.

As the current influenza season begins, this CDC Influenza Surveillance Report will again be published regularly, with a frequency as determined by the extent and nature of occurrence of influenza this winter.

# II. Notes on Influenza in the United States, Summer and Fall, 1959

Reports of the laboratory identification of influenza virus infections during the period of June to October, 1959, have been received from a variety of sources. These have occurred in the following States:

					FYPE .	
STATE		. •		A1	A <sub>2</sub>	В
Arkansas						X
Alaska			-		X	Х
California					х	
Idaho					X	Х
Louisiana						х
Montana						Х
Missouri						х
South Carolina					х	Х
South Dakota					х	Х
Wisconsin						X

With the exception of a small mixed outbreak at Shaw Air Force Base in South Carolina late last July, most of these reports have been sporadic in nature. Most occurred in early summer, suggesting, as noted previously, that these represented the agonal gasps of last spring's Type B outbreaks.

The Mississippi State Board of Health <u>Morbidity Report</u>, as reported in the <u>NOVS Morbidity and Mortality Weekly Report</u>, 8:35, September 11, 1959, described the occurrence of an outbreak of influenza-like illness among young children. According to Dr. Durward Blakey, Director, Division of Preventable Disease Control, Mississippi State Board of Health, Mississippi has, in common with several southern States, experienced widespread outbreaks of respiratory disease due to Coxsackie B<sub>2</sub>, and although no agent has yet been identified, this outbreak mentioned he presumes to be of a similar etiology. No laboratory confirmation of influenza has been made.

During the months of September and October, no laboratory confirmations of influenza in the United States came to the attention of this unit, nor were there reports of unusual outbreaks of respiratory disease. A suggestion that influenza may be starting to appear on the West Coast was noted in a recent report from the California State Department of Public Health, <u>Influenza Surveillance Report No. 1</u>, November 6, 1959. Scattered outbreaks of respiratory disease are reported therein to have occurred in a few schools. No laboratory confirmations of influenza virus infections have yet appeared, however.

In summary, current evidence indicates that, as yet, no influenza has been identified in the United States this fall.

#### III. Current Analysis of Pneumonia and Influenza Deaths

Inspection of Figure 1, Weekly Pneumonia and Influenza Deaths, reveals two major peaks in the fall and winter of 1957-58. These were clearly associated with excess influenza and pneumonia mortality due to the Asian Influenza pandemic. In the 1958-59 season, there were two peaks of excess influenza and pneumonia mortality, the first occurring in December - January, the second in the spring. The latter was noted in cities from the following national regions: New England, Middle Atlantic, East North Central, West North Central, and Pacific. Excess mortality in the over-65 age group was concurrently noted in the Middle Atlantic and East North Central areas.

A slight peak of excess influenza and pneumonia mortality was noted during a three-week period in late August and early September. This was observed only in the New England, Middle Atlantic and East North Central areas, and in each area was accompanied by excess mortality in the over-65 age group. Unusually high temperatures were noted in those areas during that time.

It should be noted that the pneumonia and influenza deaths are not broken down into geographic areas of the country in this report. Future CDC Influenza Surveillance Reports will, as formerly, detail the various geographic variations. The method used for calculating normal incidence and the epidemic threshold was described in the CDC Influenza Surveillance Report, Number 42, January 9, 1959.



# IV. International Notes - Summer and Fall, 1959

During the summer months, influenza appeared and reached epidemic proportions in many parts of the world. A summary of the major outbreaks follows:

#### <u>Africa</u>:

The Union of South Africa reported an outbreak of moderate severity centering about the Cape Town area in mid-June. Type  $A_2$  virus was isolated, and the attack rate was said to be about 6 per cent in the Cape Town area.

Elsewhere, Egypt, Sudan, the Belgian Congo, and Guinea all reported widespread outbreaks of respiratory disease in early summer, although there have been few reported laboratory confirmations of influenza.

## Far East and South Pacific:

In late spring, April and May, influenza was reported spreading through Ceylon, Indonesia, and Hong Kong. The attack rate in the Indonesia outbreak was said to approach 50 per cent, although no virus isolations or serologic confirmations were reported. According to Dr. Roslyn Q. Robinson of the International Influenza Center for the Americas, six isolations of Type A<sub>2</sub> influenza virus were made from throat washings submitted from the Hong Kong outbreak.

During the same time period, influenza, confirmed as being due to  $A_2$  strain, spread through Australia. It was first reported on board a ship, arriving at Darwin, Northern Territory of Australia, from Hong Kong on March 9. An outbreak with a reported 50 per cent attack rate followed in Batchelor and Arnhem Land. From there the disease spread into Queensland, New South Wales, Victoria, and the interior of Australia.

An outbreak of respiratory illness, not confirmed as influenza, is reported to have swept through the Philippines in June. No excess mortality was noted associated with this outbreak.

### <u>The Americas:</u>

Canada reported no particular outbreaks of influenza, but Dr. J. C. Wilt, Professor, Department of Bacteriology and Immunology, University of

Manitoba Faculty of Medicine, reports that since April he has been able to confirm 43 cases of Influenza A and 2 cases of Influenza B serologically, and has isolated  $A_2$  virus from three cases.

An outbreak of influenza, Type  $A_2$ , is reported to have occurred in Rio de Janeiro, Brazil, during May – June, 1959. Later in the summer extensive outbreaks were reported from Venezuela and Colombia; the etiologic agent was not reported.

In May and June, the colony of British Guiana experienced a severe epidemic, identified by Dr. Alexis Shelokov of the Middle America Research Unit as being due to the Asian influenza virus.

In June and July, 1959, Panama also suffered a severe epidemic, beginning on the Atlantic side and proceeding across the isthmus. Influenza Type B virus was isolated in Dr. Shelokov's laboratory from persons on both sides of the isthmus during this outbreak.

A severe outbreak occurred in Costa Rica during the late summer months, with an attack rate reported to be 50 per cent or more. Live virus polio vaccine trials are underway in Costa Rica, and an extensive laboratory and epidemiologic surveillance program has been set up. As a result, sera were available from both clinical influenza cases and vaccine surveillance cases or contacts. Dr. Shelokov reports that:

> "Altogether, 31 pairs of sera from Costa Rica patients were available for examination. All of them were tested for specific antibody rises by the standard hemagglutination inhibition test with the antigens prepared from both of the epidemic influenza virus types known to have been active in Middle America in 1959. The results can be summarized as follows:

# RESULTS OF HEMAGGLUTINATION INHIBITION TESTS ON PAIRED SERA FROM COSTA RICA

# Fourfold or Greater Antibody Rises vs:

	Number of Serum Pairs	A <sub>2</sub> /Asian/57	B/Md/59	Total Confirmed Influenza	
Clinical cases		finite de la composition de la	• • • •	a de la composition	
(Aug. 1959)	4	1	<b>1</b>	2	
Polio vaccine surveillance Cases or contacts					
(May-Aug. 1959)	27	2	2	4	
TOTAL:	31	3	3	<b>S</b>	

In spite of the small representative sample, it is clear that the Costa Rica epidemic was due to <u>both</u> influenza viruses known to have been active in this area."

### V. Influenza Vaccination

On October 12, 1959, Office of the Surgeon General released the following statement regarding influenza immunization:

"The Surgeon General of the Public Health Service, Dr. Leroy E. Burney, today announced that certain groups in the American public should seriously consider vaccination before the influenza season begins.

"The following groups were advised to seek medical advice as to their need for the vaccine: (1) Persons for whom the onset of influenza might represent an added health risk, such as individuals with cardiovascular or pulmonary conditions, persons over age 55 with chronic illness of any type, and pregnant women; (2) persons responsible for the care of the sick; (3) persons responsible for providing essential public services, such as law enforcement, fire protection, transportation, and communications; and (4) industries and other commercial enterprises wishing to keep the employee absenteeism rate from rising.

"The Surgeon General said that specialists of the Public Health Service and members of the Surgeon General's Advisory Committee on Influenza Research are agreed that no widespread attacks of influenza are presently anticipated. Localized outbreaks of the disease undoubtedly will occur during the next several months, however, and vaccination is considered a prudent measure for the groups and individuals named.

"Dr. Burney added that the predominant type of influenza this fall and winter will probably be the A2, or Asian strain, rather than Influenza B which was the major form last year. He emphasized that vaccination should be planned before the influenza season begins.

"Commercially available polyvalent influenza vaccine contains immunizing materials against the important strains of influenza, including the Asian strain. The polyvalent vaccine affords approximately 70 per cent protection when given in two doses - spaced at least two weeks apart and preferably about four weeks apart. To maintain adequate protection, vaccination is desirable at the beginning of each influenza season.

"Persons seeking protection for themselves or their families should consult their physicians to obtain individual recommendations, the Surgeon General said."

Dr. Roderick Murray, Director, Division of Biologic Standards, National Institutes of Health, states that the present civilian vaccine (500 CCA units per ml. to be administered in 2 does of 1 cc each) has the following composition:

<u>Strain</u>	Type	CCA units per ml.
PR - 8	Α	100
Ann Arbor 1/57	$\mathbf{A_l}$	100
Asian	A <sub>2</sub>	200
Great Lakes 1739/54	В	100

This formula became effective July 1, 1959, the only change being the substitution of the Ann Arbor 1/57 strain for the PR - 301 strain.

The following are the licensed manufacturers of influenza vaccine:

Eli Lilly and Company - Indianapolis, Indiana Lederle Laboratories - Pearl River, New York Merck, Sharpe and Dohme - Philadelphia, Pa. National Drug Company - Philadelphia, Pa. Parke, Davis and Company - Detroit, Michigan Charles Pfizer and Company - Brooklyn, New York Pitman-Moore Company - Indianapolis, Indiana

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