

CDC INFLUENZA SURVEILLANCE REPORT

NO. 43

FEBRUARY 19, 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, collaborating influenza diagnostic laboratories, and other pertinent sources. Much of it is preliminary in nature and is intended 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 latter part of January and the first two weeks of February, 1959, influenza has spread through at least eight countries of Europe. In the USSR only A/Asian strain isolations have been reported to date. In England the majority of isolates have been type B, but some A/Asian and type C isolates have also been obtained. Elsewhere only type B influenza has been detected. The influenzal illnesses have been generally mild, with very low associated mortality. School children and young adults have most often been affected. The type B strain appears to be sufficiently closely related to the Great Lakes 1950 strain of B used in American polyvalent influenza vaccine so that this vaccine would be protective should type B influenza from Europe be heavily introduced into this country.

In the United States febrile respiratory illness has occurred recently in the District of Columbia, and adjacent counties of Maryland and Virginia. Type B influenza viruses have been isolated from four persons with respiratory illness in Maryland and Michigan, and one A/Asian strain was recently isolated in New York City from a recent returnee from Europe. The B strain in Maryland cross-reacts well with the Great Lakes 1950 strain of B which is incorporated in presently available polyvalent influenza vaccines. Increased school absenteeism and several school outbreaks due to respiratory disease have occurred in seven Eastern states in the past two weeks.

Mortality due to influenza and pneumonia in the United States was at a normal seasonal level for the week ending February 14 in all areas, except the West South Central Division. In this division, however, the figure was well below that of three weeks ago.

The Surgeon General has recommended that physicians consider vaccination in the near future of certain special risk groups and individuals with polyvalent influenza vaccine (all vaccines presently available contain both the A/Asian strain and the B/Great Lakes strain).

Influenza type B epidemics of the past in the United States have occurred in 1936, 1940, and 1945-46. In 1951, also, type B was more than usually prevalent. If influenza type B were to become at all widespread in this country in March it would be the first extensive type B occurrence in about thirteen years.

(This report was prepared by Dr. Frederick L. Dunn, Chief, Influenza Surveillance Unit, CDC.)

II. Current Analysis of Influenza and Pneumonia Mortality*

Table 1. Current Influenza and Pneumonia Deaths in 108 United States Cities

Division	Number of Cities in Study Reporting this week	Deaths (including estimates**) during weeks ending:					
		Jan. 10 (108 Cities)	Jan. 17 (108 Cities)	Jan. 24 (108 Cities)	Jan. 31 (108 Cities)	Feb. 7 (107 Cities)	Feb. 14 (108 Cities)
All Divisions	108	591	564	546	494	459	447
New England	14	34	49	46	41	42	45
Mid. Atlantic	17	160	159	180	130	138	114
E. North Central	18	105	93	85	98	103	88
W. North Central	9	50	41	41	57	24	38
S. Atlantic	9	52	54	49	33	34	27
E. South Central	8	32	33	32	35	29	30
W. South Central	13	88	65	53	46	44	57
Mountain	8	19	16	20	11	17	13
Pacific	12	51	54	40	43	28	35

* Prepared by the Statistics Section, CDC.

** The number of deaths given includes estimates for cities not reporting in a given week. The table is corrected for preceding weeks after receipt of late reports.

COMMENT

The number of deaths ascribed to pneumonia and influenza has shown a steady downward trend during the past six weeks for the United States as a whole. In the past week the only geographic division to exceed the normally expected number of deaths is the West South Central Division, but this figure is well below that reported three weeks ago. All other Divisions are within expected ranges.

III. Influenza in Europe - January and February, 1959

The first 1959 European report of influenza to come to the attention of the Influenza Surveillance Unit was a February 4 wire service despatch from Moscow indicating that epidemic influenza was widespread throughout the USSR. The World Health Organization, for the week ending February 6, reported that Asian influenza isolations were being made in the USSR. The WHO report also noted the isolation of the Asian influenza virus from a fatal case in England, and that "type B influenza" was present in Italy and the Netherlands.

On February 8, the press reported extensive epidemic influenza in England, and several days later it was learned that the influenza in England was producing sharp localized outbreaks throughout the country. The illness was mild, most often of 4-5 days duration, and mortality was very low. The majority of the virus isolations being made were of type B influenza. Some type A and a few type C isolates were appearing as well.

Influenza, pneumonia, and bronchitis mortality in England and Wales showed a distinct rise during the week ending February 7*:

1959 Week Ending:	Number Deaths Reported Due to:		
	<u>Pneumonia</u>	<u>Bronchitis</u>	<u>Influenza</u>
January 3	845	965	21
January 10	773	912	41
January 17	802	1125	33
January 24	875	1123	55
January 31	815	1129	54
February 7	986	1362	144

* Source: Weekly Influenza Statement, 1959, No. 5, British Ministry of Health, London.

On February 13, Professor J. Mulder of the University of Leiden reported that influenza type B had been widespread in Holland for some weeks, affecting primarily children and young adults. A few deaths had occurred as a result of complicating staphylococcal pneumonias. The type B strain was reported to differ somewhat from the Don 1943 strain, and less so from the Huertig 1955 strain of type B. The strain clearly shared antigenic characteristics with these strains however. The Huertig 1955 strain is closely related to the Great Lakes 1950 strain of type B currently incorporated in polyvalent influenza vaccines available in the United States. Mulder also reported that there had been no recent type A isolations in the Netherlands.

On February 13, the World Health Organization reported type B influenza isolations from Stockholm, Sweden, and "mild influenza-like illness, virus unknown" in France, Switzerland, and Austria. Type B isolations were also reported from the south of Italy.

By the beginning of the present week it was clear that mild influenza outbreaks were occurring in many communities of at least eight countries of Europe. It was also evident (from reports from England, the Netherlands, Sweden, and Italy) that many of the infections were due to type B influenza of a strain not very different from the Great Lakes 1950 strain in the United States. Asian strain influenza, however, was also causing some of the influenzal illness, at least in the USSR and England.

No reports have been received recently of influenza outbreaks or isolations elsewhere in the world — in Asia, South America, Australia, or Africa.

IV. The Current Status of Influenza in the United States

Reports of influenza in Europe during the first two weeks of February, 1959, resulted in a public statement from the Surgeon General on February 11, to the effect that it was probable that introductions of influenza from Europe into this country would occur during the coming weeks. He reiterated his previous recommendation that private physicians give special consideration to the desirability of vaccinating the following groups: Individual special risk patients or groups such as the aged, the chronically ill, and pregnant women; hospital staffs; industrial or service organizations where the sudden absence of a sizeable part of the force would create serious work disruption.

The NOVS Morbidity and Mortality Report for the week ending February 6, reported the isolation by Dr. E.D. Kilbourne at Cornell Medical College in New York City of an Asian influenza virus from a throat washing obtained from an 18 year old American girl. This girl, with another girl of the same age, had just arrived January 25, in this country aboard ship, having come from Oslo, Norway, via Rotterdam. The girls developed severe influenza-like illnesses January 24 and 25. This Asian strain isolation was the first reported to NOVS from the United States in 1959.

On February 13, Dr. Carl Dauer of NOVS reported that there was evidence of a considerable amount of respiratory disease in the Washington, D.C. area. School absenteeism was increased in Fairfax County, Virginia, Montgomery and Prince Georges Counties, Maryland, and the District of Columbia. According to a press report, one Arlington, Virginia parochial school closed for one day (February 12) because 170 of 760 ninth and tenth grade children were absent with febrile respiratory disease. Three other Fairfax County schools averaged 18 per cent absenteeism at the same time. In Montgomery County, absenteeism up to 20 per cent was recorded in some secondary schools. Throughout the area the majority of illnesses appeared to be occurring among children of school age.

Dr. Joseph Bell of the National Institute of Allergic and Infectious Diseases obtained 2 type B isolates from 16 throat washings taken from Montgomery County children with respiratory illnesses. This type B strain

cross-reacted well with the type B Great Lakes 1950 strain. With this report, it seemed possible that many of the respiratory illnesses occurring primarily among elementary and high school children in the vicinity of Washington, D.C. might be due to type B influenza.

School outbreaks and increases in school absenteeism due to influenza-like illnesses are reportedly occurring in communities in several other states along the Eastern seaboard. Such reports require further documentation, however, in addition to laboratory information. Some increased school absenteeism has also been noted in two states, Indiana and Michigan, of the East North Central area (see map on the Weekly Pneumonia and Influenza Deaths figure).

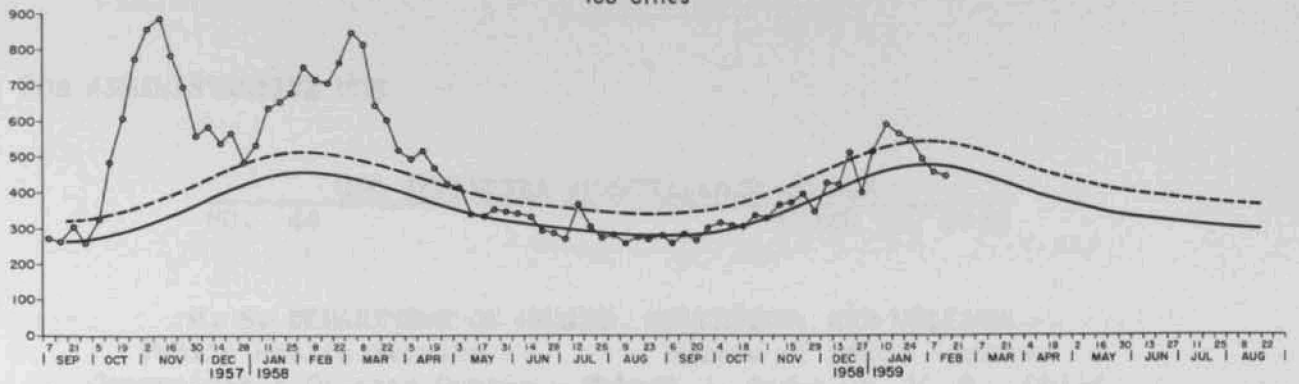
On February 18, Dr. F.M. Davenport of the University of Michigan wired Dr. R.Q. Robinson, of the CDC Respiratory Disease Unit and the WHO International Influenza Center for the Americas, that he had isolated two strains of type B influenza on February 10 and 12, from throat washings taken from individuals in Ann Arbor and Dearborn, Michigan. Some increased school absenteeism has occurred in Dearborn.

At this writing, in summary, 4 type B influenza viruses have recently been isolated from persons with influenza-like illness in Michigan and Maryland, and 1 type A/Asian strain has been isolated in New York City from a recent returnee from Europe. The Maryland strains cross-react well with the Great Lakes 1954 strain which is in the polyvalent influenza vaccines available at present. Increased school absenteeism and school outbreaks due to respiratory disease have been noted in seven Eastern states in the past two weeks, but only, thus far, in Maryland and Michigan has an influenza virus been in any way associated with such occurrences.

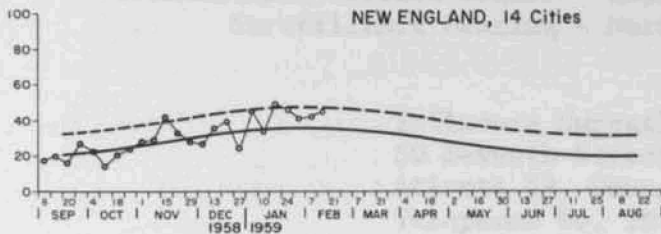
The industrial reporting system that was in operation during the 1957-58 epidemic has not reported any unusual increases of absenteeism in recent weeks.

Fig 1: WEEKLY PNEUMONIA and INFLUENZA DEATHS
United States

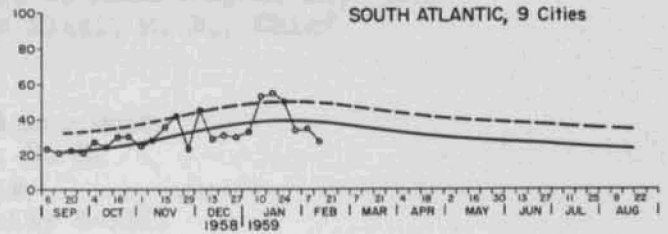
108 Cities



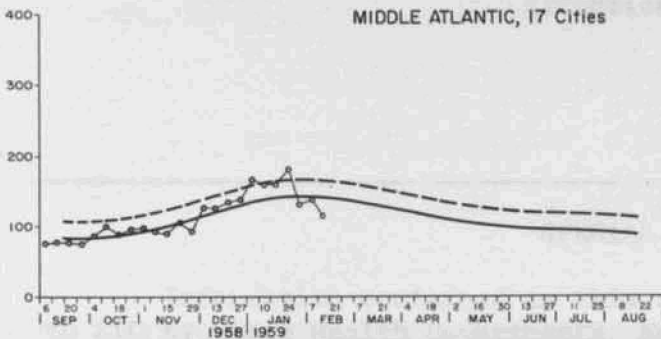
NEW ENGLAND, 14 Cities



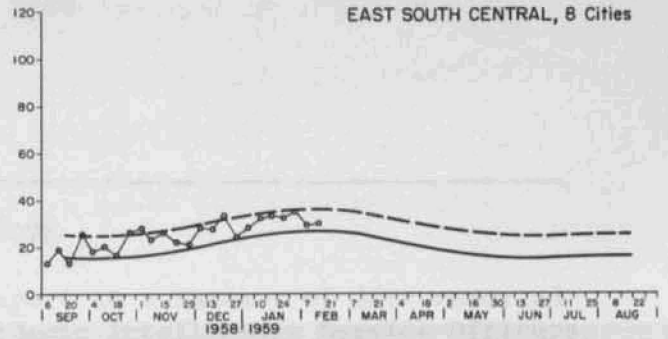
SOUTH ATLANTIC, 9 Cities



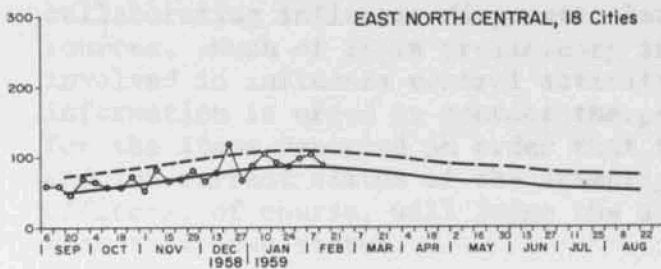
MIDDLE ATLANTIC, 17 Cities



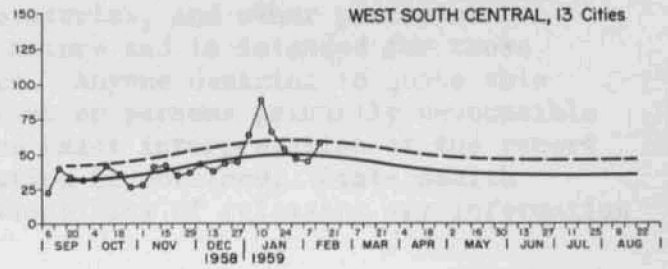
EAST SOUTH CENTRAL, 8 Cities



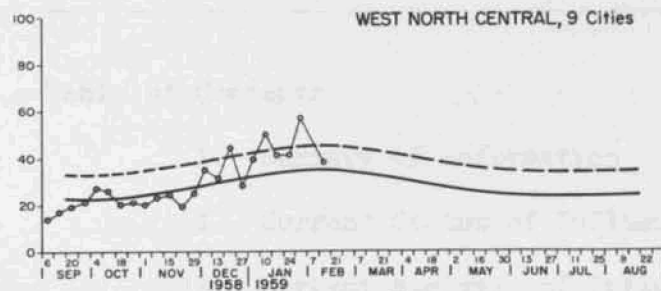
EAST NORTH CENTRAL, 18 Cities



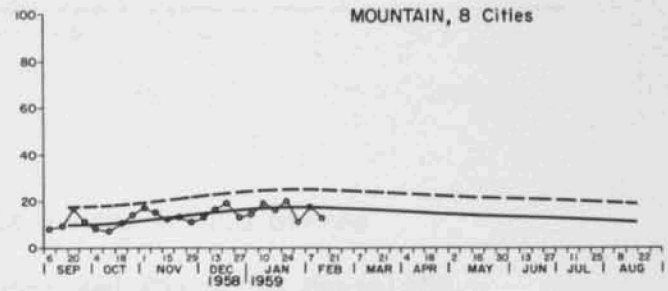
WEST SOUTH CENTRAL, 13 Cities



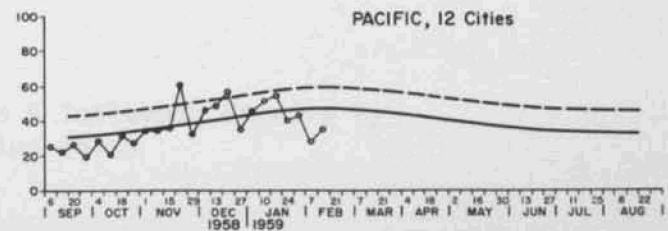
WEST NORTH CENTRAL, 9 Cities



MOUNTAIN, 8 Cities



PACIFIC, 12 Cities



--- EPIDEMIC THRESHOLD
— NORMAL INCIDENCE