

CDC INFLUENZA SURVEILLANCE REPORT

NO. 46

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U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service Bureau of State Services
Communicable Disease Center - Robert J. Anderson, M. D., Chief
Surveillance Section - Mario Pizzi, M. D., Chief

Influenza Surveillance Unit
50 Seventh Street, N. E.
Atlanta 23, Georgia
Telephone No. TRinity 6-3311
Extension 5454

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

Influenza and pneumonia deaths reported from 108 United States cities remained at approximately the level, normal for the season, of the past six weeks. All Divisions remained close to or below the normal thresholds except the Middle Atlantic. This Division showed an increase in deaths to 181 from the levels of the previous six weeks which ranged between 130 and 157 deaths. The increasing influenza and pneumonia mortality of the past three weeks in New York City (see page 4) appears to be the primary cause of this Divisional increase.

Through the first week of April 1959 the Influenza Surveillance Unit has received reports of influenza-like illness causing outbreaks and increased school absenteeism in 29 States and the District of Columbia. Sixteen States and the District have now confirmed the presence of influenza Type B within the States. Asian (A2) influenza has been reported only from California, New York, and Florida. As in past weeks industrial absentee rates remain normal for the season, and there have been few reports of outbreaks primarily affecting adults.

This report includes a summary of the international status of influenza during the period from January 1 to March 31, 1959. Thirteen countries have now confirmed the presence of Asian (A2) influenza, while Type B has been detected in eleven countries, and Type C in two. Nine other countries have experienced outbreaks of influenza-like illness but have not confirmed them to be due to influenza. At this writing South America, the Middle East, Australia, and most of Africa appear to have been free of influenza since January although the absence of a report from a country or continent does not necessarily imply that there has been no influenza in that area.

Part IV of this report presents a brief discussion of the status of the Type A influenza classification situation.

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

II. Current Status of Influenza in the United States

Outbreaks of influenza-like illness and laboratory confirmations of influenza infections continue to be reported from many parts of the country. Persons of school and college age continue to be most heavily affected. Outbreaks involving adults have been rare, and industrial absenteeism has remained at normal seasonal levels in all areas. Influenza and pneumonia mortality remains close to normal for the season except in the Middle Atlantic region where there has been an upswing above the threshold. (New York City has now experienced three weeks of above-normal total mortality and influenza and pneumonia mortality - see below). Since early February 1959 (through the first week of April) the Influenza Surveillance Unit has learned of outbreaks of influenza-like illness in 29 States and the District of Columbia. Reports of confirmed Type B influenza have come from 16 States and the District. Asian (A2) influenza has been reported only from California, New York, and Florida. Type A influenza, subgroup unspecified, has also been reported from Utah and South Dakota.

A tabulation by State of the status of influenza follows:

States with laboratory-confirmed Type B Influenza (Feb-March 1959)

California	Alabama
Oregon	Georgia
Utah	Maryland
Kansas	District of Columbia
Iowa	Pennsylvania
Missouri	New York
Illinois	Massachusetts
Indiana	New Jersey
Michigan	

States with outbreaks, increased school absenteeism, etc., due to influenza-like illness (Feb-March 1959)

Alaska	Arkansas	Alabama
Washington	Illinois	Georgia
Oregon	Indiana	Florida
California	Michigan	Pennsylvania
Montana	Ohio	New Jersey
Utah	West Virginia	New York
Colorado	Maryland	Connecticut
Kansas	Virginia	Massachusetts
Iowa	D.C.	Vermont
Missouri	Mississippi	Maine

Reports from the States:

Vermont - Dr. R.B. Aiken, Commissioner of Health, reports that there has been a considerable increase in the incidence of respiratory illness resembling influenza throughout Vermont since the middle of March. There have been several school outbreaks, the first starting about March 16, with absenteeism ranging up to 37 per cent. Laboratory studies of specimens are in progress.

Massachusetts - The Massachusetts Department of Public Health reports that influenza-like illness has extended into the western part of the State, primarily affecting college and high school students in that area.

New York City - For the past three weeks total mortality and mortality due to influenza and pneumonia has been increasing in the City. Dr. Morris Greenberg, New York City Department of Health, recently reported to Dr. Carl Dauer, NOVS, that there has been increased reporting of respiratory disease during the past month, but that no outbreaks have been called to his attention. There have been no increases in school or industrial absenteeism in the city to date.

Dr. Harry M. Rose, Columbia University College of Physicians and Surgeons, has isolated two additional Asian (A2) influenza viruses from throat washings of patients who fell ill on March 17. The illness was characterized in each instance by cough, fever to 103-104, headache, and myalgia. The acute symptoms subsided within 72 hours and there were no complications.

Dr. Edwin D. Kilbourne, Cornell University Medical College, in a recently prepared tabulation of influenza studies, reports a total of five Asian (A2) isolations and 2 other Asian infections confirmed by CF antibody rises in New York City patients during the first three weeks of March.

New York State - Dr. John E. Hotchin, Division of Laboratories, reports a single serologically confirmed Type B infection in an 18 year old college student who was hospitalized in the Cornell Infirmary in Ithaca with fever and general malaise. Onset of illness was on February 22. Dr. Hotchin has also isolated a Type A virus, which appears to be of the Asian (A2) subgroup, from a sporadic case in Albany. The throat washing was collected February 3.

Maine - Outbreaks in several parts of the State have been reported by the Maine Department of Health and Welfare. Laboratory studies of some of the cases are in progress.

New Jersey - Dr. Adele Shepard, New Jersey State Department of Health, reports the serologic confirmation of Type B influenza infections in four school children. School outbreaks have occurred in several communities in the northern part of the State in the past few weeks.

Pennsylvania - Dr. Klaus Hummeler of Children's Hospital in Philadelphia has recently obtained serologic (CF) confirmation of Type B influenza infections in four patients with respiratory illnesses.

Alabama - Dr. R.Q. Robinson of the CDC Respiratory Disease Unit reports that in addition to several Type B influenza isolates obtained from cases in the Montgomery area in February, a school outbreak in late February has been serologically confirmed as having been due to influenza B. At the time the specimens were collected absenteeism stood at about 40 per cent.

Arkansas - Dr. A.M. Washburn, Arkansas State Board of Health, has recently notified NOVS of increased absenteeism in Little Rock schools due to influenza-like illness.

Illinois - Dr. Norman J. Rose, Illinois Department of Public Health, reports that influenza B viruses have been isolated from specimens obtained during recent outbreaks in three schools in the Chicago area.

Notification has been received from Dr. John J. Procknow of the Department of Medicine, University of Chicago, of the isolation of nine Type B influenza viruses from patients in Chicago who were ill between March 12-24. Signs and symptoms in one 32 year old male patient, a typical case, included: fever to 104, marked malaise, diarrhea, headache, cough, and mild pharyngitis. His illness lasted six days.

Missouri - Dr. H.M. Hardwicke, Acting Director of Health, Missouri Department of Public Health and Welfare, and Dr. Tom D.Y. Chin, CDC Kansas City Field Station, have reported two influenza outbreaks in Kansas City high schools. Absenteeism peaked in mid-March, illnesses were generally mild, and of the agents isolated from throat washings, two have been typed as influenza Type B related to the 1954 Great Lakes B strain.

Kansas - Laboratory reports have been received from Dr. Charles Hunter, Director of Laboratories, Kansas State Board of Health, for four type B influenza infections confirmed by CF test. Two of the cases occurred in children, aged 14 and 17, in Hays, Kansas. The other two occurred in students at the University in Lawrence. All four illnesses occurred during mid-March.

Utah - Dr. A.A. Jenkins, Utah State Department of Health, reports that a total of three Type B isolates, and five serologic identifications of influenza B, have now been obtained from outbreaks in the Salt Lake City area.

Montana - Two hemagglutinating agents have been isolated from specimens collected at a school in Hamilton during an outbreak which began March 16, and involved some 70 students of the total enrollment of 295, according to a report to NOVS from Dr. David B. Lackman at the Rocky Mountain Laboratory.

California - The NOVS Morbidity and Mortality Weekly Report No. 11, Vol. 8, summarizes the situation in California through the end of March as follows: "The California Department of Public Health states that 11 outbreaks of influenza have been reported in the State, all of them since the middle of February. A2 influenza has been identified in 4 outbreaks. One occurred

in an industrial plant in Alameda County, affecting about 120 persons. Another was reported in university students of the same county. A group of university students in San Francisco were also involved. About 250 competitors and employees at a ski resort in Placer County were ill with a respiratory illness identified as A2 influenza by isolation of the virus. Influenza B was identified in two outbreaks in Los Angeles County. High school students were involved in one group and persons in a reception center of the Probation Department in the other. Four camps maintained by the Probation Department also experienced the same type of illness. An outbreak in a county hospital and one in a large State hospital are under investigation. Illnesses have been reported to be mild."

Captain R.W. McKinney, Chief, Virus Section, Sixth Army Area Medical Laboratory, Fort Baker, California has reported the isolation of Asian (A2) viruses from throat washings of two cases of respiratory disease at Fort Ord. The throat washings were collected February 25.

III. International Notes

Since January 1, 1959, outbreaks or sporadic cases of confirmed influenza have been reported from almost all of the countries of Europe, from the USSR as far east as Transcaucasia and Central Asia, and from many parts of North America. In addition, some countries in these regions have reported outbreaks of influenza-like illness as yet unconfirmed by laboratory study. Scattered reports have begun to appear of outbreaks of influenza-like illness in Central America, Oceania, and Africa. In India and the Far East confirmed cases of influenza have been reported from several outbreaks. To date there have been no official reports of the presence of influenza in South America, Australia, the Middle East, and Africa (the report from the Belgian Congo is unofficial).

A summary tabulation of international reports of influenza is presented on the following page. It must be emphasized that there is no systematic international influenza reporting mechanism and that the absence of a report from a given country does not imply that there has been no influenza in that country.

The sources of information upon which this tabulation are based include: Weekly Epidemiological Records of the World Health Organization, Foreign Epidemiological Summaries of the U.S. Public Health Service, Morbidity and Mortality Weekly Reports of the National Office of Vital Statistics, dispatches from the major wire services, and personal communications to the Influenza Surveillance Unit from many authorities.

The International Status of Influenza (January 1 through March 31, 1959)

Note: Dates refer to the period when the disease was most conspicuous in the country or to the time when sporadic cases or outbreaks were confirmed as being due to influenza.

Type C Influenza (2 countries)

England - Feb.
United States - mid Feb.

Type B Influenza (11 countries)

Czechoslovakia - Dec-Jan
Yugoslavia - Feb-early March
Sweden - Feb-early March
Netherlands - Feb.
England - early Feb-mid March
France - mid Feb-March
Switzerland - late Feb-late March
Italy - late Feb-March
West Germany - mid Feb-March
Denmark - mid Feb-March

United States - mid Feb-early April

Influenza-like Illness (9 countries)

Canada - late Jan-Feb
Austria - Feb.
Belgium - mid Feb-March
Spain - mid March

Belgian Congo - early March

Fiji - March
Tonga - March

British Honduras - mid March
Mexico - mid March

Type A (Asian or A2 subgroup)
Influenza (13 countries)

USSR - late Dec-late Jan.
Bulgaria - late Jan-mid Feb.
Rumania - Feb.?
Czechoslovakia - mid March
Greece - late Feb-early Mar.
Poland - Feb. and March
West Germany - mid Feb-March
England - early Feb-mid Mar.

Israel - Feb.

India - late Feb.

Japan - early March
Hong Kong - early March

United States - Jan. and March

IV. Influenza Nomenclature

There has been some concern recently about the proper classification of the influenza viruses, with particular regard to the designation to be used for the Asian subgroup of Type A influenza. In recent months alternative designations for Asian influenza that have been used include: A₂, A₂, A-2, A-4, and A₄. Recent correspondence has suggested that there is need for prompt clarification of the situation.

In August 1958 the WHO Expert Committee on Respiratory Diseases met in Stockholm, Sweden to consider, among other things, the classification of the influenza viruses. The group concluded in their report that new knowledge and more complete information relating to the antigenic constitution of these agents warranted recognition of three principle subgroups or families of Type A influenza viruses to be designated as follows:

- Subgroup A (this includes the WS and PR8 groups and those A viruses predominant during the era from 1933 or earlier to 1946)
- Subgroup A₁ (the subgroup formerly designated FM1 (1947) and commonly referred to as A prime, representing those strains which were predominant from 1946 to the time of the appearance of Asian influenza in 1957.)
- Subgroup A₂ (the new Asian subgroup exemplified by the A₂/Japan/305/57 and A₂/Singapore/1/57 strains.)

This report has not been officially released. The above information has become generally available, however, and influenza workers have gradually begun to substitute A₂ for Asian. At present the WHO Weekly Epidemiological Records are using the form A₂ while in this country A-2 or A₂ has most commonly been used. Until an official report becomes available from WHO the Influenza Surveillance Unit will continue to use the form A₂, generally placing it in parentheses after Asian.

(The designation A-4 or A₄ which has been applied to the Asian subgroup, is based on a suggested classification in the chapter on influenza in the latest edition of River's Viral and Rickettsial Infections of Man, page 642. The author stated that a classification for type A influenza "might be as follows:" Swine A was designated A₁, 1933-1946 A strains as A₂, A prime strains as A₃, and Asian strains as A₄.)

V. Current Analysis of Influenza and Pneumonia Mortality*

Current Influenza and Pneumonia Deaths
in 108 United States Cities

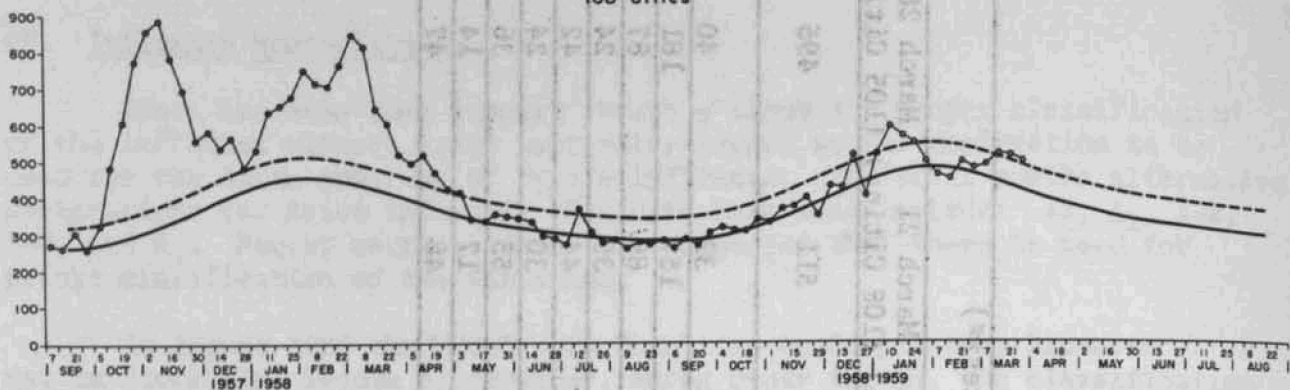
Division	Number of Cities in Study Reporting this week	Deaths (including estimates**) during weeks ending:						
		Feb. 21 (108 Cities)	Feb. 28 (108 Cities)	March 7 (108 Cities)	March 14 (108 Cities)	March 21 (108 Cities)	March 28 (105 Cities)	
All Divisions	105	493	481	496	516	511	495	
New England	13	39	49	49	45	32	40	
Mid. Atlantic	17	131	131	136	153	157	181	
E. North Central	18	115	95	99	99	89	87	
W. North Central	9	33	29	29	28	39	24	
S. Atlantic	9	41	41	44	43	44	42	
E. South Central	8	33	31	33	32	30	24	
W. South Central	12	44	45	58	55	55	36	
Mountain	7	17	14	14	16	17	14	
Pacific	12	40	46	34	45	48	47	

* Prepared by the Statistics Section, CDC.

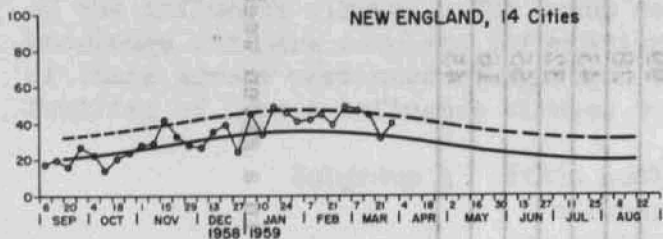
** The number of deaths given includes estimates for cities not reporting in a given week. The table is corrected for preceding weeks after receipt of late reports.

Fig 1: WEEKLY PNEUMONIA and INFLUENZA DEATHS United States

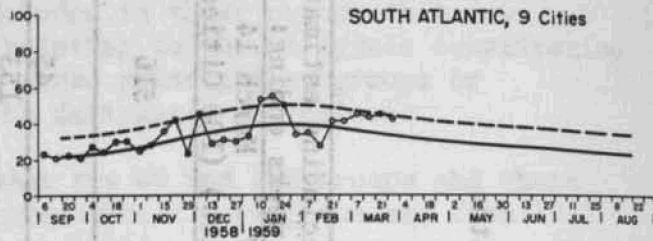
108 Cities



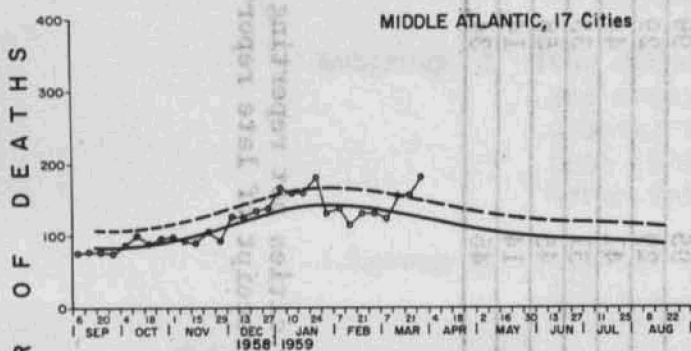
NEW ENGLAND, 14 Cities



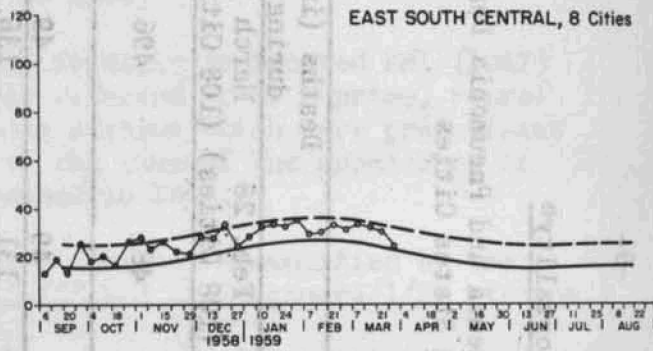
SOUTH ATLANTIC, 9 Cities



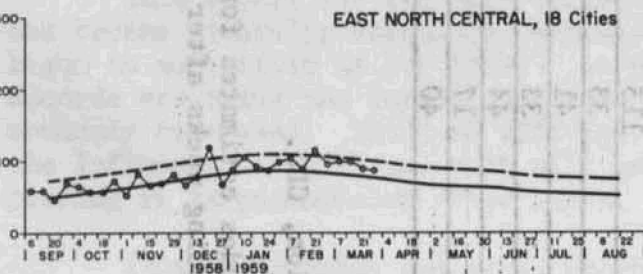
MIDDLE ATLANTIC, 17 Cities



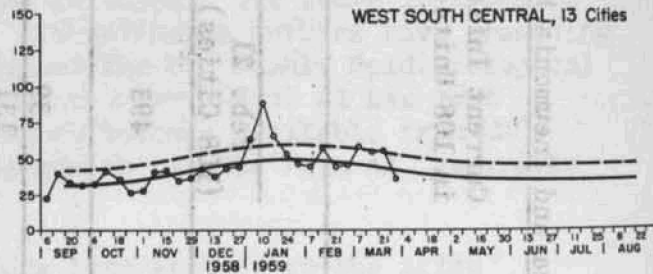
EAST SOUTH CENTRAL, 8 Cities



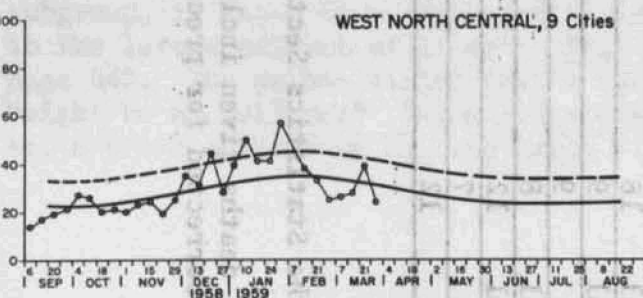
EAST NORTH CENTRAL, 18 Cities



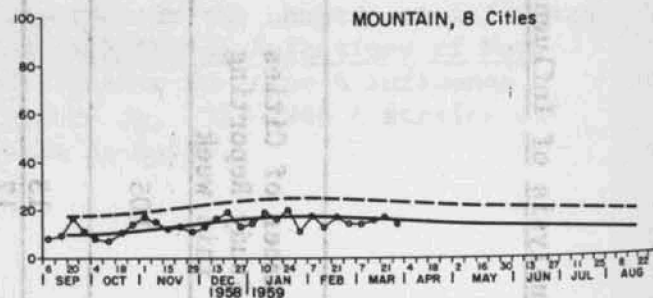
WEST SOUTH CENTRAL, 13 Cities



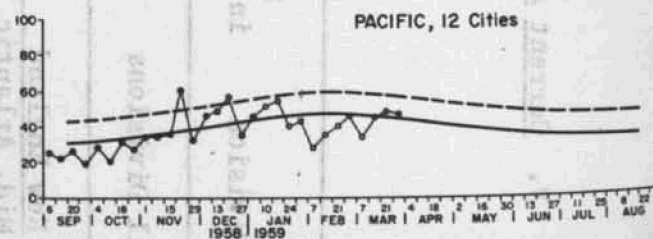
WEST NORTH CENTRAL, 9 Cities



MOUNTAIN, 8 Cities



PACIFIC, 12 Cities



--- EPIDEMIC THRESHOLD
— NORMAL INCIDENCE