

CDC INFLUENZA SURVEILLANCE REPORT

NO. 45

MARCH 20, 1959

U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
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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

Twenty States and the District of Columbia have now reported outbreaks of influenza-like illness, or laboratory confirmations of the presence of influenza, since early in February, 1959. In ten of these States and the District isolation or serologic study has confirmed the presence of Type B influenza. All reports indicate that this virus is closely related to other Type B influenza agents which have been isolated in this country and abroad in the past few years. No additional Type C influenza isolates have been reported in 1959 since the report from Michigan in mid-February. Asian (A2) isolations have been reported to date in 1959 only from New York City (a total of 4 isolates now) and Miami, Florida (one isolate from a family outbreak). Other Type A agents, not yet characterized as to subtype, have been reported from Utah and California.

Influenza and pneumonia deaths for the week ending March 14, rose slightly (to 517) from the level of the previous five weeks. The figure still stands close to the normal threshold. The greatest increases in reported deaths over the previous week were recorded from the Middle Atlantic and Pacific States. The absence of excess influenza and pneumonia mortality appears to be consistent with the fact that the majority of outbreaks are occurring among school children. The adult population seems to have been little affected to date, perhaps as the result of prior experience with similar strains of Type B. Industrial absentee rates remain normal for the season. It may be worthy of note, in considering the absence of excess mortality, that the Type B illness has been generally reported as milder and of shorter duration than the illness caused by the Asian (A2) strain.

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

II. Current Status of Influenza in the United States

Outbreaks of mild influenza-like illness, generally affecting school children and often resulting in school absenteeism ranging from 20-40 per cent, continue to be reported from many areas of the country. During the week since Influenza Surveillance Report No. 44 was prepared a considerable number of new reports of outbreaks, virus isolations, and serologic confirmations of influenza have come to the Influenza Surveillance Unit. At this writing (March 19) outbreaks of influenza-like illness (or laboratory confirmations of the presence of influenza) have been reported from 20 states and the District of Columbia in the past four or five weeks. Since the beginning of 1959 Asian (A-2) influenza strains have been isolated only in New York City and Miami, Florida. Type A influenza, subgroup as yet unspecified, has also been reported from several points in California and from the Salt Lake City area in Utah. There have been no additional reports of Type C influenza since the first in several years, in mid-February, from Ann Arbor, Michigan. Since mid-February Type B influenza viruses have been isolated or serologically identified in Maryland, the District of Columbia, Georgia, Michigan, Indiana, Illinois, Iowa, California, Alabama, Oregon, and Massachusetts.

Laboratory Reports of Type B Influenza in USA -- February-March* 1959

<u>Approximate date of identification or collection of the specimens</u>	<u>Type of laboratory procedure</u>	<u>Location</u>
February 10	1 isolation	Ann Arbor, Michigan
12	1 isolation	Dearborn, Michigan
13	2 isolations	Montgomery Co., Md.
Week of February 16	3 isolations	Los Angeles Co., Cal
Mid February (? date)	1 isolation	" " " "
February 18	5 serologic	DeKalb Co., Georgia
20	1 isolation	Great Lakes Naval Sta., Ill
20	2 isolations	District of Columbia
20	1 serologic	Montgomery, Alabama
20	4 isolations	Wayne County, Mich.
20	1 isolation	Roland, Iowa
23	1 serologic	DeKalb County, Ga.
26	1 serologic	Oregon
First week of March	3 isolations	Belmont & Wellesley, Mass.
First half of March	13 serologic	South Bend, Indiana
" " " "	1 plus serologic	Indianapolis, India
March 12	1 isolation	Iowa City, Iowa

*Data available through March 18

Reports from the States:

Georgia - Dr. W.J. Murphy of the Georgia Department of Public Health reports that paired blood specimens taken from 6 of 11 school children with influenza-like illness at a school in DeKalb County, Georgia showed significant serologic evidence of Type B influenza. The 6 acute blood specimens were obtained February 18 (5 specimens) and February 23 (1 specimen). Throat washings also obtained from all 11 individuals failed to yield the virus. At the time the specimens were collected the school was experiencing 30 per cent absenteeism. Between mid-February and the second week of March a number of Atlanta area schools have experienced considerable absenteeism due to influenza-like illness. The adult population in this area, however, appears to have been relatively little affected.

Indiana - Dr. Josephine Van Fleet of the Indiana State Board of Health Laboratory has reported six additional serologic identifications of Type B influenza from school outbreaks in the South Bend area. Throat washings were also collected, but work with them has not been completed as yet. At least one Type B infection has also been identified serologically from Indianapolis. Dr. A.L. Marshall, Jr., Director of Communicable Disease Control, has reported to Dr. Carl Dauer of NOVS that influenza swept through the schools of the State, that the disease is now waning, and that on the basis of school absenteeism there may have been as many as half a million cases of influenza during the three or four week epidemic period.

New Jersey - Dr. Adele C. Shepard of the Bureau of Acute Communicable Diseases of the New Jersey State Department of Health reports that influenza-like illness is causing increased school absenteeism (10-40 per cent) in schools of the northern part of the State. Throat washings and blood specimens have been obtained.

Illinois - Captain Lloyd F. Miller, MC/USN, Officer in Charge, NAMRU 4, at Great Lakes Naval Training Station has forwarded a Type B isolate to Dr. R.Q. Robinson at the Respiratory Disease Unit of CDC in Montgomery, Alabama. This isolate, designated B/Great Lakes/694/59 was recovered from a naval recruit with influenza-like illness on February 20, during a period of increased respiratory disease incidence among the recruits. Other isolates were obtained which have not as yet been identified. The strain B/GL/694/59 cross reacts well with other Type B strains obtained during the past decade in this country including the B/GL/1954 and B/GL/1950 strains. Dr. Miller comments in his letter to Dr. Robinson: "It appears that monkey kidney tissue culture is more efficacious than chick embryo for the isolation of this group of agents and this may indicate the reason for the small number of isolates obtained during the present outbreaks of B influenza in the United States."

Iowa - Dr. Albert P. McKee, Professor of Bacteriology at the State University of Iowa in Iowa City, has reported the first proven influenza case among the University students for 1959. The onset of illness was March 12, and the virus was isolated and identified March 16, as a Type B, "similar to the virus isolated from the Roland, Iowa outbreak, and related to but not identical with Great Lakes B 1954."

Utah - Dr. George W. Soffe, Interim Director of the Utah State Department of Health has reported several school outbreaks of influenza-like illness in Salt Lake County with absenteeism up to 33 per cent. Signs and symptoms were as follows: rapid onset, headache, myalgia, malaise, loss of appetite, fever to 101^o, mild sore throat, and occasionally non-productive cough. Throat washings and blood specimens have been obtained from the outbreaks. One Type A influenza case has been identified but the subgroup was not specified.

Ohio - The Ohio Department of Health has reported sharp outbreaks of influenza-like illness causing school absenteeism during the first two weeks of March in six counties: Clermont, Miami, Montgomery, Hocking, Lucas, and Trumbull. Laboratory studies of specimens from five counties are in progress.

Connecticut - Dr. James C. Hart, Director of the Bureau of Preventable Diseases of the State Department of Health, has reported an outbreak of influenza-like illness in a boys' school with a student enrollment of 535. Since about February 27, a total of 160 students have been ill. The illness lasts 3-4 days and is characterized by fever of 101-104^o, and generalized malaise. An hemagglutinating agent has been isolated from throat swabs of three of the patients but it has not yet been identified.

New York - Dr. Edwin D. Kilbourne of Cornell University Medical College has reported two additional isolations of Asian (A2) strain virus (see Influenza Surveillance Report No. 43) from patients in New York City. One isolate came from a 26 year old nurse who became ill February 28; the other from the lung of a 53 year old diabetic woman who became acutely ill March 5, and died 14 hours after admission to the hospital. Autopsy revealed evidence of a recent myocardial infarction and pulmonary edema. There were no abscesses in the lungs. Dr. Kilbourne points out that this case indicates that Asian (A2) influenza is now appearing in the indigenous population of the city.

Dr. Harry M. Rose of Columbia University College of Physicians and Surgeons reports that there has been a considerable increase in the incidence of respiratory illness resembling influenza in New York City in the past 10 days. The increase has been noticeable in the out-patient population at the hospital and in the private practices of physicians. Dr. Rose has isolated a strain of A2 influenza from a throat washing obtained March 13, from a 22 year old nurse who became ill March 10. In addition to fever, cough, sore throat, and myalgia, there were marked gastrointestinal symptoms including diarrhea and vomiting.

Florida - Dr. M. Michael Sigel of the University of Miami School of Medicine has reported the isolation of an Asian (A2) influenza virus from a throat washing obtained from a woman who became ill about February 23. The husband of the patient is a commercial pilot who became ill 16 hours before joining his family in Miami after a Munich, Germany - New York City flight. His illness was clinically influenza. Three children in the family also developed influenza-like illness 3 to 4 days after the father's arrival. A grandmother, the attending physician and his nurse were additional secondary cases.

California - Drs. A.C. Hollister, Jr., and P.K. Condit of the Bureau of Acute Communicable Diseases of the California Department of Public Health report the following:

In Los Angeles County there have been several outbreaks of influenza-like illness in the past month. A high school in Compton experienced considerable absenteeism in the latter half of February. Three isolations of Type B influenza viruses have been made from specimens collected at this school. Increased absenteeism was noted in the first week of March in schools in Downey and Inglewood. At reception centers of the Los Angeles County Probation Department, there were several outbreaks of respiratory disease beginning in the first week of March. One Type B influenza virus has been isolated from a boy who was ill in a center with an enrollment of 90. About one-third of the boys at this center became ill.

Four Type A strains have been isolated from patients in the Squaw Valley resort influenza outbreak. Further characterization of these strains (as to subtype) is in progress. Laboratory studies are also in progress on specimens from the Alameda County outbreak (see Influenza Surveillance Report No. 44).

CORRIGENDUM for Influenza Surveillance Report No. 44:

Page 8, in table titled Hemagglutination-Inhibition Titer Against,
read B. Maryland for B. Mol.
1/59 1/59

Page 9, in second sentence of first paragraph, read Q phase for E phase.

III. Current Analysis of Influenza and Pneumonia Mortality*

Current Influenza and Pneumonia Deaths
in 108 United States Cities

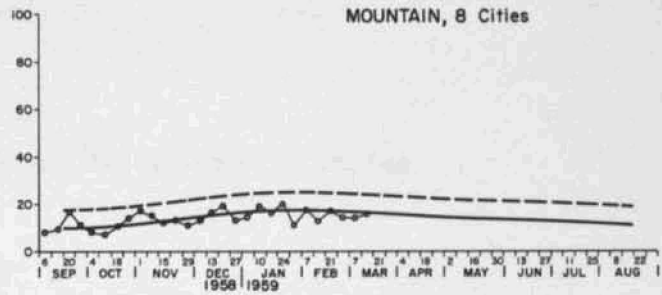
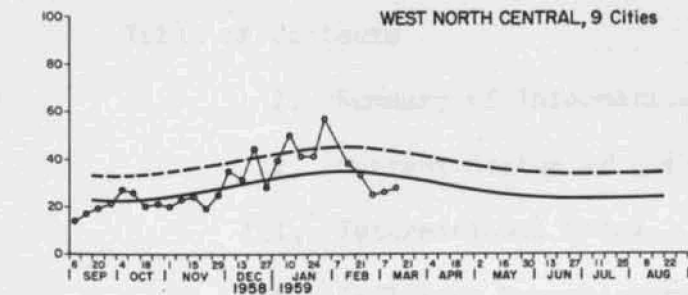
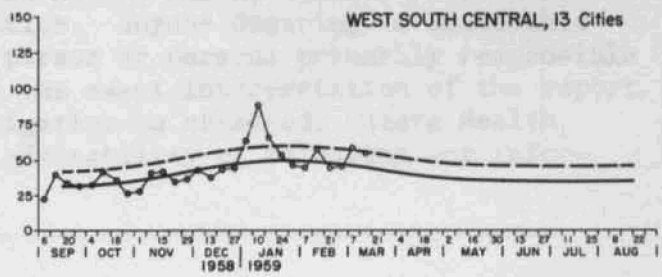
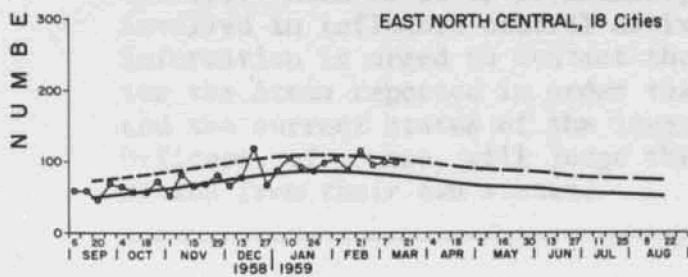
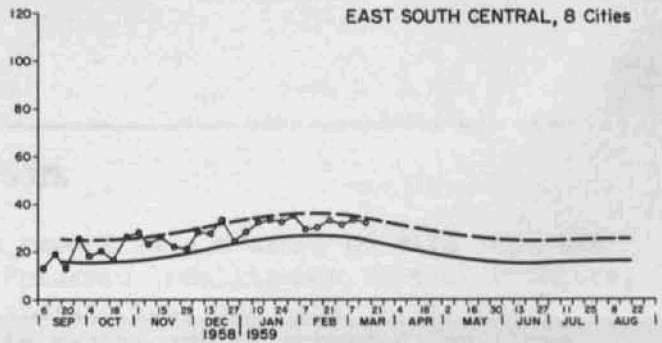
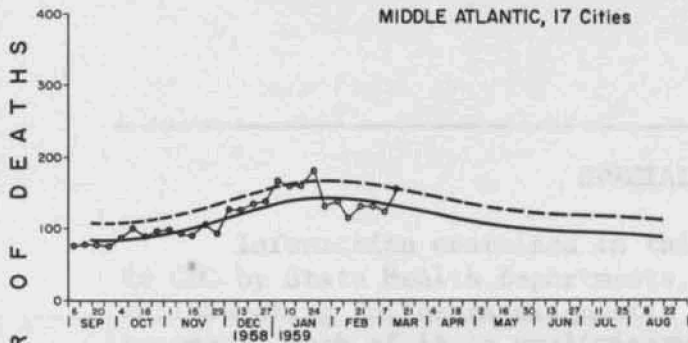
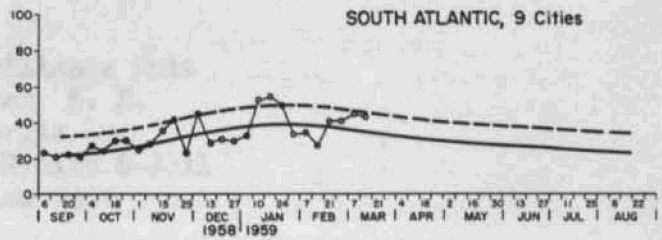
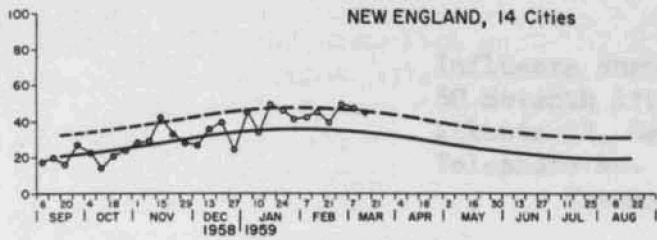
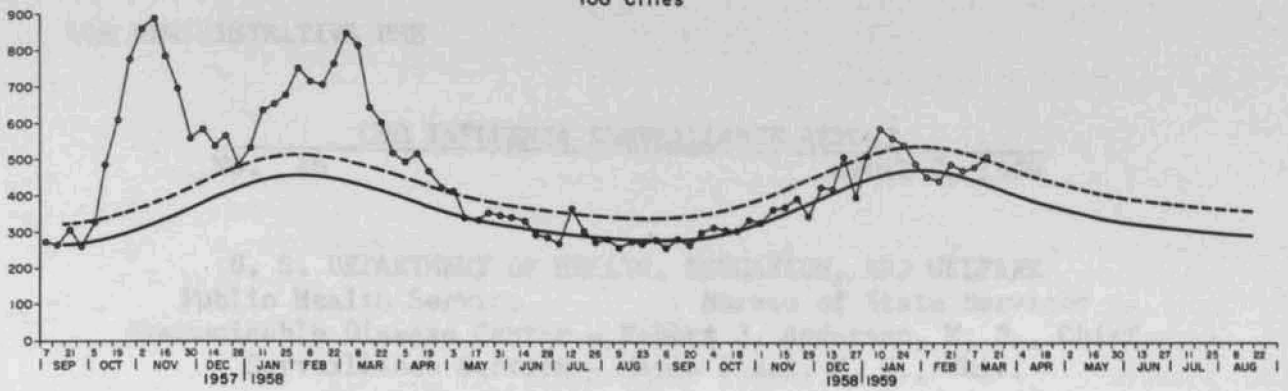
Division	Number of Cities in Study Reporting this week	Deaths (including estimates**) during weeks ending:					
		Feb. 7 (108 Cities)	Feb. 14 (108 Cities)	Feb. 21 (108 Cities)	Feb. 28 (108 Cities)	Mar. 7 (106 Cities)	Mar. 14 (106 Cities)
All Divisions	106	463	447	493	481	489	517
New England	14	42	45	39	49	49	45
Mid. Atlantic	16	138	114	131	131	132	154
E. North Central	18	103	88	115	95	99	99
W. North Central	9	28	38	33	29	26	28
S. Atlantic	9	34	27	41	41	44	43
E. South Central	8	29	30	33	31	33	32
W. South Central	12	44	57	44	45	58	55
Mountain	8	17	13	17	14	14	16
Pacific	12	28	35	40	46	34	45

* 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



--- EPIDEMIC THRESHOLD
— NORMAL INCIDENCE