

CDC INFLUENZA SURVEILLANCE REPORT

NO. 47

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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

Influenza and pneumonia deaths reported from 108 United States cities rose sharply above the seasonal threshold during the week ending April 4, peaked during the week ending April 11, and fell back toward the normal level during the following week. Closer examination of these reports reveals that the upswing was due primarily to increases in reported deaths in New York City (Middle Atlantic region), and Detroit and Chicago (East North Central region). Other urban areas in these regions showed only small increases in numbers of influenza and pneumonia deaths during the two week period. Much of the excess mortality occurred in persons over 65 years of age in all three cities, apparently reflecting spread of influenzal illnesses into age groups older than those that have been primarily affected by the disease in the past three months. In most States, however, influenza-like illness still appears to be affecting persons of school and college age primarily, and industrial absenteeism continues to remain at normal seasonal levels.

Through April 22, 1959, the Influenza Surveillance Unit has learned of laboratory identifications of Type B influenza in 20 states, of Type A (subgroup unspecified) influenza in 5 states, and of Asian (A2) influenza in 5 states. Adenoviruses have recently been identified from cases of influenza-like illness in Alaska and Mississippi. Altogether, 32 states have now experienced outbreaks or increased prevalence of illnesses resembling influenza since January 1959.

(This report was prepared by Frederick L. Dunn, M.D.,
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II. Current Status of Influenza in the United States

Through the date of this Report the Influenza Surveillance Unit has received reports of influenza in the United States during the February-April 1959 period as follows:

20 States (plus the District of Columbia) with laboratory-confirmed Type B Influenza. States added to this list since Report No. 46: Kentucky, Minnesota, Mississippi, Wisconsin.

5 States with laboratory-confirmed Asian (A2) Influenza: California, Florida, Illinois, New York, Wisconsin.

5 States with laboratory-confirmed Type A Influenza (by CF test—subgroup unspecified): Alaska, Minnesota, Mississippi, South Dakota, Utah.

In addition, 32 States and the District of Columbia have reported outbreaks, increased school absenteeism, etc. due to influenza-like illness during the February-April 1959 period. Two States, Alaska and Mississippi, have confirmed adenoviruses as the causative agents of influenza-like illness. In Canada numerous outbreaks of influenza-like illness have been reported from many parts of the country during the first quarter of 1959. Type B influenza has been identified from several areas (see below), but no Type A or adenovirus infections have been detected to date.

Persons of school and college age continue to be most heavily affected, and industrial absentee rates remain normal for the season. Significant increases in influenza and pneumonia mortality in the Middle Atlantic and East North Central regions during the weeks ending April 4 and 11, however, suggest that the disease has moved into the older age groups in at least some of the urban populations of these areas. Analysis of the deaths reported from the two regions during the two week period reveals that the increases were primarily due to influenza and pneumonia deaths in New York City, Chicago, and Detroit in persons 65 and over.

Reports from many States (note, for example, the item from Mississippi below) indicate that 1959 certainly cannot be classed as a "Type B Influenza year" or a "Type A year." Type B predominates in some areas, A2 (Asian) in others (New York City, for example), and elsewhere both influenza viruses (and adenoviruses too apparently) appear to be circulating simultaneously.

Reports from the States:

Alaska - Of nine paired blood specimens submitted to Dr. Andrew Fodor, Chief of the CDC Virus Diagnostic Methodology Unit on March 30, by the Alaska Department of Health, six have shown evidence of recent adenovirus infection, one of recent Type A influenza infection, and one was negative for all respiratory agents by CF test. The specimens, forwarded from Juneau, had all been obtained by the same physician from patients with influenza-like illnesses.

California - The California State Department of Public Health reports that through April 10, information had been obtained concerning seven influenza outbreaks in which the diagnosis was confirmed by the laboratory. "Four of them were due to influenza A virus (Asian strain). These occurred in Alameda, Orange, Placer and Santa Clara Counties. Three outbreaks were due to influenza B virus. Two of these occurred in Los Angeles County and one in Merced County." Reports of outbreaks or increased prevalence of influenza-like illness, not confirmed by laboratory tests, were also received, during the three week period prior to April 10, from Ventura, San Luis Obispo, Fresno, Santa Clara, Mono, Sierra, and Humboldt Counties. Influenza Type A has been serologically confirmed in sporadic cases from San Francisco, San Mateo, San Joaquin, Napa, Tulare, Stanislaus, Yolo, Alameda, and Fresno Counties.

Dr. Edwin H. Lennette, Chief of the State Virus Laboratory has also reported the isolation of a Type B influenza virus from a throat washing collected March 23. The specimens came from a patient in a school outbreak of respiratory disease in Dos Palos, Merced County.

Illinois - On April 10, Dr. John Procknow, Department of Medicine, University of Chicago, reported a recent isolation of a Type A influenza virus from a 28 year old student at the University. The virus was isolated in monkey kidney tissue culture and was typed by HI test with A/Jap/57 ferret antiserum. Dr. Procknow remarks that "this is the first influenza A that we have been able to isolate from the many patients suffering from influenzal symptoms at the present time."

Kansas - Dr. Charles Hunter, Director of Laboratories, Kansas State Board of Health, has forwarded reports of isolations of Type B influenza viruses from two patients with influenza-like illness in Lawrence. Throat washings were collected April 3 and 8. He also reports seven additional serological confirmations of Type B influenza from patients in Junction City, Manhattan, Dodge City, Sabetha, and Lawrence. Acute Blood specimens from these patients were collected during the last third of March.

Kentucky - Dr. P.K. Conlan, Kentucky State Department of Health, has reported to NOVS that outbreaks of influenza-like illness during the week of March 21, forced several schools in the State to close temporarily. Type B influenza has been confirmed by CF test from at least one outbreak.

Massachusetts - Dr. A.L. Frechette, Massachusetts Commissioner of Public Health, has reported that influenza-like illness in Berkshire County has produced high absentee rates in schools, and that 6 deaths have been associated with the disease in the county. Laboratory investigations of these deaths are in progress.

Minnesota - Dr. D.S. Fleming, Minnesota Department of Health, reports that through April 14, there had been no indications of outbreaks of influenza-like illness in any areas of the State during 1959. No influenza viruses have been isolated, but Type A influenza has been identified twice and Type B four times by CF testing of sera from sporadic cases of influenza-like illness.

Mississippi - The Mississippi State Board of Health has recently reported a series of complement-fixation test results for respiratory disease agents on blood specimens which were obtained in the State during February 1959. All of the acute specimens were taken from patients with influenza-like illnesses during the first week of February. Among 12 paired specimens, 6 pairs demonstrated recent Type B influenza infections, 4 pairs were negative, one pair revealed a recent Type A influenza infection, and one pair a recent adenovirus infection.

New York - Dr. John E. Hotchin, New York State Department of Health, reports as follows:

"An outbreak of respiratory illness beginning about March 11 involved about 50 per cent of the 1,100 pupils and teachers in a high school in a community in Albany County and resulted in the closing of the school. Paired sera from four of the patients were examined. Results of complement-fixation tests showed a 16-fold increase in antibody titer for influenza Type B in sera from two of these persons.

Each of two sera from a 15-year-old boy (deceased March 25) in Newburgh, Orange County, New York, examined in the complement-fixation test with influenza Type B antigen gave titers greater than 515. The boy became ill on March 14; the first specimen was collected on March 24; the second specimen, on March 25 at autopsy."

Dr. Daniel Widelock, New York City Department of Health, has forwarded CF and HI test results for 13 pairs of sera showing evidence of recent influenza infections among those examined routinely as part of the work of the virus serology laboratory. Most of the acute blood specimens were collected during March (several in February). Among 11 CF tests, 9 pairs showed evidence of recent Type A infection while two suggested recent Type B infection. HI tests on all 13 pairs showed suggestive evidence also of at least two recent Type B infections.

Wisconsin - Dr. E.R. Krumbiegel, Commissioner of Health of Milwaukee, reports that there was an increase in the incidence of influenza-like illness in the city during the latter part of February and March, and that, during the period from March 18 to April 2, of 19 paired sera tested three yielded results suggestive of recent infection with Type B influenza. During the past six months sporadic paired sera have also shown serologic evidence of recent A2 (Asian) infections.

Dr. Josef Preizler, State Epidemiologist, reports that the State Laboratory of Hygiene has isolated Type B influenza viruses from three persons from specimens submitted April 13. He also reports the isolation of a Type B influenza virus from spinal fluid submitted from a Madison patient on March 31, 1959. Additional information about this case is not available at present.

Report from Canada:

The Epidemiology Division of the Department of National Health and Welfare has provided the following information on influenza in Canada in a surveillance report dated April 10, 1959:

During the period from March 7 to April 10 "outbreaks of influenza-like illness have been reported from St. John's, Newfoundland (large percentage of population); city of Halifax, Nova Scotia (up to 30 per cent of employees of some businesses affected); Halifax County (approximately 3,000 cases); Saint John, New Brunswick (approximately 1,000 cases); Clinton R. C. A. F. Station, Ontario (500 cases); Aylmer R. C. A. F. Station, Quebec (300 cases); Camp Borden R. C. A. F. Station, Ontario (240 cases); and among Army personnel in central Ontario (approximately 90 cases).

The illness has been described as relatively mild and lasting 36 to 48 hours.

Influenza B virus has been isolated from 3 cases in Halifax and 5 cases in Ottawa and serologically confirmed in 8 cases from Camp Petawawa, Ontario."

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:					
		March 14 (108 Cities)	March 21 (108 Cities)	March 28 (108 Cities)	April 4 (108 Cities)	April 11 (108 Cities)	April 18 (107 Cities)
All Divisions	107	516	511	497	585	657	539
New England	14	45	32	41	37	47	45
Mid. Atlantic	17	153	157	181	226	260	207
E. North Central	17	99	89	87	99	128	86
W. North Central	9	28	39	24	30	37	26
S. Atlantic	9	43	44	42	43	39	42
E. South Central	8	32	30	24	33	34	28
W. South Central	13	55	55	35	47	42	34
Mountain	8	16	17	16	11	19	16
Pacific	12	45	48	47	59	51	55

* 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

