

COMMUNICABLE DISEASE CENTER

INFLUENZA

SURVEILLANCE

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PREFACE

Summarized in this report is information received from State Health Departments, university investigators, virology laboratories and other pertinent sources, domestic and foreign. Much of the information is preliminary. It is intended primarily for the use of those with responsibility for disease control activities. Anyone desiring to quote this report should contact the original investigator for confirmation and interpretation.

Contributions to the Surveillance Report are most welcome. Please address to:
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I. SUMMARY

The epidemic of Influenza Type B which began on the West Coast of the United States and in the southern part of Florida, subsequently spanning the United States in a broad arc through the Midwestern and Southeastern States, continues a progressive spread through the North and Northeast sections of the country.

Outbreaks of acute febrile respiratory disease indicate active spread of the illness along the Eastern Seaboard from Georgia to Maine, and in the States adjacent to the Great Lakes.

Eight States reported outbreaks of influenza-like disease for the first time this week. Four of these, Connecticut, Maine, Rhode Island, and Virginia, are on the East Coast; the others are Idaho, Michigan, Mississippi, and West Virginia.

Continuing outbreaks of increased school-absenteeism due to influenza-like disease are reported in new counties from 13 States. In the Northeast, there are Maryland, Massachusetts, New York, New Jersey, and Vermont, and in the Great Lakes area, Illinois, Minnesota, and Wisconsin. Spread of the illness was also reported from Florida, Kansas, Nebraska, Nevada, and Tennessee.

Confirmation of Influenza B outbreaks by isolation or serologic titer rises is reported from 8 additional States - Connecticut, Indiana, Massachusetts, Michigan, Mississippi, Montana, New Jersey, and New York. A total of 26 States and the District of Columbia have confirmed Influenza B outbreaks. Five States report that no significant outbreaks of acute febrile respiratory disease have occurred during the present season. These are Delaware, Hawaii, Louisiana, South Dakota, and Wyoming. The remaining States (19) have experienced outbreaks during recent months.

The number of pneumonia-influenza deaths in 108 cities of the United States decreased during the past week but remained above the epidemic level for the fifth consecutive week.

II. EPIDEMIC REPORTS

1. ALABAMA

Two syndromes have been noted in Lauderdale County in the northwest part of the State. The first was a mild upper respiratory infection with some rhinitis, cough, and minimal fever lasting 2-3 days. The second was an influenza-like disease with sore throat, myalgia, fever, and headache, lasting at least one week. There were some gastrointestinal complaints in both illnesses.

(Dr. W. H. Y. Smith, Director, Bureau of Preventable Diseases, Alabama State Department of Public Health)

2. CONNECTICUT

An isolation of Influenza B has been reported from an 11-year old student in West Hartford.

(Dr. James C. Hart, Director, Division of Preventable Diseases Connecticut State Department of Health; Mr. Earl K. Borman, Chief of Laboratory Services Section, Connecticut State Department of Health)

3. DELAWARE

There have been no significant outbreaks of acute febrile respiratory disease reported to the State Health Department in Delaware. Increased school absenteeism has not been reported.

(Dr. Floyd I. Hudson, Acting Director, Preventable Diseases, Delaware State Board of Health)

4. IDAHO

Outbreaks of acute respiratory disease first began in counties adjacent to Washington and Oregon in late December. During January, many of the populous areas of Idaho have been

affected. A county by county report is being prepared. Laboratory studies are also in progress.

(Dr. John A. Mather, Chief, Preventive Medicine, Idaho Department of Health)

5. ILLINOIS

Influenza-like illness continues in northern Illinois. Serologic titer rises to Influenza B have been seen in patients from Evanston, Northwestern University, Chicago, and Park Ridge, all in Cook County.

(Dr. Norman J. Rose, Chief, Bureau of Epidemiology, Illinois Department of Public Health; Richard A. Morrissey, Chief, Bureau of Virus Diseases and Research, Illinois Department of Public Health)

6. KANSAS

Outbreaks of acute febrile respiratory illness are spreading into the northern half of Kansas this week. Earlier outbreaks in southern Kansas are subsiding. An Influenza B virus was isolated from a nurse working in Kansas City, Kansas.

(Dr. Don E. Wilcox, Director, Section of Epidemiology, Kansas State Board of Health; Dr. Tom Chin, Kansas City Field Station, CDC)

7. LOUISIANA

Reports from local health departments reveal no significant increase in acute febrile respiratory illness.

(Dr. John M. Bruce, Chief, Section of Epidemiology, Louisiana State Board of Health)

8. MAINE

Kennebec County in southern Maine reports school absenteeism of 40 percent in a single school. An outbreak of acute febrile respiratory disease began about January 28, coincident with the increased absenteeism.

(Dr. Dean H. Fisher, Director, Communicable Disease Control, Maine Department of Health and Welfare)

9. MARYLAND

The widespread outbreak in St. Marys County, reported previously, has reached its peak, and is now subsiding. It is estimated that 90 percent of the cases occurred in school children.

(Dr. John H. Janney, Acting Chief, Division of Epidemiology, Maryland State Department of Health)

10. MASSACHUSETTS

Six paired sera from a single outbreak at Andover Academy in Essex County have shown significant titer rises to Influenza B. An estimated 300 of 800 students in this boys preparatory school have been ill during the past 2-3 weeks.

(Dr. Nicholas Fiumara, Director, Division of Communicable Diseases, Massachusetts Department of Public Health; Dr. Robert A. MacCready, Director, Diagnostic Laboratories, State Department of Health)

11. MICHIGAN

Outbreaks of respiratory illness are present in the town of Ann Arbor. Influenza B virus has been isolated from a University of Michigan student in Ann Arbor.

(Dr. George H. Agate, Epidemiologist, Michigan Department of Health; Dr. Fred M. Davenport, University of Michigan School of Public Health, Ann Arbor)

12. MINNESOTA

Two additional counties have confirmed the presence of Influenza B in recent weeks. They are Beltrami and Hennepin Counties.

(Dr. D. S. Fleming, Director, Division of Disease Prevention and Control, Minnesota Department of Health)

13. MISSISSIPPI

Ten counties scattered throughout the State report significant outbreaks of acute febrile respiratory disease. They are Choctaw, Coahoma, Harrison, Hinds, Lafayette, Leflore, Marshall, Pontotoc, Tunica, and Winston Counties.

A serologic diagnosis of Influenza B has been made in Harrison County.

(Dr. Durward L. Blakey, Director, Preventable Disease Control, Mississippi State Board of Health; Department of Infectious Diseases, Tulane University School of Medicine)

14. NEBRASKA

Nine counties in Nebraska have one or more schools reporting increased absenteeism. Several schools have had to be closed on account of absenteeism secondary to acute respiratory disease.

(Dr. E. A. Rogers, Director of Health, Nebraska Department of Health)

15. NEVADA

No significant outbreaks of acute febrile respiratory disease have occurred this season in Nevada except in

Las Vegas where, it is believed, a small outbreak of influenza-like disease occurred in late January. No laboratory diagnosis has been made.

(Dr. B. A. Winne, Director, Preventive Medicine, Nevada State Department of Health)

16. NEW HAMPSHIRE

Scattered outbreaks of acute febrile respiratory illness are present in New Hampshire at this time, although no specific counties have been implicated.

(Dr. William Prince, Director, Bureau of Communicable Diseases, New Hampshire State Department of Health)

17. NEW JERSEY

Acute febrile respiratory disease continues in many parts of New Jersey. Influenza B has been confirmed in outbreaks occurring in State institutions in Cape May and Camden Counties.

(Dr. W. J. Dougherty, Director, Division of Preventive Diseases, New Jersey State Department of Health; Dr. Martin Goldfield, Assistant Director, Division of Laboratories, New Jersey State Department of Health)

18. NEW YORK

Seven additional counties - Broome, Monroe, Rensselaer, Schenectady, Schoharie, Westchester, and Wyoming - report elevated school absenteeism in recent weeks. Confirmation of Influenza B has been made in two counties - Columbia County (see ISR No. 64 and 65) and Westchester County.

(Dr. Robert M. Albrecht, Director, Epidemiology, New York State Department of Health)

19. NORTH CAROLINA

Counties in the eastern part of the State are beginning to report outbreaks of acute respiratory disease, following outbreaks in the western and central portions of the State. Illness appears to be most severe in the junior high and high school students; it is somewhat less severe among grammar school students. At Bowman Gray, in Winston-Salem, 12 isolates have been obtained out of 12 patients, taken from the Children's Home.

(Dr. Jacob Koomen, Asst. Director, Division of Epidemiology, North Carolina State Board of Health; Dr. George M. Johnson, EIS Officer, assigned to North Carolina State Board of Health; Dr. Henry G. Cramblett, Director, Virology Laboratory, Bowman Gray School of Medicine)

20. NORTH DAKOTA

All districts and cities were checked by telephone this week. School absenteeism in general is declining throughout the State.

(Dr. Kenneth Mosser, Director, Division of Preventable Diseases, North Dakota State Department of Health)

21. OHIO

Influenza B has been confirmed in 2 additional counties this week - Clermont and Scioto.

(Dr. Winslow J. Bashe, Jr., Chief, Division of Communicable Diseases, Ohio Department of Health; Dr. C. C. Croft, Chief, Division of Laboratories, Ohio Department of Health)

22. RHODE ISLAND

Commencing in late January, an outbreak of acute febrile respiratory disease spread in Woonsocket, elevating total school absenteeism to 20 percent (expected level - 10 percent).

The syndrome was characterized by fever up to 104°. Severe headache and dry cough, persisting 7-10 days. Approximately 1/3 had sore throats; 1/3 had gastrointestinal symptoms. Throat washings were collected for virus isolation.

(Dr. Earl B. Byrne, EIS Officer, assigned to the Rhode Island State Department of Health)

23. SOUTH CAROLINA

Influenza-like illness appears to be on the decline in South Carolina. A few additional counties have reported outbreaks which have reached a peak and are declining.

(Dr. G. E. McDaniel, Director, Division of Disease Control, State Board of Health of South Carolina)

24. SOUTH DAKOTA

The presence of significant outbreaks of influenza-like disease has been denied in South Dakota.

(Dr. G. J. Van Heuvelen, Acting Director, Preventable Disease Control, South Dakota State Department of Health)

25. TENNESSEE

A number of additional counties in eastern Tennessee report outbreaks of respiratory illness. Williamson County reports confirmation of Influenza B.

(Dr. Cecil B. Tucker, Director, Division of Preventable Diseases, Tennessee Department of Public Health)

26. VIRGINIA

Sixteen counties report cases of influenza-like illness this week, following a request for postcard reporting. A single county - Grayson - closed its schools following

absenteeism of 35 percent.

(Dr. F. J. Spencer, Acting Director, Bureau of Communicable Disease Control, Virginia Department of Health)

27. WEST VIRGINIA

Increased school absenteeism has been noted in Wetzel and Upshur Counties. Acute respiratory disease, mild to moderate in severity, and lasting 3-4 days, has accompanied the absenteeism.

(Dr. L. A. Dickerson, Director, Disease Control, West Virginia State Department of Health)

28. WISCONSIN

During the past week, school absenteeism up to 25 percent due to influenza-like illness is reported from the western part of the State, including the counties of LaCrosse, Eau Claire, and Chippewa. Industrial absenteeism is reportedly significantly elevated in these areas; however, exact figures are not shown. Activity of the influenza-like disease has thus far been limited to the southeastern and western portions of the State. In addition to the counties in the western portion already mentioned, Green County reported school absenteeism of 25 percent, (in one school 250 of 1,000) due to influenza-like illness. There has been some increase in school absenteeism and reported influenza-like disease in Fond du Lac and Oshkosh Counties. No further confirmations have been made since that reported a week ago from Milwaukee.

(Dr. Josef Preizler, State Epidemiologist, Wisconsin State Board of Health)

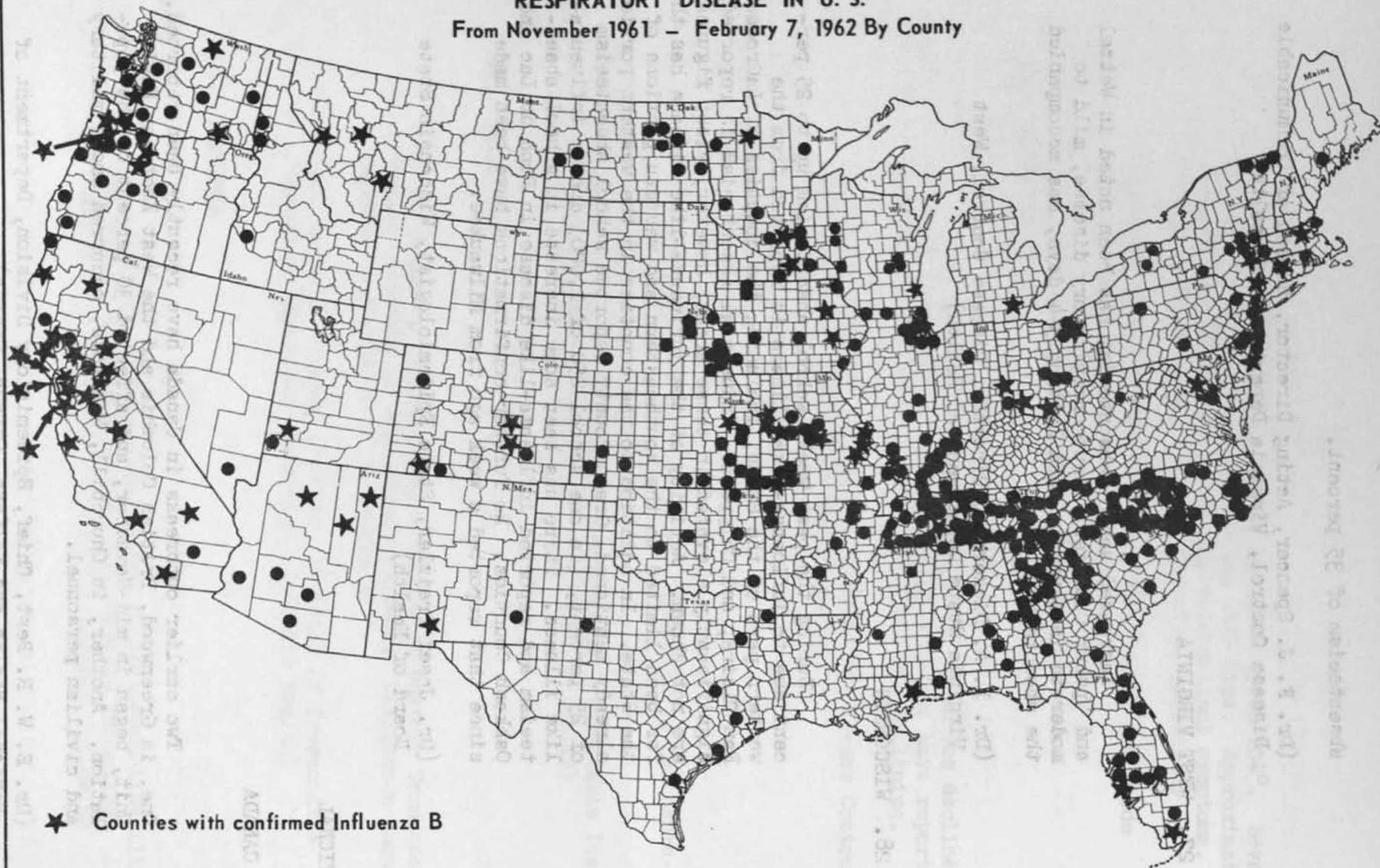
INTERNATIONAL

1. CANADA

Two earlier outbreaks in Canada have recently been reported. One, in Greenwood, British Columbia and the West Kootenay Health Unit, began in mid-November, and affected 30 percent of the population. Another, in Churchill, Manitoba, occurred among military and civilian personnel.

(Dr. E. W. R. Best, Chief, Epidemiology Division, Department of National Health and Welfare, Ottawa, Canada)

RESPIRATORY DISEASE IN U. S.
From November 1961 – February 7, 1962 By County



★ Counties with confirmed Influenza B

● Counties with reported outbreaks of acute respiratory disease

III. LABORATORY REPORT

Dr. Roslyn Q. Robinson, Chief
Respirovirus Unit
Virus and Rickettsia Section
Laboratory Branch, CDC

Serving as the
WHO International Influenza Center for the Americas

ANTIGENIC RELATIONSHIPS AMONG TYPE B INFLUENZA VIRUSES

Antiserum has been prepared against a current Type B influenza virus and hemagglutination inhibition tests have been performed to obtain reciprocal cross reactions to supplement the information published in the CDC Influenza Surveillance Report No. 62, January 5, 1962. Results of these tests are as follows:

<u>Antisera</u>	<u>Antigens</u>					
	<u>B/Lee/40</u>	<u>B/Allen/45</u>	<u>B/GL/54</u>	<u>B/Huertig/55</u>	<u>B/Md/59</u>	<u>B/Ariz/61</u>
<u>Chicken</u> ¹						
B/Lee/40	>320	20	40	40	40	40
B/Allen/45	0 ²	160	10	0	20	20
B/GL/1739/54	10	20	320	80	40	40
B/Huertig/55	20	160	320	320	120	160
B/Md/1/59	20	20	20	20	160	160
B/Ariz/1/61	20	10	20	10	120	120
<u>Ferret</u>						
B/Lee/40	>320	0	0	0	0	0
B/Allen/45	30	240	20	20	0	0
B/GL/1739/54	20	80	80	80	20	20
B/Ariz/1/61	30	20	160	80	1280	1280

1 All chicken sera were treated by heating at 56°C for 30 minutes. All ferret sera were treated by adding one-half volume of trypsin (Difco 1:250 Crystalline trypsin dissolved in M/10 phosphate buffer at pH 8.2 in a concentration of 8 mg/ml) to one volume of serum, mixing, and heating at 56°C for 30 minutes.

2 0 = 1:10, the initial serum dilution.

These results indicate that, although related, the current Type B influenza viruses are distinctly different from strains isolated prior to 1955, but similar to the B/Maryland/1/59 strain.

Serologic Procedures

The hemagglutination inhibition test, using the B/Great Lakes/1739/54 antigen, has been quite satisfactory in demonstrating increases in antibody titer in response to current Type B influenza virus infection, with the following exception:

Paired sera from a number of clinically diagnosed influenza cases have been submitted to our laboratory for serologic confirmation of influenza. The B/GL/1739/54 antigen has failed to measure a change in antibody titer between the acute and convalescent sera, while a current Type B strain has shown a significant diagnostic increase. These cases have been in children under 9 years, and it is presumed that the difference in results might be due to the possibility that these individuals had no prior contact with Type B influenza virus. It is suggested that this observation be considered if similar cases from epidemic areas are found negative, using the B/GL/1739/54 antigen.

Correction: Credit for the informative laboratory report published in Influenza Surveillance Report No. 64 (January 18, 1962) entitled Problems in the Isolation of Type B Influenza Virus was inadvertently omitted. The report was prepared by Dr. Roslyn Q. Robinson, Director, WHO Influenza Center for the Americas, Atlanta, Georgia.

IV. WEEKLY PNEUMONIA AND INFLUENZA DEATHS

The number of pneumonia-influenza deaths in 108 cities of the United States decreased during the past week but remained above the epidemic level for the fifth consecutive week.

In the central portion of the country, the West North Central and West South Central States remained above epidemic levels although showing a decrease as compared with last week's figures. The East South Central States which showed a marked elevation last week fell abruptly this week to well within normal limits. In the Mountain States where pneumonia-influenza death figures have shown marked variation during the past weeks - alternating between epidemic and normal ranges - the number of deaths this week rose again above the epidemic threshold.

The coastal States, both east and west - Pacific, New England, Middle Atlantic and South Atlantic - are well within normal ranges as are the East North Central States.

