

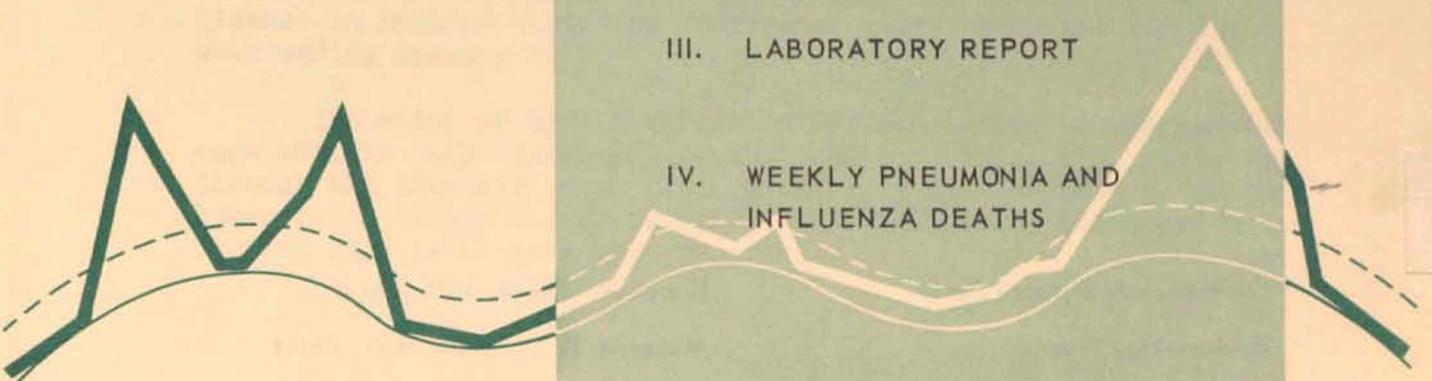
COMMUNICABLE DISEASE CENTER

INFLUENZA

SURVEILLANCE

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

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:
Chief, Influenza Surveillance Unit, Communicable Disease Center, Atlanta 22, Georgia.

Communicable Disease Center

Epidemiology Branch

Statistics Section

Surveillance Section

Influenza Surveillance Unit

Clarence A. Smith, M.D., Chief

Alexander D. Langmuir, M.D., Chief

Robert E. Serfling, Ph.D., Chief

Donald A. Henderson, M.D., Chief

George C. Denniston, Jr., M.D.

I. SUMMARY

Outbreaks of acute febrile respiratory disease, many shown to be due to Influenza B, currently span the United States in an arc, extending from the West Coast to Miami, Florida. Two States along this arc report outbreaks of influenza-like disease for the first time. They are Kansas and Kentucky. States reporting additional outbreaks this week include Arizona, Colorado, Iowa, Missouri, Tennessee, Georgia, and Florida.

A few small outbreaks are reported from contiguous portions of New York and Massachusetts. They began immediately after the Christmas holidays and involve school age children predominantly.

Deaths from pneumonia and influenza in 108 United States cities show a moderate excess above suspected levels for the second consecutive week. Deaths attributed to respiratory disease in England showed an additional marked increase for the week ending January 6.

Isolation of type B influenza by inoculation of embryonated eggs has, in many instances, proved less successful than isolation through the inoculation of primary monkey tissue culture or primary human fetal kidney tissue culture. This problem is discussed under Section III, Laboratory Reports.

II. EPIDEMIC REPORTS

1. ARIZONA

Beginning in mid-November, Arizona has experienced a number of small outbreaks of influenza-like disease in widely separated and sparsely populated areas of the State. Most of the reported outbreaks have occurred among the Indian population. Several outbreaks have been confirmed as Influenza B by paired sera examination.

(Dr. Jack B. Eason, Acting Director of Health, Arizona State Department of Health)

2. CALIFORNIA

Four counties - Alameda, Amador, Humbolt, and San Diego - have recently reported confirmed outbreaks of Influenza B within their borders. This brings the total number of California counties with confirmed outbreaks of Influenza B to 15. Respiratory illness in the State, spreading from urban to rural areas with a peak among the latter in mid-December, is now diminishing.

(Dr. Henry Renteln, Division of Preventive Medical Services, California State Department of Public Health; Dr. Harold Maller, EIS Officer, assigned to the California State Department of Public Health)

3. COLORADO

A small town in northwest Colorado (Rangely) reports acute respiratory disease with significant adult involvement. The outbreak began two weeks ago, with the new year. Further details are not yet available.

The outbreaks occurring predominantly among school children in southwest Colorado have been confirmed as Influenza B. A sharp peak was not observed in these schools, but analysis by classroom revealed a series of typical influenza parabolae.

(Dr. Cecil S. Mollohan, Chief, Section of Epidemiology, Colorado State Department of Public Health)

4. FLORIDA

Several large central Florida counties have reported the presence of outbreaks of acute respiratory disease in recent weeks. They are Okeechobee, Highlands, Hardee, Polk, and Lake Counties. School absenteeism has ranged between 20-30 percent in elementary school grades in at least two of these counties. In addition, the Greater Miami area reports further outbreaks of influenza-like disease. No confirmation of influenza has been made in Florida with the exception of an outbreak in Miami, reported in Influenza Surveillance Report, No. 61, December 19, 1961.

(Dr. James O. Bond, Director, Bureau Preventable Diseases, Florida State Board of Health; Dr. Charles Waters, EIS Officer assigned to Florida State Board of Health)

5. GEORGIA

Six counties in northwest Georgia report increased school absenteeism. They are Gilmer, Barton, Troup, Whitfield, Fulton and DeKalb Counties. The latter county, bordering Atlanta, has several schools reporting absenteeism of approximately 20 percent.

Influenza B virus has been isolated from two young residents in a children's home in DeKalb County. The home is the site of a continuous surveillance program for respiratory disease being conducted by the Communicable Disease Center. This is the first evidence of the presence of influenza in the one and one-half years of the study at this home.

(Dr. W. J. Murphy, Director, Epidemiology, Georgia Department of Public Health)

6. IOWA

Small outbreaks of acute respiratory disease in the northwest quadrant of the State in the towns of Mapleton and Peterson have been reported. Specimens of acute and convalescent sera are being collected.

Commencing about January 9, the small town of Hazleton in northeast Iowa experienced an outbreak of influenza-like disease, chiefly among its school age population. A telephone survey of 79 households in the community brought to light 88 cases of acute respiratory illness. The age specific attack rates were remarkably similar to those encountered in Potosi, Missouri (see Influenza Surveillance Report No. 62, January 5, 1962) following a confirmed Influenza B epidemic. This latter telephone survey encompassed 60 households.

<u>Age</u>	<u>Hazleton, Iowa Attack Rate (%)</u>	<u>Potosi, Missouri Attack Rate (%)</u>
0 - 5	37	38
6 - 12	59	56
13 - 18	50	50
19 - 35	17	27
36 - 50	21	27
51+	9	10

School children (6-18) had high attack rates; adults had considerably lower rates. Absenteeism began to increase among high school students several days before junior high and elementary grades were affected.

(Dr. Ralph H. Heeren, Director, Division of Preventable Diseases, Iowa State Department of Health; Dr. W. H. Mosley, EIS Officer assigned to the Des Moines-Polk County Health Department)

7. KANSAS

Six widely separated counties in Kansas report small outbreaks of acute respiratory disease this week. They are Crawford, Douglas, Ford, Lyon, Seward, and Shawnee Counties. Most of them are near areas with previously reported influenza-like disease in contiguous States.

(Dr. Don E. Wilcox, Director, Section of Epidemiology, Kansas State Board of Health)

8. KENTUCKY

An outbreak of acute respiratory illness has been reported from Henderson, in northwest Kentucky. Paired sera are being submitted for laboratory examination.

(Mr. Clifford Todd, State Epidemiologist, Kentucky State Department of Health)

9. MASSACHUSETTS

Outbreaks of influenza-like illness commenced on January 8 in the Berkshires of western Massachusetts and have involved the communities of Stockbridge, Great Barrington, Sheffield, and Lenox, Massachusetts. School absenteeism ranging between 10 and 60 percent has been noted. In addition to the traditional symptom pattern, arthralgia, particularly of the elbows and knees, has been reported as a significant component. Symptoms persist for 2-3 days. Laboratory investigations are in progress.

(Dr. Nicholas Fiumara, Director, Division of Communicable Diseases, Massachusetts Department of Public Health)

10. MISSOURI

Outbreaks of acute respiratory disease previously noted in central and eastern Missouri spread to the western part of the State during the second week of January. A survey of representative school systems in St. Louis revealed that increased school absenteeism occurred over the period November 20 to December 18; in three of the four school systems, absenteeism was first noted among high school students; the epidemic peak in each was reached within a 15-day period. On the clinical side, nausea and vomiting were notably more common among grade school than among high school students.

(Dr. E. A. Belden, Communicable Disease Control, Missouri Department of Public Health)

11. NEW YORK STATE

Median school absenteeism has doubled for Albany County in recent weeks. The normal median of 7 percent was found to be elevated to 14 percent in mid-January. Beginning in children of junior high age, the illness has spread through all grades.

On January 12, the presence of an epidemic of acute respiratory disease was reported from Germantown, a small town on the Hudson River in eastern New York State, only 35 miles from a similar outbreak in Massachusetts. By January 16, 35 percent of the 700 pupils at Germantown Central School were absent, many with symptoms of headache, fever, malaise, and cough. Specimens are being collected for laboratory evaluation.

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

12. OREGON

Two additional counties report confirmation of Influenza B - Hood River and Deschutes Counties. Epidemic respiratory disease is, however, definitely on the wane.

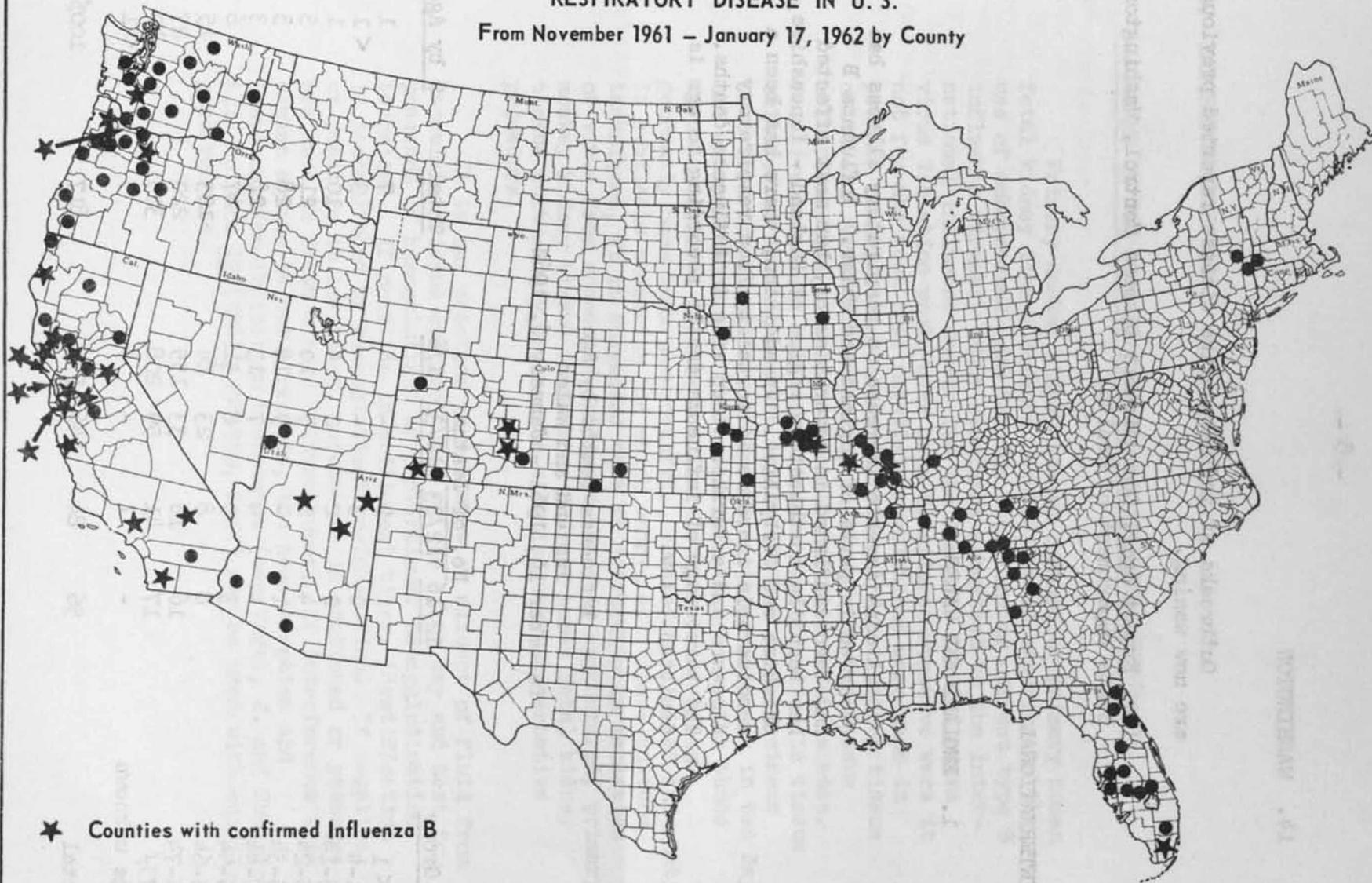
(Dr. H. Grant Skinner, Director, Epidemiology Section, Oregon State Board of Health)

13. TENNESSEE

Nine counties in scattered areas of the State report the presence of acute respiratory disease outbreaks. The greatest concentration of cases is apparently in Maury County in central Tennessee. Other involved counties include Benton, Davidson, Fentress, Hamilton, Knox, Lake, Lincoln, and Marion Counties. Paired sera are being collected from several areas.

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

RESPIRATORY DISEASE IN U. S.
From November 1961 – January 17, 1962 by County



★ Counties with confirmed Influenza B

● Counties with reported outbreaks of acute respiratory disease .

14. WASHINGTON

Outbreaks of influenza-like disease reported previously are now waning.

(Dr. Ernest Ager, Communicable Disease Control, Washington State Department of Health)

INTERNATIONAL

1. ENGLAND AND WALES

A considerable increase in respiratory illness has occurred in parts of England and Wales. Influenza B has been confirmed in several areas, but most affected has been the northwestern region of England - Lancashire, Cheshire and Derbyshire. In addition, there has been a considerable increase in mortality from respiratory diseases and a further steep rise in influenza deaths. The percentage of influenza deaths according to age is depicted below.

Influenza Deaths by Age
England and Wales
December 16, 1961 - January 6, 1962

<u>Age Group</u>	<u>No. of Deaths</u>				<u>Total</u>	<u>% by Age</u>
	<u>12/16</u>	<u>12/23</u>	<u>12/30</u>	<u>1/6</u>		
< 1	1	2	-	4	7	1
1-4	0	3	-	-	3	< 1
5-14	2	2	2	4	10	1
15-24	4	2	5	10	21	3
25-34	1	-	9	18	28	3
35-44	4	4	7	13	28	3
45-54	3	5	8	31	47	6
55-64	8	8	23	84	123	15
65-74	16	16	33	155	220	27
75+	17	41	59	208	325	40
Age unknown	-	1	-	4	5	< 1
Total	56	84	146	531	817	100%

III. LABORATORY REPORTS

PROBLEMS IN THE ISOLATION OF TYPE B INFLUENZA VIRUS:

Primary monkey kidney tissue culture or primary human fetal kidney tissue culture has been found superior to the use of embryonated eggs for the isolation of current type B influenza viruses. Many specimens submitted to the International Influenza Center for the Americas for influenza virus isolation would have been considered negative were it not for the fact that parallel inoculations were made in primary monkey kidney and primary human fetal kidney tissue cultures. Virus isolations by either of the two tissue culture systems have been accomplished with relative ease. Positive specimens have exhibited hemagglutination in tissue cultures at about the sixth day, while the same specimens have been found negative after two or three passages in ten day old embryonated eggs. Further, attempts to transfer those viruses isolated in tissue culture to embryonated eggs generally have been unsuccessful. While only limited information is available comparing the chick embryo and tissue culture techniques, it is suggested that if difficulty in isolation of virus from suspected influenza cases is encountered, primary monkey kidney tissue culture or primary human fetal kidney tissue culture may be used as a satisfactory alternative procedure.

It is our practice to withdraw an aliquot of fluid from inoculated tissue culture tubes on the sixth day and test for presence of hemagglutinin by conventional hemagglutination technique. If positive in sufficient titer, identification is accomplished by hemagglutination-inhibition. If negative, or positive in low titer, incubation is continued or passages are made to fresh tissue culture tubes. If interference with simian agents is not a problem, the hemadsorption and hemadsorption-inhibition techniques (see Vogel, J. and Shelokov, A.: Science 126(3269):358-359, 1957) may be used with equally good results.

IV. WEEKLY PNEUMONIA AND INFLUENZA DEATHS

Deaths due to pneumonia and influenza in 108 cities of the United States rose above the epidemic threshold line for the second successive week, but with different geographic divisions affected this week as compared with last week. The eastern seaboard states - New England, Middle Atlantic and South Atlantic States which were approaching epidemic threshold lines, fell to within normal expected ranges. A marked increase was noted in the West North Central states, bringing the figures well above the threshold line. The West South Central States remained slightly above threshold values and the East North Central and Pacific States this week just exceeded their respective epidemic thresholds. The East South Central States showed a slight increase over the reported figure of last week, but remained below the epidemic threshold, while the Mountain States dropped to normal values.

WEEKLY PNEUMONIA AND INFLUENZA DEATHS

