

CDC INFLUENZA SURVEILLANCE REPORT  
No. 60 May 5, 1961

U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE  
Public Health Service Bureau of State Services  
Communicable Disease Center C. A. Smith, M. D., Chief  
Epidemiology Branch - Alexander D. Langmuir, M. D., Chief  
Surveillance Section - James O. Mason, M. D., Chief

Surveillance Section  
Communicable Disease Center  
Atlanta 22, Georgia  
Telephone: ME 4-5131  
Extension: 423

---

SPECIAL NOTE

Information contained in this report is a summary of data reported to the Communicable Disease Center by State Health Departments, Epidemic Intelligence Service Officers, the influenza diagnostic laboratories collaborating with the WHO International Influenza Center for the Americas, and other pertinent sources. Much of it is preliminary in nature and is intended primarily 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.

---

TABLE OF CONTENTS

- I. Summary of Information
- II. Review of the Occurrence of Influenza in the United States, Winter 1960 - Spring 1961.
- III. Review of Influenza and Pneumonia Mortality in the United States, Winter 1960 - Spring 1961.
- IV. International Notes

## I. Summary of Information

In the three month interval since the publication of the last CDC Influenza Surveillance Report, No. 59, February 10, 1961, reports of the occurrence of epidemic influenza or unusual concentrations of cases of influenza-like disease within the United States have been distinctly limited. Outbreaks of influenza were reported during March and early April from New Haven, Connecticut, and New York City. There are no reports of influenza activity current within the continental United States.

Current analysis of influenza and pneumonia deaths through the week ending April 29, 1961, reveals that the number of deaths are within the expected limits of normal for the season.

Internationally, major outbreaks of influenza occurred in Great Britain during January, February, and March 1961, due to influenza A<sub>2</sub>. In January and February, a major epidemic of influenza B occurred in Japan. There were in addition reports of outbreaks of influenza or influenza-like disease of varying extent in Norway, American Samoa, and Canada.

This will be the last Influenza Surveillance Report of the current series. Although the surveillance of acute respiratory diseases will continue as a routine function of the Surveillance Section, CDC, no further such reports will be issued, barring unusual developments, until the Fall of 1960.

We wish to take this opportunity to thank all those who contributed information of either a positive or negative character to the Influenza Surveillance Unit during the recent season, and participated in making the influenza surveillance program operative in assessing the trends of epidemic influenza within the United States.

## II. Review of the Occurrence of Influenza in the United States, Winter 1960 - Spring 1961

Dr. Harold T. Fuerst, Director, Bureau of Preventable Diseases, New York City Department of Health, and Dr. Morris Schaeffer, Director of Laboratories, New York City Department of Health, reported that there was evidence indicating increased activity of the A<sub>2</sub> influenza virus in the New York City area during February and March. This conclusion was based on 4 types of evidence as follows.

(1) The weekly influenza and pneumonia deaths in New York City exceeded the usual level early in March and remained somewhat elevated during the remainder of the month, although a ten-year average ranges between 55 and 65 influenza-pneumonia deaths per week, the following totals were reported during 1961.

Influenza and Pneumonia Deaths - New York City, 1961

<u>Week Ending</u>	<u>Number of Deaths</u>	<u>Week Ending</u>	<u>Number of Deaths</u>
1/6	76	3/3	90
1/13	79	3/10	114
1/20	65	3/17	86
1/27	77	3/24	115
2/3	68	4/1	89
2/10	99	4/8	106
2/17	84	4/15	79
2/24	96	4/22	88
		4/29	91

(2) The acute and convalescent sera submitted by private physicians or hospitals from 7 individuals revealed fourfold or greater rises in complement fixation titers to influenza A<sub>2</sub>. These sera were collected from patients with clinical influenza-like disease.

(3) Sera collected from the syphilis serology laboratory, routinely tested for evidence of influenza antibodies by various age groups, revealed that the proportion of sera from individuals in the 60-year and over age group with HI antibodies against influenza A virus increased from an average of approximately 50 per cent through February 1961 to 80 per cent in March 1961, as illustrated in the following table.

<u>Month</u>	<u>Per cent of 60-year and over age group with HI antibodies against influenza A</u>
Nov. 1960	54
Dec. 1960	58
Jan. 1961	48
Feb. 1961	58
Mar. 1961	80

(4) Influenza A<sub>2</sub> virus was isolated from 4 individuals with clinical disease in the New York area during late February and early March. One of these individuals, a 34-year-old female, died of a fulminant pneumonia. Another, an 8-year-old female, died suddenly and was found at autopsy to have bilateral partial pulmonary atelectasis, with edema and congestion of the brain. Virus was isolated from the brain of the latter case.

In addition, the isolation of an influenza A<sub>2</sub> virus from the throat washing of a 56-year-old Chinese American male, hospitalized at the New York Hospital with an influenza-like illness, was reported by Dr. Edwin Kilbourne, Associate Professor of Public Health, Cornell University Medical College.

Dr. Franklin M. Foote, Commissioner, State Department of Health, Connecticut, reported that the State laboratory there had identified significant titer rises against influenza A in paired sera from 3 persons in the Stamford area who had clinical influenza-like disease. In addition, Dr. A. M. M. Paine, Chairman, Department of Epidemiology and Public Health, Yale University School of Medicine, reported that an outbreak of influenza occurred in New Haven, particularly among University personnel. Dr. G. D. Hsiung, Director, Viral Diagnostic Laboratory, Department of Preventive Medicine, Yale University, isolated a number of influenza viruses from clinical cases which were subsequently identified as influenza A<sub>2</sub>, although several of the strains isolated exhibited strong reactions with a PR 8 antigen. Dr. Roslyn Q. Robinson, the WHO International Influenza Center for the Americas, CDC, Atlanta, subsequently confirmed that these strains were type A<sub>2</sub> influenza viruses, but with a peculiar sensitivity to non-specific inhibitor.

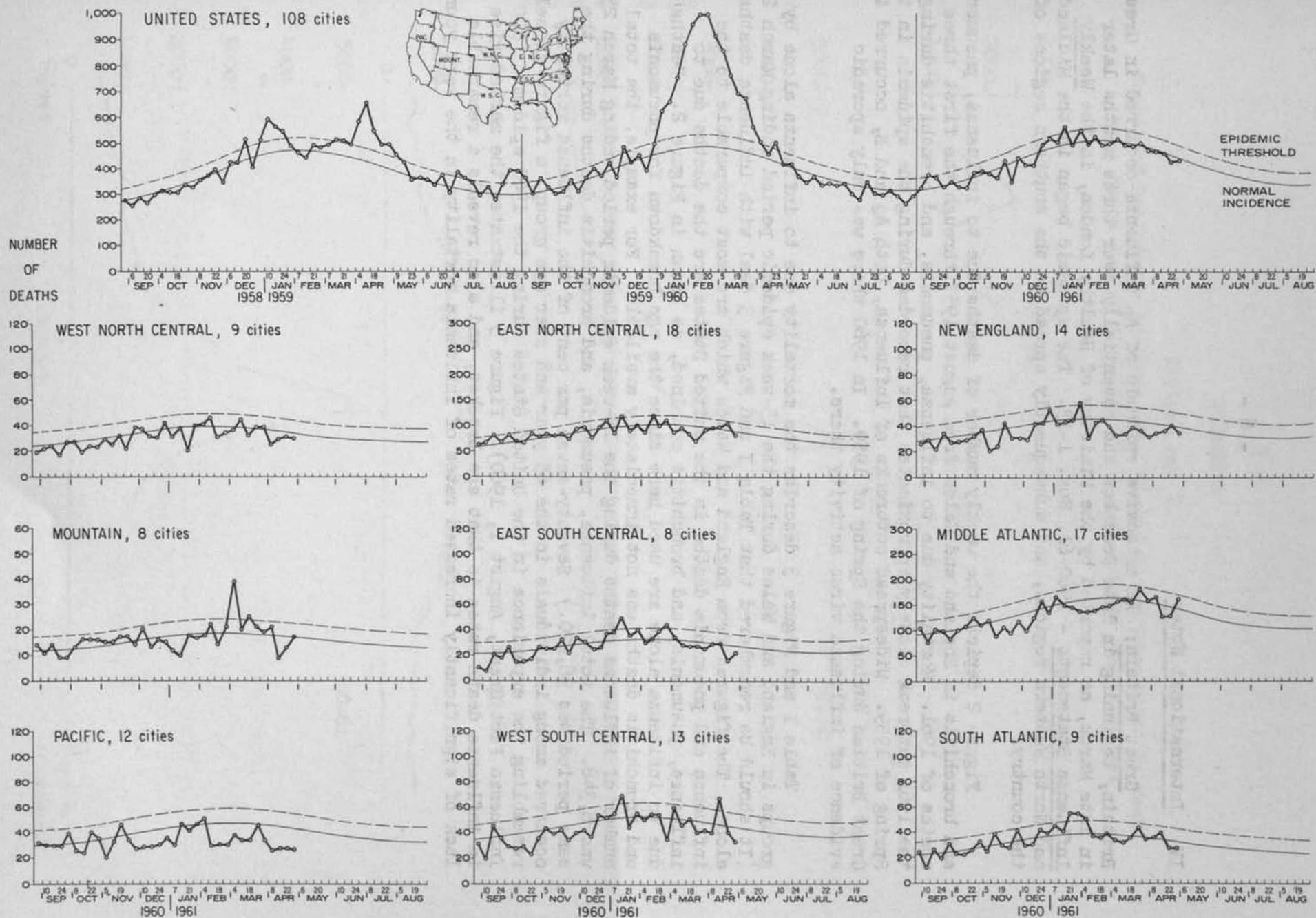
The isolation of an influenza virus, presumptively identified as influenza A<sub>2</sub>, from a patient with clinical influenza-like disease was reported by Dr. Robert S. Gohd, Head, Virus and Rickettsial Laboratory, United States Air Force Hospital, Andrews Air Force Base, Washington, D. C.

It is clear that this was not an "influenza year" within the United States. Two comments may be made on the limited outbreak in the New York City area in February and March. First, it may be recalled that in the Spring of 1959, a period in which the rest of the country experienced only widely scattered outbreaks of influenza with little excess mortality, the New York City area experienced a moderately severe mixed outbreak of influenza A<sub>2</sub> and B. During the Spring of 1960, when the remainder of the country was experiencing a moderately severe outbreak of influenza A<sub>2</sub>, the New York City area was relatively spared. That influenza A<sub>2</sub> again occurred in New York City during the recent season suggests that a crude two-year cycle is being maintained there, but that the New York City area is one year out-of-step with the rest of the nation in the timing of these cyclic recurrences of epidemic influenza. A second factor of possible significance was the fact that an extensive epidemic of A<sub>2</sub> influenza was simultaneously occurring in Great Britain. Some of the influenza activity in New York City, the major port of entry for the East coast, may have been the result of spread of the epidemic from Great Britain. Circumstances were not propitious for spread of the outbreak to the rest of the United States.

III. Review of Influenza and Pneumonia Mortality in the United States,  
Winter 1960 - Spring 1961.

Analysis of the current reports of influenza and pneumonia deaths, through the week ending April 29, 1961, reveals that the number of deaths reported are within the expected limits of normal for this season. The number of deaths due to influenza and pneumonia reported during the entire Winter 1960 - Spring 1961 influenza season similarly has remained within the expected limits of seasonal normal for the nation as a whole. Although the number of deaths due to influenza and pneumonia in several of nine individual geographic regions exceeded the epidemic threshold on occasions, no consistent excess mortality suggestive of epidemic influenza was observed.

Figure 1 WEEKLY PNEUMONIA AND INFLUENZA DEATHS



#### IV. International Notes

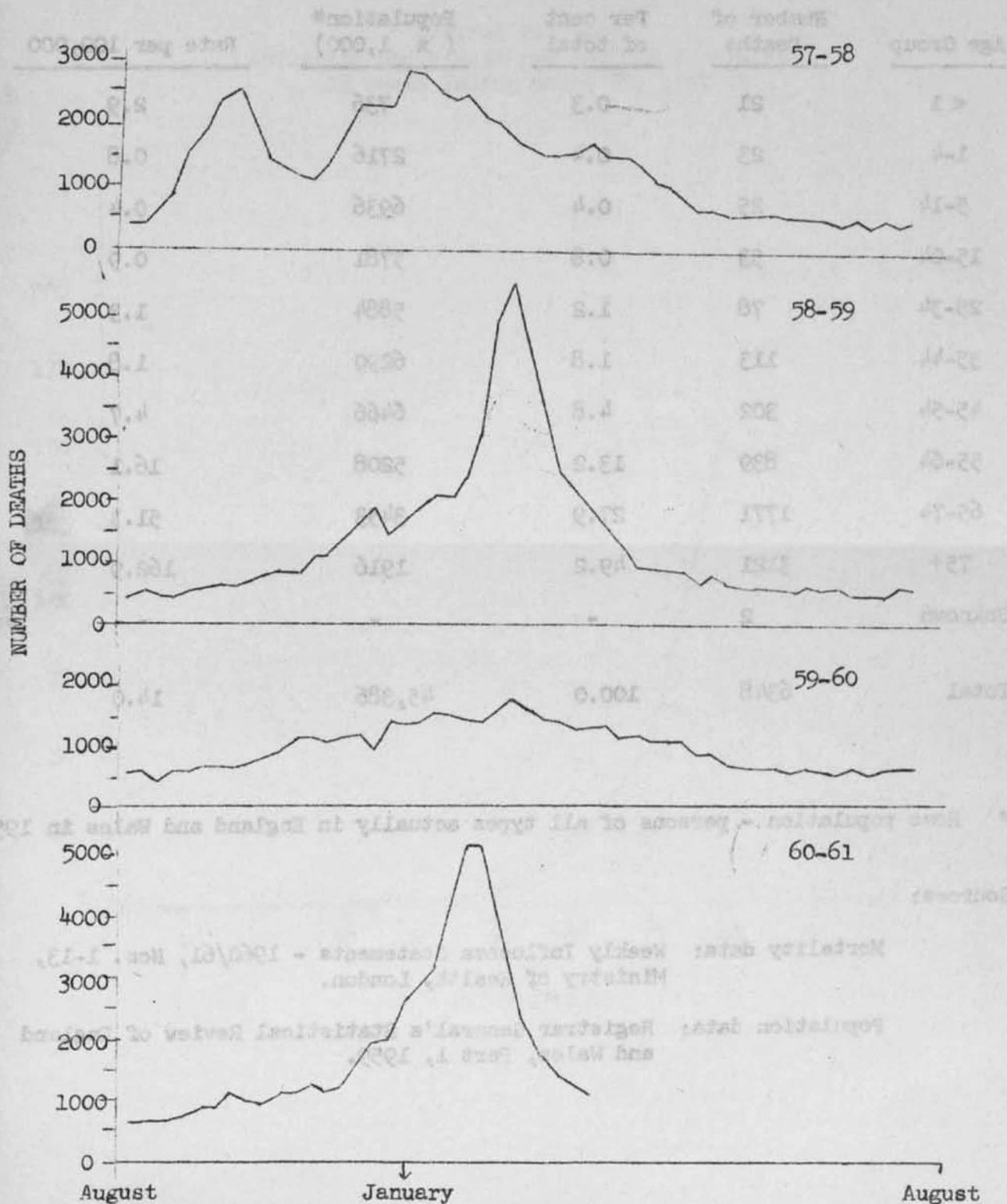
Great Britain: An extensive epidemic of A<sub>2</sub> influenza occurred in Great Britain, beginning in late December and essentially over three months later in late March, as reported by the Ministry of Health, London, in the Weekly Influenza Statements - 1960-61, Nos. 1-13. The epidemic began in the Midlands and North Western regions, and subsequently spread to the southern regions of the country.

Figure 2 depicts the weekly number of deaths due to influenza, pneumonia, and bronchitis in England and Wales from August 1957 through the first three months of 1961. Mortality due to influenza, pneumonia, and bronchitis during the 1961 outbreak closely approximates that recorded during the epidemic in the Spring of 1959. Widespread outbreaks of influenza, both A<sub>2</sub> and B, occurred in Great Britain during the Spring of 1959. In 1960 there was only sporadic evidence of influenza virus activity there.

Table I and Figure 3 describe the mortality due to influenza alone by age groups in England and Wales during the 13-week epidemic period ending March 25. (It should be remembered that Table I and Figure 3 deal with influenza deaths alone. The figures from England and Wales which are most comparable to the influenza and pneumonia deaths in the United States are the deaths due to influenza, pneumonia, and bronchitis combined, as shown in Figure 2. Deaths due to influenza alone are used here since the age breakdown for pneumonia and bronchitis deaths was not immediately available. For example, the total number of influenza deaths during the 13-week epidemic period ending March 25 was 6,348. The total influenza, pneumonia, and bronchitis deaths during the same period was 38,220.) Seventy-seven per cent of the influenza mortality occurred among individuals in the 65 year and over age group, a figure closely resembling the experience in the United States during the 1960 epidemic (CDC Influenza Fact Sheet, August 1, 1960). Figure 3 illustrates the marked rise in influenza death rates in that age bracket, and also reveals a remarkable lack of significantly increased rates of influenza mortality in the very young.

FIGURE 2  
England and Wales

Number of Deaths due to Influenza, Pneumonia and Bronchitis by Week  
Week Ended August 31, 1957 through Week Ended April 1, 1961



Mortality Due to Influenza  
in England and Wales

13-week period ending March 25, 1961

<u>Age Group</u>	<u>Number of Deaths</u>	<u>Per cent of total</u>	<u>Population* ( x 1,000)</u>	<u>Rate per 100,000</u>
<1	21	0.3	736	2.9
1-4	23	0.4	2716	0.8
5-14	25	0.4	6936	0.4
15-24	53	0.8	5781	0.9
25-34	78	1.2	5884	1.3
35-44	113	1.8	6290	1.8
45-54	302	4.8	6466	4.7
55-64	839	13.2	5208	16.1
65-74	1771	27.9	3453	51.3
75+	3121	49.2	1916	162.9
Unknown	2	-	-	-
Total	6348	100.0	45,386	14.0

\* Home population - persons of all types actually in England and Wales in 1959.

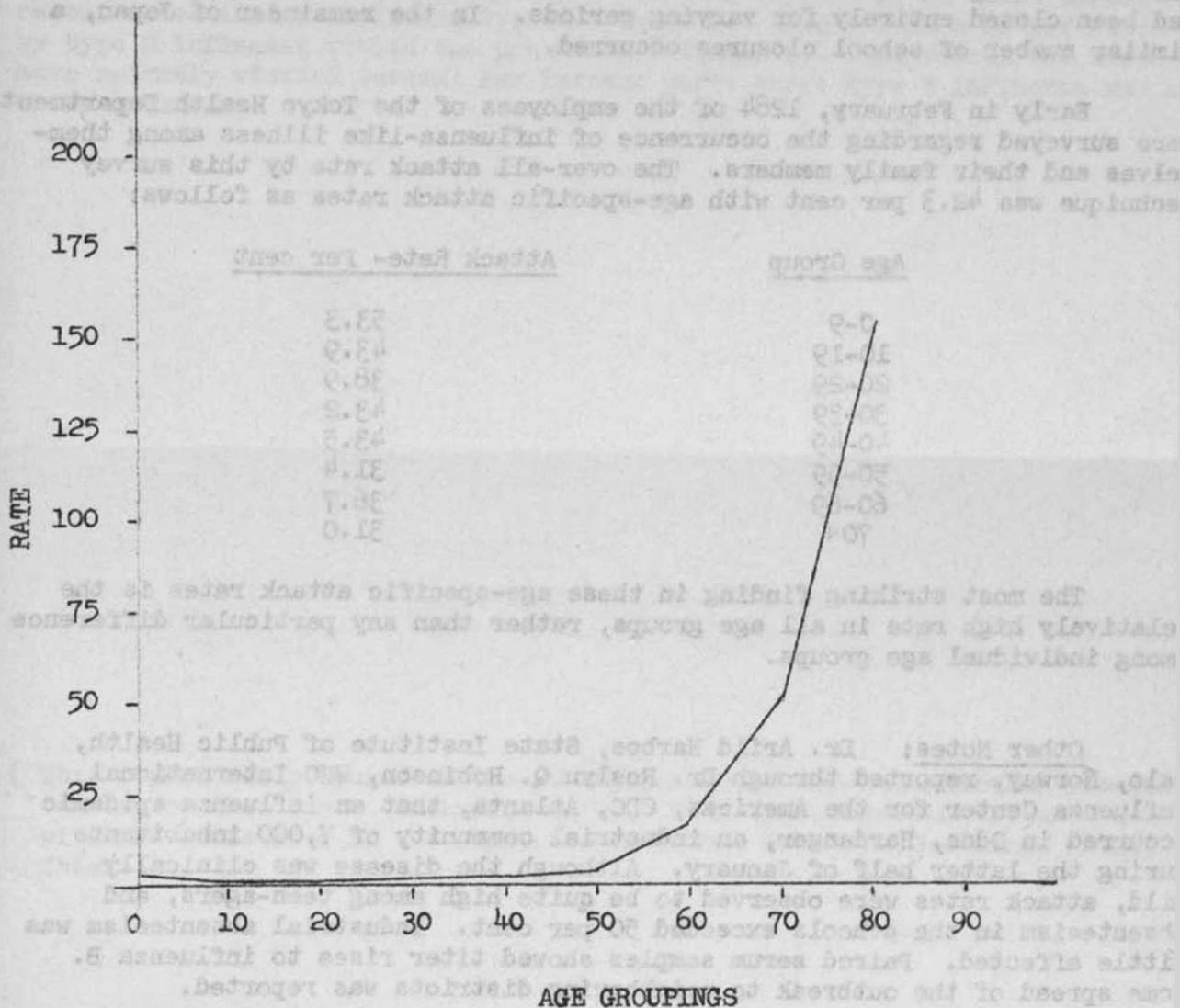
Sources:

Mortality data: Weekly Influenza Statements - 1960/61, Nos. 1-13, Ministry of Health, London.

Population data: Registrar General's Statistical Review of England and Wales, Part 1, 1959.

FIGURE 3

England and Wales  
Influenza Death Rate per 100,000 Population  
13 Weeks Ending March 25, 1961



Japan: Dr. Shinichi Matsuda, Chief, Department of Epidemiology, The Institute of Public Health, Tokyo, Japan, reported that a widespread epidemic of influenza occurred in Tokyo during January and February, spreading throughout the remainder of the country in March. The disease was clinically mild, with an average duration of 3-7 days. The disease was confirmed as due to influenza virus, type B.

The attack rate was high among school-age children, and school closures were frequent. By February 13, 65 per cent of the 2109 schools in the Metropolitan Tokyo area had been involved by the epidemic to the extent of at least one class being closed for an interval of time, and 35 per cent of the schools had been closed entirely for varying periods. In the remainder of Japan, a similar number of school closures occurred.

Early in February, 1284 of the employees of the Tokyo Health Department were surveyed regarding the occurrence of influenza-like illness among themselves and their family members. The over-all attack rate by this survey technique was 42.3 per cent with age-specific attack rates as follows:

<u>Age Group</u>	<u>Attack Rate- Per cent</u>
0-9	53.3
10-19	43.9
20-29	38.9
30-39	43.2
40-49	43.5
50-59	31.4
60-69	36.7
70+	31.0

The most striking finding in these age-specific attack rates is the relatively high rate in all age groups, rather than any particular difference among individual age groups.

Other Notes: Dr. Arild Harboe, State Institute of Public Health, Oslo, Norway, reported through Dr. Roslyn Q. Robinson, WHO International Influenza Center for the Americas, CDC, Atlanta, that an influenza epidemic occurred in Odda, Hardanger, an industrial community of 7,000 inhabitants during the latter half of January. Although the disease was clinically mild, attack rates were observed to be quite high among teen-agers, and absenteeism in the schools exceeded 50 per cent. Industrial absenteeism was little affected. Paired serum samples showed titer rises to influenza B. Some spread of the outbreak to neighboring districts was reported.

According to reports from the Department of National Health and Welfare, Epidemiology Division, Ottawa, Canada, influenza A<sub>2</sub> viruses have been isolated from patients with clinical influenza-like disease among RCAF personnel stationed in Ottawa, and from several civilian cases in Carol Lake, Labrador. An outbreak of influenza-like disease was also reported among RCAF personnel at Goose Bay, Labrador.

Dr. S. B. Clark, Chief, Division of Preventive Medicine and Quarantine, Panama Canal Zone Health Bureau, reported that an influenza-like illness had occurred among 12 crew members of the cargo liner PRESIDENT GRANT between March 10 and 15. The ship had left New York, where an influenza outbreak was in progress, on March 10, enroute to San Diego, passing through the Panama Canal on March 18. Throat washings collected as the ship was in transit through the canal were reported by Dr. Alexis Shelokov, Director, Middle America Research Unit, to have yielded no viral agents. By complement fixation tests on the sera also collected, however, there was evidence in 12 of 14 bloods of recent infection by influenza type A. There was also evidence of infection by type B influenza within the preceding 6-12 months. The vessel was known to have recently visited several Far Eastern ports where type B influenza was known to be occurring.

( This report was prepared in the Surveillance Section, Communicable Disease Center, by Theodore C. Eickhoff, M. D., Chief, Influenza Surveillance Unit, with the assistance of the Statistics Section, Robert E. Serfling, Ph.D., Chief. )