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CDC INFLUENZA SURVEILLANCE REPORT
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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.

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I. Summary of Information

In the 9-month interval since the publication of the last CDC Influenza Surveillance Report, No. 57, April 13, 1960, the occurrence of influenza in the United States has been markedly limited in both distribution and frequency. Sporadic reports of laboratory confirmed cases of influenza A, occurring during the summer and fall months of 1960, have come to the attention of the Influenza Surveillance Unit. No outbreaks of influenza or unusual concentrations of cases of influenza-like disease have been reported to this unit thus far during the present season.

Analysis of current deaths due to influenza and pneumonia received from 108 cities in the United States reveals that the number of deaths are entirely within the expected limits of normal for the season in the United States as a whole as well as in each of the 9 geographic regions.

During the past 9 months scattered reports have been received of influenza occurring in Central and South America, and Europe. A recent report indicates that laboratory-confirmed type A_2 influenza is currently epidemic in England.

During the fall months the Public Health Service carried out an influenza immunization program encouraging the routine use of influenza vaccine among specific high risk-groups, the aged, the chronically ill, and pregnant women, in order to reduce the extent of excess influenza-associated mortality.

II. Current Status of Influenza in the United States

To this date, no outbreaks of influenza or influenza-like diseases have been reported to the Influenza Surveillance Unit. Special reports were received recently from five States. All report that school and industrial absenteeism are within normal seasonal limits; there have been no reports of unusual incidence of respiratory disease, no increase in diagnostic specimens submitted to State Health Laboratories, and no laboratory confirmation of cases of epidemic respiratory disease due to influenza viruses. These reports were received from the following: Dr. N. J. Fiumara, Director, Division of Communicable Diseases, Massachusetts Department of Public Health; Dr. R. M. Albrecht, Director, Bureau of Epidemiology and Communicable Disease Control, New York State Department of Health; Dr. Winslow Bashe, Chief, Division of Communicable Diseases, Ohio Department of Health; Dr. C. S. Mollohan, Chief, Section of Epidemiology, Colorado State Department of Public Health; and Dr. Henry Renteln, Influenza Surveillance Unit, Bureau of Communicable Diseases, California State Department of Public Health.

In September, November, and December, reports were received of the laboratory confirmation of sporadic cases of influenza from Illinois, South Dakota, and Montana. These reports of the endemic occurrence of influenza were all confirmed as influenza type A.

Type A influenza is generally recognized to have a tendency toward periodicity, characteristically recurring in 2-3 year cycles. Because of the well-remembered epidemics of type A_2 influenza in the fall and winter of 1957-1958 and again in the first 3 months of 1960, most epidemiologists do not anticipate epidemics of type A influenza of national significance during the current season. The tendency toward periodicity of type B influenza is less evident, frequently recurring in 4-6 year cycles. Influenza B was last prevalent in the United States during March and April, 1959. This, however, was a mixed outbreak of both influenza A_2 and B, which caused only a small amount of excess mortality. The next major epidemic of influenza B cannot, therefore, be predicted at this time with any degree of accuracy. Minor outbreaks or localized concentrations of cases of influenza of either type may well occur during the present season.

III. Current Analysis of Influenza and Pneumonia Mortality

Procedures used in calculation of the 1960-61 expected levels of pneumonia-influenza deaths in the 108 cities differ somewhat from those of previous years.* As in the past, calculations were based on deaths during four-week periods, thirteen periods per year, but for this year's charts (counting period 1 as the four weeks beginning on approximately September 1 of each year) the linear secular trend was estimated from the 10th and 11th period of each year.

After removal of secular trend a standard seasonal curve was then computed by fitting a sine function to average deaths during the three-year period 1954-55 through 1956-57. The curves shown in the accompanying figure were obtained by adjustment of the standard seasonal curve to allow for secular trend.

The "epidemic threshold" is placed at a distance of 1.65 standard deviations above the seasonal expectancy.

Examination of the number of deaths in the 108 cities for the United States as a whole in the accompanying figure reveals vividly the epidemic of type A_2 influenza which was current last year at this time. It may be recalled that this epidemic was particularly severe in Southern California.

The number of influenza and pneumonia deaths reported this season up to the week ending January 7, 1961 is well within the expected limits of normal for the season in the United States as a whole as well as in each of the individual geographic regions.

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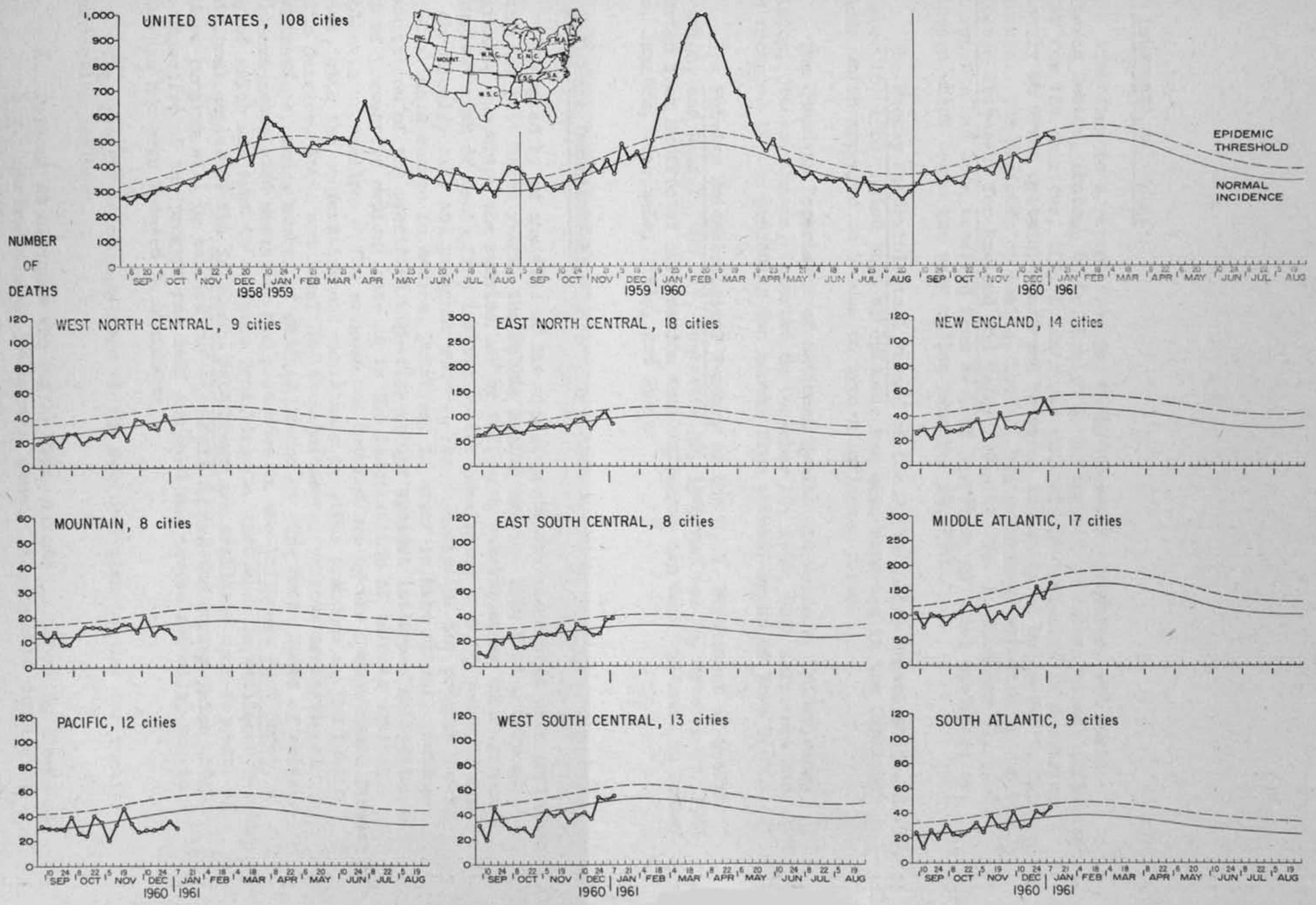
* A complete description of the present procedure is available in mimeographed form on request to R. E. Serfling, Epidemiology Branch, Communicable Disease Center, Atlanta 22, Georgia.

Figure 1 WEEKLY PNEUMONIA AND INFLUENZA DEATHS



IV. International Notes:

According to a report from Dr. C. H. Andrewes, Director, WHO World Influenza Center, London, to Dr. Roslyn Q. Robinson, WHO International Influenza Center for the Americas, CDC, Atlanta, an epidemic of influenza is occurring presently in Great Britain, confirmed by virus isolation as being due to type A_2 influenza. The Ministry of Health, London, had previously reported in the Weekly Influenza Statement for England and Wales, 1960/61, No. 1, December 31, 1960, that reports had been received from several districts of local outbreaks of influenza which began the week ending December 24, 1960.

The Weekly Epidemiological Record of the World Health Organization, No.50, December 16, 1960, noted that an epidemic had been reported in the Caroline Islands which appeared to be due to type A influenza virus.

The Canadian Department of National Health and Welfare, Epidemiology Division, Ottawa, Canada, reported on December 17, 1960, that influenza had been reported in the preceding two months from several areas of Nova Scotia.

The Foreign Epidemiological Summary of the U. S. Department of Health, Education, and Welfare, No. 15, September 30, 1960 and No. 16, October 28, 1960 reported from unofficial information that influenza had been epidemic in Costa Rica, Jamaica, Venezuela, Italy, and Spain.

V. Influenza Immunization:

Prompted by an analysis of the excess mortality associated with influenza during the past three years, the Public Health Service this fall undertook a program to encourage the routine use of influenza vaccine among those groups at highest risk of death from influenza, the population over 65 years of age, the chronically ill, and pregnant women. The objective of the program was to effect a basic change in medical practice, in order to make annual, routine immunization of the specified high-risk groups against influenza as routine a part of preventive medical care as is the immunization of infants against diphtheria or smallpox. The program was carried out by the Communicable Disease Center, with the cooperation and assistance of other branches of the Public Health Service, State and local Health Departments, various professional organizations, and a number of medical journals. The basic facts of excess influenza-associated mortality are presented in the Influenza Fact Sheet, a copy of which was sent to everyone receiving CDC Influenza Surveillance Reports. Additional copies of the Influenza Fact Sheet are available upon request. A similar program will be carried out each fall during the coming years until the objective of the program has been achieved and excess mortality due to influenza has been reduced to a minimum.

The specific recommendations of the Public Health Service for routine immunization include:

A. Persons at all ages who suffer from chronic debilitating diseases; e.g., cardiovascular, pulmonary, renal, or metabolic disorders; in particular -

1. patients with rheumatic heart disease, especially those with mitral stenosis,

2. patients with other cardiovascular disorders, such as arteriosclerotic or hypertensive heart disease; especially those with evidence of frank or incipient cardiac insufficiency,

3. patients with chronic broncho-pulmonary disease; e.g., chronic asthma, chronic bronchitis, bronchiectasis, pulmonary fibrosis, pulmonary emphysema, and pulmonary tuberculosis,

4. persons with diabetes mellitus, and

5. patients with Addison's disease.

B. Pregnant women.

C. All persons 65 years and older.

Influenza may not be more likely to attack persons in these specific groups than others; the occurrence of influenza in these persons, however, is more likely to be a life-threatening event. Influenza alone places a severe stress on cardiovascular and pulmonary function, and the frequency of bacterial complications is greatly increased in patients with chronic cardiovascular-renal and pulmonary disease.

No change was made this year in the composition of the commercial civilian vaccine. The prescribed antigenic composition and the commercial producers of the vaccine are as follows:

Type	Strain	CCA Units per cc.
A	PR8	100
A_1	Ann Arbor 1/57	100
A_2	Asian	200
B	Great Lakes 1739/54	100

Eli Lilly and Company, Indianapolis, Indiana
Lederle Laboratories, Pearl River, New York
Merck, Sharpe, and Dohme, Philadelphia, Pennsylvania
National Drug Company, Philadelphia, Pennsylvania
Parke-Davis and Company, Detroit, Michigan
Charles Pfizer and Company, Brooklyn, New York
Pitman-Moore Company, Indianapolis, Indiana

Dose and schedule of vaccinations by age:

A. Children three months old to pre-school age: Initial doses of 0.1 to 0.2 ml. (50 to 100 CCA units) should be administered subcutaneously on two occasions, separated by one or two week intervals.

A "booster" inoculation of the same strength should be given two to three months later. Preferably the schedule of vaccination should be completed by November 1. Since febrile reactions to vaccine in this age group may reach an incidence of 20 per cent, it is suggested when not contraindicated that acetylsalicylic acid (one grain per year of age) be given every 6 hours for the first 24.

B. Children aged 6 to 12 years of age: 0.5 ml. (250 CCA units) should be administered subcutaneously on two occasions. Each dose should be separated by two or more months. Preferably the first dose would be given no later than August 1 and the second no later than November 1.

C. Adults (i.e., individuals 13 years of age or older): 1.0 ml. (500 CCA units) should be administered subcutaneously on two occasions, separated by two or more months. The schedule recommended for the two dose program in this age group is the same as in paragraph B.

D. Persons previously immunized with polyvalent vaccine: Each fall, prior to November 1st, persons previously immunized with polyvalent influenza virus vaccine should be reinoculated with a single dose according to the following schedule:

Children 3 months old to pre-school age: 0.1 to 0.2 ml.
Children aged 6 to 12 years: 0.5 ml.
Adults: 1 ml.

In adult populations, a low incidence of side reactions may be expected. These are most frequently in the form of transient febrile responses or local tenderness at the injection site. Penicillin sensitivity need not be of concern when injecting influenza vaccine, for current preparations contain none of this antibiotic. Since the vaccine is produced in eggs, the Public Health Service has advised against vaccination for persons who are unable to eat eggs or chicken because of food allergy, or who have had a definite allergic reaction, whether urticarial, asthmatic, or anaphylactic, on previous inoculation of an egg vaccine.

In the past, influenza immunization programs have tended to be intermittent, predominately in response to public concern before and during epidemic periods. Since an endemic incidence of influenza occurs continually, and since epidemics recur in cycles which cannot be predicted with accuracy from year to year, immunization of the specified high-risk groups is recommended to begin now, and should be continued annually, regardless of the predicted incidence of influenza for a particular year.

(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.)