

CDC INFLUENZA SURVEILLANCE REPORT

NO. 39

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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 mortality for 108 cities has decreased again this week. Although this is the fourth week of decline since the peak of March 1, mortality is still significantly above the five year seasonal average. Assuming that the mortality was related to Asian influenza in special population groups, it seems probable that deaths will shortly reach normal levels. This would be the natural result of the advent of warm weather and exhaustion of susceptibles. There is still evidence of sporadic small outbreaks of influenza proved by virus isolation, but these are being reported in decreasing numbers.

Dr. Widelock, et al, of New York City Health Department have reported the isolation of a variant Asian strain. This variant reacts with FM-1 as well as Asian antibodies in the H-I test. There is no evidence that this variant has been responsible for recent outbreaks, or that it has increased virulence.

An epidemic of influenza is reported to be occurring in Hong Kong.

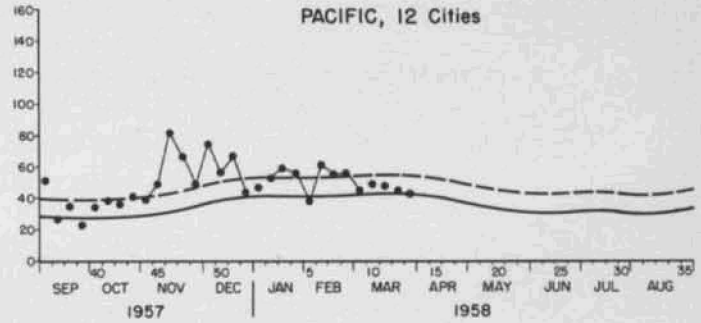
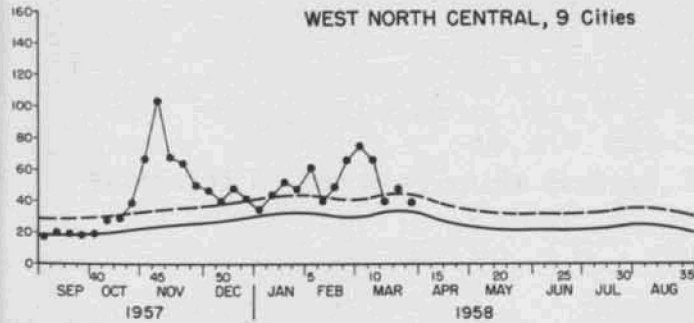
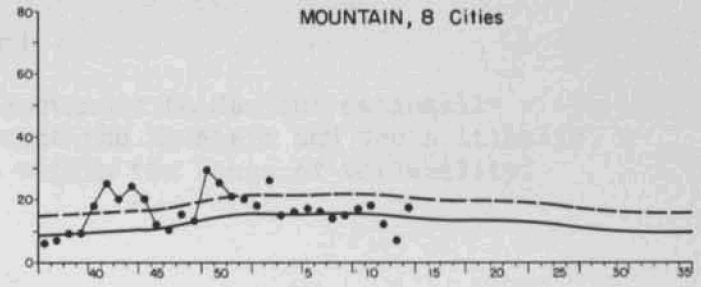
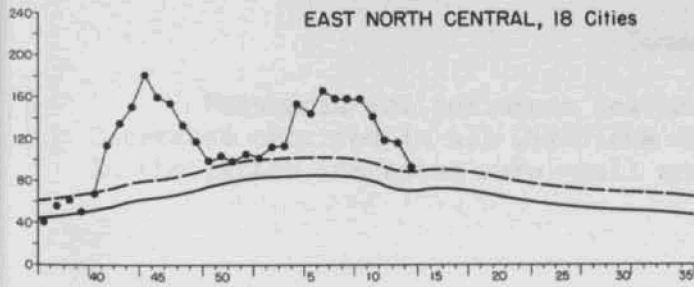
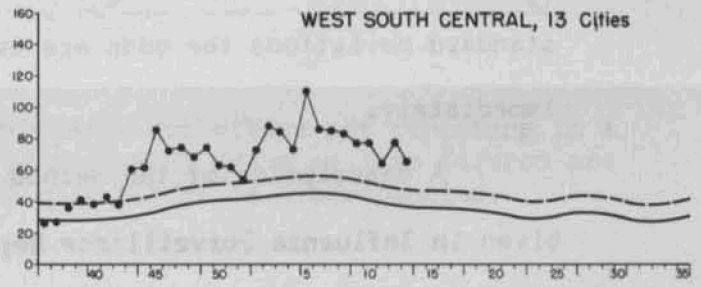
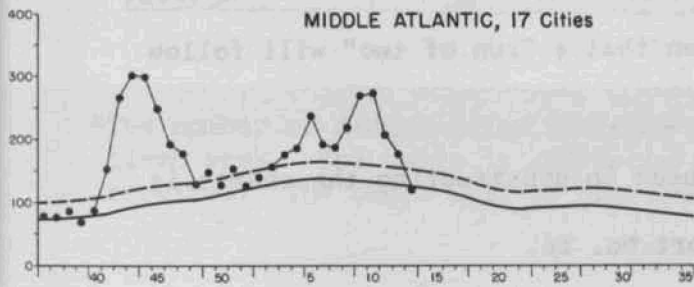
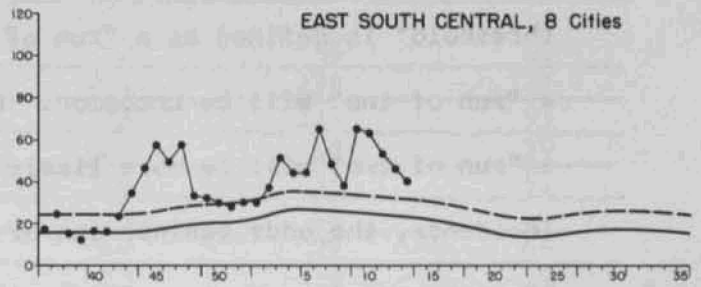
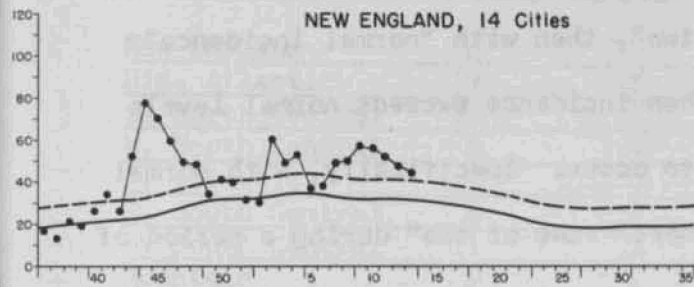
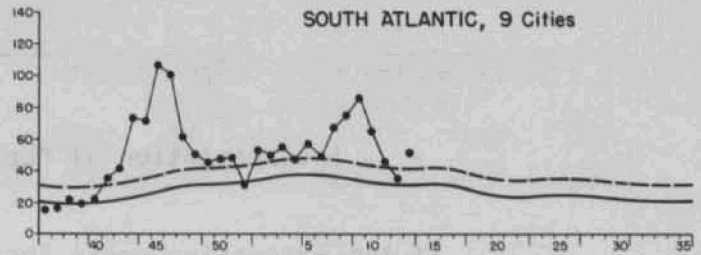
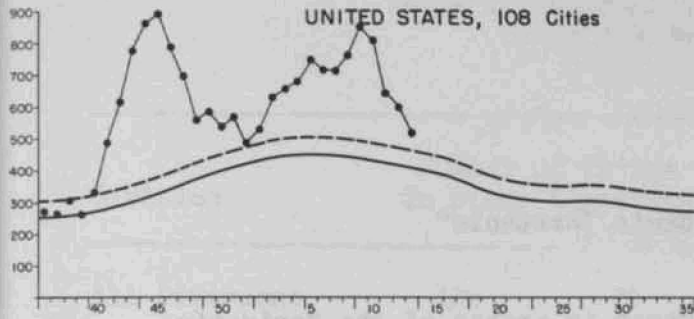
NOTICE

This is to announce that effective March 26, 1958, Dr. Keith E. Jensen is resigning his position as Chief of the Respiratory Disease Unit, Virus and Rickettsia Section, to accept a new position with the Charles Pfizer Company, Biologics Research Department, Terre Haute, Indiana.

The WHO International Influenza Center for the Americas will continue, of course, to be located at Montgomery and until further notice all communications concerning activities of the WHO Influenza Center and the Respiratory Disease Unit should be addressed to Dr. Morris Schaeffer. Dr. Schaeffer's address (see first page of this report) will be the same as that previously used by Dr. Jensen.

WEEKLY PNEUMONIA AND INFLUENZA DEATHS

----- "EPIDEMIC THRESHOLD"
 _____ "NORMAL INCIDENCE"
 (SEE EXPLANATION ON BACK OF SHEET)



NUMBER OF DEATH

Interpretation of "Epidemic Threshold"

If two successive weeks incidence in excess of the "epidemic threshold" is defined as a "run of two", then with "normal incidence" a "run of two" will be uncommon. When incidence exceeds normal levels a "run of two" will be more likely to occur. Specifically, with normal incidence, the odds against one or more "runs of two" during a period of 52 weeks are four to one. If incidence increases above normal by two standard deviations the odds are even that a "run of two" will follow immediately.

A description of the method used in constructing the charts is given in Influenza Surveillance Report No. 16.

II. Current Analysis of Influenza and Pneumonia Mortality*

Table I. 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:		
			Mar. 15 (108 cities)	Mar. 22 (108 cities)	Mar. 29 (106 cities)
All Divisions	108	106	642	602	513
New England	14	13	52	56	44
Mid. Atlantic	17	17	204	175	121
E. North Central	18	18	118	113	93
W. North Central	9	9	40	48	39
S. Atlantic	9	9	46	35	51
E. South Central	8	8	53	46	40
W. South Central	13	12	69	77	65
Mountain	8	8	12	7	17
Pacific	12	12	48	45	43

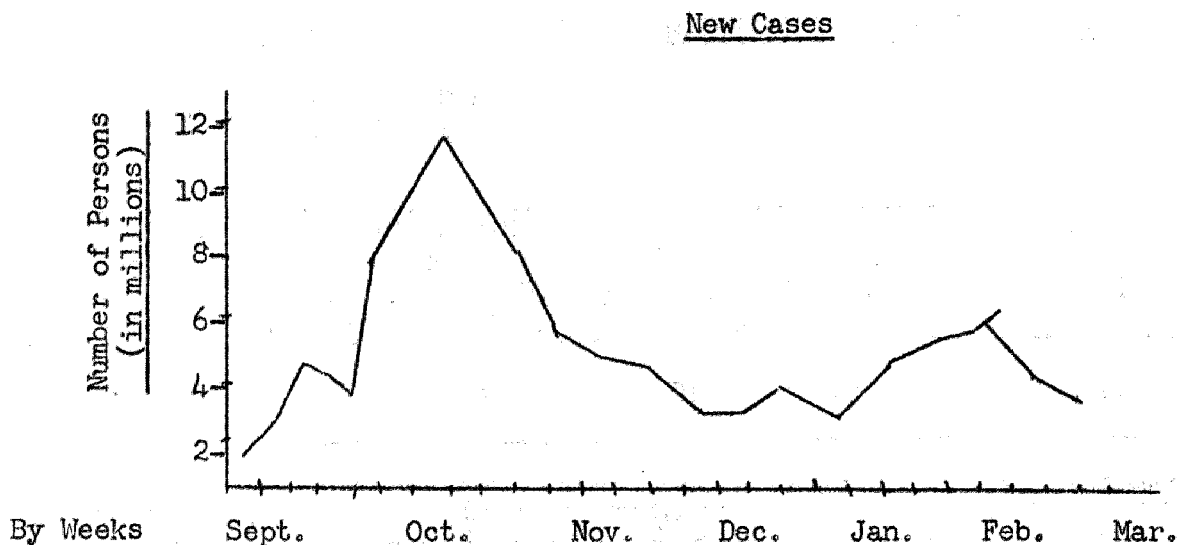
*The number of deaths given includes estimates for cities not reporting in a given week. The table is corrected for preceding weeks as late figures are received. The chart will be corrected only for gross discrepancies.

Comment

Pneumonia and influenza deaths continued to decline nationally. Decreases occurred in all Divisions except the Mountain and South Atlantic. In the latter increases were small and within the range of variability.

*Prepared by the Statistics Section, CDC.

III. Data from National Health Survey (Under the direction of Dr. F. Linder)



ACUTE UPPER RESPIRATORY DISEASES*
Estimates for continental United States

Week	New Cases Involving One or More Days of Bed Disability
Oct 27 - Nov 2	9,808,000
Nov 3 - 9	8,297,000
Nov 10 - 16	5,648,000
Nov 17 - 23	5,305,000
Nov 24 - 30	3,339,000
Dec 1 - 7	4,271,000
Dec 8 - 14	3,667,000
Dec 15 - 21	3,241,000
Dec 22 - 28	3,430,000
Dec 29 - Jan 4	4,092,000
Jan 5 - 11	3,680,000
Jan 12 - 18	3,200,000
Jan 19 - 25	4,386,000
Jan 26 - Feb 1	4,737,000
Feb 2 - 8	5,147,000
Feb 9 - 15	5,313,000
Feb 16 - 22	4,669,000
Feb 23 - Mar 1	**4,432,000

*Including influenza, pneumonia, and other similar conditions.

**Provisional.

The above data are compiled from the household interview survey which is a part of the program of the U.S. National Health Survey. The household survey is conducted by trained and supervised lay interviewers. The weekly samples consist of interviews for about 700 households or 2,200 persons. Since data are collected for the two prior weeks, each week's interviewing gives information on 4,400 person-weeks of health experience. Approximate sampling errors are in the range of 15%. The estimates of sampling error do not include allowance for error of response and non-reporting.

IV. Recent Communications

The precise cause of the recent upsurge in mortality remains obscure, and it is doubtful that the cause can ever be determined with certainty. We have received a great many individual reports relating to this mortality, however, which indicate that it is not due to recognizable epidemics of influenza. Some of these reports bearing on various aspects of the problem are summarized below. The North Carolina, Vermont, and Utah outbreaks of influenza-like illness are all in small more or less isolated communities which may or may not have been affected by Asian strain influenza this fall. Asian strain confirmations are available from none of these outbreaks at this writing. The Maryland outbreak resembles others reported from chronic disease hospitals and old people's homes. The New York report suggests that there may be a fairly high prevalence of influenza in some areas, insufficient to cause clear-cut epidemics, but resulting in subclinical and sporadic clinical illnesses.

1. North Carolina

An outbreak of influenza-like disease has been reported on Ocracoke Island, about 35 miles off the North Carolina mainland. About 50% of the island's 500 residents have been affected. This is believed to be an area spared during the fall epidemic. There is no information about the severity of the epidemic, and Asian strain influenza has not been confirmed.

2. Maryland

Dr. Charlotte Silverman, Maryland Department of Health, reports an outbreak of influenza during February and March in a chronic disease hospital. Twenty-five of 275 patients were ill with typical symptoms. Two died shortly after the outbreak. One of the fatal cases had received vaccine in the fall (three 0.1 cc doses at weekly intervals). Paired blood specimens showed a rise to Type A influenza by C-F test.

3. New York City

Abstract of a paper submitted for publication in the Proceedings of Society of Experimental Biology and Medicine by:

Daniel Widelock, Ph.D., Sarah Klein MPH, Lenore Peizer, and Olga Simonovic, New York City Department of Health, Bureau of Laboratories.

"A Laboratory Analysis of the 1957-8 Influenza Outbreak (A/Jap) in New York City -- I. A Sero-Epidemiological Investigation and a Report on a Variant A/Jap Isolate."

1. The isolation of a new variant of influenza virus is reported -- a variant which possesses antigenic characteristics of the Asian strain (NYC/1/57) and A prime (FML). The variant was isolated from one person on January 21, 1958 in New York City, and between February 6 and February 28 three more similar isolates were obtained. The majority of influenza isolates obtained in January and February in New York City, however, were of the NYC/1/57 type. Further studies of the variant are in progress. There is no evidence of increased virulence of this variant.

2. Since August 1957 Asian strain isolates have been obtained from throat washings and autopsy material in the following percentages by month. While the percent positive rose in January and February it did not reach the percent positive range of the fall months.

<u>Month</u>	<u>Total Tested</u>	<u>%Positive</u>
August 1957	30	30
Sept. 1957	84	35.7
Oct. 1957	217	29.0
Nov. 1957	38	24.0
Dec. 1957	84	2.7
Jan. 1958	90	17.7
Feb. 1958	84	15.5

3. About 200 serum specimens (negative sera collected at random from the syphilis serology laboratory) were tested each week by HI test from September 16 through February 1958. A total of 2716 specimens were tested of which 933, or 34.4%, were reported as positive for Asian strain. Age analysis of the total sample revealed approximately equal proportions of those in age groups 15-19 and above. No specimens were studied from children under 15. Relationship of age and HI titer is not reported by month; this information will be available, however, in a later report. The bulk of the serum specimens were submitted by private physicians and about 20% of the sera tested in this study were prenatal specimens. We understand from Dr. Widlock that analysis of vaccination status of the population studied will be available in a later report, as well as information on the levels of the HI titers. The paper indicates that there was a steep rise in the percentage of positive HI tests during October, followed by a very slow rise in November and December, and another fairly steep rise during January and February. These observations are interpreted by the authors as evidence for a second outbreak of Asian strain influenza in New York City during January and February.

4. Vermont

Dr. L.J. Leavens, Vermont Department of Health, reports several outbreaks of influenza-like illness in towns in Franklin County during March. These appear to be in open population groups. In Richford (population approximately 2000) a distinct outbreak involved at least 100 persons. Confirmation of Asian strain influenza is not available -- throat washings are under study at this time. In Wilmington, however, where a small outbreak occurred early in March, throat washings were obtained from which Asian strain virus has been isolated.

5. Utah

Dr. A.A. Jenkins, Utah State Department of Health, has reported several outbreaks of influenza-like disease in small towns in southeastern and southwestern Utah during the first three months of 1958. During March, Parowan (population about 1500) and Paragonah (about 500) in Iron County experienced community-wide outbreaks which required school closing. Throat washings were collected and are under study. Only sporadic influenza-like illness was present in other areas of Utah during February and March.

6. California

From Dr. R.M. Moldenhauer, California Department of Public Health, we have a report from Sonoma County of a recent increase in upper respiratory disease which has resulted in an 11-12% school absenteeism in two areas. Physicians in the county report increases of about 30% in influenza-like cases in their practice. The situation is being investigated.

7. International Note:

An outbreak of influenza-like illness is reported (press dispatch) to be underway in Hong Kong at this time. At least 1000 persons are said to have been affected. No virological or serological information is available as yet. It is of interest that Asian strain influenza made its first appearance on the world stage in Hong Kong exactly a year ago this week. A confirmed outbreak of Asian strain influenza in Hong Kong at this time could hardly be considered a second wave.