

FOR ADMINISTRATIVE USE

CDC INFLUENZA SURVEILLANCE REPORT  
No. 56 February 26, 1960

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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, the influenza diagnostic laboratories collaborating with the International Influenza Center for the Americas, the National Office of Vital Statistics, 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

A nation-wide decline in the reporting of influenza has been evident in the 2-week interval since the publication of CDC Influenza Surveillance Report No. 55, February 12, 1960. A few localized outbreaks and unnumbered sporadic cases are continuing to occur, although the national peak of morbidity has been passed, and all major urban outbreaks are subsiding.

An increased amount of febrile respiratory disease, or discrete outbreaks of clinical influenza have been reported in a total of 43 states including the District of Columbia. Type A<sub>2</sub> influenza virus has been isolated in a total of 31 states including the District of Columbia; serologic confirmation of influenza A infection has been reported from five additional states. Type B influenza virus has been isolated in two states.

Mortality due to pneumonia and influenza reported from 108 cities, after increasing slightly during the week ending February 13th, remained at essentially the same level during the week ending February 20th, and seems to have reached its peak. Although marked decreases occurred in several areas, levels remained well above the "epidemic threshold" in 7 of the 9 geographic regions for the week ending February 20th. Excess mortality is notably absent in the Middle Atlantic and East South Central regions.

## II. Current Status of Influenza in the United States

### A. Reports from States:

#### New England

1. Massachusetts: Dr. F. R. Philbrook, Director, Division of Communicable Diseases, Massachusetts Department of Public Health, noted that a sharp outbreak of influenza-like disease occurred in Winchester during the second week of February, resulting in school closures. Since that time, however, there has been little evidence of continued influenza activity within the State, and absenteeism rates are now within normal seasonal expected levels.

Sporadic cases of clinical influenza are continuing to occur at the Charlestown Naval Shipyard, as had been reported in previous CDC Influenza Surveillance Reports (Nos. 52, 53, 54). It is of interest that all personnel in the Shipyard were vaccinated in November, 1959. Further information on vaccine status is being sought.

A<sub>2</sub> influenza virus infection has been confirmed serologically in Massachusetts, using HI tests on paired sera.

### Middle Atlantic

2. New York: According to Dr. R. M. Albrecht, Director, Bureau of Epidemiology and Communicable Disease Control, New York State Department of Health, a few limited outbreaks of influenzal illness have occurred in scattered areas of upstate New York in recent weeks. On February 23rd, a factory in the central part of the State was forced to close because 30 of its 160 employees were ill with clinical influenza.

Dr. D. Karzon, University of Buffalo School of Medicine, reported the isolation of 3 A<sub>2</sub> influenza viruses from clinical cases in the Buffalo area. Dr. H. Feldman, State University of New York School of Medicine, Syracuse, reported 5 isolations of A<sub>2</sub> influenza virus; a moderate outbreak of clinical influenza had been reported from the Syracuse area.

### South Atlantic

3. Georgia: Dr. W. J. Murphy, Director, Division of Epidemiology Control, Georgia Department of Public Health, reported that the influenza outbreak in the Atlanta area has subsided, and absenteeism rates are now within expected levels. Elsewhere in the State, localized concentrations of cases are being reported from widely scattered areas, with little effect on absenteeism in schools.

A total of 13 A<sub>2</sub> influenza viruses have been isolated by the Georgia State Public Health Laboratory from individuals in the Atlanta area.

4. North Carolina: Dr. Jacob Koomen, Chief, Section of Communicable Diseases, North Carolina State Board of Health, noted that the occurrence of influenza has decreased sharply from the peak of about 2-3 weeks ago. Urban outbreaks have subsided, and school absenteeism rates are now normal throughout most of the State.

CF tests on paired sera have confirmed influenza A infection in 33 cases.

### East North Central

5. Wisconsin: According to Dr. Joseph Preizler, Epidemiologist, Wisconsin State Board of Health, reports have been received during the past few weeks of a number of scattered clusters of cases, primarily in small towns and rural areas. A few schools in these areas have reported moderately increased absenteeism.

### East South Central

6. Kentucky: J. C. Todd, State Epidemiologist, Kentucky Department of Health, noted that although a high incidence of influenza is still being reported, a peak was evidently reached during the week ending February 6, 1960, with a gradual decline thereafter.

Influenza and pneumonia deaths in Kentucky were noted to be primarily in individuals over 65 years of age, but with a few in very young children.

7. Tennessee: Dr. C. B. Tucker, Director, Division of Preventable Diseases, Tennessee State Department of Public Health, reported that the state-wide outbreak of influenza-like disease reached a peak during the week ending February 6, with a subsequent decline.

The Division of Laboratories isolated influenza virus, type A<sub>2</sub>, from 5 individuals with clinical disease in the Nashville area.

#### West North Central

8. Minnesota: Dr. D. S. Fleming, Director, Division of Disease Prevention and Control, Minnesota Department of Health, noted that there have been no further reports of localized sharp outbreaks of clinical influenza, although many sporadic cases are continuing to occur. Several clinicians and pathologists have reported seeing an increased number of cases of pneumonia as complications of clinical influenza. Several deaths have been reported, including deaths in 2 pregnant women. Other deaths have occurred in debilitated individuals and those with chronic respiratory illnesses.

9. Nebraska: Dr. C. D. Olsen, Director, Division of Communicable Disease Control, Nebraska Department of Health, reported that localized outbreaks of influenza-like illnesses have occurred at the University of Nebraska campuses in Lincoln and Omaha.

Dr. N. G. Miller, University of Nebraska College of Medicine, reported that HI tests on sera have confirmed A<sub>2</sub> influenza infection in one patient.

#### West South Central

10. Texas: According to Dr. Howard, Director, Division of Communicable Disease Control, Texas State Department of Health, a State-wide decline in the reporting of influenza is evident, although a few localized concentrations of cases are continuing to appear in scattered areas. No further sharp outbreaks have been reported, and the community waves in the major urban centers, particularly Dallas, which had been severely involved, have declined.

#### Mountain

11. Wyoming: Dr. Cecil Reinstein, Director, Division of Preventive Medicine, Wyoming State Department of Public Health, reported that a sharp outbreak of clinical influenza occurred in Fremont County, involving particularly the Wind River Indian Reservation and the town of Lander. An estimated 1000 cases occurred, and 5 deaths were reported, all in elderly individuals.

Elsewhere in Wyoming, scattered cases of influenza-like illness are reported, but no other localized outbreaks.

Pacific

12. California: Dr. Henry Renteln, Influenza Surveillance Unit, Bureau of Acute Communicable Diseases, California State Department of Public Health, reported that although sporadic cases continue to occur, all major outbreaks have subsided.

A striking wave of mortality due to influenza and pneumonia far exceeding mortality in any previous week, has been recorded. This marked increase has been of grave concern, and the subject of intensive investigations which are still in progress.

In the period from January 1, 1960, through February 12, a total of 345 pneumonia and influenza deaths were recorded in the City of Los Angeles. Of these, 264 were recorded as due to pneumonia, and 81 due to influenza. Males numbered 175, with 170 females. Numbers of pneumonia and influenza deaths by age groups are tabulated below.

<u>Age Group</u>	<u>No. Deaths</u>	<u>% Total</u>
Less than 1 yr.	20	5.8
1-9 yrs.	7	2.0
10-19 yrs.	2	0.6
20-29 yrs.	5	1.4
30-39 yrs.	8	2.3
40-49 yrs.	21	6.1
50-59 yrs.	34	9.8
60-69 yrs.	52	15.1
70-79 yrs.	89	25.8
80+ yrs.	107	31.0
All ages	345	100

Clearly, the greatest proportion of deaths occurred in the age group 60 years and over. A substantial number, however, also occurred in the young and middle age groups. Although some of these were seen in persons with a history of complicating conditions, such as diabetes or rheumatic heart disease, some occurred in apparently healthy young people. Of further interest is the fact that 4 deaths occurred in pregnant women during the 2nd and 3rd trimester. It is not known whether these women had been vaccinated.

Preliminary figures indicate that a number of old age homes, state institutions and large chronic disease wards in the Los Angeles area experienced a wave of influenza going through their facilities. This was also observed in a few large hospitals, notably the Los Angeles County Hospital. Approximately one-third of all the deaths each week were reported from that hospital. This influenza wave was followed by a substantial increase in pneumonia morbidity and mortality. Pathologists and clinicians in the area were agreed that there was a real increase in not only the number of broncho-pneumonias seen as a complication of influenza, but also a striking increase in the more severe and extensive lobar types, as well as hemorrhagic interstitial pneumonias and hemorrhagic pulmonary edemas.

It is of interest that, according to pneumonia and influenza mortality data, the Los Angeles area was only minimally involved in the 1957-58 epidemic. Of unknown significance is the fact that the Los Angeles Weather Bureau this year recorded the coldest January in 10 years.

B. Other Reports:

Dr. C. A. Hunter, Director of Laboratories, Kansas State Board of Health, reported additional isolations of 12 influenza viruses, type A<sub>2</sub>, from clinical cases predominately in the Topeka and Wichita areas.

The following reports were received through Dr. Roslyn Q. Robinson, WHO International Influenza Center for the Americas, CDC, Montgomery, Alabama.

Dr. T. D. Davis, Charity Hospital, New Orleans, reported the isolation of 3 A<sub>2</sub> influenza viruses from cases among the House Staff.

Dr. J. E. Hotchin, New York State Department of Health Laboratory, reported serologic confirmation of influenza A infection in 2 school teachers in Genesee County, New York.

Dr. N. J. Schneider, Florida State Board of Health Laboratory, isolated 4 A<sub>2</sub> influenza viruses from clinical cases.

C. Comments:

A nation-wide decline in reported influenza is evident, although sporadic cases and a few distinct outbreaks have occurred during the past few weeks. Such occurrence may be expected to continue, although in a gradually subsiding fashion. It seems clear that the peak of national morbidity has passed, and mortality due to influenza and pneumonia appears to have reached its peak.

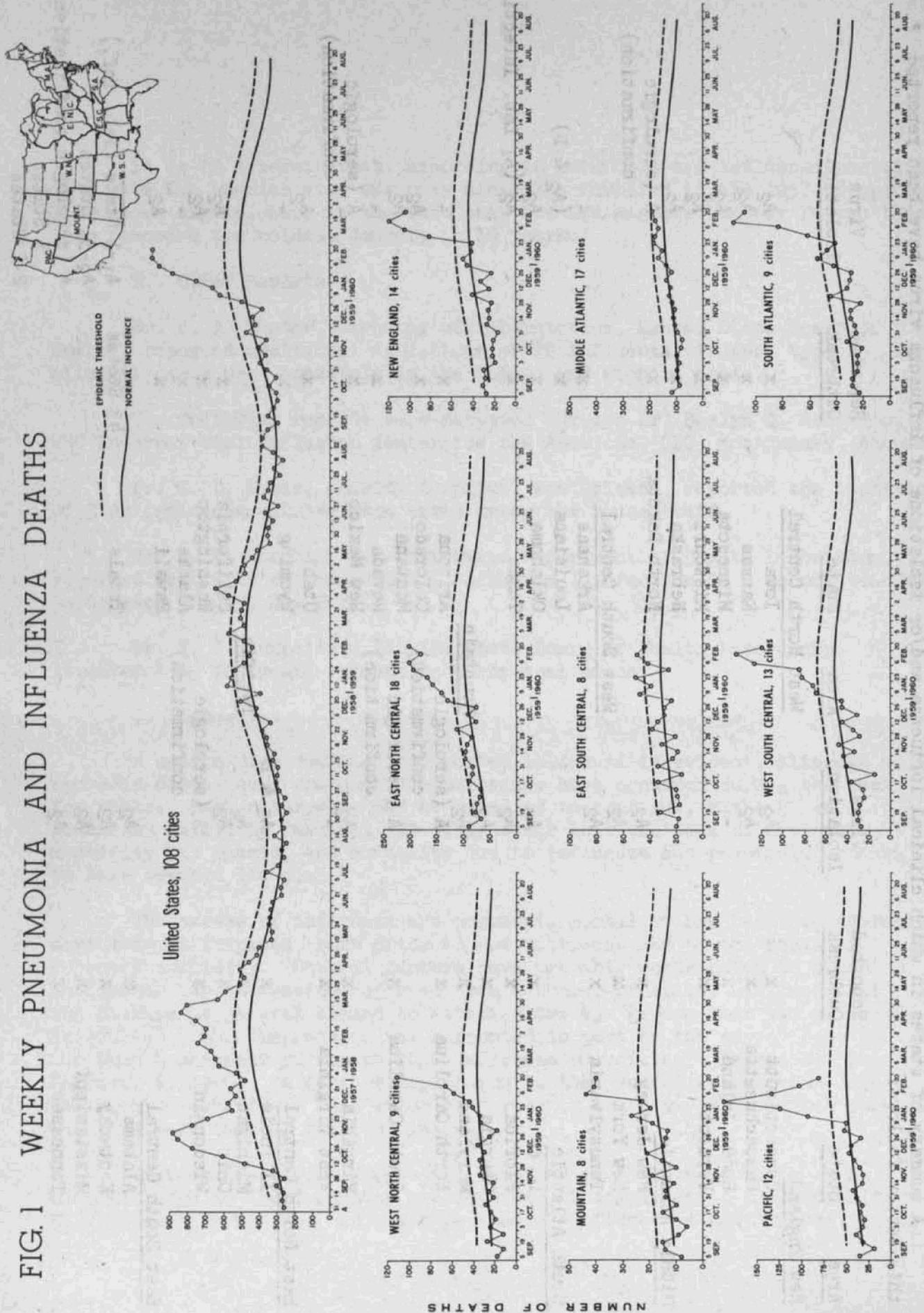
The excess of influenza and pneumonia mortality has been considerably more than anticipated, both prior to any outbreaks and on the basis of reported morbidity. Several factors have probably contributed to these phenomena. An impression reported from a number of states has been that the disease in general seemed to attack older age groups than had occurred in 1957-58. This impression was supported in part by the survey done by the Ohio Department of Health (CDC Influenza Surveillance Report No. 54, February 5, 1960). A further impression is that school absenteeism data has been of relatively less value this year as an index of influenza morbidity than has been true in previous years.

Another impression frequently reported is that there has been an increase both in the frequency and severity of complicating pneumonias. This impression has been at least partially confirmed in Los Angeles.

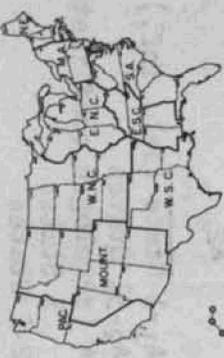
A summary of states in which clinical influenza and/or isolations of influenza virus have been reported this season follows:

<u>Area</u>	<u>State</u>	<u>Reported Outbreak</u>	<u>Virus Isolation</u>	<u>Area</u>	<u>State</u>	<u>Reported Outbreak</u>	<u>Virus Isolation</u>		
<u>New England</u>	Connecticut	x	A2	<u>West North Central</u>	Iowa	x	A2		
	Massachusetts	x	A2		Kansas	x	A2		
	Rhode Island	x	-		Minnesota	x	A2		
	Vermont	x	-		Missouri	x	A2		
<u>Middle Atlantic</u>	New Jersey	x	A2	Nebraska	x	A2			
	New York	x	A2	North Dakota	x	A (serologic confirmation)			
	Pennsylvania	x	A2	<u>West South Central</u>	Arkansas	x	-		
		South Atlantic	x		(A2 & B)	Louisiana	x	A2	
D. C.	x	A2	Oklahoma		x	A2 (A1 Lab. Infection)			
Florida	x	A2	Texas		x	A2			
<u>South Atlantic</u>	Georgia	x	A2	<u>Mountain</u>	Arizona	x	-		
	Maryland	x	A2		Colorado	x	A2		
	North Carolina	x	A2		Montana	x	A2		
	South Carolina	x	A (serologic confirmation)		Nevada	x	-		
	Virginia	x	A2		New Mexico	x	A (serologic confirmation)		
	West Virginia	x	-		Utah	x	A2		
	<u>East North Central</u>	Illinois	x		A2 & B	Wyoming	x	-	
		Michigan	x		A2	<u>Pacific</u>	California	x	A2
		Ohio	x		A2		Washington	x	A2
		Wisconsin	x		A (serologic confirmation)		Alaska	x	-
			Hawaii	x	A2				
<u>East South Central</u>	Alabama	x	A2	Totals	43 States	A1-1 State (lab. inf.)			
	Kentucky	x	A2			A2-31 States			
	Mississippi	x	A2			A (serologic confirmation)			
	Tennessee	x	A2			5 States			
						B-2 States			

FIG. 1 WEEKLY PNEUMONIA AND INFLUENZA DEATHS



DEATHS



EPIDEMIC THRESHOLD  
NORMAL INCIDENCE

United States, 108 cities

NEW ENGLAND, 14 cities

MIDDLE ATLANTIC, 17 cities

SOUTH ATLANTIC, 9 cities

EAST NORTH CENTRAL, 18 cities

EAST SOUTH CENTRAL, 8 cities

WEST SOUTH CENTRAL, 13 cities

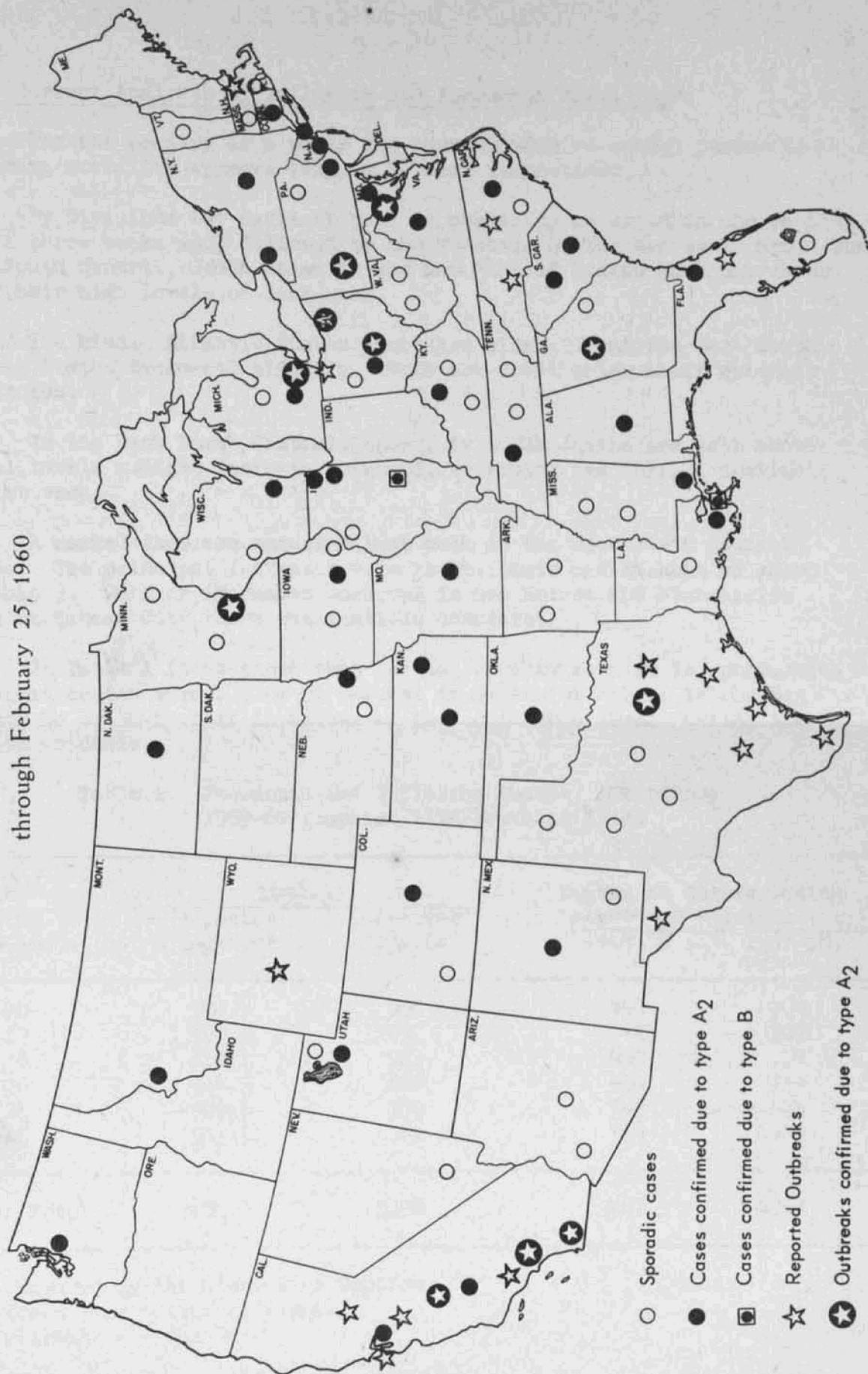
WEST NORTH CENTRAL, 9 cities

MOUNTAIN, 8 cities

PACIFIC, 12 cities

# REPORTED INFLUENZA — 1959-60

through February 25, 1960



### III. Current Analysis of Influenza and Pneumonia Mortality\*

For the country as a whole the current wave of excess pneumonia-influenza mortality appears (Figure 1) near its maximum.

By Divisions the earliest peak in mortality occurred in the Pacific States three weeks ago, followed by the Mountain States two weeks ago. The West South Central, South Atlantic and New England States have decreased from their high levels of last week.

The Middle Atlantic States increased slightly and the East South Central States decreased slightly. Both are still below their epidemic thresholds.

In the East North Central States, in which deaths are well above normal levels a slight increase occurred, reversing the initial decline of last week.

A marked increase occurred last week in the West North Central States. The principal increases were in St. Louis and Wichita as shown in Table 3. Smaller increases occurred in Des Moines and Minneapolis while in Kansas City there was a slight decrease.

In Table 1 it is shown that for the country as a whole, pneumonia-influenza deaths were 475 or 91 percent in excess of normal levels and 232 deaths or 30 percent in excess of the comparable levels during the 1957-58 epidemic.

Table 1. Pneumonia and Influenza Deaths, 108 Cities  
1959-60 Compared with Previous Years

Week Ending 1959-60	1959-60		Deaths in Corresponding Week*** of Previous Years	
	"Expected" Deaths**	Observed Deaths	1958-59	1957-58
Feb. 20	520.9	996	493	764
13	520.2	997	447	705
6	518.1	961	463	712
Jan. 30	514.5	886	494	750
23	509.6	756	546	675
16	503.5	662	564	651
6-Week Total	3086.8	5258	3007	4257

\* Prepared by the Statistics Section, CDC

\*\* Trend line values of Figure 1

\*\*\* Nearest calendar date

Table 2. Current Influenza and Pneumonia Deaths in 108 United States Cities by Geographic Divisions

Division	Deaths (including estimates*) during Weeks Ending:						No. Cities Reporting this week
	1/16 108 Cities	1/23 108 Cities	1/30 108 Cities	2/6 107 Cities	2/13 106 Cities	2/20 106 Cities	
U.S.	662	756	886	961	997	996	106
NE	41	41	78	104	119	102	14
MA	153	188	184	169	181	191	17
ENC	154	166	193	200	177	201	17
WNC	35	41	44	59	67	111	8
SA	47	41	62	83	117	108	9
ESC	39	51	28	43	49	44	8
WSC	73	83	88	126	144	119	13
MT	27	22	24	44	41	40	8
PAC	93	123	185	133	102	80	12

\* The number of deaths given includes estimates for cities not reporting in a given week. The table is corrected for preceding weeks after receipt of late reports.

Table 3. Six Week Totals for Selected Cities in Various Areas

	1/16	1/23	1/30	2/6	2/13	2/20
<b>New England</b>						
Boston	9	11	25	43	35	48
Hartford	0	0	5	3	10	3
Springfield	8	7	7	14	20	14
<b>Middle Atlantic</b>						
New York	74	86	78	84	86	98
<b>East North Central</b>						
Chicago	69	64	68	66	48	78
Detroit	24	49	40	30	27	25
<b>West North Central</b>						
Des Moines	1	5	2	3	7	14
Kansas City, Mo.	8	3	10	15	20	18
Minneapolis	3	2	2	5	10	13
St. Louis	8	16	10	14	10	30
Wichita	10	6	10	6	5	16
<b>South Atlantic</b>						
Atlanta	8	3	9	17	21	18
Baltimore	15	13	21	20	29	31
Richmond	2	3	2	7	12	8
Washington	12	9	15	24	32	20
<b>West South Central</b>						
Dallas	7	7	10	18	16	9
Ft. Worth	1	3	7	9	16	7
Houston	10	11	15	23	21	18
New Orleans	8	4	8	13	20	29
San Antonio	20	19	9	17	13	5
<b>Mountain</b>						
Denver	10	9	10	22	22	18
<b>Pacific</b>						
Los Angeles	49	64	107	83	46	35

#### IV. International Notes

The Weekly Epidemiological Record of the World Health Organization, No. 5, February 5, 1960, summarized the then current international status of influenza in the following epidemiological note:

"Acute respiratory infections have increased during the last few weeks in the countries of the northern hemisphere, as each winter.

"A certain number of sporadic cases and foci have appeared most often in communities (schools, hospitals, prisons, military establishments, etc.) apparently due to the influenza A<sub>2</sub> virus (Italy, Switzerland, Federal Republic of Germany, Denmark, Netherlands, France, United States of America) and to virus B (Italy, Finland). None of these influenza-like outbreaks have proved, so far, to be nearly as widespread as during the pandemic of 1957-58. The disease is generally benign and of short duration."

Also noted was the isolation of A<sub>2</sub> influenza virus from a fatal case of virus pneumonia in The Hague, Netherlands.

The Ministry of Health, London, reported in the Weekly Influenza Statement for England and Wales, No. 4, February 13, 1960, that "there has been no laboratory isolation of influenza virus A or B in this country nor other evidence of the prevalence of influenza."

Dr. L. A. R. do Valle, of the Instituto Adolfo Lutz, Sao Paulo, Brazil, reported through Dr. R. Q. Robinson, WHO International Influenza Center for the Americas, the isolation of an A<sub>2</sub> influenza virus from a typical case in the city of Sao Paulo. No outbreak has been reported there, and absenteeism is said to be at normal levels.

CF titer rises compatible with influenza A infection were obtained in 2 out of 5 paired sera recently sent to the Communicable Disease Center from the Department of Health, Santurce, Puerto Rico.

The Epidemiology Division, Department of National Health and Welfare, Ottawa, Canada, reported that widespread outbreaks of influenza-like illnesses had occurred in several areas of Newfoundland.

Drs. J. C. Wilt and W. L. Parker, University of Manitoba, Winnipeg, Canada, in a report dated February 5, 1960, noted that

"There has been considerable upper respiratory disease in the community associated with fever, sore throat, "head cold", and occasionally pneumonitis simulating mild influenza. Most disease has been seen in children under five years of age but persons up to sixty years have been affected. From such patients we have isolated ten Adenoviruses type 3 and one Adenovirus type 1 during December 1959 to January 1960. In addition six patients have shown an increase in antibodies to the Adenovirus by the complement fixation test.

"Since October, 1959 five deaths have occurred in children under nineteen months of age (four under twelve months) in which an interstitial pneumonitis was demonstrated at autopsy. An Adenovirus type 3 was isolated from the lungs in each of the five cases.

"There has been no laboratory evidence of influenza in the community."

Dr. Wilt therefore is of the opinion "that the main respiratory disease of the past few months has been due to Adenovirus, although no infrequently the clinicians are calling it influenza."

(This report was prepared by Theodore C. Eickhoff, M.D., Epidemic Intelligence Service Officer, Surveillance Section, Communicable Disease Center.)