

CDC INFLUENZA REPORT
NO. 13 AUGUST 22, 1957

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

Public Health Service

Bureau of State Services

Communicable Disease Center
Robert J. Anderson, Chief

Keith E. Jensen, Ph. D.
CDC Virus and Rickettsia Section*
P. O. Box 61
Montgomery 1, Alabama
Telephone No. AMherst 3-4468

*Serving as WHO International
Influenza Center for the Americas

Robert H. Drachman, M. D.
Frederick L. Dunn, M. D.
Influenza Surveillance Unit
Communicable Disease Center
50 Seventh Street, N. E.
Atlanta 23, Georgia
Telephone No. TRinity 6-3311
Extension 5455

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.

Table of Contents

- I. Summary of Information
- II. Epidemic and Case Reports
- III. Progress Reports
- IV. Influenza Virus Center Information
- V. Reports of Influenza-Associated Deaths
- VI. Summary Tables - Cases and Outbreaks

"....The one great feature of influenza which has not been manifested in the period of effective research is the major pandemic. Until the natural history of such an episode has been elucidated it will be impossible either to understand the whole influenza situation or to devise measures to minimize the effect of a subsequent pandemic."...F. M. Burnet, Virus as Organism. Harvard University Press, Cambridge, 1950.

I. Summary of Information

There appears to be an increase of influenza-like illness in further civilian groups. A school-centered outbreak has occurred in Mississippi and a housing development has been affected in California. A Florida community also appears to have experienced an increased incidence of influenza-like illness in the past weeks.

The cover letter which accompanied recently distributed animal-line A/Japan305/57 virus is included in this report. An outline of the periodate treatment of serum for removal of nonspecific inhibitor is repeated also.

Asian strain influenza virus has been isolated from lung tissue obtained at autopsy from another influenza-associated death.

II. Epidemic and Case Reports

13-A. NEW YORK, Lake Placid

(Reported by Dr. Jerome Klein, Epidemic Intelligence Service Officer, New York State Health Department.)

During a ten day period between August 6-16 a children's camp near Lake Placid, New York experienced an outbreak of febrile respiratory illness. Twenty-two of 79 children, both male and female, between 10 and 13 years of age were affected. Sore throat, cough, fever (101°-102°), and headache were the predominant symptoms. Myalgia was conspicuously absent.

Throat washings and blood specimens have been obtained.

13-B. MISSISSIPPI, Carroll County

(Reported by Dr. A. C. Gray, Mississippi State Board of Health.)

Influenza-like illness is reported to have appeared in Carroll county August 15 or 16, and by August 20 there were more than 800 absentees among the 2100 students of the 3 negro schools open in the county. These schools were open to permit time off later in the year for cotton picking.

At the same time there have been plantation outbreaks in Washington and Sharkey counties. Here the family spread of influenza-like illness has been marked. Epidemiologic investigations are currently in progress in Washington county, and throat washings and blood specimens will be collected.

13-C. KANSAS, Topeka

(Reported by the National Office of Vital Statistics, Morbidity and Mortality Reports.)

Two early July cases of influenza at Forbes Air Force Base, Topeka previously diagnosed as bronchitis, have now been confirmed in the laboratory as Asian strain influenza.

13-D. PENNSYLVANIA

(Reported by Dr. W. D. Schrack, Pennsylvania Department of Health.)

Three confirmed sporadic cases of Asian strain influenza have now been reported from this state. A soldier from Lancaster became ill 2 days after arrival in San Francisco from Okinawa. He was well when he reached Lancaster.

Another soldier, from Old Forge, became ill at home nine days after leaving Japan, by plane, and seven days after leaving California.

The third case, a 16 year old girl, from Philadelphia became ill after the Grinnell, Iowa, Conference. A number of other Pennsylvania delegates at Grinnell became ill after the conference. but have not been confirmed as Asian strain influenza.

13-E. FLORIDA, St. Petersburg

(Reported by Dr. J. O. Bond, Florida State Board of Health.)

An outbreak of influenza-like illness which started in this city about August 13 has attacked at least 200 people in the community to date. Asian strain influenza has been serologically confirmed from some of these cases.

13-F. TEXAS, Eagle Pass

(Reported by Dr. J. E. Peavy, Texas State Department of Health and U. S. Public Health Service, Division of Foreign Quarantine.)

At the United States - Mexico border station at Eagle Pass quarantine officers report seeing a number of influenza-like illnesses in persons entering the United States from Mexico during the past two weeks.

13-G. VIRGINIA, Roanoke

(Reported by Dr. Mason Romaine, Virginia Department of Health.)

Seven sporadic cases of influenza-like illness have now been reported from Roanoke. Some of these cases were in contact with Boy Scouts returned from Valley Forge. Laboratory studies are in progress.

13-H. MARYLAND

(Reported by Dr. Charlotte Silverman, Maryland State Department of Health.)

In early July an outbreak of 60-70 cases of influenza occurred in a Boy Scout camp - Camp Roosevelt - in Maryland. The camp was closed July 11. Some of the boys also attended the Valley Forge Jamboree. Eight isolations of Asian strain influenza virus have now been made from these cases at the Armed Forces Institute of Pathology.

13-I. WYOMING, Warren Air Force Base

(Reported by Col. G. K. Fair, S.G.O. Department of the Air Force and Dr. G. Meiklejohn, University of Colorado, College of Medicine.)

During a 2 week period in late June and early July more than 300 cases of influenza occurred at Warren Air Force Base. No viral agent has been recovered from acute throat washings. Paired sera have shown antibody titer increases to Ann Arbor 56 and Denver 57 but not to an egg line of A/Jap305/57. Type A-prime influenza virus appear to have been the etiologic agent in this outbreak.

13-J. CALIFORNIA, Santa Barbara

(Reported by Dr. R. M. Moldenhauer, California Department of Public Health.)

Between July 4-26 an outbreak of febrile respiratory illness occurred in a Santa Barbara housing development. Sixteen cases were noted among the group of 136 persons. One paired sera has been submitted.

13-K. FLORIDA, Jacksonville

(Reported by Drs. J. O. Bond and N. J. Schneider, Florida State Board of Health.)

Serologic evidence of infection with Asian strain influenza virus has been obtained from 3 sporadic cases in Jacksonville. The patients were Naval airmen who were ill in mid-June. No information as to previous contacts with influenza was available.

II. Progress Reports

13-L. NEW YORK, New York City

(Reported by Dr. Morris Greenberg, New York City Department of Health.)

The exchange students who arrived in New York City in early August with many cases of influenza have now scattered to many

parts of the United States. At least 7 students have become ill since reaching their destinations: one each in Effingham, Illinois; Lake Winnepesaukee, New Hampshire; Merrick, New York; Claremont, California; Cleveland, Ohio; Minneapolis, Minnesota and San Francisco, California.

IV. Influenza Virus Center Information

Covering letter which accompanied recently distributed influenza diagnostic reagent.

SUBJECT: Distribution and recommended use of a more sensitive Asian virus antigen for H. I. tests.

The lyophilized seed sent today under separate cover is the influenza virus isolate A/Asian/Japan/305/57 after successive transfers as follows: 4 in eggs, 1 in ferrets, 3 in mice, and 8 in eggs. The material should be reconstituted with 0.5 ml of sterile distilled water and diluted 1:1000 in nutrient broth before inoculating 11-day embryonate eggs by the allantoic route. Fluids harvested after 48 hours, incubated at 37° C, should contain approximately 200 hemagglutinating units per ml. The hemagglutinating antigen included is 15 ml of such fluid to which merthiolate has been added and at the time of packaging this lot had a pattern test titer of 1:100 with 0.5% chicken erythrocytes.

This virus is much more sensitive to antibody in hemagglutination-inhibition tests than is the egg line of Japan/305. In addition, it is more sensitive to nonspecific inhibitors and, therefore, all sera must be treated. The inhibitors in sera which combine readily with this virus can best be destroyed, without decreasing the antibody titer, by treating with periodate. Trypsin is not effective in this case. Current operating procedure is to mix one volume of serum with two volumes of a M/90 solution of potassium periodate. The periodate solution should be freshly made and should not be heated. The reaction is carried out at 4° C for a period of 12 to 18 hours. Add 1% glycerol saline in a volume equal to that of the periodate solution. Chicken sera can be treated in this manner and stored for some time prior to use as typing reagents.

It is good practice to test routinely control lots of sera with and without antibody titers so that results can be compared in day-to-day testing, and to make certain that inhibitors have been destroyed.

V. Reports of Influenza-Associated Deaths

New Report: (Reported by Dr. R. M. Moldenhauer, California Department of Public Health.)

Cal. 9 - In late July a children's camp in southern California experienced a sharp outbreak of influenza-like illness. There were approximately 70 children in the camp and 26 staff at the time. On July 24 a young man became ill at the camp during the outbreak. On July 25 he was isolated at the camp because of headache, high fever, aching, and rales. The following day pleuritic

pains appeared. On July 27 he was hospitalized. On July 28 he expired after a rapid downhill course. Shortly before death an X-ray revealed bilateral bronchopneumonia. At this time his temperature was 106°.

Convalescent sera will be obtained from some of the camp cases, but no specimens were apparently obtained from the fatal case.

(This report not noted in the current summary charts.)

Progress Reports: (Reported by Dr. Morris Greenberg, New York City Department of Health.)

N. Y. 1 - Dr. Maurice Hilleman at the Walter Reed Army Institute of Research has isolated Asian strain influenza virus from lung and heart tissue of this exchange student who died on August 13.

It was stated that at least 5000 infective particles per gram of tissue were found. Coagulase positive M. pyogenes var. aureus has been cultured from the lung tissue, and the strain is now being typed.

Cal. 8 - (Reported by Dr. R. M. Moldenhauer, California Department of Public Health.)

The death previously reported in preliminary fashion (see CDC Report No. 12, Section V.) occurred in a 21 year old male at Fort Ord, California. He became ill on July 22, and was admitted to the hospital with an admission diagnosis of influenza. Initial signs and symptoms included lumbar aching, fever of 102°, chills, malaise, sore throat, and pharyngeal injection. The lungs were clear. On July 23 the patient complained of pleuritic pain, and was found to have a pleural friction rub with rhonchi and a few bilateral rales. An X-ray revealed massive infiltration of the left upper lobe and lingula, and patchy densities on the right. On July 24 the patient became acutely ill. The course was rapidly downhill and the patient expired that day despite all therapeutic efforts.

Autopsy revealed massive staphylococcal pneumonia. The lungs were almost completely filled with exudate and purulent material. Asian strain influenza has been isolated from bronchial scrapings.

La. 1 - (Reported by Dr. J. D. Martin, Louisiana State Department of Health.)

Additional information is now available about the single reported death during the civilian epidemic of Asian strain influenza in Tangipahoa Parish.

The mortality occurred in a two year old negro male (not in a 3-4 year old female as previously reported). On July 23 the father of this child developed an influenza-like illness. Fever, chills, 'aching bones', and symptoms of a 'bad cold' were prominent. He was ill for several days but did not see a doctor. On July 30 the mother became ill. She woke up that morning feeling very ill. Symptoms included headache, fever, chills, sore throat, vomiting, diarrhea, and myalgia. On the same day her two year old son developed a high fever and respiratory symptoms. Mother and son were taken to the hospital on July 31, but the child was dead on arrival. The mother was not hospitalized but a lumbar puncture (which was negative) was performed because of the severity of her symptoms.

On July 31 the other children (apparently three) in the family also became sick. One of these, a four year old male, was hospitalized for two days because of the severity of his illness. The other two children, girls aged 8 and 9, were treated on an out-patient basis.

The home in which this family lived was typical of many homes of the people most heavily affected in the Tangipahoa epidemic. They lived, crowded together, in a two-room shack, without sanitary facilities of any kind. The six members of the family occupied three beds (two double and one single).

Convalescent blood specimens have now been collected from the mother and father in this family. Acute specimens were not obtained.

VI. Summary Tables - Cases and Outbreaks

TABLE I

Confirmed Outbreaks and Cases of Influenza Due to Asian Strains, United States
June 1--August 22, 1957

Dates of Outbreaks	Location	Type of Population	Population at Risk	No. Ill	Deaths	Lab. Diagnosis by		CDC Influenza Report Number
						Virus Isolation	Serology	
May 20-- June 18	CALIFORNIA San Francisco	Ships from Orient	c.9500	800 f	1		Yes	1-A
Mid-June	San Diego	Naval Training Station recruits	c.4500	3159	0	Yes (6-21-57)		1-C
		Station personnel	c.6600	753	0			
June 5-11	San Diego	Naval vessel crew	130	78	0		Yes	
Late June	Monterey	Fort Ord Army Base Army personnel	?	4000 f	1	Yes	Yes	1-H
June 17-25	Davis	High school girls and adult leaders	391 24	343 4	0 1	Yes	Yes	1-G 3-J
June 20-25	San Mateo Co.	Boys camp, 15-17 year olds	53	36	0	Yes	Yes	1-F 6-Note
July 8-12	Los Angeles	City Jail	?	200 f	0		Yes	3-F
June 19-23	VIRGINIA Norfolk	Pakistani ship from Newport, R. I.	?	5 f	0	Yes	Yes	6-A
Early June	RHODE ISLAND Newport	Crews of several naval vessels	?	Attack rates 18-45%	0	Yes		1-B 2-G
June	HAWAII	Military personnel Military dependents Civilians	?	527 f 103 f 300 f	0 0 0		Yes	1-E
Mid-June	OHIO Cleveland	Military man from Far East	Single case		0	Yes		1-D
June 12-16	Cleveland	Hospital orderly Young females	Single case 2 cases		0 0	Yes	Yes	2-A 4-F, 9-C
June 26-- July 2	IOWA Grinnell	College students and adult leaders	1688	200 f	0	Yes	Yes	1-J
July 1-5	UTAH Salt Lake City	High school students Exposed residents	37 64	30 14	0 0	Yes	Yes	1-K
Early July	KANSAS Topeka	Air Force personnel	2 sporadic cases		0		Yes	13-C

TABLE I (Cont'd)

Dates of Outbreaks	Location	Type of Population	Population at Risk	No. Ill	Deaths	Lab. Diagnosis by		CDC Influenza Report Number
						Virus Isolation	Serology	
Early July	MARYLAND	Boy Scout camp	?	60-70	0			13-H
July 5	KENTUCKY	Traveler from the Philippines	Single case		0	Yes		3-A
July 11-13	Louisville Morris Fork	Isolated encampment	24	12	0	Yes		4-C 5-E
July 11-18	PENNSYLVANIA	International Boy Scout Jamboree	53,000	c.1000	0	Yes		3-D 5-F
Aug. 12	Lancaster Old Forge	Military personnel	2 sporadic cases		0		Yes	13-D
Early July	TEXAS	Naval Air Station	?	33	0	Yes		5-C
	Corpus Christi	Sporadic cases	?	60 specimens	0	Yes		6-B
	Various cities				0			10-C
July	Bexar County	2 Air Force Bases	sporadic cases		0	Yes		11-C
July 17	WASHINGTON	Military transport from Orient	2000	c.320	0		Yes	5-B 6-C
Late June	NEBRASKA	University faculty member and wife	2 cases		0		Yes	9-D
Mid-June	FLORIDA	Naval Air Station	3 sporadic cases		0		Yes	13-K
July 28, Aug. 1	Jacksonville Miami	Air line crewmen (from Chile)	12	5	0	Yes		8-B 10-G
Aug. 13 July 29	St. Petersburg	General population	c.16,000	200+	0		Yes	13-E
	MICHIGAN	Adult migrant workers	66	12	0	Yes		10-B
Early Aug.	Calhoun County Bay County Coldwater	Contact with case from Mexico	?	?	0	Yes		12-M
		Girl's camp	60	30	0	Yes		12-C
Mid-July	LOUISIANA	Entire population	c.60,000	4000+	1	Yes		4-B 10-A
July 31-- Aug. 8	Grant Parish Tangipahoa Parish	Charity Hospital OPD patients	Sporadic cases		0	Yes		11-H
Early Aug.	New Orleans	Army camp	Single case		0	Yes		11-A

TABLE I (Cont'd)

Dates of Outbreaks	Location	Type of Population	Population at Risk	No. Ill	Deaths	Lab. Diagnosis by Virus Isolation	Serology	CDC Influenza Report Number
July 20-- Aug. 4 Aug. 7	NEW YORK Cayuga County New York City	Migrant workers, families, 2 camps Exchange students, 16-17 yrs. old Arrived by plane Arrived by ship	110 908 44 647	c.75 70 9 c.250	0 0 0 1	Yes Yes		10-F 12-F 11-B 12-G
Late July July 14	OREGON CALIFORNIA Fresno	Military personnel County Jail	2 sporadic cases ?	0 177	0 0	 Yes	Yes	12-A 9-A 12-J

TABLE II

Unconfirmed Influenza-like Illness, Outbreaks - United States
June 1--August 22, 1957

Dates of Outbreaks	Location	Type of Population	Population at Risk	No. Ill	Deaths	Specimens Obtained		CDC Influenza Report Number
						Throat Washings	Blood	
May 29-- June 7 June 16	CALIFORNIA Solano Co.**	Mare Island Naval Yard - Marines Naval vessel crew	75 ?	38 187	1	Yes	Yes	1-I
June 22-- Early July	Oceanside**	Camp Pendleton Marine recruits	40,000	2511+	0	Yes	Yes	2-D
Mid-July	Fresno, Sonoma, Los Angeles Cos.	Three summer chil- dren's camps	800	c.100	0	Yes	Yes	3-E
July 4-26	Santa Barbara	Housing development	136	16	0	Yes	Yes	13-J
July 8	Santa Clara**	Teenagers	60	3+	0	Yes	Yes	4-A
Mid-July	Monterey & Sonoma Cos.	Migrant farm workers	?	50+	0	Yes	Yes	6-F 7-E
July	Marin Co.	Air Force Base personnel	?	300-500	0	Yes	Yes	7-B
Late July-- Early Aug.	Santa Clara & Calaveras Counties	Children's camps	500	130	0	Yes	Yes	9-F
Late July-- Early Aug.	Butte Co.	Air Force Re- servists	500	120	0	Yes	Yes	9-G
Late July-- Early Aug.	Sonoma Co.	Mental Hospital	?	c.100	0	Yes	Yes	9-K

**Identified as Type A influenza by C-F test.

TABLE II (Continued)

Dates of Outbreaks	Location	Type of Population	Population at Risk	No. Ill	Deaths	Specimens Obtained		CDC Influenza Report Number
						Throat Washings	Blood	
Aug. 1-6	LOUISIANA Plaquemine Parish	Fishery workers, adult males	c.950	c.75	0	Yes	Yes	10-E
June 26- Early July	ILLINOIS Champaign Co.	Air Force Base	?	610+	0	Yes	Yes	4-D
July 4-19	WASHINGTON Fort Lewis	Military personnel	?	1200+	0	Yes	Yes	5-A
July 11	IDAHO Ketchum	Children's camp	?	39	0	Yes	Yes	7-A
July 25-31	MISSOURI Osceola	Boy Scout Camp	1200	100+	0	Yes	Yes	8-A
Aug. 4, 5	INDIANA Wabash	Migrant workers, adults	62	15	0	Yes	Yes	10-D
July 29- Aug. 6	OREGON Delake	Girl's camp aged 8-13	161	50+	0	Yes	Yes	12-B
Aug. 13, 14	LOUISIANA Livingston Parish	School group	450	143+	0	Yes	Yes	12-D
Aug. 14	Baton Rouge	Orphanage	?	61	0	Yes	Yes	12-L
Aug. 19	NEW YORK Lake Placid	Children's camp aged 10-13	79	22	0	Yes	Yes	13-A
Aug. 21	MISSISSIPPI Carroll Co.	School children	2100	c.800	0	?	?	13-B
Aug. 12	TEXAS Eagle Pass	Persons crossing border from Mexico	?	5+	0	?	?	13-F
Aug. 21	VIRGINIA Roanoke	Contacts of Boy Scouts from the Jamboree	7 sporadic cases		0	Yes	Yes	13-G

TABLE III

Outbreaks of Febrile Respiratory Disease - Etiology Other Than Influenza or No Specimens Obtainable
 June 1--August 22, 1957

Date of Outbreaks	Location	Type of Population	Population at Risk	No. with Influenza-like Illnesses	Deaths	Specimens Obtained		CDC Influenza Report Number
						Throat Washings	Blood	
Early July	MISSOURI Columbia	Townspople	?	200+	0	Yes Neg. for Influenza	Yes	1-L
Late June through Mid-July	CALIFORNIA 14 Counties throughout the State	25 or more Children's Summer Camps	2500+	400+	0	0	0	1-M 4-E
July 5 - July 9	LOUISIANA New Orleans	Sporadic Case			0	Yes	Yes, In- fluenza A-Prime	12-E
Late June - Early July	WYOMING Warren Air Force Base	Air Force Personnel	?	300+	0	Yes	Yes, In- fluenza A-Prime	13-I

TABLE IV

Reported Influenza-like Illness Among Returning Delegates from Grinnell (Iowa) Conference
Through August 22, 1957

Location	No. Ill After Conference (2007 Ill of 1688 at Conference)	No. of Secondary Cases	Lab. Confirmation Asian Strain Influenza	CDC Influenza Report Number
Grinnell, IOWA	(2007 Ill of 1688 at Conference)		Yes	1-J
KENTUCKY	24	--	Yes	2-B
INDIANA	27	--	No	2-C
ILLINOIS	67	--	Yes	11-D
NEW MEXICO	15	2	No	3-B
CONNECTICUT	3	1	Yes	3-C, 8-D
NEW YORK	4	2	Yes	5-D, 8-D
MINNESOTA	18	--	No	--
COLORADO	1	--	No	--
NORTH CAROLINA	3	4	No	--
MARYLAND	1	--	No	--
WISCONSIN	27	--	No	--
IDAHO	57	--	No	--
PENNSYLVANIA	347	3	Yes	8-D, 13-D
OREGON	2	--	No	--
CALIFORNIA	c.53	4	No	--

TABLE V

Reported Outbreaks of Influenza-like Illness Among Boy Scouts Returning from the Jamboree
Through August 22, 1957
(Omitted from this report) (No additions since Report No. 12)

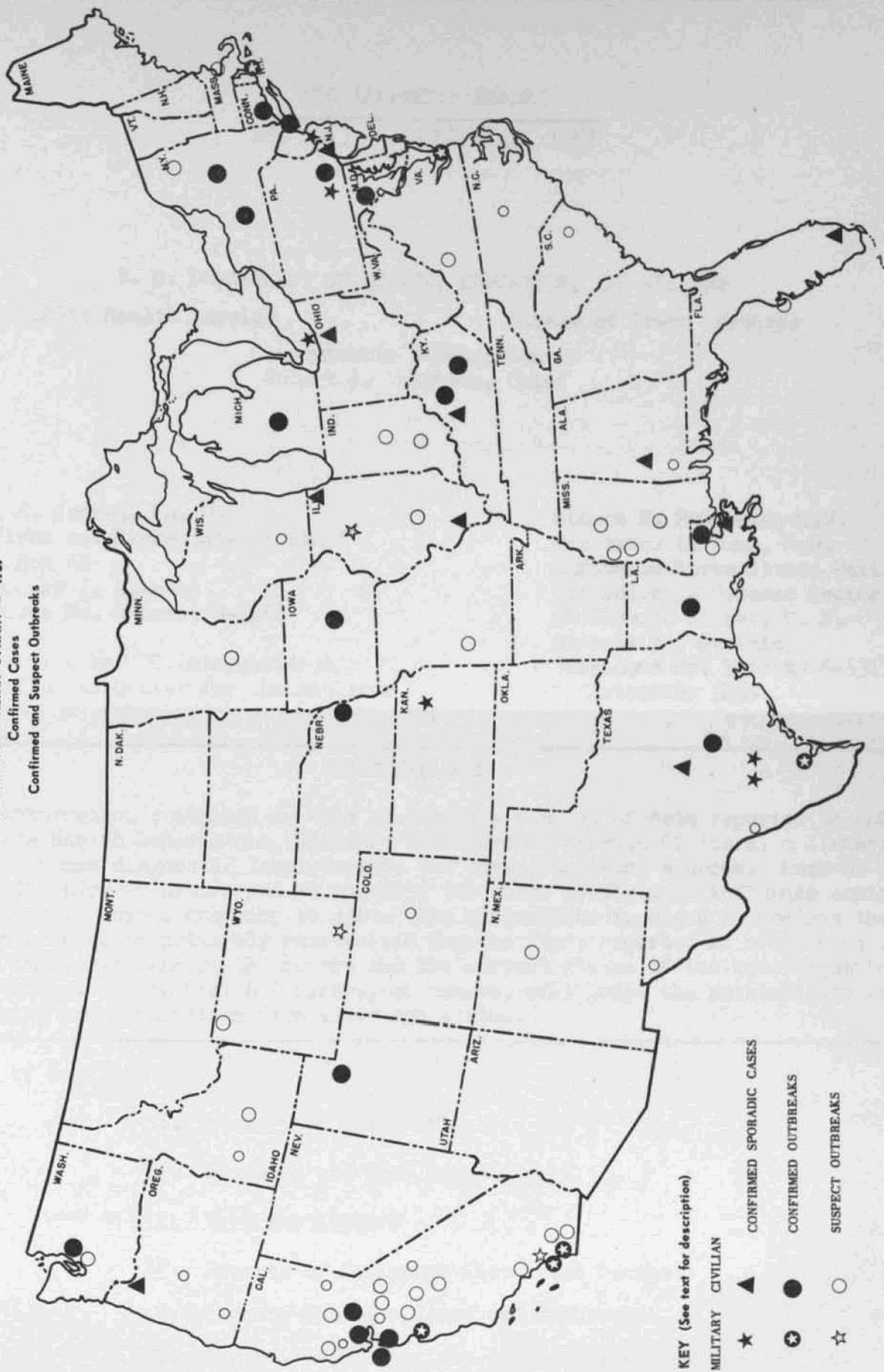
TABLE VI

Reported Instances of Influenza Associated Deaths, United States
June 1, 1957 through August 22, 1957

State and No.	Locale of Death	Age	Sex	Date of Onset	Date of Death	Diagnosis of Influenza	Contributory Factors and/or Reported Cause of Death	CDC Influenza Report No.
Cal. 1	San Diego	58	M	July 7	July 16	Clinical (Of Test 1:64)	Bronchopneumonia**	9
Cal. 2	San Diego	44	M	July 17	July 21	Clinical	Coronary occlusion	9
Cal. 5	Davis	57	F	June 29	July 4	Clinical	Acute Toxic Myocarditis**	1-G 3-J 9
Cal. 6	Mare Island	20	M	June 10	June 13	Clinical	Bilateral Lobar Pneumonia with Consolidation (etiol. M. pyogenes var. aureus)**	9
Cal. 7	San Diego	34	F	?	July 15	Clinical	"Fulminating Influenzal Pneumonia" (Hemolytic Streptococci also cultured)**	9
La. 1	Tangipahoa Parish	2	M	July 30	July 31	Clinical (Family outbreak)	DOA- Febrile Respiratory Illness	11
Cal. 8	Monterey	21	M	July 21	July 24	Virus Isolation	Bilateral lobar Pneumonia with Consolidation (etiol. M. pyogenes var. aureus)**	12, 13
N.Y. 1	New York City	18	M	Aug. 13	Aug. 14	Virus Isolation	Hemorrhagic Pneumonitis**	12, 13

**Post-mortem examination performed.

INFLUENZA - ASIAN STRAIN - 1957
 Confirmed Cases
 Confirmed and Suspect Outbreaks



KEY (See text for description)

- MILITARY ★
- CIVILIAN ○
- ▲ CONFIRMED SPORADIC CASES
- CONFIRMED OUTBREAKS
- SUSPECT OUTBREAKS