

CDC INFLUENZA REPORT
NO. 1 JULY 9, 1957

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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 primarily intended for those involved in influenza control activities. It is understood that the contents of these reports will not be released to the press, except by the Office of the Surgeon General, Public Health Service, U. S. Department of Health, Education, and Welfare. State Health Officers, of course, will judge the advisability of releasing any information from their own state.

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I. Introduction

The CDC Influenza Report in no way replaces established sources of epidemiologic information relating to influenza. It is mainly concerned with the rapid dissemination of often preliminary data and is not meant for general release.

Reports will include those influenza-like illnesses which are reported to CDC. Admittedly, these may not represent all epidemics but the information should provide a measure of the progress of the disease, at the same time providing basic epidemiological, clinical, and laboratory data relating to this new strain of influenza virus. All suspect outbreaks of influenza involving large groups will be enumerated. Sporadic cases will not be listed until laboratory confirmation of influenza infection is obtained. Cumulative tables will accompany each report summarizing:

1. Outbreaks and cases in the United States with laboratory confirmations of infection with the Far East strain of influenza virus.
2. Outbreaks of influenza-like illnesses with specimens under laboratory study.
3. Outbreaks found not to be influenza or epidemics of influenza-like illnesses with no specimens available.

Information concerning special laboratory techniques and diagnostic reagents will also be included as pertinent.

Corrections and comments on these reports are quite necessary and are requested.

Additional influenza reports will be compiled and distributed on a regular basis at frequent intervals.

II. Summary of information

As indicated in the body of this report, confirmed and suspect outbreaks and confirmed cases of influenza in the United States have been confined to military personnel and to certain civilian populations where crowding or close contact has been a significant factor. The bulk of the cases have been among adolescents and young adults.

Clinically, cases have been mild, characterized by coryza, cough, myalgia, headache, and fever of 101° to 102° , occasionally running as high as 104° . The duration of symptoms has been between two and five days.

At least two instances give a preliminary indication that spread of the epidemic under normal living conditions during this season is unlikely. A report from Dr. Fred Wentworth, of the Ohio State Department of Health, indicates that a Cleveland serviceman returning from Japan arrived in the early stages of illness. Influenza virus, Far East strain, was recovered two days after his return. However, as of this date, there has been no evidence of transmission of infection to his wife, family, or friends. In the suspect

influenza epidemic among students residing in the homes of families in Salt Lake City, Dr. Alton Jenkins, Utah State Department of Health, reports that but one case occurred among those in the families where they resided. These are but two indications from two carefully studied instances. Further studies should be carried out.

All Far East strain influenza virus isolations in the United States have to date been from military personnel. Confirmed isolations have been reported from San Diego, California; Newport, Rhode Island; and Cleveland, Ohio. Serological evidence of infection with this strain has been demonstrated in ship's passengers debarking at San Francisco. It is not unlikely, however, that one or more of the outbreaks among civilian groups in California, Utah, or Iowa will be demonstrated to have been caused by this strain of influenza.

Production of a specific vaccine has been started by several drug companies. Preliminary vaccine evaluation studies are currently in progress. However, there is as yet no vaccine commercially available which contains strain of the Far East influenza virus.

III. Epidemic and case reports

1A. CALIFORNIA, San Francisco

(Reported by Captain Robert W. McKinney, Chief, Immunology Division, Sixth Army Medical Laboratory.)

Seven ships arriving from the Orient and docking at San Francisco between May 20 and June 18 reported outbreaks of an influenza-like illness while en route. Four of these had acute cases aboard at the time of docking.

Throat washings and blood specimens have been obtained from those who were ill. Blood specimens obtained from the passengers of one of the ships revealed significant titer rises to the Far East strain of influenza virus.

1B. RHODE ISLAND, Newport, Naval Base

(Reported by Dr. John R. Seal, Capt. MC, USN, Preventive Med. Div. USN)

Early in June, the USS Barry experienced an outbreak of respiratory disease while tied up at the dock at the Newport Naval Base. Subsequently, six other destroyers in the same unit experienced epidemics of a similar illness, with attack rates of 20 to 36 per cent. Most cases were mild enough to be treated on a duty basis in an outpatient clinic.

Throat washings from USS Barry cases yielded influenza virus identified by Dr. Maurice Hilleman, Walter Reed Army Institute of Research, as of the Far East type.

Efforts are being made to trace possible sources of the outbreak.

1C. CALIFORNIA, San Diego

(Reported by Dr. Arthur C. Hollister, Chief, Bureau of Acute Communicable Diseases, and Dr. Philip Condit, Chief, Epidemiology Section, California Department of Public Health.)

An outbreak of 2251 cases of influenza among a group of 2890 Naval Recruits personnel occurred beginning June 16, at San Diego. Among recruits, the attack rate was over 70%, among non-recruits, 7%. This outbreak was preceded by an epidemic of a similar illness among crew members of the naval vessel USS Washburn, which entered San Diego harbor on June 11, after a 10-day training cruise, all of which time was spent at sea. Seventy-eight of the 130 members of the crew became ill with an influenza-like illness within a 3-to-4 day period.

Dr. Robert McKinney, Sixth Army Laboratory, reports that influenza virus, Far East strain, has been obtained from members of the crew of this ship. Dr. Clayton Loosli, University of Chicago, School of Medicine, reports isolations of influenza virus, Far East strain, from shore-based recruits.

1D. OHIO, Cleveland

(Reported by Dr. Fred H. Wentworth, Chief, Division of Communicable Diseases, Ohio State Department of Health.)

A 25-year-old Air Force man, who departed from Japan on June 10 in good health, developed headache, chills, myalgia, and coryza after arrival in San Francisco, June 11. He continued to his home in Cleveland where he arrived late that day.

Throat washings obtained on June 14 grew out influenza virus, Far East strain. Surveillance of his family and immediate contacts has revealed no secondary cases. Blood specimens obtained from his wife were serologically negative.

1E. HAWAII, Honolulu

(Reported by Dr. J. R. Enright, Chief, Bureau of Epidemiology, Hawaii Department of Health.)

Outbreaks have occurred among military personnel and in the civilian population in Hawaii. In June, there were reported 527 cases among military personnel, 103 cases among dependents, and 27 in civilian workers. Over 100 cases have been reported among civilians in Honolulu and over 200 cases on the Island of Kauai.

Sera from military cases in Honolulu have shown a moderate rise in titer against the A/Japan/307/57 Far East virus strain.

1F. CALIFORNIA, Redwood City, San Mateo County

(Reported by Drs. Hollister and Condit and Mrs. Dorothy Calafiore, EIS Nurse Officer, California Department of Public Health.)

Between June 20 and 25, 36 cases of respiratory illness with symptoms similar to those in Davis, California, occurred at a Youth Guidance

Camp in San Mateo, California. Fifty-three boys, aged 15 to 17, and 14 adults reside at the camp. Cases were noted among the boys only. Physical findings were confined to non-tender submaxillary and cervical adenopathy; throats were normal in appearance.

Interesting, epidemiologically, is the fact that 40 of the 53 boys visited their families in San Francisco and San Mateo on June 16.

Bacteriological cultures were negative. Throat washings and blood specimens were collected and are currently being examined.

**1G. CALIFORNIA, Davis

(Reported by Drs. Hollister and Condit, California Department of Public Health.)

An outbreak of influenza-like illness occurred among a group of 391 high school girls, who convened from all parts of California for a conference on the University of California campus. Over a ten-day period, June 21 to June 30, 225 of the girls developed a mild respiratory illness, characterized by abrupt onset, headache, sore throat, fever of 101° to 102°, occasionally 104°. Symptoms subsided in 24-48 hours in most cases, in a few persisting as long as 3 to 4 days. Throat cultures and blood specimens were obtained. A 57-year-old advisor to the group, who was previously in good health, developed symptoms of "cardiac shock" on June 27 and died July 4. Post-mortem examination revealed "acute toxic myocarditis." There was no grossly apparent pulmonary pathology. Virological studies on this patient were not possible.

Bacteriological study of throat cultures revealed normal flora. Type A influenza virus has been recovered from throat washings. Specific identification of the strain is in progress.

1H. CALIFORNIA, Monterey, Fort Ord Army Base

(Reported by Drs. Hollister and Condit, California Department of Public Health.)

An outbreak of an acute febrile respiratory illness occurred among military personnel at the Fort Ord Army Base commencing June 17. As of July 8, about 400 cases had occurred. Throat washings and blood specimens were obtained. A hemagglutinating agent in low titer was obtained in first egg passage from one of two throat cultures inoculated. Further egg passages are in progress.

1I. CALIFORNIA, Solano County, Mare Island Naval Base

(Reported by Dr. Hollister, California Department of Public Health, and Dr. H. G. Mello, Solano County Health Officer.)

Two hundred cases of an influenza-like illness are reported to have occurred among naval personnel and their dependents at the Mare Island

Naval Base. Most cases are mild, although one death from staphylococcal pneumonia, presumably complicating influenza, has occurred. Laboratory work is being carried out at the Sixth Army Medical Laboratory. Epidemiological investigations are in progress.

1J. IOWA, Grinnell

(Reported by Dr. Ralph H. Heeren, Director, Division of Preventable Diseases, Iowa State Health Department, and Dr. Tom Y. Chin, Acting Director, CDC Kansas City Field Station.)

An International Church Conference convened at Grinnell College on June 26, with 1688 participants from 43 states and 9 foreign countries. A chartered railroad coach carried 100 delegates from California to Grinnell. One member of the delegation had been present at a girls' conference at Davis, California, where an outbreak of influenza-like illness had occurred the previous week. (Outbreak No. 1G reported here, also.) She developed a respiratory illness while en route to Grinnell. Subsequently, several other similar illnesses developed among the California group before their arrival at the conference site. At Grinnell this group was dispersed and housed in different dormitories which, because of the large number of delegates, were quite crowded.

By July 1, about 200 illnesses had occurred and a special dormitory was designated as the infirmary. One case was reported on June 26, 5 on June 27, 18 on June 28, 28 on June 29, 62 on June 30, and 85 on July 1. In the face of the outbreak the conference was disbanded and those who were well began leaving Grinnell on July 1. Of the approximately 200 cases which occurred during the conference, only four patients were adults.

Specimens from these cases are presently being studied in the laboratory of Dr. A. P. McKee, State University of Iowa, College of Medicine. To date no virus has been isolated.

Subsequently, several participants returning from Grinnell have been hospitalized in various other states with an influenza-like illness. Dr. Norman J. Rose, Chief, Bureau of Communicable Disease Control, Illinois Department of Public Health, reports that delegates en route home have been hospitalized in Chicago, Decatur, Murphysboro, and Peoria, Illinois. Several have been hospitalized in Denver, Colorado, and several in Kentucky, with an influenza-like illness. Throat washings and blood specimens have been obtained from many of these additional cases but laboratory studies are as yet incomplete.

1K. UTAH, Salt Lake City

(Reported by Dr. Alton Jenkins, Coordinator, Disease Preventive Services, Utah State Department of Health, and Dr. Luther Giddings, EIS Officer, CDC Greeley, Colorado Field Station.)

On June 29, 35 foreign students, age 17-19 years, with two adult leaders, left by bus from San Francisco, California, in which area they had been living in private homes during the past year. The students were housed en route in private homes in Carson City, Nevada, on June 29 and in Elko, Nevada, on June 30. They arrived in Salt Lake City on July 1, at which time 5 illnesses had occurred, the first on June 30. On July 2, 15 others became ill and by July 5, 30 developed influenza-like illness.

Onset of illness was abrupt, with a mild one-to-three day duration. Symptoms included headache, malaise, sore throat, non-productive cough, and temperatures of 101° to 102°, rarely to 104°.

The students had been housed in 15 private homes from July 1 through July 3, at which time they were all moved to an unused college dormitory. A check of these homes by personnel of the Utah State Department of Health revealed but one similar illness in a 17-year-old girl whose onset of illness was July 3.

Throat washings and blood specimens were obtained from all who were ill.

1L. MISSOURI, Columbia

(Reported by Dr. E. A. Belden, Director, Communicable Disease Control Bureau, Missouri Department of Public Health.)

An outbreak of 200 cases of a respiratory illness confined almost exclusively to children in Columbia, Missouri, was reported by Dr. E. A. Belden on July 8. Epidemiological and laboratory studies are in progress. Dr. Harry Rubin and Mr. Clifton Gravelle, EIS Officers assigned to the Kansas City Field Station, are participating in the study.

1M. CALIFORNIA, San Francisco Area

(Reported by Dr. Condit, California Department of Public Health.)

Seven children's summer camps located in San Mateo, Tuolumne, Santa Cruz, and Sonoma Counties, all in the San Francisco area, have reported outbreaks of an influenza-like illness during late June and early July. To date it has not been possible to obtain specimens from these outbreaks.

IV. Influenza virus studies

Small experimental lots of influenza vaccine prepared from one of the recently isolated Far East strains are presently under investigation. Potency tests are in progress to determine the amounts of virus concentration necessary to stimulate certain antibody levels.

Influenza vaccine containing a Far East strain of virus is presently not available. None will be available for some time yet.

To date, several strains of the Far East influenza virus have been isolated, bearing place names to indicate their source. These are closely related antigenically and the prototype strain for the group is designated A/Japan/305/57. Among the 20 or so isolates, some slight differences exist but these are of minor importance in diagnostic work. Nevertheless, as has been demonstrated in the past, a greater number of serologic diagnoses can be confirmed if both hemagglutination-inhibition and complement-fixation tests are performed. It has been observed that with the egg line A/Jap/305/57 allantoic fluid virus, H-I titers have been low, whereas C-F titers have been diagnostic.

The Influenza Center can supply additional amounts of antisera and antigens upon request. Such inquiries should be addressed to Dr. Keith Jensen.

It is also requested that isolations of Far East strains be reported by telephone to Dr. Keith Jensen as soon as possible.

**Telegram - July 9 from:

Dr. P. K. Condit, Acting Chief, Bureau of Acute Communicable Diseases, California State Department of Public Health

REGARDING RECENT OUTBREAK OF ACUTE FEBRILE RESPIRATORY DISEASE AT CONFERENCE, DAVIS, CALIFORNIA, DR. JAMES CULVER REPORTS ISOLATES FROM TWO THROAT WASHINGS IDENTIFIED AS FAR EAST STRAIN INFLUENZA VIRUS IN STUDIES COMPLETED YESTERDAY. IDENTIFICATION MADE WITH ROOSTER SERA AGAINST JAP 305.

V. Summary Tables -- Cases and Outbreaks

TABLE I

Confirmed Outbreaks of Influenza due to Far East Strains, United States
June 1 - July 8, 1957

Dates of Outbreaks	Location	Type of Population	Population at risk	No. with Influenza-like Illness	Deaths	Laboratory Diagnosis by Virus Isolation	Laboratory Serology	CDC Influenza Report Number
May 20 - June 18	CALIFORNIA, San Francisco	Naval and passenger ships in harbor recently arrived from Far East	c. 9500	800 7	1 pneumonia		Yes CF Test	1 - A
Early June	RHODE ISLAND, Newport	Crews of several Naval vessels	?	Attack rates by ships 20-36%	0	Yes		1 - B
Mid June	CALIFORNIA, San Diego	Naval Training Station Recruits Station Personnel	c. 2890 c. 5000	2251 Attack rate 7%	0 0	Yes (6-21-57)		1 - C
Early June	CALIFORNIA, San Diego	Crew members of a Naval vessel	130	78	0	Yes		1 - C
Mid June	OHIO, Cleveland	Military Man recently returned from the Far East	Single Case		0	Yes		1 - D

TABLE II

Unconfirmed Influenza-like Illness, Outbreaks - United States
June 1 - July 8, 1957

Dates of Outbreak	Location	Types of Population	Population At Risk	No. with Influenza- like Illness	Deaths	Specimens Obtained		CDC Influenza Report Number
						Throat Washings	Obtained Blood	
June	HAWAII	Military personnel Military dependents Civilians	?	527/ 103/ 300/	0 0 0	Yes	Yes	1 - E
June 20-25	CALIFORNIA, San Mateo Co.	Boys Camp 15-17 year old	53	36	0	Yes	Yes	1 - F
June 21-30	CALIFORNIA, Davis	Teen age girls and adult leaders	391	225	1 ? cause	Yes	Yes	1 - G
Late June	CALIFORNIA, Monterey	Ford Ord Army Base	?	400/	0	Yes	Yes	1 - H
Late June	CALIFORNIA, Solano Co.	Mare Island Naval Base	?	200/	1 death from bacterial pneumonia	Yes	Yes	1 - I
June 26 - July 2	ICWA, Grinnell	College students and adult leaders	1688	200/	0	Yes	Yes	1 - J
July 1 - 5	UTAH, Salt Lake City	High School students	37	30	0	Yes	Yes	1 - K
Early July	MISSOURI, Columbia	Townpeople	?	200/	0	Yes	Yes	1 - L

TABLE III

Outbreaks of Febrile Respiratory Disease - Etiology Other Than Influenza or No Specimens Obtainable
June 1 - July 8, 1957

Dates of Outbreak	Location	Type of Population	Population At Risk	No. with Influenza- like Illness	Deaths	Specimens Obtained Throat Washings	Specimens Obtained Blood	CDC Influenza Report Number
Late June	CALIFORNIA, San Mateo, Santa Cruz, Sonoma, and Tuolumne Cos.	Seven Summer Children's camps	505 7	123 7	0	0	0	1 - M