

CDC INFLUENZA SURVEILLANCE REPORT

NO. 25

NOVEMBER 13, 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 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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Appendix - Supplementary Report: International Spread of Asian Strain Influenza

I. Summary of Information

At least 41% of the nation's 3068 counties have now reported influenza. During the past week, most of the new reports have come from the South Atlantic and West North Central States. Excess mortality from influenza and pneumonia and industrial absenteeism remain elevated in cities of these two areas. The epidemic, as measured by mortality and industrial absenteeism, is now in its fifth week. Although mortality and new outbreaks are on the increase in certain areas, there is evidence that nation-wide mortality may be reaching its peak. If excess mortality has actually reached its peak and if it follows the pattern of decrease seen in previous epidemics, mortality should be back to normal by late December.

National Health Survey data show that a marked increase in respiratory illnesses began in mid-September. This agrees with the above mortality data because it has been found that deaths do not increase appreciably until about one to two weeks after a community has experienced a widespread outbreak. The Survey data represent a careful sampling and should parallel the excess mortality curves when sufficient time has elapsed to allow comparison.

A total of 40,382,719 ml of Asian influenza vaccine has been released through November 6. This includes 6,190,679 ml released since October. In this last release were 515,400 ml of 400 cca vaccine and 371,925 ml of polyvalent vaccine.

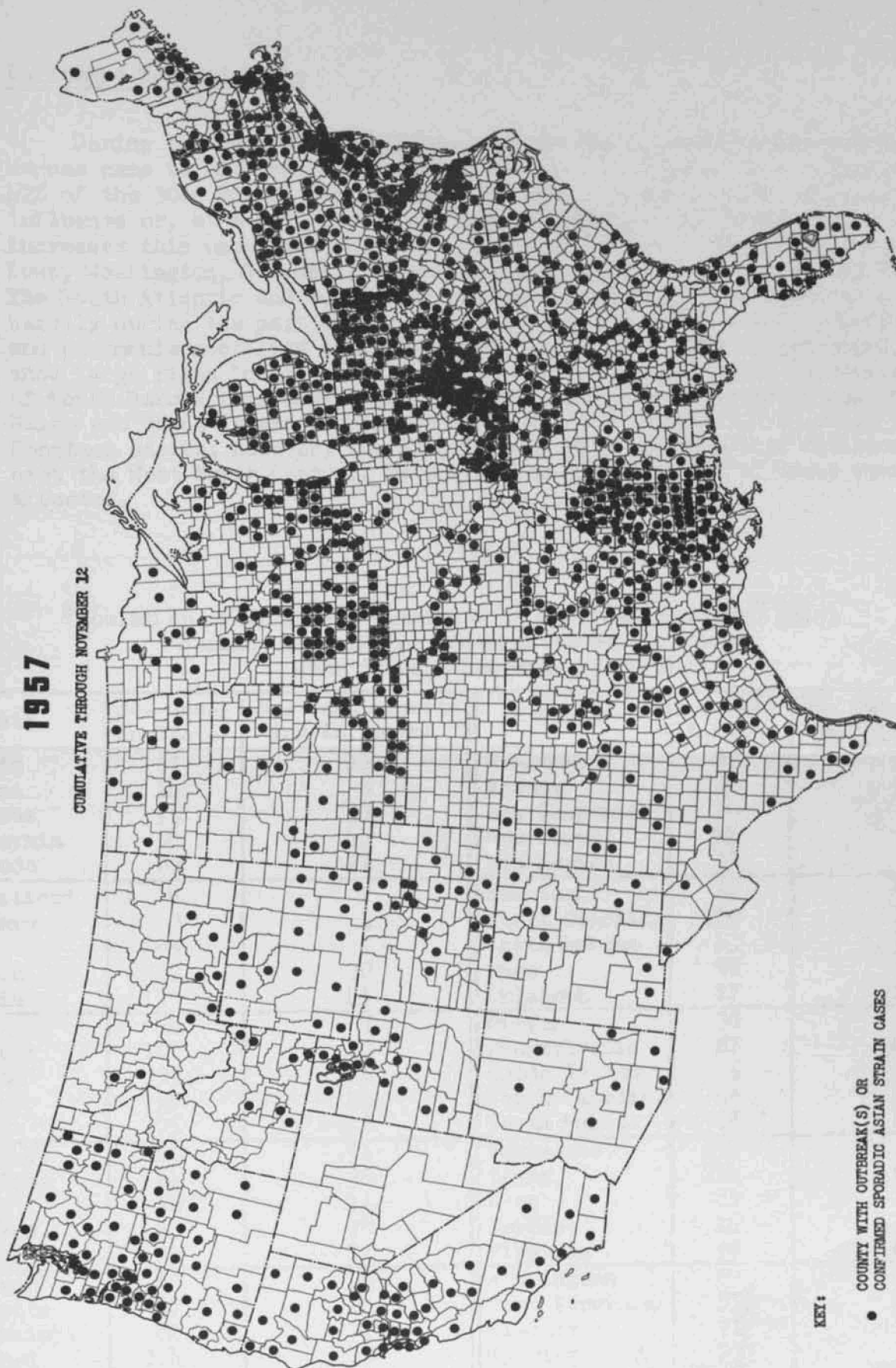
Results of several vaccine effectiveness studies are now available. These studies agree fairly well that one ml of the 200 cca vaccine will prevent influenza in about 45 to 60% of persons otherwise expected to develop the disease. The new 400 cca vaccine should prove even more effective. Investigators have noted that there is also a decrease in severity in vaccinated cases, the disease being shorter in duration. Available information suggests that fatal complications may be decreased by vaccination.

A summary of the international spread of influenza shows that the disease is now almost world-wide. There is some evidence of a second minor wave of Asian strain influenza in Japan. It has also been learned that China experienced a widespread outbreak of Asian strain influenza during February and March of 1957.

INFLUENZA

1957

CUMULATIVE THROUGH NOVEMBER 12



KEY:

- COUNTY WITH OUTBREAK(S) OR
CONFIRMED SPORADIC ASIAN STRAIN CASES

II. Influenza Map and Table

During the week November 5-12, new reports of county influenza occurrences came to CDC from 23 of the 48 states. At least 1255 counties, or 41% of the 3068 United States counties, have now experienced outbreaks of influenza or, at least, confirmed cases of Asian strain influenza. Large increases this week have come from North and South Dakota, Wisconsin, Ohio, Iowa, Washington, Nebraska, Missouri, Kentucky, South Carolina, and Virginia. The South Atlantic and West North Central states have thus reported most heavily during the past week. This is in accord with the weekly influenza and pneumonia mortality data published elsewhere in this report which also show large rises in mortality in these two divisions. With the addition of North Dakota this week, all states have now been affected by the epidemic. Maine and Rhode Island remain the only states reporting all counties involved. Fourteen states, however, representing all major geographical divisions except the West North Central, have reported well over 50% of their counties affected.

Tabulation of Influenza Outbreaks or Confirmed Sporadic Asian
Strain Cases in the Continental United States
June through November 12, 1957

State	No. Cos. in State	No. Cos. Report- ing Influenza	State	No. Cos. in State	No. Cos. Report- ing Influenza
Alabama	67	19	Nebraska	93	33
Arizona	14	8	Nevada	17	—*
Arkansas	75	33	New Hampshire	10	2
California	58	44	New Jersey	21	19
Colorado	63	21	New Mexico	32	9
Connecticut	8	7	New York	62	50
Delaware	3	1	North Carolina	100	22
D. C.	—	1	North Dakota	53	10
Florida	67	30	Ohio	88	68
Georgia	159	41	Oklahoma	77	17
Idaho	44	7	Oregon	36	32
Illinois	102	19	Pennsylvania	67	40
Indiana	92	26	Rhode Island	5	5
Iowa	99	46	South Carolina	46	18
Kansas	105	8	South Dakota	68	14
Kentucky	120	91	Tennessee	95	25
Louisiana	64	36	Texas	254	66
Maine	16	16	Utah	29	17
Maryland	23	19	Vermont	14	7
Massachusetts	14	12	Virginia	98	40
Michigan	83	45	Washington	39	26
Minnesota	87	24	West Virginia	55	35
Mississippi	82	77	Wisconsin	71	31
Missouri	114	15	Wyoming	23	15
Montana	56	8	Totals:	3068	1255

*Sporadic confirmed cases -- Cos. not known

III. Current Analysis of Influenza and Pneumonia Mortality*

Table 1

Current Influenza and Pneumonia Deaths in 108 United States Cities

Division	Number of Cities		Deaths (including estimates**) during weeks ending		
	In Study	Reporting this week	October 26 (107 cities)	November 2 (106 cities)	November 9 (105 cities)
All Divisions	108	105	774	853	887
New England	14	14	52	77	70
Mid. Atlantic	17	16	301	292	247
E. North Central	18	18	150	180	159
W. North Central	9	9	39	67	104
S. Atlantic	9	9	73	71	106
E. South Central	8	8	34	46	57
W. South Central	13	12	60	61	84
Mountain	8	7	24	20	11
Pacific	12	12	41	39	49

**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.

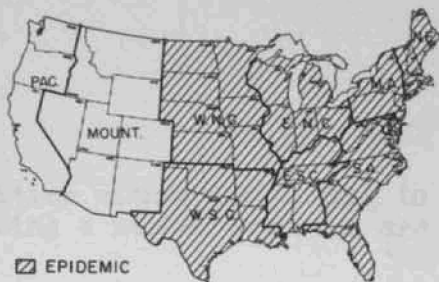
Comment

For the nation as a whole, the number of pneumonia and influenza deaths showed an increase over last week of ten percent. Last week the number of deaths had increased by twenty-four percent over the preceding week. This may be an indication that the epidemic peak is at hand.

The northern tier of states, New England, Middle Atlantic and East North Central, which last week experienced a steep increase, now shows a definite downward turn. The West North Central states, however, continue to rise. The southern tier of states, South Atlantic, East South Central and West South Central, also show a marked increase. The Mountain and Pacific states are relatively stable: the Mountain states have declined to normal levels, while the Pacific showed a slight increase.

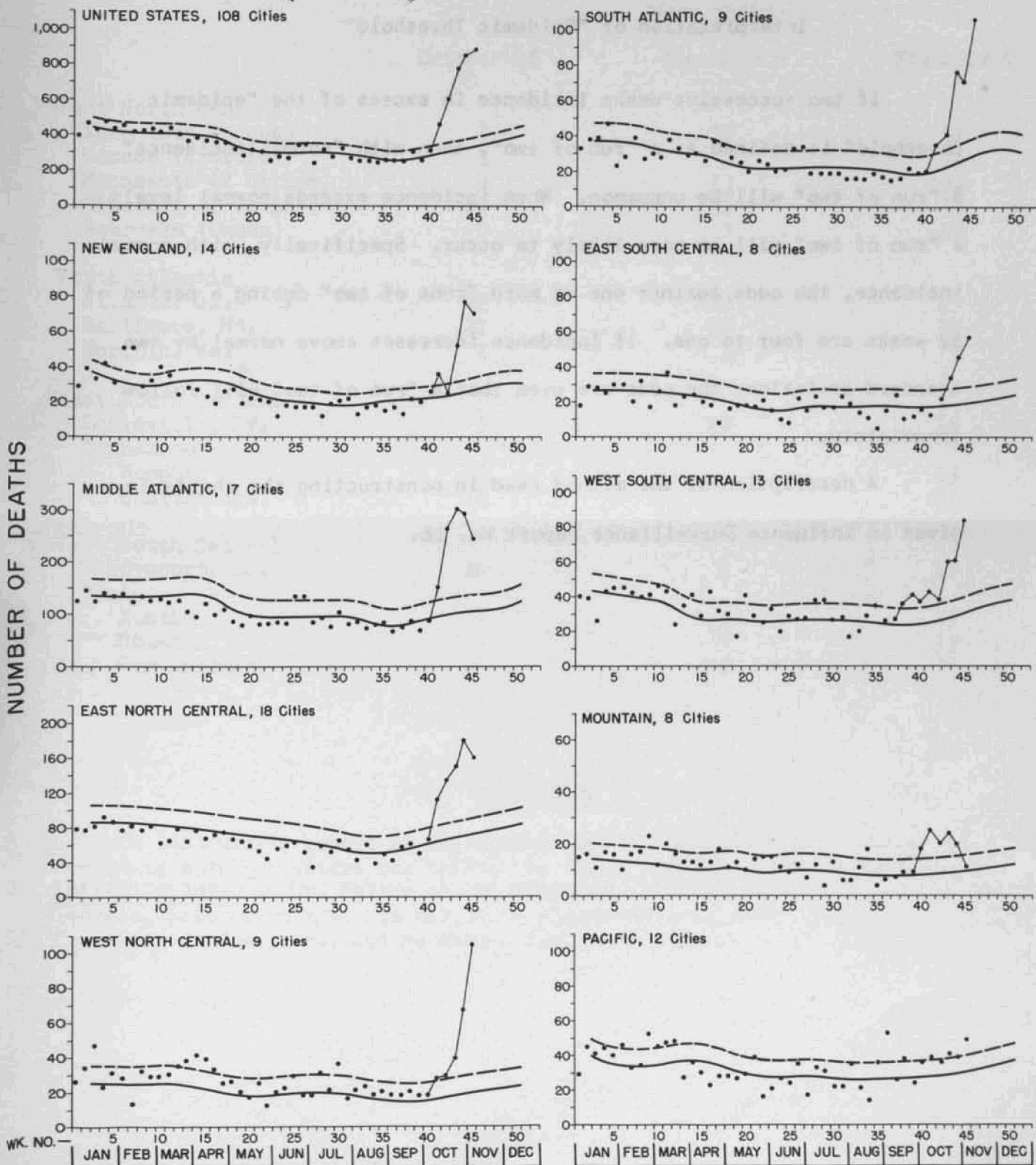
*Prepared by the Statistics Section, CDC.

WEEKLY PNEUMONIA AND INFLUENZA DEATHS



--- "EPIDEMIC THRESHOLD"
 --- "NORMAL INCIDENCE"

(SEE EXPLANATION ON BACK OF SHEET)



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.

Cities either continuing to report excess influenza and pneumonia mortality, or showing a marked increase are as follows:

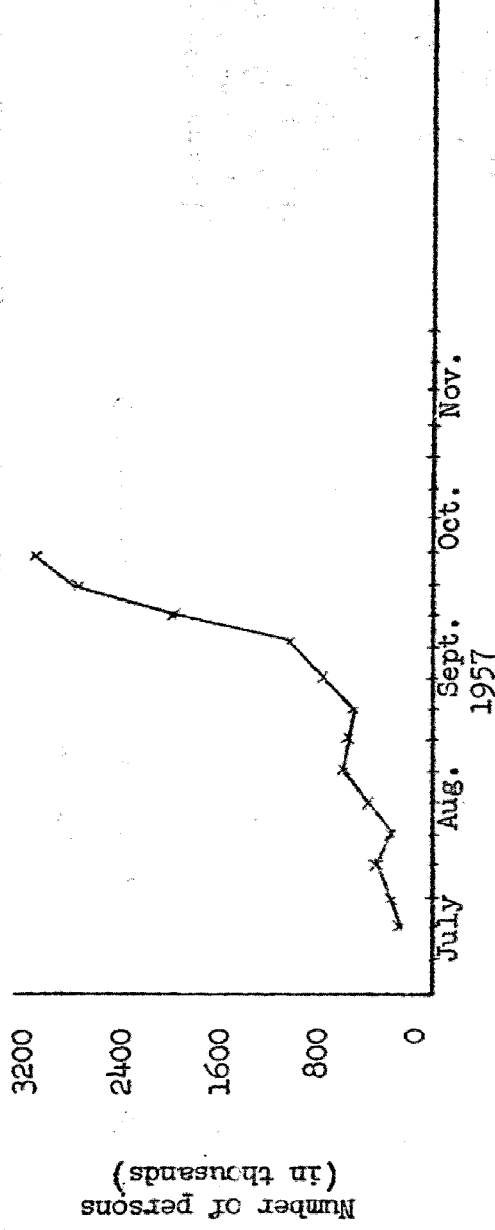
	Week Ending		
	October 26	November 2	November 9
West North Central			
Iowa (Des Moines)	2	12	12
Kansas (2 Cities)	3	8	12
Minnesota (2 Cities)	6	13	30
Missouri (2 Cities)	27	32	39
Nebraska (Omaha)	0	2	10
South Atlantic			
Atlanta, Ga.	14	19	43
Baltimore, Md.	21	17	14
Norfolk, Va.	2	3	9
East South Central			
Louisville, Ky.	9	20	16
Tennessee			
Memphis	9	4	13
Chattanooga	8	9	11
West South Central			
Shreveport, La.	10	8	10
Texas			
Austin	2	3	15
Houston	7	9	13
San Antonio	8	11	15

CORRECTION

In last week's report it was stated that CDC will change its method of reporting serology titers for influenza. Titers will be reported in terms of initial dilution. Dr. Kalter of CDC Diagnostic and Methodology Unit at Chamblee, Georgia, informs us that his lab has been reporting in terms of initial dilution for the past few years, and no change will be necessary.

IV. Data from National Health Survey (Under the direction of Dr. Forrest Linder)

Average Number of Persons in Bed Each Day



ACUTE UPPER RESPIRATORY DISEASES*

Estimates for continental United States

Week	New cases involving one or more days of bed disability	Average number of persons in bed each day
July 14 - 20	379,000	197,000
July 21 - 27	1,203,000	342,000
July 28 - Aug 3	1,264,000	425,000
Aug 4 - 10	955,000	339,000
Aug 11 - 17	1,181,000	447,000
Aug 18 - 24	1,758,000	675,000
Aug 25 - 31	2,159,000	654,000
Sept 1 - 7	1,819,000	651,000
Sept 8 - 14	2,279,000	856,000
Sept 15 - 21	4,487,000	1,152,000
Sept 22 - 28	3,952,000	2,094,000
Sept 29 - Oct 5	7,773,000	2,845,000
Oct 6 - 12	**8,418,000	**3,011,000

*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 nonreporting.

V. Industrial Absentee Rates for 36 Cities of the United States

(Compiled from a number of sources)

City	% of Total Absent						
	Oct. 1956	Sept. 29 1957	1-5	7-11	13-19	20-26	Oct. 27- Nov. 2
Boston	6.9	-	-	-	9.2	9.7	10.3
Manhattan	4.0	-	-	UP	7.9	6.5	5.3
Buffalo	6.7	-	9.4	8.4	8.2	7.4	6.8
Syracuse	6.3	-	UP/NR	-	8.6	7.7	7.0
Philadelphia	5.3	-	-	9.0	11.6	10.3	8.5
Pittsburgh	4.5	-	-	9.5	13.0	12.4	7.7
Washington	6.2	-	7.1	7.2	8.7	9.6	9.2
Baltimore	5.9	-	-	UP/NR	9.6	9.9	10.5
Richmond	5.4	-	-	-	-	8.9	13.8
Atlanta	5.9	-	UP/NR	UP	7.3	7.2	8.2
Miami	10.3	-	-	-	-	-	-
Memphis	4.7	-	-	-	-	*	6.5
Birmingham	4.0	-	-	UP	6.6	*	7.5
Nashville	3.6	-	-	UP/NR	6.8	*	9.5
Jacksonville	8.0	-	-	-	-	8.5	9.1
New Orleans	6.4	-	-	-	-	9.2	8.7
Cleveland	4.5	-	-	5.0	5.3	4.8	5.2
Columbus	5.0	-	-	-	5.8	7.2	7.5
Cincinnati	6.0	-	-	-	7.3	7.6	6.9
Detroit	6.6	-	9.8	11.4	9.1	*	7.6
Indianapolis	5.4	-	-	-	7.9	*	10.7
Milwaukee	6.3	-	-	8.0	10.2	9.5	7.6
Chicago	5.6	-	7.8	8.2	8.2	7.6	6.9
Minneapolis	4.6	-	-	-	6.6	7.3	7.7
Omaha	5.4	-	-	-	7.5	7.6	8.7
St. Louis	3.9	-	-	-	4.9	6.5	7.8
Kansas City	4.8	-	-	-	6.3	8.3	9.2
Houston	4.0	-	-	UP/NR	7.1	5.6	4.8
Dallas	4.3	-	-	-	5.6	7.3	10.3
Oklahoma City	3.4	-	-	-	3.8	4.5	5.8
Denver	7.9	-	10.2	11.8	9.6	9.5	-
Phoenix	8.0	-	10.8	9.5	8.1	-	8.8
Salt Lake City	4.8	-	9.8	10.5	9.4	8.3	6.4
San Francisco	9.3	-	-	-	-	10.1	10.0
Seattle	5.6	-	-	-	6.1	7.1	6.5
Los Angeles	5.9	-	-	-	6.2	7.5	-

- = normal absentee rate
UP = increased absenteeism
NR = no rate available

*Data not available

V. Industrial Absentee Data

Industrial absentee data are now essentially complete for the 36 reporting cities through November 2. Additional figures for some previous dates have enabled us to revise the columns for the last two weeks of October. It will be noted that 12 cities showed increases in absenteeism for the first time during the period October 13-19. These cities included Seattle, Los Angeles, Oklahoma City, Kansas City, St. Louis, Omaha, and Minneapolis in addition to those on the unrevised table in CDC Influenza Report 23. Between October 20-26, Richmond, Jacksonville, New Orleans, and San Francisco reported first increases, and only Memphis noted a first increase between October 27-November 2. It is interesting that New Orleans has increased industrial absenteeism after a long period of normalcy. The city experienced an epidemic of Asian strain influenza in late summer. If the increase is due to influenza it may represent a second minor wave in that area. It should also be noted that Denver has returned to a normal rate after a month of increased absenteeism. Through November 2 every reporting city had experienced increased industrial absenteeism except Miami.

^VVI. Influenza Vaccine Production and Distribution

Influenza Vaccine Released

(Totals through November 6, 1957)

<u>Pharmaceutical Concern</u>	<u>400 cca Monovalent Asian strain</u>	<u>200 cca Monovalent Asian strain</u>	<u>Polyvalent with Asian strain</u>
Lederle		8,037,830 ml	537,960 ml
Lilly		2,146,717	286,000
Merck, Sharpe & Dohme	515,400 ml	13,473,220	
National Drug		6,898,370	2,054,435
Parke, Davis		587,710	
Pitman-Moore		5,015,242	829,835

Total released to date: 40,382,719 ml
 Amount released since October 31: 6,190,679 ml

Estimated Vaccine Production:

November	24,800,000 ml
December	12,350,000 ml

VII. Summaries of Vaccine Effectiveness Studies

Patuxent, Maryland --(By Dr. Joseph Bell, NIH, et al.)

Fifty-five volunteers, aged 21-57, at the Maryland State Board of Correction's Patuxent Institution were given a nasal spray of influenza virus material. The virus had been obtained from three Boy Scouts at the 1957 Jamboree. Laboratory studies indicated that no disease producing agents other than influenza virus were present in these specimens. Part of the group of volunteers had previously been inoculated with commercially prepared influenza vaccine, 200 cca units given intramuscularly approximately 2 weeks before challenge. The results in the table below indicate a 44% effectiveness in this study.

	<u>Number Challenged</u>	<u>Number With Influenza</u>
Placebo	23	18
Vaccine	32	14

Armed Forces Epidemiological Board -- (Dr. Fred M. Davenport, Director of the Commission on Influenza)

The Commission on Influenza of the Armed Forces Epidemiological Board has obtained the following specific information regarding the effectiveness of vaccines against the current epidemic of Asian flu.

The vaccines were prepared by commercial firms according to formulae requested by the Commission for these studies which were begun on military posts at the end of July when only limited amounts of vaccine could be obtained and their potency was irregular. Dr. Fred M. Davenport, Director of the Commission on Influenza, bore the major responsibility in procurement of these preparations for coordination of the field studies, and for the extended studies of the antigenic effect of different concentrations of virus. Except as noted, 1 ml of vaccine was given subcutaneously.

Fort Ord, California - Influenza was already prevalent at the time vaccination with 250 cca units began. Based upon the number of men who reported to the Dispensary with acute respiratory illness ten days or more after vaccination, Doctors Culver and Lennette have estimated an effectiveness of about 42 percent during the month of August.

Fort Dix, New Jersey - Dr. Harry Rose and his associates began vaccination on August 1 with two different preparations of vaccine. Beginning the second week after inoculation, the rate of admissions for all respiratory disease for the next five weeks averaged 12.4 per 1,000 among those receiving 200 cca units, 10.9 among those receiving 750 cca units, and 26.6 among the controls, an estimated effectiveness of 53 - 59 percent.

Lowry Air Force Base, Colorado --When vaccination was initially carried out at the end of July, there was no evidence of the presence of influenza but it appeared in the third week of September. Dr. Gordon N. Meiklejohn and his associates have analyzed the admissions to hospital for acute respiratory disease from September 16 to the present (October 13) for those

vaccinated with vaccine of 200 cca units and from the control group. There is somewhat less than a one to three ratio in favor of the vaccinated, or an estimated effectiveness of 60 percent. On September 24, when influenza had already become prevalent, several groups were vaccinated with vaccine preparations containing either 400 cca units of Asian virus or no Asian virus. In the first ten days after vaccination no significant differences were observed between the groups but in the subsequent period the rate of admissions to hospital has been four times as high in those receiving Type B or other control vaccine as in those receiving 400 cca units of Asian virus, either alone or in polyvalent preparations. This suggests an effectiveness of about 75 percent.

Great Lakes Naval Training Center, Illinois - The Surgeon General, United States Navy, has provided information concerning the results of studies carried out under the direction of Lt. Commander B. F. Gundelfinger, Jr.

Three-fourths of the men receiving Asian virus vaccine were vaccinated subcutaneously with a 1 cc dose of 200 cca units on August 10 and the remainder received the vaccine intracutaneously in a 0.1 ml dose. Their experience has not been analyzed separately as yet. Still other groups received either a polyvalent vaccine of 750 cca units of 1956 formula without Asian virus, or a control material. Dr. Gundelfinger reports that influenza appeared in epidemic proportions during the week ending October 5 and has continued through the week ending October 12. The average admission rate for the two weeks was 70.2/1000 in a placebo vaccinated group, 28.4 in a group receiving monovalent Asian virus, and 38.7 in a group receiving the 1956 polyvalent formula vaccine. The estimated effectiveness of the monovalent vaccine was about 59.2% and of the old formula polyvalent vaccine about 44.9%, according to the data obtained during this short interval.

Although the studies are incomplete, the trends are sufficiently distinct to indicate the final effects which may even be increased when laboratory studies identify and remove cases caused by other respiratory disease agents which are so common in recruits. They emphasize, too, that vaccine of 200 cca units provides somewhat less than optimal results.

Appendix A: CDC Influenza Surveillance Report No. 25

Supplementary Report: International Spread of Asian Strain Influenza
Through October 31, 1957

By F. L. Dunn, M. D.

(See CDC Influenza Report No. 8, International Summary; Report No. 15, Appendix C, First Supplementary Report; and Report No. 21, Appendix A, Second Supplementary Report.)

Epidemic Asian strain influenza is now almost world-wide in distribution. Only a few isolated islands and areas have been untouched by the pandemic. Incomplete reporting is undoubtedly responsible for some of the unmarked areas on the influenza map appended to this report.

Information available through October 31, 1957, on the world-wide spread of Asian strain influenza is summarized in the outline below. Much of the information reviewed refers to the late August-September period rather than to the three-week period since the second supplementary report appeared. It must be recognized that much of the information in this report is incomplete and preliminary in nature. A complete picture of the international spread of the disease will not be available until well after the pandemic has ended.

A listing of sources of the information reproduced in this summary is appended. These sources have been used not only for the present report but also for the preceding supplementary reports.

EUROPE

During October epidemic influenza continued its spread through Germany, Portugal, Belgium, Switzerland, England, Wales, Greece, and The Netherlands. Epidemic onsets were reported about the first of October in Spain and Denmark. France, Sweden, and Norway reported only scattered local outbreaks, however, during the early part of the month.

Some data from the Weekly Influenza Statement for England and Wales, prepared by Dr. W. H. Bradley, Ministry of Health, London, are presented below:

Deaths from Influenza and Pneumonia in 160 Great Towns of England and Wales

<u>Week Ending</u>	<u>No. Influenza Deaths</u>	<u>No. Pneumonia Deaths</u>
9/14	47	245
9/21	121	273
9/28	282	418
10/5	442	491
10/12	591	571
10/19	600	545
10/26	396	505

Age Distribution of Influenza Deaths Reported for the Week Ending October 19, 1957
for the 160 Great Towns

<u>Age</u>	<u>No. Deaths (Influenza)</u>
less than 1	5
1-4	7
5-14	15
15-25	22
25-34	21
35-44	33
45-54	66
55-64	123
65-74	178
75 and over	130
Total:	600

Aggregate Totals from the Week Ending August 24 through the Week Ending October 26 for the 160 Great Towns for 1957 and the Four Previous Years:

<u>Year</u>	<u>No. Pneumonia Deaths</u>	<u>No. Influenza Deaths</u>
1953	1362	53
1954	1425	42
1955	1517	48
1956	1638	43
1957	3507	2495

On October 7 the first isolations of Asian strain virus were reported from Ireland and Finland. In early October the influenza epidemic in Turkey was apparently declining. Bulgaria reported the onset of epidemic influenza in the country about the third week of September.

In Russia, according to a report of October 18, Asian strain influenza was epidemic in Moscow during the middle of October. Many schools and entertainment places were closed. A vaccine was available but in short supply. In other parts of the country, at about the same time, influenza broke out primarily in urban areas and along the principal lines of communication. Asiatic Russia, including Siberia, was reported to be affected at the end of the month.

CANADA

By the final week of October all sections of Canada were more or less involved by Asian strain influenza. Confirmations have been reported from many localities. In general, eastern Canada has thus far been more heavily affected than the western provinces. Widespread epidemic influenza has been reported from Prince Edward Island, Nova Scotia, New Brunswick, Quebec, and Ontario, while only local and scattered outbreaks have so far been reported from Saskatchewan, Alberta, Manitoba, British Columbia, and North West Territories.

CENTRAL AMERICA

While Panama, Guatemala, and Mexico were relatively free of epidemic Asian strain influenza by the end of September, Costa Rica and San Salvador were still involved in early October. British Honduras and Nicaragua have apparently not been heavily involved by the disease to date.

CARIBBEAN

The major epidemic in Puerto Rico passed its peak and subsided slowly during October. A large proportion of the island's population was affected. In the Virgin Islands the first local outbreaks of influenza were noted in the last week of September. Asian strain virus has not yet been reported as identified from the islands. Cuba, also, experienced only local outbreaks of influenza during October.

Only Martinique and Jamaica have experienced island-wide epidemics in addition to Puerto Rico. The Martinique epidemic started in the last week of September; that in Jamaica about October 8, in the Kingston area, when a number of school outbreaks occurred. The first Jamaican outbreak was reported in the last week of September in a boarding school in a rural area. Children at the school had come from Holland via France and Haiti, from Venezuela, from Trinidad, and from Aruba.

SOUTH AMERICA

Spread of epidemic influenza continued in South America during September and October, although the countries heavily affected during our summer months (Chile, Argentina, Uruguay, and Bolivia) were essentially free of the disease.

Ecuador, which also had already experienced an epidemic, reported new outbreaks of influenza--strain undetermined--in mid-September. The situation resembles that in Japan, where a minor "second wave" of Asian strain influenza has been detected this fall.

Brazil reported the onset of an epidemic at the end of September in the Rio de Janeiro area, with spread throughout the country by early October. By October 2, Rio de Janeiro had estimated that some 500,000 cases had occurred in the city.

Venezuela experienced widespread epidemic influenza during most of September. French Guiana reported only a few cases of influenza-like illness by the end of September and Surinam noted the onset of an epidemic in late September.

Paraguay noted the first outbreaks of influenza only in late September and early October. To date no widespread epidemic has appeared in this country. The first epidemics in Peru were reported from Cuzco and Puno, in the southern highlands near Bolivia, in late August. Spread north to Lima had occurred by early September, and the whole country was involved during the month. A number of schools were closed in Lima because of high absenteeism, and 20% absenteeism was recorded in some Lima industries during part of the epidemic period.

MIDDLE EAST

Most of the countries of the Middle East were free of epidemic Asian strain influenza by the middle of September. Only Israel (which has little contact with the rest of the Middle East) remained free of the disease during the summer months. The first isolations of Asian strain virus in Israel were reported only on Septem-

ber 30 and an epidemic was not in progress until October 8.

Bahrein reported the end of its epidemic in the first week of September, after an over-all attack rate of 25% among the population of 30,000. Jordan, Iraq, Syria, and Saudi Arabia were free of the disease by late August or early September.

AFRICA

Many of the areas of Africa, including Egypt, East Africa, and South Africa, were free of epidemic influenza by the first week of October. Several countries, however, reported their first outbreaks or isolations at about this same time.

Ghana, which first experienced epidemic influenza in mid-September, reported that the epidemic was still in progress early in October. Nigeria reported decline in some areas by early September, after a country-wide spread. Sierra Leone noted the first influenza outbreaks in the first week of September. Sudan reported decline in early September and the country was free of epidemic influenza by the first week of October. Reunion experienced an epidemic of influenza in the third week of September. French West Africa has apparently been only lightly affected except in the Dakar area, where there was a 30% attack rate and a considerable excess mortality. Algeria reported the first Asian strain virus isolations only on October 3.

AUSTRALIA

By early September every state of Australia had been affected significantly by Asian strain influenza and the disease was everywhere on the decline. In New Zealand, also, the epidemic was dropping off sharply during September.

ANTARCTICA

On October 22 a report was received of outbreaks of influenza-like illness among personnel at McMurdo Sound. Asian strain virus has not been identified as responsible for the outbreaks, which occurred soon after the arrival of the spring supply ships and new personnel.

ASIA

By the first week of October epidemic influenza had disappeared from most of Asia. A few areas were still in the period of epidemic decline and in Japan a minor second wave of the disease was apparently in progress. Asian countries not mentioned below can be considered to be essentially free of epidemic Asian strain influenza.

In India the epidemic had ended or sharply declined in all states except Himachal Pradesh by the fourth week of September. In West Pakistan the epidemic was over by the first week of October; however, in East Pakistan many cases were still occurring at the end of September. Thailand, which experienced a slow epidemic decline, was free of influenza only on September 20.

The following notes are taken from the WHO Influenza Epidemic Memo of 24 September. In a paper given at the Third International Meeting of Biological Standardization, Opatija, 2-6 September 1957, by Tang Fei-Fan and Liang Yung-Ken ("Antigenic Studies of Influenza Virus Isolated from the 1957 Epidemic in China"), it was noted that a widespread epidemic of influenza occurred in China, involving

practically the whole country. Influenza viruses (Asian strain) were isolated in Peking, Chang-Chia-Kow, Lo-Yang, and Changchun. A strain of virus obtained from Dr. Tang was examined at the World Influenza Centre and identified as a typical Asian strain.

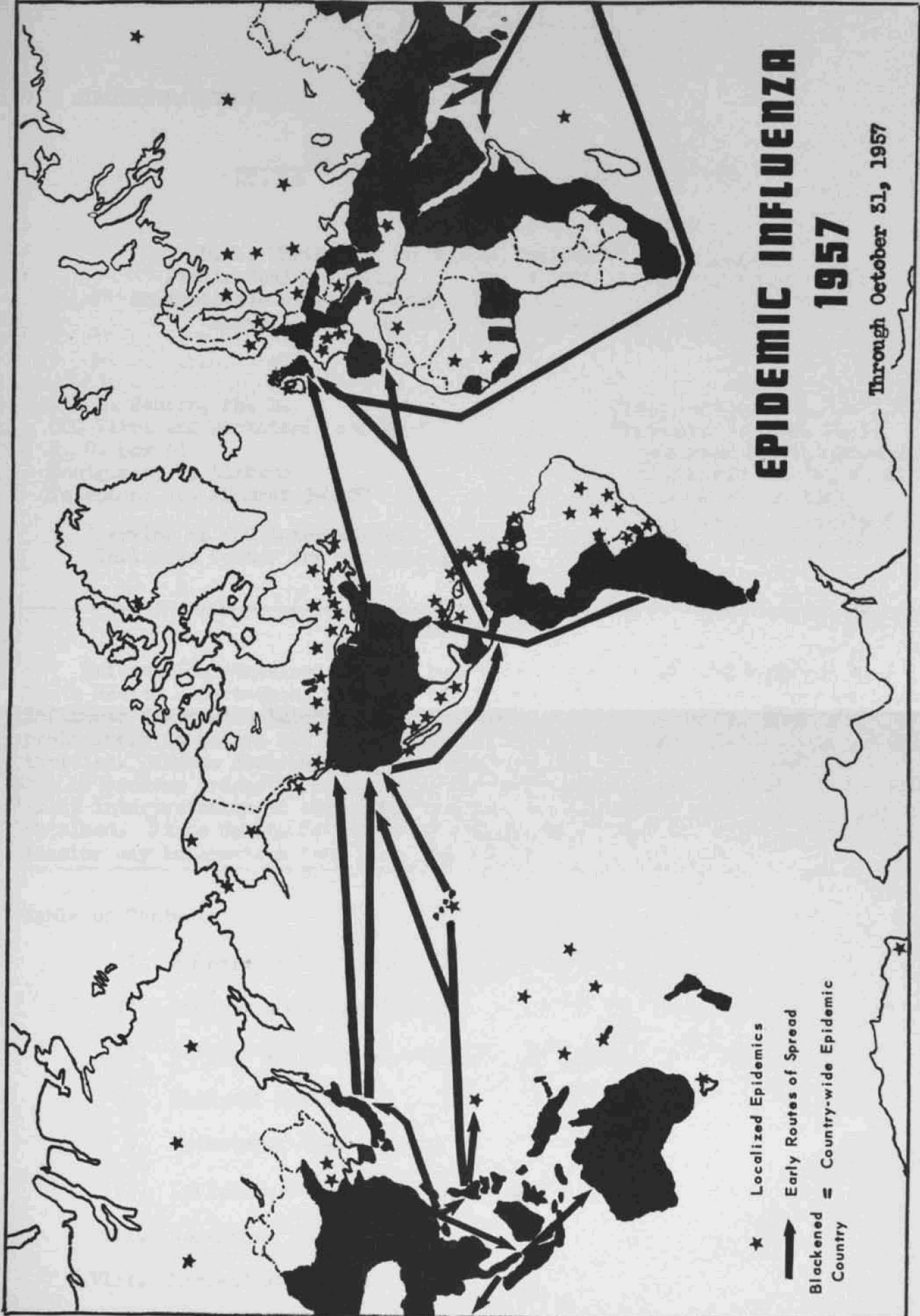
It is evident that the disease probably began at the end of February in a limited area in Kweichow Province between Kweiyang and Kutsing (in Yunan Province). It spread, in early March, into Yunan Province and, by the middle of March, was all over China.

In Korea the epidemic was over by the end of August, after an estimated 2,700,000 cases had occurred. In North Borneo the end of the epidemic was reported during the first week of September; and, on the island of Mauritius, the end of the epidemic was placed at about the first of October.

In Japan, which experienced a major Asian strain epidemic between May and mid-July, a minor second wave of the disease appeared at the end of September. During October a number of local and scattered outbreaks of influenza occurred in various parts of the country. Asian strain virus has been identified from at least a few of these outbreaks, though by no means from all. Asian strain influenza had apparently disappeared from Japan in late July or early August.

Sources of information include:

1. World Health Organization Weekly Epidemiological Records.
2. Morbidity and Mortality Reports, National Office of Vital Statistics,
3. Influenza Epidemic Memos, Dr. A. M.-M. Payne, Chief, Section of Endemo-epidemic Disease, WHO.
4. Dispatches from the major wire services.
5. Personal communications.
6. Foreign Epidemiological Summaries of the U. S. Public Health Service.
7. International Cooperation Administration Influenza Reports.
8. Weekly Report, Influenza in Canada, Dr. E. H. Lossing, Chief, Epidemiology Division, Department of National Health and Welfare.
9. Weekly Influenza Statement for England and Wales, Dr. W. H. Bradley, Ministry of Health, London.



EPIDEMIC INFLUENZA

1957

Through October 31, 1957