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For Week Ending August 2, 1969

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE / PUBLIC HEALTH SERVICE / HEALTH SERVICES AND MENTAL HEALTH ADMINISTRATION

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EPIDEMIOLOGIC NOTES AND REPORTS

HEPATITIS – Cook County, Illinois

Between May 25 and July 12, 1969, 16 cases of viral hepatitis were reported among patients at a 300-bed community hospital in Cook County, Illinois. Twelve of these patients had been previously hospitalized on a single surgical ward from Feb. 24 to March 31, 1969, and had contact with a nurse who became jaundiced on March 29 (Figure 1). The other four cases represented sporadic occurrences of hepatitis. The 12 associated patients' symptoms included malaise, arthralgias, and jaundice. Hepatitis was confirmed by laboratory tests in all 12, and sera from six of nine patients tested were positive for Australia antigen. The range of possible incubation periods for all patients was from 71 to 114 days with a mean of 92 days. The eight female and four male patients ranged in age from 21 to 60 years. All 12 had undergone surgery and two had received blood transfusions; 10 of the 12 had received halothane anesthesia. None gave a history of contact with a known hepatitis case outside the hospital or ingestion of raw shellfish.

In a comparison group of 35 other surgical patients hospitalized on the same ward between February 24 and March 31, none had received transfusions, and 29 had undergone halothane anesthesia. The mean duration of

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TABLE I. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
(Cumulative totals include revised and delayed reports through previous weeks)

DISEASE	31st WEEK ENDED		MEDIAN	CUMULATIVE, FIRST 31 WEEKS		
	August 2, 1969	August 3, 1968	1964 - 1968	1969	1968	MEDIAN 1964 - 1968
Aseptic meningitis	75	144	72	1,156	1,402	1,104
Brucellosis	7	9	6	111	125	144
Diphtheria	3	–	1	86	100	99
Encephalitis, primary:						
Arthropod-borne & unspecified	43	28	41	620	552	841
Encephalitis, post-infectious	14	11	13	204	328	533
Hepatitis, serum	95	96	603	3,065	2,498	24,146
Hepatitis, infectious	963	906		27,656	25,979	
Malaria	87	42	3	1,633	1,268	192
Measles (rubeola)	231	226	844	19,540	18,765	186,190
Meningococcal infections, total	43	24	40	2,210	1,840	1,840
Civilian	41	24	- - -	2,008	1,667	- - -
Military	2	–	- - -	202	173	- - -
Mumps	724	947	- - -	65,310	121,236	- - -
Poliomyelitis, total	1	2	3	6	37	37
Paralytic	1	2	3	6	37	37
Rubella (German measles)	335	425	- - -	47,316	42,181	- - -
Streptococcal sore throat & scarlet fever	4,541	4,703	4,202	281,750	279,110	279,110
Tetanus	5	3	6	82	85	124
Tularemia	1	2	3	87	123	123
Typhoid fever	5	9	11	161	185	229
Typhus, tick-borne (Rky. Mt. spotted fever)	19	15	15	277	149	150
Rabies in animals	50	58	70	2,203	2,208	2,740

TABLE II. NOTIFIABLE DISEASES OF LOW FREQUENCY

	Cum.		Cum.
Anthrax:	3	Rabies in man:	1
Botulism:	11	Rubella congenital syndrome:	6
Leptospirosis: Kans.-1	38	Trichinosis: Calif.-2, Pa.-1	151
Plague:	3	Typhus, murine: Tex.-14	31
Psittacosis: Pa.-1	23		

HEPATITIS – *(Continued from front page)*

hospital stay was 9.4 days for the 12 persons who later developed hepatitis and 6.5 days for the comparison group. Ten of the 12 hepatitis patients had received IM Demerol*, from the involved nurse compared with 22 of the 35 patients in the comparison group. No break in the nurse's aseptic technique could be ascertained.

The nurse most likely contracted her hepatitis from an accidental needle puncture which occurred in the second week of January. The needle was contaminated with blood from a multiply-transfused patient who developed jaundice in the third week of January. The nurse probably transmitted her disease between February 24 and March 31 while caring for the 12 patients. The exact route of transmission is not known. To date, no secondary infections have been reported.

(Reported by Norman J. Rose, M.D., M.P.H., Chief, Bureau of Epidemiology, Illinois Department of Public Health; Colette M. Rasmussen, M.D., M.P.H., Chief, Division of Preventive Medicine, Cook County Department of Public Health; and an EIS Officer.)

*Trade names are provided for identification only, and inclusion does not imply endorsement by the Public Health Service or the United States Department of Health, Education and Welfare.

Editorial Comment:

The clinical history, incubation period, and lack of contact with known hepatitis during the 2 months prior to onset of symptoms are consistent with the epidemiology of classic serum hepatitis. Moreover, the presence of Australia antigen in sera from 67 percent of the patients is compatible with the findings of Prince[1] and Blumberg et al[2] who demonstrated Australia antigen in 77 percent and 41 percent, respectively, of cases of posttransfusion hepatitis. The latter investigator found Australia antigen in only 22 percent of infectious hepatitis cases.

In this outbreak the nurse represented the only exposure common to all 12 patients. In 10 of the 12 cases the parenteral route of infection was a possibility; in all 12 a fecal-oral route might be implicated. The exact method of transmission is not known. Close surveillance of household contacts is being maintained in order to detect potential secondary spread of the disease.

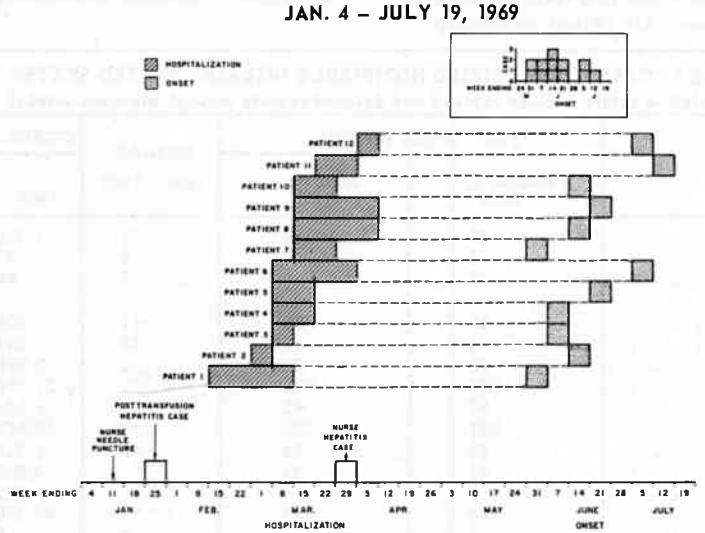
References:

[1]Prince, A. M.: An antigen detected in the blood during the incubation period of serum hepatitis. Nat Acad Sci, *60*(3):814, July 1968.

[2]Blumberg, B. S. et al.: Australia antigen and hepatitis. JAMA *207*(10):1895, March 10, 1969.

Figure 1

CASES OF HEPATITIS BY PERIOD OF HOSPITALIZATION AND DATE OF ONSET, A HOSPITAL, COOK COUNTY, ILLINOIS JAN. 4 – JULY 19, 1969



ARTHROPODBORNE ENCEPHALITIS – United States

Record precipitation during the past year in many areas of the country has provided optimum conditions for the occurrence of outbreaks of arthropodborne encephalitis this summer. Because of this possibility, surveillance for human and equine encephalitis cases has been intensified in many states. At the present time, there are two active foci of arthropodborne encephalitis: the Columbia River Basin in Oregon and Washington and north and north-central Florida.

Two counties in northern Oregon (Morrow and Umatilla) and three in southern Washington (Benton, Franklin, and Yakima) – all part of the Columbia River Basin – reported approximately 110 cases of clinical equine encephalitis. Two cases in Washington and three in Oregon were confirmed as Western Equine Encephalitis, with laboratory data on the others pending. No human cases were reported. Surveillance and mosquito control efforts have been initiated.

In Florida, two human cases of Eastern Equine Encephalitis were reported. A 10-year-old girl from Orlando expired on June 18, after a 6-day illness characterized by high fever, nuchal rigidity, severe headache, and convulsions. Eastern Equine Encephalitis virus was isolated from brain material obtained at postmortem. A 6-month-old boy with similar symptoms became ill on July 7. Paired sera specimens taken on July 9 and 22 showed a diagnostic rise in complement fixation antibody titer against Eastern Equine Encephalitis antigen from negative to 1:16. This child is from Tallahassee but probably acquired the disease in neighboring Madison County, where he was visiting during the 2 weeks prior to illness. Madison County has reported Eastern Equine Encephalitis in the past, with four human cases recorded in 1965. In addition, clinical equine encephalitis is occurring in the north and northcentral part of Florida, extending from the western border as far east as Gainesville. Surveillance and mosquito control activities have been increased.

Cases of equine encephalitis were recently confirmed in California, Georgia, Minnesota, and Texas; no human cases were reported.

(Reported by Philip Condit, M.D., Chief, Bureau of Communicable Diseases, California State Department of Public Health; David Dreesen, D.V.M., State Veterinarian, Georgia Department of Public Health; D. S. Fleming, M.D., Director, Division of Disease Prevention and Control, Minnesota Department of Health; Monroe Holmes, D.V.M., Public Health Veterinarian, Oregon Department of Health; M. S. Dickerson, M.D., State Epidemiologist, Texas State Department of Health; J. Byron Francis, M.D. Chief, Division of Epidemiology, Washington State Department of Health; and the Ecological Investigations Program, NCDC, Kansas City, Kansas, and the Viral Diseases Branch, Epidemiology Program, NCDC.)

BLOOD TRANSFUSION INDUCED MALARIA – New York City

Two cases of transfusion induced *Plasmodium falciparum* malaria from New York City were reported to the NCDC.

Case No. 1: On March 10, 1969, a 64-year-old diabetic white man developed melena and was admitted to a hospital where he received 10 units of whole blood before undergoing resection of a bleeding gastric ulcer. He was discharged 2 weeks later but was readmitted on April 7 with fever, jaundice, and anemia. A peripheral blood smear taken on April 10 contained large numbers of ring forms and gametocytes as well as occasional schizonts of *P. falciparum*. Quinine, pyrimethamine, and sulfadiazine therapy cleared the asexual parasitemia; however, hemolytic anemia, azotemia, and obtundation became more serious and the patient died on April 22. Autopsy showed cerebral edema, centrilobular necrosis and malarial pigment in the liver, and bile casts in the kidney.

Of the 10 blood donors, nine were located; six were frequent donors who were considered unlikely sources of infection, two were civilians who had never traveled to malarious areas, and the ninth was a veteran who returned from Southeast Asia in March 1968 but denied ever having clinical symptoms of malaria. This man's serum had a 1:256 indirect fluorescent antibody titer against *P. falciparum*.

Case No. 2: On March 26, 1969, a 50-year-old white man with calcific mitral stenosis and pulmonary hypertension underwent open-heart surgery for replacement of the mitral valve. During the procedure he required 11 units of whole blood, 14 units of plasma, and 8 units of platelets. On April 4 he developed fever, shaking chills, and mild leukopenia, and on April 5 *P. falciparum* ring forms were identified in the peripheral blood. He recovered after receiving standard doses of chloroquine.

The plasma and platelet donors could not be implicated as sources of infection. Of the 11 whole blood donors, five were frequent donors and two of the remaining six donors had a history of travel to malarious areas. One woman had visited the Middle East in 1966. The second donor was a Ghanian citizen who entered the United States in January 1969. To date, efforts to obtain peripheral blood smears and sera from these two individuals have been unsuccessful.

(Reported by Drs. C. C. Wang, S. W. De Ramos, and H. B. Shookhoff, Division of Tropical Diseases, and Dr. V. F. Guinee, Director, Bureau of Preventable Diseases, New York City Health Department.)

INTERNATIONAL NOTES

SMALLPOX – Worldwide

From January 1 through June 27, 1969, 19,104 cases of smallpox were reported to the World Health Organization*, a decrease of 44 percent from the 33,887 cases reported during the same period in 1968. Based on current trends, an estimated 45,000 cases will be recorded in 1961 (Figure 2).

At the beginning of 1969, 27 countries were considered endemic for smallpox. Five of these countries recorded cases in 1968 but have recorded no cases in 1969; four of the five, Liberia, Swaziland, Upper Volta, and Zambia, have been reclassified as "provisionally endemic." One country, Yemen, which did not record cases in 1968 has recorded cases in 1969.

Brazil is the only country in the Americas reporting smallpox cases to date in 1969. The Brazilian eradica-

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TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED AUGUST 2, 1969 AND AUGUST 3, 1968 (31st WEEK)

AREA	ASEPTIC MENINGITIS	BRUCELLOSIS	DIPHTHERIA	ENCEPHALITIS			HEPATITIS			MALARIA	
				Primary including unsp. cases		Post-Infectious	Serum	Infectious			
	1969	1969	1969	1969	1968	1969	1969	1969	1968	1969	Cum. 1969
UNITED STATES...	75	7	3	43	28	14	95	963	906	87	1,633
NEW ENGLAND.....	1	–	–	3	–	–	4	90	70	10	59
Maine*.....	–	–	–	–	–	–	–	7	6	–	4
New Hampshire.....	–	–	–	–	–	–	–	1	–	–	2
Vermont.....	–	–	–	–	–	–	–	2	8	–	–
Massachusetts.....	–	–	–	–	–	–	2	48	25	5	40
Rhode Island.....	1	–	–	2	–	–	2	16	12	–	3
Connecticut.....	–	–	–	1	–	–	–	16	19	5	10
MIDDLE ATLANTIC.....	1	1	–	9	3	–	34	190	111	11	184
New York City.....	–	–	–	3	2	–	24	71	47	–	16
New York, Up-State.	–	–	–	–	–	–	3	26	25	–	28
New Jersey*.....	–	–	–	4	–	–	4	53	14	6	72
Pennsylvania.....	1	1	–	2	1	–	3	40	25	5	68
EAST NORTH CENTRAL...	6	–	–	3	8	–	8	133	161	11	166
Ohio.....	3	–	–	3	7	–	4	27	35	2	16
Indiana.....	–	–	–	–	–	–	1	6	16	1	14
Illinois.....	–	–	–	–	–	–	–	44	43	7	98
Michigan.....	3	–	–	–	–	–	3	49	55	1	37
Wisconsin.....	–	–	–	–	1	–	–	7	12	–	1
WEST NORTH CENTRAL...	5	3	–	3	2	–	–	29	39	1	108
Minnesota.....	4	2	–	–	1	–	–	5	12	–	7
Iowa.....	1	1	–	1	–	–	–	14	4	–	9
Missouri.....	–	–	–	–	1	–	–	5	10	–	28
North Dakota.....	–	–	–	2	–	–	–	1	2	–	3
South Dakota.....	–	–	–	–	–	–	–	–	3	–	–
Nebraska.....	–	–	–	–	–	–	–	–	–	–	3
Kansas.....	–	–	–	–	–	–	–	4	8	1	58
SOUTH ATLANTIC.....	16	–	–	3	1	1	9	117	106	15	470
Delaware.....	–	–	–	–	–	–	–	1	5	–	2
Maryland.....	7	–	–	–	–	–	2	35	14	4	23
Dist. of Columbia..	–	–	–	–	–	–	2	–	1	–	1
Virginia.....	1	–	–	–	–	–	–	6	6	–	18
West Virginia.....	–	–	–	–	–	–	–	15	2	–	–
North Carolina.....	4	–	–	–	–	–	1	16	8	8	220
South Carolina.....	–	–	–	2	–	–	–	6	1	–	41
Georgia.....	–	–	–	–	–	–	–	7	53	3	142
Florida.....	4	–	–	1	1	1	4	31	16	–	23
EAST SOUTH CENTRAL...	9	1	–	5	–	1	–	61	44	–	63
Kentucky.....	2	–	–	–	–	1	–	20	9	–	53
Tennessee.....	1	1	–	2	–	–	–	21	20	–	–
Alabama.*.....	6	–	–	–	–	–	–	8	6	–	8
Mississippi.....	–	–	–	3	–	–	–	12	9	–	2
WEST SOUTH CENTRAL...	10	–	2	3	3	2	3	88	58	12	77
Arkansas.....	–	–	–	–	–	–	–	8	–	–	8
Louisiana.....	–	–	–	2	3	–	2	14	17	1	32
Oklahoma.....	1	–	–	–	–	–	1	3	2	9	30
Texas.....	9	–	2	1	–	2	–	63	39	2	7
MOUNTAIN.....	5	–	1	1	3	–	7	57	29	6	118
Montana.....	4	–	–	–	–	–	–	8	8	1	3
Idaho.....	–	–	–	–	1	–	1	1	–	–	3
Wyoming.....	–	–	–	–	–	–	–	1	1	–	–
Colorado.....	1	–	–	1	2	–	3	13	3	5	100
New Mexico.....	–	–	–	–	–	–	–	10	6	–	6
Arizona.....	–	–	1	–	–	–	–	13	5	–	1
Utah.....	–	–	–	–	–	–	3	7	6	–	1
Nevada.....	–	–	–	–	–	–	–	4	–	–	4
PACIFIC.....	22	2	–	13	8	10	30	198	288	21	388
Washington.....	–	–	–	–	–	–	9	22	19	–	5
Oregon.....	–	–	–	–	3	1	–	14	21	1	8
California.....	22	2	–	13	5	9	21	162	223	8	292
Alaska.*.....	–	–	–	–	–	–	–	–	2	–	2
Hawaii.....	–	–	–	–	–	–	–	–	23	12	81
Puerto Rico.....	–	–	–	–	–	–	–	13	32	–	1

*Delayed reports: Aseptic meningitis: Alaska delete 23
Hepatitis, infectious: Me. 1, N.J. delete 9, Ala. 2

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED
AUGUST 2, 1969 AND AUGUST 3, 1968 (31st WEEK) - CONTINUED

AREA	MEASLES (Rubeola)			MENINGOCOCCAL INFECTIONS, TOTAL			MUMPS	POLIOMYELITIS			RUBELLA
		Cumulative			Cumulative			Total	Paralytic		
	1969	1969	1968	1969	1969	1968	1969	1969	1969	Cum. 1969	1969
UNITED STATES...	231	19,540	18,765	43	2,210	1,840	724	1	1	6	335
NEW ENGLAND.....	25	1,061	1,123	3	74	92	93	–	–	1	33
Maine.*.....	–	5	35	–	6	6	3	–	–	–	6
New Hampshire.....	–	237	141	–	2	7	–	–	–	–	–
Vermont.....	–	3	2	–	–	1	–	–	–	–	–
Massachusetts.*....	10	202	349	–	31	41	39	–	–	–	9
Rhode Island.....	–	22	5	2	8	7	7	–	–	–	2
Connecticut.....	15	592	591	1	27	30	44	–	–	1	16
MIDDLE ATLANTIC.....	71	7,296	3,723	10	353	329	90	–	–	–	29
New York City.....	40	4,821	1,850	1	71	68	88	–	–	–	9
New York, Up-State.	6	582	1,184	4	60	55	NN	–	–	–	10
New Jersey.....	–	849	580	3	145	118	2	–	–	–	2
Pennsylvania.....	25	1,044	109	2	77	88	NN	–	–	–	8
EAST NORTH CENTRAL...	49	2,032	3,647	4	301	220	136	–	–	–	54
Ohio.*.....	5	359	287	2	115	60	20	–	–	–	12
Indiana.....	10	465	643	–	34	26	23	–	–	–	13
Illinois.....	23	452	1,342	–	41	51	15	–	–	–	4
Michigan.....	2	221	253	1	92	63	28	–	–	–	3
Wisconsin.....	9	535	1,122	1	19	20	50	–	–	–	22
WEST NORTH CENTRAL...	3	507	372	1	116	97	19	–	–	1	7
Minnesota.....	–	5	15	–	25	22	4	–	–	–	–
Iowa.....	1	325	96	–	15	6	4	–	–	–	4
Missouri.*.....	–	22	81	–	51	31	6	–	–	–	2
North Dakota.....	–	10	128	–	–	3	–	–	–	–	–
South Dakota.....	–	3	4	–	1	5	NN	–	–	–	–
Nebraska.....	2	135	38	–	9	6	5	–	–	–	1
Kansas.....	–	7	10	1	15	24	–	–	–	1	–
SOUTH ATLANTIC.....	17	2,426	1,448	9	393	378	95	–	–	1	66
Delaware.....	–	373	15	1	8	7	8	–	–	–	4
Maryland.....	–	65	94	–	35	28	2	–	–	–	3
Dist. of Columbia..	–	–	6	–	9	14	–	–	–	–	–
Virginia.....	9	881	293	–	49	30	38	–	–	–	14
West Virginia.....	3	177	269	–	18	9	28	–	–	–	23
North Carolina.....	1	307	281	–	66	75	NN	–	–	–	–
South Carolina.....	–	110	12	1	55	56	5	–	–	–	1
Georgia.....	–	1	4	5	69	73	–	–	–	–	–
Florida.....	4	512	474	2	84	86	14	–	–	1	21
EAST SOUTH CENTRAL...	1	105	479	2	139	159	41	1	1	1	37
Kentucky.....	1	61	99	–	49	64	9	–	–	–	11
Tennessee.....	–	17	57	–	52	51	30	–	–	–	25
Alabama.....	–	4	92	2	23	24	1	1	1	1	–
Mississippi.....	–	23	231	–	15	20	1	–	–	–	1
WEST SOUTH CENTRAL...	47	4,337	4,613	3	297	296	73	–	–	2	32
Arkansas.....	–	16	2	–	29	20	–	–	–	–	–
Louisiana.....	–	120	10	1	79	83	–	–	–	–	–
Oklahoma.....	–	136	111		29	49	1	–	–	–	–
Texas.....	47	4,065	4,490	2	160	144	72	–	–	2	32
MOUNTAIN.....	6	790	954	2	41	29	94	–	–	–	30
Montana.....	–	16	58	2	8	3	1	–	–	–	1
Idaho.....	–	88	20	–	6	11	1	–	–	–	–
Wyoming.....	–	–	51	–	–	–	–	–	–	–	–
Colorado.....	–	136	492	–	7	10	33	–	–	–	8
New Mexico.....	4	236	88	–	6	–	19	–	–	–	14
Arizona.....	2	306	219	–	10	1	26	–	–	–	4
Utah.....	–	7	21	–	2	1	14	–	–	–	3
Nevada.....	–	1	5	–	2	3	–	–	–	–	–
PACIFIC.....	12	986	2,406	9	496	240	83	–	–	–	47
Washington.....	–	58	515	–	51	37	11	–	–	–	3
Oregon.....	1	197	483	1	12	18	3	–	–	–	4
California.....	5	688	1,371	8	412	172	62	–	–	–	24
Alaska.....	–	8	2	–	11	2	1	–	–	–	5
Hawaii.....	6	35	35	–	10	11	6	–	–	–	11
Puerto Rico.....	38	1,323	374	2	17	19	24	–	–	–	13

*Delayed reports: Measles: Mass. delete 1
Meningococcal infections: Ohio delete 1
Mumps: Me. 9, Ohio 2
Rubella: Me. 4, Mo. 32

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

AUGUST 2, 1969 AND AUGUST 3, 1968 (31st WEEK) - CONTINUED

AREA	STREPTOCOCCAL SORE THROAT & SCARLET FEVER	TETANUS		TULAREMIA		TYPHOID FEVER		TYPHUS FEVER TICK-BORNE (Rky. Mt. Spotted)		RABIES IN ANIMALS	
	1969	1969	Cum. 1969	1969	Cum. 1969	1969	Cum. 1969	1969	Cum. 1969	1969	Cum. 1969
UNITED STATES...	4,541	5	82	1	87	5	161	19	277	50	2,203
NEW ENGLAND.....	589	–	–	–	14	1	6	–	–	1	14
Maine.*.....	6	–	–	–	–	–	1	–	–	–	5
New Hampshire.....	–	–	–	–	–	–	–	–	–	1	3
Vermont.....	25	–	–	–	14	–	–	–	–	–	2
Massachusetts.....	87	–	–	–	–	1	4	–	–	–	1
Rhode Island.....	24	–	–	–	–	–	1	–	–	–	–
Connecticut.....	447	–	–	–	–	–	–	–	–	–	3
MIDDLE ATLANTIC.....	176	1	13	–	4	1	17	1	27	5	99
New York City.....	12	1	6	–	1	1	8	–	–	–	–
New York, Up-State.	135	–	3	–	3	–	5	–	5	3	92
New Jersey.....	NN	–	2	–	–	–	–	–	6	–	–
Pennsylvania.....	29	–	2	–	–	–	4	1	16	2	7
EAST NORTH CENTRAL...	380	–	11	–	7	–	14	–	–	5	150
Ohio.....	51	–	1	–	–	–	7	–	–	–	44
Indiana.....	98	–	–	–	1	–	–	–	–	1	41
Illinois.....	68	–	7	–	2	–	3	–	–	1	26
Michigan.....	97	–	3	–	–	–	4	–	–	1	5
Wisconsin.....	66	–	–	–	4	–	–	–	–	2	34
WEST NORTH CENTRAL...	178	–	5	–	10	–	6	1	8	6	414
Minnesota.....	9	–	1	–	–	–	2	–	–	2	104
Iowa.*.....	86	–	–	–	–	–	–	1	7	2	61
Missouri.....	2	–	1	–	7	–	2	–	–	1	108
North Dakota.....	30	–	–	–	–	–	–	–	–	1	53
South Dakota.....	9	–	–	–	–	–	–	–	1	–	24
Nebraska.....	32	–	–	–	–	–	1	–	–	–	10
Kansas.....	10	–	3	–	3	–	1	–	–	–	54
SOUTH ATLANTIC.....	576	3	17	–	20	1	29	15	159	11	572
Delaware.....	7	–	–	–	–	1	2	–	3	–	–
Maryland.....	59	1	1	–	–	–	4	2	36	–	–
Dist. of Columbia..	1	–	2	–	–	–	1	–	–	–	–
Virginia.....	147	–	–	–	4	–	–	6	52	6	297
West Virginia.....	126	–	1	–	2	–	1	–	5	1	87
North Carolina.....	NN	–	2	–	5	–	6	3	42	–	4
South Carolina.....	74	–	1	–	2	–	1	1	11	–	–
Georgia.....	4	2	2	–	3	–	7	3	10	1	53
Florida.....	158	–	8	–	4	–	7	–	–	3	131
EAST SOUTH CENTRAL...	965	–	13	–	9	1	17	2	35	6	331
Kentucky.....	140	–	6	–	–	–	2	–	5	2	173
Tennessee.....	709	–	4	–	8	–	12	2	29	1	114
Alabama.....	42	–	2	–	–	1	1	–	1	3	41
Mississippi.....	74	–	1	–	1	–	2	–	–	–	3
WEST SOUTH CENTRAL...	542	1	15	1	15	–	21	–	31	13	301
Arkansas.*.....	2	–	–	–	1	–	10	–	6	–	23
Louisiana.....	1	–	6	1	4	–	2	–	–	3	22
Oklahoma.....	8	–	1	–	6	–	–	–	21	–	45
Texas.....	531	1	8	–	4	–	9	–	4	10	211
MOUNTAIN.....	1,022	–	2	–	8	1	21	–	12	–	95
Montana.*.....	74	–	1	–	–	–	–	–	–	–	–
Idaho.....	41	–	–	–	–	–	3	–	3	–	–
Wyoming.....	2	–	–	–	2	–	5	–	–	–	48
Colorado.....	630	–	1	–	–	1	3	–	7	–	3
New Mexico.....	140	–	–	–	1	–	5	–	–	–	9
Arizona.*.....	42	–	–	–	–	–	4	–	–	–	22
Utah.....	93	–	–	–	5	–	–	–	2	–	3
Nevada.....	–	–	–	–	–	–	1	–	–	–	10
PACIFIC.....	113	–	6	–	–	–	30	–	5	3	227
Washington.....	14	–	1	–	–	–	1	–	3	–	2
Oregon.....	41	–	–	–	–	–	6	–	–	–	2
California.....	---	–	5	–		–	23	–	2	3	223
Alaska.....	26	–	–	–	–	–	–	–	–	–	–
Hawaii.....	32	–	–	–	–	–	–	–	–	–	–
Puerto Rico.....	2	–	4	–	–	2	5	–	–	–	18

*Delayed reports: SST: Me. 10, Ark. 5, Ariz. 60
Tetnus: Mont. 1, Ariz. delete 1
RMSF: Iowa 4
Rabies in animals: Ark. 2

Week No. 31

TABLE IV. DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDED AUGUST 2, 1969

(By place of occurrence and week of filing certificate. Excludes fetal deaths)

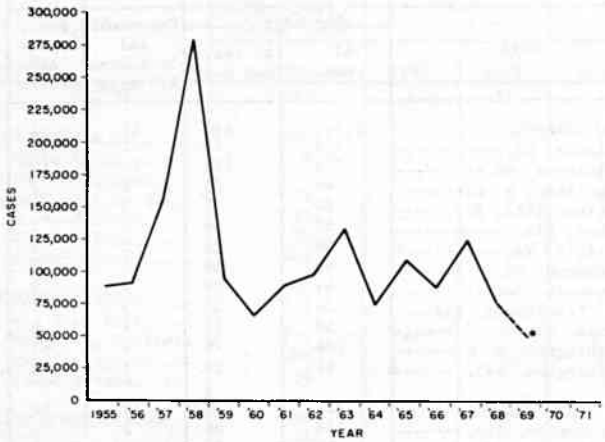
Area	All Causes		Pneumonia and Influenza All Ages	Under 1 year All Causes
	All Ages	65 years and over		
NEW ENGLAND:	630	365	27	36
Boston, Mass.	173	85	11	2
Bridgeport, Conn.	33	22	5	–
Cambridge, Mass.	21	13	–	–
Fall River, Mass.	21	11	–	2
Hartford, Conn.	49	31	–	2
Lowell, Mass.	33	22	1	2
Lynn, Mass.	22	15	–	–
New Bedford, Mass.	26	20	–	–
New Haven, Conn.	79	36	1	22
Providence, R. I.	47	25	2	2
Somerville, Mass.	13	11	–	–
Springfield, Mass.	46	29	5	1
Waterbury, Conn.	24	21	–	–
Worcester, Mass.	43	24	2	3
MIDDLE ATLANTIC:	3,181	1,837	117	147
Albany, N. Y.	40	23	1	1
Allentown, Pa.	43	26	2	1
Buffalo, N. Y.	139	76	7	9
Camden, N. J.	48	25	2	5
Elizabeth, N. J.	33	19	1	–
Erie, Pa.	35	22	3	3
Jersey City, N. J.	67	36	3	5
Newark, N. J.	81	37	5	5
New York City, N. Y.	1,460	842	48	65
Paterson, N. J.	43	25	2	5
Philadelphia, Pa.	588	324	8	20
Pittsburgh, Pa.	193	118	14	9
Reading, Pa.	56	38	2	2
Rochester, N. Y.	112	72	6	5
Schenectady, N. Y.	20	16	1	–
Scranton, Pa.	41	29	4	3
Syracuse, N. Y.	76	46	4	4
Trenton, N. J.	50	27	1	4
Utica, N. Y.	24	17	1	1
Yonkers, N. Y.	32	19	2	–
EAST NORTH CENTRAL:	2,418	1,305	72	124
Akron, Ohio	54	32	1	3
Canton, Ohio	45	25	3	1
Chicago, Ill.	627	318	14	37
Cincinnati, Ohio	172	100	2	5
Cleveland, Ohio	175	89	1	12
Columbus, Ohio	96	47	8	5
Dayton, Ohio	84	54	2	1
Detroit, Mich.	359	179	8	19
Evansville, Ind.	47	35	1	5
Flint, Mich.	47	25	3	4
Fort Wayne, Ind.	38	20	1	3
Gary, Ind.	31	14	1	2
Grand Rapids, Mich.	39	22	2	1
Indianapolis, Ind.	149	78	4	7
Madison, Wis.	40	21	2	1
Milwaukee, Wis.	131	82	2	7
Peoria, Ill.	51	26	–	1
Rockford, Ill.	34	21	6	2
South Bend, Ind.	44	26	3	1
Toledo, Ohio	99	61	7	4
Youngstown, Ohio	56	30	1	3
WEST NORTH CENTRAL:	858	503	29	51
Des Moines, Iowa	57	39	1	2
Duluth, Minn.	26	17	4	1
Kansas City, Kans.	55	28	1	9
Kansas City, Mo.	136	79	9	8
Lincoln, Nebr.	20	15	–	–
Minneapolis, Minn.	119	70	–	6
Omaha, Nebr.	78	47	2	9
St. Louis, Mo.	248	131	3	14
St. Paul, Minn.	59	38	–	1
Wichita, Kans.	60	39	9	1
SOUTH ATLANTIC:	1,195	610	41	94
Atlanta, Ga.	138	61	1	7
Baltimore, Md.	275	142	10	15
Charlotte, N. C.	46	21	2	3
Jacksonville, Fla.	80	45	3	6
Miami, Fla.	83	46	–	2
Norfolk, Va.	56	28	3	2
Richmond, Va.	92	54	6	6
Savannah, Ga.	41	20	1	2
St. Petersburg, Fla.	76	56	3	1
Tampa, Fla.	55	32	4	4
Washington, D. C.	204	76	5	41
Wilmington, Del.	49	29	3	5
EAST SOUTH CENTRAL:	727	393	32	56
Birmingham, Ala.	118	66	2	6
Chattanooga, Tenn.	59	35	4	5
Knoxville, Tenn.	51	33	1	3
Louisville, Ky.	141	81	14	5
Memphis, Tenn.	168	79	6	25
Mobile, Ala.	53	26	1	6
Montgomery, Ala.	40	26	3	–
Nashville, Tenn.	97	47	1	6
WEST SOUTH CENTRAL:	1,199	596	39	84
Austin, Tex.	50	34	2	1
Baton Rouge, La.	32	20	2	–
Corpus Christi, Tex.	24	15	–	2
Dallas, Tex.	199	101	10	14
El Paso, Tex.	42	20	5	8
Fort Worth, Tex.	68	32	2	5
Houston, Tex.	182	75	2	14
Little Rock, Ark.	63	35	3	1
New Orleans, La.	162	68	4	11
Oklahoma City, Okla.	120	65	1	7
San Antonio, Tex.	136	65	1	7
Shreveport, La.	54	29	2	8
Tulsa, Okla.	67	37	5	6
MOUNTAIN:	476	263	18	39
Albuquerque, N. Mex.	39	19	2	4
Colorado Springs, Colo.	22	17	4	2
Denver, Colo.	124	59	5	15
Ogden, Utah	19	13	2	1
Phoenix, Ariz.	119	66	–	6
Pueblo, Colo.	24	15	–	1
Salt Lake City, Utah	66	42	2	6
Tucson, Ariz.	63	32	3	4
PACIFIC:	1,602	935	35	69
Berkeley, Calif.	13	8	1	–
Fresno, Calif.	54	30	–	3
Glendale, Calif.	28	17	–	1
Honolulu, Hawaii	48	19	–	7
Long Beach, Calif.	89	44	3	6
Los Angeles, Calif.	553	328	9	21
Oakland, Calif.	77	48	2	3
Pasadena, Calif.	31	25	–	–
Portland, Oreg.	125	82	1	4
Sacramento, Calif.	74	45	3	2
San Diego, Calif.	98	52	3	11
San Francisco, Calif.	161	89	5	6
San Jose, Calif.	39	24	5	–
Seattle, Wash.	136	77	1	2
Spokane, Wash.	39	27	–	1
Tacoma, Wash.	37	20	2	2
Total	12,286	6,807	410	700

Cumulative Totals
including reported corrections for previous weeks

All Causes, All Ages	411,660
All Causes, Age 65 and over	236,720
Pneumonia and Influenza, All Ages	20,317
All Causes, Under 1 Year of Age	19,026

SMALLPOX – *(Continued from page 271)*

Figure 2
REPORTED CASES OF SMALLPOX IN THE WORLD
1955-1969



tion program has been intensified during the past year, with almost 35 million vaccinations administered since the program began. A total of 861 cases have been recorded since January 1969, a decrease of 30 percent from the number recorded for the same period in 1968.

Smallpox incidence in the 19 countries of West and Central Africa continues to decline and reached record low levels during the first half of 1969. Only three countries, Nigeria, Sierra Leone, and Togo, have reported cases since April. Over 80 million persons have been vaccinated since the regional eradication program began in January 1967. Based on current trends in smallpox incidence in this area and considering that the initial vaccination program will essentially be completed during 1969, the West and Central African countries could become free of smallpox sometime this year.

Recorded cases of smallpox during 1969 in East and Southern Africa declined more than 50 percent from the number reported in 1968 for the same period; smallpox incidence is presently at a record low.

Smallpox incidence in Asia declined by 40 percent in 1968 and appears to be declining at a comparable rate in 1969. There appears to be a modest decline in incidence of smallpox in India, although reporting is incomplete and surveillance activities limited. In Indonesia an intensive eradication program which began in July 1968 has progressively been extended throughout the country; however, the reported incidence to date is little different from that in 1968. Intensified and more complete reporting in Afghanistan and Nepal resulted in an increase in notifications in 1968 and a further increase in 1969 for Nepal. A marked decline in smallpox has been observed in 1969 in East Pakistan which in 1968 recorded its highest incidence in a decade. West Pakistan has reported an increase in smallpox in 1969.

(Reported by the Smallpox Eradication Program, NCDC).

*Source: *The World Health Organization Weekly Epidemiological Record*, *44*(27):423-444, 1969.

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DIRECTOR, NATIONAL COMMUNICABLE DISEASE CENTER — DAVID J. SENCER, M.D.
CHIEF, EPIDEMIOLOGY PROGRAM — A. D. LANGMUIR, M.D.

EDITOR — MICHAEL B. GREGG, M.D.
MANAGING EDITOR — PRISCILLA B. HOLMAN

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