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MORBIDITY AND MORTALITY WEEKLY REPORT

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International Notes

Laboratory-Associated Smallpox — England

England has reported a case of laboratory-associated smallpox. This is the first smallpox case reported in the world since October 26, 1977, when a case occurred in Somalia.

The patient is a 40-year-old female medical photographer employed at Birmingham Medical School; her office is located on the floor above the Department of Virology, where work on variola viruses is done. She developed fever on August 11 and rash 2 days later. She was hospitalized on August 24; the same day she was transferred to a smallpox infectious disease hospital.

Electron microscopy (EM) was positive for pox virus on August 25; on August 27, variola major virus was isolated.

Thirty-nine close and 196 casual contacts of the patient have been identified. Three contacts who have become ill have been admitted to isolation as a precautionary measure. EM results on one such contact, who had rash and fever, showed *Herpes* virus. As of August 30, all other contacts are well.

One contact, a 20-year-old British woman, traveled to North Dakota on August 18. When it was learned that her co-worker had smallpox, state and local health officials were notified, and CDC dispatched a medical epidemiologist to the farm where she is staying. She is afebrile and has no symptoms. She had been vaccinated 5 years ago. Daily surveillance is being maintained by local health authorities.

As of August 30, the patient is still hospitalized but improving. She has a confluent rash on her face and discrete lesions on her extremities. The medical school laboratory has been closed.

Reported by PA Hyzler, MD, National Health Div, Dept of Health and Social Security, London; K Mosser, State Epidemiologist, North Dakota State Dept of Health; Bur of Smallpox Eradication, CDC.

Editorial Note: This patient was presumably infected by airborne transmission of variola virus from the smallpox laboratory on the ground floor to the patient's normal work area on the first floor. The ability of variola virus to transmit from 1 floor to another via external air currents has been previously documented in a hospital outbreak of smallpox in Meschede, Germany (1). Investigation will be required to identify the specific safety breakdown in the Birmingham laboratory.

As smallpox laboratories hold the only known reservoir of smallpox virus, the World Health Organization (WHO) has urged that storage of the reference virus strains be restricted to the 5 WHO Pox Virus Reference Centers (2). Since 1975, 62 of 76 laboratories with known variola virus have destroyed or transferred their virus stocks. The Birmingham incident emphasizes the continuing risk of laboratory-acquired infection and the need to ensure maximum security at every facility holding the virus.

Smallpox — Continued

The British contact now in the United States is not believed to be at risk of developing smallpox because her exposure to the case occurred 2-3 days before the patient had become infectious and 21 days have elapsed since exposure—more than the maximum expected incubation period. U.S. and British vaccination requirements for international travelers remain unchanged (3). However, Malta and Jamaica are now requiring valid vaccination certificates for anyone who has been in Birmingham in the previous 14 days.

References

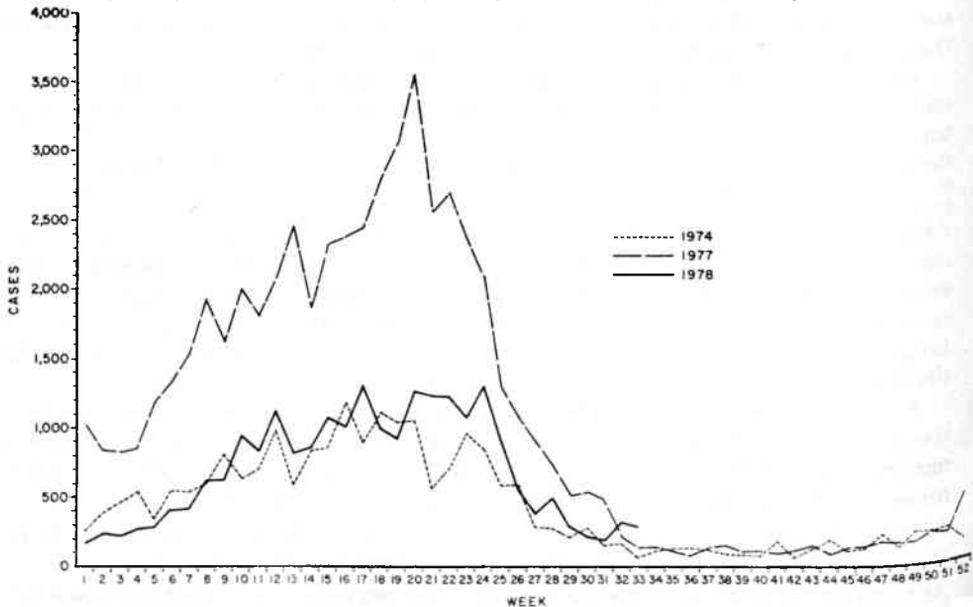
1. Wehrle PF, Posch J, Richter KH, Henderson DA: An airborne outbreak of smallpox in a German hospital and its significance with respect to other recent outbreaks in Europe. *Bull WHO* 43:669-679, 1970
2. WHO: Laboratories retaining variola virus. *Weekly Epidemiological Record* 53:221-222, 1978
3. *MMWR* 27:295, 1978

*Current Trends***Measles — United States, 1978**

During the first 33 weeks of 1978, 22,546 cases of measles were reported to CDC—a 57.1% decrease from the same period in 1977 (1). Twenty-six states have reported no measles for at least a 1-month period. The incidence of measles this year is 15.8% greater than the equivalent period in 1974, when the fewest number of cases was reported (Figure 1).

Five states—Maine, Michigan, Virginia, West Virginia, and Wisconsin—have each reported a measles incidence rate greater than 100 cases per 100,000 population less than

FIGURE 1. Reported measles cases, by week, United States, 1974, 1977, 1978



Measles — Continued

18 years of age.* These states, which together account for 10.3% of the U.S. population of this age, have reported 60.9% of the nation's measles cases this year.

Reported by Immunization Div, Bur of State Services, CDC.

Editorial Note: Data collected prior to the introduction of measles vaccine suggest that only about 10% of measles cases occurring in the United States at that time were reported to local health officials. Although it is generally felt that reporting efficiency has improved somewhat since then, it is clear that a significant amount of underreporting still exists. Since there is variation from area to area in the methodology (and probably the sensitivity) of the current measles surveillance system, incidence rate data must be interpreted with some caution. Nonetheless, it is reasonable to assume that prolonged absence of reported cases in a particular state probably indicates little or no measles transmission. Preliminary indications from the 5 high-incidence states that a large number of cases are occurring in junior and senior high school students highlight the need to assess immunization status of children of all ages and to provide immunization to those not known to be protected.

Reference

1. MMWR 27:252, 1978

*1976 population data

*Epidemiologic Notes and Reports***Q Fever — New York**

On May 25, 1978, the Suffolk County Department of Health Services was informed by an infection control nurse at the Brookhaven Memorial Hospital that 2 days earlier a 27-year-old man had been admitted with a 4-day history of fever to 104 F (40 C), severe headache, chills, malaise, and vomiting. This patient had visited West Africa in April and was an employee of an exotic bird and reptile importing company in Deer Park, New York. Within 1 week, 3 other employees of that company were admitted to the same hospital with similar symptoms. One had a non-productive cough. All were treated with oral tetracycline with rapid resolution of their symptoms and complete recovery.

These 4 persons had all been involved in unpacking and deticking a shipment of approximately 500 ball pythons (*Python regius*), which were imported on May 3 from Accra, Ghana. Examination of the hemolymph of 5 ticks removed from these snakes indicated that all contained numerous bacteria, both bacillary and coccoid forms, and that 2 contained rickettsiae which were not further characterized. Three types of ticks were identified, namely, *Amblyomma nuttalli*, *Aponomma latum*, and *Aponomma flavomaculatum*.

Paired serum samples examined by the New York State Department of Health Laboratory revealed rising titers against the Q fever antigen by complement fixation. Serum specimens from the 4 hospitalized patients, tested at Rocky Mountain Laboratory, National Institutes of Health (NIH), by microimmunofluorescence, showed confirmatory rises in titers to Q fever.

Seven other persons were identified who had been in contact with the pythons, ticks from the pythons, or excreta of ticks or pythons. Of these, 5 had had febrile illnesses

Q Fever - Continued

with similar, but somewhat milder, symptoms than the hospitalized group. Four of the 5 had been seen by their family physicians and had received oral tetracycline. The fifth did not see a physician. Serologic tests in 4 of these individuals confirmed a recent Q fever infection in one and probable Q fever infections in 2 others.

Samples of python blood, spleen and liver, as well as 15 live ticks and 5 frozen ticks removed from the pythons, were processed for attempted isolation of organisms; all were negative.

The county health department has been informed that 420 of the pythons have been sold to retailers all over the United States. The distribution list is unavailable at this time. *Reported by S Kim, MD, Patchogue, New York; S Guirgis, PhD, D Harris, MD, MPH, T Keelan, RN, MPH, M Mayer, MD, MPH, M Zaki, MD, DrPH, Suffolk County Dept of Health Services; L Steinert, RN, BS, Brookhaven Memorial Hospital; J Benach, PhD, D White, MS, DO Lyman, MD, State Epidemiologist, New York State Dept of Health; R Ormsbee, PhD, Rocky Mountain Laboratory, National Institute of Allergy and Infectious Diseases, NIH; Viral Diseases Div, Bur of Epidemiology, CDC.*

Editorial Note: Q fever is an acute, systemic disease caused by *Coxiella burnetii*. Characterized by the abrupt onset of headache, myalgia, chills and fever, it is usually a self-limited illness of 1-3 weeks duration. Pneumonia and hepatitis are frequent manifestations (1), and endocarditis has been reported (2). Patients with Q fever, as opposed to those with other rickettsial diseases, do not develop Weil-Felix agglutinins and virtually never have an accompanying rash. The treatment of choice is tetracycline or chloramphenicol.

(Continued on page 327)

TABLE I. Summary - cases of specified notifiable diseases, United States
[Cumulative totals include revised and delayed reports through previous weeks.]

DISEASE	34th WEEK ENDING		MEDIAN 1973-1977**	CUMULATIVE, FIRST 34 WEEKS		
	August 26, 1978	August 27, 1977*		August 26, 1978	August 27, 1977*	MEDIAN 1973-1977**
Aseptic meningitis	346	206	131	2,706	2,491	1,835
Brucellosis	3	14	6	100	150	150
Chickenpox	321	217	263	121,877	159,902	144,519
Diphtheria	3	1	1	57	60	126
Encephalitis: Primary (arthropod-borne & unspec.)	32	53	53	490	554	592
Post-infectious	11	3	6	137	148	196
Hepatitis, Viral: Type B	285	304	273	9,561	10,765	7,511
Type A	562	612	673	18,535	20,196	22,856
Type unspecified	200	169	1	5,832	5,763	1
Malaria	8	15	14	449	354	268
Measles (rubeola)	91	103	103	22,637	52,600	23,999
Meningococcal infections: Total	32	16	16	1,702	1,226	1,022
Civilian	32	15	15	1,682	1,217	999
Military	-	1	-	20	9	23
Mumps	106	106	269	13,015	15,730	43,881
Pertussis	54	97	---	1,235	865	---
Rubella (German measles)	65	49	49	14,908	18,428	14,654
Tetanus	3	3	3	53	45	57
Tuberculosis	568	644	644	19,677	19,779	20,574
Tularemia	1	4	3	69	102	92
Typhoid fever	10	8	6	284	231	245
Typhus fever, tick-borne (Rky. Mt. spotted)	44	53	32	743	884	612
Venereal diseases:						
Gonorrhea: Civilian	21,662	20,445	20,750	640,068	635,797	635,797
Military	428	602	604	16,321	17,679	19,504
Syphilis, primary & secondary: Civilian	477	444	463	13,687	13,455	15,873
Military	5	2	2	187	192	229
Rabies in animals	31	54	59	2,001	1,992	1,931

TABLE II. Notifiable diseases of low frequency, United States

	CUM. 1978		CUM. 1978
Anthrax (N.Dak. 1)	5	Poliomyelitis: Total	1
Botulism	55	Paralytic	1
Congenital rubella syndrome (Mich. 1)	22	Psittacosis (La. 1)	74
Leprosy (Tex. 1, Calif. 5)	104	Rabies in man	-
Leptospirosis	39	Trichinosis (NYC 2)	40
Plague	6	Typhus fever, flea-borne (endemic, murine)	26

* Delayed reports received for calendar year 1977 are used to update last year's weekly and cumulative totals.

** Medians for gonorrhea and syphilis are based on data for 1975-1977.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending August 26, 1978, and August 27, 1977 (34th week)

REPORTING AREA	ASEPTIC MENIN- GITIS	BRU- CEL- LOSIS	CHICKEN- POX	DIPHTHERIA		ENCEPHALITIS			HEPATITIS (VIRAL), BY TYPE			MALARIA	
						Primary		Post-in- fectious	B	A	Unspecified		
						1978	1977*						
UNITED STATES	346	3	321	3	57	32	53	11	285	562	200	8	449
NEW ENGLAND	2	2	33	-	-	1	1	-	3	9	9	-	16
Maine	-	1	5	-	-	-	-	-	-	1	-	-	1
N.H.†	1	-	-	-	-	-	-	-	-	3	-	-	3
Vt.	-	-	-	-	-	-	-	-	1	-	-	-	-
Mass.	1	-	11	-	-	1	1	-	3	2	8	-	3
R.I.	-	-	16	-	-	-	-	-	1	-	-	-	1
Conn.	-	1	1	-	-	-	-	-	3	3	1	-	8
MID. ATLANTIC	69	-	18	-	1	3	7	-	34	48	11	3	96
Upstate N.Y.	5	-	7	-	-	-	1	-	8	10	4	-	13
N.Y. City	9	-	10	-	1	-	1	-	7	8	2	3	42
N.J.†	37	-	NN	-	-	-	-	-	15	18	4	-	18
Pa.†	18	-	1	-	-	3	5	-	4	12	1	-	23
E.N. CENTRAL	103	-	121	-	-	7	19	-	39	85	20	-	24
Ohio	59	-	10	-	-	4	6	-	7	14	-	-	4
Ind.†	4	-	14	-	-	-	-	13	3	3	7	-	3
Ill.	6	-	26	-	-	-	-	-	7	35	7	-	4
Mich.	31	-	14	-	-	3	-	-	21	29	5	-	11
Wis.†	3	-	57	-	-	-	-	-	1	4	1	-	2
W.N. CENTRAL	9	-	6	-	2	2	5	1	8	27	-	-	19
Minn.	-	-	-	-	-	2	-	-	3	15	-	-	4
Iowa	-	-	6	-	-	-	-	-	2	-	-	-	-
Mo.†	6	-	-	-	1	-	1	-	1	3	-	-	7
N. Dak.	-	-	-	-	-	-	-	-	2	1	-	-	-
S. Dak.	-	-	-	-	-	-	1	-	-	-	-	-	1
Nebr.†	1	-	-	-	1	-	3	1	-	6	-	-	3
Kans.	2	-	-	-	-	-	-	-	-	2	-	-	4
S. ATLANTIC	48	-	85	-	-	5	6	5	67	74	23	3	87
Del.	2	-	2	-	-	-	-	-	-	-	-	-	1
Md.	29	-	20	-	-	2	1	-	10	6	3	-	20
D.C.†	-	-	1	-	-	-	-	-	3	1	-	-	2
Va.	-	-	6	-	-	1	1	-	10	6	4	1	19
W. Va.†	1	-	36	-	-	2	4	-	-	1	1	-	1
N.C.†	5	-	NN	-	-	-	-	-	2	5	1	-	7
S.C.	-	-	1	-	-	-	-	-	4	5	-	-	4
Ga.	-	-	-	-	-	-	-	-	10	7	-	-	6
Fla.†	11	-	19	-	-	-	-	5	28	43	14	2	27
E.S. CENTRAL	29	-	9	-	-	3	5	-	22	35	3	-	4
Ky.	20	-	9	-	-	3	1	-	6	8	-	-	1
Tenn.	1	-	NN	-	-	-	4	-	6	3	3	-	1
Ala.	7	-	-	-	-	-	-	-	5	2	-	-	1
Miss.	1	-	-	-	-	-	-	-	5	22	-	-	1
W.S. CENTRAL	9	-	9	-	1	2	4	-	11	76	41	-	22
Ark.	1	-	-	-	1	1	-	-	1	2	6	-	1
La.	-	-	NN	-	-	-	-	-	2	11	4	-	3
Okla.	-	-	-	-	-	-	-	-	1	5	6	-	-
Tex.†	8	-	9	-	-	1	2	-	9	58	25	-	18
MOUNTAIN	19	-	32	-	3	3	3	-	11	33	48	-	4
Mont.	11	-	2	-	-	2	1	-	-	2	1	-	-
Idaho	-	-	-	-	-	-	-	-	-	6	-	-	-
Wyo.	-	-	-	-	-	-	-	-	-	1	-	-	-
Colo.	-	-	-	-	-	-	-	-	-	7	7	-	1
N. Mex.†	1	-	30	-	2	-	-	-	6	8	7	-	1
Ariz.	7	-	-	-	-	-	-	-	1	8	32	-	1
Utah	-	-	NN	-	-	-	-	-	-	-	-	-	-
Nev.	-	-	-	-	1	-	-	-	2	1	1	-	1
PACIFIC	58	1	8	3	50	6	3	5	85	175	45	2	177
Wash.†	6	-	-	3	46	3	1	-	6	22	-	-	6
Oreg.	7	-	-	-	-	-	-	-	6	9	2	-	4
Calif.†	42	1	-	1	3	2	3	3	71	140	43	2	149
Alaska	1	-	2	-	3	-	-	-	-	3	-	-	3
Hawaii	2	-	6	-	-	-	-	-	2	1	-	-	15
Guam†	NA	NA	NA	NA	-	NA	-	-	NA	NA	NA	NA	-
P.R.	-	-	12	-	-	-	-	2	-	5	3	4	4
V.I.	-	-	-	-	-	-	-	-	-	-	-	-	1

NN: Not notifiable.

†Delayed reports received for 1977 are not shown below but are used to update last year's weekly and cumulative totals.

*The following delayed reports will be reflected in next week's cumulative totals: Asep. mening.: N.H.+2, N.J.-3, Ind.+5, Nebr.+1, N. Mex.+5; Chickenpox:

W. Va.+37, Fla.+2, Calif.+1, Guam+11; Enceph.: Pa.-1, Ind.+4, N. Mex.+1; Hep. B: N.J.+2, Wis.+1, D.C.+2, N.C.+1, Fla.+1, Tex.+1, Wash.-2, Guam+1; Hep. A: N.J.-1, Wis.-1, Mo.-2, N.C.-1, Fla.-6, Tex.+1; Hep. Unsp.: N.J.-1, Fla.+1, Tex.-2, Guam+2; Malaria: Wash.-1.

TABLE III (Cont'd). Cases of specified notifiable diseases, United States, weeks ending August 26, 1978, and August 27, 1977 (34th week)

REPORTING AREA	MEASLES (RUBELLA)			MENINGOCOCCAL INFECTIONS TOTAL			MUMPS		PERTUSSIS	RUBELLA		TETANUS
	1978	CUM. 1978	CUM. 1977*	1978	CUM. 1978	CUM. 1977*	1978	CUM. 1978	1978	1978	CUM. 1978	CUM. 1978
UNITED STATES	51	22,637	52,600	32	1,702	1,226	106	13,015	54	65	14,908	53
NEW ENGLAND	2	1,968	2,482	1	86	52	2	718	3	5	729	1
Maine	-	1,314	170	-	6	3	1	485	-	-	148	-
N.H.†	-	46	510	-	8	3	-	13	-	1	101	-
Vt.	-	25	292	-	2	5	-	5	-	-	27	1
Mass.	2	253	623	-	27	17	-	85	3	4	215	-
R.I.	-	8	64	-	17	1	-	32	-	-	42	-
Conn.	-	322	823	1	26	23	1	98	-	-	196	-
MID. ATLANTIC	7	2,147	8,305	4	301	162	7	593	8	9	2,971	3
Upstate N.Y.	3	1,363	3,787	-	103	36	1	198	4	1	515	1
N.Y. City	3	335	710	2	64	44	3	137	2	4	122	-
N.J.	1	74	195	1	52	37	1	131	-	2	1,598	-
Pa.	-	355	3,613	1	77	45	2	127	2	2	736	2
E.N. CENTRAL	38	9,867	11,128	2	153	134	43	5,211	10	19	6,839	2
Ohio	-	475	1,842	2	57	44	22	893	1	1	1,257	1
Ind.†	5	187	4,302	-	29	9	1	302	4	4	566	1
Ill.	7	628	1,660	-	7	34	5	1,651	-	-	422	-
Mich.	24	7,124	925	-	49	35	3	1,344	-	6	3,072	-
Wis.	2	1,453	2,399	-	11	12	12	1,021	5	8	1,522	-
W.N. CENTRAL	-	378	9,437	-	56	54	3	1,893	2	-	655	6
Minn.	-	34	2,620	-	14	19	1	15	-	-	128	1
Iowa	-	52	4,267	-	5	8	-	123	-	-	92	-
Mo.	-	11	1,038	-	23	16	1	1,154	-	-	57	-
N. Dak.	-	191	23	-	2	1	1	13	-	-	81	-
S. Dak.	-	-	67	-	3	4	-	6	1	-	111	1
Nebr.	-	5	214	-	-	1	-	21	1	-	34	-
Kans.	-	95	1,208	-	9	5	-	560	-	-	152	4
S. ATLANTIC	19	4,827	4,517	6	424	288	14	741	4	13	1,002	11
Del.	1	7	22	-	15	19	4	53	-	1	35	-
Md.	4	50	371	2	27	18	-	65	-	-	7	2
D.C.	-	-	14	-	1	-	-	1	-	-	1	-
Va.	2	2,805	2,701	-	52	23	1	133	-	4	238	-
W. Va.	2	1,032	222	-	9	9	1	165	-	5	333	-
N.C.	-	116	62	-	82	62	1	66	-	-	178	2
S.C.	-	156	147	-	24	28	1	16	1	-	28	1
Ga.	-	17	764	1	47	44	1	65	2	-	5	-
Fla.†	10	604	214	3	167	85	5	177	1	3	177	6
E.S. CENTRAL	2	1,379	1,969	2	136	132	6	1,108	3	2	494	3
Ky.	-	118	1,182	1	28	26	-	181	1	-	128	2
Tenn.	-	95	672	-	32	33	1	445	2	2	198	-
Ala.	-	89	77	1	42	49	1	407	-	-	21	-
Miss.	2	216	38	-	34	24	4	75	-	-	147	1
W.S. CENTRAL	-	1,009	2,062	8	269	215	14	1,645	4	2	905	14
Ark.	-	14	29	-	22	11	1	582	1	-	58	1
La.	-	341	74	6	114	83	-	61	-	-	483	1
Okla.	-	13	55	-	16	10	-	4	1	-	11	3
Tex.	-	639	1,904	2	117	114	13	998	2	2	353	9
MOUNTAIN	-	247	2,506	1	36	30	11	394	13	4	199	1
Mont.	-	105	1,160	1	2	2	-	141	-	-	17	-
Idaho	-	1	161	-	3	4	-	20	1	-	2	-
Wyo.	-	-	19	-	-	1	-	-	-	-	-	-
Colo.	-	29	499	-	2	1	9	86	11	2	47	-
N. Mex.	-	-	256	-	7	8	-	15	-	-	3	-
Ariz.	-	49	300	-	13	10	1	12	1	1	92	-
Utah	-	44	18	-	5	3	1	115	-	1	27	1
Nev.	-	19	93	-	4	1	-	5	-	-	11	-
PACIFIC	23	815	10,194	8	241	159	6	712	7	11	1,114	12
Wash.	-	157	532	-	39	18	-	164	-	-	98	-
Oreg.	-	144	366	3	25	17	2	84	1	3	104	-
Calif.	23	535	9,201	5	167	96	4	431	6	7	896	12
Alaska	-	-	60	-	6	26	-	8	-	1	4	-
Hawaii	-	9	35	-	4	2	-	25	-	-	10	-
Guam†	NA	24	6	-	-	1	NA	33	NA	NA	3	1
P.R.	5	228	901	1	5	1	24	1,125	1	-	15	5
V.I.	-	6	14	-	1	-	-	1	-	-	1	-

NA: Not available.

*Delayed reports received for 1977 are not shown below but are used to update last year's weekly and cumulative totals.

†The following delayed reports will be reflected in next week's cumulative totals: Measles: Guam +2; Men. inf.: Fla. -1, Mumps: Ind. -1, Guam +4; Pertussis: N.H. +2; Rubella: Guam +1.

TABLE III (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending
August 26, 1978, and August 27, 1977 (34th week)

REPORTING AREA	TUBERCULOSIS		TULA- REMIA	TYPHOID FEVER		TYPHUS FEVER (Tick borne) (RMSF)		VENEREAL DISEASES (Civilian)								RABIES (in Animals)	
								GONORRHEA				SYPHILIS (Pri. & Sec.)					
	1978	CUM. 1978	CUM. 1978	1978	CUM. 1978	1978	CUM. 1978	1978	CUM. 1978	CUM. 1977*	1978	CUM. 1978	CUM. 1977*	1978	CUM. 1978	CUM. 1977*	CUM. 1977*
UNITED STATES	568	19,677	69	10	284	44	743	21,662	640,068	635,797	477	13,687	13,455	2,001			
NEW ENGLAND	19	649	-	1	40	2	14	550	16,661	16,809	9	384	551	73			
Maine †	-	45	-	-	-	-	-	31	1,242	1,237	-	7	16	61			
N.H.	-	13	-	-	5	-	-	26	774	661	-	5	3	2			
Vt. †	1	29	-	-	1	-	-	13	387	440	-	3	6	1			
Mass.	13	378	-	1	23	1	5	251	7,385	7,149	6	235	393	6			
R.I.	1	45	-	-	4	-	1	31	1,182	1,369	-	16	7	-			
Conn.	4	139	-	-	7	1	8	198	5,691	5,953	3	118	126	3			
MID. ATLANTIC	95	3,349	3	-	32	2	43	1,827	67,913	64,648	51	1,801	1,872	69			
Upstate N.Y.	8	497	2	-	7	-	24	391	11,551	11,109	6	139	180	50			
N.Y. City †	31	1,208	1	-	17	-	2	719	26,203	25,380	27	1,254	1,177	-			
N.J.	19	814	-	-	4	2	10	121	12,358	11,120	13	207	244	11			
Pa. †	37	830	-	-	4	-	7	596	17,801	17,039	5	201	271	8			
E.N. CENTRAL	108	3,055	1	1	21	1	22	3,436	96,637	99,460	45	1,499	1,424	119			
Ohio	20	560	1	-	7	1	16	1,092	25,260	25,920	19	288	334	11			
Ind. †	10	351	-	-	-	-	1	97	9,701	8,923	1	93	107	8			
Ill.	42	1,146	-	-	4	-	5	1,180	30,664	32,634	22	932	745	39			
Mich. †	33	863	-	1	10	-	-	839	22,356	22,901	2	141	167	5			
Wis.	3	135	-	-	-	-	-	228	8,656	9,082	1	45	71	56			
W.N. CENTRAL	12	640	15	-	12	1	22	998	32,187	33,446	14	331	296	419			
Minn.	3	120	-	-	4	-	-	182	5,565	6,106	2	129	88	134			
Iowa	4	74	-	-	2	-	-	87	3,571	3,841	4	48	28	86			
Mo.	2	266	13	-	4	-	13	537	14,027	13,908	6	90	112	49			
N. Dak.	1	30	-	-	-	-	1	17	588	642	-	2	3	68			
S. Dak.	2	55	-	-	-	-	2	22	1,123	989	-	2	3	56			
Nebr.	-	12	-	-	-	1	2	73	2,413	2,912	2	11	24	4			
Kans. †	-	83	2	-	2	-	4	78	4,600	5,048	-	49	38	22			
S. ATLANTIC	117	4,233	7	2	39	23	416	5,347	156,565	158,136	133	3,616	3,789	277			
Del. †	3	36	-	-	1	-	5	129	2,209	2,144	-	6	18	1			
Md. †	23	651	4	2	8	8	98	807	19,947	19,839	6	273	248	-			
D.C.	2	218	-	-	1	-	-	366	10,286	10,316	12	277	396	-			
Va.	12	455	3	-	5	6	88	606	15,056	16,500	15	307	372	7			
W. Va.	8	148	-	-	2	-	9	67	2,175	2,141	2	12	3	8			
N.C. †	22	656	-	-	2	5	137	608	22,360	23,338	16	372	524	8			
S.C.	6	384	-	-	4	-	44	422	15,245	14,499	8	187	161	66			
Ge.	-	572	-	-	3	4	35	1,103	30,132	30,725	34	891	805	176			
Fla. †	41	1,113	-	-	13	-	-	1,239	39,155	38,634	40	1,291	1,262	11			
E.S. CENTRAL	65	1,830	5	-	7	7	138	1,844	55,097	56,642	26	710	481	98			
Ky.	20	409	2	-	2	3	37	366	6,990	7,588	7	93	58	53			
Tenn.	17	561	3	-	3	4	89	633	20,317	22,878	12	246	148	20			
Ala.	19	442	-	-	1	-	6	601	15,975	15,457	6	119	97	25			
Miss.	9	418	-	-	1	-	6	264	11,815	10,719	1	252	178	-			
W.S. CENTRAL	56	2,314	32	3	34	6	77	2,862	87,674	80,080	87	2,182	1,908	633			
Ark. †	10	251	21	3	5	1	12	168	6,416	6,351	-	49	46	99			
La.	5	430	5	-	3	-	1	621	14,423	11,674	32	478	463	12			
Okla.	12	235	3	-	2	5	45	291	8,231	7,631	1	61	53	133			
Tex. †	29	1,428	3	-	24	-	19	1,782	56,604	54,424	54	1,594	1,346	389			
MOUNTAIN	5	569	4	2	17	2	8	866	24,103	25,857	10	276	289	57			
Mont.	-	42	-	1	2	-	2	36	1,377	1,325	-	7	4	11			
Idaho	2	24	2	-	5	-	2	40	935	1,215	1	9	7	-			
Wyo.	-	13	1	-	-	-	1	22	568	642	-	8	2	-			
Colo. †	-	53	-	-	3	2	2	235	6,683	6,758	6	85	87	19			
N. Mex.	-	90	-	-	2	-	-	-	3,310	3,789	3	63	65	13			
Ariz.	2	272	-	1	3	-	-	358	6,382	7,282	-	61	108	12			
Utah	-	26	1	-	1	-	-	52	1,306	1,459	-	11	5	2			
Nev.	1	49	-	-	1	-	1	123	3,542	3,387	-	32	11	-			
PACIFIC	91	3,038	2	1	82	-	3	3,912	103,231	100,719	102	2,888	2,845	256			
Wash. †	NA	145	-	-	6	-	-	382	8,277	7,599	NA	118	158	-			
Oreg.	2	128	-	-	1	-	2	216	7,166	6,942	4	94	83	6			
Calif.	86	2,365	2	1	68	-	1	3,178	82,685	80,776	98	2,642	2,561	242			
Alaska	-	46	-	-	-	-	-	91	3,235	3,291	-	7	18	8			
Hawaii	3	370	-	-	7	-	-	45	1,868	2,111	-	27	25	-			
Guam †	NA	37	-	NA	-	NA	-	NA	119	144	NA	-	1	-			
P.R.	2	255	-	-	1	-	-	53	1,496	2,127	11	318	369	23			
V.I.	-	4	-	-	2	-	-	2	140	137	-	12	7	-			

NA: Not available.

*Delayed reports received for 1977 are not shown below but are used to update last year's weekly and cumulative totals.

†The following delayed reports will be reflected in next week's cumulative totals: TB: NYC +14, Mich. -2, Kans. -1, Md. -7, Fla. -1, Wash. +43, Guam +2; T. fever: Pa. -1, Del. +1, Colo. +1; RMSF: N.C. -3, GC: Guam +13; Syphilis: Ark. -1, Tex. -1; An. Rabies: Maine +1, Vt. +1, Ind. +1.

TABLE IV. Deaths in 121 U.S. cities,* week ending
August 26, 1978 (34th week)

REPORTING AREA	ALL CAUSES, BY AGE (YEARS)					P & I** TOTAL	REPORTING AREA	ALL CAUSES, BY AGE (YEARS)					P & I** TOTAL
	ALL AGES	>65	45-64	25-44	<1			ALL AGES	>65	45-64	25-44	<1	
NEW ENGLAND	586	366	152	24	29	24	S. ATLANTIC	976	533	263	96	49	34
Boston, Mass.	171	92	50	11	12	5	Atlanta, Ga.	139	65	36	28	5	5
Bridgeport, Conn.	37	25	9	-	1	4	Baltimore, Md.	211	110	57	22	17	6
Cambridge, Mass.	21	15	4	2	-	1	Charlotte, N.C.	64	32	16	5	3	1
Fall River, Mass.	31	26	5	-	-	-	Jacksonville, Fla.	96	59	22	5	3	5
Hartford, Conn.	40	23	13	2	2	-	Miami, Fla.	55	28	21	4	1	2
Lowell, Mass.	18	12	4	1	-	1	Norfolk, Va.	61	29	18	2	8	-
Lynn, Mass.	15	12	2	-	-	1	Richmond, Va.	57	29	21	4	3	2
New Bedford, Mass.	19	14	4	1	-	1	Savannah, Ga.	28	15	9	3	1	2
New Haven, Conn.	65	34	17	3	8	-	St. Petersburg, Fla.	75	61	12	1	-	6
Providence, R.I.	59	36	19	1	3	5	Tampa, Fla.	49	32	9	4	3	1
Somerville, Mass.	4	3	1	-	-	1	Washington, D.C.	83	42	24	14	2	1
Springfield, Mass.	31	23	7	1	-	-	Wilmington, Del.	58	31	18	4	3	3
Waterbury, Conn.	18	13	4	-	-	-							
Worcester, Mass.	57	38	13	2	3	5							
							E.S. CENTRAL	650	390	162	39	29	33
MID. ATLANTIC	2,547	1,639	587	152	75	131	Birmingham, Ala.	96	48	31	4	12	2
Albany, N.Y.	51	29	9	4	4	2	Chattanooga, Tenn.	56	34	14	3	3	4
Allentown, Pa.	25	14	9	2	-	1	Knoxville, Tenn.	51	37	13	1	-	-
Buffalo, N.Y.	113	73	27	7	1	7	Louisville, Ky.	120	72	27	5	8	14
Camden, N.J.	27	15	6	1	2	-	Memphis, Tenn.	133	81	26	11	3	1
Elizabeth, N.J.	28	21	6	1	-	1	Mobile, Ala.	67	43	14	4	2	2
Erie, Pa.	30	17	10	1	-	-	Montgomery, Ala.	32	20	9	3	-	3
Jersey City, N.J.	45	27	12	1	3	3	Nashville, Tenn.	95	55	28	8	1	7
Newark, N.J.	73	31	23	6	8	4							
N.Y. City, N.Y.	1,290	841	272	91	39	57	W.S. CENTRAL	1,044	572	283	75	48	21
Paterson, N.J.	41	28	9	1	2	5	Austin, Tex.	16	9	3	1	-	1
Philadelphia, Pa.	387	241	104	17	10	30	Baton Rouge, La.	30	21	5	1	3	4
Pittsburgh, Pa.	72	41	23	6	2	2	Corpus Christi, Tex.	41	26	9	3	2	1
Reading, Pa.	36	29	7	-	-	3	Dallas, Tex.	149	80	51	10	4	-
Rochester, N.Y.	118	90	21	2	2	11	El Paso, Tex.	40	25	7	3	3	-
Schenectady, N.Y.	13	10	2	1	-	-	Fort Worth, Tex.	55	28	16	2	1	-
Scranton, Pa.	29	23	5	1	-	2	Houston, Tex.	265	127	89	20	9	1
Syracuse, N.Y.	85	50	24	7	1	7	Little Rock, Ark.	68	36	17	4	6	5
Trenton, N.J.	35	27	6	-	-	1	New Orleans, La.	121	67	28	10	7	-
Utica, N.Y.	15	8	5	2	-	-	San Antonio, Tex.	132	78	28	12	5	4
Yonkers, N.Y.	34	24	7	1	1	2	Shreveport, La.	47	27	11	3	5	5
							Tulsa, Okla.	80	48	19	6	3	-
E.N. CENTRAL	2,171	1,305	526	150	90	53	MOUNTAIN	561	328	128	43	21	16
Akron, Ohio	37	19	10	2	4	-	Albuquerque, N. Mex.	52	29	13	2	3	1
Canton, Ohio	33	24	4	2	2	4	Colo. Springs, Colo.	39	27	7	2	1	6
Chicago, Ill.	494	294	126	40	9	13	Denver, Colo.	112	63	29	8	6	4
Cincinnati, Ohio	145	97	39	7	9	2	Las Vegas, Nev.	69	27	26	8	-	1
Cleveland, Ohio	178	114	39	9	10	1	Ogden, Utah	12	9	1	1	-	-
Columbus, Ohio	140	78	36	7	6	5	Phoenix, Ariz.	146	89	21	15	8	1
Dayton, Ohio	105	67	24	5	4	5	Pueblo, Colo.	10	9	-	-	-	-
Detroit, Mich.	266	150	65	32	10	2	Salt Lake City, Utah	57	34	14	3	3	3
Evansville, Ind.	45	35	9	-	1	2	Tucson, Ariz.	64	41	17	4	-	-
Fort Wayne, Ind.	52	23	12	6	6	1							
Gary, Ind.	24	12	7	3	-	1							
Grand Rapids, Mich.	47	25	13	-	5	2	PACIFIC	1,439	928	305	95	54	48
Indianapolis, Ind.	147	86	35	10	9	1	Berkeley, Calif.	18	12	5	-	-	-
Madison, Wis.	33	19	5	1	4	1	Fresno, Calif.	53	34	9	5	2	1
Milwaukee, Wis.	131	97	26	5	1	3	Glendale, Calif.	22	16	4	1	-	-
Peoria, Ill.	40	15	12	5	5	1	Honolulu, Hawaii	70	41	15	9	4	2
Rockford, Ill.	46	23	13	5	1	4	Los Beach, Calif.	105	68	21	5	4	4
South Bend, Ind.	56	33	18	2	-	4	Los Angeles, Calif.	620	271	90	30	13	16
Toledo, Ohio	90	59	15	8	2	1	Oakland, Calif.	42	42	13	-	2	-
Youngstown, Ohio	64	40	18	1	2	-	Pasadena, Calif.	24	16	5	1	1	1
							Portland, Ore.	118	85	22	4	5	1
W.N. CENTRAL	688	422	151	45	37	24	Sacramento, Calif.	55	33	8	8	5	4
Des Moines, Iowa	53	34	11	4	4	3	San Diego, Calif.	115	73	33	3	3	5
Duluth, Minn.	13	11	2	-	-	-	San Francisco, Calif.	113	76	25	6	3	2
Kansas City, Kans.	27	14	4	4	2	-	San Jose, Calif.	61	43	7	5	2	2
Kansas City, Mo.	132	75	31	8	13	3	Seattle, Wash.	131	72	35	10	7	3
Lincoln, Nebr.	23	18	8	1	1	3	Spokane, Wash.	40	29	5	2	3	5
Minneapolis, Minn.	93	52	20	5	6	2	Tacoma, Wash.	32	17	8	6	-	3
Omaha, Nebr.	66	46	14	2	3	2							
St. Louis, Mo.	144	99	32	13	4	6							
St. Paul, Minn.	63	42	13	4	2	-	TOTAL	10,662	6,483	2,557	719	432	384
Wichita, Kans.	69	42	16	4	2	5	Expected Number	10,866	6,521	2,794	713	430	268

*Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

**Pneumonia and influenza

Q Fever — Continued

Since the first described outbreak in this country in 1946 (3), numerous outbreaks usually associated with cattle, sheep, and goats have been investigated. Various species of ticks (including *A. nuttalli*) carry the rickettsial organisms, but man is usually infected by inhaling aerosolized particles containing *C. burneti*.

Reptiles have rarely been documented as potential hosts for *C. burneti* (4). Nevertheless, physicians seeing patients with a compatible illness and a history of ownership of pythons or other exotic pets should consider Q fever in their differential diagnosis, obtain suitable acute and convalescent blood specimens for serologic diagnosis, and report the illness to local and state health authorities.

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*Recommendation of the Public Health Service**Advisory Committee on Immunization Practices***Meningococcal Polysaccharide Vaccines****INTRODUCTION**

Polysaccharide vaccines against diseases caused by *Neisseria meningitidis* serogroups A and C are now licensed in the United States. They are prepared as monovalent and as bivalent antigens. The purpose of this statement is to summarize available information on these antigens and to offer general guidance regarding their role in the control of epidemics of meningococcal disease in the civilian population of the United States.

MENINGOCOCCAL DISEASE

Meningococcal disease is endemic in the United States and throughout the world. It caused serious epidemics approximately every 10 years from 1900 to 1945 in this country. The fact that it also regularly caused outbreaks among military recruits was a catalyst for the development of serogroup-specific vaccines.

During the last decade an estimated 3,000-6,000 cases a year of meningococcal disease occurred in the United States. From 1964 to 1968 and since 1972, the serogroup most often isolated from patients has been serogroup B. From 1969 through 1971 serogroup C was most common in the civilian and military populations. Serogroup A was only rarely identified until the occurrence recently of small outbreaks in several cities of the Pacific Northwest. In 1971 the Armed Forces began administering serogroup C meningococcal polysaccharide vaccine routinely to all recruits. Since then, the incidence of meningococcal disease in the military has declined sharply, and serogroup C disease has been virtually eliminated in that population.

Sulfa-sensitive serogroup B strains currently cause the majority of U.S. cases. Highest attack rates are in infants. Serogroup C strains account for about one-third of cases. Although the highest age-specific attack rate for serogroup C is also in infants, about 70% of serogroup C cases occur in persons over 2 years old. More than two-thirds of all meningococcal disease occurs in patients less than 20 years old.

Meningococcal Vaccine – Continued

In recent years meningococcal disease in civilians has occurred primarily as single isolated cases or, infrequently, as small, localized clusters. Secondary cases occur more frequently in household contacts than in the general population, and appropriate antibiotic prophylaxis has been the principal means of reducing the risk for immediate contacts of cases.

MENINGOCOCCAL VACCINES

Three meningococcal polysaccharide vaccines, monovalent A, monovalent C, and bivalent A-C vaccine,* are licensed for selective use in the United States. These vaccines are chemically defined antigens consisting of purified bacterial capsular polysaccharide, each inducing specific serogroup immunity. The duration of immunity conferred by each vaccine is unknown.

Serogroup A vaccine was evaluated in 62,000 Egyptian schoolchildren 6-15 years old and appeared to be highly effective and not to induce any serious side effects. When used to control an outbreak in Brazil, it appeared to be effective in all age groups beyond the first year of life. Further confirmation of effectiveness was found in children of ages 3 months-5 years in a vaccine trial carried out in Finland. Serogroup A vaccine has also been used to control outbreaks in the United States in Portland, Seattle, Anchorage, and Fairbanks.

Serogroup C vaccine has been given routinely to American military recruits since October 1971. More than 500,000 young adults have been vaccinated without significant adverse reactions. Serogroup C vaccine has been studied in infants, preschool and school-age children, and adults. It elicited antibody in all age groups, although older children and young adults had the highest levels. Serogroup C vaccine does not appear to be effective in children less than 2 years of age.

VACCINE USAGE

General Recommendations

Routinely vaccinating civilians with meningococcal polysaccharide vaccines is **not** recommended because of insufficient evidence of its value when the risk of infection is low. The serogroup-specific monovalent vaccines should be used, however, to control outbreaks of meningococcal disease caused by *N. meningitidis* serogroup A or C.

Vaccine may be of benefit for some travelers planning to visit countries recognized as having epidemic meningococcal disease. Although cases among Americans traveling in such areas are rare, prolonged contact with the local populace could enhance the risk of infection and make vaccination a reasonable precaution.

Vaccination should be considered an adjunct to antibiotic chemoprophylaxis for household contacts of meningococcal disease cases caused by serogroups A or C. This is because half the secondary family cases occur more than 5 days after the primary case—long enough to yield potential benefit from vaccination if the antibiotic chemoprophylaxis has not been successful.

Primary Immunization

For both adults and children, vaccine is administered parenterally as a single dose in the volume specified by the manufacturer.

PRECAUTIONS AND CONTRAINDICATIONS

Reactions

Adverse reactions to meningococcal vaccine are infrequent and mild, consisting principally of localized erythema lasting for 1-2 days.

*Official names: Meningococcal Polysaccharide Vaccine, Group A; or , Group C; or , Groups A & C

*Meningococcal Vaccine — Continued***Pregnancy**

The safety of meningococcal vaccines in pregnant women has not been established. On theoretical grounds, it is prudent not to use them unless there is a substantial risk of infection.

EPIDEMIC CONTROL

In an epidemic of meningococcal disease due to serogroups A or C, the population at risk should be identified. It should be delineated by neighborhood, census tract, or other reasonable boundary. If there is ample vaccine, all residents in that area should be vaccinated. If not, persons expected or known to be at highest risk of disease by virtue of age, socioeconomic status, or area of residence should receive priority vaccination.

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