

RECEIVED



# Morbidity and Mortality

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE PUBLIC HEALTH SERVICE  
 DATE OF RELEASE: DECEMBER 21, 1973 - ATLANTA, GEORGIA 30333

EPIDEMIOLOGIC NOTES AND REPORTS  
 BOTULISM - Kentucky

On October 16, 1973, a 60-year-old woman from Horse Cave, Kentucky, and her 62-year-old husband experienced severe vomiting and abdominal pain. The following day their symptoms persisted, and both developed blurred vision, diplopia, difficulty in swallowing, difficulty in breathing, and a change in the quality of their voices. The next day they were admitted to a local hospital.

On admission both patients appeared mildly dehydrated. Their voices were husky in character, and their mouths were dry. Neurologic signs included bilateral ptosis and facial weakness, depressed gag reflex, inability to protrude their tongues, and slightly dilated, nonreactive pupils. Both had mild weak-

CONTENTS

Epidemiologic Notes and Reports  
 Botulism - Kentucky . . . . . 417  
*Vibrio parahaemolyticus* Gastroenteritis - California . . . . . 418

Currents Trends  
 Primary and Secondary Syphilis - United States, November 1973 . . . . . 423

International Notes  
 Influenza - Africa, New Zealand, Thailand, United Kingdom . . . . . 423

ness of all extremities and diminished deep tendon reflexes. Catheterization was required because of inability to void. Because the patients had been stripping leaves from tobacco plants for 5 days prior to their illness, their physicians made a tentative diagnosis of organophosphorous poisoning.

The wife's symptoms gradually worsened, and on October 23 she suffered a respiratory arrest. Following resuscita-

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

DISEASE	50th WEEK ENDING		MEDIAN 1968-1972	CUMULATIVE, FIRST 50 WEEKS		
	December 15, 1973	December 16, 1972		1973	1972	MEDIAN 1968-1972
Aseptic meningitis . . . . .	77	73	73	4,571	4,144	4,249
Brucellosis . . . . .	4	3	3	175	181	203
Chickenpox . . . . .	1,913	3,253	---	157,683	134,243	---
Diphtheria . . . . .	10	5	5	192	118	196
Encephalitis, primary:						
Arthropod-borne and unspecified . . . . .	21	19	28	1,468	1,098	1,400
Encephalitis, post-infectious . . . . .	2	5	5	264	266	321
Hepatitis, serum (Hepatitis B) . . . . .	168	139	139	7,829	8,575	7,072
Hepatitis, infectious (Hepatitis A) . . . . .	1,059	1,011	1,057	49,900	52,718	52,718
Malaria . . . . .	4	4	56	235	801	2,818
Measles (rubeola) . . . . .	199	409	481	26,245	30,679	30,679
Meningococcal infections, total . . . . .	27	24	49	1,316	1,289	2,379
Civilian . . . . .	27	24	40	1,290	1,241	2,094
Military . . . . .	---	---	5	26	48	220
Mumps . . . . .	1,273	1,510	2,386	66,774	68,735	98,433
Rubella (German measles) . . . . .	155	263	357	27,634	24,153	47,728
Tetanus . . . . .	1	2	2	86	115	134
Tuberculosis, new active . . . . .	602	619	---	30,057	32,585	---
Tularemia . . . . .	2	4	4	157	140	153
Typhoid fever . . . . .	5	10	10	615	371	371
Typhus, tick-borne (Rky. Mt. spotted fever) . . . . .	1	1	1	627	520	402
Veneral Diseases:						
Gonorrhea . . . . .	16,729	15,226	---	797,234	730,184	---
Syphilis, primary and secondary . . . . .	422	502	---	24,430	24,760	---
Rabies in animals . . . . .	32	42	60	3,223	3,867	3,257

TABLE II. NOTIFIABLE DISEASES OF LOW FREQUENCY

	Cum.		Cum.
Anthrax: . . . . .	1	Poliomyelitis, total: . . . . .	7
Botulism: Alaska-1, Calif.-4 . . . . .	32	Paralytic: . . . . .	5
Congenital rubella syndrome: Calif.-1, Mich.-2, Tex.-3 . . . . .	37	Psittacosis: . . . . .	25
Leprosy: Ariz.-2, Calif.-3, Tex.-1 . . . . .	131	Rabies in man: . . . . .	1
Leptospirosis: Hawaii 1, Minn. 1 . . . . .	38	Trichinosis: NYC-1 . . . . .	77
Plague: . . . . .	2	Typhus, murine: . . . . .	31

**BOTULISM – Continued**

tion she developed progressive respiratory failure, bilateral lower lobe pneumonia, and on October 28 she died. After performing the autopsy and finding no obvious cause of death, the district medical examiner suggested a diagnosis of botulism. Accordingly, on November 6, a member of the Division of Laboratory Services, Kentucky Bureau for Health Services, requested a serum and stool specimen from the surviving husband. Four days later the Kentucky laboratory reported detection of type B botulin toxin in the husband's serum; a few days later type B toxin was also found in the stool specimen. Because of the improvement in his illness prior to laboratory confirmation, botulin antitoxin was not given to the husband. Follow-up serum and stool specimens collected from the husband on day 28 of his illness were also positive for type B botulin toxin. *Clostridium botulinum*, type B, was also isolated from his feces collected that day. Subsequent tests performed 2 weeks later were negative.

During an investigation carried out on November 14, an opened jar of home-canned blackberries which the patients were thought to have consumed shortly before their illness was found in their home. *C. botulinum*, type B, organisms were found in the berries; no toxin was detected.

The husband is recovering satisfactorily; he was discharged from the hospital on December 13.

(Reported by M.E. Bandy, M.D., and R.R. Starr, M.D., private physicians, Glasgow, Kentucky; G. Kilgore, Ph.D., and B.F. Brown, M.D., Director, Division of Laboratory Services, Rhenda Bonner, R.N., Nurse Epidemiologist, and Calixto Hernandez, M.D., State Epidemiologist, Bureau for Health Services, Kentucky Department of Human Resources; the Food and Drug Administration; the Anaerobe Unit, Enterobacteriology Section, Bacteriology Branch, Bureau of Laboratories; and the Enteric Diseases Section, Bacterial Diseases Branch, Bureau of Epidemiology, CDC).

**VIBRIO PARAHAEMOLYTICUS GASTROENTERITIS – California**

On February 20, 1973, a California housewife became ill with abrupt lower abdominal cramps and then profuse watery diarrhea and vomiting. She was admitted to the Stanford University Medical Center where physical examination revealed a moderately tender abdomen. Her white blood cell count was 25,700 with a slight shift to the left. A stool specimen cultured on TCBS agar yielded a heavy growth of *Vibrio parahaemolyticus*, type 04:K12, Kanagawa positive. Sigmoidoscopy was possible only to 15 cm but was normal. She felt better after treatment with intravenous fluids and perchlorpromazine and was discharged in 2 days; however, 4 days later her symptoms recurred, and she was readmitted. This time she was treated with tetracycline 500 mg 4 times per day for 1 week. Within 2 days of the treatment she had recovered and has since remained well.

Twenty-three hours prior to onset of illness, the patient, along with 3 family members, had eaten cooked conch meat. They gave no history of exposure to any other seafood during the several days prior to illness. Cultures of leftover, refrigerated conch meat and stool specimens from 2 of the other family members, who were well, were all negative for *V. parahaemolyticus*.

(Reported by the Infectious Disease Section, California State

**Editorial Note**

The signs and symptoms exhibited by these patients were characteristic of botulism, and laboratory tests confirmed that the husband's disease was caused by *C. botulinum*, type B. Although preformed botulin toxin was not found in the blackberries, *C. botulinum*, type B, was isolated. The blackberries were canned by a "cold packing" procedure which entails boiling raw canned berries in a water bath at normal atmospheric pressure. Although contamination of the berries could have occurred after the jar was opened, it is also possible that inadequate heating of the berries allowed survival of any *C. botulinum* spores present in the berries prior to canning.

The events of this outbreak emphasize again that botulism should be strongly considered when 1 or more individuals exhibit an unexplained neurologic illness characterized by symmetrical cranial nerve palsies. Detection of botulin toxin in serum and stool specimens 28 days after onset of illness demonstrates that laboratory confirmation of suspect botulism should be attempted even late in the patient's clinical course.

Detection of toxin so late in the patient's illness also raises the possibility that in addition to botulism being caused by the ingestion of preformed toxin, it may also be caused by toxin produced *in vivo* by vegetative cells of *C. botulinum*. This possibility has been discussed by other workers (1,2), but as yet there is little experimental evidence to show that it can occur.

**References**

1. Starin WA, Dack GM: Pathogenicity of *Clostridium botulinum*. J Infect Dis 36:383-412, 1928
2. Shredov LM: Enterally administered antiserum used in the neutralization of toxin formed in the digestive tract during experimental toxin infection with botulism type A. Zh Mikrobiol Epidemiol Immunobiol 30:1-12, 1959

Department of Health: California Morbidity, No. 46, 23 Nov 1973.)

**Editorial Note**

Despite the lack of incriminating epidemiologic or laboratory evidence, the association of illness with conch meat ingestion suggests this as the likeliest source of infection. An association between conch meat and *V. parahaemolyticus* infection has not been previously reported in the western hemisphere; however, a wide variety of other types of seafood have been implicated as vehicles of *V. parahaemolyticus* in the United States (MMWR, Vol. 22, No. 27).

Treatment with tetracycline appears to have aided in the abatement of symptoms in this patient. While clinical trials to assess the efficacy of antibiotic treatment of *V. parahaemolyticus* diarrhea have not been reported, the organism has been repeatedly shown to be sensitive to tetracycline *in vitro* (1, 2).

**References**

1. Sakazaki R: Halophilic vibrio infections. In Foodborne Infections and Intoxications, edited by Rieman H. New York and London, Academic Press, 1969, pp 115-129
2. Chatterjee BD, Neogy KN, Gorbach SL: Study of *Vibrio parahaemolyticus* from cases of diarrhoea in Calcutta. Indian J Med Res 58: 234-238, 1970

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES  
FOR WEEKS ENDING DECEMBER 15, 1973 AND DECEMBER 16, 1972 (50th WEEK)

AREA	ASEPTIC MENIN- GITIS	BRUCEL- LOSIS	CHICKEN- POX	DIPHTHERIA		ENCEPHALITIS			HEPATITIS		
						Primary including unspec. cases		Post In- fectious	Serum (Hepatitis B)	Infectious (Hepatitis A)	
						1973	1972	1973	1973	1973	1972
UNITED STATES	77	4	1,913	10	192	21	19	2	168	1,059	1,011
NEW ENGLAND	1	1	414	-	3	-	1	-	3	44	61
Maine*	-	-	-	-	-	-	-	-	-	1	2
New Hampshire*	-	-	21	-	-	-	-	-	-	2	12
Vermont	-	-	9	-	-	-	-	-	-	13	1
Massachusetts	1	-	249	-	1	-	1	-	2	25	30
Rhode Island	-	-	40	-	2	-	-	-	-	2	6
Connecticut	-	1	95	-	-	-	-	-	1	1	10
MIDDLE ATLANTIC	5	-	32	-	-	2	3	-	25	118	126
Upstate New York	1	-	3	-	-	2	-	-	7	50	38
New York City	3	-	23	-	-	-	1	-	8	28	25
New Jersey	-	-	NN	-	-	-	-	-	7	20	33
Pennsylvania	1	-	6	-	-	-	2	-	3	20	30
EAST NORTH CENTRAL	13	-	642	-	2	5	7	-	12	151	144
Ohio	4	-	131	-	1	4	4	-	3	37	25
Indiana	5	-	104	-	-	-	-	-	1	9	10
Illinois	-	-	-	-	1	-	1	-	-	51	28
Michigan	3	-	75	-	-	1	2	-	7	44	75
Wisconsin	1	-	332	-	-	-	-	-	1	10	6
WEST NORTH CENTRAL	12	1	201	-	7	2	-	1	3	38	54
Minnesota	4	-	-	-	-	-	-	-	1	6	5
Iowa	-	1	184	-	-	-	-	1	-	1	7
Missouri	8	-	2	-	-	2	-	-	-	14	31
North Dakota	-	-	8	-	-	-	-	-	-	2	-
South Dakota	-	-	-	-	7	-	-	-	-	2	4
Nebraska	-	-	7	-	-	-	-	-	-	1	1
Kansas	-	-	-	-	-	-	-	-	2	12	6
SOUTH ATLANTIC	10	-	126	-	9	1	2	1	38	220	155
Delaware	-	-	5	-	-	-	-	-	-	3	3
Maryland	1	-	1	-	-	1	-	-	2	7	16
District of Columbia	-	-	1	-	-	-	-	-	2	1	5
Virginia	-	-	24	-	-	-	-	-	5	23	20
West Virginia*	-	-	89	-	-	-	-	-	1	8	9
North Carolina	-	-	NN	-	-	-	-	-	2	29	17
South Carolina	3	-	6	-	-	-	-	-	1	14	6
Georgia	-	-	-	-	2	-	-	-	-	20	30
Florida	6	-	-	-	7	-	2	1	25	115	49
EAST SOUTH CENTRAL	4	-	73	-	5	4	-	-	7	68	46
Kentucky	-	-	61	-	-	-	-	-	2	16	18
Tennessee	2	-	NN	-	-	3	-	-	-	36	25
Alabama	-	-	8	-	5	-	-	-	3	11	2
Mississippi	2	-	4	-	-	1	-	-	2	5	1
WEST SOUTH CENTRAL	9	1	109	-	18	3	3	-	15	170	113
Arkansas	1	-	3	-	-	1	-	-	1	7	13
Louisiana*	1	-	NN	-	1	-	1	-	7	17	11
Oklahoma	-	1	2	-	-	-	1	-	4	24	23
Texas	7	-	104	-	17	2	1	-	3	122	66
MOUNTAIN	-	1	37	-	51	-	-	-	4	46	78
Montana	-	-	-	-	-	-	-	-	-	7	14
Idaho	-	-	-	-	-	-	-	-	-	-	12
Wyoming	-	-	3	-	-	-	-	-	-	-	-
Colorado	-	-	19	-	-	-	-	-	1	1	29
New Mexico	-	1	13	-	27	-	-	-	1	12	5
Arizona	-	-	-	-	24	-	-	-	-	7	11
Utah	-	-	2	-	-	-	-	-	2	7	7
Nevada	-	-	-	-	-	-	-	-	-	12	-
PACIFIC	23	-	279	10	97	4	3	-	61	204	234
Washington	5	-	273	10	86	1	-	-	3	19	26
Oregon	-	-	4	-	4	-	1	-	6	27	39
California	18	-	-	-	5	3	2	-	50	149	161
Alaska	-	-	1	-	2	-	-	-	-	8	6
Hawaii	-	-	1	-	-	-	-	-	2	1	2
Guam*	-	-	-	-	-	-	-	-	-	-	-
Puerto Rico	-	-	7	-	-	-	-	-	1	7	11
Virgin Islands	-	-	-	-	-	-	-	-	-	1	-

\* Delayed Reports: Chickenpox: Me. 27, N.H. 32.  
Hepatitis A: Me. 7, N.H.-2, W.Va. 1,  
La. delete 1, Guam 8

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES  
FOR WEEKS ENDING DECEMBER 15, 1973 AND DECEMBER 16, 1972 (50th WEEK) — Continued

AREA	MALARIA		MEASLES (Rubeola)			MENINGOCOCCAL INFECTIONS, TOTAL			MUMPS		RUBELLA	
	1973	Cum. 1973	1973	Cumulative		1973	Cumulative		1973	Cum. 1973	1973	Cum. 1973
				1973	1972		1973	1972				
UNITED STATES	4	235	199	26,245	30,679	27	1,316	1,289	1,273	66,774	155	27,634
NEW ENGLAND	—	17	16	7,626	4,307	2	54	56	213	4,513	7	3,719
Maine *	—	—	—	70	254	—	1	4	19	480	—	72
New Hampshire *	—	—	11	1,014	783	—	7	3	8	236	1	384
Vermont	—	2	—	120	128	—	3	—	2	276	—	48
Massachusetts	—	7	2	3,966	1,119	—	15	25	30	1,218	4	2,085
Rhode Island	—	1	—	639	526	—	3	12	54	804	—	227
Connecticut	—	7	3	1,817	1,497	2	25	12	100	1,499	2	903
MIDDLE ATLANTIC	1	39	77	2,866	1,161	4	184	159	96	8,001	10	4,306
Upstate New York	—	19	—	821	174	—	65	38	NN	NN	5	477
New York City	1	4	6	949	422	—	36	44	22	4,735	—	495
New Jersey	—	5	70	696	499	3	48	30	21	1,650	4	3,026
Pennsylvania	—	11	1	400	66	1	35	47	53	1,616	1	308
EAST NORTH CENTRAL	—	31	57	9,056	12,213	2	179	191	325	17,006	45	6,417
Ohio	—	5	4	317	301	2	76	75	74	3,114	8	713
Indiana	—	3	5	707	1,358	—	6	14	89	1,732	10	1,014
Illinois	—	17	24	2,182	4,439	—	28	40	50	2,801	7	1,053
Michigan	—	6	9	4,513	2,302	—	52	54	51	4,735	14	1,969
Wisconsin	—	—	15	1,337	3,813	—	17	8	61	4,624	6	1,668
WEST NORTH CENTRAL	2	10	1	464	1,339	1	93	93	117	5,757	1	1,241
Minnesota	—	2	—	24	26	1	13	25	—	103	—	224
Iowa	—	1	—	281	1,004	—	22	6	96	3,646	1	208
Missouri	2	3	1	56	175	—	34	30	12	783	—	273
North Dakota	—	1	—	67	60	—	3	—	—	76	—	277
South Dakota	—	—	—	3	12	—	5	2	—	20	—	23
Nebraska	—	1	—	6	23	—	7	10	4	186	—	141
Kansas	—	2	—	27	39	—	9	20	5	943	—	95
SOUTH ATLANTIC	1	37	10	1,326	2,320	3	220	282	62	7,491	45	2,367
Delaware	—	—	—	10	56	—	2	1	2	282	1	16
Maryland	1	8	—	14	15	1	31	40	11	696	—	11
District of Columbia	—	2	—	8	2	1	5	12	4	160	1	4
Virginia	—	8	—	429	77	1	46	61	11	777	—	636
West Virginia	—	—	2	232	303	—	6	9	—	2,592	4	345
North Carolina	—	7	—	4	38	—	43	35	NN	NN	—	202
South Carolina	—	1	1	78	217	—	13	26	2	374	—	88
Georgia	—	3	1	154	195	—	23	22	—	32	1	13
Florida	—	8	6	397	1,417	—	51	76	32	2,578	38	1,052
EAST SOUTH CENTRAL	—	14	5	640	1,085	2	124	99	115	5,605	9	1,475
Kentucky	—	9	5	403	543	2	48	30	52	1,719	1	419
Tennessee	—	—	—	165	195	—	45	33	53	2,657	6	615
Alabama	—	5	—	14	154	—	18	20	8	743	2	209
Mississippi	—	—	—	58	193	—	13	16	2	486	—	232
WEST SOUTH CENTRAL	—	13	4	753	1,724	7	210	162	97	4,667	6	1,524
Arkansas	—	—	1	75	13	—	14	13	4	410	1	116
Louisiana	—	2	—	89	110	2	52	49	1	117	—	100
Oklahoma	—	2	—	66	11	1	33	14	8	484	—	182
Texas	—	9	3	523	1,590	4	111	86	84	3,656	5	1,126
MOUNTAIN	—	9	14	1,038	1,964	—	37	32	38	2,769	2	2,442
Montana	—	1	12	304	18	—	9	6	3	282	—	518
Idaho	—	1	—	256	155	—	4	8	8	129	—	45
Wyoming	—	—	—	81	51	—	1	1	—	436	—	7
Colorado	—	2	1	110	538	—	11	6	16	589	2	1,569
New Mexico	—	2	1	136	135	—	3	3	11	1,027	—	212
Arizona	—	2	—	21	907	—	5	1	—	140	—	7
Utah	—	1	—	129	159	—	2	6	—	157	—	80
Nevada	—	—	—	1	1	—	2	1	—	9	—	4
PACIFIC	—	65	15	2,476	4,566	6	215	215	210	10,965	30	4,143
Washington	—	4	3	1,110	996	1	22	20	54	1,877	16	760
Oregon	—	4	—	461	185	—	17	14	58	2,059	2	823
California	—	54	12	820	3,274	2	165	169	86	5,825	12	2,515
Alaska	—	2	—	65	13	2	10	9	11	926	—	19
Hawaii	—	1	—	20	98	1	1	3	1	278	—	26
Guam *	—	—	—	52	16	—	1	13	—	34	—	14
Puerto Rico	—	—	13	2,009	1,040	—	11	4	38	917	1	39
Virgin Islands	—	—	—	7	3	—	—	2	2	34	—	2

\* Delayed Reports:

Measles: N.H. 33  
Meningococcal infections: Guam 1  
Mumps: Me. 9, Guam 1

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES  
FOR WEEKS ENDING DECEMBER 15, 1973 AND DECEMBER 16, 1972 (50th WEEK) - Continued

AREA	TETANUS	TUBERCULOSIS (New Active)		TULA- REMIA	TYPHOID FEVER		TYPHUS-FEVER TICK-BORNE (Rky. Mt. spotted fever)		VENEREAL DISEASES		RABIES IN ANIMALS	
	Cumulative 1973	1973	Cum. 1973	Cumulative 1973	1973	Cum. 1973	1973	Cum. 1973	GONOR- RHEA	SYPHILIS (Pri. & Sec.)	1973	Cum. 1973
									1973	1973		
UNITED STATES .....	86	602	30,057	157	5	615	1	627	16,729	422	32	3,223
NEW ENGLAND .....	2	26	1,135	-	1	21	1	4	442	3	2	116
Maine *	-	-	104	-	-	-	-	-	23	1	2	63
New Hampshire	-	-	54	-	-	-	-	-	13	-	-	37
Vermont	-	-	30	-	-	-	-	-	6	-	-	3
Massachusetts	-	17	607	-	-	17	1	3	224	-	-	6
Rhode Island	1	-	90	-	-	-	-	-	50	-	-	1
Connecticut	1	9	250	-	1	4	-	1	126	2	-	6
MIDDLE ATLANTIC .....	7	111	5,795	-	-	66	-	38	1,937	107	1	54
Upstate New York	1	20	1,017	-	-	10	-	13	271	11	-	26
New York City	3	41	2,143	-	-	26	-	4	761	55	-	-
New Jersey	2	24	1,038	-	-	20	-	5	401	20	-	-
Pennsylvania	1	26	1,597	-	-	10	-	16	504	21	1	28
EAST NORTH CENTRAL .....	13	73	4,444	3	1	50	-	19	2,367	23	1	312
Ohio *	3	13	1,310	-	-	20	-	14	980	7	-	38
Indiana	4	7	566	-	-	1	-	-	153	4	-	53
Illinois	3	24	1,379	1	-	11	-	5	319	7	-	72
Michigan	1	29	1,112	2	1	14	-	-	715	5	-	11
Wisconsin	2	-	77	-	-	4	-	-	200	-	1	138
WEST NORTH CENTRAL .....	7	29	1,257	22	2	29	-	25	620	9	10	1,008
Minnesota	-	3	149	-	1	8	-	2	176	2	6	381
Iowa	-	2	126	-	-	-	-	7	29	-	-	203
Missouri	6	12	609	21	1	13	-	9	208	5	1	91
North Dakota	1	1	38	-	-	-	-	-	14	-	3	151
South Dakota	-	-	85	-	-	1	-	1	23	-	-	81
Nebraska	-	2	81	-	-	1	-	2	93	1	-	7
Kansas	-	9	169	1	-	6	-	4	77	1	-	94
SOUTH ATLANTIC .....	19	125	5,971	19	1	253	-	307	3,718	144	3	292
Delaware	-	4	96	-	-	1	-	8	29	1	-	5
Maryland	-	10	656	6	-	9	-	14	359	17	-	15
District of Columbia	-	5	289	-	-	1	-	-	387	17	-	-
Virginia	3	12	794	6	-	3	-	61	284	16	3	95
West Virginia	1	7	302	-	1	12	-	4	56	-	-	24
North Carolina	-	31	958	2	-	5	-	141	572	11	-	14
South Carolina	2	23	485	-	-	6	-	32	292	37	-	6
Georgia	3	12	944	3	-	3	-	46	504	11	-	91
Florida	10	21	1,447	2	-	213	-	1	1,235	34	-	42
EAST SOUTH CENTRAL .....	9	84	2,780	10	-	44	-	112	1,571	28	4	401
Kentucky	1	20	630	1	-	11	-	-	161	5	1	210
Tennessee	5	22	860	7	-	16	-	52	588	9	3	148
Alabama	3	28	780	-	-	10	-	28	532	7	-	42
Mississippi	-	14	510	2	-	7	-	32	290	7	-	1
WEST SOUTH CENTRAL .....	15	46	3,133	92	-	26	-	106	3,054	50	5	565
Arkansas	1	5	380	62	-	5	-	20	197	7	-	116
Louisiana	4	4	445	1	-	6	-	-	560	16	-	51
Oklahoma	4	11	276	21	-	2	-	75	246	1	3	160
Texas	6	26	2,032	8	-	13	-	11	2,051	26	2	238
MOUNTAIN .....	-	25	1,024	8	-	14	-	8	496	8	-	56
Montana	-	1	57	-	-	-	-	1	24	-	-	10
Idaho	-	-	32	1	-	1	-	2	3	-	-	-
Wyoming	-	2	30	2	-	1	-	1	12	-	-	-
Colorado	-	3	212	-	-	2	-	1	142	3	-	-
New Mexico	-	3	209	2	-	4	-	3	99	-	-	7
Arizona	-	11	373	-	-	6	-	-	96	3	-	36
Utah	-	3	50	2	-	-	-	-	64	-	-	3
Nevada	-	2	61	1	-	-	-	-	56	2	-	-
PACIFIC .....	14	83	4,518	3	-	112	-	8	2,524	50	6	419
Washington	3	7	346	1	-	7	-	5	245	-	-	9
Oregon	-	4	241	1	-	2	-	2	170	1	-	8
California	11	63	3,553	1	-	98	-	1	1,998	48	6	394
Alaska*	-	-	105	-	-	4	-	-	79	-	-	8
Hawaii	-	9	273	-	-	1	-	-	32	1	-	-
Guam *	-	-	39	-	-	-	-	-	-	-	-	-
Puerto Rico	9	9	487	-	-	11	-	-	64	13	1	54
Virgin Islands	-	-	2	-	-	-	-	-	5	-	-	-

\* Delayed Reports:

TB: Me. delete 1, Ohio delete 4, Alaska 2  
Gonorrhea: Guam 8

TABLE IV. DEATHS IN 121 UNITED STATES CITIES FOR WEEK ENDING DECEMBER 15, 1973

Week No.

50

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

Area	All Causes			Pneumonia and Influenza All Ages	Area	All Causes			Pneumonia and Influenza All Ages
	All Ages	65 years and over	Under 1 year			All Ages	65 years and over	Under 1 year	
<b>NEW ENGLAND</b>	761	464	17	27	<b>SOUTH ATLANTIC</b>	1,331	755	48	40
Boston, Mass.	213	121	5	8	Atlanta, Ga.	148	81	5	4
Bridgeport, Conn.	44	24	1	3	Baltimore, Md.	211	106	12	2
Cambridge, Mass.	24	16	1	2	Charlotte, N. C.	45	29	3	—
Fall River, Mass.	25	14	—	—	Jacksonville, Fla.	110	66	6	1
Hartford, Conn.	122	61	2	—	Miami, Fla.	129	75	5	8
Lowell, Mass.	28	21	—	2	Norfolk, Va.	62	28	3	2
Lynn, Mass.	20	16	—	1	Richmond, Va.	81	42	1	2
New Bedford, Mass.	29	22	1	—	Savannah, Ga.	46	26	—	6
New Haven, Conn.	52	33	3	—	St. Petersburg, Fla.	108	89	1	2
Providence, R. I.	72	44	2	4	Tampa, Fla.	77	45	5	6
Somerville, Mass.	4	3	—	—	Washington, D. C.	252	127	6	7
Springfield, Mass.	55	35	—	1	Wilmington, Del.	62	41	1	—
Waterbury, Conn.	23	19	1	—	<b>EAST SOUTH CENTRAL</b>	632	355	35	20
Worcester, Mass.	50	35	1	6	Birmingham, Ala.	104	58	9	2
<b>MIDDLE ATLANTIC</b>	3,209	1,976	112	120	Chattanooga, Tenn.	38	15	3	1
Albany, N. Y.	46	24	1	1	Knoxville, Tenn.	20	13	—	—
Allentown, Pa.	30	20	1	2	Louisville, Ky.	119	69	4	4
Buffalo, N. Y.	167	102	3	12	Memphis, Tenn.	142	87	11	4
Camden, N. J.	39	25	3	2	Mobile, Ala.	71	42	1	2
Elizabeth, N. J.	25	16	—	—	Montgomery, Ala.	34	15	1	3
Erie, Pa.	41	27	2	4	Nashville, Tenn.	104	56	6	4
Jersey City, N. J.	45	28	1	—	<b>WEST SOUTH CENTRAL</b>	1,239	686	59	38
Newark, N. J.	83	46	10	4	Austin, Tex.	46	29	1	4
New York City, N. Y. †	1,595	986	50	55	Baton Rouge, La.	50	29	1	3
Paterson, N. J.	35	18	3	4	Corpus Christi, Tex.	50	25	3	3
Philadelphia, Pa.	515	314	21	6	Dallas, Tex.	156	91	10	10
Pittsburgh, Pa.	184	108	7	11	El Paso, Tex.	42	21	3	2
Reading, Pa.	42	30	1	1	Fort Worth, Tex.	83	37	2	1
Rochester, N. Y.	120	83	5	9	Houston, Tex.	261	137	9	8
Schenectady, N. Y.	28	15	2	—	Little Rock, Ark.	76	43	7	3
Scranton, Pa.	43	27	—	2	New Orleans, La.	171	95	11	4
Syracuse, N. Y.	71	46	1	2	San Antonio, Tex.	141	78	7	6
Trenton, N. J.	46	26	—	—	Shreveport, La.	70	43	—	1
Utica, N. Y.	27	15	—	4	Tulsa, Okla.	93	58	5	2
Yonkers, N. Y.	27	20	1	1	<b>MOUNTAIN</b>	559	334	27	23
<b>EAST NORTH CENTRAL</b>	2,514	1,445	117	74	Albuquerque, N. Mex.	64	35	4	5
Akron, Ohio	67	33	4	—	Colorado Springs, Colo.	41	29	1	6
Canton, Ohio	45	28	4	2	Denver, Colo.	127	71	2	2
Chicago, Ill.	691	378	30	15	Las Vegas, Nev.	24	8	3	—
Cincinnati, Ohio	162	97	7	3	Ogden, Utah	14	10	—	1
Cleveland, Ohio	184	96	6	6	Phoenix, Ariz.	149	93	11	4
Columbus, Ohio	138	70	11	7	Pueblo, Colo.	15	12	—	3
Dayton, Ohio	119	79	5	5	Salt Lake City, Utah	50	33	5	1
Detroit, Mich.	322	164	26	8	Tucson, Ariz.	75	43	1	1
Evansville, Ind.	35	21	2	3	<b>PACIFIC</b>	1,581	965	38	34
Fort Wayne, Ind.	43	28	2	—	Berkeley, Calif.	21	16	—	—
Gary, Ind.	35	17	1	1	Fresno, Calif.	55	33	2	2
Grand Rapids, Mich.	48	30	1	3	Glendale, Calif.	20	15	—	1
Indianapolis, Ind.	147	88	5	—	Honolulu, Hawaii	43	21	1	—
Madison, Wis.	37	22	—	4	Long Beach, Calif.	131	82	4	2
Milwaukee, Wis.	142	98	1	3	Los Angeles, Calif.	416	260	11	7
Peoria, Ill.	53	34	2	3	Oakland, Calif.	104	57	3	2
Rockford, Ill.	50	29	3	6	Pasadena, Calif.	29	18	—	—
South Bend, Ind.	42	27	4	3	Portland, Oreg.	131	85	1	5
Toledo, Ohio	93	61	2	—	Sacramento, Calif.	70	46	1	2
Youngstown, Ohio	61	45	1	2	San Diego, Calif.	117	76	7	1
<b>WEST NORTH CENTRAL</b>	781	498	36	26	San Francisco, Calif.	152	86	4	5
Des Moines, Iowa	49	31	6	2	San Jose, Calif.	68	34	1	1
Duluth, Minn.	25	17	1	1	Seattle, Wash.	138	78	2	2
Kansas City, Kans.	31	21	2	2	Spokane, Wash.	42	25	1	2
Kansas City, Mo.	110	78	5	2	Tacoma, Wash.	44	33	—	2
Lincoln, Nebr.	30	24	—	1	<b>Total</b>	12,607	7,478	489	402
Minneapolis, Minn.	122	88	3	5	<b>Expected Number</b>	12,808	7,594	466	456
Omaha, Nebr.	94	56	8	—	<b>Cumulative Total (includes reported corrections for previous weeks)</b>	634,830	373,487	23,868	24,857
St. Louis, Mo.	217	113	11	9					
St. Paul, Minn.	58	43	—	1					
Wichita, Kans.	45	27	—	3					

† Delayed Report for Week ending December 8, 1973

CURRENT TRENDS

PRIMARY AND SECONDARY SYPHILIS - United States, November 1973

In November 1973, physicians, clinics, and hospitals in the United States reported 2,097 cases of infectious syphilis compared with 2,306 in November 1972, a decrease of 9.1%. Infectious syphilis cases increased steadily in the United States from 1969 through March 1973. Since March, reported cases have remained essentially level. During the 8-month

period April through November 1973, a total of 16,960 cases were reported, a decrease of 21 cases or 0.1% from the same 8-month period in 1972.

(Reported by the Venereal Disease Branch, Bureau of State Services, CDC.)

SUMMARY OF REPORTED CASES OF INFECTIOUS SYPHILIS

CASES OF PRIMARY AND SECONDARY SYPHILIS: BY REPORTING AREA - NOVEMBER, 1973 and NOVEMBER, 1972 - PROVISIONAL DATA

Reporting Area	November		Cumulative January - November		Reporting Area	November		Cumulative January - November	
	1973	1972	1973	1972		1973	1972	1973	1972
	NEW ENGLAND	69	75	1,008		805	EAST SOUTH CENTRAL	117	200
Maine	1	3	23	26	Kentucky	30	60	345	355
New Hampshire	1	-	9	8	Tennessee	46	91	419	508
Vermont	-	-	20	14	Alabama	17	17	177	204
Massachusetts	54	48	706	469	Mississippi	24	32	309	370
Rhode Island	-	1	18	42	WEST SOUTH CENTRAL	176	253	2,426	2,735
Connecticut	13	23	232	246	Arkansas	9	8	124	167
MIDDLE ATLANTIC	481	557	5,242	5,526	Louisiana	49	62	741	810
Upstate New York	45	35	397	392	Oklahoma	11	15	154	104
New York City	271	360	3,171	3,792	Texas	107	168	1,407	1,654
Pa. (Excl. Phila.)	28	19	250	175	MOUNTAIN	51	56	524	481
Philadelphia	47	27	487	309	Montana	-	-	3	7
New Jersey	90	116	937	858	Idaho	-	2	10	8
EAST NORTH CENTRAL	201	210	2,097	2,393	Wyoming	-	1	4	11
Ohio	20	19	252	285	Colorado	14	18	182	81
Indiana	23	37	267	250	New Mexico	13	9	75	98
Downstate Illinois	25	9	190	127	Arizona	16	19	170	180
Chicago	89	67	852	968	Utah	1	2	13	19
Michigan	35	65	462	702	Nevada	7	5	67	77
Wisconsin	9	13	74	61	PACIFIC	330	383	3,922	3,294
WEST NORTH CENTRAL	39	17	354	266	Washington	8	10	143	116
Minnesota	9	9	92	55	Oregon	2	1	41	37
Iowa	4	-	53	48	California	316	367	3,675	3,103
Missouri	24	6	167	104	Alaska	1	-	15	13
North Dakota	1	-	3	2	Hawaii	3	5	48	25
South Dakota	-	-	5	2	U.S. TOTAL	2,097	2,306	23,500	22,908
Nebraska	-	-	13	17	TERRITORIES	62	68	759	804
Kansas	1	2	21	38	Puerto Rico	59	56	726	717
SOUTH ATLANTIC	633	555	6,677	5,971	Virgin Islands	3	12	33	87
Delaware	12	6	89	55					
Maryland	75	41	808	772					
District of Columbia	58	78	709	790					
Virginia	71	71	742	528					
West Virginia	4	2	20	32					
North Carolina	76	59	625	512					
South Carolina	55	58	694	462					
Georgia	80	106	1,148	1,304					
Florida	202	134	1,842	1,516					

Note: Cumulative Totals include revised and delayed reports through previous months.

INTERNATIONAL NOTES

INFLUENZA - Africa, New Zealand, Thailand, United Kingdom

Central African Republic

The Pasteur Institute in Bangui isolated 1 strain of virus A during the week ending November 11 (among 24 throat specimens examined), and 2 during the week ending November 18 (among 32 throat specimens examined). No isolate of influenzavirus was obtained from the 9 throat specimens examined during the week ending November 4.

International Influenza Centre for the Americas, Atlanta

The 1973-1974 commercial bivalent vaccine (A/England/

42/72 and B/Massachusetts/1/71) was tested in November 1973 on a group of 49 persons in order to determine the rise of hemagglutination-inhibition antibodies to A/England/42/72 and to the new A strains from New Zealand, which are slightly different antigenically from A/England. Approximately 82% of the vaccinees responded with titers  $\geq 80$  to A/England/42/72, and approximately 66% responded with similar titers to the New Zealand strains. Geometric mean titers were 177 for A/England, 90 for A/Port Chalmers (New Zealand), and 107 for A/Dunedin (New Zealand).

## INFLUENZA - Continued

## New Zealand

In Wellington and its suburbs, the influenza epidemic associated with virus A, which started about September 7, ended about November 3 after reaching its peak approximately September 25. The isolates of virus A showed, like other strains from New Zealand, some antigenic differences from A/England/42/72, but are still related to this virus.

## Thailand

Since the last week of October 1973, there has been some increase in the incidence of influenza-like illness in Bangkok and surrounding areas. All age groups are affected. The disease is not clinically severe (the patients usually are seen in outpatient departments).

Four strains of virus A, antigenically related to A/

England/42/72, have been isolated from patients with high fever.

## United Kingdom

On the whole, the weekly influenza incidence is presently low. During the week ending December 7, however, an influenza outbreak associated with virus B/Hong Kong/5/72 was reported in another school in the west of England; outbreaks associated with virus B "intermediate" were observed in 3 schools in a town in the Midlands, and an outbreak associated with virus A occurred in a hospital in the south of England. In the latter outbreak, the strains of virus A which were isolated were antigenically close to the recent isolates from New Zealand.

(Reported by the World Health Organization: Weekly Epidemiological Record 48:473-474, 14 Dec 1973)

## Note to Readers

Because 2 federal holidays occur in each of the next 2 weeks, issues No. 51 and 52 will be combined, and this combined issue will be released on January 4, 1974. States are being asked to submit their weekly data as soon as possible after reports are received in each of the 2 weeks in the usual fashion.

The Morbidity and Mortality Weekly Report, circulation 36,000, is published by the Center for Disease Control, Atlanta, Ga.

Director, Center for Disease Control  
Director, Bureau of Epidemiology, CDC  
Editor, MMWR  
Managing Editor, MMWR

David J. Sencar, M.D.  
Phillip S. Brachman, M.D.  
Michael B. Gregg, M.D.  
Deborah L. Jonas, B.S.

The data in this report are provisional, based on weekly telegraphs to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday.

In addition to the established procedures for reporting morbidity and mortality, the editor welcomes accounts of interesting outbreaks or case investigations of current interest to health officials.

Address all correspondence to: Center for Disease Control  
Attn: Editor  
Morbidity and Mortality Weekly Report  
Atlanta, Georgia 30333

DHEW Publication No. (CDC) 74-8017

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE  
PUBLIC HEALTH SERVICE  
CENTER FOR DISEASE CONTROL  
ATLANTA, GEORGIA 30333

OFFICIAL BUSINESS

POSTAGE AND FEES PAID  
U.S. DEPARTMENT OF HEW  
HEW 399



3-G-19-08  
Mrs Mary F Jackson, Library  
Center for Disease Control