Morbidity and §





U. S. DEPARTMENT OF HEALTH, EDUCATION, AND PUBLIC HEALTH SERVICE

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COMMUNICABLE DISEASE CENTER

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Vol. 13, No. 1

PROVISIONAL INFORMATION ON SELECTED NOTIFIABLE DISEASES IN THE UNITED STATES AND ON DEATHS IN SELECTED CITIES FOR WEEK ENDED JANUARY 4, 1964

BOTULISM SURVEILLANCE SUMMARY ISSUE

POLIOMYELITIS - No cases of poliomyelitis were reported for the week ended January 4.

This represents the first time that no coses have been reported for any week since reporting began, according to the statistical records available at the Communicable Disease Center. Weekly reporting of poliom; elitis began in 1950.

The greatest number of cases reported for any one week was 4,180 for the 38th week (ended September 20) of 1952. The highest number of cases reported for the comparable first week of any year since 1950 was 253 in 1953.

DIPHTHERIA - Eight cases of diphtheria were reported for the week ended January 4, the first week of 1964 totals.

Four of these cases were reported from Kansas. They occurred in 4 children of one family. Three of the children had not received immunization; one was inadequately vaccinated.

Possible indirect contact with an outbreak in Oklahoma (See MMWR, Vol. 12, p. 421) is under investigation, according to Dr. Don E. Wilcox, State Epidemiologist, Kansas State Board of Health. A full epidemiologic report will be included in a future issue.

Table 1. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
(Cumulative totals include revised and delayed reports through previous weeks)

	1st We	ek Ended		Cumulat	ive, First	Week	
Disease	January 4, 1964	January 5, 1963	Median 1959 - 1963	1964	1963	Median 1959 - 1963	
Aseptic meningitis	17	14	A 12-2 (1)	17	State of		
Brucellosis	1,	3	0	17	14		
iphtheria		3	19	3	3	9	
Encephalitis, primary infectious	11	_ ,	19	8	3	19	
Encephalitis, post-infectious	5	- 8		11 5	- 8		
depatitis, infectious including	-						
Serum henatitis	598	691	691	598	691	691	
easles	2,938	4,822	6,261	2,938	4,822		
"ellingococcal infections	33	46	46	33	4,622	6,261	
oliomyelitis, Total	A 11 11 11 11 11 11 11 11 11 11 11 11 11	1	40	33	40	46	
Paralytic		î	3		LOCAL SECTION		
Nonparalytic	1000	k-minutely-				3	
Unspecified	Service VIII.	Annual Control of the		1010-2011			
Streptococcal Sore Throat and	nd in a new	DAME IN		The state of the s	TALL DE TARRE	A Allegine	
Scarlet fever .	6,789	5,934	777	6,789	5,934		
ecanus	2	3	555	2	3	50 - ***	
areilla	9	7		9	7		
yphoid fever	2	2	6	2	2	6	
Rabies in Animals	48	42	55	48	42	55	

Table 2. NOTIFIABLE DISEASES OF LOW FREQUENCY

We have the same and the same a	Cum.	the following lies beautiful and	Cum.
Anthrax: Botulism: Leptospirosis: Malaria: Alaska - 1, Colo 1, Va 2 Plague:	- - 4	Psittacosis: Rabies in Man: Smallpox: Typhus- Murine: Rky Mt. Spotted:	

CASES OF TYPE E BOTULISM COMMERCIALLY PROCESSED SMOKED WHITEFISH CHUBS Tennessee, Alabama, and Kentucky

Coses	Age	Sex	Date fish eaten	No. fish eaten (Hours to anset of Il symptoms	Hours to onset of neurological symptoms	type E antitoxin?	Severity
Knoxville, Tennesseo								
Family A								
Cose 1	32	M	10-5	1/2	7	30 ADIGADIA	No	Death, 10-7-63
Case 2	10	F	10-5	1/2	8	19	No	Death, 10-7-63
Family B								
Case 3	42	M	10-2	1/2	12	108	Yes	Severe; required tracheostomy
Cose 4	41	F	10-2	1/2	12	THE PLANT FRE	Yes	MIId
Family C								
Case 5	39	F	10-6	1/3	7	_	Yes	Mild
Case 6	8	F	10-6	1/3	7	26	Yes	Severe; rapid recovery after
								antitoxin
Case 7	10	M	10-6	1/3	7	26	Yes	Severe; rapid recovery after
								antitoxin
Nashville, Tennessee		- 2						
Case 8	53	M	10-6	a lavade	13	15	Yes	Moderately severs
Case 9	37	M	9-28	No.	16	20	No	Death, 9-30-63
Case 10	54	M	10-4	2	17	90	Yes	Severe; required tracheostomy
								and tank respirator; developed
								pneumonia and gram-negative
								sepsis
Cose 11	52	F	10-5	3	0-716	15	No	Death, 10-6-63
Case 12	47	M	9-28	1-3/4	16	16	No	Death, 10-5-63
Huntsville, Alabama			1790	71, 10 ii	AC1141	-din120 h	ulitel)	awa Minakasa Lenga
Case 13	5	M	10-4	2/5 of 3*	32	24	Yes	Severe; required tracheastomy
								and tank respirator
Case 14	54	F	10-4	1 - 1/2	17	17	Yes	Wild
Case 15	52	F	10-6	0-1 (1-5)	15	65	No	Mild, not hospitalized
Madisonville, Kentucky			-00111	Total Control		THE STORES		Company Toward In
Case 16	64	F	10-5	4-1/2	18	25	No	Mild, not hospitalized
Case 17	65	м	10-5	1-1/2	78	65	No	Mild, not hospitalized

Mean - 17.6 hours. Mean - 37.2 hours.

*Three fish chopped, mixed and served as a single dish.

(Data submitted by Dr. Cecil B. Tucker, Director, Division of Preventable Diseases, Tennessee Department of Public Health; Dr. W. H. Y. Smith,
Director, Bureau of Preventable Diseases, Alabama State Health Department; and Mr. J. Clifford Todd, State Epidemiologist, Kentucky State
Department of Mealth)

EPIDEMIOLOGICAL REPORTS

Botulism - California - Figs

The two cases of botulism reported last week from California were related to the ingestion of home processed figs. (See MMWR, Vol. 12, p. 437.)

In early October, a dentist and his wife received home preserved figs from their maid. During the morning of October 18, the dentist ingested some figs. On October 20, he experienced generalized weakness while working at his desk. The following day he noted worsening diplopia, dysphagia, and weakness of his neck musculature. When hospitalized October 23, his physician noted definite dysarthria. A lumbar puncture, performed at that time because the patient showed no signs of improvement, was normal. On October 25, the diagnosis of botulism was made. The patient was treated with 50,000 units of bivalent (A&B) antitoxin administered over a two-day period. Despite this therapy, the patient died November 3.

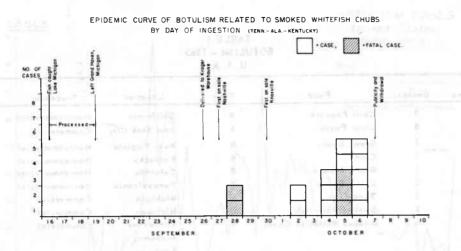
The patient's wife ate figs from this same jar on October 16. On October 18, she began to experience generalized fatigue and the following day dysphagia and dysarthria. On October 20, she noticed bilateral ptosis and worsening of her generalized weakness. Her dysphagia and dysarthria became more severe. On October 23, because of the persistence of her symptoms, she was admitted to the same hospital where her husband was a

patient. Although she was not treated with antitoxin, she gradually improved and has survived.

The figs had been home preserved by the dentist's maid. The jar from which the figs were consumed by the dentist and his wife was discarded and could not be recovered. Figs examined in the remaining jars were negative for *Clostridium botulinum* or its toxin. The maid consumed figs from another jar and never experienced symptoms.

(Reported by Dr. Philip K. Condit, Chief, Bureau of Communicable Diseases, California State Department of Health.)

Editor's Note: Figs have been implicated in at least 11 earlier outbreaks of botulism, according to "Fifty years of Botulism in the United States and Canada" by K. F. Meyer, M.D., and B. Eddie, D.P.H. These 11 outbreaks have resulted in 22 cases, including 12 deaths. Eight of these outbreaks occurred in California, and one each in Connecticut, District of Columbia, and Maryland. Two of the California outbreaks were due to Type A botulinus toxin; the Connecticut and Maryland outbreaks were due to Type B. The specific type in each of the other outbreaks was unknown.



Botulism - California - Chili Peppers

Two non-fatal cases of botulism were reported in early 1963 in a Los Angeles couple who ingested home canned chili peppers. This is a delayed epidemiological report.

Upon awakening January 27, 1963, a 39-year-old Mexican female complained of double vision and a swollen tongue, but she continued performing her usual household chores. The following morning she had difficulty swallowing, and temporal and occipital headache. She vomited once. Her family physician prescribed symptomatic therapy. That evening she commenced to experience epigastric pain and respiratory difficulty and was hospitalized. At no time did she have diarrhea or sensory changes.

On physical examination, she was found to have ptosis and bilateral facial paralysis, as well as weakness of the right medial rectus without obvious strabismus. Pharyngeal pooling of saliva and difficulty of swallowing were present; she could not extrude her tongue. There was moderate trismus. Her temperature was 100°F.

On January 29, she received 40,000 units of bivalent (A&B) botulinus antitoxin intravenously. A tracheostomy was also performed because of increasing respiratory difficulty; the patient was placed in a respirator. On January 31, urinary retention developed, requiring an indwelling catheter. On the same day, her temperature rose to 101°F, and a right upper lobe pneumonia was diagnosed clinically and confirmed by X-ray. The pneumonia responded to an antibiotic.

At the time of his wife's admission, the husband noted diplopia but was not hospitalized until urged to do so the following morning. Upon arising January 28, he first noted double vision when he attempted to focus on distant objects and on lateral gaze. He did not experience headache, blurred vision, weakness, ataxia, difficulty swallowing, respiratory difficulty, or fever. At the time of hospital admission, he was found to have a mild left

esotropia and diplopia, which could be elicited on extreme lateral gaze and upon attempting to focus on objects more than 6 feet distant. He was treated with 20,000 units of bivalent antitoxin on January 29. Diplopia disappeared January 31.

A third family member, the 9-year-old son, was admitted for observation on January 29, although he had no complaints and a negative physical examination. He was treated prophylactically with 10,000 units of bivalent antitoxin; no symptoms developed during three days of observation. He was not officially recorded as a case.

Epidemiologic investigation revealed that the only home canned food item consumed during the previous week was a portion of a quart jar of chili peppers, which the mother had canned in September, 1962. She had placed the peppers in open jars, covered them with liquid, boiled them an indeterminate length of time, and sealed them. Four quarts had been prepared in this manner. One was the suspect jar; 2 had been consumed previously and one jar remained unopened. The 2 adults had eaten peppers from the fourth jar in an uncertain amount between January 21 and January 24. The wife had consumed more than the husband. The wife had eaten peppers at breakfast January 27. Her husband had not eaten peppers after January 24. The 9year-old son disliked peppers and had eaten none. No other foods were ingested by both the mother and father and not by the son.

On laboratory examination, Type A botulinus toxin was demonstrated by the Los Angeles Health Department Laboratory from a sample of the remaining portion of the jar of chili peppers.

(Reported by Robert S. Rocke, M.D., District Health Officer; C. Carson, Assistant Epidemiologist; G. Kitaoka, P.H.N., Los Angeles County Health Department; and Dr. Philip K. Condit, Chief, Bureau of Communicable Diseases, California State Department of Health.)

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TABLE	1
BOTULISM -	1963
U. S. A	1817

Outbreak	Cases	Deaths	Food	Туре	Location	Processor	MMWR Reference Vol. 12
1	2	0	Chili Peppers	A	California	Non-commercial	This issue
2	2	0	Liver Paste	A	New York City	Commercial	pp. 357,386
3	1	1	Green Beans	В	West Virginia	Non-commercial	p. 311
4	5	1	Corn	В	Kentucky	Non-commercial	p. 322
5	2	1	Green Breans	В	Colorado	Non-commercial	p. 410
6	3	0	Green Beans	В	Pennsylvania	Non-commercial	р. 430
7	3	2	Tuna Fish	E	Michigan	Commercial	рр. 95,124
8	2	2	Smoked Whitefish	E	Michigan	Commercial*	рр. 329,337
9	17	5	Smoked Whitefish Chubs	E	Tennessee,	Commercial	рр. 329,337,345
					Alabama,		
					Kentucky		
10	6	1	Mushrooms	Unknown	California	Non-commercial	р. 322
11	1/2	0	Smoked Whitefish	Unknown	Minnesota	Non-commercial	p. 400
12	2	a by Lodge	Figs on the estimate	Unknown	California	Non-commercial	This issue
stial 05	46	14	the fit branch tong a own	a page	(12 M PATH COUNTY OF	pay colpus, oc.	I II WE SOUTH TANK

^{*}See Commercial Section of Botulism Surveillance Summary.
Source: State Reports received by CDC.

BOTULISM SURVEILLANCE SUMMARY - 1963

A total of 12 outbreaks of botulism accounting for 46 cases, including 14 deaths, were reported in the United States during 1963 (Table 1). The 46 cases during 1963 represent the highest total for any one year since 1939, the eighth highest year since 1899 (Table 2). Commercially canned or smoked food products accounted for 4 outbreaks and 24 cases, and home canned food caused 8 outbreaks, 22 cases.

TABLE 2

CASES OF BOTULISM

HIGHEST YEARS 1899 – 1963

	Cases	Outbreaks	Year
lst	89	15	1919
2nd	71	26	1935
3rd	63	15	1921
4th	59	23	1922
5th	50	12	1924
6th	48	15	1931
7th	47	18	1939
8th	46	20	1932
8th	46	12	1963
10th	44	15	1941

^{*} Preliminary Total.

Source: 1899-1949 — "Meyer, K.F. and Eddie, B. "Fifty Years of Botulism in the United States and Canada," George Williams Hooper Foundation, University of California, San Francisco.

1950-1963 - State reports received by NOVS and CDC.

Cases by State

The 12 outbreaks recorded this year (See Table 1) occurred in 9 States. Tennessee, with 12 cases, experienced more cases of botulism than any other State. Tennessee's 12 cases were part of one outbreak, which also involved victims in Kentucky and Alabama, and was traced to smoked whitefish chubs. California was second with 10 cases, Kentucky third with 7 cases.

Outbreaks by State

Although California was second in total number of cases for the year, it led the States in the number of separate outbreaks. California experienced 3 outbreaks, while Kentucky and Michigan each had 2 separate outbreaks. Both of Michigan's outbreaks were related to commercial products.

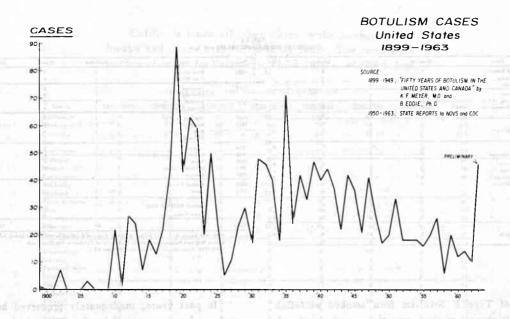
Type

Type B Clostridium botulinum toxin was identified as the etiological agent in 4 of the 12 outbreaks (11 cases). Type E toxin was identified in 3 outbreaks (22 cases), Type A in 2 outbreaks (4 cases). In the remaining 3 outbreaks (9 cases), the type was unknown.

1963 BOTULISM BY SPECIFIC TYPE

Surface by	Outbreaks	Cases	Deaths
Туре А	2 000	galleroe4 setup	0
Type B	algestica en les e	0047111	3
Type E	3 3 3 4	22	9 50
Unknown	XSIE , BANKEY	9	2
Total	12	46	14

Source: State reports received by CDC.



Vehicle

Vegetables were found to be the vehicle in 6 of the 12 outbreaks. Green beans accounted for 3 separate outbreaks, while chili peppers, mushrooms and corn accounted for one each.

Fish were implicated in 4 separate outbreaks. A smoked fish product was involved in 3 separate outbreaks, and a non-smoked fish product involved in the fourth outbreak. Of the 3 outbreaks related to smoked fish, 2 were from commercial sources.

Antitoxin Therapy

Of the 46 reported cases, 22 received botulinus antitoxin during the course of illness. Of the 14 fatalities, only 2 received antitoxin therapy; 20 of the 32 survivors were treated with the antitoxin. The number of fatal and non-fatal cases who did not receive botulinus antitoxin is presented in Table 4 below.

TABLE 4
1963 BOTULISM CASES AND ANTITOXIN THERAPY

	Outbreak	Surviving Cases	Type Specific Antitoxin	Deaths	Type Specific Antitoxin
1	Chili Pappers	2	2	0	0
2	Liver Paste	2	0	0	0
3	Beans	0	0	1	0
4	Corn	4	4	. 1	0
5	Beans	1.00	1 Dec	and a	0
6	Beans	med-3mi	3	0	0
7	Tuna Fish	and the last	0	2	COST NO.
8	Smoked Whitefish	0	0	2	0
9	Smoked Whitefish Chubs	12		5	0
10	Mushrooms	5	1*	12	0
11	Whitefish	1	1+	0	0
12	Figs	1	0	1	1.
	Totals	32	20	14	2

*Responsible type unknown; Received Bivalent (A & B) Antitoxin Source: State reports received by CDC. Although these data might attest the value of antitoxin therapy, it has been repeatedly observed that fatal cases commonly demonstrate a shorter incubation period and often are diagnosed only posthumously after subsequent milder cases have occurred. Treated and nontreated cases are thus in no way comparable in severity. Commercial

More cases of botulism were due to commercial products than home canned products during 1963.

Four of the 12 outbreaks involved commercial products; the remainder related to home preserved products. Commercial outbreaks involved 24 victims, 9 of whom died. In the non-commercial outbreaks, 22 individuals were concerned; 5 died.

1963

	Outbreaks	Cases	Deaths
Commercial	I me Tamon	24	9
Non-Commercial	8	22	5
Total	12	46	14

Source: State reports received by CDC.

Of the 4 commercial outbreaks in 1963, the first involved one can of tuna fish, processed in San Francisco and sold in Detroit. This can led to 3 cases, 2 of which were fatal. (See MMWR, Vol. 12, pp. 95, 124.) A Canadian canned liver paste product led to 3 cases of Type B botulism in Montreal, and 2 non-fatal cases of Type A botulism in New York City. (See MMWR, Vol. 12, pp. 357, 386.) Two outbreaks were due to smoked fish products.

TABLE 6

			COMMERCIAL BUTUI		
Year	Food	Outbreak	Coses	Deuths	Type
1906	Pork and Beams	1	3	3	-
1910	String Beens	1	4	4	-
1912	Clam Juice	-1	2	1	-
1913	Clam Juice	The second second	3	2	1 2
1914	Clam Juice	1	2	2	
1915	Tomate Catsup	1	2	0	-
1005	Sausage	1	2	2	-
1916	Carn	1	1	0	
	Mineed Olives	1	2	2	-
	Tune	1	1	. 1	-
1919	01/***	3	28	17	
	Summer Sousage	1	1	0	
1920	Ripe Glives	1	7	7	A .
	Ripe Olives	2	2	0	
	Mineral Olives	1	5	0	
	Mineral Olives	1	1	1 1	-
	Spinach	1	6	3	
	Spinneh	1	2	2	1 2
	Hom	1	4	4	
	math.	1	4	0	
	Beers	1	5	5	
1921	Spinach	3	32	4	
	Ripa Olives	1	5	3	
1922	Spinach	2	- 31	6	-

Yeur	Food	Outbreak	Cones	Deothe	Type
924	Ripe Olives	2	13	6	-
1.5-2	Ripe Olives	1	9	2	A
925	Sardines	1	2	2	
	Sordinee	10	2	2	
	Spinosh	1	5	1	
	Putted Meet	1	4	4	
1929	Shullers	1	2	1	
1921	Antiposta	1	3	1	
	MILE	1	1	0	
	Sardines	1	2	1	
1934	Spents	1	3	1	E
1936	Clams (Japanese conned)	1	4	4	D
1938	Tune	1	2	2	
1941	Mushroom Souce	1	3	1	ε
1951	Cheese	1:	1	l_	-
1960	Smoked Ciacos	1	2	2	
1963	Tuna	15	3	2	E
	Smoked Whitefish	2	19	7	
	Smoked Whitefish Chub	1	17	5	E
	Liver Pasts	1.	2	0	
Tetal		51	219	1119	

urce: 1899-1949 Mayer, K. F. und Eddis, B. "Fifty Years of Betailine in the United States and Canada," George Williams Happer Faundatin, University of California, Ten Frenzisco. 1950-1953 State seports received by NOVS and CDC

Two cases of Type E botulism from smoked whitefish occurred in Michigan at the same time as the outbreak from smoked whitefish chubs in Tennessee, Alabama, and Kentucky. (See MMWR, Vol. 12, pp. 329, 337, and 345.)

It is believed that the Michigan husband and wife purchased the suspect smoked whitefish from a commercial roadside stand while on a long weekend vacation in northern Michigan. This outbreak appears to be unrelated to the smoked whitefish chub outbreak in Tennessee, Alabama, and Kentucky, which was recognized a few days later. A revised epidemic curve and line listing of the 12 non-fatal and 5 fatal cases included in the smoked whitefish chub outbreak is presented on pages 2 and 3.

In past years, inadequately preserved home canned products have accounted for the vast majority of botulism cases. No explanation can be provided for the sudden occurrence of commercial outbreaks during 1963.

Since 1899, 51 outbreaks of botulism related to commercial products have been reported in the United States. Until 1963, all except two had occurred prior to 1942. Of the 51 outbreaks, 25 have been bacteriologically proved.

A complete list of known outbreaks of botulism related to commercial products is presented in Table 6.

Whereas 36 cases of proved Type E botulism had been described in the United States before 1963 (See Table 2), 22 cases of Type E occurred in 1963 alone. All cases of Type E during 1963 were related to commercial fish products (smoked whitefish, smoked whitefish chubs and tuna fish).

A complete table of known proven Type E outbreaks in the U.S.A. is presented below. This supersedes the table appearing on page 330 of Vol. 12.

KNOWN OUTBREAKS TYPE E BOTULISM

Year	State	Food	Coses	Deaths
1932	New York	Smaked Salmon	3	1
		(Canadian origin)		
1934	New York	Sprats (German origin)	3	1
1941	California	Mushroom Sauce	3	1
1950	Alaska	Beluga Flippers	5	0
	(Point Hope)			
1952 Alaska	Alaska	Beluga Flippers	1	1
	(Selawik)	magaziona di n		
1956	Alaska	Beluga Muktuk	3	2
	(Kotzebue)			
1956	Alaska	Beluga Multtuk	2	1
	(Anchorage)			
1959	Alaska	Stink Eggs	1	1
	(Hydaburg)	(Salmon eggs)		
1959	Alaska	Seal or Whale Flipper	7	1
	(Scammon Bay)			
1960	Alaska	Ketdukan Salman	2	2
	(Ketchikan)	Egg Cheese		
1960	Minnesota	Cisco - vacuum packed	2	2
1961	Washington	Uncooked Salmon Eggs	4	1
1963	Michigan	Tuna (California packed)	3	2
1963	Michigan	Smoked Whitefish	2	2
1963	Tennessee	Smoked Whitefish Chubs	17	5
	Alabama	(vacuum packed in		
	Kentucky	Michigan)		
	The Party	Totals	58	23

Source: Dr. C. E. Dolman, Professor and Head, Department of Bacteriology and Immunology, University of British Columbia, and K. F. Meyer, M.D., of the George Williams Hooper Foundation, University of California Medical Center, San Francisco, California.

California leads all other States in the number of outbreaks and cases over the past 64 years. The cumulative number of cases for each State since 1899 is shown below.

BOTULISM CASES - U. S. A. TOTAL CASES - 1899 THROUGH 1963 BY DECADE

States	1899-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1963	Total
California	11	104	87	105	109	50	12	478
Washington	0	23	43	46	30	15	8	165
Colorado	0	17	27	31	23	25	2	125
New Mexico	0	0	0	37	33	7	3	80
New York	0	18	21	19	12	0	2	72
Michigan	0	15	34	0	2	0	9	60
Oregon	0	3	18	20	12	3	0	56
Tennessee	0	0	7	15	6	5	15	48
Kentucky	0	0	Ó	- 11	11	- 11	10	43
Montana	0	7	5	17	3	2	0	34
North Dakota	0	0	0	21	9	0	0	30
Ohlo	o	14	12	3	ó	i	ŏ	30
Wyoming	0	0	21	8	0	Ö	ō	29
Nebraska	0	2	3	12	10	o	o	27
New Jarsey	o o	3	2	5	4	13	0	27
Idaho	0	4	2	8	0	6	3	23
Mississippi	0	0	0	ő	4	17	0	
Mississippi Indiana	0	7	11	0	0	2	0	21
Indiana Pennsylvania	0	ó	9	1	3	2 2	3	20
Illinois	0	4	-4	ò	2	6	0	
	0	1	0		12			16
Utah	0	Ġ		1 1		3	0	14
Minnesota		0	0	5	0	-	5	13
Alaska*	0		0	0	0	10	3	13
Texas	0	0	6	4	0	1	0	11
Arizona	0	0	5	0	4	2	0	11
Virginia	0		0	0	5	0	0	9
Florida	0	- 7	o		0		- 100	E
Massachusetts		6		2		0	0	8
Maryland	0	0	0	0	4	3	0	7
Alabama			3	0	1	0	3	7
South Dakota	0	0	0	3	2	0	0	7
Nevada	0	0	0	0	3	3	0	
Wisconsin	0	3	2	1	0	0	0	
Oklahoma	0	0	0	2	1	3	0	
Connecticut	0	0	0	1	4	0	0	
lowa	0	5	0	0	0	0	0	
Maine	0	0	4	0	0	0	0	
West Virginia	0	0	0	0	3	0	1	
Louisiana	0	0	0	0	0	3	1	
Washington, D. C	. 0	0	0	0	3	0	0	
Arkansas	0	0	0	2	0	0	1	
Missouri	0	0	2	0	0	0	o	
North Carolina	0	0	0	0	0	2	0	
Georgia	0	0	0	0	1	0	0	
Hawali*	0	0	0	0	0	0	0	
New Hampshire	0	0	0	0	0	0	0	
Vermont	0	0	0	0	0	o	ő	
Rhode Island	0	0	o	ō	0	o	0	
Kansas	o	o	a	0	0	0	0	
Delaware	o o	ő	o	0	0		0	
South Carolina	o o	0	0	0	0	0		
Journ Carolina	U	U	u	U	U	U	0	- (

*Since 1950 only.

Source: 1899-1949 — Mayer, K. F. and Eddie, B. "Fitty Years of Botulism in the United States and Canada," George Williams Hooper Foundation, University of California, San Francisco.

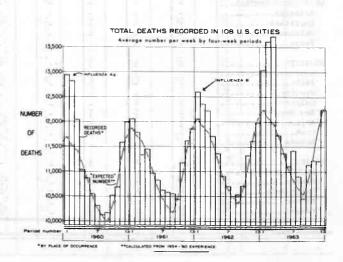
1950-1963 - State reports received by NOVS and CDC.

TOTAL DEATHS REPORTED IN 108 CITIES

The weekly average number of total deaths in 108 cities for the four-week period ending January 4 was 12,249 as compared with an expected weekly average of 12,263.

Total Deaths Recorded in 108 United States Cities

		Week En	w	w 11		
	12/14	12/21	12/28	1/4	Week Total	Weekly Average
Observed	12,434	11,873	11,541	13,148	48,996	12,249
Expected				12,360		
Excess	283	-362	-765	788	-56	-14



Morbidity and Mortality Weekly Report

Table 3. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES FOR WEEKS ENDED

JANUARY 4, 1964 AND JANUARY 5, 1963 (1st WEEK)

Cross-sylving	Asep			nalitis	N - INAA	alta-ptpd	m-4-3-5						
Area	Meningitis		Primary Post-Inf.		Poliomyelitis, Total Cases				Pol	iomyelitis	itis, Paralytic		
De la Deal Comme	erel No	(405)	HI SH	tem-min	1011351	DATE OF THE PARTY		lative			Cumul		
	1964	1963	1964	1964	1964	1963	1964	1963	1964	1963	1964	1963	
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New Hampshire	- 1	k	EX 111_5	2.6	8 .	-	_		-	1164		_	
Vermont						0.00	- 944	T1 - E		- North	- D	-	
Massachusetts	-		7					-1	-	-	- 4	0.4	
Rhode Island	2.7		-5 O -	(45) -	-	1,-00		-51		- 1	-	-	
Connecticut			-	44	243-		254	- 4-5		- 8	- 1	-11-	
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New York City			2	10		100	- 111271		_	-	_		
New York, Up-State.			1	1	1000	180.00				-0-0		_	
New Jersey)				77 <u>-</u>		1 2 5	11.00		_	97	
Pennsylvania	1		2	1		- 1-		1	-	Land -			
										757			
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Illinois					-	-			-	-		17	
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Wisconsin		1	in term	DEP 315-7	100			er er er de		******			
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Minnesota		1	2000 CITO	1.591.91	100	_		_	100	-	-	MD	
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Morbidity and Mortality Weekly Report

Table 3. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES FOR WEEKS ENDED

JANUARY 4, 1964 AND JANUARY 5, 1963 (1st WEEK) Continued

The state of the s	Brucellosis		Diphtheria		Jan 10	Infectious Hepatitis including Serum Hepatitis					Typhoid Fever	
Area		Cum.		Cum.	Total				Cumulative		1.3143	Cum.
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New Jersey	-	- 1	2	2	13	9	4	- 1 1 E	13	20	11111	the section
Pennsylvania		10 1	-	-	34	16	18	-	34	73		
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West Virginia				-	- Mail			-		13	2011 C 2014	# 7 mail
North Carolina		2017			5	3	2		5	30	4000	1,55
Georgia		160.01							1 55	1	1	12063
Florida	-	110 -	130	100-2	20	4	13	3	20	2	200	198
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Morbidity and Mortality Weekly Report

Table 3. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES FOR WEEKS ENDED

JANUARY 4, 1964 AND JANUARY 5, 1963 (1st WEEK) - Continued

NINTED STATE 1964 1964 1964 1965 1964		Measles		ingococca ningitis	al	Sore Th	ococcal roat and t Fever	Tet	anus	Tula	remia	Rabie Anim	
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	Puerto Rico	11		-11-2		-	-		- 9-				

Table 4 (A). TOTAL DEATHS IN REPORTING CITIES

(Tables 4(A), 4(B), 4(C), and 4(D) will be published in sequence covering a four-week period.)

EW ENGLAND: Boston, Mass. Bridgeport, Conn. Cambridge, Mass. Fall River, Mass. Fall River, Mass. Hartford, Conn. Lowell, Mass. Lynn, Mass. New Bedford, Mass. New Haven, Conn. Providence, R.I. Somerville, Mass. Springfield, Mass. Waterbury, Conn. Worcester, Mass. UDDLE ATLANTIC: Albany, N.Y. Allentown, Pa. Buffalo, N.Y. Camden, N.J. Elizabeth, N.J. Erie, Pa. Jersey City, N.J. Newark, N.J.	246 37 36 37 69 24 31 30 55 71 15 52 24 56	256 43 34 26 51 17 21 23 42 61 13 41 25 48	242 34 38 24 68 41 33 42 60 69 13 57 32	287 57 28 35 62 18 33 33 50 90	Area SOUTH ATLANTIC: Atlanta, Ga. Baltimore, Md. Charlotte, N.C. Jacksonville, Fla. Miami, Fla. Norfolk, Va. Richmond, Va. Savannah, Ga. St. Petersburg, Fla. Tampa, Fla.	132 285 53 74 109 51 77 30	12/21/63 136 271 42 61 87 60 120 32	92 250 14 68 75 39 95	1/4/64 125 310 61 123 109
Boston, Mass. Bridgeport, Conn. Cambridge, Mass. Fall River, Mass. Hartford, Conn. Lowell, Mass. Lynn, Mass. New Bedford, Mass. New Bedford, Mass. New Haven, Conn. Providence, R.I. Somerville, Mass. Springfield, Mass. Waterbury, Conn. Worcester, Mass. IDDLE ATLANTIC: Albany, N.Y. Allentown, Pa. Buffalo, N.Y. Camden, N.J. Elizabeth, N.J. Eric, Pa. Jersey City, N.J. New York City, N.Y. I Paterson, N.J. Philadelphia, Pa. Pittsburgh, Pa. Reading, Pa. Rochester, N.Y. Schenectady, N.Y. Scranton, Pa. Syracuse, N.Y. Trenton, N.J. Trenton, N.J. Utica, N.Y. Vonkers, N.Y.	37 36 37 69 24 31 30 55 71 15 52 24 56	43 34 26 51 17 21 23 42 61 13 41	34 38 24 68 41 33 42 60 69 13 57 32	57 28 35 62 18 33 33 50	Atlanta, Ga. Baltimore, Md. Charlotte, N.C. Jacksonville, Fla. Miami, Fla. Norfolk, Va. Richmond, Va. Savannah, Ga. St. Petersburg, Fla.	285 53 74 109 51 77 30 75	271 42 61 87 60 120 32	250 14 68 75 39	310 61 123 109
Boston, Mass. Bridgeport, Conn. Cambridge, Mass. Fall River, Mass. Hartford, Conn. Lowell, Mass. Lynn, Mass. New Bedford, Mass. New Bedford, Mass. New Haven, Conn. Providence, R.I. Somerville, Mass. Springfield, Mass. Waterbury, Conn. Worcester, Mass. IDDLE ATLANTIC: Albany, N.Y. Allentown, Pa. Buffalo, N.Y. Camden, N.J. Elizabeth, N.J. Eric, Pa. Jersey City, N.J. New York City, N.Y. I Paterson, N.J. Philadelphia, Pa. Pittsburgh, Pa. Reading, Pa. Rochester, N.Y. Schenectady, N.Y. Scranton, Pa. Syracuse, N.Y. Trenton, N.J. Trenton, N.J. Utica, N.Y. Vonkers, N.Y.	37 36 37 69 24 31 30 55 71 15 52 24 56	43 34 26 51 17 21 23 42 61 13 41	34 38 24 68 41 33 42 60 69 13 57 32	57 28 35 62 18 33 33 50	Atlanta, Ga. Baltimore, Md. Charlotte, N.C. Jacksonville, Fla. Miami, Fla. Norfolk, Va. Richmond, Va. Savannah, Ga. St. Petersburg, Fla.	285 53 74 109 51 77 30 75	271 42 61 87 60 120 32	250 14 68 75 39	310 61 123 109
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Cambridge, Mass. Fall River, Mass. Hartford, Conn. Lowell, Mass. Lynn, Mass. New Bedford, Mass. New Bedford, Mass. New Haven, Conn. Providence, R.I. Somerville, Mass. Springfield, Mass. Waterbury, Conn. Worcester, Mass. UDLE ATLANTIC: Albany, N.Y. Allentown, Pa. Buffalo, N.Y. Camden, N.J. Elizabeth, N.J. Erie, Pa. Jersey City, N.J. New York City, N.Y. Paterson, N.J. Philadelphia, Pa. Fittsburgh, Pa. Reading, Pa. Rochester, N.Y. Schenectady, N.Y. Scranton, Pa. Syracuse, N.Y. Trenton, N.J. Utica, N.Y. Yonkers, N.Y.	36 37 69 24 31 30 55 71 15 52 24 56	34 26 51 17 21 23 42 61 13 41	38 24 68 41 33 42 60 69 13 57 32	28 35 62 18 33 33 50	Charlotte, N.C. Jacksonville, Fla. Miami, Fla. Norfolk, Va. Richmond, Va. Savannah, Ga. St. Petersburg, Fla.	53 74 109 51 77 30 75	42 61 87 60 120 32	14 68 75 39	61 123 109
Fall River, Mass. Hartford, Conn. Lowell, Mass. Lynn, Mass. New Bedford, Mass. New Bedford, Mass. New Haven, Conn. Providence, R.I. Somerville, Mass. Springfield, Mass. Springfield, Mass. Waterbury, Conn. Worcester, Mass. IDDLE ATLANTIC: Albany, N.Y. Allentown, Pa. Buffalo, N.Y. Camden, N.J. Eric, Pa. Jersey City, N.J. Newark, N.J. Newark, N.J. NewYork City, N.Y. Paterson, N.J. Philadelphia, Pa. Pittsburgh, Pa. Reading, Pa. Rochester, N.Y. Schenectady, N.Y. Scranton, Pa. Syracuse, N.Y. Trenton, N.J. Utica, N.Y. Yonkers, N.Y.	37 69 24 31 30 55 71 15 52 24 56 45 34 139 60	26 51 17 21 23 42 61 13 41	24 68 41 33 42 60 69 13 57 32	35 62 18 33 33 50	Jacksonville, Fla Miami, Fla Norfolk, Va Richmond, Va Savannah, Ga St. Petersburg, Fla	74 109 51 77 30 75	61 87 60 120 32	68 75 39	123 109
Hartford, Conn. Lowell, Mass. Lowell, Mass. New Bedford, Mass. New Bedford, Mass. New Haven, Conn. Providence, R.I. Somerville, Mass. Springfield, Mass. Waterbury, Conn. Worcester, Mass. UDDLE ATLANTIC: Albany, N.Y. Allentown, Pa. Buffalo, N.Y. Camden, N.J. Elizabeth, N.J. Erie, Pa. Jersey City, N.J. New York City, N.Y. Paterson, N.J. Philadelphia, Pa. Pittsburgh, Pa. Reading, Pa. Reading, Pa. Rochester, N.Y. Schenectady, N.Y. Scranton, Pa. Syracuse, N.Y. Trenton, N.J. Utica, N.Y. Yonkers, N.Y.	69 24 31 30 55 71 15 52 24 56 45 34 139 60	51 17 21 23 42 61 13 41 25	68 41 33 42 60 69 13 57 32	62 18 33 33 50 90	Miami, Fla. Norfolk, Va. Richmond, Va. Savannah, Ga. St. Petersburg, Fla.	109 51 77 30 75	87 60 120 32	75 39	109
Lowell, Mass. Lynn, Mass. New Bedford, Mass. New Haven, Conn. Providence, R.I. Somerville, Mass. Springfield, Mass. Waterbury, Conn. Worcester, Mass. LDDLE ATLANTIC: Albany, N.Y. Allentown, Pa. Buffalo, N.Y. Camden, N.J. Eric, Pa. Jersey City, N.J. New York City, N.Y. Philadelphia, Pa Pittsburgh, Pa Reading, Pa Reading, Pa Reading, Pa Reading, Pa Reading, Pa Reson, N.J. Scranton, Pa. Syracuse, N.Y. Trenton, N.J. Utica, N.Y. Yonkers, N.Y. AST NORTH CENTRAL:	24 31 30 55 71 15 52 24 56 45 34 139 60	17 21 23 42 61 13 41 25	41 33 42 60 69 13 57 32	18 33 33 50 90	Norfolk, Va	51 77 30 75	60 120 32	39	
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New Haven, Conn. Providence, R.I. Somerville, Mass. Springfield, Mass. Waterbury, Conn. Worcester, Mass. UDDLE ATLANTIC: Albany, N.Y. Allentown, Pa. Buffalo, N.Y. Camden, N.J. Elizabeth, N.J. Eric, Pa. Jersey City, N.J. New York City, N.Y. Philadelphia, Pa. Pittsburgh, Pa. Reading, Pa. Reading, Pa. Reading, Pa. Rochester, N.Y. Schanectady, N.Y. Scranton, Pa. Syracuse, N.Y. Trenton, N.J. Utica, N.Y. Yonkers, N.Y.	55 71 15 52 24 56 45 34 139 60	42 61 13 41 25	60 69 13 57 32	50 90	St. Petersburg, Fla	75		50	30
Providence, R.I. Somerville, Mass. Springfield, Mass. Waterbury, Conn. Worcester, Mass. UDDLE ATLANTIC: Albany, N.Y. Allentown, Pa. Buffalo, N.Y. Camden, N.J. Elizabeth, N.J. Erie, Pa. Jersey City, N.J. Newark, N.J. New York City, N.Y. Paterson, N.J. Philadelphia, Pa. Pittsburgh, Pa. Reading, Pa. Rochester, N.Y. Schanectady, N.Y. Scranton, Pa. Syracuse, N.Y. Trenton, N.J. Utica, N.Y. Yonkers, N.Y. AST NORTH CENTRAL:	71 15 52 24 56 45 34 139 60	61 13 41 25	69 13 57 32	90			84	82	97
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Springfield, Mass. Waterbury, Conn. Worcester, Mass. UDDLE ATLANTIC: Albany, N.Y. Allentown, Pa. Buffalo, N.Y. Camden, N.J. Eric, Pa. Jersey City, N.J. Newark, N.J. Newark, N.J. Newark, N.J. Paterson, N.J. Philadelphia, Pa. Pittsburgh, Pa. Reading, Pa. Reading, Pa. Rochester, N.Y. Schenectady, N.Y. Scranton, Pa. Syracuse, N.Y. Trenton, N.J. Utica, N.Y. Yonkers, N.Y.	52 24 56 45 34 139 60	41 25	57 32		Washington, D.C	204	199	207	253
Waterbury, Conn. Worcester, Mass. DDLE ATLANTIC: Albany, N.Y. Allentown, Pa. Buffalo, N.Y. Camden, N.J. Elizabeth, N.J. Eric, Pa. Jersey City, N.J. New York City, N.Y. Paterson, N.J. Philadelphia, Pa. Pittsburgh, Pa. Reading, Pa. Reading, Pa. Rochester, N.Y. Schanectady, N.Y. Scranton, Pa. Syracuse, N.Y. Trenton, N.J. Utica, N.Y. Yonkers, N.Y.	24 56 45 34 139 60	25	32	52	Wilmington, Del	52	30	32	66
Worcester, Mass. IDDLE ATLANTIC: Albany, N.Y. Allentown, Pa. Buffalo, N.Y. Camden, N.J. Elizabeth, N.J. Eric, Pa. Jersey City, N.J. Newark, N.J. New York City, N.Y. Paterson, N.J. Philadelphia, Pa. Pittsburgh, Pa. Reading, Pa. Rochester, N.Y. Schenectady, N.Y. Scranton, Pa. Syracuse, N.Y. Trenton, N.J. Utica, N.Y. Yonkers, N.Y.	56 45 34 139 60			31	7.00	32		32	
DDLE ATLANTIC: Albany, N.Y. Allentown, Pa. Buffalo, N.Y. Camden, N.J. Elizabeth, N.J. Erie, Pa. Jersey City, N.J. Newark, N.J. New York City, N.Y. Paterson, N.J. Philadelphia, Pa. Pittsburgh, Pa. Reading, Pa. Rochester, N.Y. Schenectady, N.Y. Scranton, Pa. Syracuse, N.Y. Trenton, N.J. Utica, N.Y. Yonkers, N.Y.	45 34 139 60	-paralyi	60	63	EAST SOUTH CENTRAL:		10.75	1533 (3)	
Albany, N.Y. Allentown, Pa. Buffalo, N.Y. Camden, N.J. Elizabeth, N.J. Erie, Pa. Jersey City, N.J. Newark, N.J. New York City, N.Y. Paterson, N.J. Philadelphia, Pa. Pittsburgh, Pa. Reading, Pa. Rochester, N.Y. Schanectady, N.Y. Scranton, Pa. Syracuse, N.Y. Trenton, N.J. Utica, N.Y. Yonkers, N.Y.	34 139 60			0.5	Birmingham, Ala	107	86	60	129
Albany, N.Y. Allentown, Pa. Buffalo, N.Y. Camden, N.J. Elizabeth, N.J. Erie, Pa. Jersey City, N.J. Newark, N.J. New York City, N.Y. Paterson, N.J. Philadelphia, Pa. Pittsburgh, Pa. Reading, Pa. Rochester, N.Y. Schanectady, N.Y. Scranton, Pa. Syracuse, N.Y. Trenton, N.J. Utica, N.Y. Yonkers, N.Y.	34 139 60				Chattanooga, Tenn	52	55	29	30
Allentown, Pa. Buffalo, N.Y. Camden, N.J. Elizabeth, N.J. Erie, Pa. Jersey City, N.J. Newark, N.J. New York City, N.Y. Paterson, N.J. Philadelphia, Pa. Fittsburgh, Pa. Reading, Pa. Rochester, N.Y. Schenectady, N.Y. Scranton, Pa. Syracuse, N.Y. Trenton, N.J. Utica, N.Y. Yonkers, N.Y.	34 139 60	45	59	40	Knoxville, Tenn	46	41	28	46
Buffalo, N.Y. Camden, N.J. Camden, N.J. Elizabeth, N.J. Erie, Pa. Jersey City, N.J. Newark, N.J. New York City, N.Y. Paterson, N.J. Philadelphia, Pa. Pittsburgh, Pa. Reading, Pa. Rochester, N.Y. Schenectady, N.Y. Scranton, Pa. Syracuse, N.Y. Trenton, N.J. Utica, N.Y. Yonkers, N.Y. AST NORTH CENTRAL:	139 60	37	46	36	Louisville, Ky	126	114	74	85
Camden, N.J. Elizabeth, N.J. Erie, Pa. Jersey City, N.J. Newark, N.J. New York City, N.Y. Paterson, N.J. Philadelphia, Pa. Pittsburgh, Pa. Reading, Pa. Rochester, N.Y. Schenectady, N.Y. Scranton, Pa. Syracuse, N.Y. Trenton, N.J. Utica, N.Y. Yonkers, N.Y.	60	141	144	140	Memphis, Tenn	108	140	64	131
Elizabeth, N.J. Eric, Pa. Jersey City, N.J. Newark, N.J. New York City, N.Y. Paterson, N.J. Philadelphia, Pa. Pittsburgh, Pa. Reading, Pa. Rochester, N.Y. Schenectady, N.Y. Scranton, Pa. Syracuse, N.Y. Trenton, N.J. Utica, N.Y. Yonkers, N.Y.		44	57	49	Mobile, Ala	70	53	43	61
Eric, Pa. Jersey City, N.J. Newark, N.J. New York City, N.Y. 1 Paterson, N.J. Philadelphia, Pa. Pittsburgh, Pa. Reading, Pa. Rochester, N.Y. Schenectady, N.Y. Scranton, Pa. Syracuse, N.Y. Trenton, N.J. Utica, N.Y. Yonkers, N.Y.	34	25	30	44	Montgomery, Ala	48	38	19	36
Jersey City, N.J. Newark, N.J. New York City, N.Y. Paterson, N.J. Philadelphia, Pa. Pittsburgh, Pa. Reading, Pa. Rochester, N.Y. Schenectady, N.Y. Scranton, Pa. Syracuse, N.Y. Trenton, N.J. Utica, N.Y. Yonkers, N.Y.	42	26	52	49	Nashville, Tenn	108	102	63	103
Newark, N.J. New York City, N.Y. Paterson, N.J. Philadelphia, Pa. Pittsburgh, Pa. Reading, Pa. Rochester, N.Y. Schenectady, N.Y. Scranton, Pa. Syracuse, N.Y. Trenton, N.J. Utica, N.Y. Yonkers, N.Y.	-88	67	85	79	talk Ad with 60 cratic will	100	102	0.5	10.
New York City, N.Y. 1 Paterson, N.J. Philadelphia, Pa. Philadelphia, Pa. Reading, Pa. Reading, Pa. Rochester, N.Y. Schenectady, N.Y. Scranton, Pa. Syracuse, N.Y. Trenton, N.J. Utica, N.Y. Yonkers, N.Y.	135	105	119	110	WEST SOUTH CENTRAL:		4-200		
Paterson, N.J. Philadelphia, Pa. Pittsburgh, Pa. Reading, Pa. Rochester, N.Y. Schenectady, N.Y. Scranton, Pa. Syracuse, N.Y. Trenton, N.J. Utica, N.Y. Yonkers, N.Y.	1,703	1,683	1,904	1,847	Austin, Tex	50	37	35	59
Philadelphia, Pa. Pittsburgh, Pa. Reading, Pa. Rochester, N.Y. Schenectady, N.Y. Scranton, Pa. Syracuse, N.Y. Trenton, N.J. Utica, N.Y. Yonkers, N.Y.	25	38	40	41	Baton Rouge, La	44	27	20	42
Fittsburgh, Pa. Reading, Pa. Rochester, N.Y. Schenectady, N.Y. Scranton, Pa. Syracuse, N.Y. Trenton, N.J. Utica, N.Y. Yonkers, N.Y.	481	500	424	597	Corpus Christi, Tex	31	21	27	23
Reading, Pa Rochester, N.Y. Schenectady, N.Y. Scranton, Pa. Syracuse, N.Y. Trenton, N.J. Utica, N.Y. Yonkers, N.Y.	233	150	110	218	Dallas, Tex	126	157	129	142
Rochester, N.Y. Schenectady, N.Y. Scranton, Pa. Syracuse, N.Y. Trenton, N.J. Utica, N.Y. Yonkers, N.Y.	50	64	55	70	El Paso, Tex	55	39	33	30
Schenectady, N.Y. Scranton, Pa. Syracuse, N.Y. Trenton, N.J. Utica, N.Y. Yonkers, N.Y.	103	105	93	98	Fort Worth, Tex	82	75	72	98
Syracuse, N.Y. Trenton, N.J. Utica, N.Y. Yonkers, N.Y.	36	27	35	24	Houston, Tex	203	192	146	212
Trenton, N.J. Utica, N.Y. Yonkers, N.Y.	40	31	40	65	Little Rock, Ark	79	70	52	62
Trenton, N.J. Utica, N.Y. Yonkers, N.Y.	65	61	47	65	New Orleans, La	175	195	223	244
Yonkers, N.Y. AST NORTH CENTRAL:	55	40	53	63	Oklahoma City, Okla	81	82	80	89
Yonkers, N.YAST NORTH CENTRAL:	34	31	27	34	San Antonio, Tex	111	107	127	142
AST NORTH CENTRAL:	45	37	36	40	Shreveport, La	71	54	35	62
AKT NORTH CENTRAL:			1.4	100	Tulsa, Okla	52	37	73	7.5
Akron, Obio		1000	-			1,000			
,	73	51	71	60	MOUNTAIN:	in han	Tradest	SEL O	
Canton, Ohio	36	44	44	32	Albuquerque, N. Mex	21	33	41	48
Chicago, Ill.	844	809	859	882	Colorado Springs, Colo	25	26	17	24
Cincinnati, Ohio	187	121	180	190	Denver, Colo	133	139	79	156
Cleveland, Ohio	196	136	164	211	Ogden, Utah	12	15	18	13
Columbus, Ohio	130	125	152	130	Phoenix, Ariz	106	80	101	117
Dayton, Ohio	91	68	83	107	Pueblo, Colo	18	20	15	22
Detroit, Mich	384	336	403	406	Salt Lake City, Utah	45	64	50	54
Evansville, Ind	34	54	45	37	Tucson, Ariz	54	55	45	49
Flint, Mich.	37	60	56	64	And the Contract of the Land	learnt 6	a dise	Stall Gulf	
Fort Wayne, Ind	46	53	52	34	PACIFIC:	No.			
dary, Ind.	35	44	42	37	Berkeley, Calif	17	17	20	24
Grand Rapids, Mich.	68	54	45	45	Fresno, Calif	47	69	74	48
Indianapolis, Ind.	160	138	130	155	Glendale, Calif	38	38	38	4
Madison, Wis.	30	38	29	26	Honolulu, Hawaii	44	48	36	4
"III Waukee, Wis	130	140	125	130	Long Beach, Calif	83	69	70	7
reoria, Ill.	29	33	33	27	Los Angeles, Calif	554	592	441	55
Muckford, Ill.	34	37	37	32	Oakland, Calif	104	92	88	7
Bend. Ind.	41	44	29	39	Pasadena, Calif	34	42	40	4
Toledo, Ohio	110	117	82	123	Portland, Oreg	114	109	48	12
Youngstown, Ohio	59	48	60	80	Sacramento, Calif	71	74	58	7
The state of the s					San Diego, Calif	120	92	79	9.
EST NORTH CENTRAL:			14 11 14	- JE 5	San Francisco, Calif	216	231	231	21
Des Moines, Iowa	53	64	49	66	San Jose, Calif	32	41	27	4
Paruth, Minn.	25	33	20	20	Seattle, Wash	139	154	120	14
Mansas City, Kans.	28	34	34	49	Spokane, Wash	56	62	41	4
Mansas City, Mo.	157	155	144	162	Tacoma, Wash	37	48	40	4
Lincoln, Nebr.	17	22	20	29					
"Mineapolis, Minn,	132	132	132	158	San Juan, P.R.	()	()	()	(
Malia, Nebr.	63	54	82	56					
Louis, Mo.	279	276	235	291	De la companya de la		Amelia A	T IS HELD	
St. Paul, Minn. Wichita, Kans.	81	66	106	61	^o Current Week Mortality for	108 Se1	ected Ci	ties	

*Estimate - based on average percent of divisional total. Totals for previous weeks include reported corrections.

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INTERNATIONAL NOTES - QUARANTINE MEASURES

Botulism - Canada

Two cases, one fatal, of botulism Type E have been reported from British Columbia.

On September 16, a married couple ate putrefied salmon eggs. A few hours later, during the evening of the day of ingestion, both experienced abdominal pains, vomiting, and increasing generalized weakness. They experienced dizziness and difficulty in speech.

The wife died about 24 hours after the meal. Her widower then was rushed to a hospital for treatment. Botulinus antitoxin Type E was administered intravenously. Thereafter, the patient's generalized weakness slowly improved, although his blood pressure remained low for several days.

The putrefied salmon eggs had been prepared according to methods traditional among Indians of that region. Such salmon eggs are prepared in various ways as salmon egg "cheese" or "stink eggs." The eggs may be simply left to ferment in a jar for several days in their own juice, perhaps diluted with water, or may be put through a very unsanitary ritual of washing, kneading, and maturation, until in a few weeks they form a tenacious, evil-smelling mass. Because the eggs provide an excellent medium for toxigenesis, very small amounts may be lethal.

The salmon eggs not consumed at the meal had been discarded to the garbage dump; a sample was retrieved. This sample of the salmon eggs, as well as a portion of the wife's stomach taken at autopsy, and gastric washings from the hospitalized husband, were submitted for laboratory tests for botulism. All 3 specimens revealed Type E botulinus toxin. The titer in the salmon eggs was unusually high (1,000-3,000 mouse minimum lethal doses per gram of eggs). A toxigenic strain of Clostridium botulinum Type E was isolated from these eggs, as well as from the stomach washings and the stomach contents of the two patients.

(Reported by Dr. C. E. Dolman, Professor and Head, Department of Bacteriology and Immunology, University of British Columbia, in Epidemiological Bulletin of the Canadian Department of National Health & Welfare in October 1963, and E. W. R. Best, M.D., Chief, Epidemiology Division, Canada Department of National Health & Welfare.)

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Chief, Communicable Disease Center Chief, Epidemiology Branch Chief, Statistics Section Asst. Chief, Statistics Section Chief, Surveillance Section Editor, MMWR

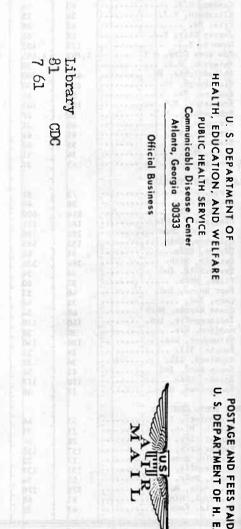
James L. Goddard, M.D. A. D. Langmuir, M.D. R. E. Serfling, Ph.D. 1. L. Sherman, M.S. D. A. Henderson, M.D. L. K. Altman, M.D.

In addition to the established procedures for reporting morbidity and mortality, the Communicable Disease Center welcomes accounts of interesting outbreaks or cases. Such accounts should be addressed to:

> Lawrence K. Altman, M.D., Editor Morbidity and Mortality Weekly Report Communicable Disease Center Atlanta, Georgia 30333

Notes: These provisional data are based on weekly telegrams to the Communicable Disease Center by the individual State health departments. Symbols: - - - Data not available

Quantity zero Procedures for construction of various mortality curves may be obtained from Statistics Section, Communicable Disease Center, Public Health Service, U. S. Department of Health, Education, and Welfare, Atlanta, Georgia 30333.



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