



Morbidity and Mortality

Vol. 14, No. 27

WEEKLY REPORT

Week Ending July 10, 1965

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

BOTULISM - Idaho

Three cases of botulism, possibly related to a commercially packaged luncheon meat, have been reported from Twin Falls, Idaho. The three patients were members of a teen-age concert group of 50 persons travelling by chartered bus from the State of Washington to New York City. The group arrived in Twin Falls on Tuesday, June 22. One patient developed the illness on June 24 and the other two became ill on June 25.

All three patients had gastrointestinal discomfort, diplopia, muscular weakness and flushing of the cheeks. Two of them experienced dryness of the mouth and also suffered respiratory difficulty. A listing of the cases appears at right.

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Case No.	Age	Sex	Onset	Incubation Period	Abdominal Pain	Diplopia	Flushed Cheeks	Dryness of Mouth	Respiratory Distress	Other Muscular Weakness
1	16	M	June 24	23-25 hrs.	X	X	X	X	X	X
2	15	F	June 25	45 hrs.	X	X	X	X	X	X
3	16	M	June 25	52 hrs.	X	X	X	-	-	X

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

DISEASE	27th WEEK ENDED		MEDIAN 1960-1964	CUMULATIVE, FIRST 27 WEEKS		
	July 10, 1965	July 4, 1964		1965	1964	MEDIAN 1960-1964
Aseptic meningitis	32	33	33	756	796	734
Brucellosis	3	7	8	123	200	212
Diphtheria	2	5	5	85	143	222
Encephalitis, primary infectious	31	30	---	801	973	---
Encephalitis, post-infectious	8	24	---	424	553	---
Hepatitis, infectious including serum hepatitis	471	552	552	18,644	22,000	24,185
Measles	2,599	4,680	6,087	229,783	445,950	372,229
Meningococcal infections	42	35	28	2,004	1,634	1,303
Poliomyelitis, Total	—	4	20	24	48	227
Paralytic	—	4	14	18	37	162
Nonparalytic	—	—	---	6	8	---
Unspecified	—	—	---	—	3	---
Streptococcal Sore Throat and Scarlet fever	4,304	3,987	3,424	248,745	255,384	210,661
Tetanus	2	5	---	119	128	---
Tularemia	5	11	---	123	155	---
Typhoid fever	5	13	15	192	189	261
Rabies in Animals	45	81	70	2,503	2,484	2,110

Table 2. NOTIFIABLE DISEASES OF LOW FREQUENCY

	Cum.		Cum.
Anthrax:	6	Rabies in man:	1
Botulism: Idaho-3	11	Smallpox:	1
Leptospirosis:	17	Trichinosis: Mich.-1, NY Upstate-1, Pa.-1, Calif.-1	65
Malaria: Mass.-1, Conn.-1	37	Typhus -	
Plague:	—	Murine: D.C.-1	14
Psittacosis:	21	Rky. Mt. Spotted: N.J.-2, Kans.-1, Va.-2, N.C.-3, Tenn.-3, W. Va.-1	99
Cholera:	1		

BOTULISM - Idaho (Continued)

The respiratory weakness experienced by patient 1 was severe enough to require a tank respirator. An additional tank respirator was sent from another community for patient 2; however, her condition improved and the respirator was not required. Routine hematologic studies and urinalyses were normal in all cases. Serum anticholinesterase determinations were normal for cases 1 and 2. Botulinus antitoxin was administered to cases 1 and 2 on June 26 and June 27. All 3 patients began to show improvement by June 27 and were completely asymptomatic by June 30.

During their visit to Twin Falls, all members of the concert group lived in a number of private homes. Since none of the 3 patients resided in the same house, they did not consume any common breakfast foods. The entire concert group of 50 ate their evening meals as a single group, the food being supplied by various Twin Falls families. None of the patients ate items of food at these dinners other than those foods eaten by other members of the group who did not become ill. Each of the resident hosts, however, prepared sack lunches for the tour members staying in their household.

On Wednesday, June 23, patient 3 shared his sack lunch with patients 1 and 2. This lunch consisted of two luncheon meat sandwiches, potato chips, celery, radishes, bananas and milk. Patient 3, who developed mild symptoms, ate only one bite of a half-sandwich and passed it on to patient 2 because it did not "taste right". The remainder of that half sandwich was consumed by patient 2, who also noted a peculiar taste. One and one-half of the sandwiches in the sack were consumed by patient 3, who developed the most severe illness. He noted a "mouldy" taste.

Two slices of luncheon meat were in each of the sandwiches eaten. The two remaining slices from a 6 slice vacuum-sealed package were in a sandwich prepared for another tour member residing in the same household as patient 3. This member did not eat the luncheon meat sandwich and did not become ill.

The luncheon meat suspected of being the source of infection was sold in a vacuum-sealed plastic package by a supermarket, under its own label. This luncheon meat is prepared by a major meat-packing corporation. It consists of scraps of pork, pork heart, pork tongue, spices and preservatives; it is cooked and canned in 10-½ pound loaves. The cans are then shipped to a local affiliate in Idaho where the cans are opened under refrigeration, the meat sliced and placed in 6-slice vacuum-sealed packages. The packages are required to be kept under refrigeration from the time of canning until sold in the supermarket. Shipment of the package suspected of contamination was direct from the affiliate plant in Idaho to the supermarket in Twin Falls. So far as could be determined, the package suspect in this outbreak was properly refrigerated at all times.

The exact mode of contamination of the luncheon meat could not be ascertained. Laboratory studies on samples of the luncheon meat from other cans and vacuum-sealed packages in the same consignment as the suspected package are currently in progress at the Communicable Disease Center and the Food and Drug Administration laboratories in Washington, D.C. (Reported by Dr. John A. Mather, Director of Preventive Medicine, Idaho Department of Health and Dr. Luther Thompson, South Central District Health Officer and a CDC Field Epidemiologist.)

PARALYTIC POLIOMYELITIS - 1964

*Weekly poliomyelitis case reports are received at the Communicable Disease Center from state and local health departments through the National Morbidity Reporting System. In addition, since 1958 surveillance forms pertaining to each case have been submitted to the Poliomyelitis Surveillance Unit, a preliminary form which supplies basic epidemiologic data, and a follow-up form which includes information on the extent of residual paralysis and the results of laboratory studies. The incidence of cases of poliomyelitis with residual paralysis at 60 days has been taken as the most reliable index available to measure the national status of poliomyelitis.*¹

During 1964 the final count of 91 paralytic poliomyelitis cases in the United States was the lowest yet recorded. This figure is less than one third of the total reported in 1963, the previous record low year (Figure 1). The distribution of cases was relatively uniform through-

out 1964 and did not show a seasonal increased incidence in the summer and fall months as in previous years (Figure 1 and 2, page 227)

Geographically, the cases of paralytic poliomyelitis during 1964 were scattered. The 91 cases were reported from 83 counties; no county reported more than 2 cases during any month (Figure 3, page 230).

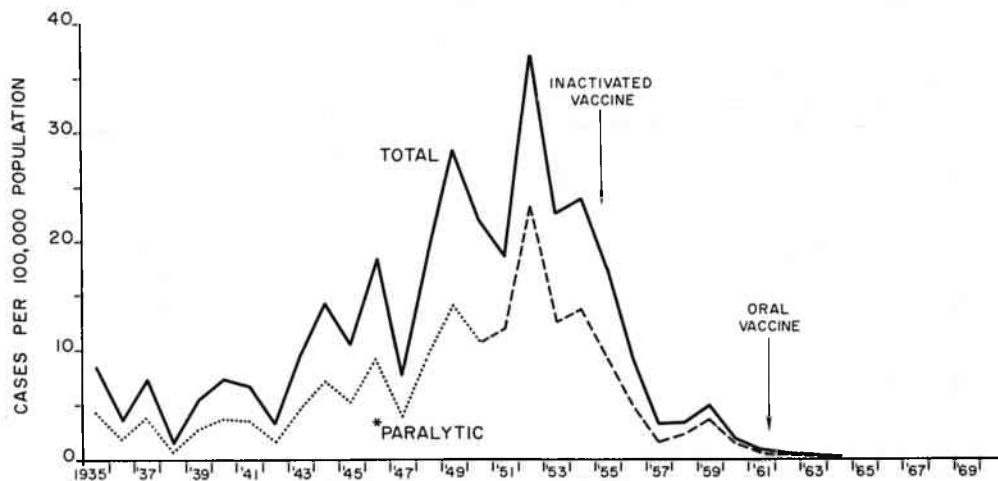
In Table I the 91 paralytic cases are classified as to age and inactivated poliomyelitis vaccine status. There were 38 cases (42 percent) in the 0-4 age group, and 23 (25 percent) in the 5 to 14 year age groups. As in preceding years the majority of cases were not adequately vaccinated. Two thirds of the total had never received any inactivated poliomyelitis vaccine and only 12.5 percent had received 4 or more doses of inactivated poliomyelitis vaccine.

Table II classifies the 91 cases by age and oral poliomyelitis vaccine status. A total of 8 cases occurred

(Continued on page 228)

FIGURE 1

ANNUAL POLIOMYELITIS INCIDENCE RATES
UNITED STATES, 1935-1964



*PARALYTIC CASES PRIOR TO 1951 ASSUMED TO BE 50% OF TOTAL.
SINCE 1951, CASES REPORTED AS UNSPECIFIED WERE PRORATED
AMONG PARALYTIC AND NONPARALYTIC CASES.

SOURCE: National Morbidity Reports

FIGURE 2

PARALYTIC POLIOMYELITIS REPORTED
TO POLIOMYELITIS SURVEILLANCE UNIT
1961-1964: BY DATE OF ONSET

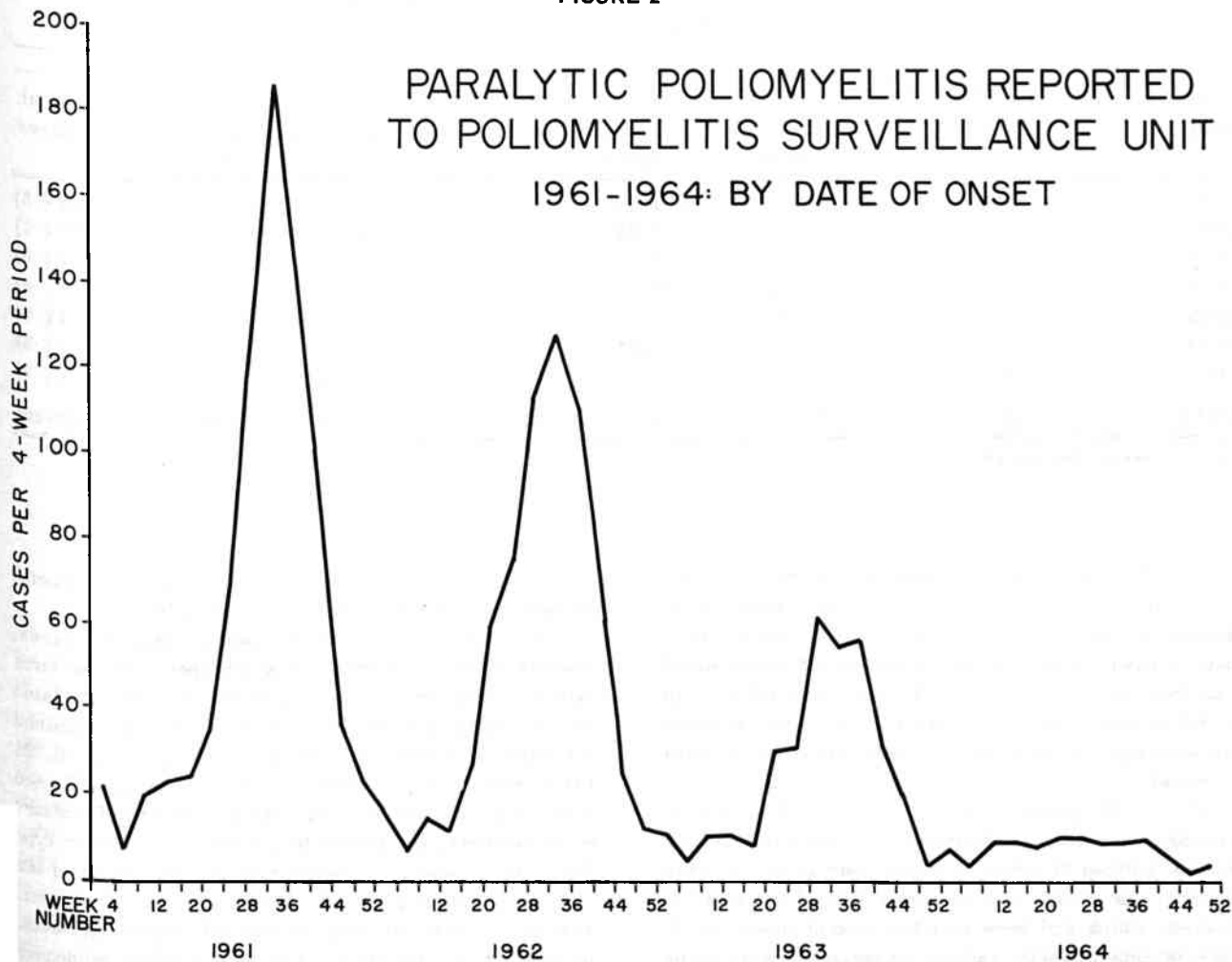


TABLE I

PARALYTIC POLIOMYELITIS BY AGE GROUP AND INACTIVATED VACCINATION HISTORY
UNITED STATES, 1964

Age Group	Doses of Inactivated Vaccine						Total Cases	Percent	Deaths
	0	1V	2V	3V	4+V	Unk.			
0-4	28	1	3	4	1	1	38	41.8	3
5-9	7	1	1	1	5	1	16	17.6	1
10-14	2	0	0	2	3	0	7	7.7	1
15-19	6	0	0	1	1	0	8	8.8	0
20-29	2	1	1	0	0	0	4	4.4	0
30-39	5	0	2	0	0	0	7	7.7	0
40+	8	0	0	1	1	1	11	12.1	2
TOTAL	58	3	7	9	11	3	91	100.0	7
Percent Doses	65.9	3.4	8.0	10.2	12.5	-	100.0		

TABLE II

PARALYTIC POLIOMYELITIS BY AGE GROUP AND ORAL VACCINATION STATUS
UNITED STATES, 1964*

Age Group	Doses of Oral Vaccine						Total Cases
	Unvaccinated	Monovalent			Trivalent		
		1 type only	2 types	3 types	1 dose	2 doses	
0-4	29	4 (1)	1 (1)	2	2 (1)	0	38 (3)
5-9	9	1	2 (1)	2	2	0	16 (1)
10-14	3	0	0	4	0	0	7 (0)
15-19	4	3 (3)	0	1 (1)	0	0	8 (4)
20-29	3	1 (1)	0	0	0	0	4 (1)
30-39	4	0	2 (2)	0	1 (1)	0	7 (3)
40+	4	1 (1)	1 (1)	2 (2)	3 (3)	0	11 (7)
TOTAL	56 (0)	10 (6)	6 (5)	11 (3)	8 (5)	0	91 (19)

*<30 day cases are shown in parenthesis.

among individuals under 15 years of age who had previously received a primary series of oral poliomyelitis vaccine, either 3 doses of monovalent vaccine or 2 doses of trivalent vaccine. Of the 8 cases, 6 had received 3 or more doses of inactivated vaccine in addition to the oral vaccine. From the 6 cases in which virus isolation was attempted, 2 poliovirus isolates, both type I, were recovered.

Of the 91 paralytic cases, 19 occurred within 30 days following the administration of oral poliomyelitis vaccine. Fifteen of these 19 cases were in the 15 year and older age groups and constitute half of the total of 30 cases which had been reported in individuals of 15 years or older. These vaccine associated cases were

the subject of an inquiry in July, 1964, by a special committee on oral poliomyelitis vaccine.^{2,3}

Because of the small number of paralytic cases, special efforts were made to obtain specimens for virus isolation and serologic study from all cases. Isolates were obtained from 51 of 77 fecal specimens examined for virus. Of these, 24 (47.0 percent) were type III, 21 (41.2 percent) type I, and 6 (11.9 percent) type II (see Table III). This contrasts with the distribution of isolates obtained during the period from 1958 to 1963 when type I isolates accounted for between 60 and 89 percent of the total each year and type III varied from 10 to 38 percent. The proportional increase in type III isolates reflects, in part, the lack of a major type I urban epidemic.

Table III
FREQUENCY OF POLIOVIRUS ISOLATES RECOVERED FROM PARALYTIC CASES UNITED STATES, 1958-64

Year	Numbers of Cases		Percent of Cases Studied	Viruses Identified				Percent of Total Specified		
	Residual Paralysis	Specimens Submitted*		I	II	III	Unk.	I	II	III
1958	3,301	1,479	44.8	898	29	194	10	80.1	2.6	17.3
1959	5,472	2,775	50.7	1,881	10	228	23	88.8	0.5	10.8
1960	2,218	1,072	48.3	603	1	219	2	73.3	0.1	26.6
1961	829	481	58.0	231	6	145	0	60.5	1.6	37.9
1962	691	472	68.3	300	8	100	0	73.7	2.0	24.4
1963	336	242	72.0	160	6	31	0	81.2	3.0	15.7
1964	91	77	84.6	21	6	24	0	41.2	11.8	47.0

*Includes all paralytic cases on which one or more fecal specimens were examined for virus isolation. State and local health department laboratories and laboratories in academic centers reported these results through State epidemiologists to the Poliomyelitis Surveillance Unit.

Table IV
NATIONAL IMMUNIZATION SURVEY FINDINGS
SEPTEMBER 1962, 1963, AND 1964
POLIOMYELITIS VACCINATION STATUS

Age Group	Oral Poliovaccine			Inactivated Poliovaccine		
	Percent Reporting 3 Doses			Percent Reporting 3 or More Doses		
	1962	1963	1964	1962	1963	1964
1-4	5.7	28.7	46.8	72.6	67.7	60.9
5-9	5.7	33.6	56.4	85.8	84.3	80.9
10-14	5.2	34.0	57.7	86.2	85.2	82.6
15-19	4.1	28.2	49.8	79.2	78.8	77.7
20-29	3.7	21.4	38.4	55.0	55.4	54.9
30-39	4.3	23.1	41.9	44.7	43.8	43.5
40-49	3.8	19.8	37.4	23.9	26.3	28.0
1-49	4.6	26.4	46.2	61.3	60.7	59.3

A survey of the poliomyelitis vaccination status of the U.S. population, conducted by the Bureau of the Census in September, 1964, reveals that 46 percent of the population had received 3 or more doses of oral vaccine and 59 percent had received 3 or more doses of inactivated vaccine (Table 4). During the past 3 years, the proportion vaccinated with the oral vaccine has risen sharply. During the same period of time the proportion of persons who reported having received 3 or more doses of inactivated poliomyelitis vaccine has remained essentially stable, although with some decrease in the youngest age groups. Previous trends in the use of inactivated vaccine have been documented.^{4, 5}

With two immunizing agents available, an estimate

of the population presumably protected against poliomyelitis would include both those who had received 4 or more doses of inactivated vaccine and those who received a primary oral vaccine series. Although a primary oral vaccine series normally consists of 3 doses of monovalent vaccine or 2 of the trivalent vaccine, it was possible during the survey to ascertain the number of doses but not the specific type of oral vaccine administered. The proportion of persons "adequately immunized" based on receipt of 4 or more doses of inactivated vaccine or 3 or more feedings of oral vaccine is depicted in Figure 4.* A more detailed cross-classification for those 1-4 and 5-9 years of age is presented in Table 5. Based on the defi-

*Figure 4, page 231.

(Continued on back page)

FIGURE 3

GEOGRAPHIC DISTRIBUTION OF PARALYTIC POLIOMYELITIS
IN THE UNITED STATES, 1964

• REPORTED CASE

SOURCE: CDC POLIOMYELITIS SURVEILLANCE UNIT

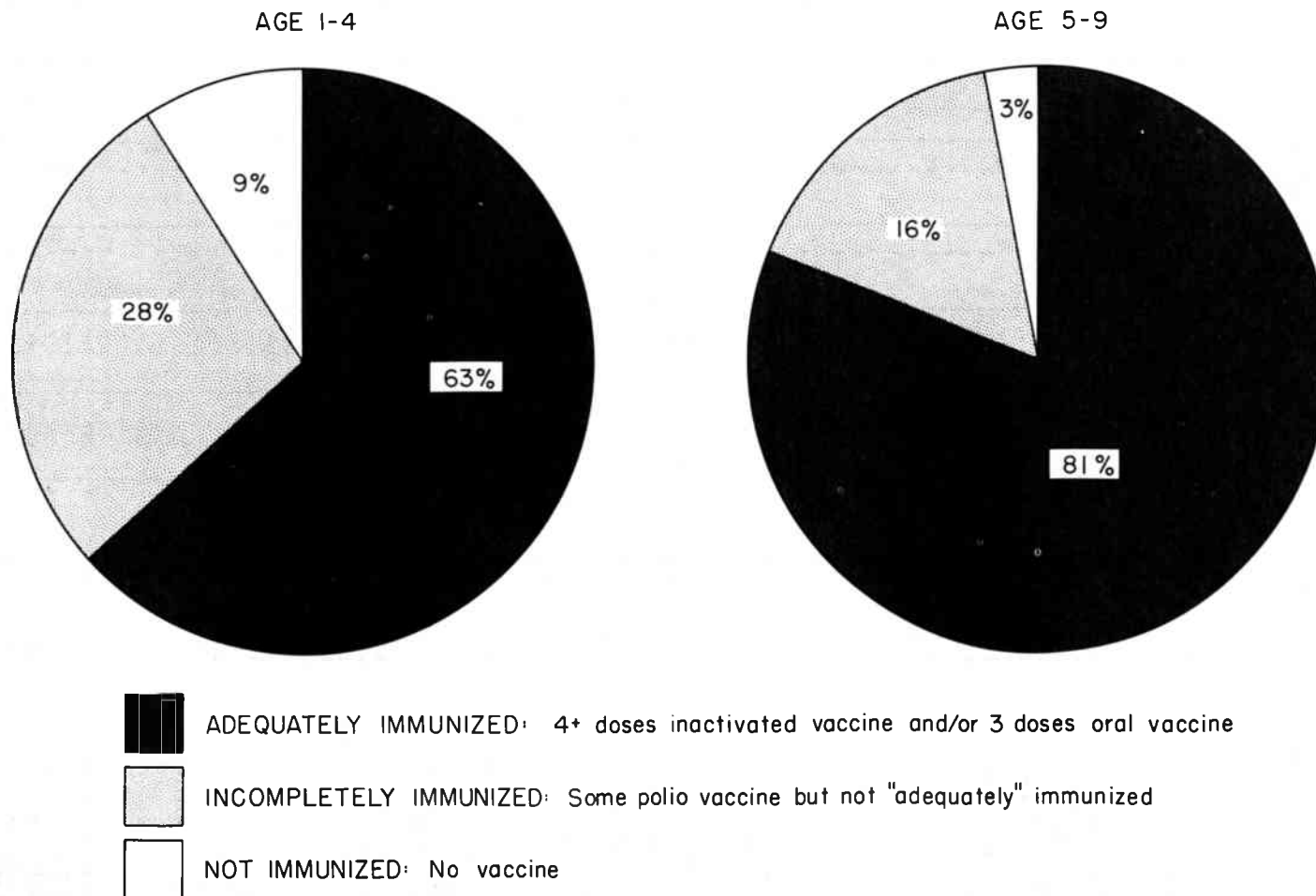
TABLE V

NUMBER (in 000's) OF CHILDREN AGE 1-4 AND 5-9 RECEIVING INACTIVATED AND ORAL POLIOVACCINE
NATIONAL IMMUNIZATION SURVEY - 1964

Number of IPV Inoculations	Total Children	Number of OPV Doses				Unknown
		3	2	1	0	
					<u>Age 1-4</u>	
4 or more	5,342	2,633	672	332	1,694	11
3	4,759	2,175	646	332	1,604	2
2	1,196	414	223	133	422	4
1	732	245	121	78	281	7
0	4,450	2,264	562	213	1,411	0
Unknown	111	28	3	0	11	69
TOTAL	16,590	7,759	2,227	1,088	5,423	93
4 or more	11,638	6,692	1,650	582	2,699	15
3	4,632	2,643	774	232	965	18
2	844	396	181	87	177	3
1	403	146	81	55	115	6
0	2,355	1,435	276	115	525	4
Unknown	228	18	8	5	6	191
TOTAL	20,100	11,330	2,970	1,076	4,487	237

FIGURE 4

POLIOMYELITIS IMMUNIZATION STATUS OF CHILDREN 1-4 AND 5-9
UNITED STATES, 1964



Source: 1964 U.S. Immunization survey

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Table 3. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
FOR WEEKS ENDED
JULY 10, 1965 AND JULY 4, 1964 (27th WEEK) — Continued

Area	Brucel- losis	Infectious Hepatitis including Serum Hepatitis					Meningococcal Infections			Tetanus	
		Total incl. unk.	Under 20 years	20 years and over	Cumulative Totals		1965	Cumulative		1965	Cum. 1965
					1965	1964		1965	1964		
UNITED STATES...	3	471	161	270	18,644	22,000	42	2,004	1,634	2	119
NEW ENGLAND.....	-	34	12	19	1,134	2,199	2	99	46	-	5
Maine.....	-	7	3	4	214	725	1	12	5	-	-
New Hampshire.....	-	3	1	-	104	159	-	5	1	-	1
Vermont.....	-	-	-	-	63	274	-	2	1	-	-
Massachusetts.....	-	14	4	10	436	459	-	34	19	-	3
Rhode Island.....	-	6	2	4	145	120	-	14	7	-	-
Connecticut.....	-	4	2	1	172	462	1	32	13	-	1
MIDDLE ATLANTIC.....	-	75	24	51	3,269	4,994	2	266	196	-	8
New York City.....	-	21	5	16	622	725	-	45	27	-	-
New York, Up-State.....	-	20	4	16	1,311	2,267	2	69	54	-	3
New Jersey.....	-	12	4	8	599	895	-	73	69	-	-
Pennsylvania.....	-	22	11	11	737	1,107	-	79	46	-	5
EAST NORTH CENTRAL...	2	85	37	44	3,602	3,340	3	260	224	-	11
Ohio.....	-	15	7	8	1,023	888	1	71	61	-	1
Indiana.....	-	10	4	5	304	297	-	36	34	-	5
Illinois.....	1	6	2	4	662	576	-	65	55	-	3
Michigan.....	-	47	20	27	1,381	1,341	-	56	49	-	-
Wisconsin.....	1	7	4	-	232	238	2	32	25	-	2
WEST NORTH CENTRAL...	-	16	5	9	1,166	1,219	2	105	97	-	8
Minnesota.....	-	-	-	-	113	111	1	21	22	-	5
Iowa.....	-	5	2	1	436	175	1	7	6	-	1
Missouri.....	-	5	2	3	233	314	-	47	48	-	1
North Dakota.....	-	-	-	-	17	45	-	7	10	-	-
South Dakota.....	-	-	-	-	16	105	-	2	-	-	-
Nebraska.....	-	3	-	3	41	29	-	10	5	-	1
Kansas.....	-	3	1	2	310	440	-	11	6	-	-
SOUTH ATLANTIC.....	1	45	17	24	1,919	2,081	10	397	346	1	33
Delaware.....	-	-	-	-	59	41	-	5	6	-	-
Maryland.....	-	9	5	4	365	407	-	38	23	-	1
Dist. of Columbia..	-	2	1	1	25	33	-	6	12	-	-
Virginia.....	1	2	1	-	452	312	1	47	39	1	7
West Virginia.....	-	3	-	3	289	336	-	23	24	-	1
North Carolina.....	-	3	2	1	155	378	5	77	59	-	3
South Carolina.....	-	1	1	-	76	71	1	56	48	-	3
Georgia.....	-	1	-	1	66	48	-	51	44	-	4
Florida.....	-	24	7	14	432	455	3	94	91	-	14
EAST SOUTH CENTRAL...	-	32	12	15	1,335	1,528	7	161	143	-	18
Kentucky.....	-	13	5	4	457	635	3	66	48	-	4
Tennessee.....	-	9	2	6	477	521	-	46	47	-	5
Alabama.....	-	9	5	4	231	246	-	30	30	-	8
Mississippi.....	-	1	-	1	170	126	4	19	18	-	1
WEST SOUTH CENTRAL...	-	51	19	31	1,600	1,626	3	287	202	-	21
Arkansas.....	-	3	2	1	219	173	-	14	17	-	4
Louisiana.....	-	9	2	7	274	372	2	161	100	-	3
Oklahoma.....	-	-	-	-	38	87	-	17	6	-	1
Texas.....	-	39	15	23	1,069	994	1	95	79	-	13
MOUNTAIN.....	-	25	6	5	1,120	1,353	1	61	57	-	2
Montana.....	-	1	-	-	82	124	-	2	-	-	-
Idaho.....	-	2	-	-	159	146	1	8	3	-	-
Wyoming.....	-	-	-	-	32	45	-	4	3	-	-
Colorado.....	-	4	2	2	227	371	-	13	11	-	1
New Mexico.....	-	7	2	2	240	193	-	10	22	-	-
Arizona.....	-	8	-	-	218	312	-	16	4	-	1
Utah.....	-	3	2	1	156	121	-	6	6	-	-
Nevada.....	-	-	-	-	6	41	-	2	8	-	-
PACIFIC.....	-	108	29	72	3,499	3,660	12	368	323	1	13
Washington.....	-	7	-	6	286	423	-	28	25	-	-
Oregon.....	-	3	2	1	286	404	-	28	18	-	3
California.....	-	90	27	63	2,739	2,645	12	292	264	1	10
Alaska.....	-	7	-	1	160	115	-	13	6	-	-
Hawaii.....	-	1	-	1	28	73	-	7	10	-	-
Puerto Rico	-	22	20	2	698	518	-	4	30	-	18

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Table 3. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
FOR WEEKS ENDED
JULY 10, 1965 AND JULY 4, 1964 (27th WEEK) — Continued

Area	Measles			Strept. Sore Th. & Scarlet Fev.	Tularemia		Typhoid Fever		Rabies in Animals	
	1965	Cumulative			1965	Cum. 1965	1965	Cum. 1965	1965	Cum. 1965
		1965	1964							
UNITED STATES...	2,599	229,783	445,950	4,304	5	123	5	192	45	2,503
NEW ENGLAND.....	103	36,355	15,405	413	-	-	-	3	-	30
Maine.....	12	2,742	2,633	37	-	-	-	-	-	3
New Hampshire.....	1	377	235	39	-	-	-	-	-	1
Vermont.....	40	1,188	2,163	18	-	-	-	-	-	24
Massachusetts.....	29	19,109	4,698	60	-	-	-	2	-	1
Rhode Island.....	6	3,870	1,796	41	-	-	-	1	-	-
Connecticut.....	15	9,069	3,880	218	-	-	-	-	-	1
MIDDLE ATLANTIC.....	257	13,405	50,411	252	-	-	-	32	4	100
New York City.....	86	1,957	14,877	7	-	-	-	17	-	-
New York, up-State.....	65	3,690	11,876	215	-	-	-	7	4	92
New Jersey.....	60	2,279	11,852	27	-	-	-	2	-	-
Pennsylvania.....	46	5,479	11,806	3	-	-	-	6	-	8
EAST NORTH CENTRAL...	1,100	51,931	99,340	385	-	9	1	26	6	352
Ohio.....	126	8,632	19,200	28	-	-	-	6	-	165
Indiana.....	15	1,678	22,209	110	-	3	-	9	1	34
Illinois.....	28	2,324	15,931	46	-	5	1	6	2	70
Michigan.....	438	25,293	27,793	159	-	-	-	3	2	39
Wisconsin.....	493	14,004	14,207	42	-	1	-	2	1	44
WEST NORTH CENTRAL...	109	16,134	29,713	178	2	14	-	5	15	507
Minnesota.....	-	614	305	1	-	1	-	-	4	101
Iowa.....	46	8,921	23,071	18	-	-	-	1	4	149
Missouri.....	25	2,513	1,001	38	2	10	-	4	1	70
North Dakota.....	38	3,528	4,519	97	-	-	-	-	3	27
South Dakota.....	-	109	5	5	-	1	-	-	2	37
Nebraska.....	-	449	812	-	-	-	-	-	-	29
Kansas.....	NN	NN	NN	19	-	2	-	-	1	94
SOUTH ATLANTIC.....	252	23,609	37,026	501	-	27	1	41	4	336
Delaware.....	4	495	375	-	-	-	-	4	-	-
Maryland.....	22	1,036	3,357	29	-	-	-	12	-	3
Dist. of Columbia..	1	64	352	1	-	-	-	-	-	-
Virginia.....	27	3,698	12,486	104	-	5	-	3	2	249
West Virginia.....	137	13,133	8,180	180	-	-	-	1	-	13
North Carolina.....	-	361	1,097	6	-	5	-	12	-	2
South Carolina.....	2	980	4,181	27	-	3	-	4	-	2
Georgia.....	2	598	155	4	-	14	-	2	2	32
Florida.....	57	3,244	6,843	150	-	-	1	3	-	35
EAST SOUTH CENTRAL...	103	13,261	66,273	774	-	15	1	19	10	600
Kentucky.....	52	2,373	18,199	142	-	3	-	6	2	58
Tennessee.....	39	7,575	23,275	553	-	11	-	6	7	529
Alabama.....	-	2,252	18,150	39	-	1	1	4	1	10
Mississippi.....	12	1,061	6,649	40	-	-	-	3	-	3
WEST SOUTH CENTRAL...	240	29,880	70,043	676	1	43	2	30	4	409
Arkansas.....	1	1,080	1,050	-	1	28	-	10	-	55
Louisiana.....	1	91	93	13	-	1	-	5	1	63
Oklahoma.....	1	199	971	1	-	7	-	2	1	74
Texas.....	237	28,510	67,929	662	-	7	2	13	2	217
MOUNTAIN.....	264	18,826	17,157	579	2	12	-	13	1	47
Montana.....	42	3,583	2,712	12	1	2	-	-	-	3
Idaho.....	34	2,607	1,739	57	-	-	-	-	-	-
Wyoming.....	4	831	234	3	-	2	-	1	-	-
Colorado.....	81	5,422	2,986	171	-	-	-	-	-	2
New Mexico.....	37	652	379	157	-	-	-	8	-	11
Arizona.....	36	1,146	6,340	94	-	-	-	4	1	30
Utah.....	30	4,393	1,808	78	1	8	-	-	-	1
Nevada.....	-	192	959	7	-	-	-	-	-	-
PACIFIC.....	171	26,382	60,582	546	-	3	-	23	1	122
Washington.....	10	7,169	19,875	42	-	-	-	2	-	4
Oregon.....	14	3,095	7,944	6	-	-	-	3	-	3
California.....	103	12,456	31,304	471	-	3	-	16	1	113
Alaska.....	1	138	1,063	6	-	-	-	1	-	2
Hawaii.....	43	3,524	396	21	-	-	-	1	-	-
Puerto Rico	63	2,096	5,080	2	-	-	-	3	1	11

Morbidity and Mortality Weekly Report

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Week No. 27 Table 4. DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDED JULY 10, 1965

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

Area	All Causes		Pneumonia and Influenza All Ages	Under 1 year All Causes	Area	All Causes		Pneumonia and Influenza All Ages	Under 1 year All Causes
	All Ages	65 years and over				All Ages	65 years and over		
NEW ENGLAND:	654	374	27	45	SOUTH ATLANTIC:	1,026	519	39	87
Boston, Mass.-----	209	103	4	18	Atlanta, Ga.-----	101	46	8	9
Bridgeport, Conn.-----	53	25	6	4	Baltimore, Md.-----	248	128	7	24
Cambridge, Mass.-----	24	14	-	1	Charlotte, N. C.-----	35	13	1	4
Fall River, Mass.-----	30	22	-	2	Jacksonville, Fla.-----	55	19	1	4
Hartford, Conn.-----	33	17	2	6	Miami, Fla.-----	92	50	2	5
Lowell, Mass.-----	27	20	2	1	Norfolk, Va.-----	38	21	3	3
Lynn, Mass.-----	19	12	2	1	Richmond, Va.-----	75	35	1	7
New Bedford, Mass.-----	23	18	-	1	Savannah, Ga.-----	28	14	1	1
New Haven, Conn.-----	55	31	-	4	St. Petersburg, Fla.-----	84	67	3	3
Providence, R. I.-----	67	43	1	4	Tampa, Fla.-----	71	40	7	3
Somerville, Mass.-----	7	4	-	1	Washington, D. C.-----	159	63	3	23
Springfield, Mass.-----	36	23	4	1	Wilmington, Del.-----	40	23	2	1
Waterbury, Conn.-----	33	18	2	1	EAST SOUTH CENTRAL:	483	262	19	40
Worcester, Mass.-----	38	24	4	-	Birmingham, Ala.-----	77	44	-	6
MIDDLE ATLANTIC:	3,077	1,751	115	173	Chattanooga, Tenn.-----	40	24	1	4
Albany, N. Y.-----	39	21	-	2	Knoxville, Tenn.-----	24	13	1	1
Allentown, Pa.-----	42	26	4	2	Louisville, Ky.-----	98	57	7	7
Buffalo, N. Y.-----	146	79	5	8	Memphis, Tenn.-----	102	46	3	15
Camden, N. J.-----	49	21	2	7	Mobile, Ala.-----	39	23	1	1
Elizabeth, N. J.-----	31	18	-	2	Montgomery, Ala.-----	23	12	4	-
Erie, Pa.-----	35	15	-	4	Nashville, Tenn.-----	80	43	2	6
Jersey City, N. J.-----	66	37	5	2	WEST SOUTH CENTRAL:	860	442	31	72
Newark, N. J.-----	75	39	2	4	Austin, Tex.-----	20	13	3	2
New York City, N. Y.-----	1,508	867	45	74	Baton Rouge, La.-----	12	7	-	2
Paterson, N. J.-----	34	14	1	3	Corpus Christi, Tex.-----	17	12	-	2
Philadelphia, Pa.-----	530	320	14	34	Dallas, Tex.-----	126	62	4	8
Pittsburgh, Pa.-----	156	81	4	6	El Paso, Tex.-----	40	15	3	9
Reading, Pa.-----	51	30	5	2	Fort Worth, Tex.-----	59	31	-	4
Rochester, N. Y.-----	98	54	10	6	Houston, Tex.-----	131	60	2	8
Schenectady, N. Y.-----	29	19	1	2	Little Rock, Ark.-----	40	22	3	6
Scranton, Pa.-----	33	20	4	-	New Orleans, La.-----	197	94	10	17
Syracuse, N. Y.-----	63	33	2	3	Oklahoma City, Okla.-----	34	24	2	1
Trenton, N. J.-----	34	18	1	5	San Antonio, Tex.-----	95	53	-	5
Utica, N. Y.-----	29	23	6	1	Shreveport, La.-----	41	25	3	3
Yonkers, N. Y.-----	29	16	4	6	Tulsa, Okla.-----	48	24	1	5
EAST NORTH CENTRAL:	2,375	1,322	79	139	MOUNTAIN:	336	186	19	20
Akron, Ohio-----	65	30	-	2	Albuquerque, N. Mex.-----	30	9	1	3
Canton, Ohio-----	56	35	3	2	Colorado Springs, Colo.-----	13	8	4	-
Chicago, Ill.-----	667	363	33	34	Denver, Colo.-----	88	54	3	4
Cincinnati, Ohio-----	127	83	5	2	Ogden, Utah-----	9	1	1	-
Cleveland, Ohio-----	179	86	1	13	Phoenix, Ariz.-----	88	53	2	5
Columbus, Ohio-----	111	56	2	8	Pueblo, Colo.-----	24	13	2	2
Dayton, Ohio-----	84	44	2	5	Salt Lake City, Utah-----	44	26	2	3
Detroit, Mich.-----	326	185	6	15	Tucson, Ariz.-----	40	22	4	3
Evansville, Ind.-----	48	36	1	3	PACIFIC:	1,243	694	37	77
Flint, Mich.-----	39	26	3	5	Berkeley, Calif.-----	23	14	1	1
Fort Wayne, Ind.-----	37	24	4	4	Fresno, Calif.-----	48	27	3	9
Gary, Ind.-----	35	14	4	1	Glendale, Calif.-----	25	19	-	1
Grand Rapids, Mich.-----	56	36	1	4	Honolulu, Hawaii-----	42	19	1	6
Indianapolis, Ind.-----	164	80	1	14	Long Beach, Calif.-----	65	46	-	2
Madison, Wis.-----	23	9	-	1	Los Angeles, Calif.-----	286	147	8	25
Milwaukee, Wis.-----	111	63	3	6	Oakland, Calif.-----	56	34	1	2
Peoria, Ill.-----	40	23	-	6	Pasadena, Calif.-----	30	21	-	1
Rockford, Ill.-----	31	26	4	1	Portland, Oreg.-----	103	62	3	3
South Bend, Ind.-----	18	12	3	-	Sacramento, Calif.-----	50	28	1	3
Toledo, Ohio-----	105	63	3	8	San Diego, Calif.-----	97	43	5	11
Youngstown, Ohio-----	53	28	-	5	San Francisco, Calif.-----	150	77	6	6
WEST NORTH CENTRAL:	727	423	14	43	San Jose, Calif.-----	39	25	2	1
Des Moines, Iowa-----	43	28	2	3	Seattle, Wash.-----	133	70	4	3
Duluth, Minn.-----	19	12	-	1	Spokane, Wash.-----	64	38	-	2
Kansas City, Kans.-----	46	18	3	7	Tacoma, Wash.-----	32	24	2	1
Kansas City, Mo.-----	122	66	2	8	Total	10,781	5,973	380	696
Lincoln, Nebr.-----	22	18	1	-	Cumulative Totals				
Minneapolis, Minn.-----	125	67	-	8	including reported corrections for previous weeks				
Omaha, Nebr.-----	64	45	1	4	All Causes, All Ages-----	342,498			
St. Louis, Mo.-----	193	116	1	5	All Causes, Age 65 and over-----	194,466			
St. Paul, Minn.-----	51	34	-	3	Pneumonia and Influenza, All Ages-----	14,891			
Wichita, Kans.-----	42	19	4	4	All Causes, Under 1 Year of Age-----	20,254			

*Estimate - based on average percent of divisional total.

PARALYTIC POLIOMYELITIS - 1964

(Continued from page 229)

nitions above, 63 percent of children 1-4 years of age have been "adequately immunized" and 81 percent of children 5-9 years of age. Nine percent of the younger group and 3 percent of the older are recorded as never having received poliomyelitis vaccine of any type.

References

1. Poliomyelitis Surveillance Unit, Surveillance of Poliomyelitis in the United States, 1958-61. Pub. Health Rep. December 1962, Vol. 77, No. 12, p. 1011.
2. Oral Poliomyelitis Vaccine: Report of Special Advisory Committee on Oral Poliomyelitis Vaccine to the Surgeon General of the Public Health Service, July 17-18, 1964, JAMA 190:49 (Oct 5) 1964.
3. Henderson, D.A., Witte, John H., Morris, L. and Langmuir, Alexander D.: Paralytic disease associated with oral polio vaccines. JAMA 190:49 (Oct 5) 1964.
4. Sirken, M.S.: National participation trends, 1955-61, in the poliomyelitis vaccination program. Public Health Rep. 77:661-670, August 1962.
5. Morris, L.: Further analysis of national participation in the inactivated poliomyelitis program 1955-61. Public Health Rep. 79:469-480, June, 1964.

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Poliomyelitis

The total number of cases of poliomyelitis reported in the southwestern United States this year is 16 and not 17. Oklahoma was named in error when in fact the 16 cases reported include 4 in Arizona, one each in Louisiana, California and New Mexico, and 9 in Texas.

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THE EDITOR
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NOTE: THESE PROVISIONAL DATA ARE BASED ON WEEKLY TELEGRAMS TO THE CDC BY THE INDIVIDUAL STATE HEALTH DEPARTMENTS. THE REPORTING WEEK CONCLUDES ON SATURDAY; COMPILED DATA ON A NATIONAL BASIS ARE RELEASED ON THE SUCCEEDING FRIDAY.

SYMBOLS:---DATA NOT AVAILABLE
- QUANTITY ZERO

THE CONSTRUCTION OF THE MORTALITY CURVES IS DESCRIBED IN VOL. 14, NO. 1.

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