



POLIOMYELITIS SURVEILLANCE REPORT

FOR ADMINISTRATIVE USE

REPORT NO. 237

SEPTEMBER 8, 1961

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SPECIAL NOTE

This report is intended for the information and administrative use of those involved in the investigation and control of poliomyelitis and polio-like diseases. It presents a summary of provisional information reported to CDC from State Health Departments, Virology Laboratories, Epidemic Intelligence Service Offices, and other pertinent sources. Since much of the information is preliminary in nature, confirmation and final interpretation should be determined in consultation with the original investigators prior to any further use of the material.

SUMMARY

A sharp decrease in total and paralytic cases was evident during the 35th week ending September 2, with reports of 60 cases, 36 paralytic.

Cases continue to be reported from the tri-county outbreak in Up-state New York. Reports from this State and from Mississippi and Wisconsin are included.

A preliminary analysis of poliovirus isolations from poliomyelitis cases with 1961 onset is also presented, along with a current summary of non-polio enterovirus isolates.

A statement on oral poliovaccine from the Association of State and Territorial Health Officers is also included.

1. CURRENT POLIOMYELITIS MORBIDITY TRENDS

Reports of total and paralytic cases for the 35th week ending September 2 showed a sharp decline. A total of 60 cases, 36 paralytic, were reported, as compared to 74 cases, 58 paralytic, during the previous week. Totals for the corresponding week in 1960 were 210 cases, 116 paralytic.

Comparative six week totals (30th through the 35th week) of cases reported during 1961 and the past four years are presented below:

Six-Week Totals (30th Week through 35th Week) for Five Years

	<u>1961</u>	<u>1960</u>	<u>1959</u>	<u>1958</u>	<u>1957</u>
Paralytic	231	562	1677	633	445
Total	331	858	2712	1332	1910

Total cases cumulated weekly through the 35th week for this year show 623 total cases, 417 of which were paralytic.

New York, with 20 cases, again accounted for the largest portion of reported cases this week; Mississippi accounted for six cases and Wisconsin four. Reports from these States will be given in Section 2.

2. REPORTS

A. New York State

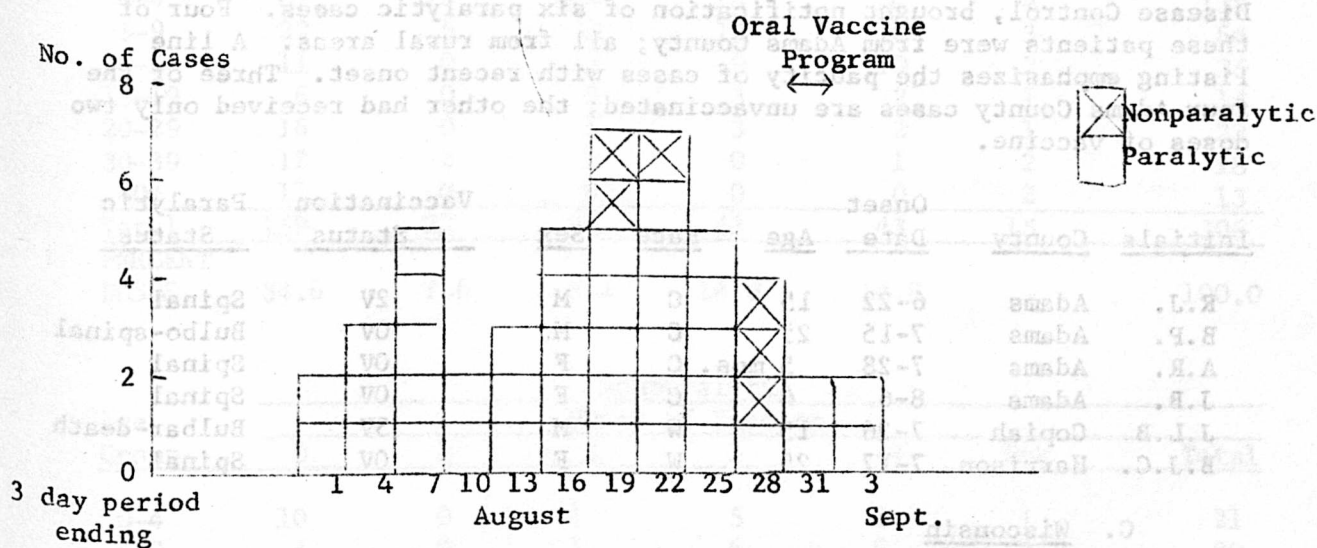
Dr. Robert M. Albrecht, Director, Epidemiology Division, New York State Department of Health, reports five additional paralytic cases of poliomyelitis during the past week in the tri-county area. Through Wednesday, September 6, 45 cases of paralytic poliomyelitis have occurred in the counties of Onondaga, Madison, and Oneida. Of the 45 cases, 20 have occurred in Onondaga County (13 in Syracuse), 14 in Madison County, and 11 in Oneida County.

Four of the five newly reported cases have had onset since the feeding of type I oral poliomyelitis vaccine on August 29, 30 and 31. These cases are listed as follows:

Date of Onset	County	City or Town	Age	Sex	Vaccination History	
					Salk	Oral
8-31	Onondaga	Onondaga	28	F	3	Yes (8-31)
8-31	Onondaga	Dewitt	4	F	0	No
9-1	Onondaga	Syracuse	34	F	1	Yes (8-29)
9-1	Oneida	Lee	18	M	2	No

The outbreak is shown in the histogram below by date of onset in three-day periods. The three days during which approximately 410,000 doses of type I oral vaccine were administered are depicted by the arrows. The histogram includes the 41 paralytic cases occurring since August 1.

POLIOMYELITIS BY DATE OF ONSET
ONONDAGA-MADISON-ONEIDA
COUNTIES, NEW YORK



The 45 paralytic cases by week of onset and by county are shown below:

WEEK ENDING:	Before July	7/29	8/5	8/12	8/19	8/26	9/2
Onondaga County	1	1	2	1	4	8	3
Madison County	1	0	4	3	5	1	0
Oneida County	1	0	2	2	2	3	1
TOTAL	3	1	8	6	11	12	4

In addition to the 45 paralytic cases, there are three nonparalytic cases in Onondaga County, two in Oneida County, and one in Madison County. Type I poliovirus has been isolated from seven paralytic cases. The age group and vaccination status of the 45 paralytic cases are shown in the following table:

Age Group	Vaccination History					Total
	0	1	2	3	4+	
0-4	10	2	4	7	3	26
5-9	1	0	1	4	2	8
10-19	1	0	2	0	1	4
20+	4	1	0	1	1	7
TOTAL	16	3	7	12	7	45

B. Mississippi

The weekly report from Dr. Durward Blakey, Director of Preventable Disease Control, brought notification of six paralytic cases. Four of these patients were from Adams County; all from rural areas. A line listing emphasizes the paucity of cases with recent onset. Three of the four Adams County cases are unvaccinated; the other had received only two doses of vaccine.

Initials	County	Onset Date	Age	Race	Sex	Vaccination Status	Paralytic Status
R.J.	Adams	6-22	15	C	M	2V	Spinal
B.P.	Adams	7-15	25	C	M	OV	Bulbo-spinal
A.R.	Adams	7-28	5 mos.	C	F	OV	Spinal
J.B.	Adams	8-6	4	C	F	OV	Spinal
J.L.B.	Copiah	7-26	15	W	M	3V	Bulbar-death
B.J.C.	Harrison	7-17	25	W	F	OV	Spinal

C. Wisconsin

Three of the four paralytic cases reported this week are from Milwaukee County. Dr. Josef Preizler, Epidemiologist, Wisconsin State Board of Health, reports that details of only one of these are known. The patient is a triply vaccinated ten year-old white male, who had onset of bulbar paralysis on July 22. He has now fully recovered. Field investigation of the other two Milwaukee County cases is currently in progress, and laboratory study is underway. The corrected Wisconsin State total for 1961 now stands at six cases of poliomyelitis, all paralytic.

3. 1961 POLIOMYELITIS CASES REPORTED TO PSU

Through September 2, there have been 398 cases of poliomyelitis with onset in 1961 submitted to the Poliomyelitis Surveillance Unit on individual case forms. Of these 398 cases, 306 are paralytic, 81 nonparalytic, and 11 unspecified as to paralytic status.

These cases are presented in Table 3 by paralytic status, age group and vaccination history.

TABLE 3

POLIOMYELITIS CASES BY PARALYTIC STATUS, AGE GROUP AND VACCINATION STATUS REPORTED ON PSU FORMS (Through September 2, 1961)

Age Group	Paralytic						Total
	Doses of Vaccine						
	0	1	2	3	4+	Unk	
0-4	81	15	14	13	12	4	139
5-9	22	5	3	15	16	3	64
10-14	11	0	3	9	10	2	35
15-19	6	0	2	3	2	1	14
20-29	16	0	1	3	2	1	23
30-39	12	2	1	0	1	2	18
40+	11	0	0	0	0	2	13
Total	159	22	24	43	43	15	306
PERCENT DOSES	54.6	7.6	8.2	14.8	14.8	-	100.0

Age Group	Nonparalytic						Total
	Doses of Vaccine						
	0	1	2	3	4+	Unk	
0-4	10	0	4	5	1	1	21
5-9	4	0	1	6	7	2	20
10-14	0	2	1	5	6	1	15
15-19	1	0	1	1	3	0	6
20-29	5	0	0	5	2	2	14
30-39	3	0	0	0	0	0	3
40+	0	0	0	0	2	0	2
Total	23	2	7	22	21	6	81
PERCENT DOSES	30.7	2.7	9.3	29.3	28.0	-	100.0

Preliminary data reveal that more than 50 percent of the poliovirus isolations from cases thus far in 1961 are due to type III poliovirus. Of 80 poliovirus isolations reported, 44 (55 percent) were type III and 35 (44 percent) were type I. There has been on type II isolation.

The isolations are shown below by State. Louisiana and New York both accounted for the majority of type I isolations while Georgia, Maryland, South Carolina, and Washington have reported two-thirds of the type III isolations.

POLIOVIRUS ISOLATIONS BY STATE*

State	Type I	Type II	Type III	Total
Alabama	-	-	3	3
Florida	1	-	1	2
Georgia	-	-	6	6
Hawaii	2	-	-	2
Idaho	1	1	1	3
Indiana	2	-	-	2
Louisiana	12	-	3	15
Maryland	-	-	12	12
Minnesota	1	-	1	2
Missouri	1	-	-	1
New Jersey	2	-	2	4
New York	10	-	-	10
Ohio	1	-	-	1
Oregon	1	-	1	2
Pennsylvania	-	-	1	1
South Carolina	-	-	5	5
Utah	-	-	1	1
Virginia	-	-	1	1
Washington	1	-	6	7
Total	35	1	44	80
PERCENT	43.8	1.2	55.0	100.0

* From cases reported to PSU through September 2.

4. ROUTINE POLIOMYELITIS SURVEILLANCE

A. Cases with Onset within 30 Days of Vaccination

There has been one case of nonparalytic poliomyelitis with onset within thirty days of vaccination reported to the Poliomyelitis Surveillance Unit during the past week ending September 2. Further investigation has revealed that this case has yielded a Coxsackie B-5 isolate. The 1961 total of under-30-day cases now stands at nine, of which seven are paralytic (one correlated).

5. NONPOLIO ENTEROVIRUS SURVEILLANCE

A total of 339 ECHO and Coxsackie virus isolates from 1961 specimens has been reported to the Poliomyelitis Surveillance Unit. Coxsackie B-5 has accounted for nearly 50 percent of all isolated reported.

No new concentrations or outbreaks of enterovirus-associated disease have been recognized. Five cases of aseptic meningitis in Minneapolis have yielded ECHO 11, and four cases have yielded Coxsackie B-5. There is no apparent localization within the city, however.

A number of Coxsackie B-5 isolates have been obtained from cases in New Jersey, Pennsylvania, and Utah, but no localizations are evident within these States.

A summary of all nonpolio enterovirus isolations is shown in the following table.

Non-Polio Enterovirus Isolations from 1961 Specimens

State	ECHO*	Coxsackie				Total	Reported by
		B-2	B-4	B-5	Other and Unsp.		
Alabama	1	-	-	2	3	6	W. Smith & T. Hosty
California	1	1	-	-	1	3	E. Lennette
Colorado	3	-	-	1	-	4	C. Mollohan
Connecticut	1	-	15	6	-	22	G. D. Hsiung, G. Borman & J. Hart
D.C.	-	-	-	-	1	1	W. Wooldridge
Florida	1	-	-	-	-	1	J. Bond
Georgia	-	-	4	-	-	4	W. Murphy
Hawaii	1	-	-	-	7	8	K. Wilcox
Illinois	10	-	-	13	4	27	H. Shaughnessy
Kansas	2	-	-	10	2	14	C. Hunter
Kentucky	1	-	-	-	-	1	CDC Virus Reference Unit
Louisiana	1	-	2	-	-	3	J. Bruce & G. Hauser
Maryland	2	-	-	10	-	12	C. Perry & C. Silverman
Mass.	-	-	-	9	-	9	R. MacCreedy & T. Chang
Minn.	12	-	1	11	-	24	H. Bauer
Miss.	-	-	-	-	1	1	CDC Virus Reference Unit
Montana	-	-	-	1	-	1	M. Soules
N. H.	-	1	-	-	-	1	R. Miliner
N. J.	2	-	1	16	-	19	M. Goldfied & W. Dougherty
N. Y.	-	-	1	1	1	3	R. Albrecht
N. C.	1	-	-	-	1	2	L. Maddry
Ohio	1	-	1	3	5	10	L. Ey
Oklahoma	-	-	-	3	1	4	F. Hassler
Oregon	-	-	-	3	-	3	G. Brandon & M. Skinner
Pa.	-	-	1	22	-	23	K. Hummeler & I. Gratch
R. I.	-	-	-	6	-	6	CDC Virus Reference Unit

Non-Polio Enterovirus Isolations from 1961 Specimens (Continued)

State	ECHO*	B-2	B-4	B-5	Coxsackie Other and		Total	Reported by
					Unsp.			
S. C.	-	-	1	-	-	-	1	G. McDaniel
Tenn.	-	1	3	1	-	-	5	G. Cameron & C. Tucker
Texas	13	3	-	1	1	-	18	G. Irons
Utah	-	1	-	14	-	-	15	R. Fraser & A. Jenkins
Virginia	-	-	-	26	-	-	26	W. Skinner
Wash.	-	50	-	6	-	-	56	K. Berquist & W. Giedt
Wisconsin	4	-	-	1	1	-	6	A. Evans
TOTAL	57	57	30	166	29	-	339	

* Specific types include twelve ECHO 9 in Texas, one in New Jersey and one in Louisiana; three ECHO 19 in Colorado, one in California and one in Kansas; nine ECHO 11 in Minnesota. Other types include ECHO 1.

6. STATEMENT ON ORAL POLIOVACCINE

The following statement on the use of oral poliovaccine was prepared at a meeting of the Association of State and Territorial Health Officers on August 9, 1961, in New York City. Because of widespread interest in the oral vaccine and its current use in Up-state New York, this statement by the ASTHO is included below:

Evidence exists to indicate a marked shift in the ratio of polioviruses by type, as diagnosed and verified in cases of paralytic polio. For example, in 1959 almost 90 percent were type I and 10 percent were type III. In 1960, approximately 73 percent were type I and 27 percent were type III. Furthermore, to date, in 1961 provisional data would appear to indicate that the distribution is roughly 50 percent each. Type II is rarely encountered at present.

If type I oral vaccine is the only type to be initially licensed and available, it is recommended by the ASTHO for public health use only in type I specific epidemic situations. It is specifically not recommended for mass immunization in the absence of an actual or threatened epidemic.

Type I oral vaccine because it can immunize against type I polio but not against type III polio should not be used as a substitute for trivalent formalin killed vaccine before type III oral vaccine is also available, regardless of the age of the person being vaccinated.

When all three types of oral poliovaccine do become commercially available, then (1) the major public health indications of use thereof should be in the control of type-specific epidemics; (2) either the oral or the trivalent formalin killed vaccine should be used: (a) for immunization of infants or (b) for immunization of population groups in which the percentage of persons immunized is low.

Very little evidence exists that so-called community-wide mass use of oral vaccine will in fact reach a significant portion of those persons in a given community in the U. S. who previously failed to take trivalent formalin killed vaccine. Therefore, we in Public Health could not expect much further reduction in either paralytic polio cases or deaths in a community with an already high percentage of immunized persons solely because of a switch in a type of polio vaccine offered. Accordingly, requisite expenditure of public funds and personnel primarily to achieve revaccination of those already vaccinated could not be justified solely on the Public Health viewpoint. However, in some communities with a high percentage of immunized persons, it might be desirable to carry out mass oral vaccinations for research or other reasons.

(This surveillance report was prepared by the Poliomyelitis and Polio-like Diseases Surveillance Unit, Michael J. Regan, M.D., Chief, James A. Bryan, II, M.D., and Mr. Leo Morris, Statistician, with the assistance of Statistics Section, CDC.)

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Report was submitted to the Surgeon General on July 1, 1954, by the following: James A. Bryan, II, M.D., and Mr. Leo Morris, Statistician, with the assistance of Statistics Section, CDC.

This surveillance report was prepared by the Poliovirus and Polio the Diseases Surveillance Unit, Michael J. Reagan, M.D., Chief, James A. Bryan, II, M.D., and Mr. Leo Morris, Statistician, with the assistance of Statistics Section, CDC.

It should be noted that the data presented in this report are preliminary and are subject to change as more complete data are received.

The purpose of this report is to provide a summary of the data received to date and to discuss the implications of these data for the control of polio.

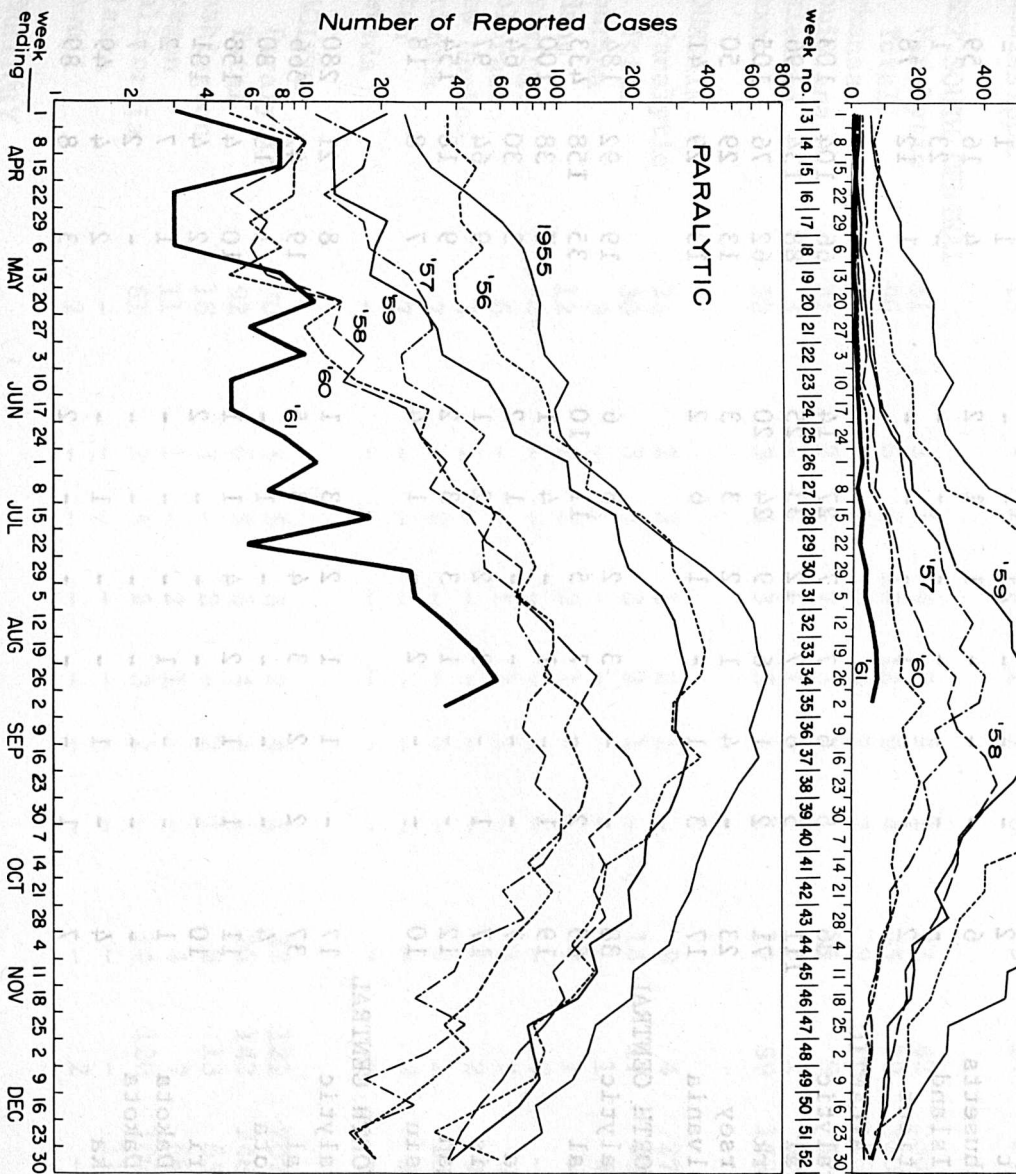


FIGURE 1

CURRENT U.S. POLIO INCIDENCE COMPARED WITH YEARS 1955-1960, April - December, by week

PROVISIONAL DATA SUPPLIED BY NATIONAL OFFICE OF VITAL STATISTICS
 AND COMMUNICABLE DISEASE CENTER

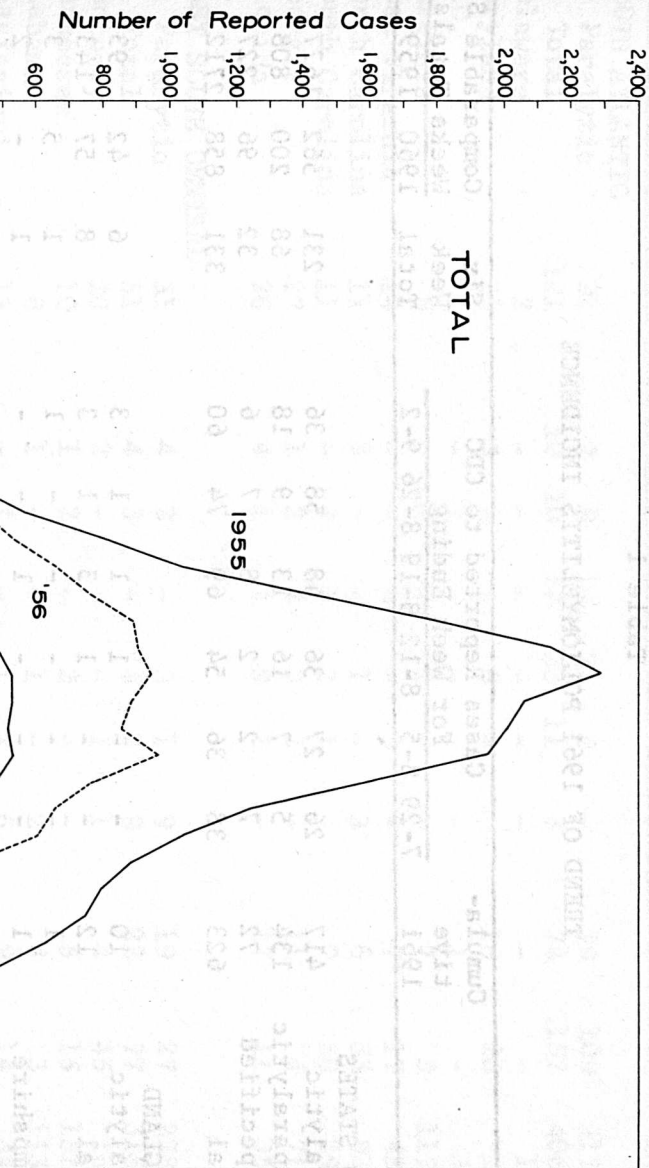


Table 1

TREND OF 1961 POLIOMYELITIS INCIDENCE

State and Region	Cumula- tive 1961	Cases Reported to CDC For Week Ending						Six Week Total	Comparable Six Weeks Totals in		
		7-29	8-5	8-12	8-19	8-26	9-2		1960	1959	1958
UNITED STATES											
Paralytic	417	26	27	36	48	58	36	231	562	1677	633
Nonparalytic	134	5	7	16	13	9	18	68	200	808	504
Unspecified	72	7	2	2	8	7	6	32	96	227	195
Total	623	38	36	54	69	74	60	331	858	2712	1332
NEW ENGLAND											
Paralytic	10	-	-	1	1	1	3	6	42	93	10
Total	12	-	-	1	3	1	3	8	57	143	34
Maine	1	-	-	-	-	-	1	1	5	3	-
New Hampshire	1	-	-	-	1	-	-	1	-	2	4
Vermont	2	-	-	-	1	-	-	1	1	-	1
Massachusetts	6	-	-	-	1	1	2	4	16	59	11
Rhode Island	-	-	-	-	-	-	-	-	23	1	2
Connecticut	2	-	-	1	-	-	-	1	12	78	16
MIDDLE ATLANTIC											
Paralytic	86	5	6	7	7	27	14	66	104	103	112
Total	111	5	6	7	12	33	25	88	134	196	205
New York	71	2	1	6	9	24	20	62	76	105	81
New Jersey	23	-	4	1	2	3	3	13	29	50	94
Pennsylvania	17	3	1	-	1	6	2	13	29	41	30
EAST NORTH CENTRAL											
Paralytic	38	-	-	3	2	8	6	19	92	184	180
Total	65	2	-	7	5	11	10	35	158	433	453
Ohio	19	1	-	1	-	4	1	7	38	100	82
Indiana	7	-	-	-	-	1	2	3	30	64	40
Illinois	17	1	-	3	2	2	1	9	64	97	48
Michigan	12	-	-	1	3	3	2	9	18	154	264
Wisconsin	10	-	-	2	-	1	4	7	8	18	19
WEST NORTH CENTRAL											
Paralytic	17	-	1	1	2	3	1	8	21	280	43
Total	37	2	2	3	4	3	5	19	42	566	88
Minnesota	4	-	-	-	-	1	-	1	13	80	8
Iowa	11	1	1	2	4	1	1	10	4	158	16
Missouri	10	-	-	-	-	-	2	2	4	181	36
North Dakota	1	-	-	1	-	-	-	1	7	2	17
South Dakota	-	-	-	-	-	-	-	-	2	7	1
Nebraska	4	-	1	-	-	1	-	2	4	49	2
Kansas	7	1	-	-	-	-	2	3	8	89	8

Table 1 (Continued)

State and Region	Cumula- tive 1961	Cases Reported to CDC For Week Ending						Six Week Total	Comparable Six Weeks Totals in		
		7-29	8-5	8-12	8-19	8-26	9-2		1960	1959	1958
SOUTH ATLANTIC											
Paralytic	91	7	9	14	21	8	-	59	109	317	87
Total	121	10	10	17	23	11	3	74	152	406	180
Delaware	2	-	-	-	-	-	-	-	-	1	9
Maryland	21	3	2	3	6	4	-	18	20	9	6
D.C.	1	-	1	-	-	-	-	1	-	3	1
Virginia	8	-	1	4	2	-	-	7	9	117	40
West Virginia	14	-	-	4	-	3	-	7	17	48	42
North Carolina	11	2	-	-	1	-	3	6	33	93	32
South Carolina	11	-	3	1	2	1	-	7	58	29	5
Georgia	27	1	2	3	3	2	-	11	4	71	8
Florida	26	4	1	2	9	1	-	17	11	35	37
EAST SOUTH CENTRAL											
Paralytic	31	4	2	-	3	1	9	19	27	228	28
Total	51	4	3	-	4	2	9	22	77	315	88
Kentucky	20	2	-	-	-	1	1	4	45	16	4
Tennessee	10	1	2	-	2	-	-	5	15	152	31
Alabama	8	1	-	-	1	-	2	4	3	113	15
Mississippi	13	-	1	-	1	1	6	9	14	34	38
WEST SOUTH CENTRAL											
Paralytic	51	3	1	4	8	5	2	23	42	238	102
Total	96	6	5	10	12	8	4	45	79	360	169
Arkansas	10	-	1	-	3	2	2	8	10	106	3
Louisiana	31	2	-	7	3	5	1	18	9	37	22
Oklahoma	3	1	-	-	1	-	-	2	1	59	19
Texas	52	3	4	3	5	1	1	17	59	158	125
MOUNTAIN											
Paralytic	23	2	3	1	2	1	-	9	4	27	19
Total	38	3	5	3	2	1	-	14	17	45	42
Montana	3	-	1	-	-	-	-	1	1	4	18
Idaho	12	2	2	2	1	-	-	7	1	-	3
Wyoming	-	-	-	-	-	-	-	-	7	-	1
Colorado	6	-	-	1	1	1	-	3	2	6	4
New Mexico	3	1	-	-	-	-	-	1	2	9	5
Arizona	7	-	2	-	-	-	-	2	1	23	7
Utah	7	-	-	-	-	-	-	-	3	3	3
Nevada	-	-	-	-	-	-	-	-	-	-	1
PACIFIC											
Paralytic	70	5	5	5	2	4	1	22	121	207	52
Total	92	6	5	6	4	4	1	26	142	248	73
Washington	18	3	-	2	-	2	1	8	13	65	6
Oregon	11	1	-	2	1	-	-	4	7	66	12
California	61	2	5	2	3	2	-	14	120	106	37
Alaska	-	-	-	-	-	-	-	-	-	11	-
Hawaii	2	-	-	-	-	-	-	-	2	-	18
TERRITORY											
Puerto Rico	5	-	-	-	-	-	-	-	73	-	10

(Continued) Table I