



POLIOMYELITIS SURVEILLANCE REPORT

FOR ADMINISTRATIVE USE

REPORT NO. 203

July 22, 1960

Table of Contents

SUMMARY

1. CURRENT POLIOMYELITIS MORBIDITY TRENDS
2. REPORTS
3. 1960 POLIOMYELITIS CASES REPORTED TO PSU
4. ROUTINE POLIOMYELITIS SURVEILLANCE
 - A. Under 30-Day Vaccinated Cases
 - B. Vaccine Distribution



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, the National Office of Vital Statistics, Virology Laboratories, Epidemic Intelligence Service Officers, 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.

U. S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
Public Health Service
Bureau of State Services
COMMUNICABLE DISEASE CENTER
Robert J. Anderson, Chief
Epidemiology Branch
Alexander D. Langmuir, Chief
Surveillance Section
E. Russell Alexander, Chief
50 Seventh St., N. E.
Atlanta 23, Georgia

SUMMARY

The national incidence of poliomyelitis, both total and paralytic cases, has taken a sharp upswing as can be seen in Figure I. This sharp increase nearly doubles the total number of cases reported last week.

There is a new outbreak of poliomyelitis in South Carolina. Rhode Island continues as an epidemic area as does Puerto Rico. Narrative reports are included from Rhode Island, Connecticut, South Carolina, Illinois, California, and Puerto Rico.

1. CURRENT POLIOMYELITIS MORBIDITY TRENDS

A total of 95 cases, 69 paralytic, was reported to the National Office of Vital Statistics during the 28th week of 1960, ending July 16. This represents a 94 percent increase over the 49 total cases and a 77 percent increase over the 39 paralytic cases reported to NOVS last week. (See Table I).

The 1960 cumulative total has now reached 621 cases of which 457 (73.6 percent) are paralytic. This week's sharp upswing in reported cases is reflected in the totals for the past six weeks, as the paralytic total during this period is now higher than the paralytic total for the corresponding period in 1958. These figures are presented below:

	<u>Total for 23rd - 28th Week for Five Years</u>				
	<u>1960</u>	<u>1959</u>	<u>1958</u>	<u>1957</u>	<u>1956</u>
Paralytic	219	569	197	262	748
Total	287	877	394	779	1,507

New England and the Pacific regions remain the only areas throughout the nation with six-week totals higher than those in 1959. This is due to the epidemic in Rhode Island and the continuing high incidence in California. In addition, Pennsylvania, Illinois, and South Carolina have six-week totals higher than those for 1959. The 5 cases reported from Pennsylvania during the past week are scattered throughout the State. The increases in Illinois and South Carolina show signs of concentration within the State (See Section 2 - REPORTS).

2. REPORTS

A. Rhode Island

Dr. R.F. McAteer, Medical Director, Division of Communicable Diseases, Rhode Island Department of Health, reports 12 new cases of poliomyelitis during the past week in the metropolitan Providence area. Ten of these cases are paralytic. This brings the total number of cases reported to the

State Health Department through July 20, to 62, of which 50 are paralytic. In addition to these 62 cases, Dr. Joseph Oren, Chief, Poliomyelitis Surveillance Unit, CDC, assisting Dr. McAteer, cites another 12 cases under investigation.

Only 3 (6 percent) of the 50 paralytic cases have received three or more inoculations of Salk vaccine, while 24 are unvaccinated. The age distribution remains the same with 94 percent of the paralytic cases under 10 years of age and 58 percent in the pre-school age group.

The paralytic cases are presented below by age group and immunization status:

<u>Age Group</u>	<u>Doses of Vaccine</u>						<u>Total</u>
	<u>0V</u>	<u>1V</u>	<u>2V</u>	<u>3V</u>	<u>4+V</u>	<u>Unk.</u>	
0-4	15	9	4	0	1	0	29
5-9	7	5	3	2	0	1	18
10-19	1	0	1	0	0	0	2
20+	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>
Total	24	14	8	2	1	1	50

Dr. Oren and Dr. Jack Pickering, EIS Officer, report the following geographic distribution of cases in the metropolitan Providence area including those under investigation. Attack rates shown are based on preliminary 1960 census figures.

<u>City</u>	<u>Cases</u>	<u>Attack Rate/100,000</u>
Pawtucket	17	21.1
Providence	39	18.9
Warwick	8	11.8
West Warwick	2	9.8
Riverside	3	7.0

There has also been one case each reported from the towns of East Greenwich, Pascoag, Smithfield, West Barrington and Woonsocket. The 39 cases reported from the city limits of Providence, are distributed throughout 14 of 37 census tracts. The distribution of cases by socio-economic group is as follows with population estimates supplied by the Brown University Department of Sociology.

<u>Socio-economic Group</u>	<u>No. of Cases</u>	<u>Population (thousands)</u>	<u>Attack Rate/ 100,000</u>
Upper	2	59.9	3.3
Middle	33	119.0	27.7
Lower	3	42.5	7.1

These attack rates reveal a unique situation in Providence, not following the distinct pattern of urban epidemics seen since 1956. In this instance, the highest attack rate appears to be in the middle socio-economic group, rather than the lower. At this point in the investigation, the explanation advanced is that in Providence there is no large concentrated slum area, but rather a number of small depressed areas scattered throughout the middle socio-economic census tracts. Upon initial investigation, home visits reveal that the majority of cases appearing in the census tracts classified as middle socio-economic are from low socio-economic families.

Of particular interest in the epidemic is the large proportion of cases which involve siblings. Of the 74 cases, which includes those investigated, 25 or approximately one-third of the cases involve 11 different families. These cases are presented below with paralytic status and date of onset in parenthesis:

Multiple Family Cases

<u>Index Case</u>	<u>Second Case</u>	<u>Third Case</u>	<u>Location</u>
1. D.D.(Spinal; 5-16)	M.D.(Spinal; 5-16)	J.D.(Bulbar; 5-18)	Providence
2. D.C.(Spinal; 6-3)	E.C.(Bulbar; 6-4)		Warwick
3. P.R.(Spinal; 6-4)	D.R.(Bulbar; 6-12)		Riverside
4. D.L.(Bulbo-spinal; 6-10)	D.L.(Bulbar; 6-10)		Providence
5. R.V.(Spinal; 6-12)	M.V.(Spinal; 6-22) (mother of R.V.)		Pawtucket
6. M.H.(Spinal; 6-17)	J.H.(Spinal; 6-25)		Pawtucket
7. M.G.(N-P; 6-22)	W.G.(N-P; 7-1) (father of M.G.)		Providence
8. T.H.(Spinal; 6-25)	L.H.(N-P; 6-27)	J.H.(Spinal; 7-5)	Pawtucket
9. H.G.(Spinal; 6-29)	J.G.(N-P; 7-7)		Providence
10. S.B.(Spinal; 7-4) (Fatality)	D.P.(N-P; 7-7)		Providence
11. R.H.(Spinal; 7-8)	R.H.(Spinal; 7-10)	R.H.(Bulbar; 7-18)	Pawtucket

Dr. Andrew Fodor, Chief, Virus Diagnostic Unit, Communicable Disease Center, Chamblee, Georgia, reports the following results from 21 stool specimens submitted from Rhode Island cases:

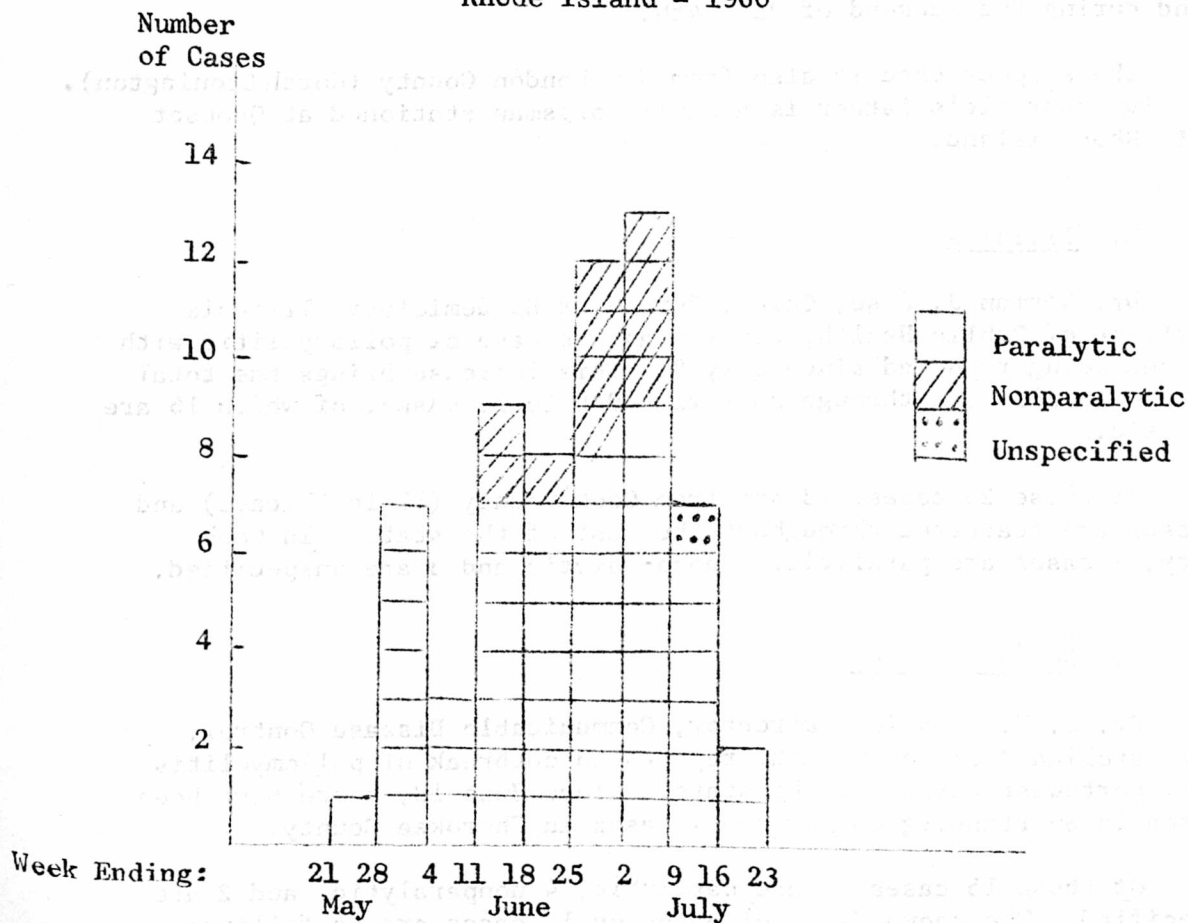
- 16 - Type I poliovirus
- 1 - Cytopathogenic agent isolated
- 1 - Virus isolated (not polio) but not yet identified
- 3 - Negative

There have been 195,000 doses of vaccine supplied by the State Health Department which has been administered since June 17. Another 110,000 doses is estimated to have been given by private physicians. The reported cases are presented in the histogram below, which indicates that the peak of this epidemic has not yet been reached.

Figure 2A

Poliomyelitis Cases by Date of Onset

Rhode Island - 1960



B. Connecticut

Dr. James C. Hart, Director of Preventable Diseases, Connecticut State Department of Health, reports the occurrence of three paralytic cases and one suspect case of poliomyelitis during the month of July. These are the only cases reported by Connecticut thus far in 1960.

All three paralytic cases, which are from the city of Groton in New London County bordering Rhode Island, are presented below with epidemiological comments:

Case #1: M.S., four, white male, triply vaccinated, onset - July 10.

Case #2: J.S., one, white male, unvaccinated, onset - July 11, (brother of Case #1).

The father of these children went through Providence, Rhode Island on a train, July 1.

Case #3: P.W., 24, white female, one dose vaccine, onset - July 11, died July 19.

This girl lived one mile from Case #1 and #2 and was in Rhode Island during the weekend of July 4th.

The suspect case is also from New London County (North Stonington). This five year old's father is a naval corpsman stationed at Quonset Point, Rhode Island.

C. Illinois

Dr. Norman J. Rose, Chief, Bureau of Epidemiology, Illinois Department of Public Health, reports an increase of poliomyelitis with 11 cases being reported since July 9. This increase brings the total of cases in Illinois through July 21, 1960 to 25 cases, of which 16 are paralytic.

Of these 25 cases, 13 are from Cook County (11 in Chicago) and 12 cases are scattered throughout the rest of the state. In Cook County, 9 cases are paralytic, 1 nonparalytic and 3 are unspecified.

D. South Carolina

Dr. G. E. McDaniel, Director, Communicable Disease Control, South Carolina Board of Health, reports an outbreak of poliomyelitis in the northwest corner of the state. Since June 18, there have been 8 cases in Spartanburg County and 7 cases in Cherokee County.

Of these 15 cases, 9 are paralytic, 4 nonparalytic, and 2 are unspecified. The known dates of onset on 14 cases are as follows:

Week Ending:	<u>6-18</u>	<u>6-25</u>	<u>7-2</u>	<u>7-9</u>	<u>7-16</u>	<u>7-23</u>
No. of Cases:	1	0	3	2	6	2

Thirteen of the 15 cases are unvaccinated and none have received three doses of Salk vaccine. All but two of the cases have been from rural areas near Gaffney and the city of Spartanburg. There have been 2,000 doses of vaccine given in Gaffney this week by the local health department.

In Cherokee County, type I poliovirus has been isolated from a paralytic case with onset the week ending June 18. There has been 2 fatalities.

Dr. Jacob Koomen, Chief, Communicable Diseases, North Carolina State Board of Health, reports 3 paralytic cases in Cleveland County, which is directly across the state line from Cherokee County, South Carolina. These cases had onset June 24, June 28, and July 3.

E. California

Poliomyelitis incidence in California remains at a higher level than the corresponding period in 1958 and 1959. Dr. Henry R. Renteln, Surveillance Unit, Bureau of Acute Communicable Diseases, California State Department of Public Health, reports a total of 134 paralytic cases through July 16, 1960.

Of these 134 cases, 67 have occurred in the Los Angeles metropolitan area, 15 in San Diego County and 13 in the remaining part of Southern California. This represents a total of 95 or 71 percent of the cases reported throughout the state.

The age and vaccination status is known on 97 paralytic cases with onset in 1960. Approximately one-half of the cases have occurred in children under 5 years of age. Sixty percent of the cases have had no vaccine, while 21 percent had received three or more injections. There have been 4 fatalities.

F. Puerto Rico

Through July 21, 1960, Dr. Manuel Feliberti, Epidemiologist, Bureau of Communicable Disease Control, Puerto Rico Department of Health, reports 328 cases of poliomyelitis with onset in 1960. Of these cases, 323 are paralytic. This represents an increase of 29 paralytic cases during the past week.

There have been 21 fatalities during the course of this extended epidemic. This gives Puerto Rico a paralytic case-fatality ratio of 6.5.

3. 1960 POLIOMYELITIS CASES REPORTED TO PSU

Through July 18 there have been 345 cases of poliomyelitis with onset in 1960 reported to PSU on individual case forms. Of these cases, 269 or 78 percent are paralytic.

These cases are presented below by paralytic status, age group and vaccination history.

Table 3

Poliomyelitis Cases by Paralytic Status, Age Group
and Vaccination History Reported on PSU Forms
(Through July 18, 1960)

Age Group	<u>Paralytic</u>							<u>Nonparalytic</u>							<u>Unspecified</u> <u>Total</u>	<u>TOTAL</u>
	0	1	2	3	4	Unk	Tot	0	1	2	3	4	Unk	Tot		
0-4	67	9	16	16	5	4	117	6	-	1	4	2	2	15	4	136
5-9	23	5	9	14	5	3	59	1	1	-	7	3	1	13	2	74
10-14	6	1	3	10	2	1	23	-	1	-	6	1	-	8	3	34
15-19	7	3	2	3	-	-	15	1	-	1	3	2	1	8	3	26
20-29	18	2	2	5	1	1	29	1	1	2	3	1	4	12	1	42
30-39	8	2	4	1	-	1	16	1	-	1	2	1	-	5	-	21
40+	9	-	-	-	-	1	10	1	-	-	-	-	-	1	-	11
Unk.	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	1
Total	138	22	36	49	13	11	269	11	3	5	25	11	8	63	13	345

4. ROUTINE POLIOMYELITIS SURVEILLANCE - 1960

A. Cases with Onset Within 30 Days of Vaccination

During the week of July 12 through July 18, the PSU was notified of four additional cases, three paralytic, that occurred within 30 days of vaccination. The 1960 total now stands at ten. Of these, 6 are paralytic (2 correlated) and 4 nonparalytic. The three paralytic cases reported this week are presented in Table II.

B. Vaccine Distribution

The summary of current and cumulative data concerning vaccine released, shipped and inventoried is presented in Table III. Also included are releases and shipments of quadruple antigen.

(This report was prepared by Mr. Leo Morris, Statistician, of the Poliomyelitis and Polio-like Diseases Surveillance Unit, with the assistance of Statistics Section, CDC.)

Figure 1

CURRENT U.S. POLIO INCIDENCE COMPARED WITH YEARS 1955-1959; APRIL-AUGUST, BY WEEK

Table 1

PROVISIONAL DATA SUPPLIED BY NATIONAL OFFICE OF VITAL STATISTICS

TREND OF 1960 POLIOMYELITIS INCIDENCE

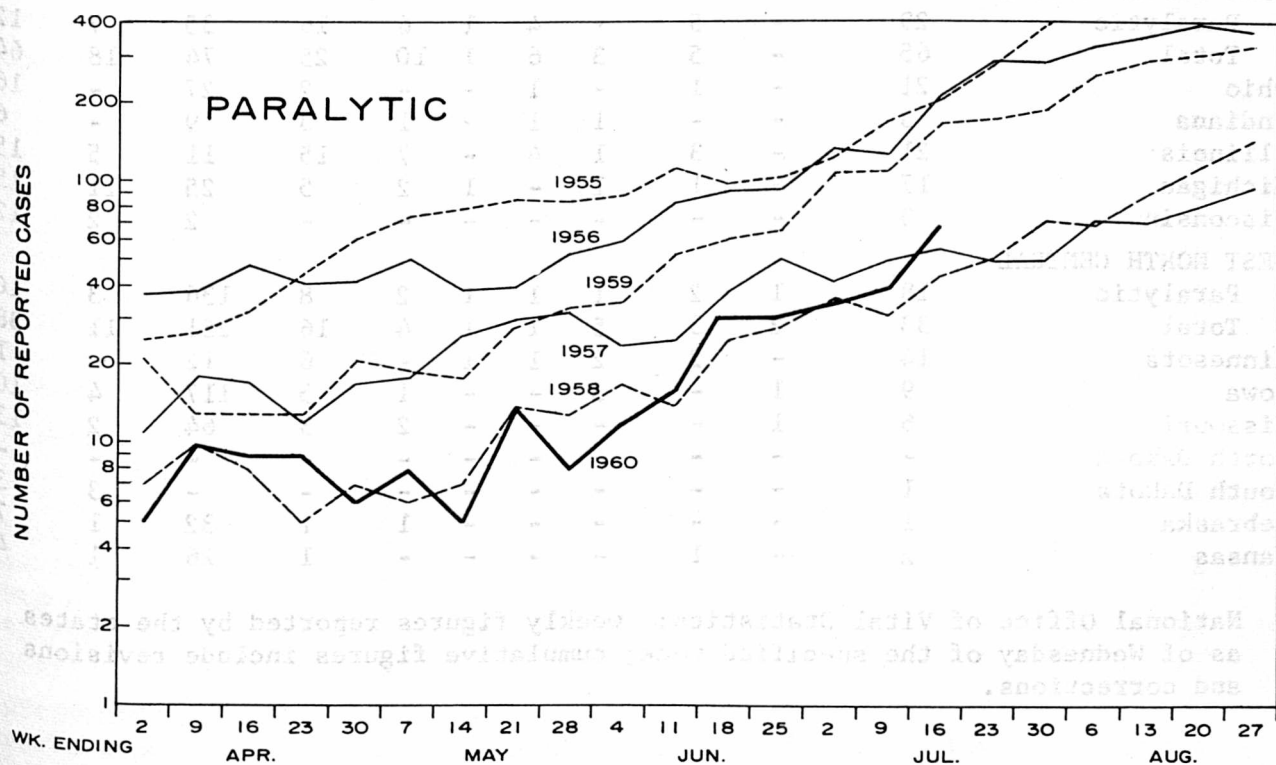
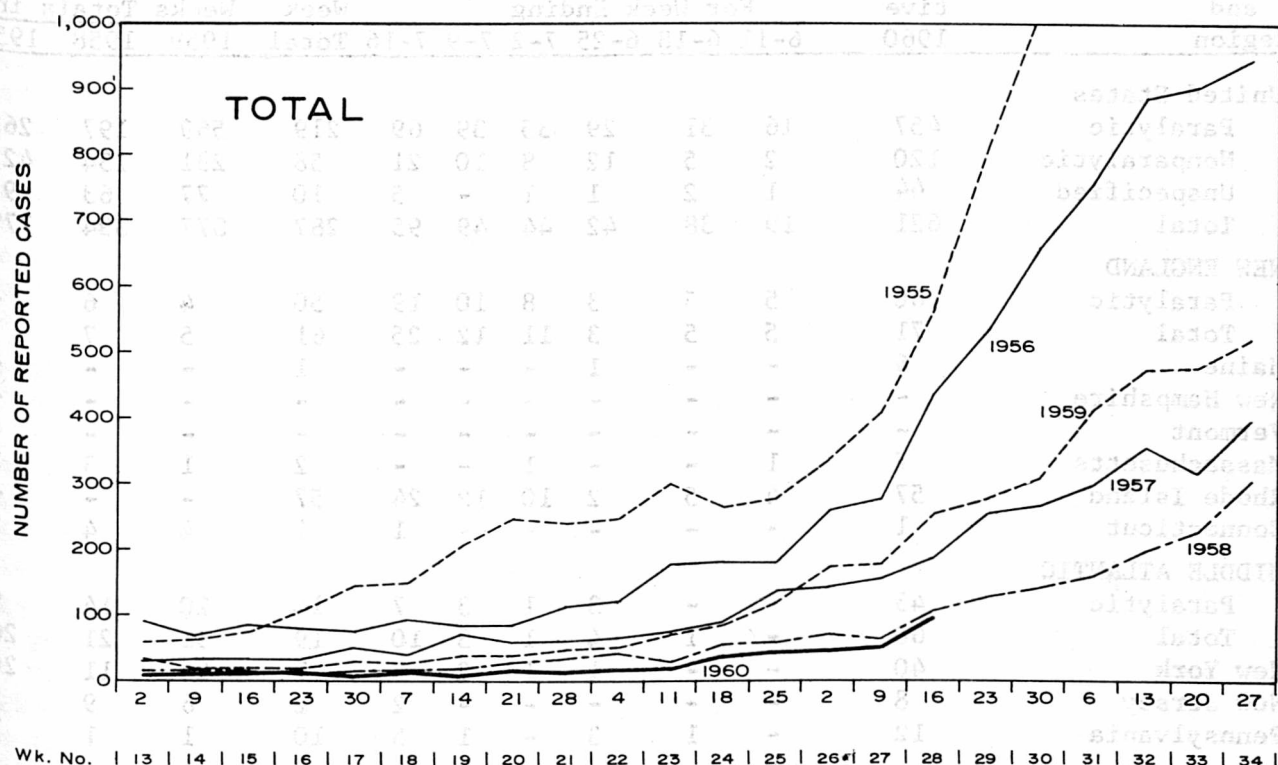


Table 1

TREND OF 1960 POLIOMYELITIS INCIDENCE

State and Region	Cumula- tive 1960	Cases Reported to NOVS*							Six Week Total	Comparable Six Weeks Totals in:		
		For Week Ending								1959	1958	1957
United States												
Paralytic	457	16	31	29	35	39	69	219	569	197	262	
Nonparalytic	120	2	5	12	8	10	21	58	231	134	422	
Unspecified	44	1	2	1	1	-	5	10	77	63	95	
Total	621	19	38	42	44	49	95	287	877	394	779	
NEW ENGLAND												
Paralytic	60	5	5	3	8	10	19	50	4	6	-	
Total	71	5	5	3	11	12	25	61	5	7	7	
Maine	6	-	-	1	-	-	-	1	-	-	-	
New Hampshire	-	-	-	-	-	-	-	-	-	-	-	
Vermont	-	-	-	-	-	-	-	-	-	-	-	
Massachusetts	7	1	-	-	1	-	-	2	1	3	2	
Rhode Island	57	4	5	2	10	12	24	57	-	-	-	
Connecticut	1	-	-	-	-	-	1	1	4	4	5	
MIDDLE ATLANTIC												
Paralytic	43	-	-	3	1	3	7	14	20	14	9	
Total	60	-	1	4	1	3	10	19	31	21	26	
New York	40	-	-	1	1	2	3	7	24	11	20	
New Jersey	8	-	-	-	-	-	2	2	6	9	5	
Pennsylvania	12	-	1	3	-	1	5	10	1	1	1	
EAST NORTH CENTRAL												
Paralytic	29	-	5	-	4	1	6	16	35	7	12	
Total	65	-	5	3	6	1	10	25	74	18	64	
Ohio	21	-	1	-	1	-	-	2	27	-	16	
Indiana	3	-	-	1	1	-	1	3	9	-	6	
Illinois	21	-	3	1	4	-	7	15	11	5	15	
Michigan	17	-	1	1	-	1	2	5	25	11	15	
Wisconsin	3	-	-	-	-	-	-	-	2	2	12	
WEST NORTH CENTRAL												
Paralytic	18	1	2	1	1	1	2	8	136	3	10	
Total	33	2	3	5	1	1	4	16	251	11	38	
Minnesota	14	-	2	2	1	1	-	6	12	-	1	
Iowa	9	1	-	3	-	-	1	5	117	4	10	
Missouri	6	1	-	-	-	-	2	3	64	2	13	
North Dakota	-	-	-	-	-	-	-	-	-	-	-	
South Dakota	1	-	-	-	-	-	-	-	-	3	3	
Nebraska	1	-	-	-	-	-	1	1	32	1	7	
Kansas	2	-	1	-	-	-	-	1	26	1	4	

* National Office of Vital Statistics: weekly figures reported by the states as of Wednesday of the specified week; cumulative figures include revisions and corrections.

Table 1 (Continued)

State and Region	Cumulative 1960	Cases Reported to NOVS For Week Ending						Six Week Total	Comparable Six Weeks Totals in:		
		6-11	6-18	6-25	7-2	7-9	7-16		1959	1958	1957
SOUTH ATLANTIC											
Paralytic	65	1	3	5	2	5	9	25	77	45	50
Total	83	1	4	5	3	5	15	33	104	109	126
Delaware	-	-	-	-	-	-	-	-	1	1	1
Maryland	1	-	-	-	-	-	-	-	-	-	4
D. C.	-	-	-	-	-	-	-	-	-	-	-
Virginia	-	-	-	-	-	-	-	-	20	10	13
West Virginia	8	-	-	-	2	1	1	4	9	14	4
North Carolina	18	1	-	1	1	-	-	3	22	10	22
South Carolina	21	-	3	1	-	2	12	18	7	3	39
Georgia	4	-	-	1	-	-	-	1	24	11	15
Florida	31	-	1	2	-	2	2	7	21	60	28
EAST SOUTH CENTRAL											
Paralytic	21	-	-	-	1	3	6	10	76	8	18
Total	24	-	1	-	1	3	6	11	92	30	93
Kentucky	8	-	1	-	-	-	-	1	4	4	9
Tennessee	3	-	-	-	-	1	1	2	25	9	53
Alabama	6	-	-	-	-	1	4	5	42	3	6
Mississippi	7	-	-	-	1	1	1	3	21	14	25
WEST SOUTH CENTRAL											
Paralytic	49	4	1	1	6	3	7	22	154	60	128
Total	82	5	1	4	8	9	12	39	228	108	284
Arkansas	8	-	-	-	2	1	3	6	48	3	16
Louisiana	25	1	-	-	3	4	3	11	29	14	41
Oklahoma	4	-	-	-	-	-	1	1	36	9	27
Texas	45	4	1	4	3	4	5	21	115	82	200
MOUNTAIN											
Paralytic	13	2	-	1	1	-	-	4	19	6	5
Total	23	3	1	1	1	-	-	6	35	26	28
Montana	10	3	-	1	-	-	-	4	-	16	-
Idaho	4	-	-	-	-	-	-	-	4	1	2
Wyoming	1	-	-	-	-	-	-	-	1	-	2
Colorado	2	-	-	-	1	-	-	1	4	2	3
New Mexico	2	-	1	-	-	-	-	1	9	6	11
Arizona	3	-	-	-	-	-	-	-	16	1	4
Utah	1	-	-	-	-	-	-	-	-	-	4
Nevada	-	-	-	-	-	-	-	-	1	-	2
PACIFIC											
Paralytic	159	3	15	14	12	13	13	70	48	48	30
Total	180	3	17	16	13	15	13	77	57	64	113
Alaska	2	1	-	-	-	-	-	1	-	-	-
Washington	7	-	-	-	-	-	-	-	8	2	-
Oregon	16	-	4	-	-	-	-	4	10	7	4
California	150	2	13	16	13	15	12	71	39	36	109
Hawaii	5	-	-	-	-	-	1	1	-	19	-
TERRITORIES											
Puerto Rico	311	25	36	31	24	25	19	160	-	2	2

Table II

PARALYTIC POLIOMYELITIS OCCURRING WITHIN 30 DAYS OF LAST VACCINE INOCULATION
(Cases Reported to PSU from July 1 through July 18, 1960)

State	County	Ini- tials	Age	Sex	Date Inoc.	Mfr.	Lot No.	Date First Symp.	Site Inoc.	Site First Para.
Calif.	Los Angeles	H. S.	3	F.	6-20-60	Pfizer	92489	6-21-60	Rt. hip	Rt. leg
Calif.	Los Angeles	G. J.	10	M.	6-28-60	Pfizer	9X494	7-1-60	Rt. arm	Unk.
West Virginia	Kanawha	S. J.	2	M.	6-11-60	Unk.	Unk.	6-14-60	Unk.	Rt. leg

Table III

POLIOMYELITIS AND QUADRUPLE ANTIGEN VACCINE REPORTS*

(Data provided by the Polio Vaccine Activity, BSS, USPHS, through July 8, 1960)

POLIOMYELITIS VACCINE SHIPPED (1000's cc's)

Period	National Foundation	Public Agencies	Commercial Channels	Export	Total
1955	13,541	7,893	6,223	--	27,657
1956	194	45,588	24,784	6,477	77,043
1957	154	50,026	38,062	12,784	101,026
1958	203	18,533	28,319	33,571	80,626
1959	160	26,160	37,553	21,161	85,034
1960					
Jan-March	--	4,298	5,371	2,782	12,451
April-June	--	6,149	9,763	3,498	19,410
Total to Date	--	10,447	15,134	6,280	31,861
Cumulative Total	14,252	158,647	150,075	80,273	403,247

* Excludes amounts of outdated unshipped vaccine.

QUADRUPLE ANTIGEN VACCINE SHIPPED (in cc's)

Period	Public Agencies	Commercial Channels	Export	Total
1959	157,251	4,019,577	59,143	4,235,971
1960				
Jan-March	117,915	1,307,923	64,700	1,490,538
April-June	165,415	1,927,955	62,014	2,155,384
Total to Date	283,330	3,235,878	126,714	3,645,922
Cumulative Total	440,581	7,255,455	185,857	7,881,893

