

# CDC

# POLIOMYELITIS SURVEILLANCE REPORT

FOR ADMINISTRATIVE USE

REPORT NO. 211

September 16, 1960

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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, 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.

SUMMARY

There was a sharp decrease in total cases of poliomyelitis reported to NOVS this week with a concurrent drop of paralytic cases of lesser proportions. This is in contrast to the substantial increase seen last week in both total and paralytic cases. The total for the current week was 154 cases of which 105 were paralytic. For the previous week, the total was 217, including 118 paralytic.

A cluster of cases have had onset recently in Cumberland (Portland) and Androscoggin Counties, Maine. In Wyoming, a concentration of cases has been noted in the Gas Hills Uranium Mining District between Casper and Riverton. No other areas have had any concentration of recent origin.

Narrative reports are included from Maine, New Jersey, Indiana, Wyoming and Puerto Rico.

1. CURRENT POLIOMYELITIS MORBIDITY TRENDS

(Note: The preliminary figures of 210 total cases, 116 paralytic, reported to NOVS last week have been revised to 217 total cases, 118 paralytic - SEE TABLE I.)

A total of 154 cases, 105 paralytic, was reported to the National Office of Vital Statistics during the 36th week of 1960, ending September 10. This represents a decrease in both total and paralytic poliomyelitis compared to figures for the previous week. During the corresponding week in 1959, a total of 508 cases, 273 paralytic, was reported to the NOVS. The 1960 cumulative total now stands at 1,753 cases of which 1,182 are paralytic.

As can be seen in Figure I, there was a sharp drop in total cases with only a slight decrease in paralytic cases. This may suggest that reporting during last week reached a peak for total cases which will precede a later peak week for paralytic cases. This pattern was seen in 1959. The peak week for the past five years is as follows:

	<u>Peak Week as Reported to NOVS for Past Five Years</u>				
	<u>1955</u>	<u>1956</u>	<u>1957</u>	<u>1958</u>	<u>1959</u>
Paralytic	34	33	39	38	37
Total Cases	34	37	34	38	35

Although there was a substantial decline in cases this week, slight increases were reported in four of the nine geographic regions. Maine, New Jersey and Wyoming were responsible for the rise in cases in their respective regions while the West North Central region had scattered small increases.

A. Maine

Dr. Dean H. Fisher, Director, Communicable Disease Control, Maine Department of Health and Welfare, reports that the 12 paralytic cases of poliomyelitis reported over the past 3 weeks have had onset in Cumberland and Androscoggin Counties since the beginning of August.

The 7 cases in Cumberland County are centered in Portland and vicinity and 3 of 5 cases in Androscoggin County are from the small town of Durham. These cases, the majority of which are unvaccinated, are presented below:

<u>City</u>	<u>Age</u>	<u>Race</u>	<u>Sex</u>	<u>Onset</u>	<u>Vaccination Status</u>	<u>Comments</u>
<u>Cumberland County</u>						
Portland	39	W	M	8-5	OV	
Westbrook	4	W	F	8-21	2V	
Portland	4	W	M	8-28	OV	
South Portland	7	W	M	9-3	OV	Bulbo-Spinal
Westbrook	22	W	F	9-3	OV	Fatality
Portland	8	W	M	9-7	3V?	Bulbo-Spinal
Westbrook	29	W	M	Wk.-End. 9-10	?	
<u>Androscoggin County</u>						
Lewiston	1	W	M	8-3	OV	
Poland	23	W	M	8-12	OV	
Durham	4	W	M	Late Aug.	OV	Fatality
Durham	2	W	M	Late Aug.	OV	
Durham	1	W	M	Late Aug.	OV	

Prior to August, there had been only 5 cases of poliomyelitis in Maine with onset in 1960. These 5 cases were from Aroostook County, scene of a mixed types I and III epidemic in late 1959. Specimens are being obtained from current cases and sent to the Communicable Disease Center for study.

B. New Jersey

Dr. William J. Dougherty, Director, Preventable Disease Control, New Jersey State Department of Health, reports that although 7 of the last 13 cases of poliomyelitis reported in New Jersey are from Jersey City, these cases have occurred throughout the month of August with no recent concentration. Through September 14, there have now been 52 cases, 44 paralytic, in New Jersey, with 19 cases occurring in Hudson County (Jersey City - Hoboken).

Of the 19 cases in Hudson County, 14 are from Jersey City and 4 from Hoboken. These cases have occurred as follows:

Week Ending:	<u>7-16</u>	<u>7-23</u>	<u>7-30</u>	<u>8-6</u>	<u>8-13</u>	<u>8-20</u>	<u>8-27</u>	<u>9-2</u>
Paralytic	1	0	5	4	2	1	2	1
Nonparalytic	0	0	0	0	1	1	0	0
Total Cases	1	0	5	4	3	2	2	1

Twelve of the 16 paralytic cases are unvaccinated and only two have received three or more doses of vaccine.

C. Indiana

Dr. Louis W. Spolyar, Director, Bureau of Preventive Medicine, Indiana Department of Health, reports that the 16 cases of poliomyelitis reported to NOV5 for the week ending September 10, occurred in 11 different counties throughout the State. There have been only two additional cases reported from populous Marion County (Indianapolis).

Of the 58 cases reported through September 10, in Indiana, 30 are paralytic, 14 nonparalytic and 14 unspecified as to paralytic status. Only 5 cases (8.6 percent) have received three or more doses of vaccine while 47 (81.0 percent) are unvaccinated.

D. Wyoming

Dr. Cecil R. Reinstein, Director, Division of Preventive Medicine, Wyoming State Department of Health, reports the occurrence of 18 cases of poliomyelitis, of which 12 are paralytic, in Wyoming since late July. This total represents a greater number of cases than had occurred in either of the past three years. Figures for the past six years in Wyoming are as follows:

	<u>1959</u>	<u>1958</u>	<u>1957</u>	<u>1956</u>	<u>1955</u>	<u>1954</u>
Paralytic	1	5	7	18	17	-
Total Cases	2	13	12	36	37	276

Thirteen of the 18 cases have occurred in Natrona and Fremont Counties, with the majority of the Fremont County cases occurring in an area called the Gas Hills Uranium Mining District. This area is the site of uranium mines and oil fields with most of the residents living in trailers. The geographic distribution of the cases throughout the State is as follows by week of onset:

<u>County</u>	<u>Week Ending</u>							<u>Total</u>
	<u>7-30</u>	<u>8-6</u>	<u>8-13</u>	<u>8-20</u>	<u>8-27</u>	<u>9-3</u>	<u>9-10</u>	
Fremont	1	0	0	0	1	4	1	7
Natrona	3	0	1	0	0	2	0	6
Laramie	0	0	0	0	2	0	1	3
Campbell	0	0	0	1	0	0	0	1
Park	0	0	0	0	0	1	0	1
TOTAL	4	0	1	1	3	7	2	18

Of the 12 paralytic cases, 7 have received no vaccine, 2 have had 1 dose and 2 have had 3 doses of vaccine. There have been 2 fatalities.

#### E. Puerto Rico

Through September 13, Dr. Manuel Feliberti, Epidemiologist, Bureau of Acute Communicable Disease Control, Puerto Rico Department of Health, reports a total of 427 cases of poliomyelitis in 1960. Of these, 422 are paralytic. This represents an increase of 28 paralytic cases during the past two weeks, a majority of which are appearing sporadically in the western part of the island.

Of the paralytic cases with known vaccination status, over 80 percent have received no vaccine while less than 5 percent have received three or more doses. Eighty-five percent of the cases are in pre-school age children and 98 percent are under ten years of age. The vaccination status of the paralytic cases is as follows:

<u>Doses of Vaccine:</u>	<u>0V</u>	<u>1V</u>	<u>2V</u>	<u>3+V</u>	<u>Unk.</u>	<u>Total</u>
No. of Cases	326	25	21	18	32	422
Percent	83.6	6.4	5.4	4.6	-	100.0

3. 1960 POLIOMYELITIS CASES REPORTED TO PSU

During the week ending September 12, 132 cases of poliomyelitis were reported to PSU on individual case forms bringing the 1960 total to 1,139 cases. Of these cases, 835 are paralytic, 277 nonparalytic, and 27 unspecified as to paralytic status. Thus, 70.6 percent of the paralytic cases reported to NOVS through September 10, have been reported to PSU.

These cases are presented below:

TABLE 3

POLIOMYELITIS CASES BY PARALYTIC STATUS, AGE GROUP  
AND VACCINATION HISTORY REPORTED ON PSU FORMS  
(Through September 12, 1960)

Age Group	Paralytic						Tot
	Doses of Vaccine					Unk	
	0	1	2	3	4+		
0-4	212	51	39	44	12	20	378
5-9	71	15	20	47	25	9	187
10-14	22	5	6	27	9	9	78
15-19	26	5	4	8	1	7	51
20-29	48	6	7	7	2	5	75
30-39	30	5	4	3	2	2	46
40+	17	-	-	1	-	2	20
unk.	-	-	-	-	-	-	-
<b>Total</b>	<b>426</b>	<b>87</b>	<b>80</b>	<b>137</b>	<b>51</b>	<b>54</b>	<b>835</b>
PER CENT DOSES	54.5	11.1	10.2	17.5	6.5	-	100.0

Age Group	Nonparalytic						Tot
	Doses of Vaccine					Unk	
	0	1	2	3	4+		
0-4	32	6	8	14	9	5	74
5-9	10	7	6	19	23	8	73
10-14	4	5	-	17	14	-	40
15-19	4	-	4	10	9	1	28
20-29	11	2	4	12	4	5	38
30-39	5	2	2	4	3	1	17
40+	5	-	1	-	-	1	7
unk.	-	-	-	-	-	-	-
<b>Total</b>	<b>71</b>	<b>22</b>	<b>25</b>	<b>76</b>	<b>62</b>	<b>21</b>	<b>277</b>
PER CENT DOSES	27.7	8.6	9.8	29.7	24.2	-	100.0

4. ROUTINE POLIOMYELITIS SURVEILLANCE

A. Cases with Onset within 30 Days of Vaccination

During the week ending September 12, the Poliomyelitis Surveillance Unit was notified of 11 cases of poliomyelitis, 8 paralytic, with onset within 30 days of vaccination. The 1960 total now stands at 71, of these, 55 are paralytic (7 correlated) and 16 nonparalytic.

The paralytic cases reported this week are presented in Table II. Additional information on previously reported cases, which is also included in this table, reveals that the two fatal cases from Bristol County, Massachusetts receiving the same vaccine were not correlated.

B. Vaccine Distribution

The summary of current and cumulative data concerning poliomyelitis vaccine and quadruple antigen vaccine shipped is presented in Table III.

(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.)





FIG. 1 CURRENT U.S. POLIO INCIDENCE  
 COMPARED WITH YEARS 1955-1959, APR.-DEC., BY WEEK

PROVISIONAL DATA SUPPLIED BY NATIONAL OFFICE OF VITAL STATISTICS

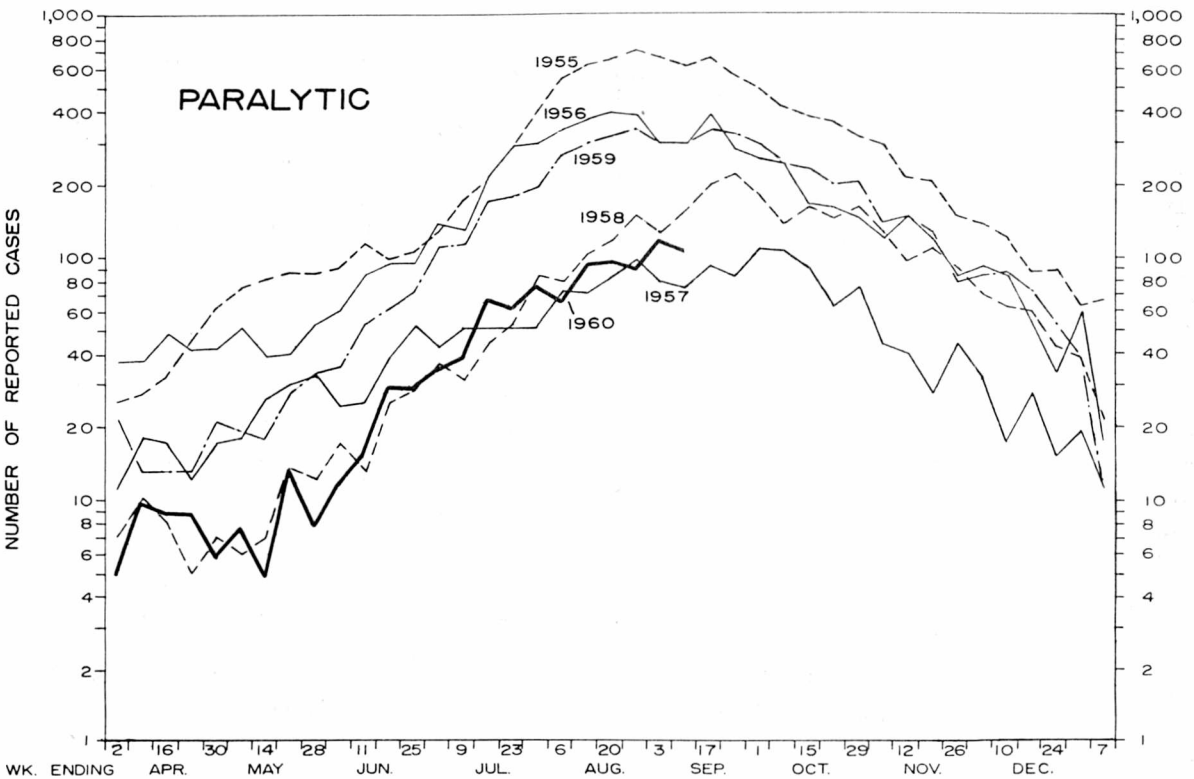
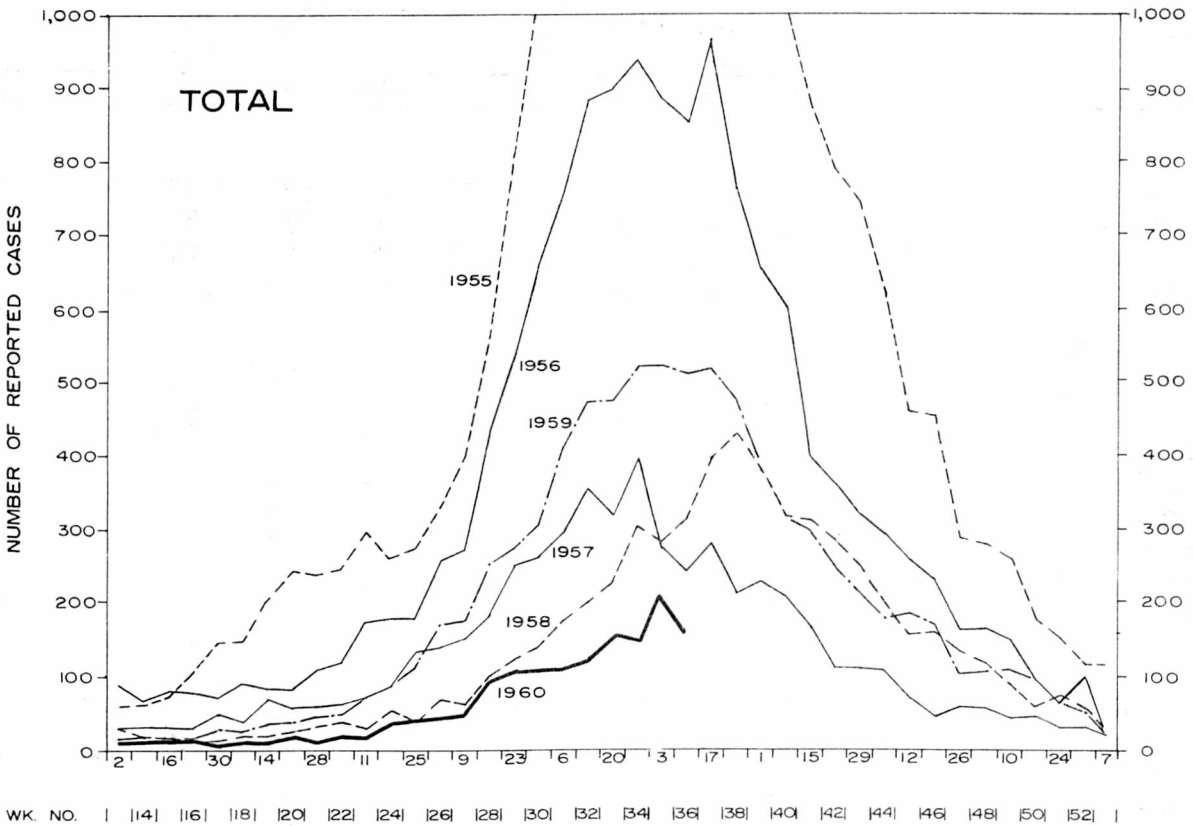


Table 1

## Trend of 1960 Poliomyelitis Incidence

State and Region	Cumulative 1960	Cases Reported to NOV5*						Six Week Total	Comparable Six Weeks Totals in:		
		8-6	8-13	8-20	8-27	9-3	9-10		1959	1958	1957
UNITED STATES											
Paralytic	1,182	69	96	97	89	118	105	574	1,780	712	470
Nonparalytic	387	33	25	36	41	52	27	214	896	579	1,068
Unspecified	184	10	7	21	17	47	22	124	240	214	354
Total	1,753	112	128	154	147	217	154	912	2,916	1,505	1,892
NEW ENGLAND											
Paralytic	124	6	3	6	7	10	13	45	99	11	5
Total	158	6	5	9	11	15	18	64	150	36	30
Maine	18	-	-	-	2	2	8	12	6	-	4
New Hampshire	-	-	-	-	-	-	-	-	3	4	3
Vermont	3	-	-	1	-	-	2	3	1	1	2
Massachusetts	25	-	4	3	2	4	2	15	67	12	5
Rhode Island	94	4	1	1	6	5	3	20	1	1	-
Connecticut	18	2	-	4	1	4	3	14	72	18	16
MIDDLE ATLANTIC											
Paralytic	171	10	18	27	19	16	22	112	133	129	30
Total	225	14	22	35	26	23	26	146	248	229	142
New York	127	11	5	20	12	16	10	74	139	88	80
New Jersey	48	3	11	3	8	1	9	35	55	108	40
Pennsylvania	50	-	6	12	6	6	7	37	54	33	22
EAST NORTH CENTRAL											
Paralytic	144	8	9	18	14	27	19	95	193	212	127
Total	279	23	16	28	26	56	35	184	496	554	729
Ohio	68	6	1	5	7	19	6	44	111	92	125
Indiana	60	4	4	11	5	8	16	48	57	41	62
Illinois	91	6	9	10	9	22	5	61	118	71	170
Michigan	45	4	2	2	3	5	4	20	190	331	239
Wisconsin	15	3	-	-	2	2	4	11	20	19	133
WEST NORTH CENTRAL											
Paralytic	51	8	4	1	1	3	10	27	301	52	29
Total	95	13	8	5	4	8	15	53	592	109	185
Minnesota	31	7	2	-	1	2	4	16	92	8	21
Iowa	17	1	1	1	1	1	3	8	177	27	33
Missouri	15	1	-	-	1	2	2	6	173	42	51
North Dakota	7	3	-	2	1	1	-	7	5	21	7
South Dakota	3	-	1	-	-	-	-	1	9	1	26
Nebraska	10	-	2	1	-	1	4	8	48	2	18
Kansas	12	1	2	1	-	1	2	7	88	8	29

\*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:		
		8-6	8-13	8-20	8-27	9-3	9-10		1959	1958	1957
SOUTH ATLANTIC											
Paralytic	194	15	21	11	20	24	11	102	351	100	98
Total	282	22	26	17	33	35	16	149	442	196	239
Delaware	-	-	-	-	-	-	-	-	1	9	2
Maryland	23	1	1	4	10	4	2	22	11	8	4
D. C.	-	-	-	-	-	-	-	-	5	-	34
Virginia	11	1	3	1	1	1	2	9	128	45	32
West Virginia	29	-	3	1	3	9	-	16	68	52	10
North Carolina	63	9	4	2	11	8	5	39	95	31	91
South Carolina	98	11	12	8	5	8	4	48	25	2	18
Georgia	12	-	-	1	3	-	3	7	72	15	24
Florida	46	-	3	-	-	5	-	8	37	34	24
EAST SOUTH CENTRAL											
Paralytic	57	2	8	3	4	5	2	24	230	32	36
Total	114	3	8	18	15	29	5	78	327	97	100
Kentucky	57	-	-	14	10	22	3	49	20	4	37
Tennessee	20	1	3	3	4	4	1	16	162	40	33
Alabama	11	-	1	-	-	1	1	3	113	16	8
Mississippi	26	2	4	1	1	2	-	10	32	37	22
WEST SOUTH CENTRAL											
Paralytic	111	6	8	5	1	12	6	38	228	108	74
Total	192	13	10	9	2	25	8	67	351	165	224
Arkansas	20	1	-	3	-	5	1	10	99	3	12
Louisiana	40	3	1	3	-	-	-	7	39	18	40
Oklahoma	10	1	-	-	-	-	2	3	63	18	40
Texas	122	8	9	3	2	20	5	47	150	126	132
MOUNTAIN											
Paralytic	22	-	2	-	-	2	1	5	33	15	21
Total	54	2	5	2	1	4	10	24	55	41	56
Montana	13	-	1	-	-	-	-	1	3	14	5
Idaho	5	-	1	-	-	-	-	1	-	4	7
Wyoming	16	2	2	1	-	1	8	14	-	2	4
Colorado	7	-	-	1	-	1	1	3	8	4	10
New Mexico	5	-	-	-	1	1	1	3	11	6	18
Arizona	4	-	1	-	-	-	-	1	27	8	8
Utah	4	-	-	-	-	1	-	1	4	2	4
Nevada	-	-	-	-	-	-	-	-	2	1	-
PACIFIC											
Paralytic	308	14	23	26	23	19	21	126	212	53	50
Total	354	16	28	31	29	22	21	147	255	78	187
Alaska	2	-	-	-	-	-	-	-	6	-	1
Washington	20	-	5	1	1	3	-	10	66	5	7
Oregon	26	-	1	-	2	4	-	7	70	14	6
California	299	16	21	30	26	14	21	128	113	42	171
Hawaii	7	-	1	-	-	1	-	2	-	17	2
TERRITORIES											
Puerto Rico	418	12	10	20	11	14	7	74	-	9	18

Table II

PARALYTIC POLIOMYELITIS OCCURRING WITHIN 30 DAYS OF LAST VACCINE INOCULATION  
(Cases Reported to PSU from September 6 through September 12, 1960)

State	County	Ini- tials	Age	Sex	Date Inoc.	Mfr. Lot No.	Date First Symp.	Site Inoc.	Site First Para.
Calif.	Orange	R. E.	3 mos.	M.	7-18-60	unk. unk.	8-11-60	right buttock	spine
New Mexico	Curry	C. M.	4	F.	4-25-60	unk. unk.	5-9-60	left arm	unk.
South Carolina	Greene- ville	G. C.	10 mos.	M.	7-25-60	Pfizer unk. or Wyeth	8-10-60	left arm	right leg & left leg
South Carolina	Oconee	J. C.	20 mos.	M.	7-4-60	unk. unk.	7-24-60	left arm	shoulder & neck
Tenn.	Gibson	R. S.	9 mos.	F.	7-6-60	unk. unk.	8-2-60	hip	both lower extre- mities & glu- teal muscle
Utah	Cache	J. S.	5	F.	6-29-60	P-D unk.	7-2-60	arm	arm
W. Va.	Nicholas	J. N.	8	F.	8-2-60	unk. unk.	8-28-60	unk.	unk.
Wisconsin	Brown	S. S.	14	F.	8-9-60	unk. unk.	8-17-60	unk.	legs & chest

Additional information received on Kentucky Case S. S. listed in Report 209 indicates Vaccine Manufacturer and Lot Number - Merck, Sharp & Dohme, 63787.

Additional information received on Illinois Case R. C. listed in Report 210 indicates Site of Inoculation - left deltoid, Site of First Paralysis - both lower extremities, upper left extremity and abdominal muscles, Vaccine Manufacturer and Lot Number - Lilly S8009-755925.

Additional information received on Massachusetts Case A. A. listed in Report 210 indicates Site of Inoculation - left arm, Site of First Paralysis - encephalitic symptoms, coma and convulsions.

Additional information received on Massachusetts Case J. A. listed in Report 210 indicates Site of Inoculation - left arm, Site of First Paralysis - respiratory muscle.

Table III

## POLIOMYELITIS AND QUADRUPLE ANTIGEN VACCINE REPORTS

(Data provided by the Polio Vaccine Activity, BSS, USPHS, through September 2, 1960)

POLIOMYELITIS VACCINE SHIPPED (1000's cc's)

<u>Period</u>	<u>National Foundation</u>	<u>Public Agencies</u>	<u>Commercial Channels</u>	<u>Domestic Total</u>	<u>Export</u>
1955	13,541	7,893	6,223	27,657	--
1956	194	45,588	24,784	70,566	6,477
1957	154	50,026	38,062	88,242	12,784
1958	203	18,533	28,319	47,055	33,571
1959	160	26,160	37,553	63,873	21,161
1960					
Jan-March	--	4,298	5,371	9,669	2,782
April-June	--	6,149	9,763	15,912	3,498
<u>Week Ending</u>					
7-8	--	480	621	1,101	95
7-15	--	1,175	500	1,675	106
7-22	--	245	608	853	70
7-29	--	839	553	1,392	158
8-5	--	487	711	1,198	58
8-12	1	120	417	538	50
8-19	--	1,376	473	1,849	47
8-26	--	133	406	539	16
1960 Total to Date	1	15,302	19,423	34,726	6,880
Cumulative Total	14,253	163,502	154,364	332,119	80,873
	<u>QUADRUPLE ANTIGEN VACCINE SHIPPED (1000's cc's)</u>				
1959		157	4,020	4,177	59
1960					
Jan-March		118	1,308	1,426	65
April-June		165	1,928	2,093	62
<u>Week Ending</u>					
7-8		14	148	162	2
7-15		9	124	133	13
7-22		13	149	162	1
7-29		10	169	179	3
8-5		42	155	197	10
8-12		23	153	176	4
8-19		36	150	186	3
8-26		18	161	179	--
1960 Total to Date		448	4,445	4,893	163
Cumulative Total		605	8,465	9,070	222
GRAND TOTAL	14,253	164,107	162,829	341,189	81,095

