



POLIOMYELITIS SURVEILLANCE REPORT

FOR ADMINISTRATIVE USE

REPORT NO. 215

October 14, 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

In contrast to the previous week, a sharp decrease in total and paralytic cases of poliomyelitis was reported to NOVS during the week ending October 8.

A newly reported concentration of cases in New York State and the continuing outbreak in Baltimore City contribute to the weekly total.

A descriptive account from New York State and narrative reports from Maryland and Pennsylvania are included. In addition, results of further investigation of the Red Lake, Minnesota, outbreak are summarized.

1. CURRENT POLIOMYELITIS MORBIDITY TRENDS

The National Office of Vital Statistics was notified of a total of 131 cases of poliomyelitis, 101 paralytic, during the 40th week ending October 8. This represents a sharp decrease from the number reported the previous week, and brings the national total in 1960 through October 8, to 2,435 cases, of which 1,662 (68.3%) are paralytic.

Figure I shows the continuing downward trend in total and paralytic cases and illustrates the sharp decrease in reported cases this week. The decline during the past two weeks emphasizes the paralytic peak at week number 38.

The table below summarizes the current 6-week experience in poliomyelitis as compared with the past 4 years. Although the number of total cases is lower than any other in this period, the number of paralytic cases remains above that of 1957.

POLIOMYELITIS

Total for 35th through 40th weeks for past five years

	<u>1960</u>	<u>1959</u>	<u>1958</u>	<u>1957</u>	<u>1956</u>
Paralytic	699	1,758	1,016	536	1,724
Total	1,059	2,735	2,142	1,464	4,742

The decrease in reported cases is reflected in all but 2 of the 9 major regions. An increase in total cases in the Middle Atlantic Region is due to a newly reported concentration of cases in Allegheny County, New York, and to delayed reporting from Pennsylvania. The Baltimore City outbreak and delayed case reports from North Carolina account for the increase noted in the South Atlantic Region.

2. REPORTS

A. New York

There have now been 110 poliomyelitis cases reported in New York State, exclusive of New York City, with onsets in 1960. According to Dr. Robert M. Albrecht, Director, State Division of Epidemiology, 72 of these have been paralytic, 27 nonparalytic, and 11 unspecified as to paralytic status.

A new concentration of cases has occurred in the western part of the State in Allegheny County (which has a population of approximately 47,000); 6 of the 10 cases have been paralytic. The cases are widely scattered throughout the county with no localization thus far. The first 3 cases had onset in July and 6 had onset in September; 2 are in the pre-school age group, 3 in the 5-9 age group, 2 in adolescents, and 3 in young adults. Only one patient is nonwhite, and 4 of the 8 with known vaccination status have had 3 or more vaccine doses. There have been 4 virus isolations of which 3 have been type I poliovirus.

Allegheny County is directly east of Cattaraugus County where a concentration of type III polio cases was recognized earlier this summer (PSU #212). Cattaraugus County has now had a total of 26 cases, including 14 paralytic. There have been 12 type III poliovirus and 2 type I poliovirus isolations from these cases.

B. Pennsylvania

Of the 10 cases of poliomyelitis reported to NOVS from Pennsylvania this week, 7 have had onsets since September 21 with none since October 3. Of the 7 cases, 2 have occurred in Cambria County, 1 each in Westmoreland and Venango Counties, and 3 in Allegheny County.

Of interest is a report received from Dr. I.F. Gratch, Chief of Epidemiology Section, Pennsylvania Department of Health, concerning the 3 Allegheny County cases. These are all paralytic, and the patients are school-age children who have had 4 doses of Salk vaccine. Laboratory investigation is underway, and as yet no virus has been reported isolated. There is no concentration locally within the County.

C. Maryland

There have been 15 new paralytic poliomyelitis cases reported to the Maryland State Health Department in the past week according to Dr. Charlotte Silverman, epidemiologist. Dr. Glen E. Gresham, EIS officer, assisting Dr. Silverman reports that 10 of these new cases have been in the city of Baltimore, while 2 cases each have occurred in Crellin (Garrett County) and Street (Harford County).

Baltimore now has accounted for 70 paralytic cases and 3 nonparalytic among the State total of 101 cases. Of the 70 paralytic cases 61 percent are pre-school children and 20 percent are in the school age group. Only 7 percent are adults. These paralytic cases are presented below by age and vaccination status:

Age Group	Doses of Vaccine						Total
	0	1	2	3	4+	Unk.	
0-4	19	5	6	7	1	5	43
5-9	6	0	2	5	2	0	15
10-14	1	0	0	4	0	0	5
15-19	0	0	0	0	0	0	0
20+	7	0	0	0	0	0	7
TOTAL	33	5	8	16	3	5	70

Note that whereas 51 percent of the cases with immunization history known had no vaccine, 29.2 percent had 3 or more doses. There have been 33 cases among the white population for an attack rate of 5.3 per 100,000 and 37 Negro cases for a rate of 12.7. Of the 19 persons with 3 or more vaccine doses 10 are white and 9 Negro.

Although the earlier cases were concentrated in lower socio-economic areas in the more central areas of the city, the recent cases have tended to be more scattered with evidence of a radial spread. Dr. Gresham reports that an active vaccination program is underway in Baltimore.

D. Minnesota

Dr. Herman Kleinman of Minnesota State Division of Disease Prevention and Control, has made available a follow-up summary of the outbreak reported among the Indians of the Red Lake Reservation in Northern Minnesota (PSU #214). There have been 6 paralytic cases thus far, all among Indian children, with onsets as follows:

	Onset	Age	Sex	Vaccination Status	Virus Type	Comment
1.	8-13	7	M	4	I	Last dose 8-5-60 not correlated
2.	8-21	3	M	0	I	
3.	8-28	5 mo.	M	0	I	
4.	9-5	6	M	0	I	Bulbo-spinal
5.	9-6	5	F	0	?	
6.	9-12	20 mo.	F	2	I	

A seventh Red Lake child with paralytic polio no longer lives on the reservation and is felt to have been infected elsewhere. This is a 15 month old boy with onset 7-7-60 who has had type III poliovirus isolated. Vaccination status is unknown.

There have now been 40 cases in Minnesota with onsets in 1960, with 32 of these paralytic. No new case clusters have been reported. Note that Shakopee, where 3 cases occurred in one family, is in Scott County, south of Minneapolis, and not near Duluth as erroneously reported last week.

3. 1960 POLIOMYELITIS CASES REPORTED TO PSU

During the week ending October 10, 109 cases of poliomyelitis were reported on PSU forms to the Poliomyelitis Surveillance Unit. Of these, 78 were paralytic, 28 nonparalytic, and 38 unspecified. This brings the total reported to 1,732: 1,278 paralytic, 416 nonparalytic, and 38 unspecified.

The specified cases are shown in the following tables:

TABLE 3

POLIOMYELITIS CASES BY PARALYTIC STATUS, AGE GROUP AND VACCINATION HISTORY REPORTED ON PSU FORMS (Through October 10, 1960)

Age Group	Paralytic						Tot
	Doses of Vaccine						
	0	1	2	3	4+	Unk	
0-4	318	66	62	74	21	28	569
5-9	116	21	30	69	36	19	291
10-14	27	9	10	36	11	11	104
15-19	38	7	5	14	1	7	72
20-29	98	11	10	8	4	7	138
30-39	52	7	5	4	2	4	74
40+	24	-	-	1	-	4	29
Unk.	1	-	-	-	-	-	1
Total	674	121	122	206	75	80	1278
PER	56.3	10.1	10.2	17.2	6.2	-	100.0
CENT							
DOSES							

Age Group	Nonparalytic						Tot
	Doses of Vaccine						
	0	1	2	3	4+	Unk	
0-4	50	10	11	15	13	7	106
5-9	23	10	10	30	30	9	112
10-14	6	6	-	23	20	1	56
15-19	14	-	5	18	10	-	47
20-29	18	4	4	20	7	8	61
30-39	6	2	4	5	6	2	25
40+	5	-	1	-	-	1	7
Unk.	-	-	-	1	1	-	2
Total	122	32	35	112	87	28	416
PER	31.5	8.2	9.0	28.9	22.4	-	100.0
CENT							
DOSES							

4. ROUTINE POLIOMYELITIS SURVEILLANCE

A. Cases with Onset within 30 Days of Vaccination

During the week ending October 10, 1960, the Polio Surveillance Unit received reports of 8 cases of poliomyelitis, all paralytic (none correlated), with dates of onset 30 days or less after Salk inoculation. This brings the yearly total to date to 103 cases, 79 paralytic (7 correlated).

The 8 paralytic cases are presented in Table II.

B. Vaccine Distribution

Table III shows a summary of current and cumulative shipments of poliomyelitis vaccine and quadruple antigen vaccine. The latter constitutes approximately 12% of the total domestic shipments in 1960 to date.

(This report was prepared by the Poliomyelitis and Polio-like Diseases Surveillance Unit, Joseph Oren, M.D., Chief, Michael J. Regan, M.D., and Mr. Leo Morris, Statistician, 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

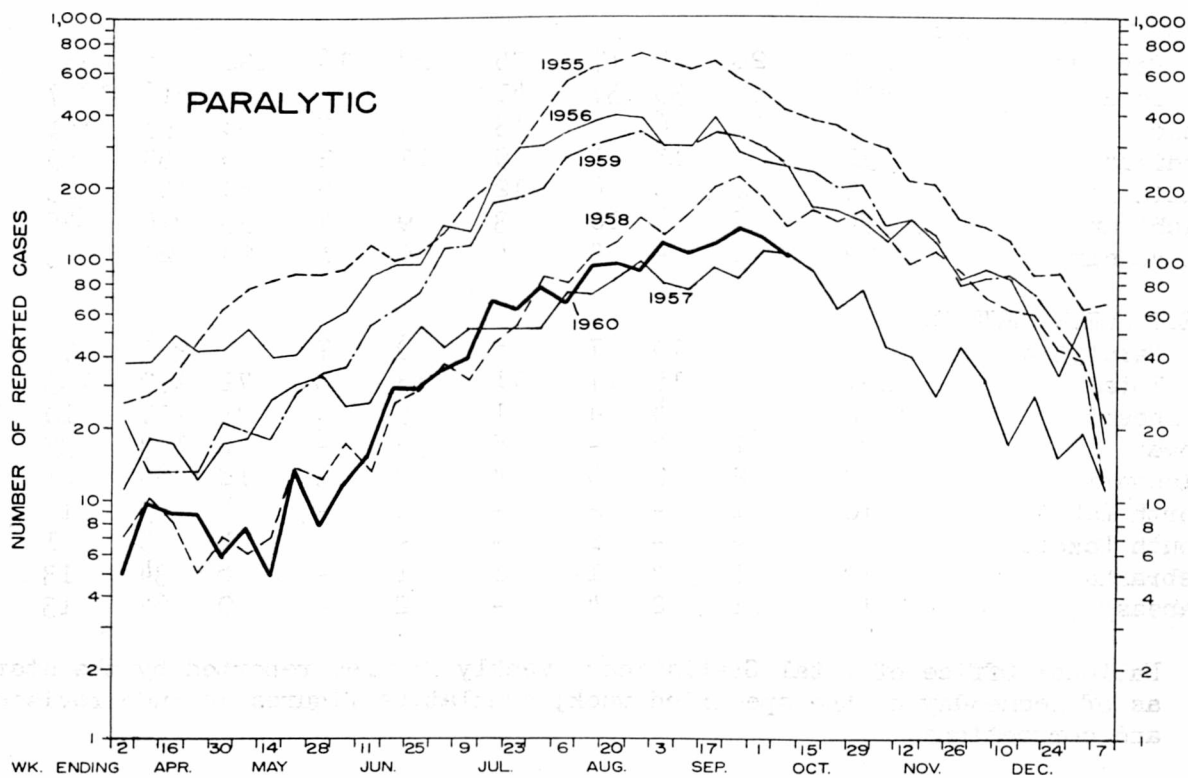
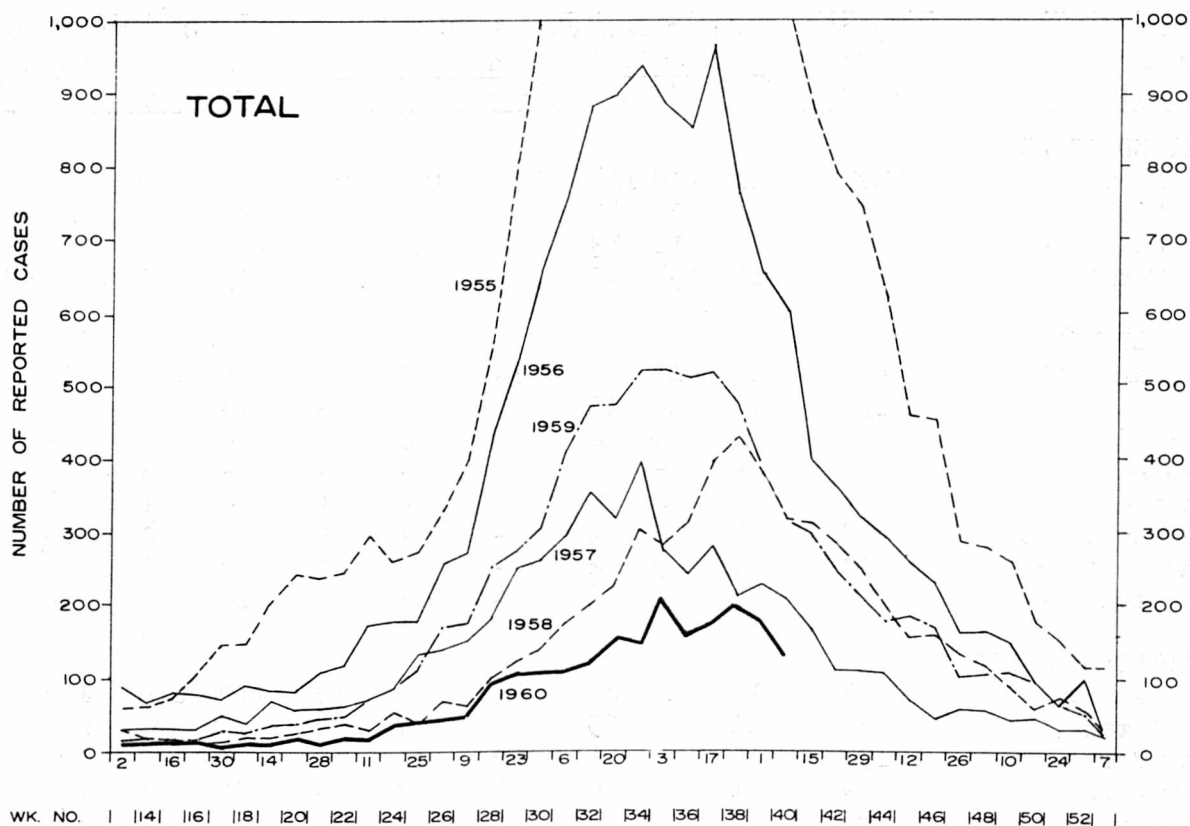


Table I

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
		9-3	9-10	9-17	9-24	10-1	10-8					
UNITED STATES												
Paralytic	1662	121	108	114	134	121	101	699	1758	1016	536	
Nonparalytic	530	51	28	48	44	31	25	227	776	813	669	
Unspecified	243	44	18	13	26	27	5	133	201	313	259	
Total	2435	216	154	175	204	179	131	1059	2735	2142	1464	
NEW ENGLAND												
Paralytic	153	10	13	8	14	5	1	51	127	19	8	
Total	196	15	18	13	14	7	3	70	161	32	29	
Maine	33	2	8	2	9	2	1	24	44	-	1	
New Hampshire	-	-	-	-	-	-	-	-	3	-	1	
Vermont	7	-	2	2	1	-	1	6	1	4	3	
Massachusetts	28	4	2	1	-	1	1	9	80	15	10	
Rhode Island	99	5	3	2	-	3	-	13	3	1	-	
Connecticut	29	4	3	6	4	1	-	18	30	12	14	
MIDDLE ATLANTIC												
Paralytic	252	16	22	24	18	20	19	119	214	150	39	
Total	350	23	26	35	35	27	30	176	323	294	125	
New York	196	16	10	21	22	11	15	95	193	104	76	
New Jersey	69	1	9	9	4	3	5	31	62	144	37	
Pennsylvania	85	6	7	5	9	13	10	50	68	46	12	
EAST NORTH CENTRAL												
Paralytic	239	28	22	17	25	28	16	136	197	353	137	
Total	414	53	35	37	41	39	21	226	516	1027	546	
Ohio	99	19	6	5	13	5	8	56	95	181	73	
Indiana	92	5	16	11	9	13	2	56	53	55	65	
Illinois	123	22	5	8	12	6	6	59	134	123	141	
Michigan	71	5	4	10	3	9	4	35	214	645	207	
Wisconsin	29	2	4	3	4	6	1	20	20	23	60	
WEST NORTH CENTRAL												
Paralytic	79	3	10	7	5	9	7	41	292	71	48	
Total	141	8	15	17	11	13	8	72	499	153	127	
Minnesota	46	2	4	4	1	5	5	21	109	10	18	
Iowa	21	1	3	-	5	2	-	11	123	37	36	
Missouri	29	2	2	5	4	2	3	18	155	61	31	
North Dakota	10	1	-	2	-	1	-	4	9	18	6	
South Dakota	4	-	-	1	-	-	-	1	5	1	8	
Nebraska	13	1	4	1	1	1	-	8	34	13	18	
Kansas	18	1	2	4	-	2	-	9	64	13	10	

* 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:		
		9-3	9-10	9-17	9-24	10-1	10-8		1959	1958	1957
SOUTH ATLANTIC											
Paralytic	313	23	11	24	30	32	35	155	326	150	108
Total	420	34	16	32	33	37	38	190	409	223	194
Delaware	-	-	-	-	-	-	-	-	3	5	-
Maryland	93	4	2	11	17	21	21	76	18	7	5
D. C.	-	-	-	-	-	-	-	-	3	-	34
Virginia	22	1	2	4	2	3	2	14	104	43	35
West Virginia	38	8	-	2	3	2	4	19	89	83	24
North Carolina	78	8	5	5	2	2	6	28	90	25	34
South Carolina	122	8	4	6	6	7	5	36	31	7	25
Georgia	16	-	3	2	1	1	-	7	41	15	12
Florida	51	5	-	2	2	1	-	10	30	38	25
EAST SOUTH CENTRAL											
Paralytic	75	5	2	2	9	3	4	25	187	50	44
Total	174	29	5	3	30	20	7	94	257	81	88
Kentucky	94	22	3	-	20	17	-	62	46	13	34
Tennessee	34	4	1	2	7	1	4	19	128	32	41
Alabama	15	1	1	-	2	1	1	6	57	10	8
Mississippi	31	2	-	1	1	1	2	7	26	26	5
WEST SOUTH CENTRAL											
Paralytic	142	12	6	7	9	10	6	50	159	126	76
Total	238	25	8	9	12	15	11	80	262	183	157
Arkansas	27	5	1	1	3	2	1	13	102	8	11
Louisiana	47	-	-	-	4	-	4	8	33	24	35
Oklahoma	14	-	2	2	-	2	-	6	27	12	27
Texas	150	20	5	6	5	11	6	53	100	139	84
MOUNTAIN											
Paralytic	34	2	1	3	3	5	1	15	33	21	16
Total	68	4	10	5	3	5	1	28	58	51	54
Montana	16	-	-	-	1	2	-	3	1	19	4
Idaho	5	-	-	-	-	-	-	-	1	6	10
Wyoming	18	1	8	2	-	-	-	11	-	1	3
Colorado	13	1	1	2	2	2	-	8	12	8	16
New Mexico	7	1	1	1	-	1	-	4	13	3	6
Arizona	4	-	-	-	-	-	-	-	24	8	9
Utah	5	1	-	-	-	-	1	2	4	4	6
Nevada	-	-	-	-	-	-	-	-	3	2	-
PACIFIC											
Paralytic	375	22	21	22	21	9	12	107	223	76	60
Total	434	25	21	24	25	16	12	123	250	98	144
Alaska	2	-	-	-	-	-	-	-	6	1	1
Washington	31	3	-	2	6	-	3	14	80	7	4
Oregon	31	3	-	1	2	3	-	9	51	14	2
California	363	18	21	21	17	13	9	99	112	64	131
Hawaii	7	1	-	-	-	-	-	1	1	12	6
TERRITORIES											
Puerto Rico	455	14	7	9	16	5	8	59	1	2	8

Table II

PARALYTIC POLIOMYELITIS OCCURRING WITHIN 30 DAYS OF LAST VACCINE INOCULATION
(Cases Reported to PSU from October 4 through October 10, 1960)

State	County	Ini- tials	Age	Sex	Date Inoc.	Mfr. Lot No.	Date First Symp.	Site Inoc.	Site First Para.
Calif.	Los Angeles	D.G.	3	M	8-23-60	Wyeth 36201	9-3-60	arm	lower extremities
Ky.	Jefferson	H.O.	11	M	8-60	Unk. Unk.	9-2-60	Unk.	Unk.
Ky.	Pulaski	R.D.	23 mos.	M	9-9-60	Unk. Unk.	9-19-60	Unk.	right lower extremity
Md.	Baltimore City	M.S.	1	M	2 wks. before onset	Unk. Unk.	9-13-60	Unk.	Unk.
New York	Cattaraugus	K.F.	2	F	9-15-60	Lilly 3177- 755918	9-20-60	left arm	right leg
S.C.	Oconee	R.S.	6	F	8-15-60	Unk. Unk.	8-25-60	Unk.	Unk.
Note: Patient died 8-30-60									
S.C.	Union	J.D.	2	M	7-19-60	Wyeth Unk.	7-26-60	left arm	Unk.
S.C.	Union	M.R.	6	M	8-12-60	Unk. Unk.	8-27-60	left arm	Unk.

Table III

POLIOMYELITIS AND QUADRUPLE ANTIGEN VACCINE REPORTS

(Data provided by the Polio Vaccine Activity, BSS, USPHS, through September 30, 1960)

POLIOMYELITIS VACCINE SHIPPED (1000's cc's)

Period	National Foundation	Public Agencies	Commercial Channels	Domestic Total	Export
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
July	--	2,740	2,282	5,022	430
August	1	2,937	2,558	5,496	293
<u>WEEK ENDING</u>					
9-9	--	355	431	786	36
9-16	--	420	486	906	64
9-23	--	236	448	684	224
1960 Total to Date	1	17,135	21,339	38,475	7,326
Cumulative Total	14,253	165,334	156,280	335,867	81,319

QUADRUPLE ANTIGEN VACCINE SHIPPED (1000's)

1959		157	4,020	4,177	59
1960					
Jan-March		118	1,308	1,426	65
April-June		165	1,928	2,093	62
July		47	589	636	20
August		128	797	925	28
<u>WEEK ENDING</u>					
9-9		5	129	134	2
9-16		22	105	127	5
9-23		9	80	89	1
1960 Total to Date		494	4,936	5,430	182
Cumulative Total		651	8,956	9,607	241
GRAND TOTAL	14,253	165,985	165,236	345,474	81,560

