



POLIOMYELITIS SURVEILLANCE REPORT

FOR ADMINISTRATIVE USE

REPORT NO. 244

October 27, 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 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 has been an increase in the number of poliomyelitis cases reported for the current week ending October 21. A total of 59 cases, 39 paralytic, were reported compared to the 35 cases, including 20 paralytic, which were reported during the previous week.

Although there has been an increase in reported cases, they have been scattered geographically with no significant concentration. The only new cluster of cases noted is in Milwaukee County, Wisconsin. Narrative reports are included from Wisconsin, Louisiana, and Ohio.

1. CURRENT POLIOMYELITIS MORBIDITY TRENDS

Although an increase in reported cases occurred during the 42nd week ending October 21, 1961, the total of 59 cases, 39 paralytic, remains quite low as compared to the same week in 1960 when 140 cases, 93 paralytic, were reported.

Six-week totals for the 37th through 42nd week, for the past five years are shown below:

Six-Week Totals (37th through 42nd week)

	<u>1961</u>	<u>1960</u>	<u>1959</u>	<u>1958</u>	<u>1957</u>
Paralytic	243	650	1,587	1,038	533
Total	400	945	2,248	2,147	1,223

New York State reported nine cases which were from eight scattered counties, none having occurred in the Syracuse area. Ohio, Wisconsin, West Virginia and California reported five cases each, while Indiana, Missouri, North Carolina and Louisiana reported four. No current localized outbreaks are in progress; small aggregations have been noted in Wisconsin, Louisiana, and Ohio and are commented upon in Section 2. No new cases have occurred in Newberry County, South Carolina.

2. REPORTS

A. Wisconsin

The report of four paralytic cases and one nonparalytic case from Wisconsin this week brings the cumulative 1961 total for this State to 27. Thirteen of these cases have occurred in Milwaukee City or County. Poliomyelitis Surveillance Forms have been received on twelve of these patients and show all of the cases from this area to have been paralytic. This is shown as follows:

<u>Date of Onset</u>	<u>Age</u>	<u>Race</u>	<u>Sex</u>	<u>Vaccination Status</u>	<u>Paralytic Status</u>	<u>Laboratory Isolation</u>
6/4	3	N	M	OV	P	Type I
7/22	10	W	M	3V	P	
8/8	22	W	F	OV	P	
8/11	6 mos.	W	M	OV	P	Type III
8/15	17	W	M	3V	P (Death)	
8/27	16	W	M	3V	P	
9/1	32	W	M	OV	P	
9/1	4	W	F	OV	P	Type III
9/2	6	W	M	2V	P	
9/10	3	W	M	OV	P	Type III
9/14	8	W	M	OV	P (Death)	
9/30	18	W	F	OV	P	

Only three of the twelve cases had received as many as 3 doses of inactivated poliovirus vaccine. Six of the twelve cases have had onset since September 1, 1961; no cases are reported as yet with onset in October.

B. Louisiana

There have been 13 cases of poliomyelitis, 12 paralytic, reported by Louisiana during the past four weeks (See Table I). Poliomyelitis Surveillance Forms reveal that one paralytic case had occurred in each of eight parishes (counties) with the remaining four occurring in New Orleans.

There have now been 12 paralytic cases in New Orleans with onset in 1961. The 12 cases have occurred throughout the year as follows:

<u>Month of Onset</u>	<u>Vaccination History</u>			<u>Total</u>
	<u>0</u>	<u>1-2</u>	<u>3+</u>	
April	1	0	0	1
May	0	0	0	0
June	3	0	0	3
July	2	1	0	3
August	1	0	1	2
September	2	0	1	3
Total	9	1	2	12

As shown above, 75 percent of the cases were unvaccinated and no more than three cases occurred in any one month. Ten of the 12 cases have been in the Negro population and all but 3 of the 12 cases have been under 7 years of age. Type I poliovirus has been isolated from 11 of the 12 cases; the 12th case yielded a Type III poliovirus. There have also been two cases of nonparalytic poliomyelitis, with onset in July, from which Type I poliovirus was

isolated. Follow-up reports received on 7 of the 12 cases show two cases with complete recovery, two with minor involvement and three with significant disability.

The Louisiana Weekly Report on Poliomyelitis compares 1961 to the past two years as follows:

Poliomyelitis Through 42nd Week

	<u>1961</u>	<u>1960</u>	<u>1959</u>
Paralytic	38	29	83
Total	48	48	120

C. Ohio

Dr. Winslow Bashe, Jr., Chief, Communicable Disease Division, Ohio Department of Health, has reported sixteen cases of poliomyelitis during the past four weeks. Of this total, 8 have been paralytic, 6 nonparalytic and 2 unspecified as to paralytic status. The 8 paralytic cases have occurred in 6 different counties. Of these cases, one had onset in August, 5 in September and 2 in October. Five of the 8 cases had received no inactivated vaccine, the other 3 were triply vaccinated.

Populous Franklin County (Columbus) has accounted for 6 paralytic cases during this year, the largest number of paralytic cases to occur in any one Ohio county during 1961. Of the 6 cases, 4 occurred prior to September and 2 occurred during the first week in October, both unvaccinated adults. There have been 4 Type I isolations made from the Franklin County cases.

	<u>0</u>	<u>1-2</u>	<u>3</u>	<u>Total</u>
April	1	0	0	1
May	0	0	0	0
June	2	0	0	2
July	0	1	0	1
August	1	0	0	1
September	2	0	0	2
<u>Total</u>	<u>6</u>	<u>1</u>	<u>0</u>	<u>7</u>

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

3. 1961 POLIOMYELITIS REPORTED TO PSU

Through October 21, there have been 817 cases of poliomyelitis, with onset in 1961, submitted on individual case forms to the Poliomyelitis Surveillance Unit. Of the 817 cases, 587 (72 percent) are paralytic, 198 nonparalytic and 32 unspecified as to paralytic status. These cases are presented below in Table 3 by paralytic status, age group and vaccination history.

The 817 cases submitted to PSU represent three-fourths of the 1,080 cases reported to CDC on the weekly telegraphic reports. This is shown in the following table.

	Poliomyelitis Through October 21, 1961		
	Telegraphic Reports	PSU Forms	% Received on PSU Forms
Paralytic	693	587	84.7
Nonparalytic	256	198	77.3
Unspecified	131	32	24.4
TOTAL	1080	817	75.6

Table 3

POLIOMYELITIS CASES BY PARALYTIC STATUS, AGE GROUP AND VACCINATION HISTORY REPORTED ON PSU FORMS (Through October 21, 1961)								
Age Group	Paralytic						TOTAL	Percent
	Doses of Vaccine							
	0	1	2	3	4+	Unk		
0-4	129	23	18	25	17	5	227	38.7
5-9	32	8	11	29	28	5	113	19.3
10-14	19	5	8	17	19	3	71	12.1
15-19	10	0	6	14	3	3	36	6.1
20-29	40	5	6	11	3	1	66	11.2
30-39	33	5	2	2	3	5	50	8.5
40+	19	0	0	1	1	3	24	4.1
TOTAL	282	46	51	99	74	35	587	100.0
PERCENT DOSES	51.1	8.3	9.2	17.9	13.4	-	100.0	

Table 3 (Continued)

POLIOMYELITIS CASES BY PARALYTIC STATUS, AGE GROUP
AND VACCINATION HISTORY REPORTED ON PSU FORMS
(Through October 21, 1961)

Age Group	Nonparalytic						TOTAL	Percent
	Doses of Vaccine							
	0	1	2	3	4+	Unk		
0-4	16	1	7	7	4	3	38	19.2
5-9	9	0	4	17	19	3	52	26.3
10-14	2	3	6	14	14	6	45	22.7
15-19	2	0	4	5	4	0	15	7.6
20-29	6	0	4	10	8	4	32	16.2
30-39	9	0	0	4	0	1	14	7.1
40+	0	0	0	0	2	0	2	1.0
TOTAL	44	4	25	57	51	17	198	100.0
PERCENT								
DOSES	24.3	2.2	13.8	31.5	28.2	-	100.0	

4. ROUTINE POLIOMYELITIS SURVEILLANCE

A. Cases with Onset Within 30 Days of Vaccination (Inactivated)

Two delayed reports of paralytic poliomyelitis within 30 days of receiving inactivated vaccine (IPV) have been received by the Poliomyelitis Surveillance Unit during the past week ending October 21. Both cases occurred in Madison County, New York with onset in early August. The manufacturer and lot number of vaccine used is being investigated as part of routine poliomyelitis surveillance.

This brings the 1961 total of under 30-day cases (IPV) to 17, of which 13 are paralytic (two correlated).

B. Cases with Onset Within 30 Days of Vaccination (Oral)

An additional case of paralytic poliomyelitis within 30 days of receiving oral vaccine (OPV) has been reported to the Poliomyelitis Surveillance Unit during the past week ending October 21. This case, a 27-year old female, was fed Type I oral vaccine on August 30 and had onset on September 2, in Onondaga County, New York. This brings the 1961 total of under 30-day cases (OPV) to 27, of which 22 are paralytic.

C. Vaccine Distribution

A summary of current and cumulative shipments of poliomyelitis and multiple antigen vaccines through September, 1961, is presented in Table II. Also included in this report is Figure 2 which depicts the quarterly shipments of vaccine since 1955.

5. ENTEROVIRUS SURVEILLANCE

The non-polio enterovirus isolations reported to the Poliomyelitis Surveillance Unit from 1961 specimens were presented last week (PSU Report #243). Since that time, the following note of interest has been received from the Boston area. This represents the second report this year from a laboratory source other than a state health department (the first stemming from Dr. G. D. Hsiang at Yale). This report will be incorporated into our next table of enterovirus isolation as will reports from any other source.

The following enterovirus isolations were made during the months of August and September and reported from the laboratory of Dr. John F. Enders, Research Division of Infectious Diseases, Children's Medical Center, Boston. Specimens were obtained primarily from patients seen at the Children's Medical Center but also included material provided from other hospitals in the Boston area. The majority of cases were diagnosed clinically as aseptic meningitis and were shown to be due to four Coxsackie viruses, Coxsackie B₅ predominating.

<u>Clinical Syndrome</u>	<u>Patients Studied</u>	<u>Virus Isolations</u>	<u>Percent Isolations</u>	<u>Agents Identified</u>	<u>No. Isolated</u>
Aseptic Meningitis	47	23	49	Coxsackie A ₉	1
				Coxsackie B ₂	2
				Coxsackie B ₄	2
				Coxsackie B ₅	10
				Untyped	8
Cerebellar Ataxia	1	1*	-	Coxsackie B ₄	
Guillian - Barre Syndrome	1	1*	-	ECHO (Untyped)	
Encephalitis	1	1*	-	Coxsackie B ₄	

* Isolation from both stool and throat swab.

Of the 23 isolations from the cases of aseptic meningitis, the following table shows the specimens processed.

<u>Specimen</u>	<u>No. Studied</u>	<u>No. Positive</u>	<u>Percent Positive</u>
Stool	41	17	41
Throat Swab	35	12	34
CSF	35	4**	11

- ** 1. Coxsackie A₉
 2. Coxsackie B₂
 3. Coxsackie B₅
 4. Untyped

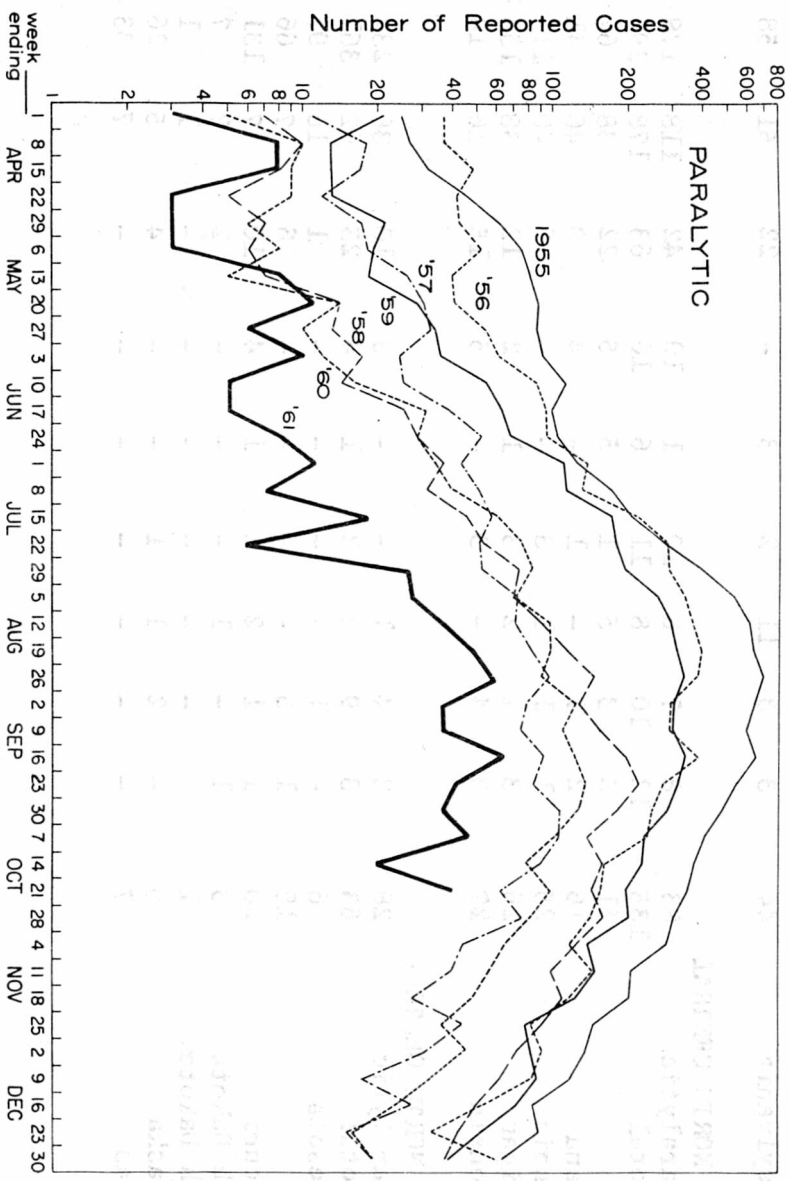
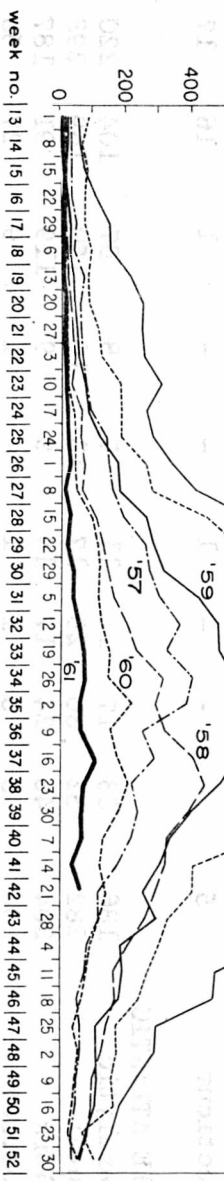
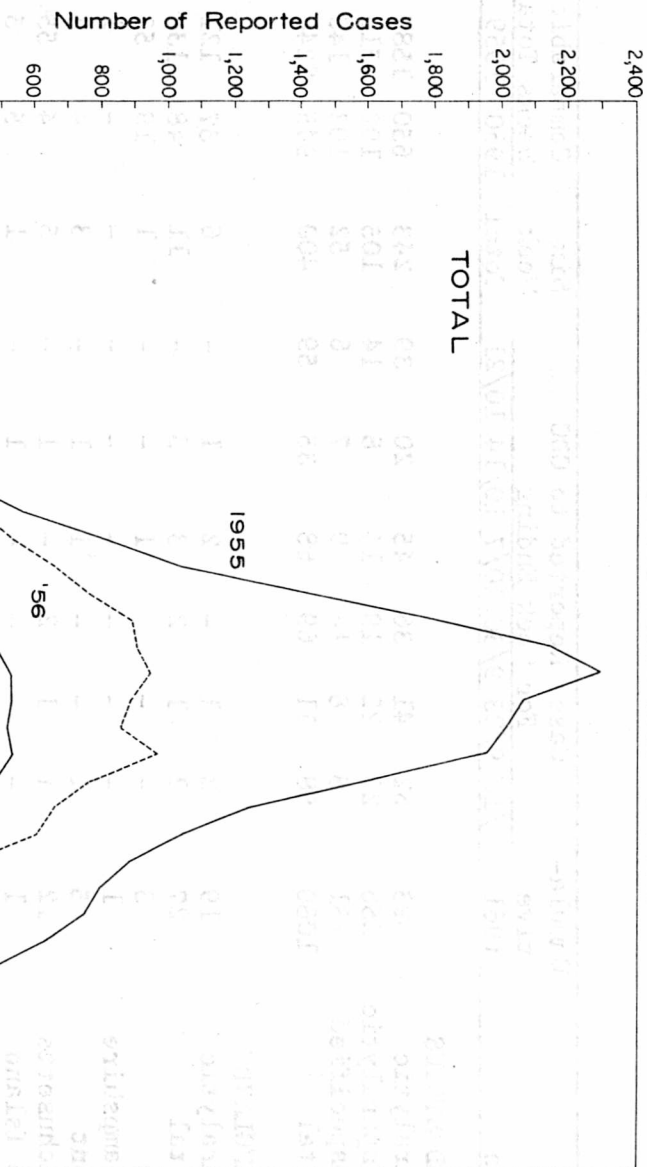


FIGURE 1

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



TREND OF 1961 POLIOMYELITIS INCIDENCE

State and Region	Cumulative 1961	Cases Reported to CDC For Week Ending						Six Week Total	Comparable Six Weeks Totals in		
		9/16	9/23	9/30	10/7	10/14	10/21		1960	1959	1958
UNITED STATES											
Paralytic	693	62	41	36	45	20	39	243	650	1587	1038
Nonparalytic	256	28	22	19	14	8	14	105	192	516	790
Unspecified	131	8	8	14	9	7	6	52	103	145	319
Total	1080	98	71	69	68	35	59	400	945	2248	2147
NEW ENGLAND											
Paralytic	19	2	1	-	2	1	-	6	37	121	24
Total	27	2	1	2	3	3	-	11	48	134	30
Maine	3	-	-	-	1	-	-	1	19	53	-
New Hampshire	1	-	-	-	-	-	-	-	-	1	-
Vermont	5	1	-	-	1	1	-	3	4	3	4
Massachusetts	12	1	1	2	-	1	-	5	4	55	12
Rhode Island	1	-	-	-	-	1	-	1	5	5	1
Connecticut	5	-	-	-	1	-	-	1	16	17	13
MIDDLE ATLANTIC											
Paralytic	186	33	17	11	11	7	8	87	104	220	142
Total	282	52	30	29	17	12	10	150	169	298	279
New York	204	46	24	17	14	9	9	119	91	187	109
New Jersey	34	3	3	1	1	-	1	9	27	53	123
Pennsylvania	44	3	3	11	2	3	-	22	51	58	47
EAST NORTH CENTRAL											
Paralytic	83	8	7	6	10	1	10	42	118	178	367
Total	135	12	10	8	11	6	16	63	178	393	1037
Ohio	41	3	3	5	1	5	5	22	38	67	196
Indiana	16	2	1	-	1	-	4	8	46	41	48
Illinois	25	1	1	1	3	-	-	6	40	117	101
Michigan	26	3	1	2	3	1	2	12	38	154	670
Wisconsin	27	3	4	-	3	-	5	15	16	14	22
WEST NORTH CENTRAL											
Paralytic	28	2	4	1	-	-	3	10	36	232	73
Total	63	3	9	4	2	1	4	23	62	361	148
Minnesota	6	-	1	-	-	-	-	1	18	97	15
Iowa	18	1	5	-	-	-	-	6	7	66	24
Missouri	20	1	1	2	1	1	4	10	17	131	60
North Dakota	3	1	-	1	-	-	-	2	7	7	17
South Dakota	1	-	-	-	-	-	-	-	1	1	1
Nebraska	8	-	2	1	1	-	-	4	5	26	16
Kansas	7	-	-	-	-	-	-	-	7	33	15

Table I (Continued)

State and Region	Cumula- tive 1961	Cases Reported to CDC For Week Ending						Six Week Total	Comparable Six Weeks Totals in		
		9/16	9/23	9/30	10/7	10/14	10/21		1960	1959	1958
SOUTH ATLANTIC											
Paralytic	135	4	2	7	16	3	7	39	181	289	149
Total	185	8	5	7	19	4	14	57	207	348	231
Delaware	2	-	-	-	-	-	-	-	-	3	8
Maryland	28	1	-	3	1	-	1	6	103	25	8
D. C.	3	-	-	1	-	1	-	2	2	1	-
Virginia	10	1	1	1	-	-	-	3	20	77	47
West Virginia	29	1	3	1	1	1	5	12	19	66	81
North Carolina	21	2	1	-	3	-	4	10	20	87	25
South Carolina	32	3	-	-	14	2	1	20	25	27	8
Georgia	28	-	-	1	-	-	-	1	6	35	7
Florida	32	-	-	-	-	-	3	3	12	27	47
EAST SOUTH CENTRAL											
Paralytic	42	5	2	1	-	2	-	10	28	174	63
Total	74	7	4	4	3	3	-	21	97	215	98
Kentucky	27	2	-	2	3	1	-	8	61	51	17
Tennessee	17	-	3	1	-	-	-	4	20	103	34
Alabama	9	1	-	-	-	-	-	1	10	37	11
Mississippi	21	4	1	1	-	2	-	8	6	24	36
WEST SOUTH CENTRAL											
Paralytic	75	3	3	4	4	2	5	21	48	132	111
Total	139	7	5	9	8	2	5	36	67	220	162
Arkansas	17	-	4	-	-	1	-	5	11	83	8
Louisiana	49	3	-	4	4	1	4	16	9	19	26
Oklahoma	4	-	-	-	1	-	-	1	6	21	11
Texas	69	4	1	5	3	-	1	14	41	97	117
MOUNTAIN											
Paralytic	25	-	-	1	-	-	1	2	16	20	22
Total	44	-	1	1	-	-	2	4	20	38	46
Montana	4	-	-	-	-	-	1	1	5	-	19
Idaho	14	-	1	-	-	-	-	1	2	1	4
Wyoming	-	-	-	-	-	-	-	-	3	-	1
Colorado	7	-	-	-	-	-	1	1	8	9	6
New Mexico	3	-	-	-	-	-	-	-	1	8	5
Arizona	8	-	-	1	-	-	-	1	-	16	6
Utah	8	-	-	-	-	-	-	-	1	3	4
Nevada	-	-	-	-	-	-	-	-	-	1	1
PACIFIC											
Paralytic	100	5	5	5	2	4	5	26	82	221	87
Total	131	7	6	5	5	4	8	35	97	241	116
Washington	23	1	1	-	2	-	1	5	11	80	16
Oregon	16	-	1	1	-	-	2	4	7	44	8
California	88	5	4	3	3	4	5	24	79	109	78
Alaska	-	-	-	-	-	-	-	-	-	7	1
Hawaii	4	1	-	1	-	-	-	2	-	1	13
TERRITORY											
Puerto Rico	6	1	-	-	-	-	-	1	49	1	1

Table II

THE NATIONAL FOUNDATIONMONTHLY REPORT OF POLIOMYELITIS VACCINE RELEASED AND SHIPPED*

(1,000 cc's)

September, 1961

	<u>SINGLE ANTIGEN</u>		<u>MULTIPLE ANTIGEN</u>		<u>TOTAL</u>	
	<u>This Month</u>	<u>To Date</u>	<u>This Month</u>	<u>To Date</u>	<u>This Month</u>	<u>To Date</u>
CC. Released	5,714	505,592	78	15,586	5,792	521,178
CC. Shipped:						
National Foundation	0	14,261	0	0	0	14,261
Public Agencies	1,475	180,734	2	1,412	1,477	182,146
Commercial Channels	<u>2,551</u>	<u>184,051</u>	<u>42</u>	<u>13,355</u>	<u>2,593</u>	<u>197,406</u>
Domestic Total	4,026	379,046	44	14,767	4,070	393,813
Export	250	108,883	0	634	250	109,517

CC. UNSHIPED, END OF MONTH**

(1,000 cc's)

	<u>1960</u>	<u>1961</u>
January	19,459	14,755
February	20,965	15,737
March	27,062	13,414
April	27,216	10,887
May	24,846	6,448
June	24,620	6,558
July	23,830	4,233
August	24,525	4,599
September	23,091	6,181
October	19,565	
November	16,319	
December	15,669	

* Includes manufacturers' adjustments of previously reported figures.

** Excludes outdated vaccine removed from inventory.

FIGURE 2

QUARTERLY SHIPMENTS OF POLIOMYELITIS VACCINE
1955-1961

