REPORT NO. 266
AUGUST 24, 1962

COMMUNICABLE DISEASE CENTER

POLIOMYELITIS

SURVEILLANCE

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U. S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE

PREFACE

Summarized in this report is information received from State Health Departments, university investigators, virology laboratories and other pertinent sources, domestic and foreign. Much of the information is preliminary. It is intended primarily for the use of those with responsibility for disease control activities. Anyone desiring to quote this report should contact the original investigator for confirmation and interpretation.

Contributions to the Surveillance Report are most welcome. Please address to: Chief, Poliomyelitis Surveillance Unit, Communicable Disease Center, Atlanta 22, Georgia.

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Statistics Section	Robert E. Serfling, Ph.D., Chief
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SUMMARY

During the two-week period ending August 18, 1962, a total of 50 cases of poliomyelitis, 45 paralytic, were reported by State Health Departments. This is in marked contrast to the 123 cases, 84 paralytic, noted during the similar two-week period in 1962.

In Section 2, narrative reports concerning localized outbreaks in Kentucky, Pennsylvania, and Virginia are given. Specific measures taken in each of these situations to limit further occurrence of poliomyelitis are described.

A summary of paralytic cases occurring during 1962 submitted on individual case forms, and a summary of cases occurring within 30 days of vaccination are presented in Sections 3 and 4.

Appended is a special report concerning the problem of recent cases of poliomyelitis occurring within 30 days following oral vaccine administration.

1. CURRENT POLIOMYELITIS MORBIDITY TRENDS

A total of 50 cases of poliomyelitis was reported during the two week period ending August 18. Twenty-three cases, 21 paralytic, were reported for the current week ending August 18. There were 27 cases reported the previous week, 24 of which were paralytic. A total of 123 cases were reported for the same two week period in 1961.

Thirteen States reported cases of poliomyelitis during this two-week period. Texas accounted for 19 of the cases, 13 of which were paralytic. Of the remaining 12 States who reported poliomyelitis, none reported more than 3 cases.

The total number of cases thus far this year remains below the total for the similar period in any previous year.

Polio (Cumulated Weekly) Through 33rd Week for Past Five Years

	1962	1961	1960	1959	1958
Paralytic	296	322	874	2201	835
Total	381	482	1224	3401	1691

Six-Week Totals (28th thru 33rd Week) for Past Five Years

	1962	1961	1960	1959	1958
Paralytic	121	160	489	1396	467
Total	155	233	706	2198	981

Although not yet included in the official telegraphic report, four cases have occurred in both Pennsylvania and Kentucky in localized concentrations. Reports from these two outbreaks in addition to a report of a concentration in Virginia is included in Section 2.

2. STATE REPORTS

A. Kentucky

Mr. Clifford Todd, Director of Preventive Medicine, Kentucky State Department of Health, reports that four cases of paralytic poliomyelitis were reported to the Kentucky State Department of Health on August 13. (They have not yet been included in the official telegraphic report.) The four cases, from Fleming County, in the Northeastern portion of the State had onset in August; an earlier case occurred in July. Two of the four were siblings and all four were cousins and household contacts of the earlier case in the community of Flemmingsburg.

A line listing of these cases appears below.

Age	Race	Sex	Onset	IPV	OPV	Paralytic Status
23 mos.	W	F	7-16	0	0	P
14 mos.	W	F	8-11	0	0	P
6 yrs.	W	F	8-11	0	0	P
4 yrs.	W	F	8-12	0	0	P
12 yrs.	W	F	8-12	0	0	P

A Type I poliovirus was recovered from the first patient; Type I oral polio vaccine was offered to the 13,000 persons in the county on August 19, by the Kentucky State Department of Health.

B. Pennsylvania

Between July 15, and August 2, four cases of poliomyelitis occurred in Cambria County, Pennsylvania. These cases, all in the borough of Patton (population 3,200) represent the only known cases of poliomyelitis in Pennsylvania this year. Three cases are paralytic, one died. Type I poliovirus has been isolated from two of the cases as follows:

Case No.	Onset	Age	Race	Sex	Inactivated Polio Vaccine	Oral Polio Vaccine	Virus Isolated	Comments
1*	7-15	8	W	F	0	0	Type I	Paralysis left leg
2*	7-15	11	W	M	0	0	No Spec. Collected	Bulbar-Died 7-20-62
3	7-31	13	W	M	4	0	Type I	Weakness right arm and hand
4	8-2	8	W	F	0	0	-	Non-paralytic

*Siblings

Under the direction of Dr. William D. Schrack, Jr., Director, Communicable Disease Control, and Dr. I.F. Gratch, Director, Section of Epidemiology, Pennsylvania Department of Health, a mass immunization program was held on August 17-18. More than 13,000 persons from Cambria County received Type I oral polio vaccine supplied from the epidemic vaccine reserve of the Communicable Disease Center. On August 16, 73 stool specimens for virologic study were collected in the community in an attempt to estimate the prevalence of Type I poliovirus in Patton prior to the mass immunization.

Dr. John J. Witte, Poliomyelitis Surveillance Unit, joined Drs. Schrack and Gratch in the investigation of the cases and in administering the vaccine.

C. Virginia

Dr. Fred Spencer, Director of Communicable Disease Control, Virginia State Department of Health, reports 3 cases of poliomyelitis for the week ending August 11, 1962. All three cases occurred in Washington County in the Southwestern portion of the State, which, interestingly, along with other counties in the area was involved in an extensive Type I outbreak in 1958 (See PSU Report No. 160, dated December 5, 1958).

Two cases are from the town of Damascus (population 1,726), and were clearly paralytic. The third occurring in neighboring Bristol had no paralytic involvement. A line listing of these three patients is shown below.

Onset	Town	Age	Race	Sex	IPV	Paralytic Status
7-28	Damascus	11	W	M	2	Both legs
8-4	Damascus	2	W	F	1 (day of onset)	Left leg
8-5	Rt. 4, Bristol	3	W	M	0	Aseptic Meningitis

Type III poliovirus was recovered from the two patients residing in Damascus. On August 22, the community of Damascus was offered Type III oral polio vaccine by the Virginia State Department of Health. Over 2,200 persons responded.

3. 1962 PARALYTIC POLIOMYELITIS CASES REPORTED TO PSU

Of the 296 cases of paralytic poliomyelitis reported through the week ending August 18, 275 had onset in 1962. The Poliomyelitis Surveillance Unit has received individual case forms on 214 of the 275

paralytic cases. The vaccination status of the 214 paralytic cases by age group is shown below. One hundred twenty-six (62.4 percent) of the 202 cases with known vaccination history were not vaccinated. Seventy-six of the 126 cases were in the 0-4 age group.

Paralytic Poliomyelitis by Age Group
And Vaccination History Reported on PSU Forms
(Through August 22, 1962)

Age Group	Doses of Inactivated Vaccine					Total	Percent
	0V	1-2V	3V	4+V	Unk.		
0-4	76	23	6	5	6	116	54.2
5-9	18	4	6	8	1	37	17.3
10-14	8	2	6	1	1	18	8.4
15-19	3	1	4	0	0	8	3.7
20-29	9	4	1	1	2	17	7.9
30-39	6	1	0	2	1	10	4.7
40+	6	1	0	0	1	8	3.7
TOTAL	126	36	23	17	12	214	100.0
PERCENT DOSES	62.4	17.8	11.4	8.4	-	100.0	

To date in 1962, the Poliomyelitis Surveillance Unit has received results of virological studies on 103 of the 214 paralytic cases. Poliovirus isolations have been reported on 88 (85 percent) of the 103 cases. Of these, 74 are Type I and 14 are Type III poliovirus. Texas has accounted for more than half of the isolates. The isolates have been reported from the following States.

State	Poliovirus			Total
	I	II	III	
Alabama	2	0	0	2
Arizona	2	0	0	2
California	2	0	2	4
Colorado	1	0	0	1
Georgia	1	0	1	2
Illinois	3	0	1	4
Kentucky	3	0	1	4
Louisiana	2	0	0	2
Massachusetts	2	0	0	2
Michigan	0	0	1	1
Minnesota	2	0	0	2
Mississippi	0	0	1	1
Montana	1	0	0	1
New York	4	0	0	4
Ohio	0	0	2	2
Oregon	0	0	3	3
Texas	47	0	2	49
Utah	1	0	0	1
Wyoming	1	0	0	1
TOTAL	74	0	14	88

4. ROUTINE POLIOMYELITIS SURVEILLANCE - 1962

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

During the two-week period ending August 18, there have been no cases of poliomyelitis with onset within 30 days of vaccination with inactivated vaccine reported to the Poliomyelitis Surveillance Unit.

The total remains at 9 under-30-day cases reported, including 6 paralytic.

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

Five cases of paralytic poliomyelitis occurring within 30 days following administration of the oral vaccine were submitted to the Poliomyelitis Surveillance Unit during the past two weeks. Michigan and Texas reported two cases each and New York accounted for one case. All five had received oral polio vaccine during mass community feedings. A detailed listing of these cases is presented below:

State	County	Age	Sex	Onset	Date Fed	Type Fed	Onset Interval
Michigan	Branch	24	M	7-15	6-29	III	16 days
Michigan	Midland	30	F	7-20	6-28	III	22 days
New York	Nassau	3	M	5-29	5-6	I	23 days
Texas	Dallas	3	M	7-30	7-29	I	1 day
Texas	Dallas	6	F	8-3	7-29	I	5 days

To date in 1962, there have been 24 under-30-day cases, 23 paralytic. reported. Thirteen have been associated with mass vaccination programs in Texas.

Figure 1

CURRENT U.S. POLIO INCIDENCE
COMPARED WITH YEARS 1957, 1959, and 1961
APRIL–AUGUST, BY WEEK

DATA PROVIDED BY NATIONAL OFFICE OF VITAL STATISTICS
AND COMMUNICABLE DISEASE CENTER

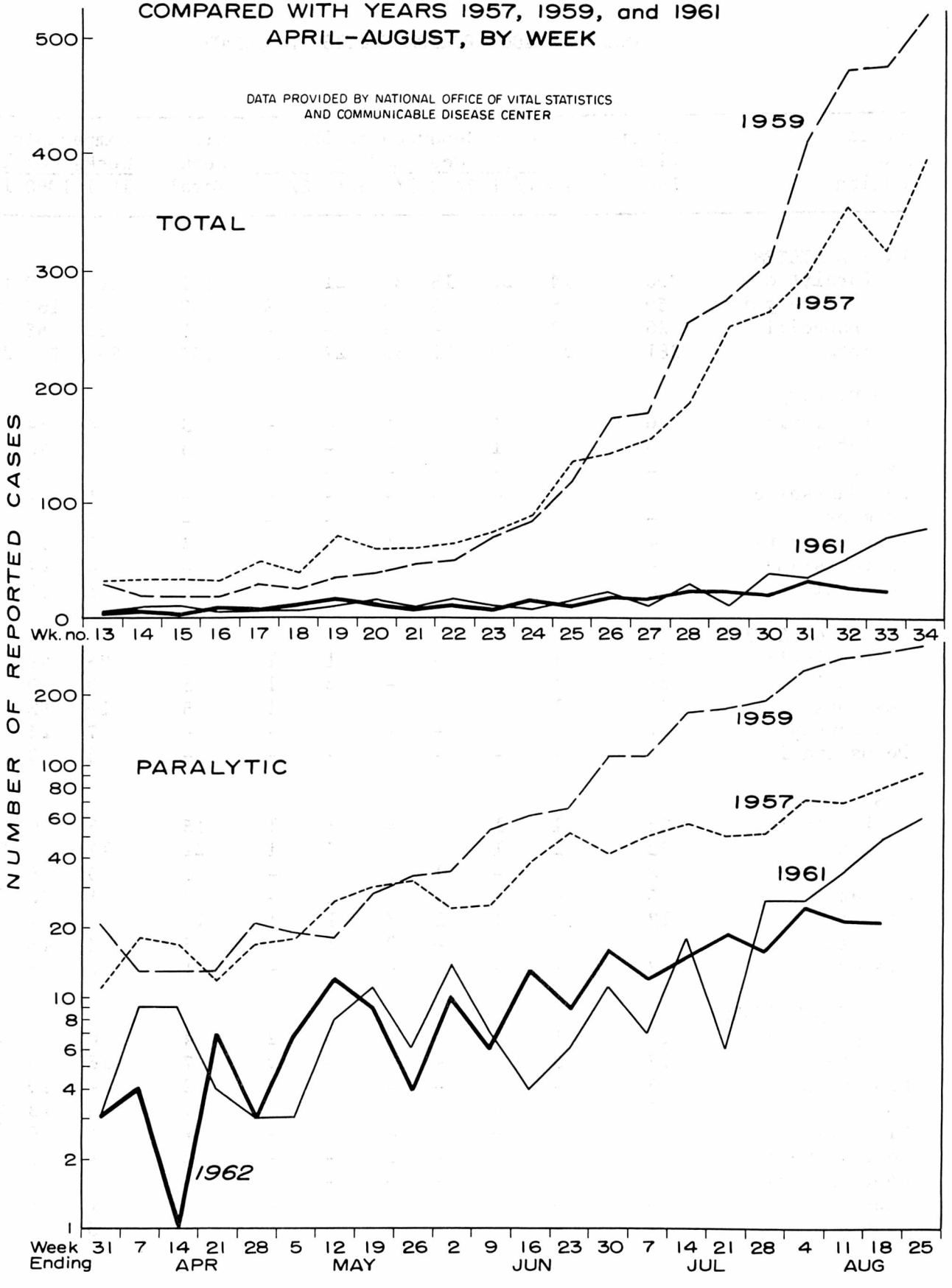

Table I

TREND OF 1962 POLIOMYELITIS INCIDENCE

State and Region	Cumulative 1962	Cases Reported to CDC For Week Ending 7/14	7/21	7/28	8/4	8/11	8/18	Six Week Total	Comparable Six Weeks Totals in 1961	1960	1959
UNITED STATES											
Paralytic	296	14	22	18	25	21	21	121	160	489	1396
Nonparalytic	59	8	5	3	3	6	2	27	51	162	627
Unspecified	26	3	-	-	4	-	-	7	22	55	175
Total	381	25	27	21	32	27	23	155	233	706	2198
NEW ENGLAND											
Paralytic	6	1	1	-	1	-	-	3	4	54	56
Total	6	1	1	-	1	-	-	3	6	70	87
Maine	-	-	-	-	-	-	-	-	-	1	1
New Hampshire	-	-	-	-	-	-	-	-	1	-	1
Vermont	-	-	-	-	-	-	-	-	3	1	-
Massachusetts	4	-	1	-	1	-	-	2	1	11	20
Rhode Island	-	-	-	-	-	-	-	-	-	47	-
Connecticut	2	1	-	-	-	-	-	1	1	10	65
MIDDLE ATLANTIC											
Paralytic	24	1	1	-	-	1	1	4	25	79	83
Total	38	1	1	-	-	2	1	5	30	99	140
New York	37	1	1	-	-	2	1	5	19	52	80
New Jersey	1	-	-	-	-	-	-	-	7	24	22
Pennsylvania	-	-	-	-	-	-	-	-	4	23	38
EAST NORTH CENTRAL											
Paralytic	22	1	1	3	4	5	1	15	6	66	125
Total	32	2	1	4	9	5	1	22	17	108	276
Ohio	8	-	-	1	2	-	-	3	3	15	70
Indiana	5	-	-	1	-	1	-	2	1	30	47
Illinois	12	2	1	1	5	1	1	11	7	41	53
Michigan	5	-	-	-	2	3	-	5	4	18	94
Wisconsin	2	-	-	1	-	-	-	1	2	4	12
WEST NORTH CENTRAL											
Paralytic	10	1	-	-	1	-	2	4	6	22	256
Total	17	3	-	-	2	-	2	7	16	38	505
Minnesota	5	-	-	-	-	-	2	2	-	10	61
Iowa	5	2	-	-	-	-	-	2	8	3	152
Missouri	5	1	-	-	-	-	-	1	1	6	160
North Dakota	2	-	-	-	2	-	-	2	1	5	2
South Dakota	-	-	-	-	-	-	-	-	-	2	6
Nebraska	-	-	-	-	-	-	-	-	1	5	57
Kansas	-	-	-	-	-	-	-	-	5	7	67

Table I (Continued)

State and Region	Cumulative 1962	Cases Reported to CDC For Week Ending 7/14	7/21	7/28	8/4	8/11	8/18	Six Week Total	Comparable Six Weeks Totals in 1961	1960	1959
SOUTH ATLANTIC											
Paralytic	23	1	–	2	1	4	3	11	57	83	240
Total	27	1	–	2	1	5	3	12	66	128	310
Delaware	–	–	–	–	–	–	–	–	–	–	1
Maryland	–	–	–	–	–	–	–	–	16	6	7
D. C.	1	–	–	–	–	–	–	–	1	–	3
Virginia	6	–	–	1	–	3	–	4	5	7	82
West Virginia	3	1	–	–	–	–	–	1	6	9	30
North Carolina	2	–	–	–	–	–	–	–	4	20	80
South Carolina	4	–	–	1	–	–	2	3	6	72	18
Georgia	5	–	–	–	–	2	1	3	11	2	49
Florida	6	–	–	–	1	–	–	1	17	12	40
EAST SOUTH CENTRAL											
Paralytic	14	1	–	4	2	1	1	9	13	31	205
Total	18	2	–	4	2	1	1	10	15	47	254
Kentucky	8	2	–	1	2	–	–	5	2	14	15
Tennessee	4	–	–	–	–	1	–	1	5	9	106
Alabama	3	–	–	1	–	–	–	1	5	7	111
Mississippi	3	–	–	2	–	–	1	3	3	17	22
WEST SOUTH CENTRAL											
Paralytic	153	6	14	8	13	9	10	60	19	49	255
Total	193	11	19	10	14	13	12	79	43	85	397
Arkansas	5	–	–	–	1	2	1	4	5	9	97
Louisiana	11	1	–	1	1	–	1	4	13	16	40
Oklahoma	5	1	–	–	1	–	2	4	3	5	65
Texas	172	9	19	9	11	11	8	67	22	55	195
MOUNTAIN											
Paralytic	8	–	–	–	1	–	–	1	9	6	21
Total	10	1	–	–	1	–	–	2	15	16	44
Montana	3	–	–	–	–	–	–	–	1	3	4
Idaho	1	–	–	–	1	–	–	1	8	1	2
Wyoming	1	–	–	–	–	–	–	–	–	6	–
Colorado	1	1	–	–	–	–	–	1	2	3	5
New Mexico	–	–	–	–	–	–	–	–	2	–	10
Arizona	3	–	–	–	–	–	–	–	2	1	21
Utah	1	–	–	–	–	–	–	–	–	2	–
Nevada	–	–	–	–	–	–	–	–	–	–	2
PACIFIC											
Paralytic	36	2	5	1	2	1	3	14	21	99	155
Total	40	3	5	1	2	1	3	15	25	115	185
Washington	1	–	–	–	–	–	1	1	5	9	40
Oregon	5	–	3	–	–	–	–	3	4	4	48
California	33	3	2	1	2	1	2	11	16	100	87
Alaska	–	–	–	–	–	–	–	–	–	–	10
Hawaii	1	–	–	–	–	–	–	–	–	2	–
TERRITORY											
Puerto Rico	9	1	–	–	–	–	1	2	1	97	–

SUPPLEMENT TO CDC POLIOMYELITIS SURVEILLANCE REPORT NO. 266

U.S. Department of Health, Education, and Welfare

Public Health Service Bureau of State Services

COMMUNICABLE DISEASE CENTER
Atlanta 22, Georgia

SPECIAL REPORT

Cases of Poliomyelitis Occurring Within 30 Days Following Oral Vaccine Administration

A. Press Release from the Office of the Surgeon General, August 22, 1962

B. Background Information, Source of Data

C. Case Summaries and Oral Vaccine Usage

August 23, 1962

A. Press Release from the Office of the Surgeon General, August 22, 1962

In response to inquiries about occurrence of poliomyelitis this year and the projected program of polio immunization, Dr. Luther L. Terry, Surgeon General of the Public Health Service, today issued the following statement:

"As of August 11, the approximate mid-point of the polio season, 274 cases of paralytic polio had been reported to the Public Health Service: 129 of these were in Texas, where outbreaks of Type I have been occurring. The total of reported paralytic cases this year to date is identical to the comparable period last year which was a record low year.

"During the past seven years, almost 100 million persons have received inactivated vaccine; in the past year, we estimate that 19 million persons have received Type I oral vaccine. Six million have received Type II and 13 million Type III. This increasingly high level of immunization in the United States has been responsible for the spectacular decline in the disease.

"Since the summer of 1955, shortly after the Salk vaccine was first introduced, the Public Health Service has carried out careful surveillance of all polio cases reported in the U. S. to provide a measure of effectiveness of vaccination and to detect quickly any possible or suspected adverse effect. In addition, through this surveillance program, all cases diagnosed as poliomyelitis occurring within a 30 day period following vaccination have received special investigation (except for some cases in epidemic areas, since during epidemics a few cases which were incubating before administration of the vaccine will appear after the vaccine has been taken). With the licensure of the oral vaccine during the past year, this special surveillance has been extended to those cases appearing within 30 days of receiving the oral vaccine.

"Following administration of more than 38 million doses of oral vaccine, only 12 cases outside of the epidemic areas, including 5 from Oregon, have been reported, which had their onset of illness within 30 days of vaccination.

"Although the number was very small in relation to the number given vaccine and the diagnosis in certain of these cases seems questionable, I decided to call together members of my Advisory Committee to examine in detail the diagnoses, laboratory studies and epidemiological circumstances relating to each of the cases.

"The group met on two occasions, on August 9 and 16, and, after careful consideration of the facts, concluded that it was not possible to establish that the vaccine virus caused any one of the cases. The advisors emphasized that polio viruses, as well as other viruses, are frequently present in the community and that it can be anticipated that occasionally polio or illness simulating it may occur during or following vaccination programs.

"Illness and injury completely unrelated to polio, and naturally occurring cases of polio have continued, and, no doubt, will continue to be attributed incorrectly to the vaccine. Furthermore, it is well known and recognized that any effective medication administered to millions of persons will cause or appear to cause a number of side effects.

"The Commitee, in summary, urged the continuation of present and projected programs of immunization looking toward the final elimination of the disease.

"The Public Health Service will continue to conduct surveillance of polio and polio-like diseases. Since several of the cases studied by the Committee were adults particular attention will be paid to this group.

"With the additional reassurance provided by the careful studies undertaken by this group of polio experts, the Public Health Service continues to urge the maximum immunization effort so that the last vestige of polio can be stamped out in this country."

Members of the Advisory Committee representing the Surgeon General's Advisory Committee on Polio Control and the Surgeon General's Committee on Live Polio Vaccines are as follows:

Dr. Roderick Murray
Director, Division of Biologics Standards
National Institutes of Health
Bethesda, Maryland

Dr. John Paul
Department of Epidemiology
Yale Medical School
New Haven, Connecticut

Dr. John P. Fox
Chief, Division of Epidemiology
Public Health Research Institute for the
City of New York, Inc.
New York, New York

Dr. Albert B. Sabin
Children's Hospital Research Foundation
Cincinnati, Ohio

Dr. Hugh H. Hussey, Jr.
Dean, School of Medicine
Georgetown University
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Dr. Edward B. Shaw
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Dr. David Bodian
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The Committee meetings were held in Chicago, August 9, and in New York, August 16. Drs. Gray and Hussey participated in the Chicago meeting only.

B. Background Information, Source of Data

A possible relationship between the occurrence of paralytic poliomyelitis and the administration of oral vaccine was first suggested by reports of paralytic cases following Type III vaccine feeding in Oregon. Although the cases had experienced onset of illness in May and June, reports of three of the cases were not received until late July. Several additional suspect cases from other States were reported within a few days of the Oregon report.

A review of all poliomyelitis cases occurring since vaccine licensure was immediately undertaken. Quite complete information on cases with onsets during 1961 was already available from submitted Poliomyelitis Surveillance case forms. A number of cases had experienced onset of illness following Type I vaccine feeding; all, however, were associated with the mass oral vaccine control programs in Syracuse during the Type I epidemic. (A listing of these cases appears in Polio Surveillance Report No. 249, January 5, 1962).

Attention, therefore, was focused on cases of paralytic poliomyelitis with onsets in 1962. Information as to whether reported cases had or had not received oral vaccine and, if so, the date fed, the type, the manufacturer concerned and the lot number was available for most cases on submitted Poliomyelitis Surveillance case forms. Where information was incomplete or poliomyelitis case forms had not yet been received, the respective State health departments were contacted by telephone. Detailed case histories of each case with an onset of illness within 30 days of oral vaccine feeding were requested; virus isolates and original material from which the virus was isolated for each of these cases was requested for specific strain studies at CDC.

To obtain data as to the number fed oral vaccine and the approximate time periods of mass programs, each State was asked to submit information regarding known community immunization programs. Data regarding sales and distribution of vaccine was provided by the manufacturers.

The assembled information was presented in detail to the Advisory Committee and discussed on August 9 and 16. The consensus of the Committee as to the significance of the cases is summarized in the press release in Section A.

Presented in Section C in necessarily more abbreviated form are the data considered by the Committee. Presented in summary are cases associated with vaccine feeding and data regarding the extent of oral vaccine usage, geographically and in time.

C. Case Summaries and Oral Vaccine Usage

1. Cases of paralytic poliomyelitis in 1962 with onset of illness within 30 days following oral vaccine feeding.

a) Paralytic poliomyelitis following Type I feeding.

Fourteen paralytic cases occurring within 30 days of vaccine administration experienced onset in 1962. All except one occurred in Texas and were associated with epidemic control programs. The single case reported from outside of Texas occurred in a 3 year old New York boy who developed a limp without symptoms of an acute illness. No limp or detectable muscle weakness was present 14 days after the onset.

State	County	Age	Race	Sex	IPV	Onset	Date fed Type I	Interval	Virus Recov.	Mftr. Lot*
N.Y.	Nassau	3	W	M	2	5/29	5/6	23	I	?

*Note: Each lot is given a code number; if manufacturer is known but the lot number is not, it is designated as "?".

b) Paralytic poliomyelitis following Type II feeding.

One case only has been reported within 30 days of Type II vaccine administration. A classical paralytic poliomyelitis, Type III virus was isolated from the stool. The child had not received Type III vaccine.

State	County	Age	Race	Sex	IPV	Onset	Date fed Type I	Interval	Virus Isolated	Mftr. Lot*
Ohio	Mahoning	2	W	F	2	2/23	2/15	8	III	?

c) Paralytic poliomyelitis following Type III feeding.

Ten cases of paralytic poliomyelitis were reported originally to have followed within 30 days from Type III immunization. One, from Oregon, was rescinded on August 21. The case clearly represented a traumatic foot drop.

Five cases, from each of whom Type III virus has been isolated, represented reasonably typical paralytic cases. Each of the cases has residual assymetrical limb paralysis. All are adults.

State	County	Age	Race	Sex	IPV	Onset	Date fed Type III	Interval	Virus Isolated	Mftr. Lot
Oregon	Washington	48	W	F	0	5/ 5	4/28	7	III	a
Oregon	Multnomah	39	W	M	0	5/21	4/28	23	III	a
Oregon	Benton	52	W	M	0	6/26	6/ 7	19	III	a
Michigan	Branch	23	W	M	4	7/16	6/29	17	III	d
Michigan	Midland	30	W	F	0	7/20	6/28	22	III	f

Two cases experienced febrile, assymetric paralytic disease with bulbar involvement requiring the use of a respirator. From neither have virus agents yet been recovered. The Ohio case had blood specimens taken on July 23 and 30 showing a titer rise to Type I of 256 to greater than 512; and a rise to Type III of 8 to 128.

State	County	Age	Race	Sex	IPV	Onset	Date fed Type III	Interval	Virus Isolated	Mftr. Lot
New York	Onondaga	49	W	M	0	6/18	5/23	26	-	e
Ohio	Cuyahoga	36	W	M	0	7/15	6/24	21	-	d or f

From one case, a 6 year old child with a somewhat atypical clinical course and no residual motor involvement, both Types I and III were isolated from the stool.

State	County	Age	Race	Sex	IPV	Onset	Date fed Type III	Interval	Virus Isolated	Mftr. Lot
Oregon	Multnomah	6	W	M	0	5/25	4/28	27	I & III	a

From a case reported from Washington, Type I virus was isolated from the stool; serological study revealed a sharp titer rise to Type I virus and no Type III antibody. The child had been fed Type III polio virus 5 days previously and Type I 33 days previously.

State	County	Age	Race	Sex	IPV	Onset	Date fed Type III	Interval	Virus Isolated	Mftr. Lot
Wash.	Benton	6	W	M	4	6/12	6/ 7	5	I	a or c

d) Contacts of Vaccinees

Only two cases have been reported in which close associates of those developing paralytic poliomyelitis had been fed the vaccine. Both relate to Type III vaccine. The first, a case from Cincinnati, presented a classical clinical picture of poliomyelitis and has residual assymetric limb paralysis. Children in the adjacent apartment, with whom the child had been in direct association, had been fed Type III vaccine 33 days previously. The children were in a group of about 700 fed by one pediatrician. There was little additional Type III being used in the community at this time. The second case, from Massachusetts, presented an atypical clinical course with no residual paralysis. Her children had been given Type III vaccine 23 days previously.

State	County	Age	Race	Sex	IPV	Onset	Date Contact Fed Type III	Interval	Virus Isolated	Mftr. Lot
Ohio	Hamilton	6/12	W	M	0	6/ 8	5/6	33	III	a
Mass.	Norfolk	42	W	F	4	6/26	6/3	23	-	?

2. Poliomyelitis Cases by Type

Of 88 cases in 1962 through August 16 from whom virus isolates have been obtained, 74 have been Type I and 14, Type III. Most of the Type I isolates have been from Texas which is experiencing widespread Type I outbreaks. Type III cases, with the exception of those from Oregon have been widely scattered.

3. Use of Oral Vaccine

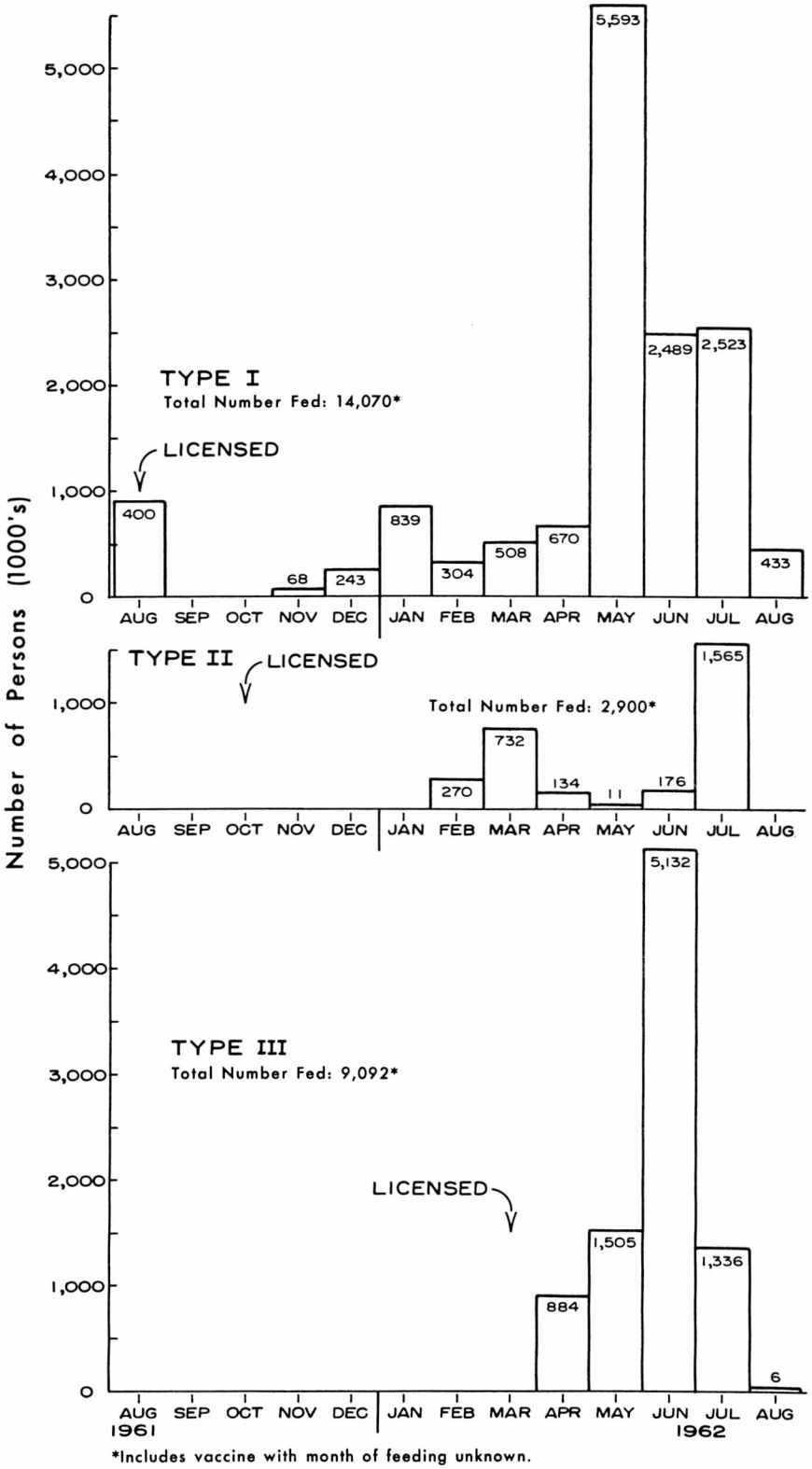
Through contact with State health authorities and vaccine manufacturers, data relating to vaccine distribution and community programs was assembled. The data represent "best approximations" in many instances. An estimate of amount of each type of vaccine used to date is shown below:

Administered In	Estimated Amount Used (Doses) I	II	III
Known Community Programs	14,070,000	2,900,000	9,092,000
Other Programs and By Private Physicians	5,000,000	3,000,000	4,000,000
Total Doses	19,070,000	5,900,000	13,092,000

The month of administration for known mass community programs is shown in the accompanying graph. The bulk of the Type I vaccine was used after the first of the year, most of it after April. Type II vaccine is only beginning to be extensively fed. Type III, licensed at the end of March, was used most extensively in June.

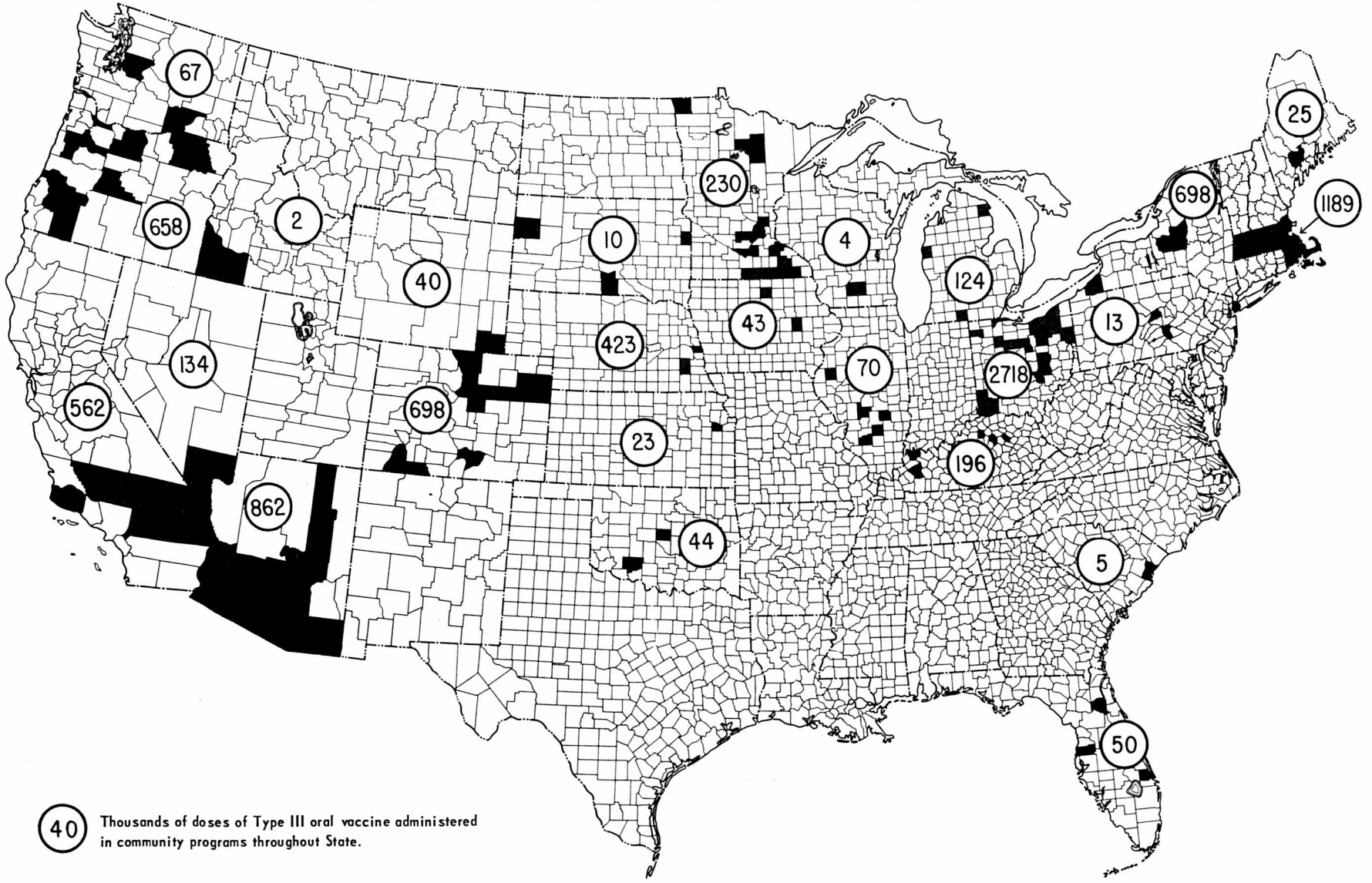
The accompanying map depicts, as well as is known, community programs and the amount used in each State. The accompanying map indicates that the largest quantities have been used in Ohio, Arizona, California, Massachusetts, and Oregon. Little has been used in the Southeast and South Central portions of the country.

Estimate of the Number of Persons Fed During Known Mass Community Oral Polio Vaccination Programs by Month from Date of Licensure, United States



*Includes vaccine with month of feeding unknown.

KNOWN TYPE III ORAL VACCINE PROGRAMS - 1962



(40) Thousands of doses of Type III oral vaccine administered in community programs throughout State.