

I. Current Poliomyelitis Morbidity Trends

Poliomyelitis incidence by week for the current polio season, with similar data for the three preceding years, is presented in the accompanying figure, drawn from data published by the National Office of Vital Statistics. Incidence rose this week, as it did during the same week in 1952, 1953, and 1954. However, incidence during the first two weeks of July for the current year is considerably lower than for the same period in the three preceding years.

Poliomyelitis incidence by states for the weeks ending June 4 through July 9 is presented in Table I, together with a six week total for this and the past three years. The rise in national incidence for the current week is reflected by marked increases in cases reported this week from Massachusetts, Michigan, Minnesota, South Carolina, Tennessee, Oklahoma, Texas, and California.

II. Routine Poliomyelitis Surveillance

Dr. John Fox, Virus and Rickettsial Laboratory, Tulane University, in a letter dated July 9, reports an unusual finding of considerable interest:

"You will recall that we have already reported the isolation of type 2 virus from the stool and certain tissues of the case referred to in your polio surveillance reports as Louisiana #3. We now have a new finding of some interest to report in connection with this case, namely the additional isolation of type 3 virus from the stool. This came about because the virus persisted in breaking through the type 1 antiserum used in our typing procedures even when the tissue culture fluid was diluted out to 3 or 4 logs. The initial break-through had been attributed to an overabundance of virus but the break-through of diluted material could not be so explained. Dr. Gelfand, who is doing the work, first suspected that there might be a so-called orphan virus complicating the picture, but found that a polyvalent mixture of polio typing sera completely neutralized the material. He then examined the virus which had broken through against type 1 antiserum and discovered it to be type 3. As a final check to eliminate the possibility of laboratory contamination, he went back to the original stool material, neutralized it with a type 1 antiserum, and recovered type 3 virus directly from the neutralized mixture.

"We are going back now to re-examine various tissues from which virus was recovered to see whether or not type 3 virus is also present in them, and I plan to keep you informed as to the results. However, I thought it well to pass on the present information to you because of the possibility that others might wish to re-examine some of their materials to see whether other similar double infections have occurred.

"I suspect that in many laboratories typing cultures are held only long enough for a possible delaying action of the typing serum being observed and are perhaps discarded before the break-through phenomenon will have taken place."

Table 2 summarizes poliomyelitis cases in vaccinated individuals, in parents and siblings of vaccinated individuals, and in community contacts, accepted by PSU through July 13, 1955. (See tabular summary for details of cases accepted since July 6 and revisions of previously listed cases.)

Table 3 presents a comparison of "reported" and "expected" cases for the weeks ending April 23 through July 16 among children inoculated in NFIP clinics through May 7. The "expected" numbers represent rough estimates of cases that would have occurred in the respective groups of first and second grade children if they had not been vaccinated, assuming that the five year median poliomyelitis incidence pertains this year.

III. Polio-Like Diseases

The California State Department of Health, in a report dated July 5, notes that no cases of Western Equine Encephalitis or St. Louis encephalitis have been reported this year to date. Encephalitis cases in the state are then presented in a tabular form:

Acute Encephalitis by Etiology for the Period January-July 2 for the Years 1954 and 1955

	Total Cases	Etiology				Chicken	
		Undetermined	Measles	Mumps	Pox	Other	
1954	232	47	46	112	20	4	
1955	165	53	54	49	7	2	

"Since May 1st, 305 pools of mosquitoes have been submitted to the Viral and Rickettsial Disease Laboratory. To date there have not been any isolations of either Western Equine or St. Louis Encephalitis viruses from the 112 pools on which testing is complete. However, at this time last year from 309 pools, 57 isolations of Western Equine and 5 of St. Louis virus had been obtained from the four designated sampling areas, Fresno, Kern, San Joaquin and Sutter-Yuba Counties."

(This Summary Report was prepared by Dr. Neal Nathanson, Dr. Wm. Jackson Hall, and Dr. Alexander D. Langmuir, with assistance from the Statistics Section, CDC.)

CURRENT U.S. POLIO INCIDENCE COMPARED WITH YEARS 1952-1954

DATA PROVIDED BY NATIONAL OFFICE OF VITAL STATISTICS

NUMBER OF REPORTED CASES

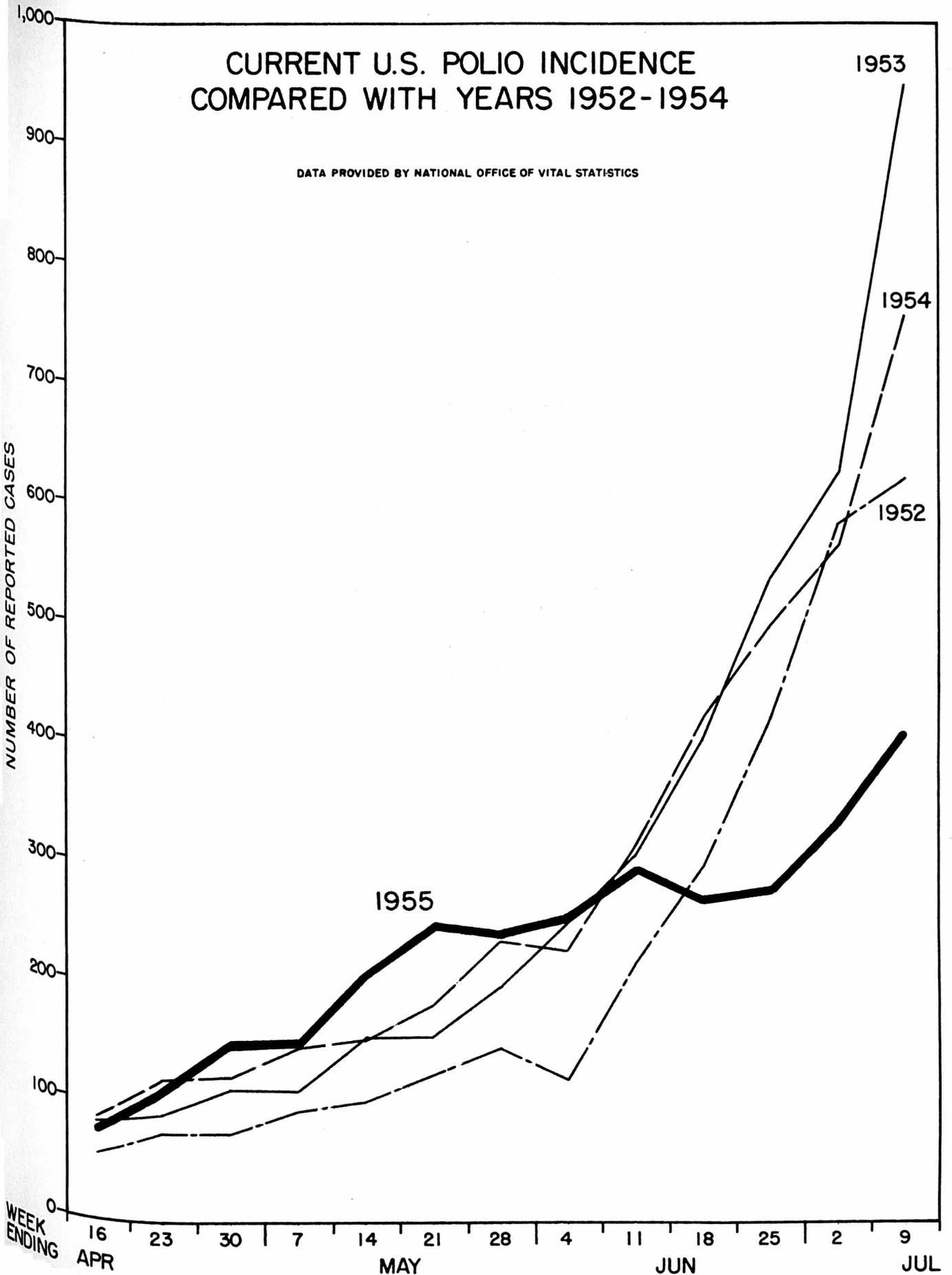


Table 1

TREND OF 1955 POLIOMYELITIS INCIDENCE

STATE	Cases Reported to NOVS*						6 Week Total	Comparable Totals in:		
	6/4	6/11	6/18	6/25	7/2	7/9		1954	1953	1952
United States	251	300	266	277	333	406	1833	2783	3070	2258
North East										
Maine	1	-	1	1	-	1	4	3	11	5
New Hampshire	-	-	-	-	-	-	-	2	11	2
Vermont	-	1	-	1	-	3	5	2	4	2
Massachusetts	-	1	2	4	1	24	32	16	20	7
Rhode Island	-	-	-	1	-	-	1	1	4	-
Connecticut	-	-	-	-	5	5	10	29	34	5
New York	11	21	19	16	25	25	117	74	174	72
New Jersey	5	6	2	4	5	3	25	22	28	8
Pennsylvania	9	7	8	10	10	7	51	31	40	11
North Central										
Ohio	9	20	4	12	22	14	81	86	147	101
Indiana	2	2	3	4	4	6	21	30	47	22
Illinois	5	8	9	13	10	5	50	61	119	23
Michigan	3	11	9	9	9	18	59	114	87	37
Wisconsin	5	7	3	4	9	6	34	23	27	23
Minnesota	5	2	3	6	2	13	31	31	104	15
Iowa	2	4	4	3	10	11	34	65	45	73
Missouri	4	3	3	-	4	4	18	30	79	24
North Dakota	1	1	1	1	3	3	10	7	4	5
South Dakota	2	-	3	1	-	3	9	5	11	6
Nebraska	1	2	-	1	3	3	10	47	38	26
Kansas	2	-	5	8	2	3	20	45	60	44
South										
Delaware	3	2	1	-	1	3	10	2	3	1
Maryland	3	5	4	2	3	7	24	5	17	1
D. of Columbia	-	1	-	1	1	1	4	1	8	2
Virginia	2	3	4	6	8	7	30	28	69	18
West Virginia	1	3	-	1	3	2	10	14	39	24
North Carolina	-	6	1	3	8	9	...	39	183	32
South Carolina	1	5	1	8	6	12	33	49	25	4
Georgia	5	5	1	4	5	6	26	99	101	47
Florida	15	9	29	14	10	3	80	205	68	69
Kentucky	9	6	-	5	3	5	28	32	52	14
Tennessee	4	3	4	3	3	10	27	37	83	31
Alabama	9	4	9	3	8	9	42	60	153	40
Mississippi	8	9	5	7	9	-	38	99	106	110
Arkansas	6	3	7	1	5	5	27	53	60	33
Louisiana	6	10	14	12	17	8	67	92	124	118
Oklahoma	-	3	5	3	4	12	27	82	118	58
Texas	52	52	62	45	43	76	330	566	400	754

Table I (continued)

STATE	Cases Reported to NOVS*						6 Week Total	Comparable Totals In:		
	6/4	6/11	6/18	6/25	7/2	7/9		1954	1953	1952
West										
Montana	-	-	-	2	2	1	5	4	4	14
Idaho	4	11	3	7	8	7	40	2	3	4
Wyoming	-	-	-	1	1	-	2	36	6	4
Colorado	5	2	3	3	6	2	21	33	22	19
New Mexico	1	1	-	3	10	8	23	8	16	26
Arizona	3	1	1	1	6	-	12	33	26	26
Utah	-	1	1	2	2	-	6	12	10	2
Nevada	2	7	5	3	6	4	27	14	6	2
Washington	2	9	2	2	3	5	23	17	18	54
Oregon	4	4	4	3	3	4	22	24	15	17
California	39	39	21	33	25	43	200	413	241	223

* NATIONAL OFFICE OF VITAL STATISTICS

Table 2

Poliomyelitis Cases with Some Association
with Poliomyelitis Vaccine
(PSU Accepted Cases through July 13, 1955)

	C*		L		FD		FM		W		***	
	P**	NP**	P	NP	P	NP	P	NP	P	NP	P	NP
<u>Cases Vaccinated 5-7 or Before with Onsets 30 Days or Less After Vaccination</u>												
Revised Totals 7-6	62	12	16	23	2	2	3	2	9	3		
	74		39		4		5		12			
New Cases 7-7 Thru 7-13	0	0	1	0	0	0	0	0	0	0		
	0		1		0		0		0			
Totals thru 7-13	62	12	17	23	2	2	3	2	9	3	0	0
	74		40		4		5		12		0	
<u>Cases Vaccinated 5-7 or Before with Onsets 31 Days or More after Vaccination</u>												
Revised Totals 7-6	1	1	8	15	2	3	2	0	1	0		
	2		23		5		2		1			
New Cases 7-7 thru 7-13	0	0	1	7	0	0	1	0	0	0		
	0		8		0		1		0			
Totals thru 7-13	1	1	9	22	2	3	3	0	1	0	0	0
	2		31		5		3		1		0	
<u>Cases Vaccinated 5-8 or Later with Onsets 30 Days or Less after Vaccination</u>												
Revised Totals 7-6			1	4	9	9	1	0				
			5		18		1					
New Cases 7-7 thru 7-13			2	0	2	1	0	0				
			2		3		0					
Totals thru 7-13	0	0	3	4	11	10	1	0	0	0	0	0
	0		7		21		1		0		0	
<u>Cases Vaccinated 5-8 or Later with Onsets 31 Days or More after Vaccination</u>												
Revised Totals 7-6					0	0						
					0							
New Cases 7-7 thru 7-13					2	1						
					3							
Totals thru 7-13	0	0	0	0	2	1	0	0	0	0	0	0
	0		0		3		0		0		0	

Footnotes on Back

Table 2 (Continued)

	C*		L		PD		PM		W		***	
	P**	NP**	P	NP	P	NP	P	NP	P	NP	P	NP
<u>Cases in Family Contacts of Vaccinated Individuals</u>												
Revised	68	20	22	6	20	10	2	0	10	3	5	2
Totals 7-6	88		28		30		2		13		7	
New Cases	0	0	1	0	2	0	0	0	0	0	0	0
7-7 thru 7-13	0		1		2		0		0		0	
Totals thru	68	20	23	6	22	10	2	0	10	3	5	2
7-13	88		29		32		2		13		7	
<u>Cases in Community Contacts of Vaccinated Individuals</u>												
Revised	14	2	5	0	2	0	0	1	4	3	1	0
Totals 7-6	16		5		2		1		7		1	
New Cases	0	0	0	0	0	0	0	0	0	0	0	0
7-7 thru 7-13	0		0		0		0		0		0	
Totals thru	14	2	5	0	2	0	0	1	4	3	1	0
7-13	16		5		2		1		7		1	

*Vaccine manufacturers: C - Cutter; L - Lilly; PD - Parke-Davis;
PM - Pitman-Moore; W -Wyeth.

**Paralytic, Non-paralytic.

***Two inoculations with vaccines of two manufacturers.

Table 3

Comparison of Expected* and Reported** Cases of Poliomyelitis
Among Children Inoculated in NFIP Clinics from April 15 to May 7, 1955

(PSU Accepted Cases through July 13, 1955)

Vaccine Mfr.*** and Number Vaccinated			Cases	Apr. 23	Apr. 30	May 7	May 14	May 21	May 28	June 4	June 11	June 18	June 25	July 2	July 9	July 16
Cutter 309,000	Reported	P	7	14	8	1	2									
		NP	1		5	2					1	1				
		Total	8	14	13	3	2	-	-	-	1	1	-	-	-	-
	Expected	Total	1	1	1	1	2	1	1	1	2	3	2	3	4	4
Lilly 2,514,000	Reported	P	3	3	3	3	3	3	3	1	2	3	3			
		NP	1	3	4	8	7	10	2	2	4	4	4	1		
		Total	4	6	7	11	10	13	3	4	7	7	7	1	-	-
	Expected	Total	3	4	4	6	6	7	11	15	20	22	28	38	37	
Parke-Davis 834,000	Reported	P					1	1	1			1				
		NP						3	1	1						
		Total	-	-	-	-	1	4	2	1	1	1	-	-	-	-
Expected	Total	0-1	0-1	0-1	0-1	1	1	1	1	1	2	4	4	10	16	
Pitman-Moore 411,000	Reported	P			1	1				3		1				
		NP				1	1									
		Total	-	-	1	2	1	-	-	3	-	1	-	-	-	-
Expected	Total	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	1	1	1	2	3	5	6
Wyeth 776,000	Reported	P		1	2	2	3	1	1							
		NP				2	1									
		Total	-	1	2	4	4	1	1	-	-	-	-	-	-	-
Expected	Total	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	1	2	3	3	4	

Footnotes on Back

*Expected Cases estimated from weekly 5-year Medians of cases of poliomyelitis (paralytic and non-paralytic) reported to National Office of Vital Statistics by the States.

**Reported Cases include only cases accepted by PSU and vaccinated in NFIP Clinics April 16 through May 7, 1955.

***CUTTER vaccine was used in Idaho, Nevada, Arizona, New Mexico, and southern California. LILLY vaccine was used in Texas, Oklahoma, Louisiana, Arkansas, Mississippi, Alabama, Tennessee, Florida, Georgia, South Carolina, North Carolina, Virginia, West Virginia, Indiana, and parts of Ohio, California, and Colorado. PARKE-DAVIS vaccine was used in Michigan, Illinois, Iowa, Wyoming, Utah, and part of Colorado. PITMAN-MOORE vaccine was used in Kentucky, Missouri, Kansas, and Nebraska. WYETH vaccine was used in Pennsylvania, Delaware, Maryland, District of Columbia, and part of Ohio.

POLIOMYELITIS AMONG VACCINATED INDIVIDUALS
(PSU Accepted Cases July 7 - July 13, 1955)

PSU CASE NO.	Residence	Ini- tials	Age	Sex	Date Inoc	Date 1st Symp	Date 1st Para	Site Inoc	Date 1st Para	Mfr	Lot No.	Remarks
Minn-2	Bongards Village	MN	7	F	5-23	6-29	6-29 NEW 6-29	?	Bulbar	PD	029126A	
Tex-25	Dallas	LP	7	F	4-18	6-19	None	LA	None	L	7078- 649343	Spinal fluid, 15 cells
Tex-26	Houston	HB	6	M	4-19	6-21	None	Arm	None	L	7078- 649343	Spinal fluid, 106 cells
Tex-27	Elm Mott	GB	9	F	4-19	6-15	None	?	None	L	"	CSF 8 cells
Tex-28	Bellaire	EM	6	M	4-19	6-25	None	Arm	None	L	"	CSF 233 cells
Tex-29	Houston	TK	8	M	4-19	6-20	None	LA	None	L	"	CSF 317 cells
La-7	Monroe	EC	8	F	4-20	6-18	6-18	LA	Legs	L	5081-649340	
La-8	Shreveport	LF	7	F	4-25	6-23	6-23	LA	Legs	L	?	
					6-13			LA		L	?	
La-9	Shreveport	Fi	10	M	4-27	6-23	6-23	LA	RA	L	?	
					6-17			LA		L	?	
La-10	Baton Rouge	JT	7	M	4-28	6-3	None	LA	None	L	?	CSF 255 Cells
La-11	Lake Charles	LJ	6	M	4-20	4-29	4-29	LA	Face	L	?	
Miss-5	Gulfport	GD	7	M	4-?	6-8	None	LA	None	L	5080- 649339	CSF 264 Cells
Ky-1	Morehead	GC	7	M	4-28	6-20	6-26	?	Spinal	PM	175B027	
NY-13	N.Y.City	RW	7	M	5-31	6-29	7-5	?	Bulbar	PD	029129A	
NY-14	Niagara Falls	LS	8	F	5-24	5-26	None	Arm	None	PD	029129A	CSF, 184 Cells
NY-15	Brooklyn	AC	6	F	5-24	6-27	6-30	LA	Face	PD	029129A	
NY-16	Troy	KR	7	M	5-24	6-30	None	?	None	PD	029128C	CSF 32 Cells
NY-17	Port Chester	GS	6	M	5-23	6-22	6-22	?	Bulbar	PD	029128C	

VACCINATED INDIVIDUALS (CONTINUED)

PSU CASE NO.	Residence	Ini- tials	Age	Sex	Date Inoc	Date 1st Symp	Date 1st Para	Site Inoc	Site 1st Para	Mfr	Lot No.	Remarks
<u>REVISIONS</u> (Revised Items Underlined)												
La-2	Monroe	BS	6	F	4-21	4-22	None	Arm	None	L	5081- <u>649340</u>	CSF 130 Cells
La-4	Rapids Parish	SP	6	F	4-26	<u>4-30</u>	5-13	LA	RL	L	649340	
LA-5	Shreveport	RH	7	M	<u>4-25</u>	<u>5-14</u>	5-15	LA	Legs	L	?	
La-6	Plaquemine	ED	<u>6</u>	F	<u>4-28</u>	<u>5-7</u>	5-10	LA	RL	L	?	
Ore-5	Portland	MS	<u>8</u>	M	<u>5-25</u>	<u>5-26</u>	<u>5-29</u>	LA	RL	PD	028847A	Type I virus from case and contacts (Oregon State Lab.)

POLIOMYELITIS AMONG UNVACCINATED PERSONS GIVING HISTORY OF FAMILIAL CONTACT WITH INDIVIDUALS
WHO HAVE RECEIVED POLIOMYELITIS VACCINE
(PSU Accepted Cases July 7 - July 13, 1955)

Vaccinated Individuals

Poliomyelitis Case(Not Vaccinated)

PSU CASE NO.	Residence	Ini- tials	Age	Sex	Date Inoc	Date Illness	Type Illness	Mfr	Lot No.	Ini- tials	Age	Sex	Date 1st Symp	Date 1st Para	Date 1st Para	Remarks
<u>NEW</u>																
Minn-X6	Melrose Village	?	6	F	5-26	None	None	PD	029126A	RM	2	M	6-7	?	?	Paralytic
Ore-X7	Eugene	SA	7	F	5-24	None	None	PD	028847A	MO	35	F	7-1	?		Bulbar
Ala-X10	New Bern	GL	6	F	4-19	None	None	L	5079- 649338	RL	1	F	6-19	6-25		Legs
<u>REVISIONS</u> (Revised Items Underlined)																
Minn-X1	St. Paul	SW	7	F	5-24	None	None	PD	028849A	JW	34	F	6-8	?	?	<u>Paralytic</u>
Ida-X27	Coeur d'Alene	?McK	?	M	4-28	?	?	C	<u>E6039</u> <u>E6058</u>	?McK	29	F	6-27	6-29	?	<u>Bulbar and arm paralysis</u>
Ore-X1	Oswego	HF	4	M	4-19	None	None	C	<u>E5972</u>	BF	7	F	5-22	?		<u>Spinal Type I virus from case and 2 vaccinated contacts (Oregon State Lab.)</u>
Ore-X2	Portland	TW	5	F	4-18	None	None	C	E5972	DW	29	F	5-13	?	RL	<u>Type I virus from case and one vaccinated contact. Oregon State Lab.</u>
Ore-X5	Portland	DP	?	F	5-27	?	?	PD	028847A	CP	9/12	F	6-5	6-7	RA	<u>Type I virus from case and two vaccinated contacts. Oregon State Lab.</u>
Ore-X6	Portland	CP LM	? 8	M M	" 5-23	? None	? None	PD	" 028847A	GM	6	F	6-2	None	None	<u>CSE 24 cells Type I virus from case and vacc. contact (Oregon State Lab.)</u>

JULY 15, 1955

POLIOMYELITIS AMONG UNVACCINATED PERSONS GIVING HISTORY OF COMMUNITY CONTACT WITH
INDIVIDUALS WHO HAVE RECEIVED POLIOMYELITIS VACCINE
(PSU Accepted Cases July 7 - July 13, 1955)

Vaccinated Individuals											Polio Cases (Not Vaccinated)			Remarks
PSU CASE NO.	Residence	Ini- tials	Age	Sex	Date Inoc	Date Illness	Date Illness	Lot Mfr No.	Ini- tials	Age	Sex	Date 1st Symp	Date 1st Para	

REVISIONS
(Revised Items Underlined)

Ore-C2	Portland	NA	?	M	4-19	4-29	Fever	C E5972	RM	3	F	5-27	5-29	LL	Type I from case and contact. (Oregon State Lab.) (6-30).
Ore-C1	(Dropped	Same	as C2)	-----											

