NOT FOR PUBLICATION FOR OFFICIAL USE ONLY POLIOMYELITIS SURVEILLANCE REPORT NO. 54 DECEMBER 16, 1955

Department of Health, Education and Welfare
Public Health Service Communicable Disease Center

Poliomyelitis Surveillance Unit 50 Seventh Street, N. E. Atlanta, Georgia

SPECIAL NOTE

The information in this report represents a factual summary of data reported to the Poliomyelitis Surveillance Unit from State Health Departments, Epidemic Intelligence Service Officers, participating laboratories and other pertinent sources. Much of the material is preliminary in nature and is subject to change. The distribution of this report is strictly limited to federal and state officials, to directors of participating laboratories and to other official or non-official persons having responsibility for the control of poliomyelitis in the nation. It is understood that this report will not be quoted in public nor will its contents be released to the press or to unauthorized persons. Any release of this information will be made by the Office of the Surgeon General, U.S. Public Health Service. State Health Officers, of course, are free to reveal any information they may wish concerning data from their state.

All readers should be cautioned regarding the limitation of data presented herein. Current and cumulative data are given concerning reported cases of poliomyelitis in vaccinated persons and among their familial and community contacts. It should be recognized that these data do not constitute a controlled evaluation of poliomyelitis vaccine. For this reason, interpretations and conclusions based on material in these reports must be guarded.

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I. Current Poliomyelitis Morbidity Trends

Poliomyelitis incidence by weeks for the current year, with similar data for the three preceding years, is presented in Figure 1, drawn from data published by the National Office of Vital Statistics. Incidence fell again this week and is below that for the past three years.

Poliomyelitis incidence by states for the weeks ending November 5 through December 10 is presented in Table 1, together with a six-week total for this and the three previous years. The decrease in incidence shown in Figure 1 is reflected in slight decreases in most states.

II. Special Studies

The following data on vaccine evaluation have been taken with slight modification from Poliomyelitis Release #24, issued by the California State Department of Public Health for the week ending December 3, 1955:

"It should be emphasized that the information summarized here is based upon morbidity data submitted to the State Health Department and does not represent a controlled study of poliomyelitis vaccine. All data are provisional and should be so evaluated.

Table I summarizes the reported occurrence of poliomyelitis in children aged 5-9 since June 15 by vaccination status and vaccine manufacturer. Observations prior to June 15 are omitted from this table to avoid the confusion of including the early Cutter associated cases.

Table I
California, 1955
Comparative Incidence of Poliomyelitis in Children Ages 5-9 by
Vaccination Status

Cases with Onsets June 15 through October 31, 1955 (Table adapted from California Poliomyelitis Release # 24)

Vaccination	Estimated	Ca	ases	Rate	Rates per 100,000			
Status	Population	P	NP T	P	NP	21.9		
Not Vaccinated	886,000	103	91 1	.94 11.6	10.3	21.		
Total Vaccinated One Inoculation Two Inoculations	382,000* 187,000 195,000	13 9 4	-	64 3.4 36 4.8 28 2.1	13.4 14.4 12.3	16.8 19.3 14.4		

* All inoculations were completed by June 15 with the exception of 38,000 second inoculations given between June 15 and September 30. Totals do not include 32,000 commercial inoculations.

The overall rate of paralytic poliomyelitis in the vaccinated group since June 15 has been 3.1 per 100,000 as compared with 11.6 per 100,000 in the non-vaccinated - a reduction of 73%. The paralytic incidence rate was 4.8 for those receiving only one inoculation as compared with 1.5 for two inoculations. On the basis of these rates, there was approximately 60 percent less paralytic polio after one inoculation and 85 percent less after two inoculations than in the non-vaccinated children.

Table 2 California, 1955

Comparative Incidence of Poliomyelitis in Children Ages 5-9 by Vaccination Status and Vaccine Manufacturer Cases with Onsets June 15 through October 31, 1955 (Table adapted from California Poliomyelitis Release #24)

First Second Inoculation	Estimated Population		ses NP T	Rates per 1	.00,000 T
	LILLY AREA				
Not Vaccinated	174,000	22	12 34	12.6 6.9	19.5
Vaccinated Lilly None Lilly Lilly	39,000 30,000	0	5 5 5* 5	- 12.8 - 16.7	12.8 16.7
Total Lilly	69,000	0	10 10	- 14.5	14.5
CUTTER -	PARKE, DAVIS AREA				
Not Vaccinated	712,000	81	79 160	11.4 11.1	22.5
Vaccinated Cutter None Cutter Parke, Davis**	64,000 103,000	2 1 :	7 9 11 12	3.1 10.9 1.0 10.7	14.1 11.7
Total Cutter	167,000	3	18 21	1.8 10.8	12.6
Parke,Davis None Parke,Davis P,D Cutter P,D**	84,000 62,000 103,000	2	15 22 6* 8 11 12	8.3 17.9 3.2 9.7 1.0 10.7	26.2 12.9 11.7
Total Parke, Davis	339,000	10 3	32 42	2.9 9.4	12.4

^{*}Four non-paralytic cases (3 Lilly and 1 Parke, Davis) had onsets less than 14 days after second inoculation.

These average rates do not apply uniformly, however, to all areas of the State and all vaccinated groups. Comparative rates indicating apparent differences among vaccines in the effectiveness of one versus two inoculations are shown for each vaccine in Table 2 but because of the small number of cases observed, these differences are not statistically significant and are considered to be inconclusive. When first and second inoculations are combined, however, as shown in this table, the trend toward differences in vaccine effectiveness is strengthened. For example, in the Northern area (from San Francisco and Contra Costa Counties northward) in which Lilly vaccine was primarily used, no paralytic cases have been reported among the 69,000 children vaccinated in the school program. In the Southern half of

^{**}The populations and cases receiving both Cutter and Parke, Davis vaccines are tabulated twice and appear in both the Cutter and Parke, Davis totals.

the State, in which Cutter and Parke-Davis vaccines had closely similar distribution, there appears to have been significantly less paralytic polio, after June 15, among the Cutter vaccinated than among the Parke-Davis vaccinated children. In view of the demonstrated presence of live virus in some lots of Cutter vaccine this difference might be expected.

After two inoculations a sharp reduction in paralytic illness as compared with the non-vaccinated is observed with each of the vaccines. No reduction in non-paralytic illness has been observed in any of the vaccinated groups."

III. Routine Polio Surveillance

The tabular summary lists in detail the polio cases among vaccinated children accepted December 8 through December 14 with revisions of previously listed cases. Table 2 presents these cases and total cases to date. Of the 36 new cases, 8 are paralytic and 28 are non-paralytic. None of the paralytic and seven of the non-paralytic cases had onsets 30 days or less after vaccination.

(This report was prepared by Dr. Neal Nathanson and Wm. Jackson Hall, Ph.D., with assistance from the Statistics Section, CDC.)

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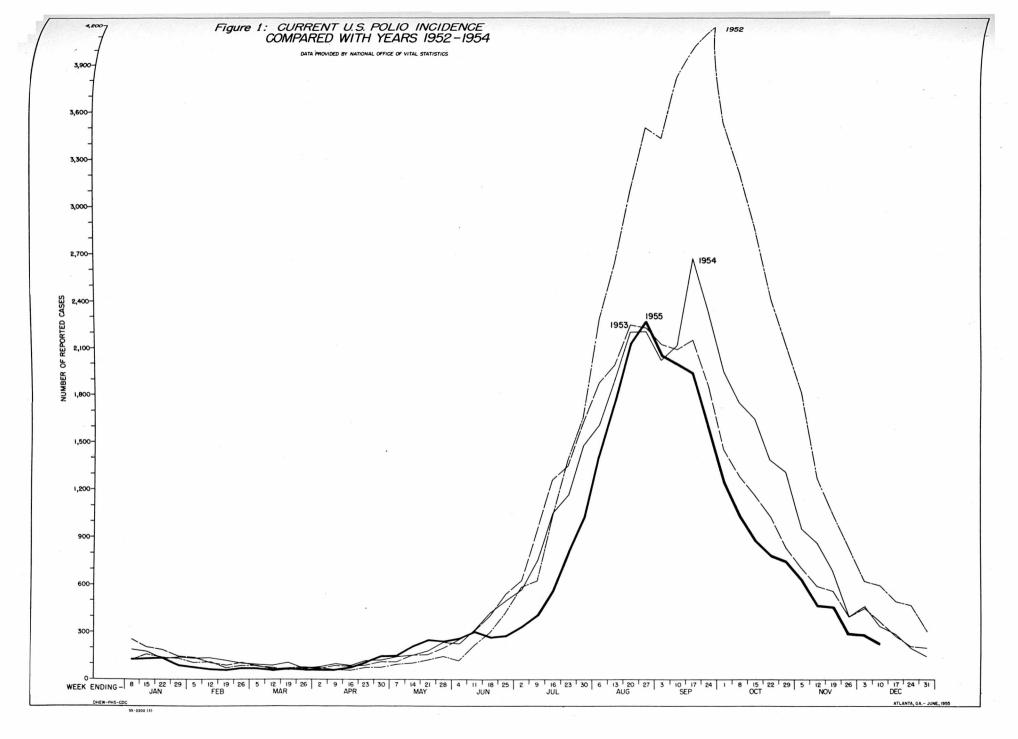




Table 1
TREND OF 1955 POLIOMYELITIS INCIDENCE

State	11/5	Case: D: 11/12	s Repor uring W 11/19	ted to eek End 11/26	NOVS* ing: 12/3	12/10	6 Week	To	nparal tals 1 1953	in:
United States	628	469	459	290	283	2 2 3	2352	3700	3069	6195
Morth East Maine New Hampshire Vermont Massachusetts Rhode Island Connecticut	7 1 - 67 17 14	1 2 43 12 5	9 1 4 52 15	3 - 37 4 6	2 1 3 17 8 5	1 1 20 1	23 4 9 236 56 45	16 11 6 113 7 90	15 16 21 96 27 29	24 7 13 42 16 28
New York New Jersey Pennsylvania	98 10 9	40 5 8	38 11 15	22 3 2	23 ₀ 8 8	12 3 5	233 40 47	447 156 189	348 42 110	307 83 158
Onth Central Ohio Indiana Illinois Michigan Wisconsin	33 4 33 16 45	26 5 15 10 40	7 11 14 7 25	15 12 14 4 18	, 4 12 10 6 23	3 6 5 3 10	88 50 91 46 161	220 125 173 226 102	205 31 112 180 68	305 127 377 395 201
Minnesota Iowa Missouri North Dakota South Dakota Nebraska Kansas	9 10 6 1 - 6	6 5 11 - 2 5	5872	5 3 1 1 - 2 1	3451 -31	1 8 - 1 - 3	32 31 38 3 1 13	32 94 47 7 26 36 49	137 45 59 15 24 13	487 291 141 51 156 182
Delaware Maryland District of Col. Virginia West Virginia North Carolina South Carolina Georgia Florida	1	3 1 1 16 3 2	13-545564	3 3 2 7 1	51126352	3 1 3 2 5 1 2 0	2 28 6 15 12 51 21 25 23	20 28 9 55 19 41 20 41	39 39 5 49 29 43 17 14 75	147 7 322 6 52 59 69 16 53 102
Kentucky Tennessee Alabama Mississippi	7 6 2 2	18 4 -	5 2 4 4	2 1 2 3	1 2 1 3	4 1 7 1	37 16 14 13	70 48 20 29	39 34 13 15	127 57 26 29
Arkansas Louisiana Oklahoma Texas	3 3 8 33	5 4 18	14 5 10 32	2 1 20	1 2 2 7	6 2 22	8 23 27 132	34 43 17 162	29 27 30 126	24 41 68 106

Table 1 (Continued)

State	11/5	Du	s Repor ring We 11/19		ng	12/10	6 Week Total	Tot	mparal cals : 1953	in:
West Montana Idaho Wyoming Colorado New Mexico Arizona Utah Nevada	8 1 6 3 4 1	2 8 1 3 3 2 1 1	1 14 1 14 2 3 2 3	2 6 3 1	2 2 - 1 3 - 2 -	NR 2 - 1 1 2 1 -	15 23 2 18 13 11 7 8	27 13 29 25 17 16 45	38 24 10 8 6 19 33	44 5 2 32 85 44 67 135 36
Washington Oregon California	26 22 կ8	23 20 87	18 15 65	19 10 41	14 15 53	16 11 39	116 93 333	6L; 72 390	46 70 595	172 81 1035

^{*}National Office of Vital Statistics.

Poliomyelitis Cases in Vaccinated Individuals (P&U Accepted Cases through December 14, 1955)

		C		Vaccir L	ne Manufactur PD	er and Par	ralytic PM	Status**	W
	P	NP	P	NP	P N	P P	NP	P	NP
	CASES	VACCINATED	5 - 7	OR BEFORE	E WITH ONSETS	30 DAYS (OR LESS	AFTER VACO	CINATION***
Totals through 12-14	59	18**** 77	17	29 46	4 9	5 3	8 5	9,	13
	CASES	VACCINATED	5- 7	OR BEFORE	E WITH ONSETS	31 DAYS (R MORE	AFTER VACO	CINATION***
Totals through 12-7 (Revised) New Cases 12-8 through 12-14	12 1	17 2	31 0		15 8 4	3 12 8 0	17 0	18 0	52 0
Totals through 12-14	13	19	31		19 9	1 12	17	18	52
		32		173	110		29		70
	CASES	VACCINATED	-		WITH ONSETS		R LESS	AFTER VACCI	NATION ^ ^ ^
Totals through 12-7 New Cases 12-8 through 12-14			28 ე 0	• •		9* 4 0 0	9 0	0 4	10 1
Totals through 12-14			28	79 107	24 3 63	9* 4	13 9	4	11 15
	CASES	VACCINATED	5 - 8	OR LATER	WITH ONSETS	31 DAYS OF	R MORE .	AFTER VACCI	MATION***
Totals through 12-7 New Cases 12-8 through 12-14			20 0	64 3	69 24 3	5 o 6 o	1 0	1 c	<u>4</u> 1
Totals through 12-14			20	67 87	72 25 323	1 0	1	1	6

^{*}Including one case that received either Parke-Davis or Lilly vaccine.

^{**}Vaccine Manufacturers: C - Cutter; L - Lilly; PD - Parke-Davis; PM - Pitman-Moore; W - Wyeth

Paralytic Status: P - Paralytic; NP - Non-Paralytic

Cases in individuals who had two inoculations are listed according to the second inoculation. No inoculations with Cutter vaccine given after May 7.

^{****}Including one new case since 12-7.

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POLIOMYELITIS AMONG VACCINATED INDIVIDUALS (PSU Accepted Cases December 8 - December 14, 1955)

						Date	Date		Site				, , , , , , , , , , , , , , , , , , , ,		
PSU		Ini-			Date	lst	lst	Site	lst		Lot				•
CASE NO.	County	tials	Age	Sex	Inoc.	Symp.	Para.	Inoc.	Para.	Mfr.	No.	Remarl	KS		
,			į			,,	NEW						7		2
							TATOM							n. nie	
Wash-4 S	Snohomish	BAR	21	F	10-22	10-25	None	?	None	L	8097-649345	Sninal	fluid	58 cell	e .
Cal-140 C		JCE	8	M	4-26	8-16	None	LA	None	L	8124-649336		LIULU)O CETT	.5 •
	Costa	000	C	747	8-4	0-10	WOME	LA	NOTIC	L	8119-649331		. ×		
	Sacramento	MAH	8	F	5 - 16	9-19	None	LA	None	PD	028848A	Spinal	fluid,	56 0011	
Cal-142 S		OG	5	M	10-18	10-19	None	LA	None	W	23812	obinar	1 Lulu 9	00 0611	.5•
	Bernardino	Ou .		TAT	10-10	10-19	NOILE	1747	None	**	2,012				
	San Diego	AT	8	M	4-16	11-3	11-15	LA	LL	С	E6038?,E597	75 EE008	32		
001 147	Dan 21060	777	O	147	5-14	ر-يد	11-17	LA	ידוד	PD	029126A	اع ورطو ، ن	<i>)</i> :		
Cal-Thh S	San Diego	JS	9	M	6-7	11-17	None	?	None	W	?236	Vocaine	ated in	Manrian	
Cal-145 I		NO	9	F	4-21	11-25	None	LA	None	C	E6038	Vaccina	aced III.	Mary Tan	iu
	San Mateo	RC	6,	M	4-19	11-21	None	?	None	C	?				
042 240 K	Dair Madeo	100		IVI	9-22	11-21	100116	?	None	L	1027-653803				
NY-169 (Queens	MH	6	F	Nov.	11-14	None	?	None	L	653805	Spinal	fluid,	الموريان	G
•	Cattaraugu		7	F	5-19	11-7	None	LA	None	PD	029129A	phruar	TTUTU	94 CELL	.5.
111 110	oa o oa raugu	D DO	ı	r	8-5	11-1	None	LA	None	L	6002-653805				
NY-171 (Orange	NJC	8	F	6-1	10-13	None	LA	None	PD	0291280	Costcol	fluid,4	75 0011	_
and the second s	Nestcheste:		9	M	5 - 24	8-22	None	Arm	None	PD	0291280		fluid,		
	Lewis	ML	8	F	5 - 19	8-26	None	LA	None	PD	0291200 029129A		fluid,5		
NI-II) I	пемтр	IVILL	U	r	8 - 4	0-20	None	LA	None			Spinar	11ulu,5	2) cerr	.S •
NY-174 N	Monroe	WS	10	M	•	9-12	Mana	LA LA	Mana	Ŀ	6002-653805	C	672.3	1011	_
N1-1/4 N	Mouroe	WD	10	IVI	May	9-12	None		None	PD	0291280	Spinal	fluid,	ту сетт	.S •
NY-175 R	Rennsselae	מיד ~	7	7.5	June	7 10	NT	LA	NT	PD PD	0291280				
			7	M	5-26	7-10	None	LA	None	_	0291280				
10a-20 0	Canyon	GRE	0	M	April	5 – 12	None	?	None	С	E6039?				
Tdo 07 D) 4.4	an	0	3.0		0 4	70.00		DI		E6058?				
	Payette	GB	9	M	April	Oct.	10-20	?	RL	C			07 . 1 0	0.00	
10a-20 B	Bannock	KS	9	F	April	8-13	None	LA	None	С	11	Spinal	fluid,3	s cerr	.S •

	31.2 %	-:				Date	Date		Site			
PSU	tir exemp	Ini-			Date	lst	lst	Site	lst		Lot	
CASE NO.	County	tials	Age	Sex	Inoc.	Symp.	Para.	Inoc.	Para.	Mfr,	No.	Remarks
	10 mg	*				NEW	(Contin	ued)	· . 3.3.	45°		
111-75 1	McHenry	WMcC	7	M	April	6-3	None	?	None	PD	028846B? 028863B?	
111-76	Tazewell	JAR	.7	M	4-21	?	None	?	None	PD	028846? 028850?	Spinal fluid,296 cells.
(\tau		in,				2.5 \$13 2.6				***	028861? 028863?	ari
111~77	Jefferson	PWH	6	M	4-15	9-30	None	?	None	PD	II .	
I11-78	Tazewell	JG	.7	M	April	9-7	None	?	None	PD	11	Spinal fluid, 53 cells.
I11-79	Cook	JSH	.7 8	M	April	9-28	?	?	RA, LA	PD	51	
I11-80	Cook	SS	6	M	5-1	6-23	?	?	RA	PD	n	
111-81	Cook	JM	8	F	May	8-1	None	?	None	PD	tr .	Spinal fluid, 30 cells.
[11-82]	DuPage	MS	·7	F	April	8-25	?	?	Legs	PD	81	
	Tazewell	JRB	6	M	5-21	8-18	?	?	LL	PD	11	* 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1
111-84	Williamson	JW	8	M	May	10-2	?	?	Legs	PD		
111-85	Madison	RK	.7	M	4-19	7-18	None	?	None	PD	11	land a sur property
111-86	St.Clair	BT	8	M	April	8-17	None	?	None	PD	11	Spinal fluid, 48 cells.
I11-87	Winnebago	BW	7	M	May	9-5	?	?	?	PD	11	
111-88	Cook	KB	. 7	\mathbf{F}	6-15	7-8	None	?	None	PD	11	Spinal fluid, 163 cells.
I11-89	Cook	\mathtt{TD}	7	M	April	10-13	None	?	None	PD	11	Spinal fluid,466 cells
Tex-97	San Patric	io MGB	8	F	April	8-22	None	?	None	$\mathbf L$		Spinal fluid,524 cells.
Tex-98	Gray	JPB	8	M	April	8-27	None	Arm	None	${f L}$		Spinal fluid, 153 cells.
	ienser ****		. ,		May			Arm		L,	7078-649343	And the second of the second s
Tex-99	Nueces	JC	7	M	4-20 7-18	11-21	None	RA RA	None	L L	7078-649343 7078-649343	
Tex-100	McLennan	JLK	10	M	4-21	9-27	None	Arm	None	Γ	7078-649343	Spinal fluid, 14 cells.
	Milwaukee	KSC	5	M	11-1	11-28	None	LA	None	L	8098-649344	
							REVIS	CONS		14 5 .	,	
						(Revised	Items	Underl	ined)			
Cal-134	Kern	CT	7	M	14-25 5-25	10-10		LA TA	None	DD C	E5721 028847A	
Tex-96	DROPPED	IOT TOM	LIO	Rheuma	atic Fer	er-						
	B FUBLICATI	This										

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