POLIOMYELITIS SURVEILLANCE REPORT NO. 123 AUGUST 23, 1957

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COMMUNICABLE DISEASE CENTER
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SPECIAL NOTE

Information presented in this report represents a factual summary of preliminary data regarding poliomyelitis and polio-like diseases reported to CDC from State Health Departments, participating diagnostic and reference laboratories, Epidemic Intelligence Service Officers, National Office of Vital Statistics, and other pertinent sources. It is to be emphasized that these reports contain provisional data intended for the information and administrative use of physicians involved in investigation and control of poliomyelitis and polio-like diseases. Anyone desiring to quote this information is urged to contact the person or persons responsible for the items reported in order that the exact interpretation of the report and the current status of the investigation be obtained.

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SUMMARY

- 1. National incidence of paralytic poliomyelitis increased during the past week to 81 cases compared with 70 and 71 reported for each of the two preceding weeks. This increase in paralytic disease was recorded despite a fall in total reported poliomyelitis incidence to 319 from the 356 cases reported last week. Of the total cases, the proportion reported paralytic remains low compared with 1955 and 1956. Provisional reporting of non-polio aseptic meningitis as nonparalytic poliomyelitis has contributed to this excess of reported nonparalytic poliomyelitis.
- 2. Increased incidence of poliomyelitis has been observed in Washington, D.C. with a majority of cases reported paralytic. A geographic concentration of cases has developed in three small census tracts. Almost all cases are under 5 years of age, the large majority are Negro, and most of the cases have occurred in unvaccinated individuals.
- 3. Preliminary review is presented of the Age Distribution, Paralytic Status and Vaccination Status of poliomyelitis cases in 26 states and territories during the period January through June, 1957. A high proportion of non-vaccinated paralytic cases occurred in children under 5. The frequency of paralysis appears to be lower among total vaccinated cases than among unvaccinated cases. The overall proportion of cases in vaccinated individuals was higher for nonparalytic than for paralytic cases. The small numbers in this preliminary and incomplete summary and regional variations preclude further definitive interpretation of the data.
- 4. Outbreaks of probable non-polio aseptic meningitis observed in 12 states have been brought to the attention of CDC. Aseptic meningitis with associated skin rash has been encountered in Minnesota, Milwaukee, Ohio, and Georgia. Type 9 ECHO virus has been isolated from the extensive Milwaukee outbreak, and from small numbers of cases in Ohio and Michigan. Coxsackie B-5 has been isolated from the outbreak (without rash) in Durham, North Carolina.

I. POLIOMYELITIS

A. Current Poliomyelitis Morbidity Trends

Total national poliomyelitis incidence decreased slightly during the past week. For the week ending August 17, 1957, the National Office of Vital Statistics received reports of 319 cases, compared with 356 for the week of August 10. This total is lower than the 410 cases reported for the corresponding week in 1947, and is the lowest since 1942 when the week's incidence was 183 cases. This year's cumulative total of 3,238 cases through the 33rd week may be compared with 7,110 for last year, 11,878 for 1955 and 2651 for 1947. Figure 1 shows the U.S. poliomyelitis incidence for the years 1947 and 1952 through 1957.

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Figure 2 shows the U.S. incidence by paralytic status for the 19th through 33rd weeks of 1955, 1956, and 1957. The proportion reported as paralytic remains low compared with 1955 and 1956. However, in spite of a decline in the total incidence during the past week, the paralytic incidence rose from 70 to 81.

Table 1 presents the distribution of total cases by State and Region, and of paralytic cases by region, for the past six weeks, with six-week totals for the comparable periods of the previous four years.

In the North Central region the total incidence of 167 cases comprises 36 paralytic, 94 nonparalytic and 37 unspecified and is the largest total in any of the regions. Cases reported from Michigan were almost wholly nonparalytic, 41 of 47, and Wisconsin reported one paralytic, 22 nonparalytic and 9 unspecified. This high nonparalytic incidence may represent non-polio aseptic meningitis. Similarly, in the South East region, of the total of 22 cases reported from North Carolina, 17 were nonparalytic, largely representing provisional reports of the aseptic meningitis cases in Durham. (See Aseptic Meningitis reports).

B. Reports from States

1. District of Columbia - Dr. William E. Long, Epidemiologist, and Dr. Daniel L. Finucane, Director of Public Health, have reported an increased incidence of poliomyelitis in the District of Columbia. Through August 22, a cumulative total of 19 cases had been reported, occurring almost entirely during the past four weeks. By this time last year only three cases had been reported. Of the 19 cases, 15 occurred in unvaccinated individuals. The age distribution of the 19 cases is remarkable in that 18 of the 19 were five years of age or under; the other was a fatal bulbar case in a 36 year old male. The large majority of cases (16) have been Negro.

An unusual geographic concentration of cases has developed within the city, with 11 of the 19 cases being reported from three small adjoining census tracts. Onset of illness in these 11 cases, which include 8 paralytic and 3 nonparalytic, has been distributed throughout the period, July 11 to August 19. All 11 are pre-school children, eight being Negro and three white. Specific ages of cases reported from Census tracts 61, 62 and 63 are as follows:

Age	Number	of	Cases
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2		2	
3		3	
4		3	i was a la
Total		11	Tepli Troma i

One of the three nonparalytic and three of the eight paralytic cases in these Census tracts occurred in vaccinated individuals.

2. <u>Indiana</u> - Dr. A.L. Marshall, Jr., Director, Division of Communicable Disease Control, has reported an increase in reported poliomyelitis in Indiana from eight cases during the week ending August 10 to a total of 19 for the week ending August 17, including 9 paralytic, 4 non-paralytic, and 6 unspecified. Of these 19 cases, 7 were reported from Marion County (Indianapolis) and 4 from Lake County (Gary).

A cumulative 1957 total of 67 cases, including 27 paralytic, 31 nonparalytic and 9 unspecified has been reported through August 17. The large majority of these were unvaccinated. Age distribution of cases this year reveals concentrations of cases in the age-groups one through six years, and 20 years and over.

C. Age Distribution of 1957 Poliomyelitis Cases

A total of 45 states, the District of Columbia, New York City, and 2 territories have indicated their desire to participate in the "Monthly Listing" (formerly "Age Distribution") analysis in the continuing national Poliomyelitis Surveillance Program. Those states participating are requested to submit monthly listings of all reported polio cases on the "Monthly Listing" form provided by CDC, including data on age, onset date, paralytic status and vaccination history. Preliminary tabulations of reported poliomyelitis cases occurring during the period January through June, 1957, have now been completed from 25 states, New York City, Hawaii and Puerto Rico. Since the records are preliminary and are not yet complete for the remaining states, interpretation of the data must at this time be limited.

These data cover 446 poliomyelitis cases including 228 paralytic, 211 nonparalytic and 7 unspecified. Cases with a history of prior polio vaccine inoculation totaled 58 paralytic and 91 nonparalytic. Unvaccinated cases totaled 287 and cases with vaccination history unknown, 10. Data are presented by geographic region, state, paralytic status and vaccination history in Table 2. Over 66% of the January-June reported incidence occurred in the South East and South Central regions; the six states reporting in these regions totaled 295 cases. This is the expected picture, in keeping with the seasonal pattern of the disease.

Table 3 presents the percentage of cases reported as vaccinated, by paralytic status and age group. In both the paralytic and nonparalytic forms of the disease it may be noted that the percent of the total cases which were in vaccinated persons increases with each five-year age group through 10-14 and decreases thereafter. The overall proportion of cases in vaccinated individuals was higher for nonparalytic cases (43%) than for paralytic cases (26%).

Table 4 shows the frequency of paralysis by age-group and vaccination history. The frequency of paralysis is lower among total vaccinated cases (39%) than among total unvaccinated cases (59%). This lower frequency of paralysis in vaccinated individuals is apparent in the specific age groups 0-4 and 5-9. The numbers of cases in the remaining age-groups are too small for these percentages to be meaningful.

Percentage distribution by age groups and vaccination status are presented in Table 5 for paralytic and nonparalytic cases. Differences in the percent age distributions may be noted between vaccinated and non-vaccinated cases both for paralytic and for nonparalytic disease. For example, in nonvaccinated paralytic cases there is a high percent of cases in pre-school children, with a compensatory low percent in the 5-9 year age group. However, it is difficult to interpret the significance of these variations in age distributions at this time due to small numbers and regional variations.

D. Current Poliomyelitis Incidence in Great Britain

The incidence of poliomyelitis in Great Britain continues to climb. The British Ministry of Health received 137 paralytic and 123 nonparalytic notifications for the week ending July 27. This is an increase of 71 compared with the previous week, when there were 105 paralytic and 84 non-paralytic.

Uncorrected polio notifications through the 30th week of the year (July 27) totaled 2106, compared with 1356 at this time last year. The highest corresponding figure during the period 1948-56 was 2224 in 1950. Sixteen individual districts of 15,000 population or more have experienced notification rates for the year in excess of 30 per 100,000.

The notifications for the 30th week and the year's total are presented in the table below with corresponding data for the nine preceding years.

	Total cases up to and in	ncluding
Year	30th Week	Cases in 30th Week
1948	828	og aga go naganu ah 30 kaba iy ina
1949	1016	1011100 00 0000169 110100
1950	2224	170 - 170 -
1951	1282	121 Talialistic
1952	1430	253
1953	1959	270
1954	986	94
1955	1215	243
1956	1356	160
1957	2106	260

E. Routine Poliomyelitis Surveillance

- 1. Polio cases occurring within 30 days of vaccine inoculation During the week ending August 21, PSU received reports of three paralytic cases and two nonparalytic cases occurring within 30 days of a polio vaccine inoculation. The paralytic cases are reviewed briefly below and in detail in Table 6.
 - 1. District of Columbia a two inoculation case developed paresis in both legs three days following right arm inoculation with Sharp and Dohme vaccine, lot number 39178 (100,000 cc's distributed to 18 states in April and May). No other cases have been reported to PSU in association with this lot.

- 2. Michigan a case developed left leg paralysis two days following a single right arm inoculation with Lilly vaccine, lot number unknown.
- 3. New Jersey a two inoculation paralytic case was reported. Site of inoculation, first paralysis, manufacturer and lot number were not known.
- 2. Triply-Vaccinated Cases During the week ending August 21 a total of 43 triply-vaccinated poliomyelitis cases was reported to PSU of which 7 were paralytic and 36 nonparalytic. The paralytic cases are listed in Table 7.

PSU has now received reports of 39 paralytic and 160 non-paralytic 1957 poliomyelitis cases occurring in triply-vaccinated individuals.

F. Vaccine Distribution

Releases, shipments and inventory of poliomyelitis vaccine are presented in Table 8. During the week ending August 9, a total of 2.8 million cc's of net bottled vaccine were shipped. The total inventory was over 9 million cc's. Almost 10 million cc's were shipped during July of this year, compared to 4.5 million cc's shipped during June.

II. ASEPTIC MENINGITIS

Outbreaks of nonparalytic aseptic meningitis have been reported in an increasing number of states. Laboratory studies have now implicated nonpolio viruses as etiologic agents in several of these outbreaks. It is felt that continued review of these outbreaks may be of value to physicians concerned with poliomyelitis and polio-like diseases.

Table 9 presents a summary of aseptic meningitis outbreaks, probably not poliomyelitis, that have come to the attention of PSU this year.

Aseptic meningitis outbreaks are geographically located in Figure 3 with the symbol indicating the etiologic agent, if such has been identified. Large or small symbols have been used to indicate whether the cases are but a small localized group, or whether they represent a large outbreak in the community.

Newly reported outbreaks of aseptic meningitis and progress reports of previously listed outbreaks are presented in the following sections.

A. Newly Reported Outbreaks

1. Colorado (Reported by Dr. Joseph Cannon and Dr. R. L. Cleere, Colorado Department of Health and Dr. Luther Giddings, EIS Officer.)

Three nonparalytic mildly encephalitic cases with headache and dizziness as predominate symptoms are reported from La Junta.

Lumbar punctures revealed pleocytosis. One family contact has become ill, and there would appear to be other similar illnesses throughout the community. Laboratory studies are underway at the University of Colorado.

2. North Dakota (Reported by Mr. K. Mosser, North Dakota State Department of Health, and Dr. C. Eklund, Rocky Mountain Laboratory, NIH.)

An outbreak of eleven cases of aseptic meningitis with slight disorientation occurred in Garrison. Lumbar punctures revealed 8-12 leukocytes. Cases were reported in four teenagers, two young adults, and two people over sixty. No rash has been reported. The cases were initially reported as encephalitis. Laboratory studies are underway.

3. <u>Utah</u> (Reported by Dr. A.A. Jenkins, Utah State Department of Health and Dr. L. Giddings, EIS Officer)

An outbreak of four cases of aseptic meningitis has been reported in Ogden. Laboratory studies are underway at the Utah State Department of Health. Various communities throughout Utah have experienced outbreaks of acute febrile illness with pleurodynia. Other areas have experienced large numbers of cases of herpangina-like pharyngitis. It has not yet been determined whether the pleurodynia or herpangina has also been observed in Ogden.

B. Progress Reports

1. North Carolina (Reported by Dr. Jacob Koomen, Assistant Director, Division of Epidemiology, North Carolina State Department of Health and Dr. Paul Glezen, EIS Officer; see PSU Report 119 and 122.)

There is now a total of 80 hospitalized aseptic meningitis cases in Durham. Coxsackie B-5 has been isolated in thirteen cases; eight from cerebrospinal fluid. Coxsackie A-9 has been isolated from one case. One paralytic case from the area has been reported as poliomyelitis and is currently being investigated. Many of the nonparalytic aseptic meningitis cases were provisionally reported as nonparalytic poliomyelitis.

2. <u>Wisconsin</u> (Reported by Dr. E.R. Krumbiegel, Commissioner of Health, Milwaukee, and Dr. Albert Sabin, Children's Hospital, Cincinnati, and Dr. David Carver, EIS Officer; see PSU Report 122.)

The extensive outbreaks of aseptic meningitis, often with a fine papular skin rash, continues. Dr. Sabin reports further isolations of ECHO type 9 from stools and cerebrospinal fluid. There are now reported 115 hospitalized cases.

3. <u>Wisconsin</u> (Reported by Dr. Milton Feig, Director, Section on Preventable Diseases, Wisconsin State Department of Health and Dr. Kenneth Wilcox, EIS Officer, see PSU Report 120 and 121.

The following data is from a summary report by Dr. Wilcox of an outbreak of 97 cases of aseptic meningitis in New Richmond, a town of approximately 3,000. Some cases also occurred in the surrounding rural area and in Somerset, a village of about 700 population. The fully developed illness was characterized by fever, headache, nuchal rigidity, nausea and vomiting, myalgia, and periorbital pain. Usually the patient was weak and confined to bed. The cases seen were of varying severity and milder cases were frequent, particularly in the younger ages. It was often difficult to decide whether an illness belonged to the disease under study. The frequency of symptoms is as follows:

Total Cases	7. Utah (Reperted by Dr
	Healte en let lu Chillians 16
Force	96
Weakness	cur <mark>71</mark> to deprolition al
Nausaa	
Periorbital Pain	62
Nuchal Rigidity	in a med combinetics of agreement of
LTwire Indiana 10 350 80 80	- # 21, [2] #10 [1] - [3 1일 11] [1] - [3 20 20 [22] [22] [3 2] [22] [22] [22] [22]
Vomiting	pay account made now you and at
Sore Throat	alice Neen observat in igée 26
Stiff Back	23
Diarrhea	12

The headache was often frontal but frequently generalized. The periorbital pain was usually pain accentuated by movement of the eyes. Some patients complained of photophobia. Sore throats noted were mainly "a rough sensation" or the feeling of a "lump in the throat" upon swallowing.

The age distribution of cases is shown in the table below. Peak incidence is seen in the 5-9 and the 30-34 age groups. The real incidence in the younger age groups is probably greater than shown as the illness tended to be milder and less typical in young children.

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AGE GROUP	NUMBER OF CASES
0-4	9
5-9	es & Wisconcin (Repores by Dr.
10-14	아무리 시간하세요요. 그림도 그러요 근라하고요? 그리고요
15-19	Dr. David Carver, ETS Cottoer, se
20-24	4
25-29	The entensive originalis o
30-34	s papular skin nash, con 8 mas. D
35-1 Laigeo	Mid type 9 in m stools on cerebr
	orted 115 bospitalised cases.

The duration of illness is shown below. A biphasic course was noted in twelve patients. Most patients had an acute onset and recovered promptly after the febrile illness. Some, however, had vague complaints, usually consisting of malaise and myalgia, 1-2 days before onset of fever. A few complained of weakness as long as 2 or 3 weeks after recovery.

Duration (Days) 1 2 3 4 5 6 7 8 9 10 > 10

Number of Cases 11 14 15 14 10 6 9 1 1 2 2

Multiple cases were found in 24 of 61 interviewed families. The table below shows the interval between the first case in the family and subsequent cases. It seems probable that the incubation period would fall within 3-9 days. Considering the cases occurring within 3 days of the initial case as co-primaries and those occurring after 3 days as secondary cases, there were 72 primary cases, 25 secondary cases, and 219 household members not ill. It would therefore appear that the secondary attack rate is low. In only one family was every member ill. There did not appear to be a high correlation between family size and number of cases in the family. There was actually very little history of contact among the cases.

Routine laboratory work usually revealed normal leukocyte counts and differential smears were usually normal except for the occurrence of occasional "abnormal" lymphocytes. Lumbar punctures revealed a pleocytosis in 9 of 10 cases. The cell counts were spread evenly from 125-1300 except for one count of 16,000. The latter was found in one patient with severe nuchal rigidity; the spinal fluid was milky, had normal glucose, chlorides, a slightly elevated protein, and was bacterioloically sterile. The virus studies are not as yet completed.

Interval from First Case in Family to Later Cases	1	2	3	4	5	6	7	8	9 7	,10
Number of Cases	3	4	4	5	3	2	5	1	2	3

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Internal enter the checkers we hoped in the of the laber versed wealther, the table brick above the brings and before the brings of the best the brings and be been the brings of the case. In the graphilite rugt the fund incolation period would the initial rate as an epoint of the cases converting within 3 days of the initial rate as an epoint of the end those constraint affect 5 days as secundary cases, there were 70 printer; access, 25 secondary cases, end 219 forwarded members and ill. It would therefore express that the sacondary cases rute is low. In only one findly was every manner ill. There dig not appear to be a high correlation between featly size and surber of cases in the factor. There was seturally very little to story of contacts count the user or the case the count of the tree of the case in the factor.

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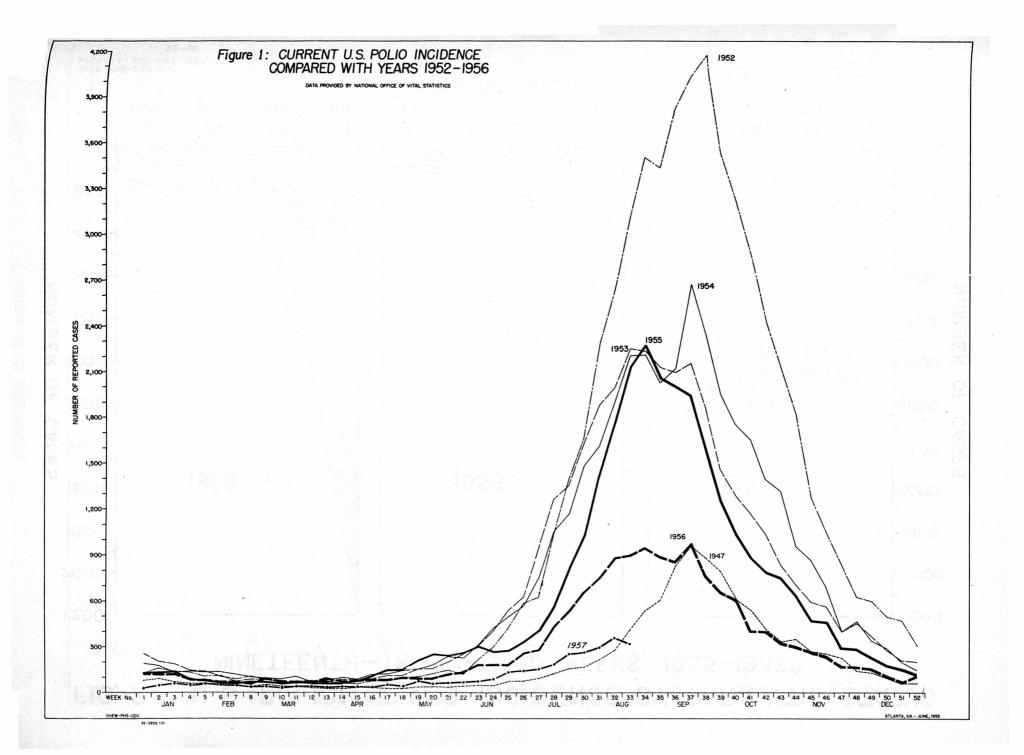


FIG. 2: U. S. POLIOMYELITIS INCIDENCE BY PARALYTIC STATUS
NINETEENTH-THIRTY-THIRD WEEKS, 1955-1957*

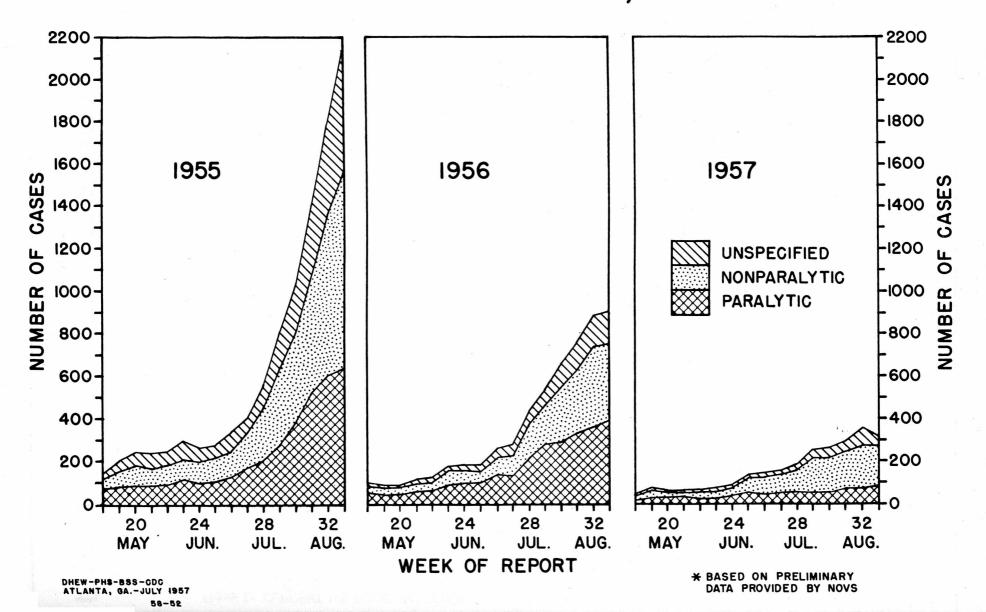


Table 1
TREND OF 1957 FOLIOMYELITIS INCIDENCE

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and	ai sintol is			Weel			ball i	Week		Week Totals		
Region	76. (56.	7-13	7-20	7-27	8-3	8-10	8-17	Total	1956	1955	1954	1953
UNITED	STATES											
	Paralytic	56	50	51	71	70	81	379	1858	2635	*	
2035	Nonparalytic	103	167	165	172	205	190	1002	1635	3251		
	Unspecified	27	35	49	54	81	48	294	677	1851		
11	Total	186	252		297	356	319	1675	4170	7737	9435	1037
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	Paralytic	ે 2	4	4	8	3	-	21	89	1054	- trit-	a žV
182-	Total	رة م 7	16	18	34	3 16	14	105	318	2905	1087	175
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Rhod	de Island	<u> </u>	-	-	-	ੇ 🗕	-	0 1-	5	86	13	5
	necticut	2	3	1	3	Ĩ, -	1	10	21	197	82	9
New	York	4	7	8	15	7	5	46	170	538	375	78
New	Jersey	1	-	6	5	5	5	22	71,71	154	179	23
Penr	nsylvania	and 🕳	3	-	୍ର 7	2	3	15	െ 31	173	222	27
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Indi		_	4	5	8	8	19	44	109	127	194	20
Illi	inois	7	13	14	20	25	20	99	921	392	475	72
Mick	nigan	3	10	12	27	40	47	139	157	381	567	76
Wisc	consin VV	อระ วั	15	8	12	28	32	102	94	510	117	16
	nesota		2	8	8	6	2	26	39	204	190	73
Iowa	1.	2	2	2	2	6	8	22	169	241	418	22
	souri	2	6	8	7	10	10	43	107	64	176	27
Nort	th Dakota	_	7 <u>.</u> S	_	ે <u>2</u>	2	41.	4	2	19	36	5
Sout	th Dakota	100		1	, .	18	4	23	11	13	24	5
Nebr	raska	1	14	1	1			18	37	110	186	8
Kans	Sas		4	2	5	3	3	22	55	77	229	15
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	Total	2	7	γ	5	5	3	29	136	216	265	21
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Wyom	ing	Z	_	1	- 1		1	- 3	5	10	69	2
Idah	10	1	1	3	ī	3	ì	10	30	51	22	1
Wash	ington		-	i		, J	ī	2	53	68	86	7
	gon	1	5	2	3	ı		12	37	67	66	4

^{*} National Office of Vital Statistics.

(CONTINUED ON NEXT PAGE)

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Virginia	e8 7	2	2	7 4	8 2	24	60	122 165	31:
West Virginia	80 1	2		3 31	् <u>२</u>	sr 29	35	35 60	182
North Carolina	7	The second second		21 25	22	123	93	154 273	42
South Carolina	S . 9	6	9	3 - 6	- 14	37	31	102 112	61
Georgia	1 4	2	_ ~	3 14	16	1 19	- 70	46 (241	13
S Florida	14	2	7 -	3 - 8	twi	- 34	- 82	78 343	133
Kentucky Wal	78 5	8	6 -	7 6	3.7	39	46	157 227	122
Tennessee	7	7	3	3 - 6	7	33	39	63 199	305
Alabama	IS .	2	2 1	2 - 2	2	1 10	19	47 107	135
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SOUTH CENTRAL	411				2	9 -		Terret.	Mev
Paralytic	20			10 12	12	- 80	- 405	297 nev. Lyar	Penn
Total	5 2	68	68	44 43	40	315	726	799 1623	1001
Mississippi	14	8	10	7 3	.1.5	37	60	59 192	101
Arkansas	\$61 3	4		i 4	3	20	61	63 101	100
Louisiana	8 CO. 2	9	5	4 9	3	36	225	74 178	12
Oklahoma	5 158			9 7	€ 5	ा ४७	8 70	102 221	192
Texas	€0.£ 3 8	33	9 38	23 20	<u> 2</u> 1	173	- 3io	501 931	483
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Paralytic	12	6	7	7 10	12	54	320	177 aisno:	M.sc
Total	₹ 41	43	34	40 44	36	238	- 640	470 1530	1173
241 416 223	169	32	7	2 3	S	6	29	55 98	62
Colorado	701 -	14	10	2 3 4 5	6	23.	16	36 44	31
New Mexico	6-31 · ·	2	2	1 3	2	12	31	22 69	180
Arizona er	to the state of th	<u>-</u>	2	حرن خا		2	78	8 42	12500
	78 i	6 <u>1.</u> €			1.	0 1	9	10 47	rdew 1
Nevada California	हर 1 35		28	33 33	28	194	477	339 1230	84
Oalliointa	,37	31		33 33				To a Treat	.7 TATE
125	94.	6	ĵ,	- 3	î.	8 8	I	Paralytic	
PERRITORIES	€ 1.36	<u>2</u>	- 8	6 = 3	₹ 4	15	S 12	Paralytic Total	
alaska os	11	92	_		200		- 2	14 95	act 1
Hawaii	2 -	5	_		Γ.	[7		novi)
Puerto Rico	ÕE -	2	_ 1	6 83	14	ε 15	5	7 -	1951
Tuctoo Mico.	57	2				رىد		doteah	

of Office of Wite Chattarianian

^{*} National Office of Vital Statistics.

Table 2

REPORTED POLIOMYELITIS INCIDENCE BY VACCINATION HISTORY AND PARALYTIC STATUS

January - June, 1957

(Preliminary data from 26 States and Territories)

	i dingangi e i e						Vac	cinated Cases		ccinated Cases
	farora Latani nav	<u>P</u>	NP	U*	T	THE STE	P	NP_	P	NP
	UNITED STATES AND TERRITORIES	228	211	7	446		58	91	168	119
	NORTH EAST	7	4	-	11		3	2	3	್ಲಾ 2
	Connecticut New Hampshire	2	1 2	-	3		2	1	<u>-</u>	VI-05
	Vermont New York City	2	1	<u>-</u>	2		ī	ម រ៉	1 2	01 [
	NORTH CENTRAL	45	69	4	118		14	31	31	38
	Indiana Iowa	12 1	10	-	22 10	State of the state	2	1 3	10	sweatherly
	Kansas	2	2	-	4		1	200 1	1	6
	Michigan Minnesota	12 2	24	_	36 2		4	13	8 2	18791
	Nebraska North Dakota	9 1	19 1	4	32 2	A of si	. 5 -	11	4 1	8 1
	South Dakota Wisconsin	2 4	1		3 7	MILS IT	ī	Y 2	2 3	1
	NORTH WEST	3	_	2	5	and -	ro let	, _	2	-
100 0	Montanta Washington	2 1	: (* -)	2	2 7 2 1	ho Filmolar		ratol -	- 2	-
	Wyoming	harri a - antinarios	-	2 - 12 - 12 - 12 - 12 - 12 - 12 - 12 -	V 8 - San Fr			EDEAT T	-	511016
	SOUTH EAST	26	31	<u>-</u> 0	57	54	6 2	84 16 88 -	19 1	-15
	Maryland Tennessee Virginia	4 13 9	23 8	34	4 36 17		3	12 4	10 8	Ar-011
	SOUTH CENTRAL	136	101	17	238		29	40	104	60
· house	Arkansas Mississippi Texas	11 16 109	16 16 69	- - 1	27 32 179	and the second section is problem.	2 5 22	11 25	6 11 87	11 5 44
	SOUTH WEST	11	6	ņ8s	17		4	91 2	7	iascT ₄
	New Mexico	9	2	-	- 11	and the second control of the second control	3		6	A contrator of the contrator
	Utah	2	4 _e Linea	i Pet anu	6 berri	bate est	at to	rate Iron	rasmitife	
	TERRITORIES	3	t 5. 7 e	anī a	เมล ์ รูก	moiseai	orey 1	iv caso wi	de Saigule Saigule	水河 ***
	Hawaii Puerto Rico	1	-	-	1 2		ī	-	1	=

^{*} Paralytic Status unspecified.

PERCENTAGE OF POLIOMYELITIS CASES REPORTED AS VACCINATED,
BY PARALYTIC STATUS AND AGE GROUP
January - June, 1957*

S eldsT

PETERLODEV	nu.	D9.	denne	SAY -	0			Non-Paralytic Cases***				
Age Group	Signature Signat	Nu	Number of Cases		Cases** Percent Vaccinate	<u>d</u>	¥U :	Nu	n-rara mber Cases	Percent Vaccinated		
0-4		Ţo	118	87	17	977		110	65	ARTATO CHIMNU ALISCYLRA 143 IMA		
\$ 5-9		2	40	€.	45	11.	, r = 4.	47	57	T265 ATAO		
10-14	lange" anni		13	2	54	62 63	***	1	21	Connectiont		
15-19	I S	-	13	í	31	\$ [in the same	I	23	Vermont Lev 71 ork City		
20 /	18		42	A£	21	118	4	, ę. s	43	MORTE 4 ETHON		
Unknown	10		-		_	22	400	10	1	Indiana		
Total	1 8	13	226		2 6	4 4		S	210	Kergas Michigan		
8	2 4	££.		-	Table 4	32	4	9.I	8 -	Minnesota Nebraska		

FRECUENCY OF PARALYSIS IN POLIOMYELITIS CASES BY AGE AND VACCINATION HISTORY January - June, 1957*

	rest	177	Va	ccin	ated	S	Not 1	Vacc	inated	a Tota	Ľ
Age Group	S,		Cotal	1	Percent Paralytic	2	Total Cases		ercent aralytic		ercent erelytic
- 10–4	19	16	48		42	77	135	31	73	184 AT H	65
5-9	I	- News	55	2	33		42		52	99 Fyran	4 1
10-14	10	ZŢ	22	3	32	36	12	23	50	3 6 nae	42
15-19		44	8		50	14	28	0	32	3 6	36
20 /	104	077	15	29.	60	853	70	101	47	H CE68FAL	50
Unknown	A II	1.1 1.1	1	\$	_13	27		91 91	91.	rkanças ilssissinpi	
4747	78	52		25		79		69	COT	eaxe	50
Total	7	2	149	-½.	39	7.7	287	ð	5912 `	442 H WEST	52 100

^{*} Preliminary data from 26 states and territories.

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ERRITORIE

aralytic Status unspecified.

^{**} Excluding 5 cases with vaccination status unspecified.

^{***} Excluding one case with vaccination status unspecified.

Table 5

PERCENT AGE DISTRIBUTION OF POLIOMYELITIS CASES BY VACCINATION STATUS

January-June, 1957

Preliminary Data from 26 States and Territories

PARALYTIC NONPARALYTIC Vaccinated Not Vaccinated Total Vaccinated Not Vaccinated Total Percent Percent Percent Percent Age Percent Percent Group Cases Distrib. Cases Distrib. Cases Distrib. Cases Distrib. Cases Distrib. Cases Distrib. 0-4 5-9 10-14 15-19 20 / Unknown TOTAL

Table 6

PARALYTIC POLIOMYELITIS OCCURRING WITHIN 30 DAYS OF LAST VACCINE INCCULATION
Cases Reported to PSU August 15 through August 21, 1957

570

County	Ini- tials	Age	33 Sex	Date Inoc.	Mfr.	Lot No.	Date First Symp.	Date First Paral.	Site Inoc.			SO Remarks
Union	G F			? 7 -1 2-57	?	? ?	7-18-57	?	?	?	21	2 10 H
Wayne	JB	14	.55 M	7-6-57	L	?	7-8-57	?	RA	IT.	77	5.1 /
Washington	F S	14	ିନ M	≥8 ?	719	? ; ≥5	7-20-57	?	. 3	Legs		31
	elcent	- sein-		7-17-57	SD	39178		Muchit.	RA			Percent Distrib.
	Union Wayne Washington	County tials Union GF Wayne JB Washington FS	County tials Age Union GF 3 Wayne JB 4 Washington FS 4	County tials Age Sex Union GF 3 M Wayne JB 4 M Washington FS 4 M	County tials Age Sex Inoc. Union GF 3 M ? 7-12-57 Wayne JB 4 M 7-6-57 Washington FS 4 M ? 7-17-57 CLOCKER CLOCKER CLOCKER CLOCKER	County tials Age Sex Inoc. Mfr. Union GF 3 M ? ? 7-12-57 ? Wayne JB 4 M 7-6-57 L Washington FS 4 M ? ? 7-17-57 SD	County tials Age Sex Inoc. Mfr. No. Union GF 3 M ? ? ? 7-12-57 ? ? ? ? Wayne JB 4 M 7-6-57 L ? Washington FS 4 M ? ? ? 7-17-57 SD 39178	County Ini-tials Age Sex Date Inoc. Lot Symp. First Symp. Union GF 3 M ? ? ? 7-18-57 Wayne JB 4 M 7-6-57 L ? 7-8-57 Washington FS 4 M ? ? ? 7-20-57 7-17-57 SD 39178 39178 39178 39178 39178	County Ini-tials Age Sex Date Inoc. Lot Symp. First Paral. Union GF 3 M ? ? ? 7-18-57 ? Wayne JB 4 M 7-6-57 L ? 7-8-57 ? Washington FS 4 M ? ? ? 7-20-57 ? 7-17-57 SD 39178 39178 39178 39178 39178 39178	Ini-tials Date Inoc. Lot First Site Symp. First Site Inoc. Union GF 3 M ? ? ? 7-18-57 ? ? ? Wayne JB 4 M 7-6-57 L ? 7-8-57 ? RA Washington FS 4 M ? ? ? 7-17-57 SD 39178 RA	Tni- Date Lot First First Site First Inoc. Paral.	Tni- County tials Age Sex Inoc. Mfr. No. Symp. Paral. Inoc. Paral. Paral. Union GF 3 M ? ? ? 7-18-57 ? ? Vayne JB 4 M 7-6-57 L ? 7-8-57 ? RA LL Washington FS 4 M ? ? ? 7-20-57 ? RA Washington FS 4 M ? ? ? 7-20-57 ? RA Union GF 3 M ? ? ? 7-20-57 ? RA Legs RA

Preliminary late from th thetes and Testillati

SECTAL VOR DEREEDALESE OR FOLISKARTELIS OVER FEL AVOCENCIES

Table 5

Table 7

1957 PARALYTIC POLIOMYELITIS CASES FOLLOWING THREE INOCULATIONS OF VACCINE
(Reports through August 21, 1957)

3 V Case			Ini-			Date 1st	Cerebro- Spinal	Site of	Dates of Vacc.	Control Control Control	
No.	State	County	tials	Age	Sex	Symp.	Fluid	Para.	Inoc.	Mfr.	Lot No.
72	California	a Los Angeles	DMM	5	М	6-18-57	660	Legs	4-25-56	W	24902
_	Carronna	a not imposed	21.11		••	3 20 31		2000	6-21-56	L	?
									2-21-57	L	?
	Comment:						1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		after onset of		
						•	-		uscles remained		lness is
						Department	as "aseption	c meningit	is, possible no	n-paralyt	ic polio"
77		pending laborat	tory exa	minat	ion.	7-6-57	報5			à	j
73	Colorado	Boulder	CJ	14	F	6-20-57		?	?	?	?
						•			?	?	?
76	(P:	reliminary Repor	rt)					<u> </u>	?	?	?
74	Georgia	Columbus	JLD	1 8 mo	s. F	?		LL	?	?	?
jao.	2.04.6								? 7300	?	?
	Comment:	Laboratory stud	dies pen	ding.				Or	?	?	?
Acquire and								2141			d er val i - rak arminakanplika aya majilika a
75	Mississip	pi Washington	JW	7	M	8-1-57		?	?	?	?
									?	?	?
	(P:	reliminary Repor	rt)		1,42				?	?	?

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Table 7 (Continued)

3 V Case	Commence State	County [sporatory rividi	Ini- tials	Age	Sex	Date 1st Symp.	Cerebro- Spinal Fluid	Site of Para.	Dates of Vacc. Inoc.	Mfr.	Lot No.
21	Conside	Columbus	TID 1	ê mas	1.	3		TT	å	1	5
76	Mississipp	i Copiah	HHJ	8	M	8-8-57		?	?	?	
			7.						?	?	?
4300	(Prel	iminary Report)	01	Tr	Ł	6-20-57		Š	?	?	?
77	Nebraska	Dodge Dodge	KMR	6	F.	7-26-57	442	Legs	1-56	?	?
3-4-4		Listed by the Cr	Til Lowe	a Bea	Tarre	ребененене	as sachers	montukre	2-56	-per g alyti	g Morre
	Comment:	Poliovirus Type	III has	s been	iso	lated from	the stool of	9 f this pa	ralytic case.	•	ness it
78	New Jersey	Hudson	EB	5	М	7 - 6-57		?	7-21-57	?	?
To the	ruma bilara	TOR WIROTER		3		0-78-91			3	?	?
	(Prel	iminary Report)				21 2 18 1 10 2			3	?	?

.n.@10.476

Table 8
POLIOMYELITIS VACCINE REPORT through 8-16-57

(Data provided by the Polio Vaccine Activity, BSS, USPHS. Listed in 1000's of cc's of Net Bottled Vaccine)

1 6 6		VACCI	NE RELEASEI)			
Period	Lilly	Parke, Davis	Pitman- Moore	Wyeth	Sharpe & Dohme	Cutte	<u>r_</u>
June July August 1-16	5,047 850	3,375 1,843	2,812 1,239 -	402 378 -	1,015 331	1181	
Cumulative to date	114,594	26,428	28,188	8,972	8,844	401	77 - 28 L

	VACCI	INE SHIPPED			
Period	NFIP	Public Agencies	Commercial Channels	Export	Total
1955	13,541	7,893	6,233	-	27,667
1956	194	45,588	24,784	6,477	77,043
January-March April May June July August 1-9	8 73 70 -	19,306 8,639 5,365 2,734 4,642 1,070	13,483 5,161 3,767 1,349 4,903 1,689	4,111 1,360 536 378 327 62	37,538 15,161 9,740 4,531 9,871 2,820
Cumulative Totals	13,886	95,867	61,368	13,252	184,373

		VACCINE INVENTORY		
Week Ending	Unshipped by Manufacturers	In State and Local Health Departments	In Commercial Channel and Physicians Office	<u>Total</u>
7-26-57 8-2-57	5,234 4,693	3,193 4,179	2,110 3,561	10,538
8-9-57	1,873	4,289	2,945	9,108

Table 9
Suspected Outbreaks - Aseptic Meningitis
United States 1957

PSU Report No.	State	City City	No. of Cases	Clinical Picture	CSF Findings	Virus Isolation	ģ.	Laboratory
123	Colo.	La Junta	3 7	Headache, dizziness	Pleocytosis			Univ. Colorado (Dr. Kempe)
122	Ga.	Atlanta	15	Headache, fever, rigid neck and back, several day's duration.				CDC Virus Lab, (Dr. Kalter)
122	Ga.	Columbus 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	12/	Headache, fever, rigid neck and back, several day's duration.) - (3년(100) - (102) - (100)	CDC Virus Lab, (Dr. Kalter)
119	La.	Shreveport	35	Headache, fever, vomiting, All recover within four days.	100-150	Polio Type I isolate 4-5 sporadic cases in periphery of epidemi	rom	Tulane Univ.
121	Mich.	Throughout State	Sporadic Cases 21		THE TOTAL TO	2 ECHO 9 8 Coxsackie B4	000) e 1000 e 1000 e	Univ. of Michigan (Dr. Brown)
122	Minn.	Minneapolis	250 E.C.	Headache, fever, orbi- tal pain, vomiting, stiff neck, morbilli- form rash.	20-1500 Lymphocytes Predominately	0.58 5.00° 5 5.00° 5	pedivorg .	Minn. Dept. of Health (Dr. Bauer)
119	N.C.	Durham	80 J. Ling	Headache, stiff neck, fever, nausea, vomi- ting, myalgia	100-1000 Predominately Lymphocytes	Coxsackie B5 (13 Cas Coxsackie A9 (1 Case		Univ. N.C. (Dr. Curnen)

(CONTINUED NEXT PAGE)

Table 9 (Continued)

PSU Report	State	City	No. of Cases	Clinical Picture	CSF Findings	Virus Isolation	Laboratory
123	№. Dak.	Garrison	11	Slight disorientation	8-12 cells		No. Dak. State Health Dept.(Dr.M. Kooms) Rocky Mt.Lab USPHS (Dr.C.Ekland)
121	Ohio	Athens	7			Coxsackie	Ohio St. Health Dept. (Dr.Anderson)
121	Ohio	Norwood	5	Headache, nausea, fever stiff neck & rash.	Pleocytosis	ECHO Type 9 (CSF)	Dr. Sabin, Children's Hospital, Cincinnati Ohio)
121	Chio	Willard	100	Headache, nausea, vomiting, fever, stiff neck / macular rash.	Pleocytosis	ЕСНО 9	(Dr. Robbins Cleveland, Ohio)
116 117	Tenn.	Johnson City	54 Hospital- ized, 51	Headache, fever, stiff neck & back, & orbital	Pleocytosis 15-400		Tenn. St. Health Dept. (Mr. J. H.
120	1140°	ew Melwond	Contacts 170 Suspect	pain, varied from mild to severe toxic enceph alitic symptoms - all recovered, no paralysi			Barrick) and CDC Virus Lab, (Dr. Kalter)
122	Tenn.	Camden .	80	Headache, fever, vomiting, stiff neck and	i no 300 1 no 300		Tenn. St. Health Dept. Lab (Mr.
10.	State	G.Fa		back.	Thatase		Barrick)
123	Utah	Ogden	4	Aseptic meningitis	Cominand) Car	Space.	Utah State Health Dept. (Mr. R. S. Fraser)

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Table 9 (Continued)

PSU Report	TEST	okgen	No. of	Aseptic medicatis	CSF	Virus	Wah State Wealth Pept. (Mr. R. G.
No.	State	City	Cases	Clinical Picture	Findings	Isolation	Laboratory
119	Va.(3)**	Pennisular Area	65	Headache, vomiting, stiff neck fever	200-300 Predominately Lymphocytes.		Ecna. St. Health Dopt. Leb (Mr.
120, 121	Wisc.	New Richmond	170 Support	Headache, fever, eye pain stiff neck, vomiting	250-1300 one - 16,000		Wisc. St. Health Dept. (Dr. Stoball)
155	Wisc.	Milwaukee		Sudden onset, severe headache, vomiting, rash over face & trunk.	300-1000 Lymphocytes	echo 9 (CSF)	(Dr. Sabin Children's Hospital Cincinnati, Ohio)
TST	CHIO	ATTIGL	tacts, 70- Community	beadache; recover, vomit-	Teoch ropy a		Clevelanu, Ohio)
ISI	- Ohito -	Morwood	2	Headache, mannea: fever i stiff neck & mash.	Neo c yfosid	MOHO (vaga 9 (ody)	Dr. Cable, Childrep! Hospital, Cincinnat Chie)
753	OHIO	V5 261.3	1			oxeseric	Ondo St. Health Dept. (Dr. Anderson)
The state of the s	Y. Dal	s. Garriso	IJ	Slight discrimenther &	-15 cc11s		Ho. Dek. State Health Best. (Dr.M. Scann) Tooky Mt. Leb voices (Dr.C. Ekland)
100	57976	C. W.	Fo. of Cases	Office Menue		Varia Bolavier	[whomas pexity

