FOR ADMINISTRATIVE USE

POLIOMYELITIS SURVEILLANCE REPORT

NO. 124 AUGUST 30, 1957

U.S. Department of Health, Education and Welfare
Public Health Service Bureau of State Services
COMMUNICABLE DISEASE CENTER
Poliomyelitis Surveillance Unit
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Atlanta, Georgia

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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 poliomyelitis increased during the past week to 396 cases compared with 319 and 356 for the two preceding weeks. The proportion of total cases reported as paralytic remained low, 94 compared with 81 reported last week. Some cases of non-polio aseptic meningitis are included in these provisional polio morbidity records.

2. A total of twenty-eight cases of poliomyelitis has been reported in the District of Columbia. Most of the cases have occurred in Negroes and in segments of the population where vaccination has seriously lagged. Preliminary laboratory studies have resulted in isolations of Type III poliovirus from eight cases, Type 1 poliovirus from one case. Non-polio virus not yet identified has been recovered from two cases.

3. A shift of poliomyelitis incidence in the nonwhite population occurred in 1956 in several urban areas of the United States. The beginning indication of this changing racial picture was observed in some areas in 1955. The influence of vaccination may be a factor in such a shift. The epidemiological patterns of poliomyelitis are complex however, and require more definitive data to explain the increasing nonwhite incidence.

4. The incidence of poliomyelitis in Great Britain leveled off during the 31st week of 1957. A total of 2366 notifications have been received this year compared with 1487 at this time last year.

A. Current Poliomyelitis Morbidity Trends

The National Office of Vital Statistics received reports of 396 poliomyelitis cases for the 35th week of 1957, following 319 cases for the 34th week and 356 cases for the 33rd week. The total of 396 cases for the week ending August 24 is the lowest reported for the corresponding week in any year since 1942, when the week's incidence was 195 cases. This year's cumulative total of 3,634 cases may be compared with 8,053 for 1956 and 3,183 for 1947. Figure 1 shows the U.S. incidence curve by weeks for the years 1947 and 1952 through 1957.

Paralytic polio incidence increased from 81 cases for the week ending August 17 to 94 cases for the week ending August 24. A continuing low proportion is reported as paralytic. 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 rose to 192 cases, almost wholly nonparalytic. In this region only 28 paralytic cases were reported, compared to 36 paralytic of 167 total for the previous week. In the North East region, the total of 41 cases, an increase from 14, included 10 paralytic, 19 nonparalytic, and 12 unspecified.

B. Reports from States

1. District of Columbia - Through August 23 there have been 28 reported cases of poliomyelitis. There are 24 paralytic; 2 nonparalytic, and 2 unspecified cases, although for the most part nonparalytic cases at present are not being reported. Two deaths have occurred, one in a child age 2 and the other in a 36 year-old adult. Dr. William E. Long, Epidemiologist, District of Columbia, and Dr. Lauri D. Thrupp, Chief, Polio Surveillance Unit, have submitted the following preliminary observations. Twenty-four of the twenty-eight cases have occurred in Negroes; twenty have been males and eight females. Dates of onset and age distribution of cases are shown below.

Date of Onsets

Week Ending	Cases
7-13-57	2
7-20	5
7-27	4
8-3	4
8-10	5
8-17	4
8-24	4
Total	28

Age Distribution

Age	Cases
<1	3
1	3
2	6
3	6
4	7
5	1
12	1
36	1
Total	28

Twenty of the twenty-eight cases have not received Salk vaccine; four have received one injection of vaccine; three have received two; and one (a paralytic case) has received three. A preliminary survey of one square block in the southwestern sector of the City (where eleven of the twenty-eight cases have occurred) has been conducted by Miss Negus, District of Columbia Health Department Nurse. Of a population of 332 in that block, 212 have not had polio vaccine. A breakdown of vaccination status by age groups is shown below.

Age	Population	No. Unvaccinated	% Unvaccinated
2 mo.-5 yrs.	78	60	77
6-16 yrs.	145	57	39
17-40 yrs.	109	95	87
TOTAL	332	212	64

Of those vaccinated 14 have received one, 91 have received two, and only 15 have received three injections of vaccine. An attempt to increase the vaccination status of the population is under way.

Laboratory studies are under the direction of Dr. J. Utz and Dr. R. Huebner at the National Institutes of Health, and Dr. R. Parrott, Children's Hospital District of Columbia. Of eight isolations thus far,

seven are Type III and one Type I poliovirus. Specimens from several cases of unreported nonparalytic aseptic meningitis have been submitted for preliminary laboratory study; one has yielded Type III polio virus, and two a non-polio virus not yet identified. Further epidemiologic and laboratory study is under way.

2. California - Dr. Arthur C. Hollister, Jr., Chief, Polio Vaccination Program, California State Department of Public Health has recently summarized the Polio Vaccination Programs and estimated total inoculations through July 1957. Table 2 lists the number of inoculations given with vaccine purchased from the various agencies involved in the total inoculation program. It can be seen that privately purchased commercial vaccine has been the largest single source to data; after August 31, 1957, it will be the only remaining source of vaccine. From then on Dr. Hollister urges local health departments and medical societies to incorporate vaccination against poliomyelitis into the routine immunizations now accepted and promoted for the public. Table 3 lists the number of inoculations estimated for 0-19 and 20-39 age groups and points out the areas needing further emphasis of vaccination. Dr. Hollister feels that the overall state vaccination program was remarkably successful despite the vaccine supply problems encountered.

C. Racial Incidence of Poliomyelitis in the U.S.

Differences in the incidence of poliomyelitis between racial groups have been explained chiefly on the basis of greater opportunity for latent immunization. The factors effecting the epidemiological picture of poliomyelitis are inter-related and separation of race as a single factor influencing the selection patterns is difficult. Gear[1] suggested that certain races are more resistant to poliomyelitis as a result of "survival of the fittest". Hammon [2] observed the trend of an increasing percent of immunological positives by family size, rather than any other household or racial factors. More frequently nonwhite families were larger, with close association of several generations living together. This density of population seems to account for the earlier appearance of poliomyelitis antibodies [3] and the earlier acquisition of natural immunity [4] observed in these nonwhite populations.

Collins [5], noting the differences of attack rates among whites and nonwhites in urban areas, showed that in the southern United States the attack rates in the white and nonwhite populations are similar. In the northeastern cities the rates in the whites were several times those in the nonwhite. These differences have been related to socio-economic factors, explaining the low attack rates among nonwhites in the North and among the whites and nonwhites in the South.

The poliomyelitis incidence pattern in urban areas of the northern United States showed this predominance of cases in the white population prior to 1956. During 1956, several large cities experienced a marked change in the relationship of white cases to nonwhite cases.

Emphasis of this changing picture came in Chicago, where early in the course of an epidemic year it became apparent that there was a predominance of nonwhite cases. At no time prior to 1956 had the number of nonwhite cases exceeded the number of white cases, but by the end of 1956 the nonwhite cases totaled over sixty percent of the years incidence (Table 4). The nonwhite total attack rate of 101.4 per 100,000 population greatly exceeded the white rate of 14.5; the nonwhite paralytic rate was almost eight times the white paralytic rate (Table 2).

In response to a request from the Polio Surveillance Unit, 13 state and city health officers (Table 6) submitted data on reported poliomyelitis incidence in 14 urban areas. Recent population estimates were obtained from state health departments (Table 5).

It was found from these data that the changing racial pattern was not limited to the 1956 Chicago experience. Although the numbers of cases were small, in seven of the cities studied the percent of cases in nonwhite persons was markedly higher in 1956 than in 1952 and 1955. In Baltimore, Cincinnati and Richmond there was an apparent tendency for an increase in percent nonwhite in 1955 and a decided increase in 1956.

This changing relationship may also be noted in a comparison of paralytic poliomyelitis incidence rates (Table 5). The 1952 ratio was similar to that noted in previous studies, the white rate exceeding the nonwhite rate. In 1955, Cincinnati and Richmond showed higher nonwhite rates than white rates, and a relative increase in nonwhite rate was apparent in Baltimore. During the past year the definite shift in racial incidence raised the nonwhite rates from two to eight times the white rates in seven of the urban areas studied. Further indication of a changing racial pattern has been evidenced by the high nonwhite incidence in Washington, D.C., this year (see PSU Report No. 123).

In seven urban areas of the South there was no evidence of such a trend in 1956 data. However, the Polio Surveillance Unit's study of 1956 cases from both rural and urban areas (6) revealed, by comparing 1955 and 1956 data in ten southern states, that there is also a suggestion of a changing ratio of white attack rate to nonwhite attack rate in these states.

Estimated Incidence Rates by Race
Ten Southern States

Year	White	Nonwhite
1955	5.1	2.8
1956	5.3	5.7

The increasing nonwhite rate in 1956 gives the impression that the changing ratio of white to nonwhite incidence may not be limited to urban areas of the North. However, the attack rates in white and nonwhite populations of the South have usually been similar (5) and it remains to be seen whether similar shifts will take place in the South.

The explanation of this sudden shift to the nonwhite population remains obscure. An increasing incidence in the nonwhite population might be expected with an increasing standard of living and decreasing family size. Although both factors have been present, it seems unlikely that they would produce such a sudden shift in racial incidence of paralytic poliomyelitis.

Surveys have indicated that the nonwhite population has been less thoroughly vaccinated at all ages. A survey to determine the poliomyelitis inoculation status of the population 0-14 years of age conducted in Baltimore, November, 1956, indicated that 71% of the white children had received one or more inoculations, compared with 39% of the nonwhite children (7).

The Polio Surveillance Unit's study of 1956 cases (6) revealed that in ten southern states the percent of nonwhite cases reported as vaccinated fell below the percent of white cases reported as vaccinated.

Percentage of 1956 Cases Reported as Vaccinated
By Race, Ten Southern States

Age Groups	White Cases	Nonwhite Cases
<5	12.3	8.5
5-14	24.5	20.2

From these preliminary data it may be noted that in the U.S. a shift in poliomyelitis attack rates to the nonwhite population occurred in 1956. It is difficult to interpret the significance of these data at this time, because of the small numbers and other epidemiological factors which should be considered. While it may appear that the shift was the result of more extensive use of polio vaccine in the white population, additional data are needed to explain the factors behind the previously observed racial differences and the factors responsible for the presently increasing nonwhite paralytic poliomyelitis incidence in the United States.

References

1. Gear, J.H.S., Poliomyelitis in the under-developed areas of the world. WHO Monograph #26, page 49-50.

2. Hammon, W.M., Sather, G.E., Hollinger, N., Preliminary report of epidemiological studies on poliomyelitis and streptococcal infections, Am. J. of Pub. Health, 40: 293-306, March, 1950.

3. Dauer, C.C., Trends in age distribution of poliomyelitis in the United States, Am. J. of Hyg., 48: 133-146, September, 1948.

4. Fox, J.P.; Gelfand, H.M., LeBlanc, D.R.; and Conwell, D.P.: A continuing study of the acquisition of natural immunity to poliomyelitis in representative Louisiana households, Am. J. Pub. Health, 46: 283-294, 1956.

5. Collins, S.D.: The incidence of poliomyelitis and its crippling effects, as recorded in family surveys, Pub. Health Rep., 61: 327-355, 1946.

6. Polio Surveillance Unit, 1956 Age Distribution Analysis, to be published.

7. Baltimore Health News, Baltimore City Health Department, vol. 34, No. 1, Jan. 1957.

D. Current Poliomyelitis Incidence in Great Britain

The incidence of poliomyelitis in Great Britain leveled off during the 31st week of 1957. The British Ministry of Health received 141 paralytic and 119 nonparalytic notifications for the week ending August 3. This is an increase of only 4 paralytic and a decrease of 4 nonparalytic cases over the previous week.

Uncorrected polio notifications through the 31st week of the year totaled 2366 compared with 1487 at this time last year. The highest corresponding figure during the period 1948-1956 was 2591 in 1950. In three years during this same period the 31st week total has exceeded the 1957 total of 260. Ten individual districts of 15,000 population or more have experienced notification rates for the year in excess of 45 per 100,000.

E. Routine Poliomyelitis Surveillance

1. Polio cases occurring within 30 days of vaccine inoculation - During the week ending August 28, PSU received reports of five poliomyelitis cases occurring within 30 days of a polio vaccine inoculation. All of these 30-day cases were nonparalytic.

2. Triply-Vaccinated Cases - During the week ending August 28, a total of 44 triply-vaccinated poliomyelitis cases was reported to PSU of which 3 were paralytic, 38 nonparalytic, and one unspecified. The paralytic cases are listed in Table 8.

PSU has now received reports of 42 paralytic and 197 nonparalytic poliomyelitis cases occurring in triply-vaccinated individuals during 1957.

3. Vaccine Distribution - A summary of current and cumulative data on vaccine releases, shipments and inventory appears in Table 9. Excluding export, 3.8 million cc's were shipped the first two weeks of August. The vaccine inventory on August 16 totaled almost 10 million cc's, including vaccine unshipped by manufacturers in state and local health offices, physicians' offices and commercial channels.

Figure 1: CURRENT U.S. POLIO INCIDENCE COMPARED WITH YEARS 1952-1956

DATA PROVIDED BY NATIONAL OFFICE OF VITAL STATISTICS

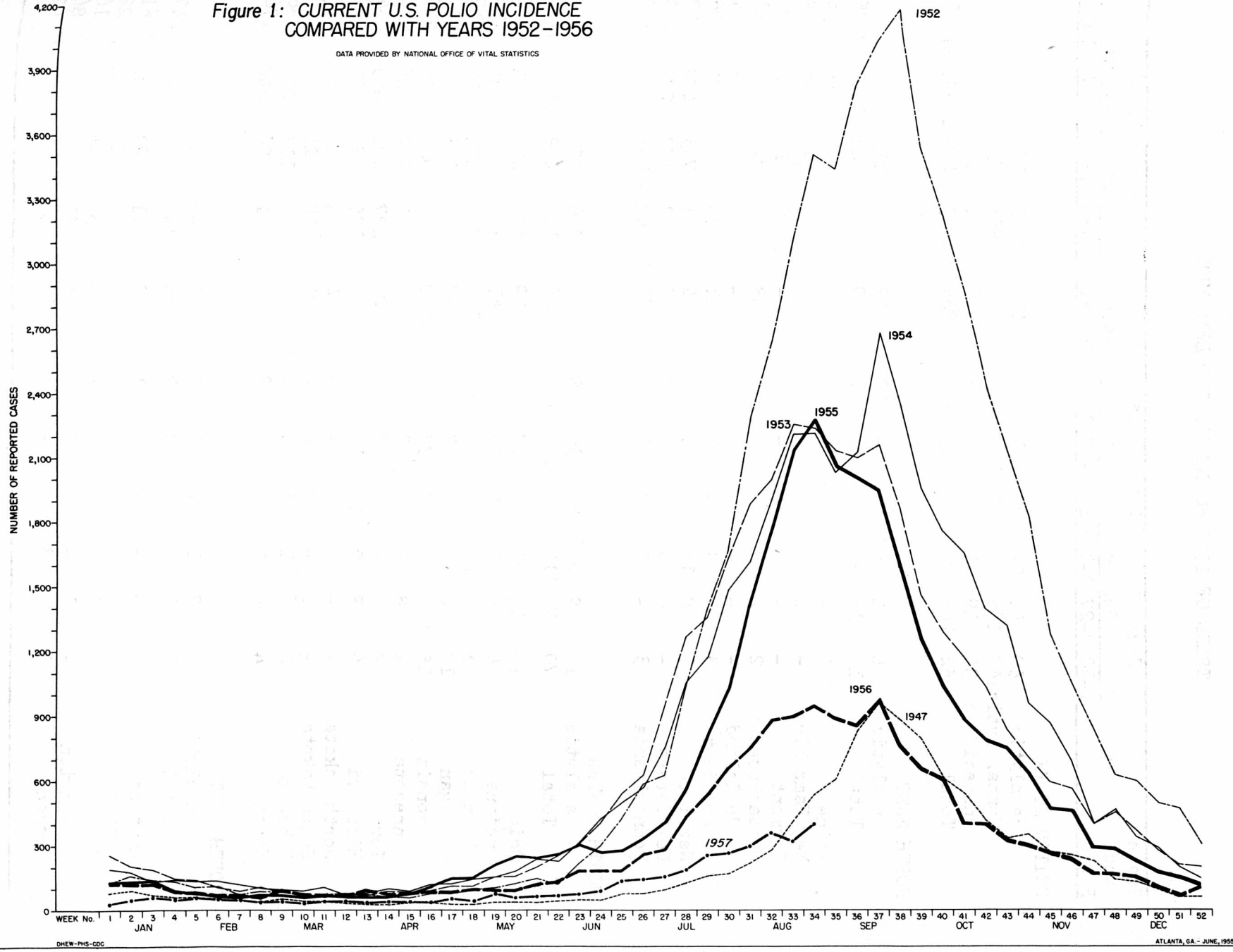

Table 1

TREND OF 1957 POLIOMYELITIS INCIDENCE

State and Region	Cases Reported to NOVS* for Week Ending: 7-20	7-27	8-3	8-10	8-17	8-24	Six Week Total	Comparable Six Week Totals in: 1956	1955	1954	1953
UNITED STATES											
Paralytic	50	51	71	70	81	94	417	2021	3126		
Nonparalytic	167	165	172	205	190	233	1132	1853	3931		
Unspecified	35	49	54	81	48	69	336	804	2402		
Total	252	265	297	356	319	396	1885	4678	9459	10589	11353
NORTH EAST											
Paralytic	4	4	8	3	-	10	29	98	1252		
Total	16	18	34	16	14	41	139	385	3643	1401	2025
Maine	1	-	1	-	-	2	4	2	67	43	125
New Hampshire	-	1	1	1	-	-	3	1	133	27	45
Vermont	-	-	-	-	-	-	-	7	44	12	26
Massachusetts	2	2	2	1	-	1	8	40	1873	222	153
Rhode Island	-	-	-	-	-	-	-	6	117	23	74
Connecticut	3	1	3	-	1	3	11	26	248	95	106
New York	7	8	15	7	5	22	64	203	733	478	900
New Jersey	-	6	5	5	5	8	29	58	197	202	268
Pennsylvania	3	-	7	2	3	5	20	42	231	299	328
NORTH CENTRAL											
Paralytic	16	9	24	24	36	28	137	866	900		
Total	70	76	115	182	167	192	802	2143	3218	3612	4852
Ohio	10	10	23	30	17	29	119	184	424	584	884
Indiana	4	5	8	8	19	17	61	131	155	234	210
Illinois	13	14	20	25	20	42	134	984	474	577	819
Michigan	10	12	27	40	47	53	189	187	466	669	880
Wisconsin	15	8	12	28	32	25	120	127	849	150	225
Minnesota	2	8	8	6	2	-	26	51	262	226	871
Iowa	2	2	2	6	8	8	28	227	271	463	274
Missouri	6	8	7	10	10	5	46	129	72	179	293
North Dakota	-	-	2	2	-	-	4	4	18	40	76
South Dakota	-	1	-	18	4	2	25	12	24	27	58
Nebraska	4	6	1	3	3	3	20	46	113	215	86
Kansas	4	2	5	6	5	8	30	61	90	248	176
NORTH WEST											
Paralytic	2	2	1	2	1	5	13	49	131		
Total	7	7	5	5	3	7	34	148	245	302	247
Montana	1	-	-	1	-	1	3	11	23	31	61
Wyoming	-	1	1	-	1	1	4	9	10	74	22
Idaho	1	3	1	3	1	NR	9	33	55	27	16
Washington	-	1	-	-	1	4	6	57	77	95	86
Oregon	5	2	3	1	-	1	12	38	80	75	62

* National Office of Vital Statistics.

(CONTINUED ON NEXT PAGE)

Table 1 (Continued)

State and Region	Cases Reported to NOVS* for Week Ending: 7-20	7-27	8-3	8-10	8-17	8-24	Six Week Total	Comparable Six Week Totals in: 1956	1955	1954	1953
SOUTH EAST											
Paralytic	7	18	21	19	20	32	117	243	345		
Total	48	62	59	66	59	61	355	560	1037	1917	1962
Delaware	-	-	-	2	-	-	2	4	20	18	14
Maryland	-	1	1	1	-	2	5	20	88	43	191
D. C.	-	1	6	1	7	7	22	2	17	30	23
Virginia	2	2	7	4	2	11	28	62	139	193	321
West Virginia	2	-	3	1	2	1	9	40	48	76	206
North Carolina	17	31	21	25	22	12	128	105	172	307	379
South Carolina	6	9	3	6	4	1	29	35	108	104	61
Georgia	2	-	3	4	6	7	22	76	54	246	132
Florida	2	7	3	8	-	5	25	84	84	336	124
Kentucky	8	6	7	6	7	7	41	53	183	246	120
Tennessee	7	3	3	6	7	6	32	46	70	207	273
Alabama	2	2	2	2	2	2	12	33	54	111	118
SOUTH CENTRAL											
Paralytic	15	11	10	12	12	11	71	434	302		
Total	68	68	44	43	40	51	314	753	808	1603	966
Mississippi	8	10	7	3	5	4	37	77	50	186	101
Arkansas	4	5	1	4	3	2	19	66	69	101	97
Louisiana	9	6	4	9	6	6	40	230	82	159	115
Oklahoma	14	9	9	7	5	9	53	80	109	203	193
Texas	33	38	23	20	21	30	165	300	498	954	460
SOUTH WEST											
Paralytic	6	7	7	10	12	8	50	331	196		
Total	43	34	40	44	36	44	241	687	523	1754	1301
Colorado	-	1	2	3	-	2	8	37	63	123	71
New Mexico	4	1	4	5	6	-	20	18	42	56	28
Arizona	2	2	1	3	2	1	11	35	22	61	194
Utah	-	2	-	-	-	-	2	85	11	57	53
Nevada	-	-	-	-	-	-	-	9	9	52	13
California	37	28	33	33	28	41	200	503	376	1405	942
TERRITORIES	2	-	6	3	4	1	16	13	48		
Alaska	-	-	-	-	-	-	-	3	18	100	13
Hawaii	-	-	-	-	-	-	-	9	30	23	8
Puerto Rico	2	-	6	3	4	1	16	4	2	-	4

*National Office of Vital Statistics.

Table 2

Estimated Number of Inoculations by Agency
State of California

Agency	Time Period	Number of Inoculations
NFIP	Apr - Dec 1955	713,603 (Reported)
Commercial	Sept'55 - June'57	4,264,584 (Estimated)
Federal	Nov'55 - Apr'57	3,338,042 (Reported)
State	Feb'57 - July'57	2,974,813 (Reported)
	TOTAL	11,291,042

Table 3

Estimated Number* of Inoculations by Age Group
State of California
(April 1955 - July 1957)

Age Group	Population	First		Second		Third		Total
		No.	%	No.	%	No.	%	
0 - 19	4.7	4.2	90	3.5	74	1.3	27	9.0
20 - 39	4.0	1.3	32	1.0	25	0.1	2	2.4
TOTAL	8.7	5.5		4.5		1.4		11.4

* In millions.

Table 4

PERCENT OF PARALYTIC POLIOMYELITIS CASES IN NONWHITE PERSONS
14 URBAN AREAS 1952, 1955 and 1956

Cities experiencing a rise in the percent of cases in nonwhite persons	Percent of Paralytic Cases in Nonwhite Persons		
	1952	1955	1956
Atlanta (1)		27	65
Baltimore (2)	15	24	77
Chicago	10	10	63
Cincinnati	8	16	27
New York (3)	9	9	22
Norfolk	16	8	64
Richmond	27	40	64
Cities experiencing no significant rise in the percent of cases in nonwhite persons			
Birmingham (4)	17	8	-
Charlotte	17	-	25
Washington, D.C.	40	15	43
Jacksonville	29	5	-
Kansas City (5)	7	7	7
Louisville (6)	12	10	14
St. Louis (7)	18	21	9

(1) 1952 data not available.

(2) 1952 data used is a 1950-54 average.

(3) 1952 and 1955 based on total cases; cases by paralytic status not available.

(4) 1952 total cases used; not available by paralytic status.

(5) Not available by paralytic status; total cases used.

(6) 1954 data used instead of 1955 data.

(7) Not available by paralytic status; total cases used. 1953 data used instead of 1952.

Table 5

PARALYTIC POLIOMYELITIS ATTACK RATES BY RACE

14 URBAN AREAS, 1952, 1955 AND 1956 (1)

Cities experiencing a shift to nonwhite incidence	1952				1955				1956			
	Number of Cases		Rate per 100,000		Number of Cases		Rate per 100,000		Number of Cases		Rate per 100,000	
	W	NW	W	NW	W	NW	W	NW	W	NW	W	NW
Atlanta (2)	-	-	-	-	19	7	5.0	4.0	7	13	1.8	7.5
Baltimore (3)	69	12	9.6	5.1	25	8	3.6	3.0	6	20	.9	7.1
Chicago	739	83	24.0	14.7	201	22	6.6	3.3	257	439	8.5	66.0
Cincinnati	191	16	28.9	17.3	48	9	6.8	8.9	8	3	1.1	2.9
New York (4)	745	76	10.8	9.8	731	75	10.3	9.7	57	16	1.5	5.5
Norfolk	16	3	10.3	4.6	12	1	5.9	1.4	5	9	2.5	12.6
Richmond	8	3	5.0	4.0	3	2	2.0	2.3	4	7	2.6	8.1
Cities not experiencing significant shift to nonwhite incidence												
Birmingham (5)	48	10	12.4	21.4	11	1	2.8	.4	4	-	1.0	-
Charlotte	5	1	3.2	1.9	7	-	4.2	-	4	1	2.4	1.9
Washington, D.C.	23	15	4.5	4.8	22	4	4.5	1.1	4	3	.8	.8
Jacksonville	15	6	6.4	7.1	18	1	6.0	1.0	3	-	1.0	-
Kansas City (6)	262	20	54.1	35.1	27	2	5.6	3.5	41	3	8.5	5.3
Louisville (7)	507	66	117.5	101.2	179	19	38.0	27.1	12	2	2.5	2.9
St. Louis (8)	107	23	15.2	14.9	26	7	3.7	4.5	74	7	1.0	4.5

(SEE FOOTNOTES ON FOLLOWING PAGE)

Footnotes to Table 5

1) Recent population estimates from state health and vital statistics departments, with interpolation from 1950 census data for intervening years. No attempt was made to project 1955 estimates to 1956.

2) Data not available for 1952.

3) 1950-54 average number of cases used for 1952.

4) Total cases used for 1952 and 1955. Cases were not available by paralytic status.

5) 1952 cases not available by paralytic status, total cases used.

6) Not available by paralytic status.

7) 1954 data used instead of 1955 data.

8) 1953 data used instead of 1952 data.

Table 6

STATE AND CITY HEALTH OFFICERS REPORTING DATA
FOR THE RACE ANALYSIS OF POLIOMYELITIS INCIDENCE

Atlanta	Dr. W.J. Murphy State Epidemiologist Georgia State Board of Health
Baltimore	Dr. Charlotte Silverman Chief, Epidemiology and Communicable Disease Control, Maryland State Department of Health
Birmingham	Dr. W.H.Y. Smith Director, Bureau of Preventable Diseases Alabama State Department of Public Health
Charlotte	Dr. Fred T. Foard Director, Division of Epidemiology North Carolina State Board of Health
Chicago	Dr. Herman N. Bundesen President, Board of Health Chicago, Illinois
Cincinnati	Dr. Frederick W. Wentworth Medical Coordinator of Disease Control Activities, Ohio State Department of Health
District of Columbia	Dr. William E. Long Epidemiologist, Preventable Disease Section, Department of Public Health, District of Columbia
Jacksonville	Florida Morbidity Statistics, Annual Report of Florida State Board of Health
Kansas City	Bessie W. Smith Communicable Disease Division Kansas City Health Department
Louisville	Dr. Donald P. Conwell Director, Division of Preventive Medicine, Kentucky State Department of Health
New York	Dr. Morris Greenberg Director, Bureau of Preventable Diseases New York City Department of Health
Norfolk & Richmond	Dr. Mason Romaine, Director, Communicable Disease Control, Virginia Department of Public Health
St. Louis	Dr. R.J. Schurter, Supervisor, Communicable Disease Control, Division of Health, St. Louis Dept. of Public Health

Table 7

SOURCE OF POPULATION DATA
FOR RACE ANALYSIS OF POLIOMYELITIS INCIDENCE

	1950 U.S. Census Department of Commerce, Bureau of the Census.
Atlanta	J. C. Terrell, Statistician Georgia State Department of Public Health
Birmingham	Annual Report - Alabama State Department of Health.
Charlotte	Annual Report - North Carolina State Department of Public Health.
Chicago	Health Statistics Bulletin - Illinois State Department of Health.
Cincinnati	W.H. Veigel, Chief, Division of Vital Statistics, Ohio State Department of Health.
District of Columbia	Howard West, Chief, Biostatistics and Health Education Division, Government of the District of Columbia.
Jacksonville	Florida Vital Statistics Annual Report, Florida State Board of Health.
Kansas City St. Louis	C.A. Bridger, Bureau of Vital Statistics, Missouri State Department of Health and Welfare.
Norfolk Richmond	Statistical Annual Report, Virginia State Department of Health.

Table 8

1957 PARALYTIC POLIOMYELITIS CASES FOLLOWING THREE INOCULATIONS OF VACCINE

(Reports through August 28, 1957)

3 V Case No.	State	County	Initials	Age	Sex	Date 1st Symp.	Cerebro-Spinal Fluid	Site of Para.	Dates of Vacc. Inoc.	Mfr.	Lot No.
79	Nebraska	Saunders	CF	19	M	7-7-57	137	Neck	6-20-56	PM	175075B
									7-26-56	PM	175074A
									5-5-57	L	679904
80	Texas	Dallas	TN	27	F	7-14-57		?	?	?	?
									?	?	?
		(Preliminary Report)							?	?	?
81	Wisconsin	Milwaukee	JO	10	M	3-18-57		?	?	?	?
									?	?	?
		(Preliminary Report)							?	?	?

Table 9

POLIOMYELITIS VACCINE REPORT through 8-23-57

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

VACCINE RELEASED

Period	Lilly	Parke, Davis	Pitman-Moore	Wyeth	Sharpe & Dohme	Cutter
June	-	3,375	2,812	402	-	-
July	5,047	1,843	1,239	378	1,015	-
August 1-23	5,840	3,704	-	-	864	-
Cumulative to date	119,583	30,133	28,188	8,972	9,377	401

VACCINE 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
1957					
January-March	8	19,306	13,483	4,111	37,538
April	-	8,639	5,161	1,360	15,161
May	73	5,365	3,767	536	9,740
June	70	2,734	1,349	378	4,531
July	-	4,642	4,903	327	9,871
August 1-16	-	1,456	1,946	441	3,843
Cumulative Totals	13,886	96,253	61,625	13,632	185,395

VACCINE INVENTORY

Week Ending	Unshipped by Manufacturers	In State and Local Health Departments	In Commercial Channel and Physicians Office	Total
8-2-57	4,693	4,179	3,561	12,434
8-9-57	1,873	4,289	2,945	9,108
8-16-57	2,032	4,180	3,654	9,865