REPORT NO. 280 SEPTEMBER 20, 1963

COMMUNICABLE DISEASE CENTER

SURVEILANCE

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814 Alexander D. Langmuir, M.D., Chief Robhr E. Sarfifff Ph.D., Chief Concid A Henderson, M.D., Chief

U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE PUBLIC HEALTH SERVICE Consecutorogy pronen Signistics Sociilati Serveillance Sociion

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PREFACE

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

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

Communicable Disease Center

Epidemiology Branch

Statistics Section Surveillance Section

Poliomyelitis Surveillance Unit

James L. Goddard, M.D., Chief

Alexander D. Langmuir, M.D., Chief

Robert E. Serfling, Ph.D., Chief Donald A. Henderson, M.D., Chief

James A. Bryan, II, M.D., Chief John J. Witte, M.D. Saul Rosenberg, Statistician

SUMMARY

A total of 114 cases of poliomyelitis, 103 with paralysis, have been reported during the six week period ending September 13, 1963. The largest case concentration occurred in Pennsylvania (50) and Alabama (37). No other State reported more than eight cases during this six week period.

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Detailed reports on outbreaks in Philadelphia, Pennsylvania and in northwest Alabama are presented in Section 2. In addition, small outbreaks in Grand Rapids, Michigan and Petersburg, Virginia are discussed. A tabulation of the 133 non-polio enterovirus isolations reported thus far in 1963 to the Poliomyelitis Surveillance Unit are presented in Section 3. In Section 4, an additional four cases of poliomyelitis occurring within thirty days of the oral vaccines is presented. Thus far this year there have been no reported cases of polio within thirty days of receiving inactivated poliomyelitis vaccine.

A description of the current Type III outbreak in Quebec, Canada, where more than 60 cases have occurred is included in Section 5 as a special foreign report.

1. CURRENT POLICMYELITIS MORBIDITY TRENDS

During the six-week period ending September 13, 1963, there were 114 cases of poliomyelitis (103 paralytic) reported. There were 202 cases reported during the same period in 1962. A total of 50 cases were reported from Pennsylvania during this six week period. Most of these cases were from Philadelphia and are discussed in detail in Section 2. Alabama accounted for 23 cases, with most of the cases occurring in the northwest part of the State. Small localized outbreaks have been reported in Michigan and Virginia.

The cumulative totals for 1963 and the preceding four years are presented below. The total for the current year remains considerably lower than in any previous year.

	Polio	(Cumulated	Weekly)	through	37th Week	for Past	Five	Years	
		1963	1962	1961	1960	1959			
Paralyt	ic	222	416	517	1312	3455			
Total		257	536	780	1908	5474			

The six week totals for the current year and the past four years are shown in the following table. These totals are also much lower than for any previous year.

	Six Weeks	Totals (32nd	thru 37th	Week)	for Past Five Years
	1963	1962	1961	1960	1959
Paralytic	103	162	278	632	1855
Total	114	202	418	960	3023

2. STATE REPORTS

A. Pennsylvania

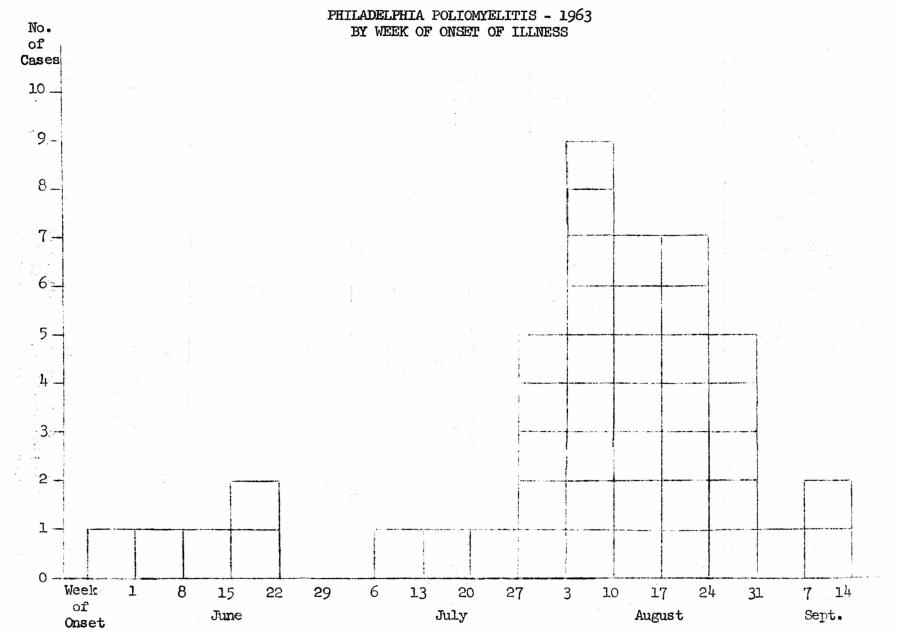
A total of 50 cases were reported by Dr. William D. Schrack, Director of Communicable Diseases, Pennsylvania Department of Health, during the six week period ending September 14, 1963, bringing the State's total to 79 cases for the year. Previously, there was a localized outbreak in the Carlisle area (PSU No. 278), the peak occurring there in late June. The recent high incidence of cases from Pennsylvania is due primarily to the 44 reported cases of polio from the City of Philadelphia. This total exceeds the annual totals in that city since the introduction of inactivated poliomyelitis vaccine in 1955 (with the single exception of 1958 when 76 cases were reported for the entire year). The annual totals for Philadelphia for poliomyelitis for the past 10 years are shown in the following table.

Poliomyelitis - Philadelphia By Year

Year	Total Cases	Year	Total Cases
1954	228	1959	21
1955	40	1960	8
1956	13	1961	1
1957	10	1962	0
1958	76	1963	44*

*Cases reported through September 14.

Following the occurrence of sporadic cases during June and July, an abrupt increase in cases occurred in early August. Five cases were reported with onsets of illness the week ending August 3; 9 cases the week ending August 10; 7 cases the week ending August 17; and 7 cases the week ending August 24. The cases by week of onset are portrayed on the following page. Thus far, Type I poliovirus has been isolated from specimens from 26 cases. Although cases are reported from 8 of



Philadelphia's 10 health districts, more than one-half of the cases are concentrated in health district No. 6 (See table below).

Health Districts	Population (1960 Census)	Total Cases
1	96,545	1
2	200,974	2
3	203,984	2
4	197,224	2
5	192,319	7
6	154,894	24
7	253,655	3
8	233,707	2
9	265,238	1
10	202,241	0
		<u> </u>

Poliomyelitis - Philadelphia - 1963 By Health District

Inadequately vaccinated pre-school age children comprised the majority of polio cases in the Philadelphia outbreak. The following table shows the cases by age and vaccination status.

Poliomyelitis - Philadelphia - 1963 By Age and Inactivated Vaccine Status*

Age	ov	<u>1-2V</u>	37	<u>4+V</u>	Total
Under 1	2	-	-	-	2
1	6	з	1	-	10
2	4	1	-	-	5
3	5	1	1	-	7
4	-	2	-	-	2
5-9	3	З	2	3	11
10-19	2	-	1	-	3
20 and over	r 3	-	1	-	4
Total	25	10	6	3	44

*None of these children are known to have received oral polio vaccine.

Because of the unusual incidence of polio cases in the City of Philadelphia, plans for a mass community program utilizing Type I monovalent oral poliomyelitis vaccine which had been originally scheduled for October 27, have been accelerated and will be carried out on Sunday, September 22. This will be under the combined aegis of the Philadelphia City Health Department, the County Medical Society, and numerous volunteer civic organizations. In addition, Type I monovalent oral poliomyelitis vaccine has been dispensed at a number of centers in Philadelphia by the City Health Department since September 11. The vaccine, supplied from the CDC epidemic reserve, has been available at City Health Centers and other locations in the City. This program has been aimed primarily at the "hard core" areas of the City where most of the cases have been occurring.

Virus Case Dist. Date of Para. IPV Isolations No. Initials Sex Race Onset Status No. Age Ρ 0 Ι 6 1 Μ 5 - 29G.S. W 1 Ι 0 2 C.H. 6 3 Μ W 6-3 NP 2 Ι 2 F 6-10 Ρ 3 D.K. 6 W F 0 Ι 6 1 6-16 NP 4 M.B. W 4 Ι 7 6 F 6-21 Ρ 5 L.M. W Ι 1 7-25 1 5 М С NP 6 J.K. Ι 7% 1 Μ 7-31 Ρ 0 6 W J.W. Ι 2 М W 8-1 P 0 6 8 P.V. Ι 9* 3 7-31 Ρ 0 Μ W W.W. 6 Ι 7-19 P 1 6 4 F W 10 R.K. Ι 1 М 7-31 NP 0 6 W 11 R.C. Ι 2 F 8-3 Ρ 0 6 С 12 A.L. NP 0 Ι 10 С 7-8 4 M 13 T.M. Ι l 7 С 8-6 P 3 Μ 14 R.B. 2 Ι 3 F С 8-7 Ρ 6 15 L.S. Ρ 0 6 27 M W 8-10 16 J.R. Ρ 2 Ι F С 8-11 5 6 17 D.L. Ρ 0 Ι 3 F 8-5 18 6 W т.н. Ι 7 Ρ 3 F W 8-10 19 C.K. 6 Ι Ρ 7/12 Μ ?8-20 0 6 W 20 G.R. 3 Ι 7 Μ 8-6 P 1 W 21 J.B. Ρ 0 Ι F 8-5 3 W 22 6 S.H. Ι 23

1963 Philadelphia Polio Cases

Ρ ? 6 2 F С 8-19 W.W. P 1 F 8-13 6 1 W P.H. 0 3 M 8-7 NP 8 W R.D. 7 NP 0 С 8-13 Μ 8 A.B. NP 0 6 7/12 М W 8-16 R.C. 8-28 Ρ 0 7 М С 6 C.H. Ρ 0 Μ С 8-18 6 5 W.F. Ρ 0 W 8-16 1 Μ 6 J.H. Ρ 2 5 1 F С 8-25 J.W. ? Ρ С 8-30 6 5 Μ M.C. Ρ 4 М W 8-19 2 6 S.B. Ρ 3 F 8-20 6 W 2 M.D. P 3 С 8-11

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B.H.

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Case	rr _e leebri Ers avai ĭ	Dist.	ntyj Liteto	tton i k HT		Date of	Para.	10 t a te tot	Virus
No.	Initials	No.	Age	Sex	Race	Onset	Status	IPV	Isolations
36	к.т.	5	4	F	с	8-14	Р	2	**
37	K.C.	3	11	M	C	8-20	NP	0	**
38	W.J.	7	8	М	С	8-3	NP	4	**
39	B.G.	4	22	F	С	8-23	P	0	**
40	C.M.	6	1	F	W	9-1	P	0	**
41		9	24	М	W	9→6	Р	0	**
42		7	3	М	W	8-15	NP	з	I
43	E.R.	5	2	М	W	9-9	P	0	**
44	E.F.	1	23	F	C	9-10	P	3	**
			1.14						

1963 Philadelphia Polio Cases (Continued)

* Siblings

** Viral Studies in Process

B. Alabama

Dr. W.H.Y. Smith, Director of Preventable Diseases, Alabama State Department of Public Health, reports there have been a total of 41 cases in Alabama thus far in 1963. Of these, 19 have been concentrated in four counties. The remainder are scattered through the northern part of the State. An outbreak in Walker County in the northwest portion of the State was reported in PSU No. 278 and 279.

During late August, it came apparent that Type I polio cases were concentrating in 3 counties north of Walker County (Lawrence, Winston, and Marion Counties), so that by August 20, there were 12 known cases in the 3 county area. The total population for this area is 61,000; however, there are no communities larger than 2,500 people. The dates of onset of the cases varied from late June through mid-August. One case became ill on June 22, and was the only case that month. Five of the cases became ill in July, and 6 during the first two weeks of August. Ten of the 12 cases were among white persons; however, it should be noted that about 85% of the population of this area is white. All of the cases occurred among children, 7 of them under age 5. All of the cases were paralytic, and only 2 had received previous polio immunization. The cases were widely scattered geographically, and no factor common to all of them could be found. The cases are summarized in the form of a line listing shown on the following page.

.H.E

.H. H.

County	Age	Race	Sex	Onset	IPV	Para. Status	Virus Isol.
Lawrence	12	W	F	7-11	0	P	*
Lawrence	12	W	F	7-20	З	Р	*
Lawrence	2	W	F	8-1	0	Р	*
Lawrence	4	С	F	8-4	0	Р	*
Winston	9	W	F	6-22	0	P	I
Winston	14	W	М	7-30	0	Р	I
Winston	4	W	М	8-4	3	P	*
Winston	14	W	М	8-11	0	Р	*
Winston	3	W	М	8-11	0	Р	*
Marion	3	W	F	7- 5	0	Р	No Spec.
Marion	3	С	F	7-14	0	Р	*
Marion	4	W	М	8-7	0	P	*

*In process at State Health Department Laboratory

A mass vaccination program utilizing vaccine from the CDC epidemic reserve was carried on simultaneously in the 3 county area on August 24. A total of 35,764 persons received the monovalent Type I oral vaccine.

C. Michigan

Dr. George H. Agate, Director of Epidemiology, Michigan Department of Health, reports 3 recent paralytic cases among pre-school age Negro children in Grand Rapids. All 3 cases live in a slum area south of the business district. Type I poliovirus has been isolated from stool specimens on each of the cases. The dates of onset range from 8/10 to 8/28. In addition, there have been several suspect cases hospitalized with onsets as recent as September 17.

A mass community program utilizing vaccine from the CDC epidemic reserve will be held in Grand Rapids on Saturday, September 21. A line listing of the reported cases can be found below.

Initials	Age	Race	Sex	IPV	Onset	Virus Isol.	Para. Status
M.H.	2	С	М	0	8-10	I	Р
L.C.	2	С	F	0	8-27	I	Р
Α.Τ.	3	С	F	0	8-28	I	Р

D. Vermont

Dr. Linus J. Leavens, Director of Communicable Disease Control, Vermont State Department of Health, reports a recent case of paralytic polio from the community of Albany (a few miles south of the Canadian border). This is a 19 month old unvaccinated white male child from whom a Type III poliovirus has been isolated from the stool. Because of the occurrence of a number of cases of Type III polio in Quebec (see Foreign Reports) many of which are very close to the Vermont-Canada border, the State Health Department has begun a vaccination program in the northern tier of counties along the border. Utilizing Type III monovalent vaccine from the CDC epidemic reserve, immunization programs are being carried out in Franklin, Orleans and Essex counties (total population 55,000).

E. Virginia

Dr. James B. Kenley, Director of the Bureau of Epidemiology, Virginia State Department of Health, reports three recent paralytic cases in the City of Petersburg and an additional case in the near-by community of Chester. All of these cases have recent onsets of illness and are among unvaccinated Negro children. Virologic study is currently underway in an effort to ascertain the poliovirus type.

3. ENTEROVIRUS SURVEILLANCE

Thus far in 1963, the Poliomyelitis Surveillance Unit has received reports on 133 non-polio enterovirus isolations. These are tabulated by State below.

			ECHO					Coxs	ackie			
State	4	9	11	14	Other*	AS	Bl	<u>B2</u>	<u>B3</u>	B5	Other**	Total
Calif.	8	1		2	4	1	•					16
Conn.		2		1					1			4
Ga.	1											1 2
Idaho								_	2	-		
I11.		1			2	4		. 1		1		20
Kansas		-	11		1		14		,			26 7
Ky.	1	5		1	1	2	1	2	1		5	12
La. Mass.	•			Ŧ	-	1		2			5	12
Mich.	2	1		1			•					
Minn.	2	1		-	1	5	i					6
Mo.										1		1
N.M.	0	4		1	1	3	1	1			2	4 6 1 4 10
N.Y. Ohio	2	1		1	T			-			2	1
Oregon		2										2
Pa.		1	1		1			1				4
S.C.	1											1
Tenn.							3		1			4
Wash.		4		l		1	•					6
Wisconsi	n			1								1
m												
Total	15	22	12	8	11	17	29	5	5	2	7	133

Non-Poliovirus Isolations From 1963 Specimens

*ECHO virus isolates as follows: Calif. El3, E22, 2E31; Ill. E6, E8; Kansas E6; La. El7; Minn. E5; M.Y. E7; Pa. E8. **Coxsackie virus isolates as follows: La. 5A2; N.Y. A2_ A23

4. ROUTINE SURVEILLANCE

A. Cases Occurring Within '30 Days Following Inactivated Vaccine

To date in 1963, there have been no reported cases of poliomyelitis occurring within 30 days following inactivated vaccine.

B. Cases Occurring Within 30 Days Following Oral Vaccine

During the six-week period ending September 13, 1963, 4 cases of polio, all paralytic, occurring within 30 days following oral polio vaccine, were reported to the Poliomyelitis Surveillance Unit on individual case forms. One case followed vaccination with Type I, and occurred in the epidemic area of Cumberland County, Pennsylvania. In addition, 3 cases have been reported following Type III vaccine from California, Minnesota, and Tennessee. All 4 cases are summarized in the line listing below.

State	County	Age	Sex	Onset		Intv. (<u>Days</u>)	Type Fed	Doses IPV	Para. Status
California	Kings	10 mos.	М	4-1	3-10	21	III	0	Р
Minnesota	Hennepin	19	М	5-27	5-13	14	III	0	Р
Tennessee	Montgomery	ll mos.	М	6-16	6-6	10	III	0	Ρ
Penn.	Cumberland	11	F	6-27	6-26	l	I	0	Р

5. FOREIGN REPORT - Canada

Dr. A.R. Foley, Provincial Epidemiologist, Quebec, reports that cases of poliomyelitis have recently been occurring in the Province. There were sporadic cases reported during late spring and early summer; however, there was a sharp increase in number of cases during August. Type III poliovirus has been isolated from 2 of the cases. About 65% of the cases have been in the "eastern townships" centered around the City of Sherbrooke. There have been 12 cases in the Montreal Metropolitan area. Thus far, there have been 7 deaths. The age distribution (given below) indicates involvement primarily of school age children.

Poliomyelitis - Quebec 1963 By Age

Age	No. Cases	% Cases*
0-4	12	21
5-9	14	25
10-14	18	32
15+	12	21
Unk.	7	
Total	63	

*Percentages calculated on 56 cases with known ages.

No information is available at present on the vaccination status of the cases; however, it is known that approximately 65% of the population residing in the epidemic area have received 3 or more doses of inactivated polio vaccine.

On August 10, a program of vaccination using a balanced trivalent oral vaccine was begun in areas of the province where cases were occurring. To date, approximately 137,000 doses have been administered.

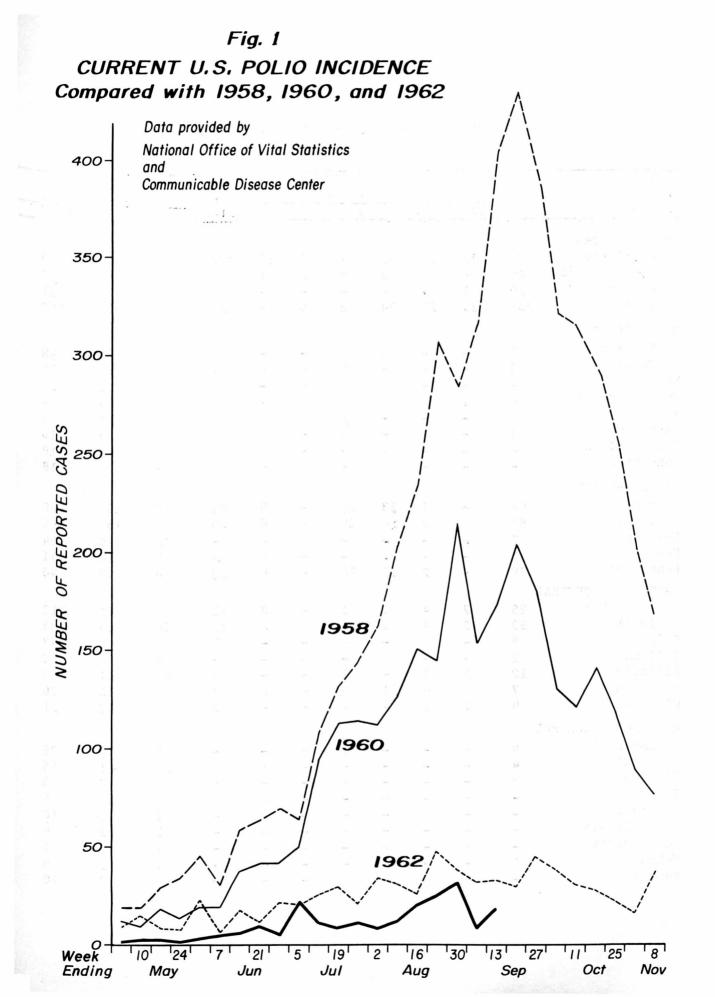


Table 1

TREND OF 1963 POLIOMYELITIS INCIDENCE

State	Cumula	- Ca	ses	Report	ted to	o CDC		Six	Comp	arable	Six
and	tive			Week				Week		ks Tota	
Region	1963	8/10	8/17	8/24	8/31	9/7	9/14	Total	1962	1961	1960
United States											
Paralytic	222	11	20	21	27	7	17	103	162	278	632
Nonparalytic	222	-	20	3	5	í	1	100	.32	101	217
Unspecified	10	ī	-	-	-	-	-	10	.52	39	111
Total	257	12	20	24	32	8	18	114	202	418	960
	237	12	20	24	02	0	TO	1 74	202	410	500
NEW ENGLAND											
Paralytic	3	-	-	-	2	-	-	2	-	12	48
Total	3	-	-	-	2	-	-	2	-	16	72
Maine	-	-	-	-	-	-	-	-	-	2	15
New Hampshire	-	-	-	-	-	-	-	-	-	1	-
Vermont	1	-	-	-	1	-	-	1	-	3	5
Massachusetts	2	-	-	-	1	-	-	1	-	7	16
Rhode Island	-	-	-	-	-	-	-	-	-	-	18
Connecticut	-	-	-	-	-	-	-	-	-	3	18
MIDDLE ATLANTIC											
Paralytic	68	-	2	13	21	_	5	41	16	101	126
Total	87	_	2	16	26	-	6	50	21	151	165
New York	7		-	-	-	_	-	-	11	120	84
New Jersey	1	-	_	-	_		-	-	2	14	41
Pennsylvania	79	-	2	16	26	_	6	50	8	17	40
		_	2	10	20		Ũ	00	0	÷,	
EAST NORTH CENTRA		•			-		•		00		
Paralytic	25	2	4	1	1	-	3	11	22	31	112
Total	33	3	4	1	1		3	12	28	53	193 43
Ohio	8	-	1	-	-	-	-	1	8	9	
Indiana	2	-	-	-	-	-	-	-	3	6	50 63
Illinois	12	2	2	-	1	-	-	5	11	11	26
Michigan	7	-	-1	1	-	-	3	4	5	15	20
Wisconsin	4	1	T	-	-	-	-	2	1	12	11
WEST NORTH CENTRA	AL										
Paralytic	4	-	-	-	-	-	-	-	8	10	26
Total	4	-	-	-	-	-	-	-	11	21	55
Minnesota	3	-	-	-	-	-	-	-	3	2	13
Iowa	-	-	-	-	-	-	-	-	-	10	5
Missouri	-	-	-	-	-	-	-	-	2	3	10
North Dakota	-	-	-	-	-	-	-	-	1	2	6
South Dakota	-	-	-	-	-	-	-	-	1	1	2
Nebraska	_										
	l		-	-	-	-	-	-	4	1	9

and Begion tive 1963 for Week Ending: 6/10 8/17 8/24 6/31 9/7 Yeak 9/14 Weeks Total 1962 Veeks 1962 Total 1963 1960 SOUTH ATLANTIC Paralytic 133 3 3 2 1 4 15 16 54 115 Total 33 3 2 2 1 4 15 17 69 154 Delaware 1 - - - - - 1 - 1 3 8 8 - - - 1 1 15 10 West Virginia 1 - - - 1 3 3 8 43 8 9 Florida 6 12 1 1 - -	State	Cumula- Cases Reported to CDC						Six		Comparable Six		
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Maryland - - - 1 - - 1 - - - 1 - - - - 1 - 1 1 1 - - - - 1<			3		2	2	1	4		17	69	154
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Mest Virginia 1 - - - - - 2 11 16 North Carolina 3 - - - - - 2 6 32 South Carolina 6 2 - - 1 3 3 8 43 Georgia 12 1 1 2 2 1 1 8 4 8 9 Florida 6 - 1 - - 1 1 15 10 EAST SOUTH CENTRAL - - - 1 1 5 7 5 - 4 30 23 19 24 Total 54 5 9 5 1 6 4 30 23 19 24 Total 54 5 9 5 1 6 4 30 23 11 1 7 Alabama 41 5 7 5 4 2 23 11 4 3		-	-	-	-	-	-	-	-	1	-	-
North Carolina 3 - - - - - - 2 6 32 South Carolina 6 2 - - - 1 3 3 8 43 Georgia 12 1 1 2 2 1 1 8 4 8 9 Florida 6 - 1 - - - 1 1 15 10 EAST SOUTH CENTRAL - - - - 1 1 15 10 Total 54 5 9 5 1 6 4 30 23 19 24 Total 54 5 9 5 1 6 4 30 23 19 24 Total 54 5 9 5 1 6 4 30 23 19 24 Tenessee 8 1 - 1 12 23 11 - - 1 3 55 24	Virginia	4	-	-	-	-	-	2	2	4	7	12
Morth Carolina 3 - 1	West Virginia	1	-	-	-	-	-	-	-	2	11	16
South Carolina 6 2 - - - 1 3 3 8 43 Paralytic 6 1 2 2 1 1 8 4 8 9 Florida 6 1 2 2 1 1 8 4 8 9 Florida 6 1 2 1 6 4 30 23 19 24 Paralytic 52 5 9 5 1 6 4 30 29 26 77 Kentucky - - - - - 11 3 48 Tennessee 8 - 1 - 1 2 - 4 6 7 17 Alabama 41 5 7 5 - 4 2 23 11 4 3 Mississispipi 5 1 - - 1 4 72 47 61 Arkansas 4 1 -		3	-	-	-	-	-	-	-		6	32
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Key to all disease surveillance activities are those in each State who serve the function as State epidemiologists. Responsible for the collection, interpretation and transmission of data and epidemiological information from their individual States, the State epidemiologists perform a most vital role. Their major contributions to the evolution of this report are gratefully acknowledged.

STATE

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