

COMMUNICABLE DISEASE CENTER

POLIOMYELITIS

S U R V E I L L A N C E

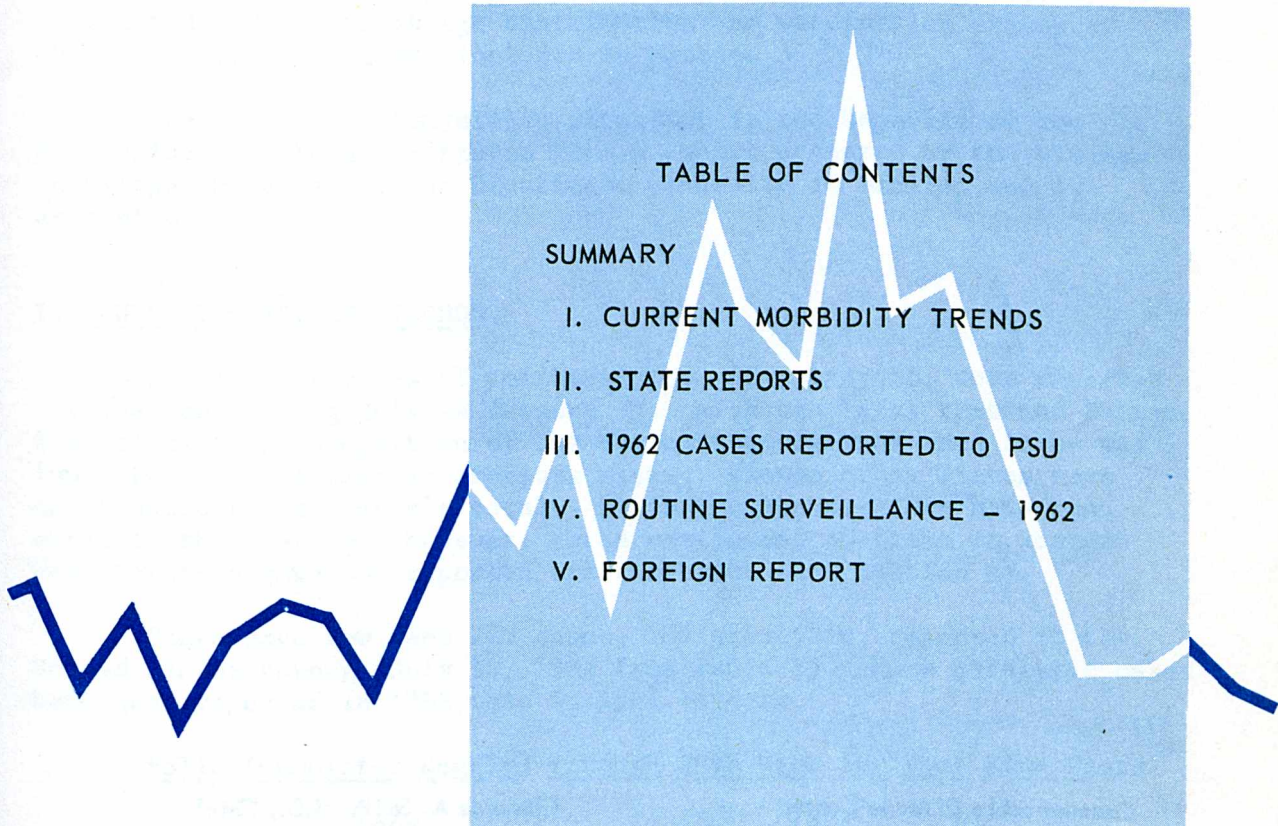


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PREFACE

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.

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SUMMARY

Telegraphic reports of 24 cases of poliomyelitis, 15 paralytic, were received for the 28th week ending July 14. Texas accounted for 9 cases, approximately one-third of the total, while reports of 15 cases were received from eleven other States.

California has noted 8 cases in the past three weeks; two of these cases had recently moved from South Texas. Narrative reports from Texas, California, and West Virginia are presented in Section 2.

Of the 164 cases of paralytic poliomyelitis with onsets in 1962, 140 individual case forms have been submitted to the Poliomyelitis Surveillance Unit. Sixty-eight percent of these have been totally unvaccinated. The data on age distribution and vaccination status of these paralytic cases are included in Section 3.

The current poliomyelitis situation in the Republic of the Philippines has been abstracted from a report prepared by the Disease Intelligence Center of the Department of Health in Manila, and is presented in Section 5.

1. CURRENT MORBIDITY TRENDS

Twenty-four cases of poliomyelitis, 15 paralytic, were reported for the week ending July 14 (Figure 1). Although Texas reported 9 cases, 4 paralytic, the proportion of the Nation's cases from this State was lower than it has been in previous weeks. Eleven other States have contributed to this week's total. No case concentrations have been noted in these States; however, three contiguous counties in western West Virginia have now reported one case each (see Section 2).

There have now been 245 cases, 186 paralytic, reported in the United States through July 14, 1962 (see Table I). More paralytic cases have been reported in 1962 than in 1961 to date.

Polio (Cumulated Weekly) through 28th Week for Past Five Years

	<u>1962</u>	<u>1961</u>	<u>1960</u>	<u>1959</u>	<u>1958</u>
Paralytic	186	180	454	974	416
Total	245	277	612	1,458	818

The six-week cumulative totals for the past five years are shown below.

Six-Week Totals (23rd thru 28th Week) for Past Five Years

	<u>1962</u>	<u>1961</u>	<u>1960</u>	<u>1959</u>	<u>1958</u>
Paralytic	73	53	217	569	197
Total	95	92	281	877	394

2. STATE REPORTS

A. Texas

Dr. Van C. Tipton, Chief, Communicable Disease Division, Texas State Department of Health, reports 9 cases - 5 paralytic - for the week ending July 14. Dallas County reported 3 paralytic cases, while Atascosa and Bexar County accounted for one each. The nonparalytic cases stemmed from Tarrant County (Fort Worth), and Harris County (Houston), each reporting two cases.

The Texas totals now stand at 113 cases, 90 paralytic, with five counties in the State accounting for 53 (59 percent) of the paralytic cases. Currently, Dallas County represents the most active focus of poliomyelitis in the State. The nine paralytic cases which have been reported have all had onset since June 6; seven of these cases have become ill since June 24. The Dallas County cases are shown below by week of onset.

Week Ending:	<u>6/2</u>	<u>6/9</u>	<u>6/16</u>	<u>6/23</u>	<u>6/30</u>	<u>7/7</u>
Dallas County*	0	1	1	0	4	2

* One case with unknown onset not shown; reported week ending July 14.

B. California

During the past three weeks, California has reported 8 paralytic cases. Dr. Henry Renteln, Head of the Poliomyelitis Surveillance Unit, California State Department of Public Health, reports that three of these have occurred in Los Angeles County, and three in adjacent Ventura County. However, none of these cases have been geographically or epidemiologically related.

Two of the cases occurring in Ventura County again illustrate the current mobility of the poliovirus. These two, siblings, were children residing in Pearsall, Frio County, Texas (scene of a severe outbreak involving 8 cases) until June 14, when they moved to California. Both had received Type I oral poliovaccine on June 4. The onsets of their paralytic illness were on June 22, and June 26. Specific laboratory and epidemiologic investigations are being made in these cases to clarify this situation.

Reference is made to Poliomyelitis Surveillance Report No. 262 (July 13, 1962) which described a case of paralytic poliomyelitis occurring in Minnesota in an individual who had also migrated from Texas.

C. West Virginia

Three cases of paralytic poliomyelitis have been reported from this State in the past three weeks by Dr. L.A. Dickerson, Director, Communicable Disease Division, West Virginia State Department of Health. One case has been recognized in each of the adjacent counties of Putnam, Mingo, and Williamson in the western section of the State.

The Williamson County case was recognized as poliomyelitis after the family had moved from West Virginia to Connecticut on July 6, and was reported to Dr. Dickerson by the Connecticut State Department of Health.

All three reported cases had received no immunization.

3. 1962 POLIOMYELITIS REPORTED TO PSU

Of the 186 cases of paralytic poliomyelitis reported through the week ending July 14, 164 had onset in 1962. Twenty-two cases represent delayed reports with onsets of illness in 1961.

To date in 1962, there have been 60 poliovirus isolates reported from the 164 paralytic cases. Of these, 53 are Type I, and 7 are Type III poliovirus. Texas has accounted for 62 percent of the isolates which have been reported. The isolates have been reported from the following States:

State	Poliovirus			Total
	I	II	III	
Alabama	1	0	0	1
Arizona	2	0	0	2
Arkansas	0	0	1	1
California	0	0	1	1
Georgia	0	0	1	1
Illinois	1	0	0	1
Kentucky	1	0	1	2
Louisiana	2	0	0	2
Massachusetts	2	0	0	2
Minnesota	2	0	0	2
Montana	1	0	0	1
New York	3	0	0	3
Ohio	0	0	2	2
Texas	36	0	1	37
Utah	1	0	0	1
Wyoming	1	0	0	1
TOTAL	53	0	7	60

The Poliomyelitis Surveillance Unit has received individual case forms on 140 of the 164 paralytic cases with onset in 1962. The vaccination status of the 140 paralytic cases by age group is shown below. Fifty-nine (74 percent) of the 80 paralytic cases in the 0-4 age group have been unvaccinated.

**Paralytic Poliomyelitis by Age Group
And Vaccination History Reported on PSU Forms
(Through July 18, 1962)**

Age Group	Doses of Inactivated Vaccine					Total	Percent
	OV	1-2V	3V	4+V	Unk.		
0-4	59	15	2	4	0	80	57.1
5-9	10	3	3	6	0	22	15.7
10-14	6	0	4	0	0	10	7.1
15-19	3	0	3	0	0	6	4.3
20-29	7	2	1	1	1	12	8.6
30-39	4	0	0	0	1	5	3.6
40+	5	0	0	0	0	5	3.6
TOTAL	94	20	13	11	2	140	100.0
PERCENT DOSES	68.1	14.5	9.4	8.0	-	100.0	

4. ROUTINE POLIOMYELITIS SURVEILLANCE - 1962

A. Cases with Onset Within 30 Days of Vaccine (Inactivated)

During the week ending July 14, two cases of paralytic poliomyelitis with onset within 30 days of vaccination with inactivated vaccine have been reported to the Poliomyelitis Surveillance Unit. Both cases are from Texas. One case, a two year old male from Dallas County, had been vaccinated on June 23, and had had the first symptoms of illness on June 27. The other case was a two year old female from Lubbock County who was immunized on June 21, and whose date of onset was July 1. Both of these patients had been previously unvaccinated.

Eight under-30-day cases, 5 paralytic, have been reported thus far this year.

B. Cases with Onset Within 30 Days of Vaccine (Oral)

One under-30-day paralytic case (OPV) was reported to the Poliomyelitis Surveillance Unit during the week ending July 14. This case from Bexar County, Texas was a previously unvaccinated 3 month old male who was fed Type I oral poliovaccine on June 3, and experienced onset of illness on June 5.

To date in 1962, there have been 12 under-30-day cases, 11 paralytic, reported.

5. FOREIGN REPORT - THE PHILIPPINES

Through the 22nd week, ending June 2, 1962, there have been 227 cases of poliomyelitis, including 26 deaths, reported to the Disease Intelligence Center of the Department of Health in Manila. This total represents more cases reported in 1962 than for comparable periods in recent years. The cumulative totals for the first 22 weeks in 1962 are compared to the 22 week total and annual totals for the past five years as shown below:

Poliomyelitis in the Philippines for Six Years

	<u>1962</u>	<u>1961</u>	<u>1960</u>	<u>1959</u>	<u>1958</u>	<u>1957</u>
Thru 22nd week:	227	90	80	82	135	78
Annual Total:	--	253	474	436	500	338
Annual Attack Rate*:	--	0.9	1.7	1.6	1.9	1.3

* per 100,000

As in past years, the majority of cases have been reported from the Manila area. There is apparently no seasonal pattern for the disease as observed in the Philippines, and localized outbreaks in limited areas have occurred irrespective of season. The highest attack rates have been noted in children under 5 years of age.

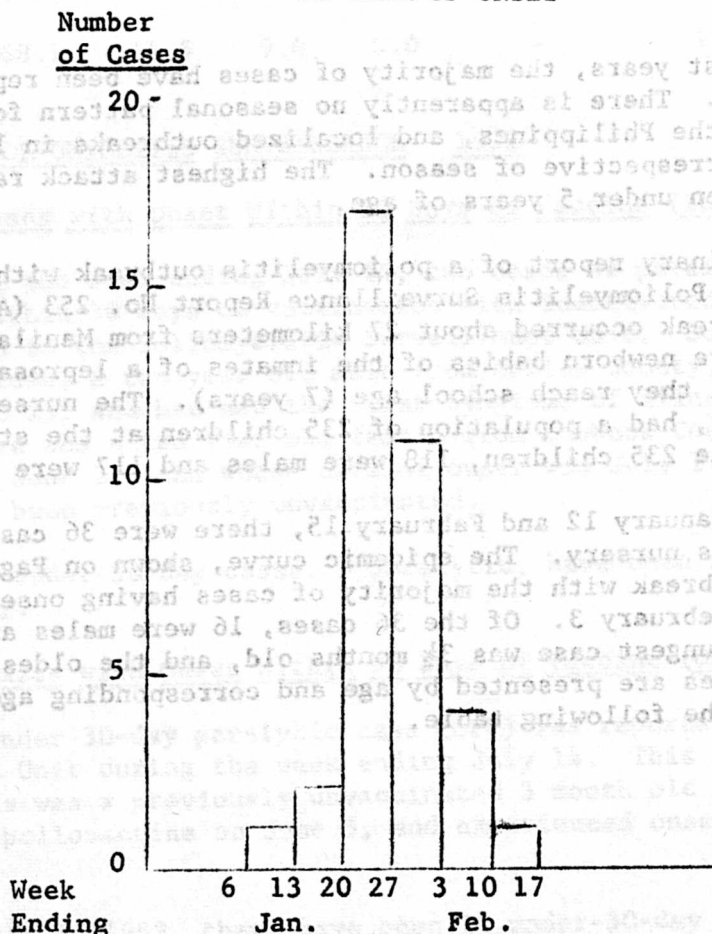
A preliminary report of a poliomyelitis outbreak within a nursery was reported in Poliomyelitis Surveillance Report No. 253 (April 6, 1962). This major outbreak occurred about 27 kilometers from Manila in an institution where newborn babies of the inmates of a leprosarium are brought up until they reach school age (7 years). The nursery, composed of ten buildings, had a population of 235 children at the start of the outbreak. Of the 235 children, 118 were males and 117 were females.

Between January 12 and February 15, there were 36 cases, including 4 deaths, at this nursery. The epidemic curve, shown on Page 6, depicts an explosive outbreak with the majority of cases having onset between January 21 and February 3. Of the 36 cases, 16 were males and 20 were females. The youngest case was 3½ months old, and the oldest was 4 years of age. The cases are presented by age and corresponding age specific attack rate in the following table.

Poliomyelitis Cases and Attack Rates by Age: **Tala Nursery, January-February, 1962**

Age	Population	Cases	Attack Rates/1,000
Under 1 yr.	43	9	209.3
1 year	44	12	272.7
2 years	55	13	236.4
3 years	27	1	37.0
4 years	37	1	27.0
5 years	12	0	0.0
6 years	16	0	0.0
7 years	1	0	0.0
TOTAL	235	36	153.2

TALA NURSERY OUTBREAK BY WEEK OF ONSET



Half of the total cases were the spinal type, and the rest either bulbar or bulbospinal. Stool specimens from 13 patients were submitted for virological examination, and 7 were positive for poliovirus Type I.

Almost 7 months before the outbreak, DPT-poliomyelitis vaccine was given to 45 children who were 4 years or older. None of these children were attacked by the disease. During the early stage of the outbreak, inactivated poliomyelitis vaccine was given to 199 children, including 28 who were given the DPT-polio combination. Of these 199 children, 17 (8.5 percent) developed the disease as compared to 19 (53 percent) of the 36 children not vaccinated. The vaccination status of the cases is shown in the following table.

Poliomyelitis Cases by Vaccination Status*
Tala Nursery, January-February, 1962

<u>Vaccination Status</u>	<u>Total Children</u>	<u>No. with Polio</u>	<u>Attack Rate (percent)</u>
Vaccinated	199	17	8.5
Non-Vaccinated	<u>36</u>	<u>19</u>	<u>52.8</u>
TOTAL	235	36	15.3

* Inactivated vaccine

(The above information has been abstracted from the Disease Intelligence Center Bulletin, Department of Health, Manila, Philippines, with the permission of J.J. Dizon, M.D., M.P.H., Chief, Disease Intelligence Center.)

Figure 1
CURRENT U.S. POLIO INCIDENCE
COMPARED WITH YEARS 1957, 1959, and 1961
APRIL-AUGUST, BY WEEK

DATA PROVIDED BY NATIONAL OFFICE OF VITAL STATISTICS
 AND COMMUNICABLE DISEASE CENTER

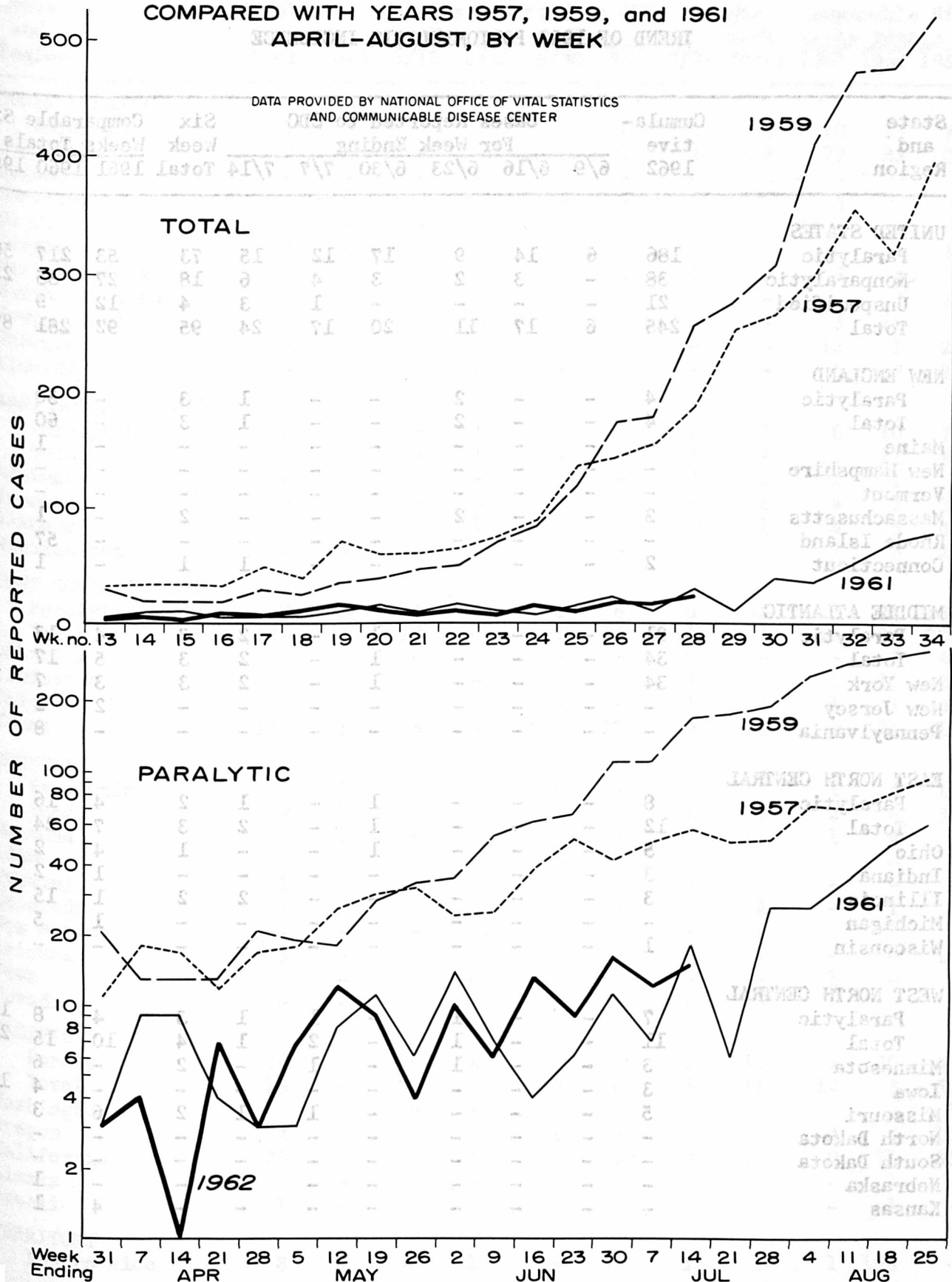


Table I

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Table I (Continued)

State and Region	Cumulative 1962	Cases Reported to CDC For Week Ending						Six Week Total	Comparable Six Weeks Totals in		
		6/9	6/16	6/23	6/30	7/7	7/14		1961	1960	1959
SOUTH ATLANTIC											
Paralytic	11	-	-	-	1	1	1	3	19	25	77
Total	14	-	-	-	1	1	1	3	29	33	104
Delaware	-	-	-	-	-	-	-	-	-	-	1
Maryland	-	-	-	-	-	-	-	-	3	-	-
D. C.	1	-	-	-	-	-	-	-	-	-	-
Virginia	2	-	-	-	-	-	-	-	-	-	20
West Virginia	3	-	-	-	1	1	1	3	5	4	9
North Carolina	2	-	-	-	-	-	-	-	-	3	22
South Carolina	1	-	-	-	-	-	-	-	3	18	7
Georgia	2	-	-	-	-	-	-	-	12	1	24
Florida	3	-	-	-	-	-	-	-	6	7	21
EAST SOUTH CENTRAL											
Paralytic	6	-	-	1	1	-	1	3	6	10	76
Total	9	-	-	1	1	-	2	4	11	11	92
Kentucky	4	-	-	-	-	-	2	2	2	1	4
Tennessee	3	-	-	-	1	-	-	1	4	2	25
Alabama	2	-	-	1	-	-	-	1	4	5	42
Mississippi	-	-	-	-	-	-	-	-	1	3	21
WEST SOUTH CENTRAL											
Paralytic	98	5	14	4	8	8	6	45	8	21	154
Total	124	5	17	6	11	12	11	62	16	38	228
Arkansas	1	-	-	-	-	-	-	-	-	5	48
Louisiana	8	-	2	-	-	-	1	3	6	11	29
Oklahoma	2	-	-	-	-	-	1	1	1	1	36
Texas	113	5	15	6	11	12	9	58	9	21	115
MOUNTAIN											
Paralytic	7	1	-	-	-	-	-	1	1	4	19
Total	9	1	-	-	-	-	1	2	2	6	35
Montana	3	1	-	-	-	-	-	1	1	4	-
Idaho	-	-	-	-	-	-	-	-	-	-	4
Wyoming	1	-	-	-	-	-	-	-	-	-	1
Colorado	1	-	-	-	-	-	1	1	-	1	4
New Mexico	-	-	-	-	-	-	-	-	-	1	9
Arizona	3	-	-	-	-	-	-	-	-	-	16
Utah	1	-	-	-	-	-	-	-	1	-	-
Nevada	-	-	-	-	-	-	-	-	-	-	1
PACIFIC											
Paralytic	24	-	-	1	5	2	2	10	7	70	48
Total	28	-	-	1	5	2	3	11	12	77	57
Washington	-	-	-	-	-	-	-	-	1	-	8
Oregon	2	-	-	-	1	-	-	1	3	4	10
California	25	-	-	1	4	2	3	10	8	71	39
Alaska	-	-	-	-	-	-	-	-	-	1	-
Hawaii	1	-	-	-	-	-	-	-	-	1	-
TERRITORY											
Puerto Rico	8	-	-	1	-	-	1	2	1	158	-

