MMMR

MORBIDITY AND MORTALITY WEEKLY REPORT

Recommendations of the Public Health Service
Advisory Committee on Immunization Practices
Poliomyelitis Prevention

Epidemiologic Notes and Reports

329

336 Legionnaires' Disease — Tennessee, Vermont

Recommendation of the Public Health Service

Advisory Committee on Immunization Practices

Poliomyelitis Prevention

INTRODUCTION

Poliovirus vaccines, used widely since 1955, have dramatically reduced the incidence of poliomyelitis in the United States. The number of reported cases of paralytic poliomyelitis declined from more than 18,000 in 1954 to 32 in 1970 to only 8 in 1976. The risk of poliomyelitis is generally very small in the United States today, but epidemics are certain to recur if the population's immunity is not sustained.

Vaccination levels against poliomyelitis have waned in recent years. Data from the national survey in 1976 indicated that 38% of 1- to 4-year-old children had not had primary vaccination against poliomyelitis. Rates for infants and young children in disadvantaged urban and rural areas were even lower. To ensure continuing freedom from poliomyelitis, it is essential to immunize all children, beginning in infancy.

Laboratory surveillance of enteroviruses shows that the circulation of wild polioviruses has diminished markedly as the number of poliomyelitis cases declined. Inapparent infection with wild strains no longer contributes significantly to maintaining immunity. This factor adds further importance to systematic vaccination programs for infants and children.

POLIOVIRUS VACCINES

Inactivated Polio Vaccine (IPV)*

Licensed in 1955, IPV has been used extensively in this country and many other parts of the world. Where systematically given, IPV has brought about a great reduction in paralytic poliomyelitis cases. Approximately 528 million doses have been administered in the United States, mostly before 1962. IPV has not been widely available in this country in recent years, but a Canadian product licensed for use here is now being marketed.

Primary vaccination with IPV produces immunity in more than 90% of recipients. The vaccine is given by injection and can be administered simultaneously with diphtheria, tetanus, and pertussis antigens (DTP) as a part of routine pediatric or medical clinic practice. There is considerable evidence from epidemiological studies that immunizing with IPV induces some degree of herd immunitofficial name: Poliomyelitis Vaccine

ty, although it is known that recipients of IPV can be infected with and become intestinal carriers of wild poliovirus or attenuated, live vaccine virus strains. No serious untoward reactions to IPV have occurred since the cluster of poliomyelitis cases in 1955 caused by vaccine that contained live polioviruses which had escaped inactivation. Trivalent Oral Polio Vaccine (TOPV)**

Since it was licensed in the United States in 1963, TOPV, the live, attenuated vaccine combining all 3 strains of polioviruses, has almost totally supplanted the individual monovalent antigens used in the early 1960s. Full primary vaccination with TOPV will produce immunity to all 3 poliovirus types in more than 90% of recipients. A majority of recipients are protected after a single dose. The vaccine is given by mouth and can be administered concurrently with DTP as part of routine pediatric or medical clinic practice.

TOPV has several advantages over IPV. TOPV is easy to administer, confers more resistance in the alimentary tract to reinfection with polioviruses, and interferes with simultaneous infection by wild polioviruses. These properties are of special value in organized community-wide vaccination programs and epidemic-control campaigns. Primary vaccination with TOPV has been shown to produce long-lasting immunity.

In rare instances oral polio vaccine has been associated temporally with paralytic disease in vaccine recipients or their close contacts. In the 8 years from 1969 through 1976, when approximately 193 million doses of TOPV were distributed, 10 cases of paralysis in otherwise healthy vaccine recipients were reported. Cases in healthy close contacts of vaccine recipients have been attributed to vaccine virus shed by vaccinees; 34 such cases were reported in the years 1969-1976. Eleven other "vaccine-associated" cases have been reported in persons (recipients or contacts) with immune deficiency conditions. These conditions appear to have predisposed to the atypical response to TOPV.

VACCINE USAGE

Rationale for Choice of Vaccine

Although IPV and TOPV are both effective in preventing poliomyelitis, when the benefits and risks for the popu-

**Official name: Poliovirus Vaccine, Live, Oral, Trivalent

Poliomyelitis - Continued

lation as a whole are balanced, TOPV is the vaccine of choice for primary vaccination of children in the United States. The choice of TOPV as the principal polio vaccine in the United States has also been made by the Committee on Infectious Diseases of the American Academy of Pediatrics (1) and a special expert committee of the Institute of Medicine, National Academy of Sciences (2). This is because TOPV establishes intestinal immunity to reinfection, is simple to administer, is well accepted by patients, does not require periodic booster doses, and has a record of having essentially eliminated disease associated with wild polioviruses in this country.

Some countries successfully use IPV, either wholly or in part, to control poliomyelitis. However, because of many differences between them and the United States, particularly with respect to risks of exposure to wild polioviruses and the ability to achieve and maintain very high vaccination rates in the population, their experiences with IPV are not directly applicable here. It is seriously doubted, in fact, based on current achievements in the United States with other injectable antigens, that a sufficient number of persons would regularly be given primary and booster vaccination with IPV to sustain the general level of poliomyelitis protection in the community needed to prevent recurrence of outbreaks,

When considering the immunization of specific individuals, there are occasions when TOPV and IPV are viewed

as being alternatives, or when either TOPV or IPV is the specific vaccine of choice, or when both TOPV and IPV may be useful. Prospective vaccinees or their parents should be made aware of the polio vaccines available and the reasons why recommendations are made for giving specific vaccines at particular ages and under certain circumstances. Furthermore, the benefits and risks of the vaccines for individuals and the community should be stated so that vaccination is carried out among persons who are fully informed.

TOPV

Primary Immunization

Infants, children, and adolescents through age 18 years: The primary series is 3 doses. The first 2 doses should be given not less than 6 and preferably 8 weeks apart. The third dose should follow in 8-12 months. For infants, the first dose is commonly given at the same time as the first dose of DTP, at 6-12 weeks of age. For older children and adolescents, the third dose may be given as early as 6 weeks after the second if circumstances do not permit the optimal 8-12 month interval.

Adults: Routine polio vaccination of adults residing in the continental United States is not necessary. This is because most adults are already immune, because the risk of exposure to poliomyelitis is generally very small, and because there may be a slightly greater risk of vaccine
(Continued on page 335)

Table I. Summary—Cases of Specified Notifiable Diseases: United States

[Cumulative totals include revised and delayed reports through previous weeks]

55.	39th WE	EK ENDING		CUMULATIVE, FIRST 39 WEEKS					
DISEASE	October 1, 1977	October 2, 1976	MEDIAN 1972-1976	October 1, 1977	October 2, 1976	MEDIAN 1972-1976			
Aseptic meningitis	150	136	160	3,266	2,289	2,748			
Brucellosis	4	3	4	174	244	148			
Chickenpox	633	409		159,242	151,191				
Diphtheria	1	-	1	70	126	143			
Encephalitis Primary	35	53	36	700	1,069	1,069			
Post-Infectious	2	2	3	159	210	224			
(Туре В	325	337	221	12,145	11,274	7,263			
Repatitis, Viral 🛂 Type A	634	77 1	771	23.060	25,545	31,415			
Type unspecified	196	154	,	6,901	6,218	1 31,413			
Anlaria	13	10	9	407	350	315			
Rensies (rubeola)	152	109	83	53,435	34,600	24,371			
Meningococcal infactions, total	24	26	17	1,359	1,214	1,084			
Civilian	24	26	17	1,350	1.197	1,059			
Military	_	-	_	9	17	25			
Aumps	179	169	298	16,018	33.031	47,585			
Pertussis	76	23		1,125	731				
Rubella (German measles)	66	54	84	18,676	10,791	14,962			
Tetanus	1	1	2	49	45	69			
uberculosis	570	627		22.846	24,989				
ularamie	5	-	2	125	106	106			
yphaid fever	5	11	14	287	316	307			
Typhus, tick-borne (Rky. Mt. spotted fever) Venereel Diseases:	23	22	15	1,020	779	706			
Gonorrhea Civilian	21.118	21.244		741.937	755,019				
(Williamy	503	508		20.289	22,454				
Syphilis, primary and secondary Civilian	449	484		15.551	18.144				
Military	14	6		232	265				
Rabies in animals	63	66	66	2.300	2.252	2,264			

Table II. Notifiable Diseases of Low Frequency: United States

	CUM.		CUM.
Anthrex:		Poliomyalitis, total:	
Botulism: Utah 1, Celif, 4 Congenital rubelte syndrome:		Paralytic: Psittacosis: Calif. 1	
Leprosy: NYC 1, Heweil 4		Rabies in man:	
Leptaepiroeis:		Trichinosis: Tex. 1	69
Plague:	15	Typhus, murine: * Ups. N.Y. 1, Tex. 1	59

^{*}Deleyed report: Typhus, murine: Fie. -2

Table III

Cases of Specified Notifiable Diseases: United States
Weeks Ending October 1, 1977 and October 2, 1976 — 39th Week

	ASEPTIC					ENCEPHALITIS			HEI	PATITIS, V			
AREA REPORTING	MENIN- GITIS	LOSIS	CHICKEN-	DIPHT	HERIA	Primary: A borne and	Arthrapad- Unspecified	Past In- fectious	Type B	Тура А	Type Unspecified	MA	LARIA
	1977	1977	1977	1977	CUM. 1977	1977	1976	1977	1977	1977	1977	1977	CUM. 1977
UNITED STATES	150	4	633	1	70	35	53	2	325	6 34	196	13	407
NEW ENGLAND	9	_	49	_	_	1	ι	_	9	13	9	1	22
Maine	_	_	1	-	-	_	-	_	-	-	_	-	-
New Hampshire*	-	-	1	-	-	-	-	-	-	1	-	-	3
Vermont	-	-		-	-	-	-	-	-	1	-	-	2
Massachusetts	3	-	16 22	-	_	1 -	1 -	-	1 3	7 2	9 -	1	4 5
Connecticut	3	_	9	_	_	-	-	_	5	2	-	•	á
MIDDLE ATLANTIC	27	-	24	-	5	4	4	2	61	59	. 39	1	88
Upstate New York*	8	-	11	-	-	-	2	2	18	11	9	-	21
New York City	4		12	-	5	1	1	-	21	15	17	1	42
New Jersey *	5 10		NN 1	-	_	1 2	ī	-	15 7	26 7	12 1	_	9 16
Pennsylvania *	10	_	•	_	_	2	•	_	•	•	•		10
EAST NORTH CENTRAL	17	-	252	-	-	15	5	-	53	104	19	1	32
Ohia*	8	-	4	-	-	10	-	-	7	22	-	1	11
Indiana	-	_	28 23	_	-	1 -	_	-	6	14	-	_	2 2
Illinois	-	-	167	-	_	2	3	_	9 26	38 21	8 11	_	14
Michigan	3	_	30	-	_	2	2	_	5	9	-	_	3
***************************************	_		30			-	-			•			
VEST NORTH CENTRAL	2	-	43	-	1	-	4	-	11	38	10	1	33
Minnesota	_	-	-	-	-	-	_	-	1 -	23 2	-	1	10
Nissouri *	1	-	28 1	_	1	_	1	_	5	7	5	-	1 16
North Dakota *		_	-	_	-	_	_	_	_	i	Ĺ	_	ĩ
South Dakota	_	-	4	-	-	-	-	-	-	-	-	-	ī
Nebraska	1	-	-	-	-	-	-	-	4	3	4	-	-
Kansas	-	-	10	-	-	-	3	-	1	2	1	-	4
AUTU AT ANTA	24	_	4.7	_	_	1	2	_	40	114	16	7	74
OUTH ATLANTIC	26	_	42 -	_	_	_	_	_	-	117	10	<u>'</u>	′-
Maryland	6	_	_	_	_	_	_	_	10	4	1	2	19
District of Columbia	_	-	-	_	-	-	1	-	-	-	_	-	4
Virginia *	4	-	3	-	-	-	-	-	5	5	4	5	21
West Virginia	L	-	18	-	-	1	-	-	-	5		-	1
North Carolina	4	-	NN -	_	_	_	-	_	5	16 6	4		7
South Carolina Georgia	_	_	_	-	_	_	1 -	-	6 4	44	5	-	8
Florida *	8	-	21	-	-		_	-	10	34	2	-	14
ACT COUTU DENTE AL	• •						-				_		
EAST SOUTH CENTRAL	13	:	17 15	_	_	7	7	_	10	37	2	-	10
Tennessee	8	_	NN	_	_	6	1	_	4	25	1	_	í
Alabama	3	-	2		-	_	4	_	4	Ś	î	-	4
Mississippi	2	-	-	-	-	1	2	-	2	7	-	-	1
NEST SOUTH CENTRAL	8	2	14	_	3	3	26	-	32	93	29	_	24
Arkansas *	-	1	-	-	-	-		-	3	9	-	-	2
Louisiana	-	-	NN	-	-	-	4	-	7	19	3	-	2
Oklahoma	3 5	- 1	1 13		- 3	1 2	22		3 19	10 55	7 19	_	סי
TRANS	9	•	13	_	,	2	~ ~	_	17	23	17	-	U
MOUNTAIN	1	1	162	-	5	1	-	_	12	43	18	-	12
Montana	-	-	7	-	-	-	-	-	2	-	1	-	1
Idaho *	1	-	2	_	-	-	-	-	-	2	-	-	
Wyoming	-	-	5 147	-	-	- 1	<u>-</u>	-	3	- 8	ī	-	2
Colorado	_	- 1	147	-	4	-	_	-	1	7	1	_	1
Arizona	_	-	NN	-	ĭ	-	_	-	4	22	15	-	2
Utah	-	-	1	-	-	-	-	-	2	4	-	-	_
Nevada	-	-	-	-	-	-	-	-	-	-	-	-	*
PACIFIC	47	1	30	1	56	3	4	_	97	133	54	2	112
Washington	2	-	20	-	52	1	1	-	2	9	5	-	5
Oregon *	10	1	1	-	-	1	-	-	7	10	2	-	1 1
California *	32	-		1 -	2	1 -	3	_	85	111	47	2	100
Hawaii	3	1 -	9	=	2 -	Ξ	Ξ	= =	2 1	2	-	_	4
Guarra *	N A	NA	NA.	NA	-	NΔ	-	-	-	NA	NA	NA	-
Puerto Rico	-	-	2		520	_	-	-		-	5 1	-	2
		_	_	-	_		-	-	_	_	-		

NN: Not notifiable
NA: Not available
*Delayed reports: Asep. meng.: Ups. N.Y. +1, N.D. +1, Fla. -1; Bruc.: Ark. -1, Idaho +2. Chickenpox: Ups. N.Y. +1, Fla. -1, Ark. +9, Calif. +4, Guam +1. Enceph., post: Ore. -1.
Hep. 8: N.H. +2, Ups. N.Y. +1, N.J. +1, Pa. +28, Ohio +1, Mo. -1, Fla. -4, Ark. +32, Ore. +3, Hep. A: Ups. N.Y. -3, N.J. -1, Pa. +19, Ohio -1, Mo. -1, Fla. -17,
Ark. +63, Ore. -2, Guam +2. Hep. unsp.: Ups. N.Y. -5, Pa. +3, Mo. -1, Va. -1, Fla. +9, Ark. -72, Tax. -1, Ore. -1, Guam +2, Malaria: Va. -1, Fla. +1

MORBIDITY AND MORTALITY WEEKLY REPORT

Table III-Continued Cases of Specified Notifiable Diseases: United States Weeks Ending October 1, 1977 and October 2, 1976 - 39th Week

D 11	M	EASLES (Rub	ecia)	MENING	OCOCCAL II	FECTIONS	М	UMP8	PERTUSSIS	RUBELLA		TETANUS
REPORTING AREA	1977	CUM	ULATIVE	1877	CUMU	LATIVE	1977	CUM.	1977	1977	CUM.	CUM.
		1977	1976		1877	1978	930.3	1977	12.10	2255	1077	1877
UNITED STATES	152	53,435	34,600	24	1,359	1,214	179	16,018	76	66	18,676	49
NEW ENGLAND	4	2 ,474 170	387 8	1 -	54 3	55 1	1	654 54	l -	<u> </u>	1,201 69	1
Maine	_	510	9	-	3	5	-	91	-	1	242	-
Vermant	-	293	41	-	6	3	-	8	-	-	64	-
Massachusetts	-	630	35	-	16	17	-	122	1 +	2	377	-
Rhode Island	4	64 807	15 279	ī	1 25	6 23	ī	58 321	-	ī	134 315	ī
MIDDLE ATLANTIC	8	8,350	7.012	7	191	174	14	1,307	3	7	6,015	4
Upstate New York*	7	3,814	2,939	2	50	65	5	288	2	3	3,369	1
New York City	1	72 7	458	1	47	46	7	489	-	1	317	1
New Jersey	_	195	600	2	39 55	25	2	352	ī	1	1,761	2
Pennsylvania	-	3,614	3,015	2	77	38	-	178		2	548	
EAST NORTH CENTRAL	27,	11.275	14,721	2	138	150	64	5,433	26	25	3.709	5
Ohio	2	1,852	573	2	56	64	7	662	1	-	1,116	1
Indiana*	2	4,328	3,295 1,612		9 22	7 17	2 23	311 957	21	5	942 321	1
Illinois	15 7	1,732 948	1,612 5,848		38	17 51	23 25	1,834	21 4	16	929	2
Wisconsin	í	2,415	3,393	-	13	11	7	1,669		4	401	=
WEST NORTH CENTRAL	4	9,779	1,229	-	71	81	25	3,615	-	2	511	8
Minnesota	-	2,620	423	-	25	14	-	6	-	-	17	2
lowa	1	4, 276	43	-	6	9	3	1,278		1	165	1
Missouri®	-	914	23	-	28	33	10	1,253	-	-	36	3
North Dakota	-	23	3	-	1	3	-	17	-	-	11	-
South Dakota	-	67	-4	-	4	3	-	59 68	-	-	18	-
Nebraska	3	214 1,665	55 678	=	2 5	6 13	12	934	-	ī	3 261	2
SOUTH ATLANTIC	30	4,609	2,177	4	294	235	10	767	10	4	1.654	11
Delewere	-	22	128	_	6	8	2	128	-	-	26	-
Maryland	-	371	715	1	20	19	2	68	-	-	5	-
District of Columbia	-	14	13	-	-	2	-	5	-	-	-	-
Virginia*	6	2.720	766	1	26	39	-	97	-	-	576	1
West Virginia	3	246	191	-	9		3	168	-	-	135	-
North Carolina South Carolina	=	64 153	17 4	-	62 29	44 36	- :	54 11	1	-	446 228	-
Georgia	1	768	2	-	52	22	_	26	8	3	55	1
Florida*	20	251	341	2	90	58	3	210	ī	ì	183	9
EAST SOUTH CENTRAL	4	2,014	840	1	141	112	12	893	2	3	1,928	3
Kentucky	1	1,190	751	-	26	21	4	95	-	•	81	1
Tennessee	3	708	72	1	38	46	3	538	2	2	1,728	1
Alabama	=	78 38	17	=	5 1 2 6	32 13	5 -	222 38	=	1 -	110 9	1 -
WEST SOUTH CENTRAL	55	2.145	709	6	274	189	23	1.454	8	2	809	9
Arkanses	-	39	3	Ξ	15	11	-4	71	ĭ	=	3	2
Louisiana	-	74	202	3	128	33	9	48	-	-	27	1
Oklahoma	_	58	291	1	11	21	6	492	1	-	_31	-
Texas	55	1,974	213	2	120	124	•	843	6	Z	748	6
MOUNTAIN	6	2,521	5,026	-	31	35	1	602	4	2	365	2
Montana	-	1, 162	204	-	2	4	-	11	-	-	14	1
Idaho	7.	161	2,020	-	4	5	-	122	-	-	13	
Wyaming	1	19	759	_	1	5	ī	244	-	1	6 234	1 -
Colorado	1	503 256	258 15	_	1 9	4	<u>.</u>	266 105	-	- 1	11	
Arizona	5	309	226	-	10	10	_	103		ī	13	-
Utah	_	18	2,234	-	3	5	-	79	-	-	65	-
Nevada	-	93	65	-	1	2	-	15	-	-	9	-
PACIFIC	14	10,268	2,499	3	165	183	29	1,293	22	17	2,484	6
Washington	5	541	343	-	20	31	3	279	1	1	444	-
Oregon [®]	9	368	165	3	11 104	17	9 17	240 723	3 18	16	110	6
Alaska	-	9,264 60	1,984	-	28	113 19	17	27		10	1,522 1	-
Hawaii	-	35	3	_	2	3	-	24	-	-	407	-
0								•	41.4	8) 4	1.0	
Guam*	A <i>P</i> E	8 921	15 413	-	1 1	3	NA 8	6 703	NA 1	NA	10 33	10
Puerto Rico	_	14	13	-	-	-	-	189	(₩		2	-
virgin islands	_	14	13	7.0	-	_	· 5	107	2.75	1500	-	155

NA: Not available

*Delayed reports: Measles: Ups, N. Y. -4, Ind. -1, Fig. +4, Ark. -10, Ors. -2, Men. inf.: Ups. N. Y. +1, Mo. -1, Ark. -2, Ors. +6, Mumps: Ark. +5, Ore. +1. Pertussis: Ups. N.Y. -2, Mo. +1, Va. +1, Fig. +14, Ark. +17, Ore. -1, Rubella: Ups. N.Y. -2. Tetanus: Ark. +1

MORBIDITY AND MORTALITY WEEKLY REPORT

Table III-Continued Cases of Specified Notifiable Diseases: United States Weeks Ending October 1, 1977 and October 2, 1976 — 39th Week

			TULA-		HOID	TYPHUS			VENEREAL	DISEASES (Civili	on Cosso	Only)		RABIES
DESCRIPTION AREA	TUBERCULOSIS		LOSIS REMIA		VER		IORNE (GONORRHEA		87	PHILIS (Pri	. & Sec.)	ANIMALS
REPORTING AREA		CUM.	CUM.		CUM.		CUM.		CUMUL	ATIVE		CUMU	LATIVE	CUM.
	1977	1077	1977	1077	1877	1977	1977	1877	1977	1975	1877	1977	1978	1977
UNITED STATES	570	22,846	125	5	287	23	1.020	21,118	741.937	755,019	449	15,551	18, 144	2,300
NEW ENGLAND	18	840 66	1	-	16	-	9	603	19,944	21,014	23	625	601	40
Maine	1	22	_	-	1	-	-	32 29	1,459 799	1,762	-	19 3	17	28 1
Vermont	-	27	-	-	-	-	-	9	494	523	-	6		-
Massachusetts	9	480 68	1	-	11	-	4	361	8,555	9.980	19	443		8
Rhode Island	5	177	-	-	2	-	3 2	62 110	1.609 7.028	1,460 6,670	4	9 146	17 128	3
MIDDLE ATLANTIC	103	3,663	2	1	60	-	60	2,194	76,389	86,996	68	2,139		72
Upstate New York* New York City	30 27	644 1,146	2	-	8 24	-	30	406 933	13,003 29,945	14,162 38,799	42	198 1,347	176	42
New Jersey	24	936	-	1	18	_	10	89	13,308	13,286	11	277	425	25
Pennsylvenia	22	937	-	-	10	-	20	766	20,133	20,749	12	317	503	5
EAST NORTH CENTRAL	94	3.580	3	-	25	-	28	3,835	117,420	117,835	45	1.625	1,546	98
Ohio	22	617	1	-	9	-	11	907	31,142	28,908	1	378	375	-
Indiana	9 26	409 1.410	_	-	1 5	-	2 14	326 1,437	10,578 38,210	11,868 40,735	38	128 847	82 821	8 29
Michigan*	34	995	-	-	10	_	ì	919	27,061	25,681	4	188	188	5
Wisconsin	3	149	2	-	-	-	-	246	10,429	10,643	2	84	80	56
WEST NORTH CENTRAL	13	755	23	1	18	-	30	996	39,077	39,775	15	347	336	583
Minnesata	1	165	-	_	4	-	-	185	6,974	6,921	9	109	76	208
lowe	2	68 316	21	ī	9	-	1 15	138 412	4,569 16,292	5,044 15,999	2	33 132	35 135	99 40
North Dakota	=	20	-:	-	í	-		12	742	614	-	-	-	87
South Dakota	2	39	2	-	-	-	2	20	1,124	1,137	1	10	4	108
Nobreske	8	30 117	-	-	1	-	1 11	119 110	3,430 5,946	3,416 6,644	-	25 38	26 60	2 39
SOUTH ATLANTIC	125	5.050	10	_	48	11	555	4.631	183,338	185,932	84	4.299	5,457	261
Delevere	3	52	-	-	-	-	3	64	2,528	2,569	-	18	54	2
Maryland	16	708	2	-	3	2	72	422	22,657	24,432	2	270	448	-
District of Columbia Virginia	7 12	255 580	1	-	1 9	3	151	306 620	12,055 19,267	12,756 19,907	8 11	441 421	42 8 499	5
West Virginia	- 5	192	=	•	4	-	5	54	2,423	2,333	-	3	20	9
North Carolina*	14	824	2	-	3	4	211	923	27,451	26,391	6	593	979	11
South Carolina Georgia	8 28	455 647	2 3	-	2 13	2	52 60	37 3 773	17,125 35,661	17,580 35,541	22	189 949	293 820	19 157
Florida	32	1,337	=	-	13	-	1	1,096	44,171	44,423	31	1,415	1,916	58
EAST SOUTH CENTRAL	44	2,095	7	-	6	7	164	1.564	65,252	66,894	10	573	712	62
Kentucky	13 19	550 627	2 5	-	1 2	3	40 98	322 763	9,026 26,151	8,725	2	76	102	21
Alebama	5	556	-	_	1	-	19	703	17,503	26,572 18,832	-	176 119	238 151	31 10
Mississippi	7	362	-	-	2	4	7	479	12,572	12,765	6	202	221	
WEST SOUTH CENTRAL	77	2,676	63	1	24	4	156	2,358	93,329	96,217	79	2,293	2,164	637
Arkansas *	9 8	298 501	43 1	-	5 1	3	51	119 215	7,190	8,893		53	76	95
Louisiana	4	237	10	_	i	_	6 71	258	13,716 8,935	13,936 9,244	37 3	540 62	438 79	21 204
Texas*	56	1,640	9	1	17	1	28	1,766	63,488	64,144	39	1,638	1.571	317
MOUNTAIN	20	666	10	-	25	-	13	830	30.002	30,763	12	370	467	167
Montana	1	39 30	1 -	-	-	-	6	44	1,572	1,555	-	. 4	7	45
Wyoming		14	ī	_	=	_	2	32 25	1,393 725	1,658 596	1	15	19 3	1
Colorado	-	85	3	-	8	-	1	307	7,940	7,713	5	103	105	54
New Mexico	5	133	-	-		<u>-</u>	-	84	4,356	5.748	4	106	118	17
Arizona	11	290 32	2 3	-	11 5	-	-	203 45	8,337 1,771	9,050 1,595	1	116	168 18	40 10
Neveds	2	43	=	-	í	-	-	90	3,908	2,848	1	14	29	-
PACIFIC	76	3,521	6	2	65	1	5	4.107	117,186	109,593	113	3,280	3,823	380
Washington Oregon [®]	NA 3	227 142	1	_	2 3	-	- 1	361 252	8,861 8,076	9,281 8,303	NA 8	158 110	121	2
California	67	2,650	5	2	59	ī	4	3,236	8,076 94,077	86,794	99	2,959	84 3,528	6 335
Alaska	-	55	-	-	-	-	•	207	3,735	3,173	4	23	19	37
Haweii	6	447			1			51	2,437	2,042	2	30	71	-
Quem*	NA	45	-	NA	1	NA	-	NA	147	248	NA	1	2	
Puerto Rico	24	294	-	-	6	-	_	20	2,395	2,095	7	419	452	46
Virgin Islands	-	1	-	-	-	-	-	_5	164	195	1	8	48	_

NA: Not available

NA: Not available

Delayed reports: TB: N,H. -1, Ups. N,Y. -8, Mich. -1, N.C. -4, Fla. -30, Idaho -5, Guam +2. Typhold faver: Mo. +1, Fla. +1. RMSF: Mo. -1, Va. -1, Ark. +8. GC: Ups. N,Y. -89 civ. +1 mil.. Fla. -3 civ., Tax. +3 civ., Guam +10 civ. Syphills: Ups. N,Y. +2, Fla. -15, Ark. -1, Ors. -1, Guam +1 civ.; An. rabies: Ups. N,Y. +4, Fla. -1, Tax. +3

Table IV Deaths in 121 United States Cities*
Week Ending October 1, 1977 - 39th Week

Springfield, Mass. 34 Waterbury, Conn. 25 Worcestar, Mass. 55 MIDDLE ATLANTIC 2, 912 Albany, N. Y. 45 Allantown, Pa. 16 Buffalo, N. Y. 16 Erica Pa. 36 Icizabeth, N. J. 26 Erica Pa. 34 Jersey City, N. J. 45 Newark, N. J. 53 New York City, N. Y. 1, 377 Paterson, N. J. 25 Philadelphia, Pa. 469 Pittsburgh, Pa. 245 Reading, Pa. 35 Rochester, N. Y. 11 Schenectady, N. Y. 26 Syracuse, N. Y. 36 Vyracuse, N. Y. 36 Utica, N. Y. 22 Yonkers, N. Y. 36	990088079928955 59646649335355	65 Years and Owe 413 116 16 23 21 29 100 13 15 39 45 6 24 14 22 11,841 39 10 64 19 12 22 33 27 886 14 285	726 96 100 111 77 51 118 34 414 91 10 12	28-44 Years 30 16 1 - 14 2 - 2 1 1 1 1 7 5 2 2 2	23 11 1 3 5 3 11 4 3 5 3 3 91 1 4 3	moniu and Influenza ALL AGES 25 8 - 3 1 2 - 4 1 1 - 3 3	SOUTH ATLANTIC Atlanta, Ga. Baltimore, Md. Charlotte, N. C. Jacksonville, Fla. Miami, Fla. Morfolk, Va. Richmond, Va. Savannah, Ga. St. Petersburg, Fla. Tampa, Fla. Washington, D. C. Wilmington, D. C. Wilmington, D. C. Bernington, D. C. Wilmington, D. C. Chattanooga, Tenn. Knoxville, Tenn.	ALL AGES 1,133 100 228 84 68 117 46 68 41 81 87 188 25	664 48 144 45 36 68 30 45 26 71 50 87 14	45-64 Years 297 39 45 25 22 35 11 17 8 8 22 59 6	25-44 Years 81 4 19 7 6 8 2 1 4 - 8 19 3	Under 1 Year 56 6 11 3 1 1 3 3 2 5 5 17 2	monia and Influenza ALL AGES 39 12 55 47 71 22 55 43 39 — 9
Boston, Mess. 195 Bridgeport, Conn. 30 Cambridge, Mass. 36 Fall River, Mass. 26 Hartford, Conn. 46 Lowell, Mess. 17 New Bedford, Mess. 15 New Haven, Conn. 55 Providence, R.I. 62 Somerville, Mass. 30 Waterbury, Conn. 25 Worcester, Mass. 55 MIDDLE ATLANTIC 2, 91 Albany, N. Y. 16 Buffalo, N. Y. 16 Buffalo, N. Y. 16 Elizabeth, N. J. 26 Erie, Pa. 34 Jersey City, N. J. 43 Jersey City, N. J. 1, 37 Paterson, N. J. 25 Philadelphia, Pa. 49 Pittsburgh, Pa. 35 Rochester, N. Y. 26 Scranton, Pa. 35 Rochester, N. Y. 36 Syracusa, N. Y. 37 Trenton, N. J. 36 Litica, N. Y. 36 Syracusa, N. Y. 37 Trenton, N. J. 36 Litica, N. Y. 36 Chicago, Ill. 53 Canton, Ohio 65 Canton, Ohio 13 Canton, Ohio 13 Cayton, Ohio 13 Cay	90088079928955 5964649335355	116 16 23 21 29 10 13 15 39 45 6 24 14 42 1,841 39 10 64 19 12 22 23 32 27 88 6 14 285	7 13 7 5 11 8 3 4 4 14 9 1 10 12 7 26 9 5 26 9 6 10 11	16 1 -1 4 2 2 1 1 1 1 1 7 1 7 1 7 1	11	8 3 1 2 1 1 1 1 1 3	Atlanta, Ga. Baltimora, Md. Charlotte, N. C. Jacksonville, Fla. Miami, Fla. Morfolk, Va. Richmond, Va. Savannah, Ga. St. Petersburg, Fla. Tampa, Fla. Washington, D. C. Wilmington, Del. EAST SOUTH CENTRAL Birmingham, Ala. Chattanooga, Tenn. Knoxville, Tenn.	100 228 84 68 117 46 68 41 81 87 188 25	48 144 45 36 68 30 45 26 71 50 87 14 421 64 38	39 45 25 22 35 11 17 8 8 22 59 6	4 19 7 6 8 2 1 4 - 8 19 3	6 11 3 1 1 3 3 2 2 5 17 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1 2 5 4 7 1 2 3 2 5 4 3 3 9
Bridgeport, Conn. 36 Cambridge, Mass. 30 Fall River, Mass. 26 Hartford, Conn. 46 Lowell, Mass. 27 Lynn, Mass. 17 New Bedford, Mass. 19 New Haven, Conn. 55 Providenca, R.I. 62 Somerville, Mass. 33 Waterbury, Conn. 29 Worcester, Mass. 55 MIDDLE ATLANTIC 2, 912 Albany, N. Y. 45 Allentown, Pa. 16 Buffalo, N. Y. 10 Camden, N. J. 26 Erie, Pa. 34 Jersey City, N. J. 49 Pittsburgh, Pa. 25 New York City, N. Y. 1, 37 Paterson, N. J. 25 Philadelphia, Pa. 49 Pittsburgh, Pa. 36 Reading, Pa. 31 Rochester, N. Y. 36 Utica, N. Y. 36 Utica, N. Y. 36 Canton, Ohio 56 Canton, Ohio 65 Canton, Ohio 10 Oayton, Ohio 10 Clumbus, Ohio 13 Gary, Ind. 25 Readison, Wis. 46 Midwaukee, Wis. 10 Rockford, III. 15 Rockford, III. 43 Rockford, III. 43	0088079928955 5964649335355	16 23 21 29 10 13 39 45 6 24 14 42 1,841 39 10 64 19 12 22 33 27 886 14 285	13 7 5 11 8 3 4 14 9 10 12 7 26 9 5 26 10 11 17	1 - 1 4 2 2 1 1 1 1 1 1 1 7 7 - 1 7 5 2	3 5 - 3	3 1 2 1 1 1 1 3	Baltimore, Md. Charlotte, N. C. Jacksonville, Fla. Miami, Fla. Norfolk, Va. Richmond, Va. Savannah, Ga. St. Petersburg, Fla. Tampa, Fla. Vashington, D. C. Wilmington, Del. EAST SOUTH CENTRAL Birmingham, Ala. Chattanooga, Tenn. Knoxville, Tenn.	2 28 84 68 1 17 46 68 41 81 87 1 88 25	144 45 36 68 30 45 26 71 50 87 14	45 25 22 35 11 17 8 8 22 59 6	19 7 6 8 2 1 4 - 8 19 3	11 3 1 1 3 3 2 2 5 17 2	2 5 4 7 1 2 3 2 5 4 3
Cambridge, Mess. 36 Fall River, Mess. 26 Hartford, Conn. 46 Hartford, Conn. 46 Lowell, Mess. 20 Lowell, Mess. 17 New Bedford, Mess. 15 New Haven, Conn. 55 Providence, R.I. 62 Somerville, Mess. 36 Waterbury, Conn. 25 Worcester, Mess. 56 MIDDLE ATLANTIC 2, 91 Albany, N. Y. 45 Allentown, Pa. 16 Buffalo, N. Y. 104 Camden, N. J. 26 Erie, Pa. 34 Jersey City, N. J. 45 Newerk, N. J. 55 New York City, N. Y. 1, 37 Paterson, N. J. 25 Philadelphia, Pa. 46 Reading, Pa. 16 Reading, Pa. 35 Rochester, N. Y. 26 Scranton, Pa. 56 Syracuse, N. Y. 26 Canton, Ohio 26 Canton, Ohio 26 Canton, Ohio 10 Calumbus, Ohio 10 Carton, Ohio 10 Carton, Ohio 26 Canton, Ohio 10 Carton, Ohio 10 Cart	088079928955 5964649335355	23 21 29 10 13 15 39 45 6 24 14 42 1,841 39 10 64 19 12 22 23 33 27 886 14 285	7 5 11 8 3 4 4 14 9 1 1 9 10 12 726 9 5 26 10 11 17	1 4 2 2 - 2 1 1 1 1 1 1 1 7 7 5 2 2	355-33-	3 1 2 - 1 1 1 - 3	Charlotte, N. C. Jacksonville, Fla. Miami, Fla. Norfolk, Va. Richmond, Va. Savannah, Ga. St. Patersburg, Fla. Tampa, Fla. Washington, D. C. Wilmington, Del. EAST SOUTH CENTRAL Birmingham, Ala. Chattanooga, Tenn. Knoxville, Tenn.	84 68 117 46 68 41 81 87 188 25	45 36 68 30 45 26 71 50 87 14	25 22 35 11 17 8 8 22 59 6	7 6 8 2 1 4 - 8 19 3	3 1 1 3 3 2 2 5 17 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	5 4 7 1 2 3 2 5 4 3 9
Fall River, Mass. 26 Hartford, Conn. 48 Lowell, Mass. 27 Lynn, Mass. 17 New Badford, Mass. 19 New Haven, Conn. 55 Providenca, R.I. 62 Somerville, Mass. 36 Springfield, Mass. 36 Waterbury, Conn. 25 Worcester, Mass. 55 MIDDLE ATLANTIC 2, 912 Albany, N. Y. 16 Buffalo, N. Y. 16 Buffalo, N. Y. 16 Eizabeth, N. J. 26 Eizabeth, N. J. 26 Eizabeth, N. J. 49 Jersey City, N. J. 1, 37; Paterson, N. J. 25 Philadelphia, Pa. 49; Pirtsburgh, Pa. 245 Reading, Pa. 35 Rochester, N. Y. 26 Scranton, Pa. 50 Syracuss, N. Y. 36 Trenton, N. J. 36 Litica, N. Y. 36 Litica, N. Y. 37 Trenton, N. J. 36 Litica, N. Y. 36 Litica, N. Y. 37 Litica, N. Y. 36 Canton, Ohio 66 Canton, Ohio 13 Canton,	88079928955 59646649335355	21 29 10 13 15 39 45 6 24 14 42 1,841 39 10 64 19 12 22 23 33 27 886 14 285	5 11 8 3 4 14 9 10 12 726 9 5 26 9 6 10 11 17	1 4 2 	1 	1 2 4 1 1 1 3 3 1 3 1 1 1	Jacksonville, Fla	68 1 17 46 68 41 81 87 1 88 25 6 76 1 07 61	36 68 30 45 26 71 50 87 14	22 35 11 17 8 8 22 59 6	6 8 2 1 4 - 8 19 3	1 1 3 3 2 2 5 17 2	4 7 1 2 3 2 5 4 3
Hartford, Conn	8079928955 59646649335355	29 10 13 15 39 45 6 24 14 42 1,841 39 10 64 19 12 22 33 27 886 14 285	11 8 3 4 14 9 1 10 12 7 26 9 5 26 9 6 10 11 17	1 1 1 1 1 7 7 5 2	1 - - 3 5 - 3 - - - - - 1 - -	2 - 1 1 - 4 1 1 - 3 1 1 - 1 - 1	Miami, Fla. Norfolk, Va. Richmond, Va. Savannah, Ga. St. Patersburg, Fla. Tampa, Fla. Washington, D. C. Wilmington, Del. EAST SOUTH CENTRAL Birmingham, Ala. Chattanooga, Tenn. Knoxville, Tenn.	1 17 46 68 41 81 87 1 88 25 6 76 1 07 61	68 30 45 26 71 50 87 14 421 64 38	35 11 17 8 8 22 59 6	8 2 1 4 - 8 19 3	1 3 3 2 5 17 2 27 27 2	7 1 2 3 2 5 4 3
Lowell, Mess. Lynn, Mess. Lynn, Mess. New Bedford, Mess. New Haven, Conn. Providenca, R.I. Somerville, Mess. Springfield, Mass. Waterbury, Conn. Worcastar, Mass. Waterbury, Conn. Worcastar, Mass. MIDDLE ATLANTIC Albany, N. Y. Allentown, Pa. Elizabeth, N. Y. Allentown, Pa. Buffalo, N. Y. Allentown, Pa. Beria, Pa. Jersey City, N. J. Jersey City, N. J. Jersey City, N. J. Philadelphia, Pa. Philadelphia, Pa. Philadelphia, Pa. Philadelphia, Pa. Syracusa, N. Y. Schenectady, N. Y. Schenectady, N. Y. Yonkers, N. Y. Yonkers, N. Y. Syracusa, N. Y. Yonkers, N. Y. Somethia, Pa. Cliceland, Ohio Canton, Ohio Canton, Ohio Canton, Ohio Canton, Ohio Detroit, Mich. Evansville, Ind. Fort Wayne, Ind. Gary, Ind. Gary, Ind. Gary, Ind. Grand Rapids, Mich. Licelands, Ohio Indianapolis, Ind. Brockford, III. Bockford, III.	079928955 5964664933555	10 13 15 39 45 6 24 14 42 1,841 39 10 64 19 12 22 23 33 27 886 14 285	726 9 10 12 726 9 5 26 9 6 10 11	2 - 2 1 1 1 1 1 1 7 7 7 5 2	- - 3 5 - 3 - - - - - 1 1 - 4	1 1 1 3 1 1 -	Norfolk, Va. Richmond, Va. Savannah, Ga. St. Patersburg, Fla. Tampa, Fla. Washington, D. C. Wilmington, Del. EAST SOUTH CENTRAL Birmingham, Ala. Chattanooga, Tenn. Knoxville, Tenn.	46 68 41 81 87 188 25 676 107 61	30 45 26 71 50 87 14 421 64 38	11 17 8 8 22 59 6	2 4 - 8 19 3	3 3 2 5 17 2 27 2 2	1 2 3 2 5 4 3
Lynn, Mass. New Badford, Mass. New Badford, Mass. New Haven, Conn. Sorroydenca, R.I. Somerville, Mass. Springfield, Mass. Springfield, Mass. Syringfield, Mass. MIDDLE ATLANTIC Albany, N.Y. Alfantown, Pa. Buffalo, N.Y. Camdan, N. J. Gelizabeth, N. J. Leria, Pa. Jersey City, N. J. New York City, N. Y. Paterson, N. J. Philadelphia, Pa. 493 Pittsburgh, Pa. Reading, Pa. Reading, Pa. Rochester, N.Y. Yonkers, N.Y. Syracuss, N.Y. Yonkers, N.Y. EAST NORTH CENTRAL Akron, Ohio Canton, Ohio Canton, Ohio Canton, Ohio Chicago, Ill. Cincinnati, Ohio Canton, Ohio	79928955 5964664933555	13 15 39 45 6 24 14 42 1,841 39 10 64 19 12 22 23 33 27 886 14 285	3 4 14 9 1 10 12 726 9 5 26 9 6 10 11	1 1 1 1 1 1 7 7 7 5 2	3 5 - 3 - - - 91 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Richmond, Va. Savannah, Ga. St. Patersburg, Fla. Tampa, Fla. Washington, D. C. Wilmington, Del. EAST SOUTH CENTRAL Birmingham, Ala. Chattanooga, Tenn. Knoxville, Tenn.	68 41 81 87 188 25 676 107 61	45 26 71 50 87 14 421 64 38	17 8 8 22 59 6	1 4 - 8 19 3	3 2 5 17 2 27 27 2	2 3 2 5 4 3 3 9
New Bedford, Mess. 15 New Haven, Conn. 55 Providence, R.I. 62 Somerville, Mess. 55 Waterbury, Conn. 25 Worcestar, Mass. 36 Waterbury, Conn. 25 Worcestar, Mass. 56 MIDDLE ATLANTIC 2, 919 Albany, N. Y. 45 Allentown, Pa. 16 Buffalo, N. Y. 10 Camden, N. J. 26 Erie, Pa. 34 Jersey City, N. J. 53 New York City, N. Y. 1, 37 Paterson, N. J. 25 Philadelphia, Pa. 49 Pittsburgh, Pa. 36 Reading, Pa. 35 Rochester, N. Y. 26 Scranton, Pa. 36 Syracuse, N. Y. 37 Trenton, N. J. 36 Utica, N. Y. 37 Trenton, N. J. 36 Utica, N. Y. 36 EAST NORTH CENTRAL 2, 16 Akron, Ohio 26 Canton, Ohio 36 Canton, Ohio 13 Cleveland, Ohio 13 Cleveland, Ohio 13 Cleveland, Ohio 13 Calumbus, Ohio 13 Calumbus, Ohio 13 Calumbus, Ohio 13 Calumbus, Ohio 13 Carrott, Mich. 25 Evansville, Ind. 32 Fort Wayne, Ind. 46 Gary, Ind. 21 Grand Rapids, Mich. 15 Madison, Wis. 46 Milwaukee, Wis. 10	9928955 59646549335355	15 39 45 6 24 14 42 1,841 39 10 64 19 12 22 23 33 27 88 84 285	726 9 5 26 9 6 10 11 17	1 1 1 1 1 1 7 7 5 2	- 3 5 - 3 - - - 91 1 - 4	1 - 4 1 1 - 3 3 131	Savannah, Ga. St. Petersburg, Fla Tampa, Fla Washington, D. C Wilmington, Del EAST SOUTH CENTRAL Birmingham, Ala Chattanooga, Tenn	41 81 87 188 25 676 107 61	26 71 50 87 14 421 64 38	8 8 22 59 6 165 31 12	4 - 8 19 3	2 5 17 2 27 2 2	3 2 5 4 3 3 9
New Haven, Conn. 55 Providenca, R.I. 62 Somerville, Mass. 8 Springfield, Mass. 9 Waterbury, Conn. 25 Worcastar, Mass. 55 MIDDLE ATLANTIC 2, 91 Albany, N. Y. 45 Allentown, Pa. 16 Buffalo, N. Y. 10 Camden, N. J. 26 Erie, Pa. 34 Jersey City, N. J. 53 New York City, N. Y. 1, 37 Paterson, N. J. 25 Philadelphia, Pa. 49 Pritsburgh, Pa. 26 Reading, Pa. 35 Rochester, N. Y. 25 Scranton, Pa. 35 Rochester, N. Y. 26 Scranton, N. J. 27 Yonkers, N. Y. 36 Litica, N. Y. 36 Cincinnati, Ohio 65 Canton, Ohio 65 Canton, Ohio 10 Catron, Ohio	928955 59646649335355	39 45 6 24 14 42 1,841 39 10 64 19 12 23 27 886 14 285	14 9 1 9 10 12 726 9 5 26 9 6 10 11	2 1 1 1 1 1 1 7 5 2	3 5 - 3 - - - 91 1 - 4	- 4 1 1 - 3	St. Patersburg, Fla	81 87 188 25 676 107 61	71 50 87 14 421 64 38	8 22 59 6 165 31 12	- 8 19 3	2 5 17 2 27 2 2	2 5 4 3 39 -
Providence, R.I. 62 Somerville, Mess. 36 Springfield, Mess. 37 Waterbury, Conn. 25 Worcestar, Mass. 55 MIDDLE ATLANTIC 2, 91 Albany, N. Y. 45 Allentown, Pa. 16 Buffalo, N. Y. 10 Camden, N. J. 36 Elizabeth, N. J. 26 Eria, Pa. 34 Jersey City, N. J. 45 News York City, N. Y. 1, 37 Paterson, N. J. 25 Philadelphia, Pa. 493 Pittsburgh, Pa. 244 Reading, Pa. 18 Schenectady, N. Y. 26 Scranton, Pa. 56 Syracusa, N. Y. 37 Trenton, N. J. 36 Trenton, N. J. 36 Litica, N. Y. 32 EAST NORTH CENTRAL 2, 16 Akron, Ohio 26 Canton, Ohio 10 Can	28955 59646649335355	45 6 24 14 42 1,841 39 10 64 19 12 22 23 33 27 886 14 285	726 9 10 12 726 9 5 26 9 6 10 11	1 1 1 1 177 - 1 7 5	5 - 3 - - - - 91 1 - 4	4 1 1 - 3	Tampa, Fla. Washington, D. C. Wilmington, Del. EAST SOUTH CENTRAL Birmingham, Ala. Chattanooga, Tenn. Knoxville, Tenn.	87 188 25 676 107 61	50 87 14 421 64 38	22 59 6 165 31 12	8 19 3	5 17 2 27 2 2	5 4 3 39 - 9
Somerville, Mass. Springfield, Mass. Springfield, Mass. Springfield, Mass. Waterbury, Conn. 29 Worcastar, Mass. 55 MIDDLE ATLANTIC 2, 912 Albany, N. Y. Allentown, Pa. Buffalo, N. Y. Camdan, N. J. Cizabath, N. J. Elizabath, N. J. Springfield, Mass. Jersey City, N. J. New York City, N. Y. Paterson, N. J. Philadelphia, Pa. Heading, Pa. Reading, Pa. Reading, Pa. Scranton, Pa. Syracusa, N. Y. Yonkers, N. Y. Yonkers, N. Y. Schenectady, N. Springfield, Springfie	8955 59646649335355	6 24 14 42 11 841 39 10 64 19 12 22 33 27 886 14 285	726 9 5 26 9 6 10	1 1 1 1 177 - 1 7 5 2	91 1 -	1 1 - 3	Washington, D. C. Wilmington, Del EAST SOUTH CENTRAL Birmingham, Ala. Chattanooga, Tenn Knoxville, Tenn	1 88 25 6 76 1 07 61	87 14 421 64 38	165 31 12	19 3 34 9	17 2 27 2 2	39 - 9
Springfield, Mass. 36 Waterbury, Conn. 25 Worcestar, Mass. 55 MIDDLE ATLANTIC 2, 91: Albany, N. Y. 45 Allentown, Pa. 16 Buffalo, N. Y. 104 Camden, N. J. 26 Eria, Pa. 34 Jersey City, N. J. 45 Newerk, N. J. 25 New York City, N. Y. 1, 37 Paterson, N. J. 25 Philadelphia, Pa. 49 Philadelphia, Pa. 35 Rochester, N. Y. 25 Schenectady, N. Y. 26 Scranton, Pa. 35 Vyracusa, N. Y. 36 Utica, N. Y. 36 Utica, N. Y. 36 Cincinnati, Ohio 65 Canton, Ohio 65 Canton, Ohio 10 Canton, Ohio 10 Carton, Ohio 10 Cartoni, Mich. 25 Carant Rapids, Mich. 65 Indianapolis, Ind. 15 Madison, Wis. 46 Milwaukee, Wis. 10 Rockford, Ill. 45 Rockford, Ill. 45	955 59646649335355	24 14 42 1,841 39 10 64 19 12 22 33 27 886 14 285	726 9 5 26 9 6 10	1 1 1 177 - 1 7 5 2	91 1 -	1 - 3 131 1	Wilmington, Del	676 107 61	421 64 38	165 31 12	3 34 9	2 27 2 2	3 39 - 9
Waterbury, Conn. 25 Worcestar, Mass. 55 MIDDLE ATLANTIC 2, 91.9 Albany, N. Y. 45 Allantown, Pa. 16 Buffalo, N. Y. 104 Camden, N. J. 26 Erie, Pa. 34 Jersey City, N. J. 45 Newerk, N. J. 55 New York City, N. Y. 1, 372 Paterson, N. J. 25 Philadelphia, Pa. 493 Pittsburgh, Pa. 26 Reading, Pa. 35 Rochester, N. Y. 18 Schenectady, N. Y. 26 Scranton, Pa. 56 Syracusa, N. Y. 32 Utica, N. Y. 32 Utica, N. Y. 32 EAST NORTH CENTRAL 2, 16 Akron, Ohio 26 Canton, Ohio 26 Canton, Ohio 10 Cincinnati, Ohio 13 Cincinnati, Ohio 15 Cincinnati, Ohio 16 Cincinnati, Ohio 17 Cincinnati,	55 59646649335355	14 42 1,841 39 10 64 19 12 22 33 27 88 6 14 285	726 9 5 26 9 6 10	1 177 - 1 7 5	91 1 -	3 131 1	EAST SOUTH CENTRAL Birmingham, Ala. Chattanooga, Tenn Knoxville, Tenn	676 107 61	421 64 38	165 31 12	34	27 2 2	39 - 9
Worcestar, Mass	5 5 6 4 6 6 6 9 3 3 5 3 5 5 5	42 1,841 39 10 64 19 12 22 33 27 886 14 285	726 9 5 26 9 6 10	1 177 - 1 7 5 2	91 1 - 4	3 131 1	Birmingham, Ala. Chattanooga, Tenn Knoxville, Tenn	1 07 61	64 38	31 12	9	2 2	9
MIDDLE ATLANTIC 2,915 Albany, N. Y. 45 Allantown, Pa. 16 Buffalo, N. Y. 10 Camdan, N. J. 26 Eizabeth, N. J. 26 Eizabeth, N. J. 45 Newark, N. J. 53 New York City, N. Y. 1,377 Paterson, N. J. 25 Philadelphia, Pa. 49 Pittsburgh, Pa. 24 Reading, Pa. 35 Rochester, N. Y. 18 Schenectady, N. Y. 26 Scranton, Pa. 56 Syracusa, N. Y. 32 Utica, N. Y. 32 Utica, N. Y. 32 Utica, N. Y. 32 Canton, Ohio 26 Canton, Ohio 26 Canton, Ohio 10 Detroit, Mich. 25 Caranton, Ohio 13 Canton, Ohio 15 Canton, Ohio 16 Canton, Ohio 17 Calumbus, Ohio 16 Canton, Ohio 16 Canton, Ohio 16 Canton, Ohio 17 Calumbus, Ohio 16 Canton, Ohio 17 Calumbus, Ohio	596466493353555	1,841 39 10 64 19 12 22 33 27 86 14 285	726 9 5 26 9 6 10 11	177 - 1 7 5 2	91 1 - 4	131 1 -	Birmingham, Ala. Chattanooga, Tenn Knoxville, Tenn	1 07 61	64 38	31 12	9	2 2	9
Albany, N. Y. 49 Allantown, Pa. 16 Buffalo, N. Y. 10 Camdan, N. J. 26 Elizabeth, N. J. 26 Eria, Pa. 34 Jersay City, N. J. 49 Newark, N. J. 53 New York City, N. Y. 1 377 Paterson, N. J. 25 Philadelphia, Pa. 49 Pittsburgh, Pa. 245 Reading, Pa. 39 Rochester, N. Y. 11 Schenectady, N. Y. 26 Scranton, Pa. 50 Syracusa, N. Y. 91 Trenton, N. J. 36 Utica, N. Y. 22 Yonkers, N. Y. 32 EAST NORTH CENTRAL 2 16 Akron, Ohio 65 Canton, Ohio 65 Canton, Ohio 17 Columbus, Ohio	964664933535	39 10 64 19 12 22 33 27 886 14 285	9 5 26 9 6 10 11	- 1 7 5 2	1 - 4	1 -	Birmingham, Ala. Chattanooga, Tenn Knoxville, Tenn	1 07 61	64 38	31 12	9	2 2	9
Albany, N. Y. 49 Albany, N. Y. 16 Buffalo, N. Y. 10 Camdan, N. J. 26 Eizabeth, N. J. 26 Eizabeth, N. J. 26 Eizabeth, N. J. 26 Eizia, Pa. 34 Jersay City, N. J. 49 Newsrk, N. J. 53 New York City, N. Y. 1 377 Paterson, N. J. 25 Philadelphia, Pa. 49 Pittsburgh, Pa. 245 Reading, Pa. 35 Rochester, N. Y. 11 Schenectady, N. Y. 26 Scranton, Pa. 50 Syracusa, N. Y. 91 Trenton, N. J. 36 Utica, N. Y. 22 Vonkers, N. Y. 32 EAST NORTH CENTRAL 2 16 Akron, Ohio 65 Canton, Ohio 65 Canton, Ohio 13 Cleveland, Ohio 177 Columbus, Ohio 13 Cleveland, Ohio 12 Columbus, Ohio 13 Cartorit, Mich. 25 Evansville, Ind. 32 Evansville, Ind. 35 Fort Wayne, Ind. 46 Gary, Ind. 61 Grand Rapids, Mich. 15 Madison, Wis. 40 Milwaukee, Wis. 10 Rockford, Ill. 43 Rockford, Ill. 43	964664933535	39 10 64 19 12 22 33 27 886 14 285	9 5 26 9 6 10 11	- 1 7 5 2	1 - 4	1 -	Chattanooga, Tenn Knoxville, Tenn	61	38	12		2	9
Albany, N. Y. 49 Allantown, Pa. 16 Buffalo, N. Y. 10 Camdan, N. J. 26 Elizabeth, N. J. 26 Eria, Pa. 34 Jersay City, N. J. 49 Newerk, N. J. 53 New York City, N. Y. 1, 377 Paterson, N. J. 25 Philadelphia, Pa. 49 Pittsburgh, Pa. 249 Pittsburgh, Pa. 35 Rochester, N. Y. 26 Scranton, Pa. 36 Syracusa, N. Y. 26 Scranton, Pa. 39 Trenton, N. J. 36 Utica, N. Y. 27 Yonkers, N. Y. 32 EAST NORTH CENTRAL 2, 16 Akron, Ohio 65 Canton, Ohio 10 Canton, Ohio 17 Columbus, Ohio 17 Columbus, Ohio 13 Cieveland, Ohio 17 Columbus, Ohio 13 Cantoni, Ohio 12 Calumbus, Ohio 13 Catroit, Mich. 25 Evansville, Ind. 32 Evansville, Ind. 32 Grand Rapids, Mich. 66 Indianapolis, Ind. 15 Madison, Wis. 40 Milwaukee, Wis. 10 Rockford, Ill. 43 Rockford, Ill. 43	964664933535	39 10 64 19 12 22 33 27 886 14 285	9 5 26 9 6 10 11	- 1 7 5 2	1 - 4	1 -	Knoxville, Tenn	_			7		
Allentown, Ps. 16 Buffalo, N. Y. 104 Camden, N. J. 36 Elizabeth, N. J. 26 Eria, Ps. 34 Jersay City, N. J. 45 Newark, N. J. 55 New York City, N. Y. 1 37 Paterson, N. J. 25 Philadelphia, Ps. 49 Pittsburgh, Ps. 35 Rochester, N. Y. 12 Schenectady, N. Y. 26 Scranton, Ps. 56 Syracuss, N. Y. 91 Trenton, N. J. 25 Yonkers, N. Y. 32 Utica, N. Y. 32 Utica, N. Y. 32 Cincinnati, Ohio 65 Canton, Ohio 65 Canton, Ohio 10 Carton, Ohio 12 Cincinnati, Ohio 134 Cincinnati, Ohio 134 Cincinnati, Ohio 134 Cincinnati, Ohio 135 Cayton, Ohio 10 Cayton, Ohio 10 Cayton, Ohio 10 Cayton, Ohio 10 Cartonit, Mich. 258 Evansville, Ind. 35 Fort Wayne, Ind. 42 Gary, Ind. 61 Grand Rapids, Mich. 65 Indianapolis, Ind. 155 Madison, Wis. 46 Milwaukee, Wis. 10 Rockford, Ill. 43 Rockford, Ill. 43	64664933535	10 64 19 12 22 33 27 886 14 285	5 26 9 6 10 11 17	1 7 5 2	4	-		20			_	_	
Buffalo, N. Y. 104 Camden, N. J. 36 Elizabeth, N. J. 26 Erie, Pa. 34 Jersey City, N. J. 46 Newerk, N. J. 53 New York City, N. Y. 1, 377 Paterson, N. J. 25 Philadelphia, Pa. 493 Pittsburgh, Pa. 244 Reading, Pa. 33 Rochester, N. Y. 118 Schenectady, N. Y. 26 Scranton, Pa. 56 Syracusa, N. Y. 91 Trenton, N. J. 32 Utica, N. Y. 32 Utica, N. Y. 32 EAST NORTH CENTRAL 2, 16 Akron, Ohio 26 Canton, Ohio 26 Canton, Ohio 10 Cleveland, Ohio 17 Columbus, Ohio 13 Cleveland, Ohio 10 Detroit, Mich. 256 Evansville, Ind. 32 Fort Wayne, Ind. 21 Grand Rapids, Mich. 63 Indianapolis, Ind. 155 Madison, Wis. 46 Milwaukee, Wis. 10 Rocklord, III. 43 Rocklord, III. 43	4 6 6 6 9 3 3 5 5 5 5 5 5	64 19 12 22 33 27 886 14 285	26 9 6 10 11 17	7 5 2	4		Lauimilla V.,	110	63	27	3	10	8
Camden, N. J. 36 Elizabeth, N. J. 26 Elizabeth, N. J. 26 Eria, Pa. 34 Jersay City, N. J. 45 Newark, N. J. 57 New York City, N. Y. 1 37 Paterson, N. J. 25 Philadelphia, Pa. 49 Pittsburgh, Pa. 245 Reading, Pa. 35 Rochester, N. Y. 118 Schenectady, N. Y. 26 Scranton, Pa. 55 Syracusa, N. Y. 91 Trenton, N. J. 36 Utica, N. Y. 21 Yonkers, N. Y. 32 EAST NORTH CENTRAL 2 16 Akron, Ohio 26 Canton, Ohio 26 Canton, Ohio 13 Cieveland, Ohio 17 Columbus, Ohio 134 Cieveland, Ohio 137 Columbus, Ohio 134 Crincinnati, Ohio 135 Dayton, Ohio 256 Evansville, Ind. 32 Evansville, Ind. 32 Evansville, Ind. 36 Evansville, Ind. 36 Grand Rapids, Mich. 155 Madison, Wis. 46 Milwaukee, Wis. 102 Peoria, III. 35 Rocklord, III. 43	6 6 9 3 3 5 5 5 5 5 5 5	19 12 22 33 27 886 14 285	9 6 10 11 17	5 2		1	Lauisville, Ky Memphis, Tenn	168	110	39	10	3	2
Elizabeth, N. J. 26 Erie, Pa. 34 Jersey City, N. J. 46 Newark, N. J. 53 New York City, N. Y. 1, 377 Paterson, N. J. 25 Philadeliphia, Pa. 497 Pittsburgh, Pa. 245 Reading, Pa. 35 Rochester, N. Y. 11 Schenectady, N. Y. 26 Scranton, Pa. 56 Syracusa, N. Y. 31 Utica, N. Y. 22 Yonkers, N. Y. 32 EAST NORTH CENTRAL 2, 16 Akron, Ohio 26 Canton, Ohio 26 Canton, Ohio 10 Canton, Ohio 13 Cincinnati, Ohio 13 Cincinnati, Ohio 10 Detroit, Mich. 25 Evansville, Ind. 32 Fort Wayne, Ind. 21 Grand Rapids, Mich. 61 Indianapolis, Ind. 157 Madison, Wis. 46 Milwaukee, Wis. 102 Rocklord, III. 36	5 9 3 5 5 5	12 22 33 27 886 14 285	6 10 11 17	2		1	Mobile, Ala.	68	39	17	2	5	10
Eria, Pa. 34 Jersey City, N. J. 45 Newerk, N. J. 55 New York City, N. Y. 1, 373 Paterson, N. J. 25 Philadelphia, Pa. 493 Pittsburgh, Pa. 35 Reading, Pa. 35 Rochester, N. Y. 26 Scranton, Pa. 56 Syracuse, N. Y. 91 Trenton, N. J. 32 Utica, N. Y. 32 Utica, N. Y. 32 EAST NORTH CENTRAL 2, 16 Akron, Ohio 65 Canton, Ohio 65 Canton, Ohio 103 Cincinnati, Ohio 133 Cincinnati, Ohio 134 Cincinnati, Ohio 135 Cincinnati, Ohio 126 Chicago, III. 256 Evansville, Ind. 32 Fort Wayne, Ind. 22 Grand Rapids, Mich. 63 Grand Rapids, Mich. 63 Grand Rapids, Ind. 155 Madison, Wis. 46 Milwaukee, Wis. 102 Rocklord, III. 35 Rocklord, III. 43	9 3 5 5 5 5	22 33 27 886 14 285	10 11 17		ĩ	- 1	Montgomery, Ala	35	21	8	1	2	2
Jersey City, N. J	9 3 3 5 5 5 5	33 27 886 14 285	11 17	_	-	2	Nashville, Tenn	89	56	24	5	3	8
Newark, N. J. 53	3 3 5 5 5 5	27 886 14 285	17	3	2	ī	reasiville, Tenn		,,,	24	•	_	_
New York City, N. Y. 1, 3 77 Paterson, N. J. 25 Philadelphia, Pa. 49 Pittsburgh, Pa. 245 Reading, Pa. 35 Rochester, N. Y. 118 Schenectady, N. Y. 26 Scranton, Pa. 50 Syracusa, N. Y. 91 Trenton, N. J. 33 Utica, N. Y. 27 Yonkers, N. Y. 32 EAST NORTH CENTRAL 2, 16 Akron, Ohio 65 Canton, Ohio 10 Cincinnati, Ohio 134 Cincinnati, Ohio 137 Cleveland, Ohio 10 Detroit, Mich. 25 Evansville, Ind. 32 Fort Wayne, Ind. 21 Grand Rapids, Mich. 63 Grand Rapids, Mich. 63 Grand Rapids, Mich. 65 Grand Rapids, Mich. 65 Grand Rapids, Mich. 65 Grand Rapids, Mich. 65 Indianapolis, Ind. 157 Madison, Wis. 46 Milwaukee, Wis. 102 Paoria, III. 35 Rockford, III. 43	3 3 5 5 5	886 14 285		6	ī	2							
Paterson, N. J. 25 Philadelphia, Pa. 493 Pittsburgh, Pa. 245 Reading, Pa. 35 Rochester, N. Y. 118 Schenectady, N. Y. 26 Scranton, Pa. 56 Syracusa, N. Y. 91 Trenton, N. J. 35 Utica, N. Y. 32 Utica, N. Y. 32 EAST NORTH CENTRAL 2, 16 Akron, Ohio 66 Canton, Ohio 10 Cincinnati, Ohio 13 Cincinnati, Ohio 13 Cincinnati, Ohio 10 Detroit, Mich. 256 Evansville, Ind. 32 Fort Wayne, Ind. 46 Gary, Ind. 61 Grand Rapids, Mich. 61 Indianapolis, Ind. 155 Madison, Wis. 46 Mitwaukee, Wis. 10 Rockford, Ill. 43 Rockford, Ill. 43	5 3 5	14 285		99	23	49	WEST SOUTH CENTRAL	1,111	615	298	90	48	24
Philadelphia, Pa. 49 Pittsburgh, Pa. 245 Pittsburgh, Pa. 35 Reading, Pa. 35 Rochester, N. Y. 118 Schenectady, N. Y. 26 Scranton, Pa. 56 Syracusa, N. Y. 91 Trenton, N. J. 36 Utica, N. Y. 23 Utica, N. Y. 32 EAST NORTH CENTRAL 2, 16 Akron, Ohio 65 Canton, Ohio 15 Cincinnati, Ohio 17 Cleveland, Ohio 17 Columbus, Ohio 13 Cleveland, Ohio 10 Detroit, Mich 256 Evansville, Ind. 32 Fort Wayne, Ind. 46 Gary, Ind. 21 Grand Rapids, Mich 65 Indianapolis, Ind. 15 Madison, Wis. 46 Milwaukee, Wis. 10 Rockford, Ill. 43 Rockford, Ill. 43	3 5	285	6	1	2	i	Austin, Tex	35	21	10	4	-	2
Pittsburgh, Pa. 245 Reading, Pa. 35 Reading, Pa. 35 Rochester, N. Y. 118 Schenectady, N. Y. 26 Scranton, Pa. 56 Syracusa, N. Y. 91 Trenton, N. J. 36 Utica, N. Y. 22 Yonkers, N. Y. 32 EAST NORTH CENTRAL 2, 16 Akron, Ohio 65 Canton, Ohio 26 Chicago, III. 534 Cincinnati, Ohio 134 Cincinnati, Ohio 10 Detroit, Mich. 258 Evansville, Ind. 32 Fort Wayne, Ind. 21 Grand Rapids, Mich. 63 Indianapolis, Ind. 157 Madison, Wis. 46 Milwaukee, Wis. 102 Rockford, III. 43 Rockford, III. 43 Rockford, III. 43	5		126	29	38	32	Baton Rouge, La	19	15	3	í	_	2
Reading, Pa. 35 Rochester, N. Y. 118 Rochester, N. Y. 28 Schenectady, N. Y. 28 Scranton, Pa. 56 Syracusa, N. Y. 91 Trenton, N. J. 35 Utica, N. Y. 22 Yonkers, N. Y. 32 EAST NORTH CENTRAL 2, 16 Akron, Ohio 65 Canton, Ohio 26 Chicago, Ill. 534 Cincinnati, Ohio 134 Cincinnati, Ohio 134 Cincinnati, Ohio 10 Detroit, Mich. 256 Evansville, Ind. 32 Fort Wayne, Ind. 21 Grand Rapids, Mich. 65 Grand Rapids, Mich. 65 Indianapolis, Ind. 155 Madison, Wis. 46 Milwaukee, Wis. 102 Rockford, Ill. 43	5	137	79	12	9	18	Corpus Christi, Tex.	19	10	2	2	3	_
Rochester, N. Y. 26 Schenectady, N. Y. 26 Scranton, Pa. 56 Syracusa, N. Y. 91 Trenton, N. J. 36 Utica, N. Y. 21 Utica, N. Y. 32 Utica, N. Y. 32 EAST NORTH CENTRAL 2, 16 Akron, Ohio 65 Canton, Ohio 10 Cincinnati, Ohio 13 Cincinnati, Ohio 17 Columbus, Ohio 13 Dayton, Ohio 10 Detroit, Mich 256 Evansville, Ind 32 Evansville, Ind 21 Grand Rapids, Mich 63 Indianapolis, Ind 15 Madison, Wis 40 Milwaukee, Wis 10 Rockford, Ill 43 Rockford, Ill 43 Rockford, Ill 43		24	9	1	_	ī	Dallas, Tex.	179	105	37	15	9	3
Schenectady, N. V. 26 Scranton, Pa. 56 Scranton, Pa. 56 Syracusa, N. Y. 91 Trenton, N. J. 38 Utica, N. Y. 2. Yonkers, N. Y. 32 EAST NORTH CENTRAL 2, 16 Akron, Ohio 65 Canton, Ohio 26 Chicago, III. 534 Cincinnati, Ohio 17 Columbus, Ohio 10 Detroit, Mich. 254 Evansville, Ind. 32 Fort Wayne, Ind. 42 Gary, Ind. 21 Grand Rapids, Mich. 63 Indianapolis, Ind. 157 Madison, Wis. 46 Midwaukee, Wis. 102 Rockford, III. 33 Rockford, III. 33	В	85	26	4	2	11	El Paso, Tex.	46	29	10	2	1	5
Syracusa, N. Y. 9 Trenton, N. J. 36 Utica, N. Y. 2. Yonkers, N. Y. 36 EAST NORTH CENTRAL 2, 16 Akron, Ohio 65 Canton, Ohio 15 Cincinnati, Ohio 134 Cincinnati, Ohio 137 Celumbus, Ohio 10 Detroit, Mich. 256 Evansville, Ind. 32 Evansville, Ind. 21 Grand Rapids, Mich. 61 Grand Rapids, Mich. 65 Indianapolis, Ind. 155 Madison, Wis. 46 Mitwaukee, Wis. 102 Rockford, Ill. 43		24	4	-	_	1	Fort Worth, Tex.	94	52	28	6	ī	-
Trenton, N. J. 36 Utica, N. Y. 21 Yonkers, N. Y. 23 Yonkers, N. Y. 32 EAST NORTH CENTRAL 2, 16 Akron, Ohio 65 Canton, Ohio 65 Canton, Ohio 10 Cincinnati, Ohio 17 Columbus, Ohio 13 Dayton, Ohio 10 Datroit, Mich 25 Evansville, Ind. 32 Fort Wayne, Ind. 44 Gary, Ind. 21 Grand Rapids, Mich 65 Indianapolis, Ind. 15 Madison, Wis 46 Milwaukee, Wis 102 Rockford, III. 43 Rockford, III. 43	0	36	13	1	_	3	Houston, Tex.	363	189	105	34	14	-
Utica, N. Y	L	53	29	3	4	3	Little Rock, Ark	65	41	14	3	3	1
Yonkers, N. Y. 32 EAST NORTH CENTRAL 2, 16 Akron, Ohio 65 Canton, Ohio 26 Chicago, III. 534 Cincinnati, Ohio 134 Cleveland, Ohio 137 Calumbus, Ohio 10 Detroit, Mich. 256 Evansville, Ind. 32 Fort Wayne, Ind. 21 Grand Rapids, Mich. 63 Indianapolis, Ind. 155 Madison, Wis. 46 Mitwaukee, Wis. 102 Rockford, III. 43	5	26	9	-	-	3	New Orleans, La	1 05	51	33	6	11	_
EAST NORTH CENTRAL Akron, Ohio	3	19	4	••	_	1	San Antonio, Tex	128	74	36	9	4	9
Akron, Ohio 65 Canton, Ohio 26 Chicago, III. 534 Cleveland, Ohio 17 Calumbus, Ohio 13 Dayton, Ohio 10 Detroit, Mich. 256 Evansville, Ind. 32 Fort Wayne, Ind. 21 Grand Rapids, Mich. 63 Indianapolis, Ind. 157 Madison, Wis. 46 Milwaukee, Wis. 102 Rockford, III. 35 Rockford, III. 43	2	26	2	1	1	-	Shreveport, La	29 29	14 14	10 10	4	1 1	1
Canton, Ohio	7	1,263	584	153	83	47							
Chicago, III. 534 Cincinnati, Ohio 134 Cieveland, Ohio 177 Calumbus, Ohio 139 Dayton, Ohio 100 Detroit, Mich. 258 Evansville, Ind. 32 Fort Wayne, Ind. 42 Gary, Ind. 21 Grand Rapids, Mich. 65 Indianapolis, Ind. 157 Madison, Wis. 46 Mitwaukee, Wis. 102 Rockford, III. 43	5	44	12	3	5	-	MOUNTAIN	5 5 9	337	129	48	14	17
Cincinnati, Ohio 134 Cleveland, Ohio 177 Columbus, Ohio 139 Dayton, Ohio 100 Detroit, Mich. 256 Evansville, Ind. 34 Fort Wayne, Ind. 21 Grand Rapids, Mich. 63 Indianapolis, Ind. 155 Madison, Wis. 40 Milwaukee, Wis. 102 Rockford, Ill. 43	6	19	5	1	-	-	Albuquerque, N. Mex	69	31	13	16	1	7
Cleveland, Ohio 17; Columbus, Ohio 134 Dayton, Ohio 10 Detroit, Mich. 256 Evansville, Ind. 32 Fort Wayne, Ind. 21 Gary, Ind. 21 Grand Rapids, Mich. 63 Indianapolis, Ind. 157 Madison, Wis. 46 Milwaukee, Wis. 102 Rockford, Ill. 43		293	156	46	12	6	Colorado Springs, Colo.	32	20	9	2	-	1
Calumbus, Ohio 133 Dayton, Ohio 100 Detroit, Mich. 258 Evansville, Ind. 32 Fort Wayne, Ind. 21 Gary, Ind. 21 Grand Rapids, Mich. 63 Indianapolis, Ind. 155 Madison, Wis. 46 Milwaukee, Wis. 102 Rockford, Ill. 43		78	28	16	8	2	Denver, Colo	1 16	76	27	5	3	1
Dayton, Öhio 10 Detroit, Mich. 256 Evansville, Ind. 32 Fort Wayne, Ind. 42 Gary, Ind. 21 Grand Rapids, Mich. 63 Indianapolis, Ind. 155 Madison, Wis. 40 Milwaukee, Wis. 102 Paoria, Ill. 35 Rockford, Ill. 43		89	59	7	5	2	Las Vegas, Nev	29	17	7	2	-	1
Detroit, Mich. 258 Evansville, Ind. 3, Fort Wayne, Ind. 4, Gary, Ind. 21 Grand Rapids, Mich. 6, Indianapolis, Ind. 15 Madison, Wis. 4, Milwaukee, Wis. 102 Peoria, Ill. 35 Rockford, Ill. 43		87	26	9	9	7	Ogden, Utah	27	20	4	1	-	4
Evansville, Ind. 32 Fort Wayne, Ind. 42 Gary, Ind. 21 Grand Rapids, Mich. 62 Indianapolis, Ind. 157 Madison, Wis. 46 Milwaukee, Wis. 102 Paoria, III. 35 Rockford, III. 43		68	24	8	6	1	Phoenix, Ariz.	1 44	91	33	8	6	1
Fort Wayne, Ind. 24 Gary, Ind. 25 Grand Rapids, Mich. 6 Indianapolis, Ind. 15 Madison, Wis. 46 Milwaukee, Wis. 102 Paoria, III. 35 Rockford, III. 43		147	77	18	6	7	Pueblo, Colo	19	15	4	_	-	1
Gary, Ind. 21 Grand Rapids, Mich. 63 Indianapolis, Ind. 157 Madison, Wis. 40 Mitwaukee, Wis. 102 Peoria, III. 35 Rockford, III. 43		18	10	1	2	2	Salt Lake City, Utah	52	31	10	. 3	4	1
Grand Rapids, Mich		26	11	. 2	3	4	Tucson, Ariz	71	36	22	11	-	
Indianapolis, Ind. 15 Madison, Wis. 4(Milwaukee, Wis. 102 Peoria, III. 35 Rockford, III. 43		8	10	1	1	2							
Madison, Wis. 4(Milwaukee, Wis. 1 02 Peoria, III. 35 Rockford, III. 43		47	11	2	1	3		1 543	970	394	104	2.1	37
Milwaukee, Wis 102 Peoria, III		91	46	13	10	ı	PACIFIC	1,562			104	31	31
Paoria, III		28 70	8 23	2	2	4	Berkeley, Calif	15 56	12 29	2 11	11	1	_
Rockford, III 43		23	9	6	2 1	1	Fresno, Calif	28	24	3	- 11	i	_
		26	12	1	٤		Glendale, Calif.	58	29	21	3	3	1
		20	14	2	1	1	Honolulu, Hawaii	92	59	25	3	i	ī
Toledo, Ohio 88		54	24	3	4	i	Long Beach, Calif Los Angeles, Calif	5 30	306	140	46	10	13
Youngstown, Ohio 64		37	19	5	2	2	Oakland, Calif.	55	32	14	4	3	
	•	٠.	• •		-	-	Pasadena, Calif	33	23	7	_	í	1
							Portland, Oreg.	1 12	77	26	3	4	2
WEST NORTH CENTRAL 742		473	166	37	40	20	Sacramento, Calif	71	42	20	1	1	2
Des Moines, lowe 36		24	8	-	2	-	San Diego, Calif	108	63	37	2	-	2
Duluth, Minn 30	5	17	10	1	1	2	San Francisco, Calif	125	78	35	9	1	1
Kansas City, Kans 36	5	19	11	4	1	-	San Jose, Calif	64	47	8	6	1	5
Kansas City, Mo 156	5	96	37	6	10	4	Seattle, Wash	1 26	79	33	8	4	2
Lincoln, Nebr 20	5 5 5	15	4	1	-	-	Spokane, Wash	34	29	3	2	-	6
Minneapolis, Minn 89	5 5 5	57	19	6	5	3	Tacoma, Wash	55	41	9	5	-	1
Omaha, Nebr	5 5 5	45	19	5	3	100							
St. Louis, Mo. 171	5 5 5 5 5 7	106	42	6	12	6							
St. Paul, Minn 54	5 5 5 7		. 6	1	3		TOTAL	11,504	6,997	2,912	751	413	379
Wichita, Kans 73	5 5 5 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	43 51	10	7	3	5	Expected Number	11,392	, ,		735	379	373

^{*}By place of occurrence and week of filing certificate. Excludes fetal deaths.

The Morbidity and Mortality Weekly Report, circulation 87,500, is published by the Center for Disease Control, Atlanta, Georgia. The data in this report are provisional, based on weekly telegraphs to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday.

The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Send reports to: Center for Disease Control, Attn.: Editor, Morbidity and Mortality Weekly Report, Atlanta, Georgia 30333.

Send mailing list additions, deletions, and address changes to: Center for Disease Control, Attn.: Distribution Services, GSO, 1-SB-36, Atlanta, Georgia 30333. When requesting changes be sure to give your former address, including zip code and mailing list code number, or send an old address label.

Poliomyelitis—Continued

associated paralysis among adults than among children receiving TOPV. However, a susceptible adult at increased risk of exposure to infection by virtue of travel to an area where poliomyelitis is common should complete primary immunization with either IPV or TOPV. The schedules are the same as for other age groups.

Supplementary Doses

Entering school: On entering kindergarten or first grade, all children who completed the primary series of TOPV in early childhood should be given a single dose of TOPV. This additional dose will assure immunity to all 3 poliovirus types in the event the original primary series failed to do so. All other children should complete the primary series.

Preadolescent vaccination: A special expert committee of the Institute of Medicine, National Academy of Sciences, reviewing poliomyelitis immunization proposed giving a single dose of TOPV (or completing a full series if required) to children (about 11-12 years old) entering seventh grade. In the committee's view, this supplementary dose could help to assure solid immunity among young adult parents who if susceptible might contract vaccine-associated polio through household contact with infant or childhood vaccinees. The Advisory Committee on Immunization Practices (ACIP) considers the available serologic data to be an insufficient basis on which to recommend routine revaccination of this particular age group. However, the preadolescent years are a good time to evaluate polio immunity and to complete vaccination of those who are inadequately protected. If serologic evidence indicates the value of more generalized revaccination at this time, such an effort could be useful.

Increased risk: Anyone who has completed the primary TOPV series in the past should be given a single additional dose of TOPV when there is a substantial risk of exposure to poliomyelitis, as in traveling. The actual need for this supplementary dose has not been established, but there is value in assuring protection against infection with wild polioviruses when exposure can reasonably be expected.

Pregnancy: Pregnancy is neither an indication for vaccination against poliomyelitis nor a contraindication when protection is needed, as during an epidemic. There is no evidence to suggest that a pregnant woman or her fetus is at greater risk from TOPV than are other persons. (See also, General Recommendations on Immunization, in MMWR 25(44), 1976.)

TOPV-Associated Risk

As indicated above, administration of oral polio vaccines has been associated temporally with paralysis in healthy recipients and their contacts. Other than efforts to identify persons with immune deficiency conditions, no currently available screening procedures can identify those persons likely to experience such an adverse reaction. Although the risk of vaccine-associated paralysis is extremely small for vaccinees and their susceptible family and other close personal contacts, they should be informed of this risk. When the attenuated vaccine strains are to be introduced into a household with adults who have never been vaccinated, some physicians may choose to give these adults at least 2 doses of IPV a month apart, if not the full primary series, before the children receive TOPV. (Vaccination of

the children should be assured and not unnecessarily delayed by this process.)

Contraindications

Immune deficiency diseases and altered immune states: Patients with immune deficiency diseases, such as combined immunodeficiency, hypogammaglobulinemia, and agammaglobulinemia, should not be given TOPV because of their significantly increased risk of vaccine-associated disease. Furthermore, patients with altered immune states such as those occurring in leukemia, lymphoma, or generalized malignancy or by lowered resistance from therapy with corticosteroids, alkylating drugs, antimetabolites, or radiation should not be given TOPV because replication of the vaccine viruses theoretically might be potentiated. When possible, all patients with altered immunity should avoid close, houshold-type contact with recipients of TOPV for at least 2-3 weeks after vaccination. IPV may be the preferable vaccine for immunizing all persons in this setting. (See also: IPV-Other Uses.)

IPV

Primary Immunization

All ages: Four doses should be given; volume and route of injection are specified by the manufacturer. Of these, 3 doses should be given at approximately 1- to 2-month intervals, and the fourth, 6-12 months after the third. This schedule should be integrated with DTP vaccination beginning at 6-12 weeks of age.

Booster Doses

A booster dose every 2-3 years has generally been recommended to sustain optimal levels of antibody. It should be noted that this recommendation was developed when the IPV in use was less potent than that available today. As experience is gained with newer IPV products, the recommended interval between booster doses will probably be increased.

The need for IPV boosters could be obviated by supplementing IPV vaccination with primary vaccination with TOPV. In this regard, individuals at particular risk of exposure to poliomyelitis who have received 3 or more doses of IPV should be given at least 1 dose of TOPV, preferably the full primary series.

Other Uses

Children or adults with immune deficiency diseases or altered immune states who are at risk of exposure to poliomyelitis should be vaccinated with IPV. Their antibody responses cannot be assured, but they may derive some protection from vaccination.

Physicians may elect to give a primary series of IPV or, when constrained by time, at least 2 doses 1 month apart to adults who have never been vaccinated and who: (1) by reason of travel are at risk of exposure to poliomyelitis, or (2) are likely to come in contact with vaccine virus following routine immunization of their children. Less than full primary immunization should be supplemented later with the additionally recommended doses.

Precautions

Since IPV contains trace amounts of streptomycin and neomycin, there is a possibility of hypersensitivity reactions in individuals sensitive to these antiblotics.

IPV-Associated Risk

No serious side effects of IPV have been reported.

CASE INVESTIGATION AND EPIDEMIC CONTROL

The occurrence of a single case of polio should prompt an immediate epidemiologic investigation, including an active search for other cases. If evidence implicates wild poliovirus, a vaccination plan designed to contain spread should be developed. Within an epidemic area, TOPV should be provided for all persons over 6 weeks of age who have not been completely immunized or whose immunization status is unknown.

Epidemiologic Notes and Reports

SIMULTANEOUS ADMINISTRATION OF LIVE VIRUS VACCINES

(See General Recommendations on Immunization, in MMWR 25 (44), 1976.)

References

- Committee on Infectious Diseases, American Academy of Pediatrics: Poliovirus immunization re-examined. News and Comment 27(12 Suppl), 1976
- 2. Nightingale E: Recommendations for a national policy on policy myelitis vaccination. N Engl J Med 297:249-253, 1977

Legionnaires' Disease - Tennessee, Vermont

Tennessee: The diagnosis of Legionnaires' disease has been confirmed in 2 of 47 cases of severe atypical pneumonia seen from August 1 through September 30, 1977, at a Kingsport, Tennessee, hospital; diagnosis of the other patients is pending. Twenty-seven patients were initially recognized through hospital infection-control surveillance; 20 more cases were found in a retrospective review of hospital charts.

All 47 patients had a temperature of ≥103 F and radiologically documented pneumonia without apparent bacterial etiology; 6 died. Six other patients meeting this case definition, including 1 who died, were hospitalized at 3 other area hospitals in the same period.

An epidemiologic investigation in which patients admitted to the hospital for other medical problems were compared with cases has shown a significant risk (p<.003) with visiting the neighborhood surrounding the hospital in the 2-week period before onset of illness. Four of the 6 cases admitted to the other local hospitals had had such area contact.

Further studies that are underway include a case-control study to evaluate locations of high risk within the community and a questionnaire and serologic survey of neighborhood residents and hospital employees. Sentinel guinea pigs—a species previously shown to be susceptible to the Legionnaires' disease bacterium by airborne transmission—have been placed within the hospital and in 7 homes in the neighboring community. No cases have been reported by area hospitals since September 29.

Vermont: Sixteen confirmed cases of Legionnaires' disease have been identified in patients admitted to the Mary Fletcher Hospital since August 1, 1977; 12 of the cases

were fatal. The most recent death occurred the week of September 17. The case-fatality ratio may be artificially inflated, however, because review of autopsy specimens by direct fluorescent antibody (FA) testing is relatively complete whereas the obtaining and testing of serum specimens from survivors of pneumonias that occurred in recent months continues. Review of culture-negative pneumonia cases suggests that the outbreak peaked in the period September 4-17 and has decreased since.

Underlying medical conditions of confirmed cases included renal failure requiring hemodialysis or renal homografting (5 cases) and carcinomatosis (5 cases). Eleven persons with confirmed cases had visited or been patients in the hospital in the 2 weeks before onset of pneumonia; 4 had not. In 1 case this exposure could not be determined. No pneumonia cases have been found in hospital staff.

To date, a serologic survey of dialysis patients and staff has not shown any additional persons with reciprocal indirect FA titers of ≥128. A study has been initiated to compare potential exposures of cases and controls within and outside the hospital in an attempt to determine the sources of infection and the mode of spread.

Reported by E Duncan, RN, W Jesse, MD, J Smiddy, MD, J Strickler, RN, Holston Valley Community Hospital, Kingsport; C Chapman, MD, Sullivan County (Tenn) Health Dept; M Weeks, MPH, RH Hutcheson Jr, MD, State Epidemiologist, Tennessee State Dept of Public Health; H Beaty, MD, JE Craighead, MD, CA Phillips, MD, W Winn, MD, Medical Center Hospital of Vermont; AM McBean, MD, RL Vogt, MD, Acting State Epidemiologist, Vermont State Dept of Health; Leprosy and Rickettsia Br, Virology Div, Immunofluorescence Sect, Analytical Bacteriology Br, Bacteriology Div, Bur of Laboratories; Field Services Div, Epidemiologic Investigations Laboratory Br, Hospital Infections Br, and Special Pathogens Br, Bacterial Diseases Div, Bur of Epidemiology, CDC.

U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE PUBLIC HEALTH SERVICE / CENTER FOR DISEASE CONTROL ATLANTA, GEORGIA 30333

Director, Center for Disease Control, William H. Foege, M.D. Director, Bureau of Epidemiology, Philip S. Brachman, M.D. Editor, Michael B. Gregg, M.D. Managing Editor, Anne D. Mather, M.A. Chief, MMWR Statistical Activity, Dennis J. Bregman, M.S.

OFFICIAL BUSINESS FIRST CLASS

Redistribution using indicia is illegal.

