

MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

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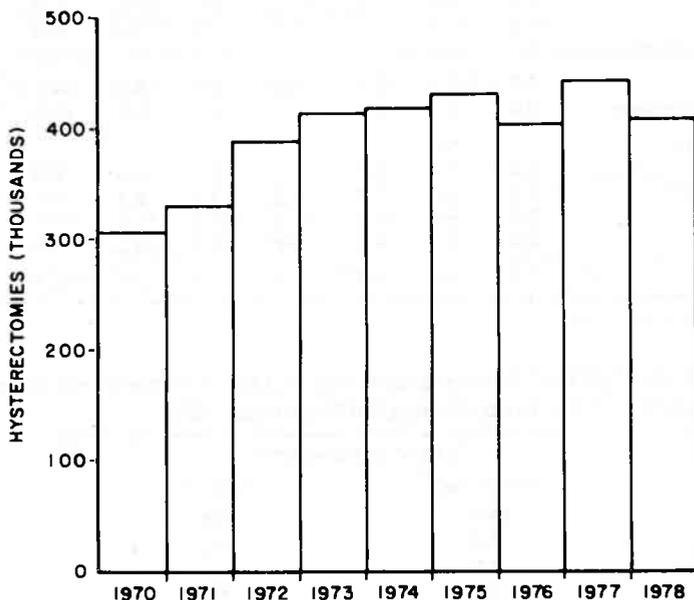
Epidemiologic Notes and Reports

Hysterectomy in Women Aged 15-44, United States, 1970-1978

In the United States in the period 1970-1978, an estimated 3,536,000 women aged 15-44 had hysterectomies (excluding radical procedures), making hysterectomy the fourth most frequently performed operation for women in this age group.* Summarized below, in the first of a series of articles on this subject, are epidemiologic and demographic features of women aged 15-44 having hysterectomies in the United States. These data suggest that medical practice varies considerably by region with respect to hysterectomy in reproductive-aged women.

*Following elective abortion, diagnostic D&C, and tubal sterilization. Estimates of the number of hysterectomies performed on women aged 15-44 were derived from data collected annually in the National Hospital Discharge Survey, conducted by the National Center for Health Statistics (NCHS) (7). Rate estimates are conservative because the denominator each year did not exclude women who had previous hysterectomies.

FIGURE 1. Hysterectomies performed in hospitals* on women aged 15-44, by year, United States, 1970-1978



*Nonfederal, short-stay hospitals.

Hysterectomy – Continued

From 1970 to 1973, the number of hysterectomies performed on women in this age group increased from 306,000 to 413,000; from 1974 to 1978, the annual number of such procedures remained nearly constant, with 403,000 to 442,000 procedures per year (Figure 1). The hysterectomy rate during the entire 9-year period averaged 8.7 per 1,000 women aged 15-44, ranging from 7.2 in 1970 to 9.1 in 1975 (Table 1).

Hysterectomy rates increased with increasing age (Table 1). Women under 25 demonstrated rates of about 1 per 1,000 women throughout the study interval. In contrast, 35- to 44-year-old women consistently had the highest hysterectomy rates. Annually since 1972, nearly 2% of women aged 35-44 underwent hysterectomy.

On the average, reproductive-aged women were 35.1 years old at the time of hysterectomy. There were considerable differences in the region-specific mean ages at the time of hysterectomy even when adjusted for race and marital status. Women in the South had the lowest mean age (34.2) at the time of hysterectomy; women in the Northeast had the highest (37.0).

Rates for white women increased from 6.8 in 1970 to 9.0 in 1973 and remained fairly stable thereafter. In contrast, rates for women of black and other races ranged from 8.9 to 10.1 during the entire 9-year period (Table 1).

Women in the South consistently had the highest hysterectomy rates in the country,

TABLE 1. Hysterectomy rates for women aged 15-44 by age, race, and geographic region, United States, 1970 through 1978

Characteristics	Rate*								
	1970	1971	1972	1973	1974	1975	1976	1977	1978
Age									
15-24	0.7	0.8	1.1	0.9	1.1	1.0	1.0	1.3	1.0
25-34	8.4	9.0	11.0	11.4	10.1	11.4	10.3	11.3	9.4
35-44	15.6	16.6	18.4	19.5	20.5	19.9	18.3	18.8	17.7
Race									
White	6.8	7.4	8.7	9.0	8.9	9.0	8.1	8.9	7.8
Black and other races	9.8	8.9	9.3	9.7	9.1	10.1	10.0	9.5	9.7
Geographic region									
Northeast	6.2	6.7	6.3	6.7	5.7	5.0	5.0	5.2	4.4
North Central	7.1	7.4	7.8	8.5	9.1	9.1	8.4	8.6	8.3
South	8.2	8.5	11.5	11.2	11.1	11.7	11.1	11.8	11.0
West	6.9	7.7	8.8	9.2	9.2	8.9	7.6	9.2	6.9
TOTAL	7.2	7.6	8.8	9.1	9.0	9.1	8.4	9.0	8.1

*per 1,000 women aged 15-44.

TABLE 2. Average nights of hospitalization required for abdominal and vaginal hysterectomy, by geographic region, United States, 1970 through 1978

Region	Type of hysterectomy		Total
	Abdominal	Vaginal	
Northeast	10.1	9.6	10.0
North Central	9.6	9.2	9.5
South	8.6	7.9	8.4
West	7.5	6.8	7.2
TOTAL	8.9	8.2	8.7

Hysterectomy – Continued

while women in the Northeast had the lowest rates (Table 1). Annually between 1975 and 1978, the rates of hysterectomy in the South for reproductive-aged women were more than twice those in the Northeast.

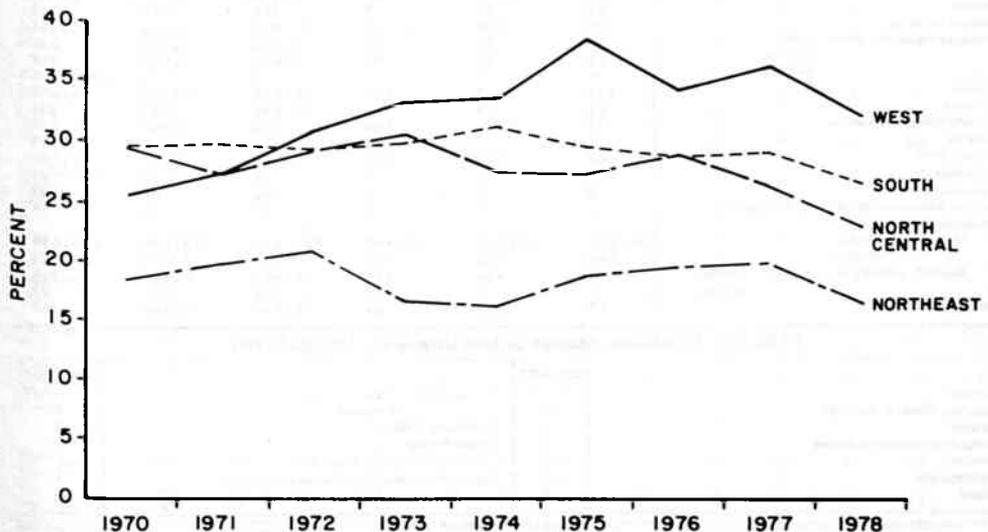
A relatively constant proportion of hysterectomies during the 9-year interval were performed by the vaginal approach (ranging from 25.4% to 29.2%); nevertheless, there were considerable regional differences (Figure 2). Women in the Northeast had the lowest proportion of hysterectomies performed as vaginal procedures while women in the West, since 1973, annually had the highest proportion of vaginal hysterectomies. In the 3-year period 1976-1978, approximately 34% of hysterectomies performed in the West were vaginal procedures compared with 19% in the Northeast.

The average length of hospitalization required for hysterectomy decreased during the study period. Comparing 1970-1972 with 1976-1978, the mean hospitalization for abdominal hysterectomy decreased from 9.5 to 8.5 nights; for vaginal hysterectomy the decrease was from 9.3 to 7.3 nights. Regional differences were also evident in the length of hospitalization required for hysterectomy (Table 2). Women in the Northeast had the longest average hospitalization throughout the study period for both abdominal and vaginal hysterectomy. Women in the West consistently had the shortest duration of hospitalization for both types of hysterectomies. Comparing women in the Northeast with women in the West, the duration of hospitalization for abdominal and vaginal hysterectomy was, on average, 2.8 nights longer in the Northeast.

Reported by the Epidemiologic Studies Br, Family Planning Evaluation Div, Center for Health Promotion and Education, CDC.

Editorial Note: Even after adjusting for possible confounding variables, the inter-regional differences in rates, the mean age of women undergoing hysterectomy, the proportion of vaginal hysterectomies performed, and the average hospitalization required for hysterectomy all suggest that medical practice varies considerably by region with respect to hysterectomy in reproductive-aged women.

FIGURE 2. Vaginal hysterectomies as a percentage of all hysterectomies for women aged 15-44, by year and region, United States, 1970-1978



Hysterectomy — Continued

Except for the early 1970s, the hysterectomy rate for reproductive-aged women remained nearly constant. The observed increase between 1970 and 1973 was attributable to increases in the rate for white women. Although the rate for women of black and other races was slightly higher than that for white women, the rates for the 2 groups were not far apart.

Reference

1. NCHS: Vital and Health Statistics (Series 2-No. 39). Rockville, Md, NCHS, 1970.

Paragonimiasis in Hmong Refugees — Minnesota

Since March 1980, 8 confirmed and 3 suspected cases of *Paragonimus westermani* infection have been seen in Hmong refugees in Minneapolis and St. Paul, Minnesota. All 11 were initially thought to have tuberculosis and were being treated for that infection. Nine were males and 2 were females. They ranged in age from 7 to 43, with a median age of 17.

(Continued on page 181)

TABLE I. Summary — cases of specified notifiable diseases, United States

(Cumulative totals include revised and delayed reports through previous weeks.)

DISEASE	15th WEEK ENDING		MEDIAN 1976-1980	CUMULATIVE, FIRST 15 WEEKS		
	April 18 1981	April 12 1980		April 18 1981	April 12 1980	MEDIAN 1976-1980
Aseptic meningitis	49	44	44	920	924	536
Brucellosis	2	4	1	27	47	45
Chickenpox	6,900	5,930	6,020	91,877	82,479	87,076
Diphtheria	—	—	—	3	1	24
Encephalitis: Primary (arthropod-borne & unspec.)	8	8	9	209	169	169
Post-infectious	2	6	4	24	49	49
Hepatitis, Viral: Type B	357	374	306	5,325	4,652	4,303
Type A	422	539	588	7,119	7,872	8,533
Type unspecified	168	220	209	3,184	3,155	2,631
Malaria	28	30	5	349	410	111
Measles (rubeola)	73	639	1,115	845	4,496	8,866
Meningococcal infections: Total	64	82	55	1,403	1,012	827
Civilian	64	82	54	1,400	1,003	818
Military	—	—	—	3	9	6
Mumps	117	227	520	1,605	4,135	6,612
Pertussis	15	14	14	292	287	304
Rubella (German measles)	63	123	590	820	1,447	4,518
Tetanus	1	—	1	13	11	11
Tuberculosis	588	579	556	7,330	7,162	7,646
Tularemia	3	2	3	28	25	25
Typhoid fever	8	3	6	140	80	102
Typhus fever, tick-borne (Rky. Mt. spotted)	2	3	5	20	14	14
Veneral diseases:						
Gonorrhea: Civilian	16,870	17,540	17,540	273,838	270,058	270,058
Military	484	400	512	8,301	7,723	7,723
Syphilis, primary & secondary: Civilian	509	434	434	8,567	7,461	6,994
Military	4	8	7	103	108	92
Rabies in animals	157	162	64	1,890	1,576	747

TABLE II. Notifiable diseases of low frequency, United States

	CUM. 1981		CUM. 1981
Anthrax	—	Poliomyelitis: Total	—
Botulism (Ariz. 1, Calif. 2)	17	Paralytic	—
Cholera	—	Psittacosis Calif. 1	20
Congenital rubella syndrome	4	Rabies in man	—
Leprosy	55	Trichinosis Conn. 3, Mass. 1	64
Leptospirosis	13	Typhus fever, flea-borne (endemic, murine)	3
Plague	1		

All delayed reports and corrections will be included in the following week's cumulative totals.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending April 18, 1981 and April 12, 1980 (15th week)

REPORTING AREA	ASEPTIC MENIN- GITIS	BRU- CEL- LOSIS	CHICKEN- POX	DIPHTHERIA		ENCEPHALITIS			HEPATITIS (VIRAL), BY TYPE			MALARIA	
						Primary		Post-in- fectious	B	A	Unspecified		
						1981	1980	1981	1981	1981	1981		
UNITED STATES	49	2	6,900	-	3	8	8	2	357	422	168	28	349
NEW ENGLAND	2	-	1,088	-	-	2	-	-	14	11	8	1	20
Maine	-	-	291	-	-	-	-	-	1	-	1	-	1
N.H.	-	-	124	-	-	1	-	-	-	1	4	1	3
Vt.	-	-	85	-	-	-	-	-	-	1	-	-	1
Mass.	1	-	299	-	-	-	-	-	1	5	3	-	11
R.I.	1	-	90	-	-	-	-	-	1	3	-	-	1
Conn.	-	-	199	-	-	1	-	-	11	1	-	-	3
MID. ATLANTIC	7	-	482	-	-	1	3	-	59	47	19	1	28
Upstate N.Y.	1	-	239	-	-	-	-	-	12	10	2	1	9
N.Y. City	2	-	148	-	-	-	-	-	11	6	6	-	13
N.J.	2	-	NN	-	-	1	-	-	25	25	7	-	3
Pa.	2	-	95	-	-	-	3	-	11	6	4	-	3
E.N. CENTRAL	2	-	2,535	-	-	-	1	-	34	48	16	1	10
Ohio	-	-	133	-	-	-	1	-	6	3	5	1	3
Ind.	-	-	263	-	-	-	-	-	7	21	4	-	3
Ill.	-	-	611	-	-	-	-	-	12	17	3	-	1
Mich.	2	-	695	-	-	-	-	-	5	5	4	-	3
Wis.	-	-	833	-	-	-	-	-	4	2	-	-	-
W.N. CENTRAL	6	1	923	-	-	2	-	-	25	18	7	-	10
Minn.	-	-	-	-	-	-	-	-	2	2	2	-	2
Iowa	-	-	219	-	-	-	-	-	2	2	2	-	2
Mo.	5	1	34	-	-	2	-	-	19	9	3	-	1
N. Dak.	-	-	34	-	-	-	-	-	-	-	-	-	1
S. Dak.	-	-	2	-	-	-	-	-	-	-	-	-	1
Nebr.	-	-	72	-	-	-	-	-	1	2	-	-	-
Kans.	1	-	562	-	-	-	-	-	1	3	-	-	3
S. ATLANTIC	15	1	971	-	1	1	2	2	73	48	27	-	36
Del.	-	-	18	-	-	-	-	-	1	1	-	-	-
Md.	3	-	30	-	-	1	-	-	3	3	6	-	6
D.C.	-	-	-	-	-	-	-	-	-	3	-	-	1
Va.	1	1	52	-	-	-	-	-	17	4	3	-	9
W. Va.	-	-	211	-	-	-	-	-	1	-	2	-	-
N.C.	2	-	NN	-	-	-	1	-	7	5	8	-	2
S.C.	-	-	29	-	-	-	1	-	8	2	-	-	-
Ga.	-	-	26	-	-	-	-	-	16	7	-	-	4
Fla.	9	-	605	-	1	-	-	2	20	23	8	-	14
E.S. CENTRAL	2	-	475	-	-	-	1	-	20	30	4	1	2
Ky.	-	-	239	-	-	-	1	-	4	17	3	-	-
Tenn.	-	-	NN	-	-	-	-	-	9	6	-	-	-
Ala.	1	-	198	-	-	-	-	-	1	-	1	1	1
Miss.	1	-	38	-	-	-	-	-	6	7	-	-	1
W.S. CENTRAL	-	-	11	-	-	-	-	-	13	15	20	-	23
Ark.	-	-	11	-	-	-	-	-	-	4	7	-	1
La.	-	-	NN	-	-	-	-	-	11	9	8	-	2
Okla.	-	-	-	-	-	-	-	-	2	2	5	-	2
Tex.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	18
MOUNTAIN	3	-	73	-	1	1	-	-	10	37	24	1	7
Mont.	-	-	-	-	1	-	-	-	-	1	-	-	-
Idaho	-	-	-	-	-	-	-	-	1	1	-	-	-
Wyo.	-	-	11	-	-	1	-	-	-	-	-	-	-
Colo.	3	-	-	-	-	-	-	-	6	19	3	1	3
N. Mex.	-	-	-	-	-	-	-	-	-	-	-	-	-
Ariz.	-	-	NN	-	-	-	-	-	2	11	16	-	2
Utah	-	-	7	-	-	-	-	-	-	2	2	-	-
Nev.	-	-	55	-	-	-	-	-	1	3	3	-	2
PACIFIC	12	-	342	-	1	1	1	-	109	168	43	23	213
Wash.	-	-	313	-	-	1	-	-	7	9	1	-	12
Oreg.	1	-	8	-	-	-	-	-	5	4	1	-	6
Calif.	9	-	-	-	-	-	1	-	95	154	41	22	193
Alaska	1	-	15	-	1	-	-	-	1	1	-	1	1
Hawaii	1	-	6	-	-	-	-	-	1	-	-	-	1
Guam	NA	NA	NA	NA	-	NA	-	-	NA	NA	NA	NA	-
P.R.	-	-	13	-	-	-	-	-	-	8	11	-	3
V.I.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1
Pac. Trust Terr.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-

NN: Not notifiable. NA: Not available.
All delayed reports and corrections will be included in the following week's cumulative totals.

TABLE III (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending April 18, 1981 and April 12, 1980 (15th week)

REPORTING AREA	MEASLES (RUBEOLA)			MENINGOCOCCAL INFECTIONS TOTAL			MUMPS		PERTUSSIS	RUBELLA		TETANUS
	1981	CUM. 1981	CUM. 1980	1981	CUM. 1981	CUM. 1980	1981	CUM. 1981	1981	1981	CUM. 1981	CUM. 1981
UNITED STATES	73	845	4,496	64	1,403	1,012	117	1,605	15	63	820	13
NEW ENGLAND	2	28	340	8	94	57	11	83	1	1	74	1
Maine	-	2	4	1	13	2	1	16	-	-	31	-
N.H.	1	4	172	4	10	4	-	8	-	1	15	-
Vt.	-	1	148	-	4	6	-	2	-	-	-	-
Mass.	-	16	11	2	24	16	-	23	-	-	23	-
R.I.	-	-	2	1	8	5	7	17	-	-	-	-
Conn.	1	5	3	-	35	24	3	17	1	-	5	1
MID. ATLANTIC	33	298	1,120	11	170	167	18	198	1	8	114	1
Upstate N.Y.	8	167	285	3	59	59	7	41	1	6	42	-
N.Y. City	-	26	324	3	22	47	1	28	-	-	21	1
N.J.	2	21	207	3	46	35	3	57	-	2	36	-
Pa.	23	84	304	2	43	26	7	72	-	-	15	-
E.N. CENTRAL	-	44	694	1	153	117	37	467	3	12	166	1
Ohio	-	13	109	-	50	45	2	58	-	-	-	-
Ind.	-	3	40	-	21	18	3	63	1	4	55	-
Ill.	-	6	145	-	43	17	8	84	1	-	42	-
Mich.	-	22	127	1	35	29	16	194	-	-	22	1
Wis.	-	-	273	-	4	8	8	68	1	8	47	-
W.N. CENTRAL	-	4	550	1	54	42	23	146	1	2	37	2
Minn.	-	1	379	-	22	11	1	4	-	-	5	1
Iowa	-	1	12	-	12	5	1	32	-	-	-	-
Mo.	-	-	58	1	13	17	1	22	-	1	3	1
N. Dak.	-	-	-	-	1	1	-	-	-	-	-	-
S. Dak.	-	-	-	-	1	3	-	1	-	-	-	-
Nebr.	-	1	56	-	-	-	-	3	-	-	1	-
Kans.	-	1	45	-	5	5	20	84	1	1	28	-
S. ATLANTIC	15	224	912	21	372	246	8	213	2	8	86	1
Del.	-	-	1	-	4	2	-	3	-	-	-	-
Md.	-	1	21	3	20	24	-	39	-	-	-	-
D.C.	-	-	-	-	1	1	-	-	-	-	-	-
Va.	-	2	164	1	43	17	2	52	-	1	9	-
W. Va.	-	7	4	-	16	6	1	40	1	-	15	-
N.C.	3	3	38	4	57	46	-	4	-	-	4	-
S.C.	-	-	112	2	50	33	-	5	-	-	4	1
Ga.	5	80	381	1	58	55	3	21	1	5	24	-
Fla.	7	131	191	10	123	62	2	49	-	2	30	-
E.S. CENTRAL	-	-	107	6	114	101	5	51	-	2	18	1
Ky.	-	-	32	1	37	31	5	22	-	1	11	-
Tenn.	-	-	5	1	32	22	-	17	-	1	7	-
Ala.	-	-	16	3	34	29	-	11	-	-	-	1
Miss.	-	-	54	1	11	19	-	1	-	-	-	-
W.S. CENTRAL	2	74	357	3	237	115	-	88	-	-	51	2
Ark.	-	-	9	1	19	5	-	-	-	-	-	1
La.	-	-	7	2	51	46	-	3	-	-	6	-
Okla.	2	5	260	-	18	8	-	-	-	-	-	-
Tex.	NA	69	81	-	149	56	NA	85	NA	NA	45	1
MOUNTAIN	3	15	90	1	47	36	2	53	2	7	37	1
Mont.	-	-	1	-	2	1	-	3	-	-	1	-
Idaho	-	-	-	-	3	3	-	4	1	-	-	-
Wyo.	-	-	-	-	-	1	-	-	-	-	1	-
Colo.	1	4	3	1	21	9	2	26	1	5	21	-
N. Mex.	-	-	4	-	4	6	-	-	-	-	1	-
Ariz.	-	2	43	-	12	5	-	9	-	2	6	1
Utah	-	-	37	-	3	1	-	5	-	-	3	-
Nev.	2	9	2	-	2	10	-	6	-	-	4	-
PACIFIC	18	158	326	12	162	131	13	306	5	23	237	3
Wash.	-	1	107	-	32	18	3	90	1	-	43	-
Oreg.	-	-	-	-	15	27	1	38	-	-	15	-
Calif.	18	157	211	12	108	84	9	166	3	23	179	3
Alaska	-	-	5	-	3	2	-	3	-	-	-	-
Hawaii	-	-	3	-	4	-	-	9	1	-	-	-
Guam	NA	1	3	-	-	1	NA	1	NA	NA	-	-
P.R.	16	118	39	-	3	6	1	46	-	-	3	-
V.I.	NA	3	4	-	-	1	NA	2	NA	NA	-	-
Pac. Trust Terr.	NA	-	3	-	-	-	NA	1	NA	NA	1	-

NA: Not available.

All delayed reports and corrections will be included in the following week's cumulative totals.

TABLE III (Cont'd). Cases of specified notifiable diseases, United States, weeks ending
April 18, 1981 and April 12, 1980 (15th week)

REPORTING AREA	TUBERCULOSIS		TULA- REMIA	TYPHOID FEVER		TYPHUS FEVER (Tick-borne) (RMSF)		VENEREAL DISEASES (Civilian)						RABIES (in Animals)	
	1981	CUM. 1981	CUM. 1981	1981	CUM. 1981	1981	CUM. 1981	GONORRHEA			SYPHILIS (Pri. & Sec.)			CUM. 1981	
								1981	CUM. 1981	CUM. 1980	1981	CUM. 1981	CUM. 1980		
UNITED STATES	588	7,333	28	8	140	2	20	16,870	273,838	270,058	509	8,567	7,461	1,890	
NEW ENGLAND	12	195	-	-	7	-	-	201	6,583	7,016	6	192	164	8	
Maine	1	20	-	-	-	-	-	32	354	419	-	1	3	6	
N.H.	-	2	-	-	-	-	-	8	240	249	-	7	1	1	
Vt.	-	7	-	-	-	-	-	6	110	193	1	11	2	-	
Mass.	6	109	-	-	6	-	-	NA	2,597	2,837	5	115	91	-	
R.I.	-	11	-	-	-	-	-	15	325	417	-	13	11	-	
Conn.	5	46	-	-	1	-	-	140	2,957	2,901	-	45	56	1	
MID. ATLANTIC	134	1,294	5	1	26	-	3	1,762	31,994	29,184	140	1,369	1,043	2	
Upstate N.Y.	9	206	5	-	4	-	-	1,307	5,133	5,146	22	121	82	1	
N.Y. City	47	552	-	-	17	-	2	800	12,675	11,487	85	860	673	-	
N.J.	62	247	-	-	2	-	-	223	6,556	5,237	16	159	138	-	
Pa.	16	289	-	1	3	-	-	432	7,630	7,314	17	229	150	1	
E.N. CENTRAL	83	963	1	-	7	-	1	3,249	42,176	43,211	17	473	727	245	
Ohio	16	175	-	-	-	-	1	1,933	17,066	11,563	9	82	115	13	
Ind.	19	54	-	-	-	-	-	157	3,520	4,207	5	38	69	10	
Ill.	20	403	-	-	4	-	-	348	8,565	13,824	-	216	396	197	
Mich.	25	281	1	-	2	-	-	519	9,190	9,347	3	106	117	-	
Wis.	3	50	-	-	1	-	-	292	3,835	4,270	2	31	30	25	
W.N. CENTRAL	18	240	3	1	3	-	1	927	13,226	11,661	10	148	83	809	
Minn.	3	39	-	-	1	-	-	118	2,117	2,085	4	56	30	151	
Iowa	4	37	-	1	1	-	-	63	1,349	1,257	-	8	7	271	
Mo.	10	101	3	-	-	-	1	419	6,024	4,850	5	72	44	68	
N. Dak.	-	8	-	-	-	-	-	13	178	171	1	2	-	118	
S. Dak.	-	17	-	-	1	-	-	21	349	356	-	-	-	94	
Nebr.	-	7	-	-	-	-	-	93	970	992	-	3	1	49	
Kans.	1	31	-	-	-	-	-	200	2,239	1,950	-	7	1	58	
S. ATLANTIC	114	1,645	5	-	20	-	1	5	4,670	69,315	65,339	173	2,316	1,839	102
Del.	-	20	1	-	-	-	-	49	1,011	909	2	7	5	-	
Md.	10	162	-	-	6	1	1	613	7,453	6,748	7	176	135	1	
D.C.	13	104	-	-	1	-	-	225	4,495	4,816	20	209	131	-	
Va.	NA	185	-	-	1	-	-	417	6,467	5,529	20	218	163	17	
W. Va.	5	58	-	-	3	-	-	87	1,046	898	-	6	4	3	
N.C.	15	298	1	-	1	-	4	718	11,004	10,051	5	177	133	-	
S.C.	8	141	2	-	-	-	-	395	6,277	6,259	16	162	92	6	
Ga.	26	253	1	-	-	-	-	757	13,592	11,782	42	590	546	53	
Fla.	37	424	-	-	8	-	-	1,409	17,970	18,347	61	771	630	22	
E.S. CENTRAL	56	632	2	-	4	-	3	1,427	22,657	21,839	26	584	609	138	
Ky.	12	161	2	-	-	-	1	138	2,908	3,148	1	23	36	36	
Tenn.	18	213	-	-	1	-	-	779	8,477	7,876	11	231	236	87	
Ala.	15	182	-	-	2	-	-	252	7,164	6,106	8	162	126	15	
Miss.	11	76	-	-	1	-	1	258	4,108	4,709	6	168	213	-	
W.S. CENTRAL	31	647	5	-	12	-	6	728	36,304	34,999	37	1,970	1,416	355	
Ark.	8	71	1	-	-	1	2	168	2,377	2,602	-	38	55	62	
La.	17	138	2	-	-	-	-	335	5,986	5,939	34	446	325	13	
Okla.	6	87	1	-	3	-	2	225	3,778	3,460	3	52	23	60	
Tex.	NA	351	1	NA	9	NA	2	NA	24,163	22,998	NA	1,434	1,013	220	
MOUNTAIN	13	203	6	-	8	-	1	553	11,269	10,543	10	219	174	36	
Mont.	3	20	1	-	4	-	-	19	398	380	-	8	-	34	
Idaho	-	5	2	-	-	-	1	18	434	522	-	2	5	-	
Wyo.	-	2	-	-	-	-	-	8	240	312	-	2	7	2	
Colo.	-	11	2	-	2	-	-	196	2,932	2,647	2	71	47	-	
N. Mex.	1	43	-	-	-	-	-	36	1,257	1,389	7	47	28	-	
Ariz.	6	85	-	-	2	-	-	251	3,775	2,966	-	44	62	-	
Utah	-	14	1	-	-	-	-	25	506	507	1	4	5	-	
Nev.	3	23	-	-	-	-	-	-	1,727	1,820	-	41	20	-	
PACIFIC	127	1,511	1	6	53	-	-	3,353	40,314	46,266	90	1,296	1,406	195	
Wash.	22	128	-	-	2	-	-	298	3,529	3,770	-	37	83	-	
Oreg.	6	55	-	-	2	-	-	218	2,984	3,269	4	32	33	1	
Calif.	96	1,275	1	6	47	-	-	2,727	31,860	37,142	83	1,194	1,240	181	
Alaska	-	15	-	-	-	-	-	86	1,109	1,063	-	4	2	13	
Hawaii	3	38	-	-	2	-	-	29	832	1,022	3	29	48	-	
Guam	NA	-	-	NA	-	NA	-	NA	14	31	NA	-	-	-	
P. R.	-	34	-	-	3	-	-	32	941	770	7	209	159	21	
V.I.	NA	-	-	NA	1	NA	-	NA	34	52	NA	-	7	-	
Pac. Trust Terr.	NA	17	-	NA	-	NA	-	NA	42	113	NA	-	-	-	

NA: Not available.

All delayed reports and corrections will be included in the following week's cumulative totals.

TABLE IV. Deaths in 121 U.S. cities,* week ending
April 18, 1981 (15th week)

REPORTING AREA	ALL CAUSES, BY AGE (YEARS)					P & I** TOTAL	REPORTING AREA	ALL CAUSES, BY AGE (YEARS)					P & I** TOTAL
	ALL AGES	>65	45-64	25-44	<1			ALL AGES	>65	45-64	25-44	<1	
NEW ENGLAND	688	459	157	30	22	4.0	S. ATLANTIC	1,114	673	260	98	46	4.9
Boston, Mass.	179	108	40	12	7	2.7	Atlanta, Ga.	120	71	19	13	12	2
Bridgeport, Conn.	65	45	15	1	3	3	Baltimore, Md.	146	93	34	9	3	4
Cambridge, Mass.	20	16	3	-	-	2	Charlotte, N.C.	69	38	17	6	4	2
Fall River, Mass.	33	21	10	1	1	-	Jacksonville, Fla.	93	59	21	8	1	1
Hartford, Conn.	50	34	11	2	2	1	Miami, Fla.	105	61	29	11	4	5
Lowell, Mass.	25	20	2	2	-	1	Norfolk, Va.	47	29	11	3	3	3
Lynn, Mass.	22	15	6	1	-	1	Richmond, Va.	71	35	22	9	2	7
New Bedford, Mass.	23	16	6	1	-	1	Savannah, Ga.	58	38	15	2	2	6
New Haven, Conn.	52	33	12	2	5	5	St. Petersburg, Fla.	119	99	15	1	2	10
Providence, R.I.	64	45	14	3	1	8	Tampa, Fla.	53	33	13	3	2	4
Somerville, Mass.	6	5	1	-	-	0	Washington, D.C.	173	77	51	29	9	4
Springfield, Mass.	49	31	14	1	3	3	Wilmington, Del.	60	40	13	4	2	1
Waterbury, Conn.	39	26	11	1	-	2							
Worcester, Mass.	61	44	12	3	-	5							
							E.S. CENTRAL	645	405	149	49	19	3.4
MID. ATLANTIC	2,712	1,775	645	169	50	10.6	Birmingham, Ala.	115	70	29	8	5	4
Albany, N.Y.	52	36	10	4	1	1	Chattanooga, Tenn.	43	22	11	6	2	2
Allentown, Pa.	35	26	4	4	1	-	Knoxville, Tenn.	37	23	10	2	1	-
Buffalo, N.Y.	50	25	19	4	1	-	Louisville, Ky.	118	71	29	10	5	10
Camden, N.J.	31	18	10	2	-	-	Memphis, Tenn.	144	98	26	10	2	9
Elizabeth, N.J.	27	22	5	-	-	3	Mobile, Ala.	33	21	10	-	-	-
Erie, Pa.†	35	25	9	1	-	1	Montgomery, Ala.	50	30	11	4	3	2
Jersey City, N.J.	61	39	15	1	3	2	Nashville, Tenn.	105	70	23	9	1	7
Newark, N.J.	46	25	11	5	3	5							
N.Y. City, N.Y.	1,326	871	305	97	17	40	W.S. CENTRAL	1,496	804	420	141	49	4.0
Paterson, N.J.	16	14	2	-	-	1	Austin, Tex.	64	44	14	2	-	2
Philadelphia, Pa.†	591	367	158	33	15	2.8	Baton Rouge, La.	33	24	8	1	-	2
Pittsburgh, Pa.†	56	34	16	3	3	1	Corpus Christi, Tex.	23	12	10	-	1	-
Reading, Pa.	44	35	5	3	-	3	Dallas, Tex.	202	111	52	18	10	4
Rochester, N.Y.	108	78	21	1	3	1.1	El Paso, Tex.	40	22	8	6	2	3
Schenectady, N.Y.	30	23	6	1	-	3	Fort Worth, Tex.	82	56	19	4	1	4
Scranton, Pa.†	23	17	5	1	-	2	Houston, Tex.	530	240	178	70	8	8
Syracuse, N.Y.	104	69	25	5	1	1	Little Rock, Ark.	60	36	17	4	2	5
Tranton, N.J.	20	12	6	-	2	-	New Orleans, La.	167	87	43	19	13	3
Utica, N.Y.	24	15	7	1	-	2	San Antonio, Tex.	158	98	37	6	5	8
Yonkers, N.Y.	33	24	6	3	-	2	Shreveport, La.	59	36	15	4	2	1
							Tulsa, Okla.	77	38	19	7	5	-
E.N. CENTRAL	2,190	1,351	531	145	98	6.2	MOUNTAIN	613	390	131	49	18	2.7
Akron, Ohio	82	49	22	1	7	1	Albuquerque, N. Mex.	70	43	13	5	-	5
Canton, Ohio	40	27	10	2	-	-	Colo. Springs, Colo.	39	25	10	2	2	5
Chicago, Ill.	537	309	134	42	29	1.7	Denver, Colo.	111	73	25	7	3	4
Cincinnati, Ohio	136	91	31	7	6	1.1	Las Vegas, Nev.	71	39	17	9	2	3
Cleveland, Ohio	170	92	47	18	10	3	Ogden, Utah	12	7	2	2	1	-
Columbus, Ohio	132	78	33	11	7	4	Phoenix, Ariz.	155	95	34	12	7	2
Dayton, Ohio	90	61	24	1	4	3	Pueblo, Colo.	10	4	3	2	-	2
Detroit, Mich.	279	163	76	22	10	2	Salt Lake City, Utah	47	31	8	4	3	-
Evansville, Ind.	37	28	8	1	-	3	Tucson, Ariz.	98	73	19	6	-	6
Fort Wayne, Ind.	61	39	18	1	2	3							
Gary, Ind.	18	9	3	4	2	1							
Grand Rapids, Mich.	51	33	13	3	2	-	PACIFIC	1,798	1,147	406	135	47	7.5
Indianapolis, Ind.	160	90	41	12	9	1	Berkeley, Calif.	20	15	5	-	-	-
Madison, Wis.	33	23	6	-	3	8	Fresno, Calif.	58	39	14	2	2	4
Milwaukee, Wis.	91	69	15	3	2	1	Glendale, Calif.	26	14	9	1	1	-
Peoria, Ill.	58	33	11	5	2	2	Honolulu, Hawaii	58	32	18	5	1	4
Rockford, Ill.	32	22	6	2	1	-	Long Beach, Calif.	89	53	20	7	1	1
South Bend, Ind.	28	23	3	1	-	1	Los Angeles, Calif.	582	354	139	52	12	2.4
Toledo, Ohio	95	68	18	6	2	-	Oakland, Calif.	64	36	16	6	1	4
Youngstown, Ohio	60	44	12	3	-	1	Pasadena, Calif.	20	14	2	2	1	3
							Portland, Ore.	113	74	21	6	5	1
W.N. CENTRAL	700	453	143	48	30	3.2	Sacramento, Calif.	70	46	15	5	3	3
Des Moines, Iowa	53	35	11	2	3	1	San Diego, Calif.	178	110	44	16	3	9
Duluth, Minn.	21	14	3	2	1	5	San Francisco, Calif.	134	91	22	14	5	3
Kansas City, Kans.	40	22	7	5	2	3	San Jose, Calif.	148	94	31	11	4	9
Kansas City, Mo.	107	70	23	8	4	6	Seattle, Wash.	144	103	28	4	4	4
Lincoln, Nebr.	40	31	5	2	1	4	Spokane, Wash.	55	38	9	2	2	-
Minneapolis, Minn.	82	55	12	5	7	-	Tacoma, Wash.	39	28	7	2	2	6
Omaha, Nebr.	88	53	19	7	4	3							
St. Louis, Mo.	150	83	42	12	5	5							
St. Paul, Minn.	67	52	11	3	1	1							
Wichita, Kans.	52	38	10	2	2	4	TOTAL	11,956	7,457	2,842	864	379	4.85

*Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

**Pneumonia and influenza

†Because of changes in reporting methods in these 4 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

Paragonimiasis — Continued

Eggs identified in the sputum of 8 refugees confirmed *P. westermani* infection. In the 3 suspected cases, sputum and stool examinations for *P. westermani* ova were negative, but the complement-fixation (CF) test for *P. westermani* was positive. All 11 refugees had productive coughs, with associated hemoptysis in the 8 confirmed cases. The 11 refugees also had abnormal chest X-ray findings consisting of infiltrates and cavities, and 6 had associated pleural effusions. Only 3 of the 11 had positive tuberculin skin tests. Seven of the confirmed cases were treated with bithionol; all 7 improved clinically, but 3 remained positive for ova. One confirmed case and 3 suspected cases showed clinical improvement without therapy.

Reported by JR Johnson, MD, Hennepin County Chest Clinic, R Boeck, Minneapolis Health Dept, Minneapolis; D Paulson, MD, J Godes, St. Paul Div of Public Health; Parasitic Diseases Div, Center for Infectious Diseases, Tuberculosis Control Div, and Quarantine Div, Center for Prevention Services, CDC.

Editorial Note: Paragonimiasis (lung fluke infection) is caused by the presence of the trematode *P. westermani* in the parenchyma of the lung or, less commonly, other tissues. Humans become infected by ingesting raw freshwater crabs or crayfish that harbor the parasites. Paragonimiasis is limited to areas of the world where crabs or crayfish are commonly eaten raw. After ingestion of organisms in the infective stage, the metacercaria excyst in the intestine and usually migrate through the intestinal wall and diaphragm to the lung; less frequently, they may migrate to other areas such as the central nervous system or the skin. The infection frequently causes cough that is productive of tenacious brown or red sputum. Hemoptysis is common, as is pleurisy. Diagnosis is confirmed by finding the characteristic eggs in the sputum or feces; CF tests may aid in the diagnosis but should not be used as the sole basis for therapy. Treatment is indicated for patients with a confirmed diagnosis and signs and symptoms of disease. Treatment consists of bithionol, a drug available from the CDC Parasitic Disease Drug Service (7). Praziquantel, a much more effective drug used in Southeast Asia for paragonimiasis, is not yet available in the United States (2-4).

Paragonimiasis commonly mimics tuberculosis, and, because of the high rate of tuberculosis among Indochinese refugees, the 11 patients described above were initially suspected of having tuberculosis. Paragonimiasis and tuberculosis also may coexist. Paragonimiasis should be considered in any Indochinese refugee, particularly Laotian (Hmong), who presents with lobar pneumonia, bronchiectasis, or any bronchopulmonary illness compatible with tuberculosis. Cough and hemoptysis in the absence of a reaction to tuberculin should increase suspicion of paragonimiasis. In addition to the chest X-ray examination, the evaluation of such patients should consist of a tuberculin skin test, sputum smear and culture for tuberculosis, and sputum and stool examinations for ova of *P. westermani*.

The number of requests to the CDC Parasitic Drug Service for bithionol to treat paragonimiasis increased from 15 in 1979 to 42 in 1980. Although the number of patients treated for paragonimiasis has increased, the disease does not pose a public health threat in the United States. Transmission will not occur where adequate toilet and sewage disposal facilities exist and where crabs and crayfish are cooked before being eaten.

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Paragonimiasis – Continued

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Current Trends**Measles – United States**

For 34 consecutive weeks, fewer than 100 measles cases per week have been reported for the United States. The number reported per week in this period has ranged from 13, an all-time low for any given week, to 88, and has averaged 44 cases per week.

For the first 14 weeks of 1981, a total of 778 cases have been reported. This represents an 80% decrease from the 3,897 cases reported for the same period in 1980 (Table 3).

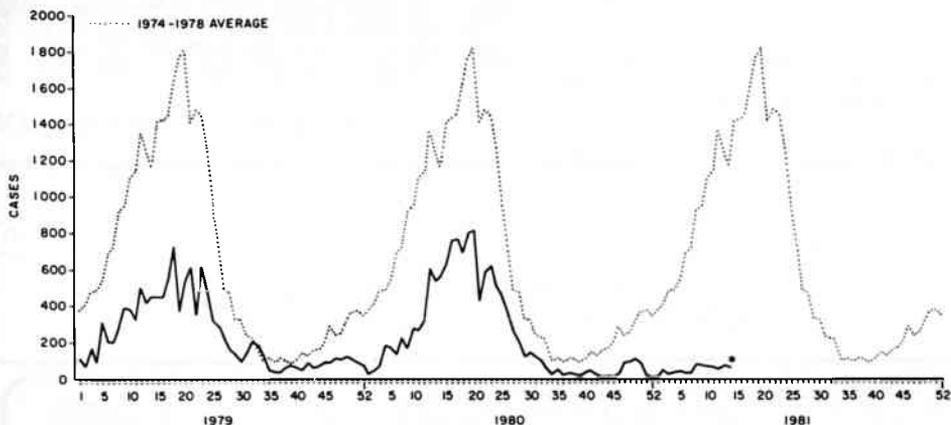
Reported by Surveillance and Assessment Br, Immunization Div, Center for Prevention Services, CDC.

TABLE 3. Measles – United States, April 11, 1981

Year	Week 14	Weeks 1-14
1981	82	778
1980	578	3,897
1970	1,976	16,702
1960	19,197	166,930

Editorial Note: This extended period of low measles activity is unprecedented in the United States. The previous record low period was in 1979 when for 12 consecutive weeks fewer than 100 measles cases per week were reported. If present trends continue, fewer than 3,000 measles cases will be reported in 1981, an average of less than 1 case per county.

Particularly striking through week 14 of 1981 is the absence of the expected seasonal increase in numbers of reported cases of measles (Figure 3). Thus, the current nationwide Measles Elimination Program appears to have brought about dramatic reductions in measles incidence and to have altered one of the characteristic features of the epidemiology of measles in the United States.

*Measles — Continued***FIGURE 3. Measles incidence, United States, 1979-1981, and 1974-1978 average**

*First 14 weeks.

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

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