CENTERS FOR DISEASE CONTROL

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Progress in Chronic Disease Prevention

The following two articles focus on different aspects of lung cancer. The first, which is part of the series of Chronic Disease Reports, discusses lung cancer mortality for 1986 and is based on mortality data from CDC's National Center for Health Statistics for the total U.S. population. The second reports on lung cancer incidence and trends from 1973 to 1986 and is based on data from the nine sites of the Surveillance, Epidemiology, and End Results Program of the National Cancer Institute (NCI). The editorial note discusses some of these findings and current NCI efforts to alter smoking behavior.

Chronic Disease Reports: Deaths from Lung Cancer – United States, 1986

In 1986, 126,000 persons in the United States died from cancer of the trachea, bronchus, or lung (i.e., "lung cancer," ICD-9-CM code 162). Lung cancer mortality increased by 15% overall from 1979 to 1986 (*1*)–by 7% among males and 44% among females (*2,3*). Lung cancer mortality rates increase with age; 62% of lung cancer deaths in 1986 occurred in persons ≥65 years of age (*3*).

Although age-adjusted lung cancer mortality rates are higher in southern and lower midwestern states, high rates occur elsewhere (Table 1, Figure 1). Age-adjusted lung cancer mortality rates are highest in Alaska (70.5 per 100,000 population) and lowest in Utah (24.3 per 100,000).

Evidence for a causal relationship between cigarette smoking and lung cancer incidence and mortality has been documented extensively (Table 2) (*4*). Risk for mortality varies by smoking status, sex, and daily cigarette consumption. Passive smoking has also been associated with increased risk for lung cancer; an estimated 3800 lung cancer deaths are attributable to passive smoking each year (*5*). Moderately high levels of dietary vitamin A have been associated with lower rates of lung cancer (*6*); however, this effect may be reduced in smokers (*7*).

Numerous agents have been associated with lung cancer in occupational (*8*) and other settings; for example, exposures to radon emission and asbestos fibers are known risk factors for lung cancer mortality (*9,10*). The risk associated with radon is an estimated 6–11 times higher in smokers than in nonsmokers (*11*). Risk is

Deaths from Lung Cancer – Continued

CHRONIC DISEASE REPORTS: LUNG CANCER, TABLE 1. Age-adjusted lung cancer mortality, by state – United States, 1986

State	Deaths	Rate per 100,000	Rank by rate
Alabama	2,339	57.4	14
Alaska	148	70.5	1
Arizona	1,521	44.7	42
Arkansas	1,570	58.2	12
California	12,109	49.2	34
Colorado	1,062	42.0	46
Connecticut	1,626	47.0	36
Delaware	363	58.7	11
District of Columbia	403	61.0	7
Florida	8,479	52.8	25
Georgia	2,997	56.6	17
Hawaii	347	37.3	49
Idaho	384	42.7	44
Illinois	6,008	52.4	26
Indiana	3,120	57.8	13
Iowa	1,461	46.2	37
Kansas	1,179	45.2	40
Kentucky	2,400	65.2	3
Louisiana	2,377	62.1	5
Maine	704	56.1	18
Maryland	2,420	59.7	8
Massachusetts	3,218	50.2	32
Michigan	4,553	52.2	27
Minnesota	1,669	40.0	47
Mississippi	1,410	55.6	20
Missouri	3,121	56.0	19
Montana	349	44.0	43
Nebraska	785	46.0	38
Nevada	585	69.3	2
New Hampshire	514	51.8	29
New Jersey	4,393	53.6	23
New Mexico	462	37.6	48
New York	9,284	48.8	35
North Carolina	3,211	51.8	28
North Dakota	252	37.1	50
Ohio	6,237	57.1	15
Oklahoma	1,929	58.8	10
Oregon	1,578	56.6	16
Pennsylvania	6,983	50.6	31
Rhode Island	582	51.3	30
South Carolina	1,654	54.4	21
South Dakota	345	45.3	39
Tennessee	2,875	59.3	9
Texas	6,876	49.9	33
Utah	275	24.3	51
Vermont	277	53.2	24
Virginia	3,205	62.0	6
Washington	2,276	53.9	22
West Virginia	1,331	64.1	4
Wisconsin	2,106	42.5	45
Wyoming	159	44.9	41
Total	**125,511**	**52.1**	

Deaths from Lung Cancer — Continued

CHRONIC DISEASE REPORTS: LUNG CANCER, TABLE 2. Lung cancer (ICD-9-CM 162) indices — United States, 1986

Index	No.	Rate per 100,000
Mortality		
Underlying cause	125,511	52.1
Male	85,050	72.5
Female	40,461	32.7
Multiple cause*	137,645	57.1
Male	94,125	80.2
Female	43,520	35.2
Incidence†	147,771	61.3
Hospitalizations§	283,504	117.6
Years of potential life lost before age 65¶	410,359	170.2

Risk factor	Crude prevalence(%)	Relative risk	Population-attributable risk (%; nonadditive)**	Estimated attributable deaths (nonadditive)††
Smoking (current)				
Male	32.9§§	22.4¶¶	88	82,830
Female	26.5§§	11.9¶¶	74	32,205
Smoking (former)				
Male	34.9	9.4	75	70,594
Female	15.3	4.7	36	15,667

*NCHS. Vital statistics mortality data, multiple cause of death detail, 1986 [machine-readable public-use data tape]. Hyattsville, Maryland: US Department of Health and Human Services, Public Health Service, 1988 (ICD-9-CM 162).

†Estimated from age-specific incidence and 1986 intercensal estimates of the U.S. population. National Cancer Institute/NCHS. 1988 Annual cancer statistics review. Washington, DC: US Department of Health and Human Services, National Institutes of Health/CDC, 1989. Irwin R. 1980–1986 Intercensal population estimates by race, sex, and age [machine-readable data file]. Alexandria, Virginia: Demo-Detail, 1987.

§NCHS. National Hospital Discharge Survey, 1987 [machine-readable public-use data tape]. Hyattsville, Maryland: US Department of Health and Human Services, Public Health Service, 1987 (ICD-9-CM 162).

¶Years of potential life lost before age 65 in 1986 (ICD-9-CM 162), calculated from NCHS. 1986 Underlying cause of death [machine-readable public-use data tape]. Hyattsville, Maryland: US Department of Health and Human Services, Public Health Service, 1988.

**Population-attributable risk (PAR) is the percentage of mortality attributable to the specific risk factor in the population. Because persons may be exposed to more than one risk factor, estimated PAR from different risk factors should not be added. CDC. Chronic disease reports in the *Morbidity and Mortality Weekly Report (MMWR)*. MMWR 1989;38(no. S-1).

††Estimated attributable deaths = PAR × multiple cause mortality. Because persons may be exposed to more than one risk factor, estimated attributable deaths from different risk factors should not be added.

§§Office on Smoking and Health, CDC. Data are for adults aged ≥35 years in 1985. Unpublished analysis of data from Current Population Survey.

¶¶Relative risks for death from lung cancer (ICD-9-CM 162) in current and former smokers compared to neversmokers ≥35 years of age. CDC. Reducing the health consequences of smoking: 25 years of progress—a report of the Surgeon General, 1989. Rockville, Maryland: US Department of Health and Human Services, Public Health Service, 1989; DHHS publication no. (CDC)89-8411.

Deaths from Lung Cancer — Continued

also higher in asbestos workers who smoke than in those who do not smoke (*12*). Although information on the population prevalence of exposure to radon and asbestos (and to each in combination with cigarette smoking) is preliminary, mortality attributable to these causes can be estimated. Exposure to radon in homes is associated with 5000–20,000 lung cancer deaths annually (*13*); an estimated 85% of these deaths are due to the combined exposure of radon and cigarette smoke (*4*). Approximately 5500 lung cancer deaths in the United States in 1987 were expected among persons with occupational exposure to asbestos (*10*).

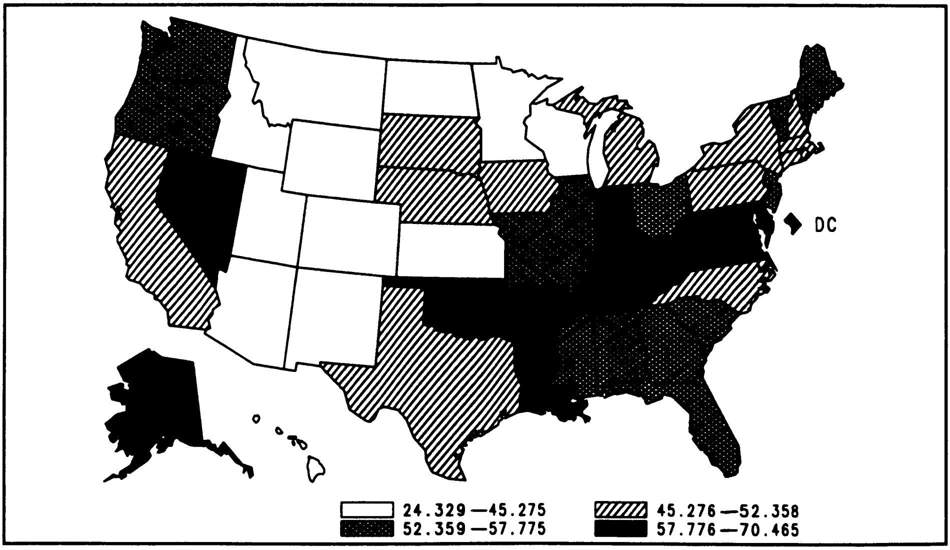
Reduction of cigarette smoking remains the single most important means of controlling lung cancer in the United States (*4*). More than 80% of lung cancer deaths are estimated to be caused by cigarette smoking. Reduction of cigarette smoking would decrease lung cancer mortality both directly, by moderation of an independent risk factor, and indirectly, by mitigation of the effects of other risk factors such as radon and asbestos exposures. While the prevalence of smoking has declined in recent decades, this decline has been slow in women and negligible among persons with less than high school education; rates remain especially high among certain groups (e.g., blue-collar workers and less educated persons) (*4*). To reduce lung cancer mortality, physicians and public health practitioners must emphasize noninitiation of smoking among youths and quitting among current smokers.

Reported by: Div of Surveillance and Epidemiologic Studies, Epidemiology Program Office; Office on Smoking and Health, Center for Chronic Disease Prevention and Health Promotion, CDC.

References

1. CDC. Chronic disease reports: mortality trends—United States, 1979–1986. MMWR 1989;38:189–91.

CHRONIC DISEASE REPORTS: LUNG CANCER MORTALITY, FIGURE 1. Age-specific lung cancer mortality rates per 100,000 persons, by quartile — United States, 1986*



*U.S. standard age distribution. See *MMWR* 1989;38:191.

Deaths from Lung Cancer — Continued

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Trends in Lung Cancer Incidence — United States, 1973–1986

In 1973, the National Cancer Institute (NCI) initiated a population-based tumor registry reporting system for cancer incidence and survival. This system, the Surveillance, Epidemiology, and End Results (SEER) Program, receives reports from five states and four metropolitan areas* representing approximately 10% of the U.S. population. SEER data are used to assess the health burden of cancer, identify populations at increased risk, and measure the impact of cancer prevention and control efforts. This report describes trends in the incidence of cancer of the lung and bronchus during 1973–1986 based on the *International Classification of Diseases for Oncology* (ICD-O) categories 162.2–162.9 (*1*). Rates are age-adjusted by the direct method to the 1970 U.S. population.

From 1973 through 1986 (*2*), lung cancer incidence (Figure 1, page 511) increased for all race/sex groups except white males. Among white males, the incidence of lung cancer decreased for 2 consecutive years to 80.3 per 100,000 in 1986 (Table 1, page 511), the lowest level since 1977. Incidence rates in 1986 varied substantially by sex and race, with rates for white males (80.3) double those of white females (37.0) and rates for black males (128.1) triple those of black females (43.0). Incidence for black males was 60% higher than that for white males; in contrast, rates were similar for black females and white females.

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*Iowa, New Mexico, Utah, Connecticut, and Hawaii; San Francisco/Oakland, Atlanta, Detroit, and Seattle/Puget Sound.

Trends in Lung Cancer – Continued

Although overall incidence for males (range: 73.3–86.5) remained substantially higher than that for females (range: 18.3–36.4) during 1973–1986, the trend for males increased at an average of 1%–2% per year, compared with an average increase of 5%–6% for females. During 1982–1986, however, the annual rate of increase for white females was 2%, compared with >8% for black females (Figure 1, Table 1).

The SEER Program also collects morphologic information (*3*) on each primary site according to ICD-O (Table 2). The histologic distributions among different sex/race groups suggest different exposure patterns in the occurrence of lung cancer. For example, squamous-cell carcinoma—the histologic type most commonly associated with smoking—is more prevalent in males than females.

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Editorial Note: The peak exposure (per capita consumption) to tobacco among men occurred before 1952, whereas peak exposure among women occurred in the 1960s.

(Continued on page 511)

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

Disease	29th Week Ending			Cumulative, 29th Week Ending		
	July 22, 1989	July 23, 1988	Median 1984-1988	July 22, 1989	July 23, 1988	Median 1984-1988
Acquired Immunodeficiency Syndrome (AIDS)	163	U*	195	18,815	17,476	6,852
Aseptic meningitis	270	160	240	2,900	2,670	2,810
Encephalitis: Primary (arthropod-borne & unspec)	16	13	27	339	410	491
Post-infectious	1	1	2	51	69	70
Gonorrhea: Civilian	12,075	15,158	18,630	359,940	374,076	445,954
Military	143	227	367	6,035	6,802	9,157
Hepatitis: Type A	684	460	439	18,726	13,584	12,138
Type B	462	447	557	12,468	12,288	13,915
Non A, Non B	44	61	69	1,302	1,467	1,998
Unspecified	38	28	79	1,344	1,163	2,592
Legionellosis	26	14	19	503	516	384
Leprosy	3	-	3	89	94	129
Malaria	23	31	28	624	446	465
Measles: Total†	179	117	76	8,227	1,748	2,084
Indigenous	174	107	74	7,854	1,566	1,834
Imported	5	10	10	373	182	240
Meningococcal infections	43	42	38	1,736	1,887	1,802
Mumps	131	29	38	3,348	3,138	2,750
Pertussis	108	64	60	1,354	1,273	1,125
Rubella (German measles)	5	4	9	272	133	347
Syphilis (Primary & Secondary): Civilian	846	893	580	22,210	21,012	15,313
Military	4	4	4	144	96	100
Toxic Shock syndrome	9	11	9	206	185	197
Tuberculosis	401	447	447	11,566	11,209	11,586
Tularemia	6	7	6	67	103	98
Typhoid Fever	5	-	4	233	194	171
Typhus fever, tick-borne (RMSF)	18	47	46	260	303	328
Rabies, animal	90	80	101	2,606	2,341	2,798

TABLE II. Notifiable diseases of low frequency, United States

	Cum. 1989		Cum. 1989
Anthrax	-	Leptospirosis (Mo. 1, Hawaii 3)	61
Botulism: Foodborne	14	Plague	3
Infant	7	Poliomyelitis, Paralytic	-
Other	5	Psittacosis (Md. 1)	54
Brucellosis (Mont. 1)	47	Rabies, human	1
Cholera	-	Tetanus (Tex. 1)	29
Congenital rubella syndrome	1	Trichinosis (N.J. 1)	15
Congenital syphilis, ages < 1 year	81		
Diphtheria (Va. 1)	1		

*Because AIDS cases are not received weekly from all reporting areas, comparison of weekly figures may be misleading.
†One of the 178 reported cases for this week was imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending July 22, 1989 and July 23, 1988 (29th Week)

Reporting Area	AIDS	Aseptic Meningitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionellosis	Leprosy
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1988	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1989
UNITED STATES	18,815	2,900	339	51	359,940	374,076	18,726	12,468	1,302	1,344	503	89
NEW ENGLAND	814	145	12	2	10,276	11,317	394	613	50	53	34	5
Maine	41	9	5	-	161	231	8	22	3	1	5	-
N.H.	28	17	-	-	89	143	38	37	8	4	-	-
Vt.	8	11	1	-	39	80	25	45	5	-	-	-
Mass.	446	37	4	2	3,908	3,956	119	371	23	36	22	3
R.I.	48	28	-	-	747	1,032	24	44	3	3	7	1
Conn.	243	43	2	-	5,332	5,875	180	94	8	9	-	1
MID. ATLANTIC	5,065	306	48	5	45,749	59,422	2,304	1,941	115	182	124	10
Upstate N.Y.	558	136	15	4	8,068	7,291	534	380	48	6	40	1
N.Y. City	2,577	62	2	1	20,647	27,013	221	739	22	153	12	7
N.J.	1,269	-	31	-	7,682	8,354	243	356	11	5	26	1
Pa.	661	108	-	-	9,352	16,764	1,306	466	34	18	46	1
E.N. CENTRAL	1,554	405	97	3	66,015	60,082	1,063	1,561	143	51	130	3
Ohio	258	85	25	1	17,363	13,568	231	314	25	12	72	-
Ind.	250	69	23	1	4,838	4,605	102	253	20	17	22	1
Ill.	689	73	20	1	21,346	17,468	472	397	42	13	11	2
Mich.	289	154	23	-	17,547	19,136	170	371	35	9	19	-
Wis.	68	24	6	-	4,921	5,305	88	226	21	-	6	-
W.N. CENTRAL	426	110	15	3	17,209	15,193	658	524	54	15	25	1
Minn.	93	5	-	1	1,761	2,052	64	62	11	3	2	-
Iowa	35	19	4	-	1,427	1,166	50	23	10	1	5	-
Mo.	194	40	-	-	10,349	8,584	351	365	20	6	10	-
N. Dak.	3	4	1	-	70	99	4	16	3	1	1	-
S. Dak.	4	6	3	-	143	299	9	6	4	-	1	-
Nebr.	16	6	3	-	873	891	55	14	-	2	2	1
Kans.	81	30	4	2	2,586	2,102	125	38	6	2	4	-
S. ATLANTIC	3,910	584	54	20	101,513	105,815	1,592	2,388	190	195	67	1
Del.	55	16	1	-	1,676	1,571	26	84	5	3	6	-
Md.	415	75	11	2	10,914	10,659	395	412	18	20	16	-
D.C.	314	6	-	-	6,846	7,797	4	18	2	-	-	-
Va.	237	88	24	-	8,486	7,397	171	151	30	122	3	-
W. Va.	25	11	9	-	778	752	11	52	6	3	-	-
N.C.	278	74	4	1	15,370	15,251	253	584	55	-	20	1
S.C.	197	12	-	-	9,299	7,993	31	327	3	7	3	-
Ga.	589	54	1	-	19,591	20,332	183	252	9	6	11	-
Fla.	1,800	248	4	17	28,553	34,063	518	508	62	34	8	-
E.S. CENTRAL	430	297	17	1	29,097	29,004	218	899	93	4	19	-
Ky.	63	78	6	1	2,869	2,836	68	244	29	3	3	-
Tenn.	147	45	-	-	9,852	9,739	86	483	20	-	10	-
Ala.	122	120	11	-	9,017	9,166	43	121	40	1	6	-
Miss.	98	54	-	-	7,359	7,263	21	51	4	-	-	-
W.S. CENTRAL	1,700	380	36	2	38,694	42,208	2,123	1,218	85	313	28	14
Ark.	49	12	2	-	4,223	4,166	129	42	7	6	1	-
La.	269	26	8	-	8,064	8,606	162	209	9	1	4	-
Okla.	91	31	9	-	3,312	3,827	227	128	18	18	19	-
Tex.	1,291	311	17	2	23,095	25,609	1,605	839	51	288	4	14
MOUNTAIN	630	99	7	2	7,910	8,125	2,705	804	130	101	31	2
Mont.	10	3	-	-	109	250	34	29	3	2	2	1
Idaho	14	-	-	1	107	218	93	67	8	3	-	-
Wyo.	12	2	-	-	52	129	26	4	2	-	-	-
Colo.	227	43	1	1	1,718	1,903	327	110	40	41	3	-
N. Mex.	53	7	1	-	781	738	347	113	25	2	2	-
Ariz.	164	33	2	-	2,986	2,851	1,405	290	28	45	14	1
Utah	39	9	1	-	241	316	246	63	15	4	6	-
Nev.	111	2	2	-	1,916	1,720	227	128	9	4	4	-
PACIFIC	4,286	574	53	13	43,477	42,910	7,669	2,520	442	430	45	53
Wash.	309	-	2	1	3,384	3,796	1,802	536	127	32	13	5
Oreg.	138	-	-	-	1,662	1,755	1,352	274	47	8	1	1
Calif.	3,732	543	46	12	37,612	36,388	3,937	1,619	258	379	28	43
Alaska	9	7	4	-	543	611	456	34	5	4	1	-
Hawaii	98	24	1	-	276	360	122	57	5	7	2	4
Guam	1	-	-	-	-	85	-	-	-	-	-	-
P.R.	884	57	2	1	607	778	116	127	13	13	-	8
V.I.	22	-	-	-	374	218	-	4	-	-	-	-
Amer. Samoa	-	-	-	-	-	58	-	-	-	-	-	-
C.N.M.I.	-	-	-	-	-	33	-	-	-	-	-	-

N: Not notifiable U: Unavailable C.N.M.I.: Commonwealth of the Northern Mariana Islands

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending July 22, 1989 and July 23, 1988 (29th Week)

Reporting Area	Malaria	Measles (Rubeola)					Meningococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported*		Total									
	Cum. 1989	1989	Cum. 1989	1989	Cum. 1989	Cum. 1988	Cum. 1989	1989	Cum. 1989	1989	Cum. 1989	Cum. 1988	1989	Cum. 1989	Cum. 1988
UNITED STATES	624	174	7,854	5	373	1,748	1,736	131	3,348	108	1,354	1,273	5	272	133
NEW ENGLAND	37	1	218	-	22	105	124	-	62	1	227	153	-	6	1
Maine	-	-	-	-	-	7	13	-	-	-	4	11	-	-	-
N.H.	2	-	8	-	-	87	15	-	10	-	5	29	-	4	-
Vt.	1	-	1	-	-	-	6	-	-	-	6	2	-	1	-
Mass.	22	1	27	-	17	1	60	-	45	-	194	96	-	1	-
R.I.	6	-	38	-	3	-	1	-	-	-	8	4	-	-	1
Conn.	6	-	144	-	2	10	29	-	7	1	10	11	-	-	-
MID. ATLANTIC	102	3	549	2	160	640	249	5	188	1	69	65	-	20	12
Upstate N.Y.	19	1	41	2§	96	20	83	5	119	1	39	39	-	7	2
N.Y. City	35	-	52	-	14	41	31	-	16	-	2	1	-	13	7
N.J.	24	-	279	-	-	89	53	-	11	-	14	4	-	-	1
Pa.	24	2	177	-	50	490	82	-	42	-	14	21	-	-	2
E.N. CENTRAL	46	60	1,503	1	53	173	214	46	338	33	142	160	-	19	23
Ohio	8	-	626	-	35	23	84	44	52	32	33	25	-	3	-
Ind.	6	U	51	U	-	57	22	U	23	U	13	55	U	-	-
Ill.	19	-	629	-	-	68	59	-	129	-	45	23	-	14	19
Mich.	8	60	68	1§	7	22	36	2	104	1	26	22	-	1	4
Wis.	5	-	129	-	11	3	13	-	30	-	25	35	-	1	-
W.N. CENTRAL	18	-	488	-	4	11	56	1	353	1	38	64	1	5	-
Minn.	6	-	7	-	-	10	10	-	1	-	7	16	-	-	-
Iowa	2	-	4	-	1	-	2	-	24	1	11	18	1	1	-
Mo.	5	-	237	-	-	1	20	1	48	-	15	13	-	3	-
N. Dak.	1	-	-	-	-	-	-	-	-	-	-	11	-	-	-
S. Dak.	1	-	-	-	-	-	6	-	-	-	1	2	-	-	-
Nebr.	1	-	108	-	2	-	11	-	5	-	3	-	-	-	-
Kans.	2	-	132	-	1	-	7	-	275	-	1	4	-	1	-
S. ATLANTIC	106	4	384	2	29	253	290	11	567	9	106	135	-	7	15
Del.	3	-	58	-	1	-	2	-	1	-	1	4	-	-	-
Md.	19	-	35	1†	16	8	49	6	339	-	10	26	-	2	-
D.C.	5	-	7	-	3	-	15	-	80	-	-	-	-	-	-
Va.	16	1	19	-	3	143	28	3	68	3	9	16	-	-	11
W. Va.	2	-	28	-	-	6	10	-	10	1	16	4	-	-	-
N.C.	15	-	167	-	-	1	42	1	20	1	21	37	-	1	-
S.C.	4	-	-	-	-	-	15	-	18	-	-	1	-	-	-
Ga.	7	1	1	1§	1	-	52	-	11	3	16	20	-	-	1
Fla.	35	2	69	-	5	95	77	1	20	1	33	27	-	4	3
E.S. CENTRAL	7	2	161	-	-	64	55	31	136	5	57	38	-	2	-
Ky.	-	-	20	-	-	35	32	-	9	-	1	12	-	-	-
Tenn.	1	1	96	-	-	-	4	30	62	3	18	13	-	2	-
Ala.	4	1	45	-	-	-	16	1	15	2	36	11	-	-	-
Miss.	2	-	-	-	-	29	3	N	N	-	2	2	-	-	-
W.S. CENTRAL	32	56	2,920	-	39	14	127	18	1,179	35	122	72	-	36	6
Ark.	-	1	1	-	2	1	6	-	122	4	16	7	-	-	2
La.	2	3	9	-	-	-	31	1	481	-	6	11	-	5	-
Okla.	4	13	121	-	-	8	13	10	175	5	19	27	-	1	1
Tex.	26	39	2,789	-	37	5	77	7	401	26	81	27	-	30	3
MOUNTAIN	16	5	296	-	19	123	46	7	121	17	409	355	-	32	5
Mont.	1	-	12	-	1	8	1	-	2	-	17	1	-	1	-
Idaho	2	-	-	-	2	1	2	-	9	-	52	249	-	29	-
Wyo.	1	-	-	-	-	-	-	-	7	-	-	1	-	1	-
Colo.	2	-	59	-	1	114	18	1	19	3	22	14	-	-	1
N. Mex.	1	-	16	-	15	-	-	N	N	1	7	8	-	-	-
Ariz.	6	-	109	-	-	-	21	5	76	11	297	59	-	-	-
Utah	-	5	100	-	-	-	4	-	3	2	13	22	-	-	3
Nev.	3	-	-	-	-	-	-	1	5	-	1	1	-	1	1
PACIFIC	260	43	1,335	-	47	365	575	12	404	6	184	231	4	145	71
Wash.	22	-	20	-	12	2	60	3	31	5	63	49	-	-	-
Oreg.	14	-	-	-	15	3	40	N	N	-	7	11	-	2	-
Calif.	215	43	1,297	-	12	349	470	8	361	1	110	119	4	120	50
Alaska	3	-	-	-	-	-	4	-	1	-	-	6	-	-	-
Hawaii	6	-	18	-	8	11	1	1	11	-	4	46	-	23	21
Guam	-	U	-	U	-	1	-	U	-	U	-	-	U	-	1
P.R.	1	-	414	-	-	189	4	-	8	-	4	9	-	6	1
V.I.	-	-	4	-	-	-	-	-	11	-	-	-	-	-	-
Amer. Samoa	-	U	-	U	-	-	-	U	-	U	-	-	U	-	-
C.N.M.I.	-	U	-	U	-	-	-	U	-	U	-	-	U	-	-

*For measles only, imported cases includes both out-of-state and international importations.

N: Not notifiable U: Unavailable †International §Out-of-state

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending July 22, 1989 and July 23, 1988 (29th Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum. 1989	Cum. 1988	Cum. 1989	Cum. 1989	Cum. 1988	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1989
UNITED STATES	22,210	21,012	206	11,566	11,209	67	233	260	2,606
NEW ENGLAND	920	602	7	297	284	-	19	4	3
Maine	5	8	3	3	16	-	-	-	1
N.H.	3	6	-	16	6	-	-	-	-
Vt.	-	2	-	4	2	-	-	-	-
Mass.	282	236	1	152	170	-	9	1	1
R.I.	15	19	-	37	24	-	5	1	-
Conn.	615	331	3	85	66	-	5	2	1
MID. ATLANTIC	4,064	4,209	30	2,134	2,134	2	61	33	372
Upstate N.Y.	454	272	5	183	288	1	6	7	11
N.Y. City	2,134	2,695	2	1,187	1,069	-	40	3	-
N.J.	736	480	8	376	392	-	9	16	-
Pa.	740	762	15	388	385	1	6	7	361
E.N. CENTRAL	1,025	636	30	1,253	1,222	3	23	40	64
Ohio	73	65	8	227	240	-	4	21	4
Ind.	33	34	5	105	123	1	1	13	2
Ill.	445	307	5	555	517	-	14	4	15
Mich.	335	194	12	294	284	1	3	2	6
Wis.	139	36	-	72	58	1	1	-	37
W.N. CENTRAL	184	131	26	284	289	30	5	39	356
Minn.	24	13	7	58	44	-	1	-	68
Iowa	21	15	4	28	24	-	2	1	110
Mo.	93	76	5	121	146	20	1	35	25
N. Dak.	1	2	-	9	9	-	-	-	29
S. Dak.	-	-	3	15	21	6	-	1	55
Nebr.	17	19	5	13	9	-	-	-	34
Kans.	28	6	2	40	36	4	1	2	35
S. ATLANTIC	8,204	7,601	19	2,378	2,384	2	21	65	799
Del.	91	65	-	22	22	-	2	-	17
Md.	415	431	1	203	243	-	4	8	227
D.C.	514	356	1	101	101	-	2	-	2
Va.	305	235	4	203	219	2	3	3	157
W. Va.	9	7	-	43	47	-	-	2	36
N.C.	533	427	6	276	205	-	2	32	4
S.C.	448	381	3	277	273	-	-	10	126
Ga.	1,727	1,254	3	364	378	-	3	8	130
Fla.	4,162	4,445	1	889	896	-	5	2	100
E.S. CENTRAL	1,467	1,089	4	943	912	6	1	26	220
Ky.	34	37	1	226	229	1	1	7	96
Tenn.	603	469	1	265	255	4	-	17	55
Ala.	483	318	2	268	278	-	-	2	68
Miss.	347	265	-	184	150	1	-	-	1
W.S. CENTRAL	3,097	2,421	21	1,386	1,452	16	9	35	389
Ark.	192	132	1	148	154	8	-	10	52
La.	718	455	-	181	190	-	1	-	3
Okla.	53	88	11	121	139	8	1	24	61
Tex.	2,134	1,746	9	936	969	-	7	1	273
MOUNTAIN	424	383	30	257	303	5	4	16	142
Mont.	1	2	-	8	5	-	-	11	55
Idaho	1	2	2	13	11	-	-	1	2
Wyo.	3	1	2	-	2	-	-	1	42
Colo.	53	66	4	12	43	2	1	3	8
N. Mex.	17	25	2	48	62	1	-	-	15
Ariz.	124	99	9	126	142	-	2	-	16
Utah	11	11	9	24	10	2	1	-	2
Nev.	214	177	2	26	28	-	-	-	2
PACIFIC	2,825	3,940	39	2,634	2,229	3	90	2	261
Wash.	136	126	2	130	122	-	5	-	-
Oreg.	141	163	-	84	80	1	5	1	-
Calif.	2,537	3,622	36	2,300	1,914	2	78	1	199
Alaska	3	8	-	29	24	-	-	-	62
Hawaii	8	21	1	91	89	-	2	-	-
Guam	-	3	-	-	12	-	-	-	-
P.R.	315	340	-	167	105	-	-	-	36
V.I.	2	1	-	4	4	-	-	-	-
Amer. Samoa	-	-	-	-	3	-	-	-	-
C.N.M.I.	-	1	-	-	16	-	-	-	-

U: Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending July 22, 1989 (29th Week)

Reporting Area	All Causes, By Age (Years) All Ages	≥65	45-64	25-44	1-24	<1	P&I** Total
NEW ENGLAND	532	370	102	35	13	12	44
Boston, Mass.	149	87	36	13	4	9	15
Bridgeport, Conn.	43	27	13	3	-	-	2
Cambridge, Mass.	13	10	1	2	-	-	4
Fall River, Mass.	28	24	3	1	-	-	-
Hartford, Conn.	51	29	16	4	2	-	2
Lowell, Mass.	20	14	5	1	-	-	1
Lynn, Mass.	25	21	4	-	-	-	2
New Bedford, Mass.	10	9	1	-	-	-	-
New Haven, Conn.	28	20	2	5	1	-	3
Providence, R.I.	33	26	4	-	3	-	-
Somerville, Mass.	6	5	1	-	-	-	-
Springfield, Mass.§	41	31	8	1	-	1	4
Waterbury, Conn.	31	27	2	-	1	1	3
Worcester, Mass.	54	40	6	5	2	1	8
MID. ATLANTIC	2,815	1,774	554	341	79	67	176
Albany, N.Y.	46	25	11	2	2	6	-
Allentown, Pa.	15	11	2	1	1	-	-
Buffalo, N.Y.	150	100	30	12	5	3	12
Camden, N.J.	37	28	4	3	2	-	-
Elizabeth, N.J.	32	23	5	4	-	-	7
Erie, Pa.†	40	29	8	2	1	-	4
Jersey City, N.J.	43	25	4	10	2	2	1
N.Y. City, N.Y.	1,284	755	262	202	38	27	62
Newark, N.J.	82	38	18	17	3	6	5
Paterson, N.J.	28	11	9	8	-	-	-
Philadelphia, Pa.	587	393	116	49	15	14	41
Pittsburgh, Pa.†	55	33	15	3	1	3	6
Reading, Pa.	36	30	3	1	2	-	6
Rochester, N.Y.	131	90	23	10	3	5	11
Schenectady, N.Y.	15	11	4	-	-	-	1
Scranton, Pa.†	49	40	5	2	2	-	5
Syracuse, N.Y.	90	62	20	5	2	1	8
Trenton, N.J.	40	32	4	4	-	-	4
Utica, N.Y.	24	17	5	2	-	-	-
Yonkers, N.Y.	31	21	6	4	-	-	3
E.N. CENTRAL	2,260	1,530	431	149	64	86	98
Akron, Ohio	88	60	16	3	7	2	6
Canton, Ohio	53	37	12	3	-	1	4
Chicago, Ill.§	564	362	125	45	10	22	16
Cincinnati, Ohio	142	94	32	7	2	7	10
Cleveland, Ohio	150	93	37	11	1	8	5
Columbus, Ohio	126	78	22	9	9	8	4
Dayton, Ohio	111	77	22	6	5	1	3
Detroit, Mich.	239	149	39	27	6	18	2
Evansville, Ind.	36	25	10	-	-	1	-
Fort Wayne, Ind.	51	37	10	1	1	2	2
Gary, Ind.	25	17	4	2	2	-	2
Grand Rapids, Mich.	61	45	8	6	1	1	6
Indianapolis, Ind.	188	127	37	11	10	3	4
Madison, Wis.	41	30	4	4	1	2	5
Milwaukee, Wis.	112	85	18	3	3	3	2
Peoria, Ill.	58	40	12	1	1	4	9
Rockford, Ill.	36	24	6	3	3	-	2
South Bend, Ind.	21	15	1	2	1	2	1
Toledo, Ohio	99	81	12	4	1	1	5
Youngstown, Ohio	59	54	4	1	-	-	10
W.N. CENTRAL	823	569	158	45	26	24	35
Des Moines, Iowa	69	45	17	-	5	1	7
Duluth, Minn.	31	24	3	3	1	-	-
Kansas City, Kans.§	56	42	9	4	1	-	2
Kansas City, Mo.	121	77	34	5	1	4	6
Lincoln, Nebr.	35	27	5	3	-	-	1
Minneapolis, Minn.	168	120	27	8	9	4	6
Omaha, Nebr.	80	57	10	7	1	5	8
St. Louis, Mo.	119	75	22	7	6	9	1
St. Paul, Minn.	66	47	13	5	1	-	1
Wichita, Kans.	78	55	18	3	1	1	3

Reporting Area	All Causes, By Age (Years) All Ages	≥65	45-64	25-44	1-24	<1	P&I** Total
S. ATLANTIC	1,324	801	271	165	44	42	62
Atlanta, Ga.	187	107	44	29	5	2	1
Baltimore, Md.	220	135	43	29	8	5	12
Charlotte, N.C.	69	45	14	8	2	-	4
Jacksonville, Fla.	122	79	21	13	4	5	8
Miami, Fla.	115	54	35	12	6	7	2
Norfolk, Va.	53	31	8	6	2	6	3
Richmond, Va.	106	67	21	9	2	7	12
Savannah, Ga.	61	42	10	4	5	-	7
St. Petersburg, Fla.	85	67	9	4	3	2	3
Tampa, Fla.	84	56	11	11	3	3	3
Washington, D.C.	195	100	49	37	4	5	7
Wilmington, Del.	27	18	6	3	-	-	-
E.S. CENTRAL	811	523	173	59	29	27	43
Birmingham, Ala.	136	86	24	9	9	8	4
Chattanooga, Tenn.	79	50	23	5	1	-	6
Knoxville, Tenn.	112	67	29	7	3	6	4
Louisville, Ky.	120	82	26	6	5	1	2
Memphis, Tenn.	134	83	29	7	7	8	17
Mobile, Ala.	68	51	10	6	1	-	1
Montgomery, Ala.	42	35	2	4	-	1	-
Nashville, Tenn.	120	69	30	15	3	3	9
W.S. CENTRAL	1,776	1,080	389	183	70	53	67
Austin, Tex.	66	46	8	7	2	3	4
Baton Rouge, La.	42	31	6	5	-	-	1
Corpus Christi, Tex.	51	27	13	8	1	2	-
Dallas, Tex.	178	99	40	20	12	7	5
El Paso, Tex.	87	54	22	4	3	4	5
Fort Worth, Tex	98	60	22	7	5	4	2
Houston, Tex.§	734	436	169	89	24	16	18
Little Rock, Ark.	67	37	18	4	1	7	3
New Orleans, La.	125	72	30	15	6	2	-
San Antonio, Tex.	172	105	37	14	11	4	16
Shreveport, La.	38	27	7	3	-	1	1
Tulsa, Okla.	118	86	17	7	5	3	12
MOUNTAIN	677	445	131	60	24	17	45
Albuquerque, N. Mex.	67	49	9	6	3	-	2
Colo. Springs, Colo.	45	31	10	3	-	1	12
Denver, Colo.	113	76	20	9	5	3	7
Las Vegas, Nev.	102	61	24	11	4	2	8
Ogden, Utah	23	15	6	-	1	1	6
Phoenix, Ariz.	149	93	31	16	5	4	3
Pueblo, Colo.	14	9	4	1	-	-	1
Salt Lake City, Utah	47	25	8	8	2	4	2
Tucson, Ariz.	117	86	19	6	4	2	4
PACIFIC	1,794	1,129	315	211	67	66	101
Berkeley, Calif.	23	14	7	2	-	-	2
Fresno, Calif.	76	43	18	6	5	4	6
Glendale, Calif.	31	24	3	3	1	-	4
Honolulu, Hawaii	65	39	17	5	3	1	6
Long Beach, Calif.§	76	51	13	8	1	3	8
Los Angeles Calif.	464	271	83	70	24	13	15
Oakland, Calif.	47	25	11	3	4	4	3
Pasadena, Calif.	31	22	4	-	1	4	3
Portland, Oreg.	144	100	22	13	5	4	5
Sacramento, Calif.	157	102	27	20	4	3	18
San Diego, Calif.	140	84	26	17	7	5	15
San Francisco, Calif.	167	98	29	28	2	9	4
San Jose, Calif.	147	103	23	15	3	3	4
Seattle, Wash.§	130	83	28	9	5	5	1
Spokane, Wash.	56	40	-	9	2	5	5
Tacoma, Wash.	40	30	4	3	-	3	2
TOTAL	12,812††	8,221	2,524	1,248	416	394	671

*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.

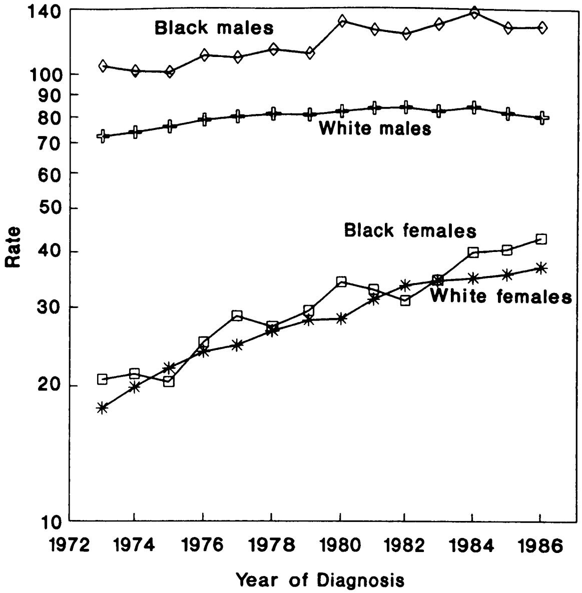
†Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

††Total includes unknown ages.

§Data not available. Figures are estimates based on average of past available 4 weeks.

Trends in Lung Cancer — Continued

FIGURE 1. Incidence rates* for cancer of the lung and bronchus — Surveillance, Epidemiology, and End Results Program, 1973–1986



*Per 100,000 persons, age-adjusted to 1970.

TABLE 1. Trends in incidence and mortality rates* for cancer of the lung and bronchus (ICD-O 162.2–162.9), by sex and race of patients — Surveillance, Epidemiology, and End Results Program, 1975–1979 and 1982–1986

Sex/Race	Incidence 1986	EAPC† 1975–1979	EAPC† 1982–1986	Mortality 1986	EAPC 1975–1979	EAPC 1982–1986
Male	81.9	1.6§	–0.8¶	74.0	1.9§	0.4§¶
White	80.3	1.6§	–0.9¶	72.3	1.8§	0.4§¶
Black	128.1	2.3§	0.8	98.4	3.3§	0.6¶
Female	36.4	6.3§	2.8§¶	27.1	6.3§	4.1§¶
White	37.0	6.1§	2.3§¶	27.4	6.3§	4.2§¶
Black	43.0	8.4§	8.5§	26.4	6.6§	3.3§¶
Total	55.8	2.8§	0.5¶	46.9	2.8§	1.5§¶
White	55.3	2.8§	0.3¶	46.3	2.8§	1.6§¶
Black	79.3	3.4§	2.7	56.5	3.6§	1.1§¶

Sources: Incidence (excludes in situ)—Surveillance, Epidemiology, and End Results (SEER) Program, Division of Cancer Prevention and Control, National Cancer Institute; mortality—National Center for Health Statistics, CDC.

*Per 100,000 persons, age-adjusted to 1970.

†Estimated annual percent change. Based on fitting a straight line through the natural logarithms of the rates during 1973–1986; test of the hypothesis that the annual percent change is zero is based on a test of the slope equal to zero.

§The EAPC is significantly different from zero ($p<0.05$).

¶The EAPC for 1982–1986 is significantly different from the EAPC for 1975–1979 ($p<0.05$).

Trends in Lung Cancer — Continued

Peak incidence and mortality rates due to lung cancer lag behind the peak exposure to tobacco by approximately 35 years (*4*). Because of a substantial recent decline in smoking prevalence among men (from 50.2% in 1965 to 31.7% in 1987) the rise in the age-adjusted death rate of lung cancer for men began to level off in the late 1970s. In comparison, the later peak exposure and the slower decline in prevalence among women between 1965 and 1987 (31.9% to 26.8%) has caused the age-adjusted lung cancer death rate among women to continue to climb. Lung cancer has surpassed breast cancer as the most common cause of cancer death among women (*5*).

Although almost half of all Americans who ever smoked have quit, >50 million persons continue to smoke (*6*). The burden of lung cancer and other smoking-related chronic diseases will be substantially higher for eversmokers for many decades because of the long latency periods between exposure to tobacco and onset of these diseases. To reduce the incidence and mortality of smoking-related diseases, major public health interventions against smoking are necessary.

NCI has initiated two large-scale research and demonstration programs that are designed to help reduce the prevalence of smoking and ultimately lower cancer incidence and associated mortality. Both programs are part of the NCI Smoking, Tobacco, and Cancer Program, which is the focal point for NCI's research, disease prevention, and health promotion activities related to tobacco use and cancer.

One program, the Community Intervention Trial for Smoking Cessation (COMMIT), is evaluating a community-based intervention protocol in 11 communities in North America. Implemented in 1986 and scheduled to run through 1995, COMMIT is focusing on heavy smokers (≥25 cigarettes per day), a group that represents 27% of all smokers and accounts for nearly 50% of lung and other cancers among smokers. The COMMIT protocol employs the most promising interventions offered through

TABLE 2. Histologic distribution of malignant lung cancer, by sex and race of patients — Surveillance, Epidemiology, and End Results Program, 1977–1986

	Male				Female			
	White		Black		White		Black	
Histology	**No.**	**(%)**	**No.**	**(%)**	**No.**	**(%)**	**No.**	**(%)**
Carcinoma								
Squamous cell	21,954	(35.1)	3,356	(40.8)	6,191	(20.4)	726	(25.1)
Adenocarcinoma	15,583	(24.9)	2,002	(24.3)	10,776	(35.6)	995	(34.5)
Small cell	10,742	(17.2)	962	(11.7)	6,120	(20.2)	451	(15.6)
Large cell	5,589	(8.9)	713	(8.7)	2,676	(8.8)	232	(8.0)
Not otherwise specified	4,476	(7.2)	592	(7.2)	2,107	(7.0)	214	(7.4)
Undifferentiated	1,357	(2.2)	204	(2.5)	638	(2.1)	76	(2.6)
Adenosquamous	749	(1.2)	103	(1.3)	382	(1.3)	49	(1.7)
Anaplastic	341	(0.5)	50	(0.6)	158	(0.5)	24	(0.8)
Malignant neoplasm	1,173	(1.9)	190	(2.3)	602	(2.0)	68	(2.4)
Malignant mesothelioma	16	(<0.1)	2	(<0.1)	5	(<0.1)	0	(0.0)
Other	621	(1.0)	60	(0.7)	622	(2.1)	52	(1.8)
Total	**62,601**	**(100.0)**	**8,234**	**(100.0)**	**30,277**	**(100.0)**	**2,887**	**(100.0)**

Trends in Lung Cancer — Continued

physicians and dentists, the media, worksites, community organizations, schools, and cessation providers.

A second program, the American Stop Smoking Intervention Study (ASSIST), will use the results, materials, and protocols developed by COMMIT and other intervention studies to prevent or reduce smoking in 20 U.S. areas (either entire states or large metropolitan areas) involving nearly 50 million Americans. ASSIST will begin in 1993 and continue for 5 years in cooperation with the American Cancer Society (ACS). NCI funding will be awarded to various state and local health departments, which will work with ACS to form local coalitions. Interventions will be implemented through the health-care system; worksites; schools; civic, social, and religious organizations; the media; and existing state and local smoking policies. The goal of ASSIST will be to reduce smoking prevalence by nearly 50% in all 20 intervention areas by 1998.

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Current Trends

Rocky Mountain Spotted Fever — United States, 1988

In 1988, state health departments reported 615 cases of Rocky Mountain spotted fever (RMSF) to CDC, an increase of 3.9% from the 592 cases reported in 1987. The incidence was 0.3 per 100,000. Of the 615 cases, 200 (32.5%) were reported from the South Atlantic region and 149 (24.2%) from the West South Central region. Oklahoma had the highest rate (97 cases, 3.0 per 100,000); other states with high rates were North Carolina (108 cases, 1.7 per 100,000), Arkansas (32 cases, 1.3 per 100,000), Missouri (57 cases, 1.1 per 100,000), and Kansas (26 cases, 1.0 per 100,000) (Figure 1).

Detailed case report forms were submitted on 555 (90.2%) of the 615 cases. Of these, 362 (65.2%) were laboratory-confirmed*, 31 (5.6%) were classified as probable†, and 162 (29.2%) were not confirmed. Males accounted for 63.8% of cases; onset of symptoms occurred between April 1 and July 31 in 81.2%, and a tick bite was reported in 62.8%. Fever was reported in 92.8% of cases, headache in 84.7%, rash in

*A case is considered serologically confirmed if testing reveals an indirect fluorescent antibody (IFA) titer of ≥1:64, a complement-fixation (CF) titer of ≥1:16, or a fourfold rise in titer by the CF, IFA, microagglutination (MA), latex agglutination (LA), or indirect hemagglutination (IHA) assays.

†A case is considered probable if testing reveals a fourfold rise in titer or a single titer ≥1:320 in the Weil-Felix assay or an LA, MA, or IFA single titer of ≥1:128.

Rocky Mountain Spotted Fever — Continued

76.5%, and rash on palms in 50.6%. The overall case-fatality rate for 1988 was 3.9%: 8.2% for persons >30 years of age and 1.3% for persons ≤30.

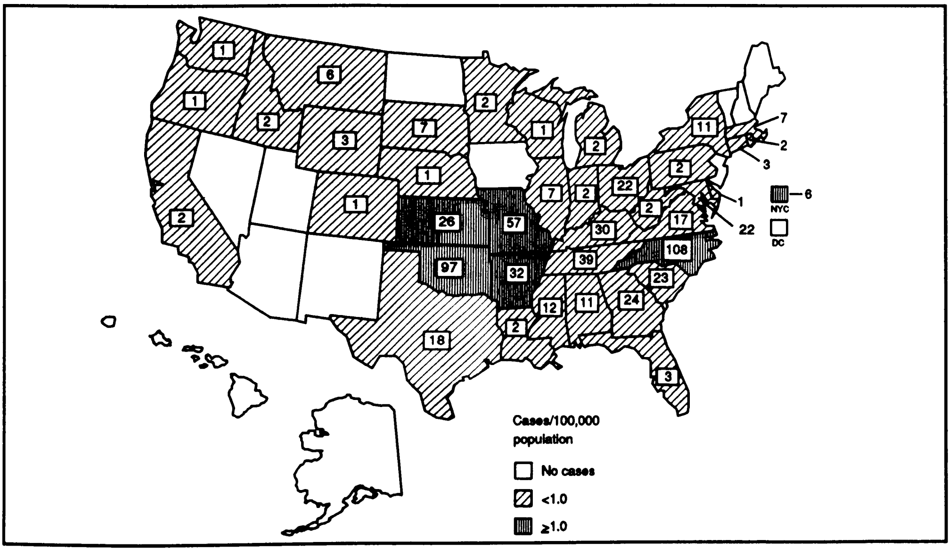
Reported by: State health departments. Viral and Rickettsial Zoonoses Br, Div of Viral and Rickettsial Diseases, Center for Infectious Diseases, CDC.

Editorial Note: Although the total number of RMSF cases reported in 1988 increased minimally from 1987, large increases occurred in several states: Missouri (from 19 cases in 1987 to 57 in 1988), Arkansas (from 12 to 32 cases), South Dakota (from one to seven cases), and Kentucky (from 13 to 30 cases). The increase in Missouri may reflect an extension of the area in which RMSF is endemic in the West South Central states (*1*). Reported cases in Maryland and Tennessee decreased 52.2% and 32.0%, respectively, in 1988.

The case-fatality rate for 1988 increased to 3.9% from 3.1% in 1987, reflecting an increase in fatal cases and/or better surveillance. As in previous years, the case-fatality rate was higher in older patients and in those without a history of tick bites. Because diagnosis may be delayed in persons without a history of a tick bite, the likelihood of serious or fatal complications increases for this group.

Because no vaccine exists for RMSF, the best preventive measure is avoidance of tick-infested areas. Persons who must enter these areas should wear protective clothes and use tick repellant. The most widely used tick repellant is N,N-diethyl-m-toluamide (DEET), the active ingredient in most popular brands of insect repellant. Although DEET is effective in repelling ticks (as well as chiggers, flies, mosquitos, and biting flies), toxic and allergic side effects have been reported (*2,3*). Ticks attached to a person's body should be removed by grasping them with fine tweezers at the point of attachment and pulling gently (*4*). When fingers are used instead of tweezers, they should be protected using facial tissue and washed afterwards.

FIGURE 1. Rocky Mountain spotted fever cases and rates, by state — United States, 1988



Rocky Mountain Spotted Fever — Continued

RMSF should be considered in all patients with an unexplained febrile illness, especially those with a history of tick bite or travel to areas with endemic RMSF. If RMSF is suspected, treatment with tetracycline or chloramphenicol should be promptly instituted. For children ≤8 years of age and pregnant women, chloramphenicol is the preferred treatment (*5*). Cases of RMSF should be reported to CDC through state health departments.

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Notices to Readers

Publication of *MMWR Recommendations and Reports* on "Interpretation and Use of the Western Blot Assay for Serodiagnosis of Human Immunodeficiency Virus Type 1 Infections"

A new *MMWR Recommendations and Reports* entitled, "Interpretation and Use of the Western Blot Assay for Serodiagnosis of Human Immunodeficiency Virus Type 1 Infections" (*1*), was published July 21, 1989. The Association of State and Territorial Public Health Laboratory Directors and CDC collaborated in preparing this report; it describes various interpretive criteria associated with the Western blot test for human immunodeficiency virus type (HIV-1), evaluates the sensitivity and specificity of these criteria as tools for public health practice, and provides recommendations for using the Western blot and for reporting results.

Reference

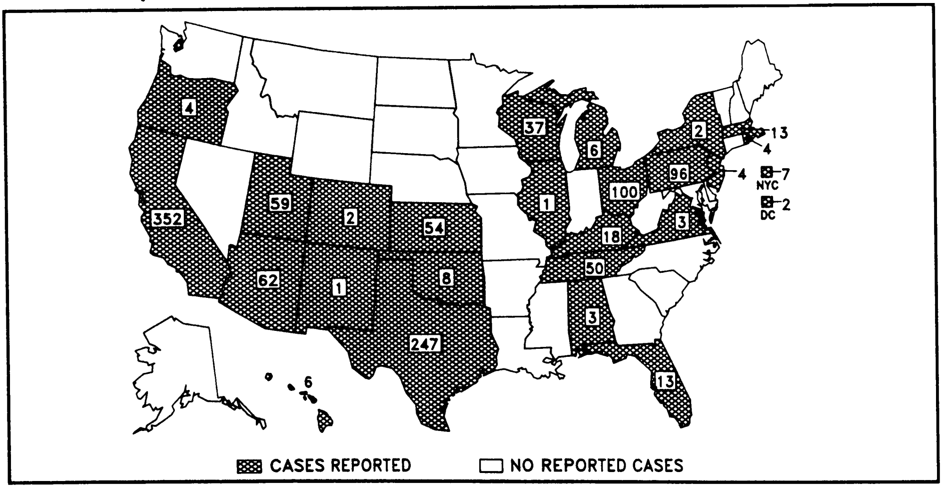
1. CDC. Interpretation and use of the Western blot assay for serodiagnosis of human immunodeficiency virus type 1 infections. MMWR 1989;38(no. S-7).

Second Conference on International Travel Medicine

The Second Conference on International Travel Medicine will be held May 9–12, 1991, in Atlanta. The conference will be cosponsored by the World Health Organization (Geneva), World Tourism Organization (Madrid), Emory University School of Medicine (Atlanta), London School of Hygiene and Tropical Medicine, and CDC.

Scientific inquiries should be addressed to: Hans O. Lobel, M.D., Mailstop F12, Centers for Disease Control, Atlanta, GA 30333; FAX number: (404) 488-4427. Program and registration information and instructions for submitting abstracts will be available by spring 1990; requests should be addressed to: Second Conference on International Travel Medicine, 104 Woodruff Health Sciences Administration Bldg., 1440 Clifton Rd., NE, Atlanta, GA 30322.

FIGURE I. Reported measles cases – United States, weeks 25–28, 1989



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The data in this report are provisional, based on weekly reports 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. Such reports and any other matters pertaining to editorial or other textual considerations should be addressed to: Editor, *Morbidity and Mortality Weekly Report*, Centers for Disease Control, Atlanta, Georgia 30333; telephone (404) 332-4555.

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