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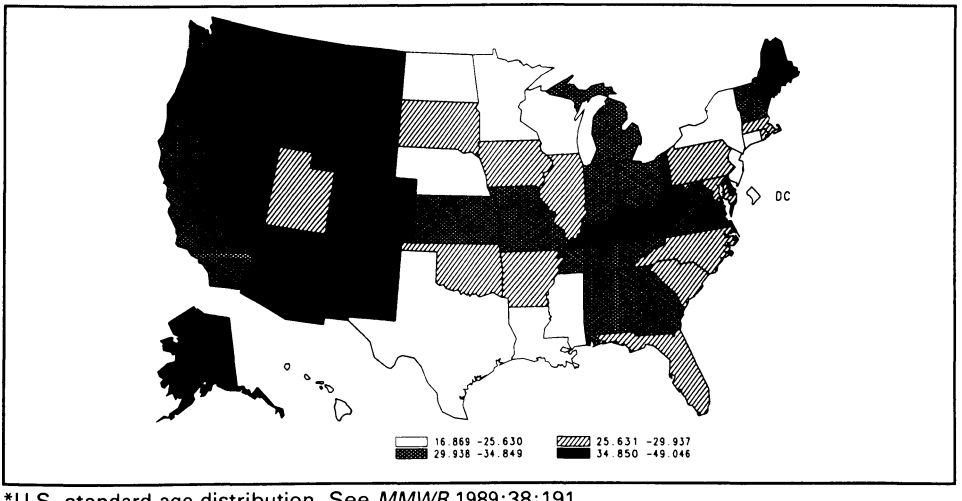
Progress in Chronic Disease Prevention

Chronic Disease Reports: Chronic Obstructive Pulmonary Disease Mortality – United States, 1986

In 1986, 71,099 persons in the United States died from chronic obstructive pulmonary disease (COPD) (i.e., chronic bronchitis [*International Classification of Diseases, Ninth Revision, Clinical Modification* (ICD-9-CM) 491], emphysema [ICD-9-CM 492], and "chronic airway obstruction, not otherwise classified" [ICD-9-CM 496]) (Table 1). Rates of COPD mortality increase with age and are 1.8 times higher in males than females and 2.8 times higher in whites than in blacks (*1*).

Rates of COPD mortality, age-adjusted to the 1986 U.S. population, were highest in the West (excluding Utah and Hawaii); rates were also high in Kentucky, West Virginia, and Maine (Figure 1, Table 1). Rates were lowest in Hawaii (16.9 per 100,000 population) and highest in Wyoming (49.0 per 100,000).

CHRONIC DISEASE REPORTS: CHRONIC OBSTRUCTIVE PULMONARY DISEASE, FIGURE 1. Age-adjusted chronic obstructive pulmonary disease mortality rates per 100,000 population, by quartile – United States, 1986*



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

COPD Mortality — Continued

CHRONIC DISEASE REPORTS: CHRONIC OBSTRUCTIVE PULMONARY DISEASE, TABLE 1. Chronic obstructive pulmonary disease deaths, age-adjusted mortality rate per 100,000 population, and rank by rate, by area — United States, 1986

Area	Deaths	Rate per 100,000	Rank by rate
Alabama	1252	30.8	23
Alaska	56	35.4	12
Arizona	1257	37.9	9
Arkansas	716	25.6	38
California	7838	32.5	17
Colorado	1046	42.6	3
Connecticut	804	23.2	48
Delaware	181	30.7	25
District of Columbia	123	19.0	50
Florida	4575	27.6	33
Georgia	1587	31.0	21
Hawaii	141	16.9	51
Idaho	352	39.0	8
Illinois	3157	27.5	34
Indiana	1863	34.4	14
Iowa	978	28.4	32
Kansas	844	30.8	24
Kentucky	1469	39.6	6
Louisiana	928	24.9	44
Maine	480	36.6	11
Maryland	1123	29.2	28
Massachusetts	1773	26.5	37
Michigan	2705	31.5	19
Minnesota	1056	23.7	47
Mississippi	636	24.7	45
Missouri	1804	31.1	20
Montana	327	41.1	4
Nebraska	455	25.0	43
Nevada	354	48.3	2
New Hampshire	313	30.9	22
New Jersey	2028	25.3	41
New Mexico	465	39.9	5
New York	4912	25.6	40
North Carolina	1647	27.4	36
North Dakota	163	22.6	49
Ohio	3548	32.7	16
Oklahoma	979	29.0	30
Oregon	998	34.9	13
Pennsylvania	4025	29.1	29
Rhode Island	340	28.9	31
South Carolina	799	27.5	35
South Dakota	209	25.6	39
Tennessee	1559	32.2	18
Texas	3410	25.3	42
Utah	326	29.4	27
Vermont	185	34.1	15
Virginia	1487	29.9	26
Washington	1589	37.5	10
West Virginia	824	39.4	7
Wisconsin	1243	24.0	46
Wyoming	170	49.1	1
Total	**71,099**	**29.5**	

COPD Mortality – Continued

CHRONIC DISEASE REPORTS: CHRONIC OBSTRUCTIVE PULMONARY DISEASE, TABLE 2. Chronic obstructive pulmonary disease (COPD [ICD-9-CM 491–2, 496]) indices, risk factors, and attributable mortality – United States, 1986

Index	No.	Rate per 100,000
Mortality		
Underlying cause	71,099	29.5
Multiple cause*	164,049	68.0
Male	106,881	91.1
Female	57,168	46.2
Prevalence†	14,786,000	6,198.3
Hospitalizations§	743,089	308.2
Years of potential life lost before age 65¶	128,590	53.3

Smoking status	Crude prevalence (%)	Relative risk	Population-attributable risk (%)**	Estimated attributable deaths††
Smoking (current)			**46.7**	**76,727**
Male	32.0§§	9.6¶¶	42.7	45,678
Female	24.0§§	10.5¶¶	54.3	31,049
Smoking (former)			**34.8**	**57,105**
Male	34.9§§	8.7¶¶	41.7	44,604
Female	15.3§§	7.0¶¶	21.9	12,501
Total			**81.5**	**133,832**

*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 491–2, 496).

†Calculated for chronic bronchitis and emphysema. NCHS. Current estimates from the National Health Interview Survey, United States, 1987. Hyattsville, Maryland: US Department of Health and Human Services, Public Health Service, 1988; DHHS publication no. (PHS)88-1594. (Vital and health statistics; series 10, no. 166).

§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 491–2, 496).

¶CDC. Years of potential life lost before age 65—United States, 1987. MMWR 1989;38:27–9 (ICD-9-CM 490–496).

**Population-attributable risk (PAR) = percentage of mortality attributable to the specific risk factor in the population. PAR is calculated separately for current and former smokers within each gender category. Morgenstern H, Bursic ES. A method for using epidemiologic data to estimate the potential impact of an intervention on the health status of a target population. J Community Health 1982;7:292–309.

††Estimated attributable deaths (EAD) = PAR × multiple cause mortality. Because smoking exposure levels and populations at risk (male and female) are exclusive, EAD are additive in this table.

§§Data are for adults, aged ≥35 years, in 1985 (CDC, unpublished analysis of data from Current Population Survey).

¶¶Risk for death from COPD (ICD-9-CM 490–496) in adults ≥35 years of age (relative to never smokers). 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.

COPD Mortality — Continued

The principal modifiable risk factor for COPD is cigarette smoking; risk varies by smoking status and gender of the smoker (Table 2) (*2*). For 1986, with established methods (*3*), it was estimated that 82% of COPD mortality was attributable to smoking.

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.

Editorial Note: Cigarette smoking accounts for most mortality associated with COPD. Several factors can affect COPD mortality patterns and may explain three apparent inconsistencies. First, while COPD mortality has increased by 33% since 1979 (*4*), the prevalence of smoking in the United States has declined steadily since 1965 (*2*); this may reflect the long latency between smoking exposure and death due to COPD (*4*).

Second, the prevalence of current smoking is higher in eastern states (*5*), where COPD rates are lower. The long latency between smoking exposure and COPD occurrence also in part may account for this contrast. Other geographic factors might also explain the distribution of COPD mortality: the migration of persons with chronic lung disease to the West (*6*) and differences in occupational or environmental exposures.

Finally, the higher rate of COPD mortality in whites contrasts with the higher prevalence of current cigarette smoking in blacks (*2*). This pattern may be related to the higher mortality rates among younger blacks from other causes (*7*).

References

1. NCHS. Vital statistics of the United States, 1986. Vol II—Mortality, pt A. Hyattsville, Maryland: US Department of Health and Human Services, Public Health Service, 1988:105; DHHS publication no. (PHS)88-1122.
2. CDC. Reducing the health consequences of smoking: 25 years of progress—a report of the Surgeon General. Rockville, Maryland: US Department of Health and Human Services, Public Health Service, 1989; DHHS publication no. (CDC)89-8411.
3. Morgenstern H, Bursic ES. A method for using epidemiologic data to estimate the potential impact of an intervention on the health status of a target population. J Community Health 1982;7:292–309.
4. CDC. Chronic disease reports: mortality trends—United States, 1979–1986. MMWR 1989;38: 189–91.
5. CDC. Regional variation in smoking prevalence and cessation: Behavioral Risk Factor Surveillance, 1986. MMWR 1987;36:751–4.
6. Lebowitz MD, Burrows B. Tucson epidemiologic study of obstructive lung diseases. II. Effects of in-migration factors on the prevalence of obstructive lung diseases. Am J Epidemiol 1975;102:153–63.
7. Davis RM, Novotny TE. The epidemiology of cigarette smoking and its impact on chronic obstructive pulmonary disease. Am Rev Respir Dis (in press).

State-Specific Smoking-Attributable Chronic Obstructive Pulmonary Disease Mortality — United States, 1986

Estimates of mortality caused by smoking-attributable chronic obstructive pulmonary disease (SA-COPD) indicate substantial differences by state and region, with higher rates in the West (*1*). To examine these variations, CDC analyzed 1986 state-specific current smoking prevalence rates, quit ratios (*2*), and age-adjusted SA-COPD mortality rates for adults aged ≥35 years.

For this report, current smokers are defined as persons who have smoked at least 100 cigarettes and who continue to smoke; former smokers as persons who have

Smoking-Attributable COPD — Continued

smoked 100 cigarettes but who no longer smoke; and ever smokers as current and former smokers combined. Regional patterns in smoking cessation are based on state-specific "quit ratios," defined as the proportion of ever smokers who are former smokers (*3*).

SA-COPD mortality estimates are derived from relative risk estimates for death from COPD in current and former smokers aged ≥35 years (*4*); these relative risks are based on a prospective mortality study sponsored by the American Cancer Society (*3,5*). State-specific SA-COPD mortality rates are sex- and age-adjusted to the 1986 U.S. population, and attributable risk percentages are calculated by standard methods (*6*).

Current smoking prevalence among persons aged ≥35 years ranged from 10% in Utah to 35% in Alaska. The quit ratio ranged from 39% in Alaska to 54% in Utah (Table 1, page 559). Regional variations included higher current smoking prevalence in the eastern and southern states (Figure 1, page 560) but higher quit ratios in the West (Figure 2, page 560).

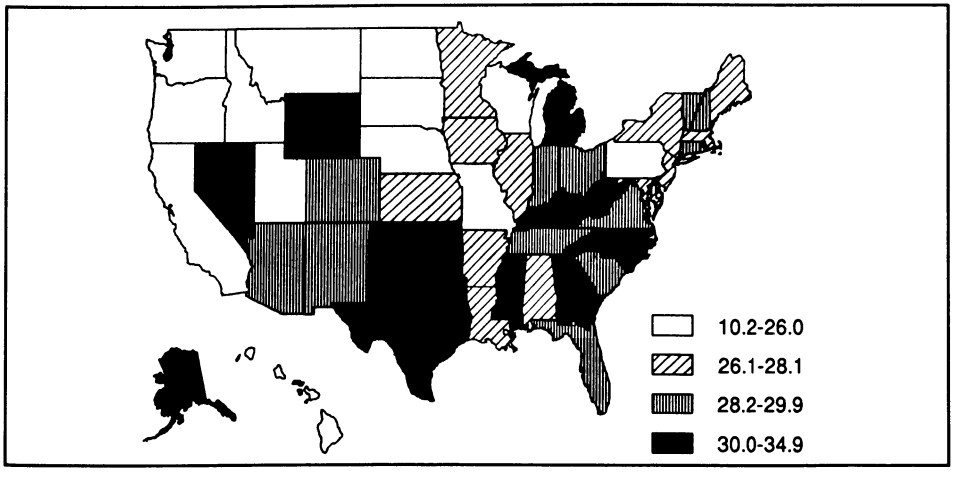
SA-COPD mortality rates ranged from 28.0 per 100,000 persons in Hawaii to 87.4 per 100,000 in Wyoming (Table 1). The geographic distribution of state-specific SA-COPD mortality rates (Figure 3) was similar to the pattern for total COPD death rates (*1*), with the highest SA-COPD mortality rates in the western states.

Reported by: Office on Smoking and Health, Center for Chronic Disease Prevention and Health Promotion, CDC.

Editorial Note: The regional pattern for SA-COPD mortality differs from that of prevalence of current smoking among adults. One explanation for this difference may relate to migration patterns of persons with SA-COPD who relocate to the West before dying from their disease (*7*). Alternatively, the difference may reflect the regional distribution of current smoking, quit ratios, and the mortality patterns for other smoking-related diseases (i.e., coronary heart disease, lung cancer, and stroke).

In general, current smokers die younger than never smokers or former smokers (*8*). Therefore, regional variations in the prevalence of smoking and smoking

FIGURE 1. Percentage of current smoking among adults ≥35 years of age, by quartile — United States, 1985



Smoking-Attributable COPD — Continued

cessation may contribute substantially to regional mortality patterns for several chronic diseases. The regional concentration of higher age-adjusted mortality rates for stroke (*9*), coronary heart disease (*10*), and lung cancer (*11*) in the East and South more closely approximates the distribution of higher current smoking prevalence. Conversely, the regional distribution of SA-COPD mortality is similar to the regional distribution of higher quit ratios. Thus, the incidence of premature death due to stroke, coronary heart disease, and lung cancer may be reduced in populations characterized by lower current smoking prevalence rates and higher quit ratios. However, these populations ultimately may have higher SA-COPD mortality rates because of previous smoking exposure. Additional epidemiologic analyses are necessary to assess the possible link between smoking-attributable chronic disease mortality patterns and changes in smoking behavior.

Efforts to prevent initiation of smoking and promote cessation of smoking are known to reduce mortality associated with COPD and other chronic diseases (*3*).

(Continued on page 559)

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

Disease	32nd Week Ending			Cumulative, 32nd Week Ending		
	Aug. 12, 1989	Aug. 13, 1988	Median 1984-1988	Aug. 12, 1989	Aug. 13, 1988	Median 1984-1988
Acquired Immunodeficiency Syndrome (AIDS)	385	U*	371	20,803	19,335	7,715
Aseptic meningitis	299	194	349	3,752	3,125	3,784
Encephalitis: Primary (arthropod-borne & unspec)	17	24	28	396	470	578
Post-infectious	5	7	3	59	79	79
Gonorrhea: Civilian	10,329	14,233	16,871	397,638	415,751	496,495
Military	175	366	366	6,479	7,561	10,356
Hepatitis: Type A	711	503	406	20,575	15,097	13,462
Type B	440	529	508	13,881	13,695	15,434
Non A, Non B	49	58	58	1,470	1,624	2,241
Unspecified	34	49	88	1,445	1,289	2,844
Legionellosis	24	42	21	581	589	441
Leprosy	2	4	3	96	103	139
Malaria	16	27	23	701	524	537
Measles: Total†	222	59	59	9,189	2,046	2,236
Indigenous	207	54	54	8,786	1,831	1,924
Imported	15	5	5	403	215	255
Meningococcal infections	38	37	32	1,838	1,996	1,916
Mumps	38	33	34	3,719	3,313	3,187
Pertussis	82	93	85	1,654	1,517	1,427
Rubella (German measles)	-	4	8	283	142	391
Syphilis (Primary & Secondary): Civilian	474	1,787	565	24,551	25,160	16,932
Military	2	2	4	152	106	111
Toxic Shock syndrome	4	11	11	224	215	220
Tuberculosis	290	504	397	12,692	12,625	12,819
Tularemia	5	8	8	92	121	121
Typhoid Fever	23	10	10	287	213	201
Typhus fever, tick-borne (RMSF)	19	25	25	342	377	396
Rabies, animal	87	76	107	2,925	2,614	3,135

TABLE II. Notifiable diseases of low frequency, United States

	Cum. 1989		Cum. 1989
Anthrax	-	Leptospirosis (La. 1, Hawaii 2)	64
Botulism: Foodborne	15	Plague	3
Infant	8	Poliomyelitis, Paralytic	-
Other	5	Psittacosis (Pa. 1, Iowa 1, Wyo. 1)	62
Brucellosis (Tex. 1)	55	Rabies, human	1
Cholera	-	Tetanus	31
Congenital rubella syndrome	1	Trichinosis	14
Congenital syphilis, ages < 1 year	81		
Diphtheria	1		

*Because AIDS cases are not received weekly from all reporting areas, comparison of weekly figures may be misleading.
†Six of the 220 reported cases for this week were 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 August 12, 1989 and August 13, 1988 (32nd Week)

Reporting Area	AIDS	Aseptic Menin-gitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionel-losis	Leprosy
			Primary	Post-in-fectious			A	B	NA,NB	Unspeci-fied		
	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	20,803	3,752	396	59	397,638	415,751	20,575	13,881	1,470	1,445	581	96
NEW ENGLAND	845	196	15	2	11,655	12,735	443	672	51	54	39	6
Maine	41	9	5	-	164	248	10	32	4	1	5	-
N.H.	31	17	-	-	108	164	42	42	8	4	1	-
Vt.	9	14	2	-	43	84	26	50	5	-	-	-
Mass.	444	64	5	2	4,428	4,465	133	405	23	37	25	4
R.I.	50	35	-	-	862	1,062	24	45	3	3	8	1
Conn.	270	57	3	-	6,050	6,712	208	98	8	9	-	1
MID. ATLANTIC	5,673	357	50	5	50,837	64,125	2,433	2,098	133	183	142	12
Upstate N.Y.	578	160	17	4	8,690	8,479	550	407	54	6	46	2
N.Y. City	2,960	77	2	1	22,797	28,013	249	798	25	153	14	8
N.J.	1,413	-	31	-	9,353	9,367	263	395	18	5	29	1
Pa.	722	120	-	-	9,997	18,266	1,371	498	36	19	53	1
E.N. CENTRAL	1,718	578	123	4	74,152	68,134	1,176	1,755	167	60	158	3
Ohio	287	125	36	1	19,842	15,266	245	336	27	13	78	-
Ind.	252	107	25	2	5,370	5,178	132	300	20	23	30	1
Ill.	774	99	24	1	23,812	19,932	524	456	63	14	13	2
Mich.	326	215	28	-	19,360	21,789	180	414	35	10	25	-
Wis.	79	32	10	-	5,768	5,969	95	249	22	-	12	-
W.N. CENTRAL	454	163	16	3	18,376	17,323	755	617	64	17	26	1
Minn.	93	5	-	1	1,982	2,337	78	71	13	3	2	-
Iowa	35	23	4	-	1,588	1,311	55	23	11	2	5	-
Mo.	219	74	-	-	11,109	9,827	418	434	21	7	10	-
N. Dak.	6	6	1	-	81	107	4	16	3	1	1	-
S. Dak.	4	6	3	-	157	331	10	7	5	-	1	-
Nebr.	16	6	4	-	873	1,000	56	16	-	2	2	1
Kans.	81	43	4	2	2,586	2,410	134	50	11	2	5	-
S. ATLANTIC	4,502	771	67	25	113,007	118,397	1,870	2,671	224	219	75	1
Del.	61	31	1	-	1,855	1,787	27	99	5	5	7	-
Md.	476	92	13	2	12,649	12,111	467	458	20	21	19	-
D.C.	358	7	-	-	7,437	8,649	4	18	2	-	-	-
Va.	319	138	29	2	9,533	8,430	204	200	49	128	5	-
W. Va.	29	15	15	-	871	857	13	64	7	3	-	-
N.C.	353	92	4	1	16,703	17,108	278	647	59	-	22	1
S.C.	214	20	-	-	10,338	8,515	39	365	3	8	3	-
Ga.	654	69	1	-	21,802	22,692	220	266	9	7	11	-
Fla.	2,038	307	4	20	31,819	38,248	618	554	70	47	8	-
E.S. CENTRAL	470	349	18	1	33,186	32,965	235	986	101	4	28	-
Ky.	70	92	6	1	3,205	3,239	74	266	34	3	5	-
Tenn.	156	53	-	-	11,094	11,084	90	531	20	-	14	-
Ala.	137	144	12	-	10,582	10,444	50	137	43	1	9	-
Miss.	107	60	-	-	8,305	8,198	21	52	4	-	-	-
W.S. CENTRAL	1,805	511	42	2	43,373	46,238	2,316	1,357	98	337	33	16
Ark.	50	14	5	-	4,973	4,606	143	46	9	6	1	-
La.	291	41	9	-	9,111	9,307	181	238	11	1	4	-
Okla.	101	41	10	-	3,750	4,263	252	134	21	20	19	-
Tex.	1,363	415	18	2	25,539	28,062	1,740	939	57	310	9	16
MOUNTAIN	644	138	7	2	8,735	9,196	3,070	913	148	109	33	2
Mont.	10	3	-	-	120	294	36	34	4	2	2	1
Idaho	16	-	-	1	119	238	113	80	11	3	-	-
Wyo.	13	2	-	-	57	134	30	4	2	-	-	-
Colo.	224	59	1	1	1,793	2,094	353	114	40	46	3	-
N. Mex.	52	7	1	-	859	848	396	138	28	2	2	-
Ariz.	176	49	2	-	3,341	3,293	1,591	339	35	47	16	1
Utah	42	11	1	-	268	359	298	66	18	4	6	-
Nev.	111	7	2	-	2,178	1,936	253	138	10	5	4	-
PACIFIC	4,692	689	58	15	44,317	46,638	8,277	2,812	484	462	47	55
Wash.	312	-	2	1	3,958	4,278	1,989	642	143	34	13	5
Oreg.	153	-	-	-	1,859	1,948	1,486	301	50	9	1	1
Calif.	4,105	640	51	13	37,612	39,354	4,185	1,760	279	405	30	45
Alaska	10	10	4	-	591	667	482	39	5	4	1	-
Hawaii	112	39	1	1	297	391	135	70	7	10	2	4
Guam	1	-	-	-	-	91	-	-	-	-	-	-
P.R.	884	62	2	1	650	873	125	151	15	16	-	8
V.I.	26	-	-	-	419	265	-	5	-	-	-	-
Amer. Samoa	-	-	-	-	-	65	-	-	-	-	-	-
C.N.M.I.	-	-	-	-	-	34	-	-	-	-	-	-

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 August 12, 1989 and August 13, 1988 (32nd Week)

Reporting Area	Malaria	Measles (Rubeola)					Menin-gococcal 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	701	207	8,786	15	403	2,046	1,838	38	3,719	82	1,654	1,517	-	283	142
NEW ENGLAND	38	-	268	-	23	107	136	-	67	9	244	182	-	6	5
Maine	-	-	-	-	-	7	13	-	-	-	6	11	-	-	-
N.H.	2	-	8	-	-	87	15	-	12	-	5	33	-	4	3
Vt.	1	-	1	-	-	-	6	-	1	-	6	3	-	1	-
Mass.	22	-	25	-	16	3	70	-	47	9	205	117	-	1	1
R.I.	7	-	38	-	3	-	1	-	-	-	11	6	-	-	1
Conn.	6	-	196	-	4	10	31	-	7	-	11	12	-	-	-
MID. ATLANTIC	120	8	576	1	161	814	261	4	293	5	90	81	-	23	12
Upstate N.Y.	22	-	41	-	96	32	88	4	131	-	42	45	-	10	2
N.Y. City	42	4	66	-	14	42	32	-	18	-	3	2	-	13	7
N.J.	27	-	279	-	-	212	55	-	97	-	14	4	-	-	1
Pa.	29	4	190	1§	51	528	86	-	47	5	31	30	-	-	2
E.N. CENTRAL	56	60	1,953	2	63	179	224	-	420	-	159	178	-	21	23
Ohio	8	-	626	-	35	24	85	-	114	-	33	25	-	3	-
Ind.	7	-	51	-	-	57	26	-	38	-	17	56	-	-	-
Ill.	24	-	831	-	-	71	62	-	132	-	59	27	-	16	19
Mich.	11	60	285	2§	14	23	38	-	106	-	26	25	-	1	4
Wis.	6	-	160	-	14	4	13	-	30	-	24	45	-	1	-
W.N. CENTRAL	23	1	557	-	4	12	66	-	359	1	77	91	-	6	-
Minn.	7	-	12	-	-	11	11	-	1	-	11	36	-	-	-
Iowa	2	1	6	-	1	-	2	-	27	1	13	19	-	1	-
Mo.	8	-	299	-	-	1	24	-	50	-	46	15	-	4	-
N. Dak.	1	-	-	-	-	-	-	-	-	-	-	11	-	-	-
S. Dak.	1	-	-	-	-	-	7	-	-	-	1	5	-	-	-
Nebr.	1	-	108	-	2	-	14	-	5	-	3	-	-	-	-
Kans.	3	-	132	-	1	-	8	-	276	-	3	5	-	1	-
S. ATLANTIC	122	19	477	3	35	289	316	16	615	18	148	146	-	8	16
Del.	3	2	64	-	1	-	2	-	1	-	1	6	-	-	-
Md.	22	3	40	3†	20	13	55	1	347	3	16	26	-	2	1
D.C.	5	-	7	-	3	-	15	2	97	-	-	-	-	-	-
Va.	22	-	19	-	3	143	34	7	75	-	9	16	-	-	11
W. Va.	2	-	51	-	-	6	12	-	10	2	20	6	-	-	-
N.C.	17	-	168	-	-	1	44	3	26	6	33	40	-	1	-
S.C.	5	-	2	-	-	-	19	-	19	-	-	1	-	-	-
Ga.	9	-	1	-	1	-	55	3	14	5	21	21	-	-	1
Fla.	37	14	125	-	7	126	80	-	26	2	48	30	-	5	3
E.S. CENTRAL	8	4	188	-	-	68	59	-	190	6	77	46	-	2	-
Ky.	-	3	23	-	-	35	35	-	9	-	1	12	-	-	-
Tenn.	1	1	120	-	-	-	4	-	62	-	27	16	-	2	-
Ala.	5	-	45	-	-	-	17	-	16	6	47	14	-	-	-
Miss.	2	-	-	-	-	33	3	N	N	-	2	4	-	-	-
W.S. CENTRAL	37	102	3,084	2	42	14	124	10	1,218	10	134	78	-	36	6
Ark.	-	-	-	2§	5	1	7	-	124	1	17	9	-	-	2
La.	2	-	9	-	-	-	33	4	495	5	11	14	-	5	-
Okla.	4	-	121	-	-	8	18	1	181	4	25	28	-	1	1
Tex.	31	102	2,954	-	37	5	66	5	418	-	81	27	-	30	3
MOUNTAIN	16	12	332	4	24	137	57	8	140	18	445	436	-	34	5
Mont.	1	-	12	-	1	22	1	-	2	-	26	1	-	1	-
Idaho	2	-	-	-	2	1	2	-	14	2	56	258	-	31	-
Wyo.	1	-	-	-	-	-	-	-	7	-	-	1	-	1	-
Colo.	2	3	65	4§	5	114	18	-	21	4	27	14	-	-	1
N. Mex.	1	-	16	-	15	-	1	N	N	7	16	19	-	-	-
Ariz.	6	5	124	-	-	-	23	8	88	5	305	120	-	-	-
Utah	-	4	114	-	-	-	5	-	3	-	14	22	-	-	3
Nev.	3	-	1	-	1	-	7	-	5	-	1	1	-	1	1
PACIFIC	281	1	1,351	3	51	426	595	-	417	15	280	279	-	147	75
Wash.	24	-	20	-	12	2	62	-	35	2	109	56	-	-	-
Oreg.	17	-	-	3†	19	3	42	N	N	-	7	16	-	2	-
Calif.	230	-	1,313	-	12	409	485	-	369	13	159	152	-	122	53
Alaska	4	-	-	-	-	-	4	-	2	-	-	7	-	-	-
Hawaii	6	1	18	-	8	12	2	-	11	-	5	48	-	23	22
Guam	-	U	-	U	-	1	-	U	-	U	-	-	U	-	1
P.R.	1	-	436	-	-	190	4	-	8	-	4	12	-	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 August 12, 1989 and August 13, 1988 (32nd 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	24,551	25,160	224	12,692	12,625	92	287	342	2,925
NEW ENGLAND	1,028	672	9	341	307	2	23	6	6
Maine	5	9	3	12	16	-	-	-	1
N.H.	9	6	-	16	6	-	-	-	1
Vt.	-	3	-	5	2	-	-	-	-
Mass.	315	262	3	178	177	2	13	3	2
R.I.	17	21	-	37	30	-	5	1	-
Conn.	682	371	3	93	76	-	5	2	2
MID. ATLANTIC	4,387	6,470	35	2,425	2,443	2	84	42	450
Upstate N.Y.	510	308	6	198	329	1	20	8	31
N.Y. City	2,275	4,757	2	1,346	1,285	-	44	3	-
N.J.	834	560	9	438	425	-	14	19	-
Pa.	768	845	18	443	404	1	6	12	419
E.N. CENTRAL	1,143	694	31	1,348	1,375	3	27	46	68
Ohio	81	65	9	242	265	-	4	23	5
Ind.	42	36	5	114	143	1	2	16	2
Ill.	482	326	5	611	577	-	17	5	17
Mich.	380	231	12	300	323	1	3	2	6
Wis.	158	36	-	81	67	1	1	-	38
W.N. CENTRAL	198	143	28	328	330	37	5	47	391
Minn.	29	15	7	66	52	-	1	-	77
Iowa	21	16	4	28	31	-	2	1	110
Mo.	101	84	6	152	164	26	1	41	28
N. Dak.	2	2	-	11	10	-	-	1	38
S. Dak.	-	-	3	17	24	6	-	1	66
Nebr.	17	20	5	14	9	1	-	-	36
Kans.	28	6	3	40	40	4	1	3	36
S. ATLANTIC	9,167	8,571	20	2,675	2,695	3	27	100	900
Del.	99	72	1	25	23	-	2	1	20
Md.	468	472	1	222	269	-	8	11	251
D.C.	574	410	1	125	119	-	2	-	2
Va.	340	261	4	214	244	3	4	6	172
W. Va.	10	7	-	47	51	-	-	2	41
N.C.	608	490	6	307	245	-	2	53	5
S.C.	508	413	3	311	300	-	-	15	144
Ga.	1,955	1,414	3	400	439	-	3	10	153
Fla.	4,605	5,032	1	1,024	1,005	-	6	2	112
E.S. CENTRAL	1,675	1,200	4	1,022	1,071	6	2	32	242
Ky.	40	40	1	251	250	1	1	10	103
Tenn.	724	520	2	286	309	4	-	20	55
Ala.	517	355	1	292	329	-	1	2	83
Miss.	394	285	-	193	183	1	-	-	1
W.S. CENTRAL	3,453	2,675	21	1,496	1,572	28	12	47	424
Ark.	208	147	1	157	170	19	-	11	59
La.	803	514	-	201	190	-	1	-	5
Okla.	58	98	11	131	151	9	1	32	69
Tex.	2,384	1,916	9	1,007	1,061	-	10	4	291
MOUNTAIN	467	456	34	288	352	7	6	20	161
Mont.	1	3	-	11	12	-	-	14	59
Idaho	1	2	3	20	11	-	-	2	4
Wyo.	3	1	2	-	2	1	-	1	49
Colo.	53	74	5	12	50	2	2	3	11
N. Mex.	20	35	4	53	66	1	-	-	16
Ariz.	145	109	9	140	161	-	3	-	18
Utah	12	11	9	24	18	2	1	-	2
Nev.	232	221	2	28	32	1	-	-	2
PACIFIC	3,033	4,279	42	2,769	2,480	4	101	2	283
Wash.	252	140	2	152	128	-	6	-	-
Oreg.	152	178	-	92	93	2	5	1	-
Calif.	2,617	3,931	39	2,385	2,138	2	86	1	221
Alaska	3	8	-	32	24	-	-	-	62
Hawaii	9	22	1	108	97	-	4	-	-
Guam	-	3	-	-	16	-	-	-	-
P.R.	349	375	-	200	134	-	-	-	40
V.I.	7	1	-	4	5	-	-	-	-
Amer. Samoa	-	-	-	-	3	-	-	-	-
C.N.M.I.	-	1	-	-	17	-	-	-	-

U: Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending August 12, 1989 (32nd Week)

Reporting Area	All Causes, By Age (Years)						P&I**
	All Ages	≥65	45-64	25-44	1-24	<1	Total
NEW ENGLAND	579	398	106	47	17	11	45
Boston, Mass.	154	103	28	15	3	5	19
Bridgeport, Conn.	37	26	9	1	-	1	4
Cambridge, Mass.	9	5	4	-	-	-	1
Fall River, Mass.	23	19	2	2	-	-	2
Hartford, Conn.	101	62	17	14	7	1	7
Lowell, Mass.	15	12	2	-	1	-	-
Lynn, Mass.	15	10	4	-	1	-	-
New Bedford, Mass.	17	13	4	-	-	-	1
New Haven, Conn.	47	29	11	5	1	1	2
Providence, R.I.§	37	30	6	-	1	-	1
Somerville, Mass.	9	7	1	-	1	-	-
Springfield, Mass.	32	23	5	4	-	-	5
Waterbury, Conn.	24	18	4	1	1	-	2
Worcester, Mass.	59	41	9	5	1	3	1
MID. ATLANTIC	2,641	1,692	507	296	69	76	130
Albany, N.Y.	44	30	8	4	2	-	3
Allentown, Pa.	14	13	1	-	-	-	1
Buffalo, N.Y.	140	97	28	10	1	3	7
Camden, N.J.	36	25	5	3	3	-	-
Elizabeth, N.J.	27	17	5	3	2	-	5
Erie, Pa.†	35	27	5	2	-	1	3
Jersey City, N.J.	53	38	9	2	-	4	4
N.Y. City, N.Y.	1,325	808	274	180	29	34	50
Newark, N.J.	98	35	23	17	8	15	10
Paterson, N.J.	24	13	5	5	1	-	-
Philadelphia, Pa.	399	268	66	38	14	13	26
Pittsburgh, Pa.†	68	46	14	4	3	1	4
Reading, Pa.	27	18	6	1	-	2	3
Rochester, N.Y.	128	90	23	13	1	1	9
Schenectady, N.Y.	21	18	1	2	-	-	-
Scranton, Pa.†	27	23	3	1	-	-	1
Syracuse, N.Y.	82	63	14	3	2	-	1
Trenton, N.J.	44	26	8	6	3	1	-
Utica, N.Y.	18	13	4	1	-	-	1
Yonkers, N.Y.	31	24	5	1	-	1	2
E.N. CENTRAL	2,136	1,417	440	159	50	70	79
Akron, Ohio	61	41	16	2	1	1	-
Canton, Ohio	37	28	5	4	-	-	5
Chicago, Ill.§	564	362	125	45	10	22	16
Cincinnati, Ohio	166	104	46	7	6	3	11
Cleveland, Ohio	133	83	35	8	4	3	2
Columbus, Ohio	100	68	17	9	1	5	-
Dayton, Ohio	96	67	18	6	2	3	2
Detroit, Mich.	252	145	42	36	10	19	10
Evansville, Ind.	49	41	8	-	-	-	1
Fort Wayne, Ind.	45	34	8	1	-	2	4
Gary, Ind.§	17	12	4	1	-	-	-
Grand Rapids, Mich.	47	37	6	1	2	1	5
Indianapolis, Ind.	162	109	32	11	5	5	1
Madison, Wis.	34	20	7	7	-	-	2
Milwaukee, Wis.	109	78	22	5	3	1	1
Peoria, Ill.	50	29	14	4	1	2	3
Rockford, Ill.	29	26	3	-	-	-	1
South Bend, Ind.	32	24	6	1	-	1	3
Toledo, Ohio	94	66	17	5	4	2	5
Youngstown, Ohio	59	43	9	6	1	-	7
W.N. CENTRAL	779	530	157	51	28	13	32
Des Moines, Iowa	47	35	7	3	2	-	1
Duluth, Minn.	32	20	9	2	1	-	1
Kansas City, Kans.§	74	56	12	5	1	-	3
Kansas City, Mo.	114	71	25	9	6	3	2
Lincoln, Nebr.	42	32	5	3	1	1	8
Minneapolis, Minn.	144	98	31	8	7	-	11
Omaha, Nebr.	82	54	21	3	3	1	1
St. Louis, Mo.	135	92	26	9	6	2	2
St. Paul, Minn.	65	45	11	5	1	3	2
Wichita, Kans.	44	27	10	4	-	3	1
S. ATLANTIC	1,228	702	260	163	48	55	64
Atlanta, Ga.	156	85	35	25	7	4	1
Baltimore, Md.	197	121	36	17	11	12	13
Charlotte, N.C.	52	32	13	4	-	3	5
Jacksonville, Fla.	101	57	24	11	4	5	5
Miami, Fla.	191	95	37	42	8	9	2
Norfolk, Va.	65	30	20	7	-	8	5
Richmond, Va.	68	44	14	5	4	1	7
Savannah, Ga.	46	29	12	2	1	2	5
St. Petersburg, Fla.	72	59	5	5	2	1	4
Tampa, Fla.	62	31	18	9	3	1	6
Washington, D.C.§	194	101	42	34	8	9	5
Wilmington, Del.	24	18	4	2	-	-	6
E.S. CENTRAL	695	451	141	51	24	28	41
Birmingham, Ala.	127	73	25	13	6	10	5
Chattanooga, Tenn.	50	34	9	3	2	2	5
Knoxville, Tenn.	71	53	15	1	-	2	8
Louisville, Ky.	65	34	18	5	-	8	4
Memphis, Tenn.	168	114	31	13	6	4	10
Mobile, Ala.	42	27	7	5	3	-	1
Montgomery, Ala.	68	48	13	7	-	-	-
Nashville, Tenn.	104	68	23	4	7	2	8
W.S. CENTRAL	1,766	1,071	390	191	64	48	65
Austin, Tex.	50	30	13	4	-	3	2
Baton Rouge, La.	69	46	12	7	2	2	7
Corpus Christi, Tex.§	43	29	10	3	-	1	-
Dallas, Tex.	158	87	37	22	8	4	4
El Paso, Tex.	70	40	20	7	1	1	9
Fort Worth, Tex	95	56	14	5	9	11	6
Houston, Tex.§	734	436	169	89	24	16	18
Little Rock, Ark.	80	48	17	9	1	5	1
New Orleans, La.	179	115	40	15	7	2	-
San Antonio, Tex.	159	99	33	19	5	2	13
Shreveport, La.	43	26	10	4	2	1	1
Tulsa, Okla.	86	59	15	7	5	-	4
MOUNTAIN	623	382	118	66	29	28	27
Albuquerque, N. Mex.	82	42	12	8	11	9	3
Colo. Springs, Colo.	45	27	11	4	2	1	7
Denver, Colo.	99	68	14	12	2	3	1
Las Vegas, Nev.	100	55	27	10	6	2	11
Ogden, Utah	22	18	2	2	-	-	2
Phoenix, Ariz.	130	82	20	14	4	10	1
Pueblo, Colo.	19	14	3	1	-	1	-
Salt Lake City, Utah	43	19	12	9	2	1	-
Tucson, Ariz.	83	57	17	6	2	1	2
PACIFIC	1,993	1,215	380	238	83	67	109
Berkeley, Calif.	20	13	4	1	-	2	-
Fresno, Calif.	80	51	15	7	3	4	4
Glendale, Calif.	40	25	11	3	1	-	1
Honolulu, Hawaii	47	34	8	4	1	-	9
Long Beach, Calif.	73	45	10	12	4	2	5
Los Angeles Calif.	713	424	145	85	35	14	23
Oakland, Calif.	63	41	8	11	2	1	5
Pasadena, Calif.	38	23	7	5	-	3	2
Portland, Oreg.	118	79	19	11	4	5	4
Sacramento, Calif.	144	84	31	14	11	4	14
San Diego, Calif.	146	82	20	18	8	18	14
San Francisco, Calif.	146	78	28	33	2	5	5
San Jose, Calif.	144	90	32	10	8	4	14
Seattle, Wash.	123	74	27	18	2	2	2
Spokane, Wash.	60	47	7	5	-	1	5
Tacoma, Wash.	38	25	8	1	2	2	2
TOTAL	12,440††	7,858	2,499	1,262	412	396	592

*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.

Smoking-Attributable COPD — Continued

TABLE 1. Current smoking prevalence, quit ratios, attributable risk percent, number of chronic obstructive pulmonary disease (COPD) deaths attributable to smoking, and smoking-attributable (SA) COPD mortality rates, by area — United States, 1986

Area	Current smoking prevalence (%)*	Quit ratio (%)†	Attributable risk (%)§	SA-COPD deaths	SA-COPD mortality rate¶
Alabama	28	43	78	977	53.9
Alaska	35	39	83	46	59.0
Arizona	30	46	81	1019	68.3
Arkansas	28	44	77	549	45.1
California	26	46	80	6229	58.4
Colorado	29	46	79	826	73.7
Connecticut	28	47	81	646	41.7
Delaware	28	48	83	151	55.9
District of Columbia	30	40	77	95	33.7
Florida	29	46	81	3699	50.7
Georgia	32	42	81	1274	55.3
Hawaii	26	45	78	110	28.0
Idaho	24	49	79	280	68.7
Illinois	27	46	78	2462	48.1
Indiana	29	46	81	1499	61.9
Iowa	26	45	81	786	53.2
Kansas	26	44	77	651	54.9
Kentucky	34	45	82	1196	72.6
Louisiana	28	41	80	738	43.0
Maine	28	49	81	388	68.7
Maryland	27	49	80	900	50.2
Massachusetts	27	47	82	1448	50.5
Michigan	30	47	81	2196	57.0
Minnesota	26	50	79	831	43.5
Mississippi	31	45	82	518	45.6
Missouri	25	48	81	1457	58.0
Montana	25	48	80	261	72.5
Nebraska	23	47	77	350	44.5
Nevada	33	44	83	294	77.0
New Hampshire	28	44	83	258	58.9
New Jersey	27	43	80	1615	44.6
New Mexico	29	47	81	375	68.9
New York	27	45	79	3857	45.6
North Carolina	30	42	80	1317	48.2
North Dakota	24	52	80	130	41.3
Ohio	29	46	80	2841	58.2
Oklahoma	32	47	83	806	54.0
Oregon	25	48	82	815	63.4
Pennsylvania	26	48	79	3174	50.5
Rhode Island	29	48	82	274	53.6
South Carolina	28	44	79	631	47.1
South Dakota	26	47	79	166	46.3
Tennessee	29	43	78	1213	56.0
Texas	30	46	80	2733	45.8
Utah	10	54	70	227	45.5
Vermont	28	49	82	152	65.3
Virginia	29	44	80	1181	51.5
Washington	25	50	82	1299	68.7
West Virginia	31	48	80	662	70.8
Wisconsin	25	50	78	968	42.8
Wyoming	31	44	82	140	87.4

*Persons aged ≥35 years.

†Proportion of ever smokers (smoked ≥100 cigarettes in lifetime) aged ≥35 years of age who are former smokers (no longer smoking).

§Attributable risk percentage $= \frac{[p_0 + p_1(RR_1) + p_2(RR_2)] - 1}{[p_0 + p_1(RR_1) + p_2(RR_2)]} \times 100$ (*4*).

¶Per 100,000, age- and sex-adjusted to the 1986 U.S. population.

Smoking-Attributable COPD — Continued

Public health programs and primary-care providers should intensify efforts to prevent initiation of smoking in younger age groups and to support smoking cessation among adults, especially in states with high prevalences of smoking.

References

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FIGURE 2. Percentage of ever smokers ≥35 years of age who are former smokers (quit ratio), by quartile — United States, 1985

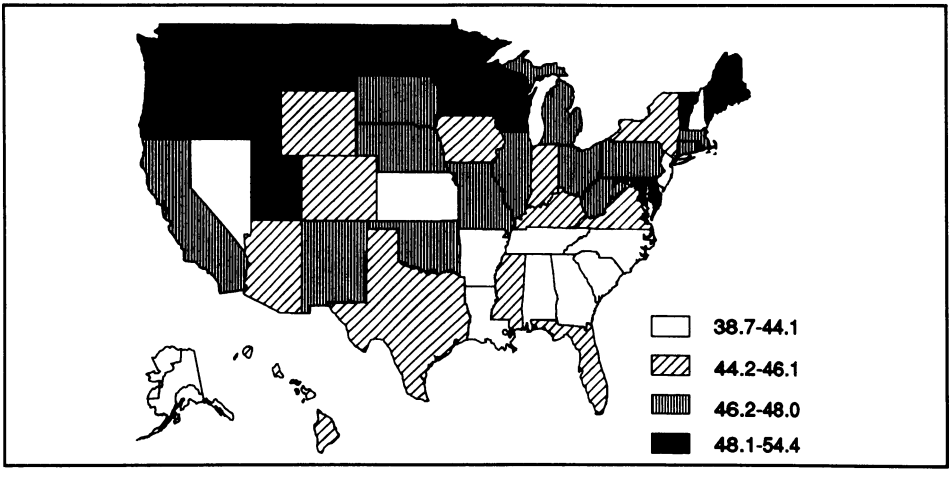
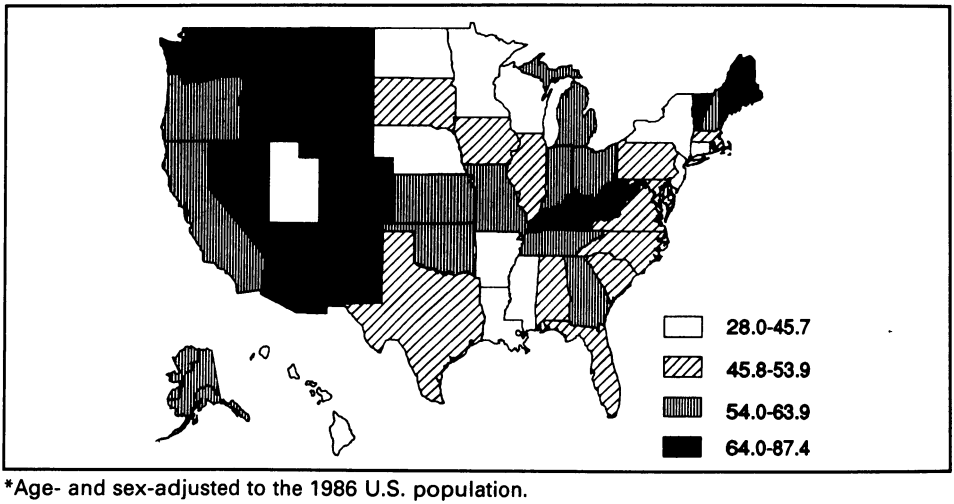


FIGURE 3. Mortality rate* per 100,000 persons of smoking-attributable chronic obstructive pulmonary disease, by quartile — United States, 1986



*Age- and sex-adjusted to the 1986 U.S. population.

Smoking-Attributable COPD — Continued

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Current Trends

First 100,000 Cases of Acquired Immunodeficiency Syndrome — United States

In June 1981, the first cases of the illness now known as acquired immunodeficiency syndrome (AIDS) were reported from Los Angeles in five young homosexual men diagnosed with *Pneumocystis carinii* pneumonia and other opportunistic infections (*1*). Since then, state and territorial health departments have reported >100,000 cases of AIDS and >59,000 AIDS-related deaths to CDC. AIDS is now a major cause of morbidity and mortality in children and young adults in the United States, ranking 15th among leading causes of death in 1988 (*2*) and seventh among estimated years of potential life lost before age 65 in 1987 (*3*). The first 50,000 cases of AIDS were reported to CDC from 1981 to 1987; the second 50,000 were reported between December 1987 and July 1989.

Although homosexual/bisexual men still account for most reported AIDS cases, intravenous-drug users (IVDUs), their sex partners, and their children represent an increasing proportion of all cases. Of AIDS cases reported before 1985, 63% were homosexual/bisexual men with no history of IV-drug use, 18% were female or heterosexual male IVDUs, and 2% were sex partners or children of IVDUs or their sex partners. In contrast, of the AIDS cases reported in the first 6 months of 1989, 56% were homosexual/bisexual men with no history of IV-drug use, 23% were female or heterosexual male IVDUs, and 4% were sex partners or children of IVDUs or their sex partners. The proportion of AIDS cases among women has also increased from 7% of cases reported before 1985 to 11% of cases reported in the first 6 months of 1989. Blacks and Hispanics continue to be disproportionately represented among all persons with AIDS and particularly among IVDUs with AIDS (Table 1). Although most AIDS cases are reported from large metropolitan areas, an increasing proportion are being reported from smaller cities and rural areas. Metropolitan statistical areas with populations ≤500,000 reported 10% of all U.S. cases before 1985, compared with 19% in 1988.

AIDS — Continued

Reported by: AIDS Program, Center for Infectious Diseases, CDC.

Editorial Note: The 100,000 AIDS cases reported in the United States as of July 1989 represent the minimum number of persons with severe human immunodeficiency virus (HIV)-related disease. Because of the combination of underdiagnosis and underreporting of AIDS cases and severe manifestations of HIV infection that do not meet the CDC AIDS surveillance case definition, reported AIDS cases underestimate the number of persons severely affected by HIV since 1981. The completeness of diagnosis and reporting of AIDS cases varies by geographic region and patient population; however, mortality studies suggest that 70%–90% of HIV-related deaths are identified through national surveillance of AIDS (*4*).

The number of AIDS cases are one indication of the larger epidemic of HIV infection. An estimated 1–1.5 million persons are infected with HIV in the United States (*5*), with recent seroprevalence studies suggesting that the actual number is closer to the lower end of this range (*6*). A cohort study of homosexual/bisexual men in San Francisco suggests that 54% of infected persons will develop AIDS within 10 years of infection (*7*) and that up to 99% will eventually develop AIDS (*8*). Therefore, the number of persons with AIDS and other severe manifestations of HIV infection will continue to increase.

AIDS is reportable in all 50 states, the District of Columbia, and U.S. territories. AIDS surveillance has been crucial in identifying characteristics of persons at risk for the disease and modes of transmission and remains extremely important in monitoring trends in severe HIV-related disease, projecting future numbers of AIDS cases and HIV-infected persons, and targeting resources for prevention and treatment efforts. Because persons with AIDS require a broad range of medical services, documentation of these cases is also important in determining current and future health-care needs and costs. AIDS surveillance data together with information from the HIV family of surveys (*6*) and HIV infection reporting (*9*) are important components of public health programs directed toward controlling HIV infection and assist in providing the most accurate picture of the HIV epidemic in the United States.

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TABLE 1. Percentage distribution by racial/ethnic groups comparing population, AIDS cases, and AIDS cases associated with intravenous-drug users (IVDU) — United States,* 1981–1989

Race/Ethnicity	1980 U.S. population†	AIDS cases			
		Cumulative* (n=97,110)	IVDU§ (n=18,540)	Heterosexual IVDU contact (n=2,067)	Children and sex partners of IVDU (n=906)
White	79.6%	58.5%	21.8%	24.2%	14.7%
Black	11.5%	27.7%	54.0%	54.0%	60.0%
Hispanic	6.4%	13.1%	24.1%	21.2%	25.0%
Asian/Pacific Islander	1.8%	0.6%	0.1%	0.4%	0.1%
American Indian/ Alaskan Native	0.7%	0.1%	0.1%	0.1%	0.2%

*Excluding U.S. territories.
†1980 U.S. Census.
§Female or heterosexual male IVDU.

AIDS – Continued

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Enterovirus Surveillance – United States, 1989

Nonpolio enterovirus (NPEV) surveillance data show that isolates from March through May predict the types likely to be isolated in July through December, which includes the peak enterovirus season (*1*). State virology laboratories have reported to CDC 31 NPEV isolates obtained from patients in the United States from March through May 1989. Coxsackievirus B5 was isolated most frequently (16 isolates), followed by echovirus 6 (two isolates), and coxsackievirus B3, coxsackievirus A3, and echovirus 9 (one each); 10 isolates were reported as untyped enteroviruses.

Of the 946 NPEV isolates reported in 1988, the six most common were echovirus 11 (18.6%), echovirus 9 (14.1%), coxsackievirus B4 (10.6%), coxsackievirus B2 (9.2%), echovirus 6 (6.2%), and coxsackievirus B5 (5.1%). In 1988, these six NPEV types represented 64% of the total enterovirus isolates.

Reported by: State virology laboratory directors. Respiratory and Enterovirus Br, Div of Viral and Rickettsial Diseases, Center for Infectious Diseases, CDC.

Editorial Note: Enteroviruses are a group of 65 different, common agents that cause 10–20 million mild upper respiratory infections in the United States every year. Enteroviruses are also responsible for tens of thousands of hospitalizations for aseptic meningitis each year. Knowledge of the common enterovirus subtypes may assist diagnostic laboratories in more rapidly identifying enterovirus isolates and assist public health officials in recognizing outbreaks of enteroviral disease.

Since 1970, state health department laboratories have reported on enterovirus serotypes to CDC approximately 6–8 weeks after specimens are submitted for identification. From 1970 through 1983, the six most common isolates in March through May accounted for an average of 59% of the isolates in July through December, and for this period in 1984–1988, for 50%–58% of the isolates.

The NPEV isolates reported in early 1989 included many coxsackievirus B5 and several of three other types; however, the limited number of these four types makes it impossible to predict at this time that they will be common isolates in 1989. The top six isolates reported in 1988 and each of the four isolates reported in March through May 1989 were in the 15 most frequent isolates for 1970–1983 (*1*).

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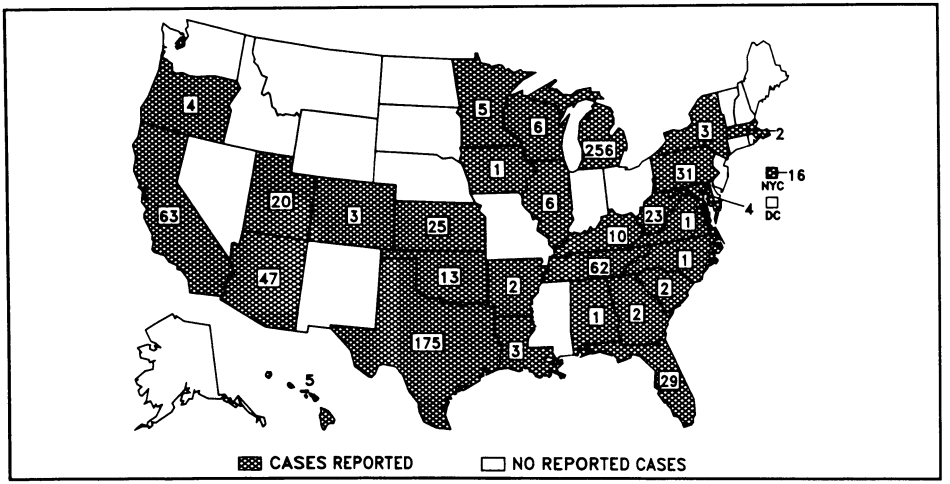
FIGURE 1. Reported measles cases – United States, weeks 28–31, 1989



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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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