CENTER FOR DISEASE CONTROL

May 9, 1980 / Vol. 29 / No. 18

MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

Epidemiologic Notes and Reports

Silicosis — Illinois

The recent diagnosis of silicosis in several workers at 2 specialized silica-mining and processing mills in southern Illinois prompted an environmental and medical survey by the National Institute for Occupational Safety and Health (NIOSH) in July 1979.

Both companies mine microcrystalline quartz (silica) and process this material by drying and milling. The resulting product, "silica flour," consists of fine particles, 99% of which are <10 micrometers (μm) in diameter (i.e., they are respirable). The material is bagged and distributed internationally for use as industrial and toothpaste abrasives, paint extenders, fillers for cosmetics, and other manufactured products.

Silica-dust levels in the air measured between 1973 and 1979 were available from the federal Mine Safety and Health Administration (MSHA). At both facilities, the mean silica-dust level for each of more than a dozen inspections was >5 times the MSHA-mandated threshold limit value (TLV), the legally enforceable standard.*

The NIOSH investigation revealed the dust to be essentially 100% crystalline silica, with a mean particle diameter of 2.3 to 5.2 μm. Seventy-seven of 91 (85%) dust samples exceeded the NIOSH-recommended silica-dust standard of 0.05 mg/m^3 (*2*). Many were between 10 and several hundred times the recommended standards.

Eighty-six current and ex-workers participated in the health survey. Silicosis was diagnosed when at least 2 of 3 NIOSH-certified readers independently interpreted a postero-anterior chest radiograph as at least minimally positive (i.e., category 1/0 profusion or greater, based on the 1971 international standard classification [*3*]).

None of the 25 current workers with less than 1 year of dust exposure had silicosis. Of 61 current and ex-workers with more than 1 year's exposure to silica dust, 23 (37%) had silicosis. Seven (11%) of these had evidence of progressive massive fibrosis (PMF), an advanced stage of the disease. Pulmonary function test results varied considerably in those with simple silicosis; however, 6 of the 7 with PMF had restrictive lung disease (defined as forced vital capacity <80% of the predicted value). The mean duration of silica dust exposure in those with simple silicosis was 8 years (range 1 to 19 years). In those with PMF, the mean duration of exposure was 7 years (range 2.5 to 14.0 years). One man, age 24, had radiologic evidence of silicoproteinosis and PMF after 2½ years of exposure.

*The actual values are computed and vary according to the percentage of free silica present. If the sample has less than 1% free silica, the TLV is 10 milligrams per cubic meter (total dust sample). If the sample analysis indicates >1% free silica, a respirable sample is taken, and the TLV is calculated using the formula: $\frac{10}{\%\ \text{free silica} + 2}$. The resulting figure is multiplied by 1.2 to incorporate sampling-error factors.

Silicosis – Continued

Reported by Div of Respiratory Disease Studies, NIOSH, CDC.

Editorial Note: Silicosis—the oldest recognized occupational pulmonary disease—continues to be a common diagnosis. This disease is directly related to excessive silica dust exposure and is completely preventable through application of available control technology. The disease can only be acquired through inhalation of respirable-size silica dust.

The natural history of silicosis is not predictable. Not uncommonly, the earlier stages of simple silicosis progress to advanced simple silicosis and PMF, even after the worker is removed from silica-dust exposure. The worker frequently becomes short of breath with a progressive decline in vital capacity and exercise tolerance. In some, this may eventually lead to respiratory failure and early death. Silicosis patients are at very high risk of contracting tuberculosis. No therapy for silicosis is effective.

The high prevalence of silicosis in these workers reflects exposure to extremely high respirable dust levels for an extended period of time, high silica content of the dust, and lack of adequate respiratory protective measures. These data also confirm the need for enforcement and compliance with the existing silica standard. Of the 2 facilities investigated here, 1 has been temporarily closed, and workers in the other now use positive-pressure breathing equipment.

References

1. American Conference of Governmental Industrial Hygienists. Threshold limit values for chemical substances and physical agents in the workroom environment with intended changes for 1972. Cincinnati, Ohio: ACGIH, 1972.
2. Criteria for Recommended Standard. Occupational Exposure to crystalline silica. Washington, DC: NIOSH, 1975. (DHEW publication no. (NIOSH) 750129).
3. Jacobson G, Lainhart W. ILO U/C 1971 international classification of radiographs of the pneumoconioses. Med Radiogr Photogr 1972;48:65-110.

International Notes

Legionellosis – Västerås, Sweden

The largest outbreak of legionellosis yet documented outside the United States occurred from August 28-September 21, 1979, in Sweden.

During that period, 66 residents of and 1 visitor to Västerås (population, 100,000) had onset of an illness characterized by high fever and pneumonia with serologic evidence of legionellosis. Ages ranged from 26 to 91 years. Most of the patients also had headache, abdominal symptoms, and mental disturbances. One patient died of acute renal failure. In 51 patients, a ⩾4-fold rise in reciprocal antibody titer equal to or greater than 128 to *Legionella pneumophila* serogroup 1 was demonstrated by indirect immunofluorescence; the other patients had convalescent-phase titers ⩾128. *L. pneumophila* serogroup 1 was isolated from lung tissue obtained by closed biopsy in 3 patients. Identification was confirmed by gas-liquid chromatography and direct immunofluorescence.

The mode of spread and source of *L. pneumophila* have not been defined in this outbreak. However, the large majority of ill persons had visited 1 indoor shopping center 2-10 days before onset of illness; 2 of the patients were employees in the shopping center.

Legionellosis — Continued

Because this shopping center is popular and no control group of well residents has been queried about frequency of visiting it, the possibility that legionellosis was acquired at the shopping center is untested. *L. pneumophila* serogroup 1 was isolated from water condensate on the roof of the shopping center.

Reported by IM Kallings, MD, Dept of Bacteriology, The National Bacteriological Laboratory, Stockholm; K Nordström, MD, Infectious Disease Clinic, Västerås; Special Pathogens Br, Bacterial Diseases Div, Bur of Epidemiology, CDC.

Editorial Note: A positive environmental culture for *L. pneumophila* does not necessarily indicate the source or mode of spread in this or other outbreaks of legionellosis, because *L. pneumophila* is frequently isolated from bodies of water unrelated to outbreaks (*1-3*).

References

1. Politi BD, Freser DW, Mallison GF, et al. A major focus of Legionnaires' disease in Bloomington, Indiana. Ann Intern Med 1979;90:587-91.
2. Fliermans CB, Cherry WB, Orrison LH, et al. Isolation of *Legionella pneumophila* from nonepidemic related aquatic habitats. Appl Environ Microbiol 1979;37:1239-42.
3. Dondero TJ, Rendtorff RC, Mallison GF, et al. An outbreak of Legionnaires' disease associated with a contaminated air-conditioning cooling tower. N. Engl J Med 1980;302:365-70.

Quarantine Measures

The following changes should be made in the Supplement, "Health Information for International Travel," MMWR, Vol. 28, July 1979:

SMALLPOX - For the countries listed below, delete all information. Insert: None. ALSO on pages 10-18 delete code. Insert: None.

Afghanistan
Albania
Algeria
Antigua
Argentina
Austria
Azores
Bahamas
Bahrain
Barbados
Belgium
Belize
Bermuda
Bolivia
Brazil
Bulgaria
Burma
Canada
Canal Zone
Canary Islands
Cape Verde
Cayman Islands
Chili
Colombia
Congo
Costa Rica
Cyprus
Czechoslovakia
Denmark
Dominica
Dominican Republic
El Salvador
Ethiopia
Falkland (Malvinas) Islands
Faroe Islands
Finland
France
French Guiana
French Polynesia (Tahiti)
German Democratic Republic (East)
Germany, Federal Republic of
Ghana
Gibraltar
Greece
Greenland
Grenada
Guadeloupe
Guatemala
Guernsey, Alderney, and Sark
Guinea
Haiti
Honduras
Hong Kong
Hungary
Iceland
Indonesia
Iran
Iraq
Ireland
Isle of Man
Israel
Italy
Jamaica
Japan
Jersey
Jordan
Kenya
Lao People's Democratic Republic
Lebanon
Liberia
Liechtenstein
Luxembourg
Macao
Madeira
Malawi
Malaysia
Maldives
Martinique
Mauritania
Mauritius
Mexico
Monaco
Mongolia
Montserrat
Morocco
Mozambique
Namibia
Netherlands
Netherlands Antilles
New Caledonia and Dependencies
New Zealand
Nicaragua
Niger
Nigeria
Niue
Norway
Oman
Pacific Islands, Trust Territory of the USA
Pakistan
Papua New Guinea
Paraguay
Peru
Philippines
Portugal
Reunion
Romania
Rwanda
Saint Helena
Saint Kitts-Nevis-Anguilla
Saint Lucia
Saint Pierre and Miquelon
Saint Vincent

Notice to Readers

Beginning with this issue, delayed reports and corrections will not appear as footnotes to Tables I, II, and III, "Cases of specified notifiable diseases." Weekly morbidity data will be corrected after publication, and these changes will be included in the cumulative totals in the following issue. If corrected data are needed before the next publication date, they will be available from the Consolidated Surveillance & Communications Activity, 404/329-3761; FTS 326-3761.

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

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

DISEASE	18th WEEK ENDING		MEDIAN 1975-1979	CUMULATIVE, FIRST 18 WEEKS		
	May 3, 1980	May 5, 1979*		May 3, 1980	May 5, 1979*	MEDIAN 1975-1979
Aseptic meningitis	58	43	41	1,056	849	650
Brucellosis	2	6	6	52	29	56
Chickenpox	6,152	6,750	6,105	101,498	119,295	106,342
Diphtheria	1	–	1	2	3	36
Encephalitis: Primary (arthropod-borne & unspec.)	12	13	13	203	163	213
Post-infectious	2	4	9	56	76	76
Hepatitis, Viral: Type B	331	268	273	5,570	4,789	5,016
Type A	419	536	599	9,071	10,148	11,291
Type unspecified	247	205	158	4,008	3,507	2,878
Malaria	16	14	14	481	149	118
Measles (rubeola)	695	731	1,160	6,860	6,820	12,313
Meningococcal infections: Total	50	54	51	1,142	1,184	794
Civilian	50	52	51	1,137	1,176	790
Military	–	2	–	5	8	8
Mumps	244	304	597	4,737	6,998	10,069
Pertussis	38	24	24	362	452	425
Rubella (German measles)	139	709	709	1,845	6,185	7,863
Tetanus	2	2	2	14	14	15
Tuberculosis	528	576	629	9,010	9,228	10,147
Tularemia	–	–	3	26	44	32
Typhoid fever	5	12	8	100	135	122
Typhus fever, tick-borne (Rky. Mt. spotted)	8	5	12	28	37	40
Venereal diseases:						
Gonorrhea: Civilian	18,212	20,973	19,666	324,422	327,254	320,920
Military	404	675	675	8,936	9,776	9,776
Syphilis, primary & secondary: Civilian	439	454	417	9,112	8,347	8,347
Military	9	6	5	124	106	106
Rabies in animals	158	114	63	2,018	1,527	961

TABLE II. Notifiable diseases of low frequency, United States

	CUM. 1980		CUM. 1980
Anthrax	–	Poliomyelitis: Total (La. 1)	3
Botulism (N.Mex. 1, Ore. 1)	19	Paralytic	1
Cholera (Calif. 2)	2	Psittacosis (Tex. 1)	25
Congenital rubella syndrome (Ohio 8)	32	Rabies in man	–
Leprosy (Mo. 2, Hawaii 2)	59	Trichinosis	24
Leptospirosis (Hawaii 1)	15	Typhus fever, flea-borne (endemic, murine) (Tex. 1)	15
Plague	–		

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 May 3, 1980, and May 5, 1979 (18th week)

REPORTING AREA	ASEPTIC MENINGITIS	BRUCELLOSIS	CHICKEN-POX	DIPHTHERIA		ENCEPHALITIS			HEPATITIS (VIRAL), BY TYPE			MALARIA	
						Primary		Post-infectious	B	A	Unspecified		
	1980	1980	1980	1980	CUM. 1980	1980	1979*	1980	1980	1980	1980	1980	CUM. 1980
UNITED STATES	58	2	6,152	1	2	12	13	2	331	419	247	16	481
NEW ENGLAND	2	–	735	–	–	2	–	–	13	2	9	2	32
Maine	–	–	218	–	–	–	–	–	–	–	1	–	7
N.H.	–	–	4	–	–	–	–	–	–	–	1	–	2
Vt.	–	–	25	–	–	–	–	–	–	–	–	–	–
Mass.	–	–	135	–	–	1	–	–	5	1	6	1	17
R.I.	1	–	34	–	–	–	–	–	1	1	–	1	2
Conn.	1	–	319	–	–	1	–	–	7	–	1	–	4
MID. ATLANTIC	4	–	386	–	1	1	1	–	67	40	28	3	75
Upstate N.Y.	2	–	199	–	–	1	–	–	9	6	6	2	12
N.Y. City	1	–	169	–	1	–	1	–	8	7	3	–	25
N.J.	–	–	NN	–	–	–	–	–	25	13	14	1	20
Pa.	1	–	18	–	–	–	–	–	25	14	5	–	18
E.N. CENTRAL	5	–	2,872	1	1	2	3	–	43	55	22	2	22
Ohio	–	–	361	–	–	–	1	–	10	8	10	–	3
Ind.	–	–	188	–	–	–	2	–	9	3	4	–	3
Ill.	–	–	577	–	–	–	–	–	18	18	5	–	5
Mich.	3	–	1,016	1	1	2	–	–	5	16	2	1	7
Wis.	2	–	730	–	–	–	–	–	1	10	1	1	4
W.N. CENTRAL	1	–	786	–	–	–	1	–	7	22	9	1	19
Minn.	–	–	–	–	–	–	–	–	4	11	–	–	9
Iowa	–	–	350	–	–	–	1	–	1	5	3	1	3
Mo.	1	–	79	–	–	–	–	–	–	4	6	–	3
N. Dak.	–	–	27	–	–	–	–	–	–	–	–	–	–
S. Dak.	–	–	20	–	–	–	–	–	–	–	–	–	–
Nebr.	–	–	92	–	–	–	–	–	2	–	–	–	2
Kans.	–	–	218	–	–	–	–	–	–	2	–	–	2
S. ATLANTIC	19	–	403	–	–	2	2	1	75	61	36	2	52
Del.	–	–	17	–	–	–	–	–	–	–	–	–	–
Md.	1	–	41	–	–	1	–	–	11	4	5	–	10
D.C.	–	–	1	–	–	–	–	–	2	–	–	–	1
Va.	1	–	13	–	–	–	1	–	3	5	5	–	17
W. Va.	–	–	77	–	–	–	–	–	3	1	1	–	2
N.C.	2	–	NN	–	–	1	1	–	4	6	4	–	4
S.C.	–	–	17	–	–	–	–	–	26	3	5	–	3
Ga.	–	–	1	–	–	–	–	–	10	12	–	–	4
Fla.	15	–	236	–	–	–	–	1	16	30	16	2	11
E.S. CENTRAL	4	–	117	–	–	–	1	–	22	18	7	–	4
Ky.	–	–	44	–	–	–	–	–	3	4	1	–	2
Tenn.	–	–	NN	–	–	–	–	–	–	–	–	–	–
Ala.	4	–	42	–	–	–	–	–	16	8	6	–	2
Miss.	–	–	31	–	–	–	1	–	3	6	–	–	–
W.S. CENTRAL	7	–	447	–	–	3	–	–	28	92	71	–	39
Ark.	–	–	5	–	–	1	–	–	1	8	8	–	2
La.	1	–	NN	–	–	–	–	–	10	12	8	–	14
Okla.	1	–	–	–	–	–	–	–	5	12	10	–	7
Tex.	5	–	442	–	–	2	–	–	12	60	45	–	16
MOUNTAIN	1	–	159	–	–	1	1	–	6	30	27	–	20
Mont.	–	–	16	–	–	–	–	–	–	2	–	–	–
Idaho	–	–	1	–	–	–	–	–	–	1	–	–	–
Wyo.	–	–	–	–	–	–	–	–	–	–	–	–	2
Colo.	1	–	142	–	–	1	–	–	6	17	1	–	9
N. Mex.	–	–	–	–	–	–	–	–	–	–	–	–	1
Ariz.	–	–	NN	–	–	–	–	–	–	10	26	–	7
Utah	–	–	–	–	–	–	1	–	–	–	–	–	–
Nev.	–	–	–	–	–	–	–	–	–	–	–	–	1
PACIFIC	15	2	247	–	–	1	4	1	70	99	38	6	218
Wash.	1	2	221	–	–	–	–	–	2	9	2	–	25
Oreg.	1	–	2	–	–	–	2	1	10	13	1	–	13
Calif.	10	–	–	–	–	–	2	–	51	74	29	5	172
Alaska	–	–	2	–	–	–	–	–	1	–	2	1	2
Hawaii	3	–	22	–	–	1	–	–	6	3	4	–	6
Guam	NA	NA	NA	NA	–	NA	–	–	NA	NA	NA	NA	1
P.R.	–	–	33	–	–	–	–	–	4	12	9	–	1
V.I.	NA	NA	NA	NA	–	NA	–	–	NA	NA	NA	NA	–
Pac. Trust Terr.	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 May 3, 1980, and May 5, 1979 (18th week)

REPORTING AREA	MEASLES (RUBEOLA)			MENINGOCOCCAL INFECTIONS TOTAL			MUMPS		PERTUSSIS	RUBELLA		TETANUS
	1980	CUM. 1980	CUM. 1979*	1980	CUM. 1980	CUM. 1979*	1980	CUM. 1980	1980	1980	CUM. 1980	CUM. 1980
UNITED STATES	695	6,860	6,820	50	1,142	1,184	244	4,737	38	139	1,845	14
NEW ENGLAND	17	464	193	4	68	47	23	452	–	12	140	–
Maine	–	21	4	–	2	1	20	229	–	4	57	–
N.H.	11	215	15	–	4	5	–	11	–	2	24	–
Vt.	1	196	67	1	7	3	1	4	–	–	–	–
Mass.	5	27	7	1	25	15	1	111	–	6	42	–
R.I.	–	2	100	1	6	2	–	14	–	–	7	–
Conn.	–	3	–	1	24	21	1	83	–	–	10	–
MID. ATLANTIC	250	2,027	628	11	189	171	5	523	19	44	237	2
Upstate N.Y.	29	391	327	6	67	61	2	65	18	18	108	1
N.Y. City	60	517	260	3	57	45	2	35	–	13	51	–
N.J.	48	407	28	–	34	46	–	64	–	9	55	–
Pa.	113	712	13	2	31	19	1	359	1	4	23	1
E.N. CENTRAL	69	1,001	1,636	1	122	124	124	1,913	1	44	473	–
Ohio†	–	148	37	–	42	44	83	814	–	–	2	–
Ind.	4	51	112	–	20	29	3	72	1	16	175	–
Ill.	24	189	824	–	17	3	6	215	–	17	114	–
Mich.	4	172	435	1	35	34	23	613	–	1	100	–
Wis.	37	441	228	–	8	14	9	199	–	10	82	–
W.N. CENTRAL	98	831	795	3	42	41	5	156	–	1	142	2
Minn.	93	656	446	1	12	7	–	9	–	–	21	1
Iowa	–	–	14	–	5	5	–	24	–	–	3	–
Mo.	–	59	317	1	14	21	2	61	–	–	33	–
N. Dak.	–	–	6	–	1	1	–	3	–	–	5	–
S. Dak.	–	–	1	1	4	2	–	1	–	–	–	–
Nebr.	–	59	–	–	–	–	–	9	–	–	–	–
Kans.	5	57	11	–	6	5	3	49	–	1	80	1
S. ATLANTIC	141	1,328	973	14	286	292	49	483	13	12	169	3
Del.	–	1	–	–	2	5	–	32	–	–	–	–
Md.	5	32	6	–	27	20	36	178	–	1	1	–
D.C.	–	–	–	–	1	–	–	2	–	–	–	–
Va.	3	217	101	1	22	41	1	44	–	5	23	1
W. Va.	1	13	42	–	8	3	4	53	–	–	17	–
N.C.	17	93	97	6	57	43	3	69	2	1	40	–
S.C.	5	120	90	3	37	39	2	11	–	3	48	1
Ga.	92	599	144	1	58	45	–	1	6	–	–	–
Fla.	18	253	493	3	74	96	3	86	5	2	40	1
E.S. CENTRAL	6	137	87	4	111	90	13	625	2	4	65	1
Ky.	–	34	15	2	33	13	10	571	–	3	31	1
Tenn.	4	25	16	–	26	28	–	18	–	1	30	–
Ala.	1	17	41	1	32	23	–	10	–	–	3	–
Miss.	1	61	15	1	20	26	3	26	2	–	1	–
W.S. CENTRAL	78	524	721	4	125	199	10	158	1	8	67	2
Ark.	–	5	6	–	7	16	–	14	–	–	1	1
La.	–	9	186	–	46	85	4	48	–	–	5	–
Okla.	76	399	21	2	12	17	–	–	–	–	1	–
Tex.	2	111	508	2	64	81	6	96	1	8	60	1
MOUNTAIN	14	124	154	2	35	51	3	121	2	2	50	–
Mont.	–	1	43	–	1	4	–	4	–	–	3	–
Idaho	–	–	3	–	3	4	–	11	–	–	9	–
Wyo.	–	–	18	–	2	–	–	–	–	–	–	–
Colo.	–	5	13	1	11	2	2	24	2	–	2	–
N. Mex.	–	2	28	–	6	4	–	–	–	–	5	–
Ariz.	14	74	29	1	5	27	1	18	–	–	9	–
Utah	–	39	15	–	1	5	–	22	–	2	19	–
Nev.	–	3	5	–	6	5	–	5	–	–	3	–
PACIFIC	22	424	1,633	7	160	169	12	306	–	12	502	4
Wash.	9	127	876	–	26	25	4	94	–	1	40	–
Oreg.	–	–	48	–	32	12	–	41	–	–	28	–
Calif.	13	291	644	7	100	122	8	163	–	11	432	4
Alaska	–	3	15	–	2	3	–	4	–	–	1	–
Hawaii	–	3	50	–	–	7	–	4	–	–	1	–
Guam	NA	2	2	–	–	–	NA	3	NA	NA	–	–
P.R.	2	48	171	–	7	–	4	84	1	1	7	3
V.I.	NA	4	2	–	1	3	NA	1	NA	NA	–	–
Pac. Trust Terr.	NA	3	5	–	–	1	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 May 3, 1980, and May 5, 1979 (18th week)

REPORTING AREA	TUBERCULOSIS		TULAREMIA	TYPHOID FEVER		TYPHUS FEVER (Tick-borne) (RMSF)		VENEREAL DISEASES (Civilian)						RABIES (in Animals)
								GONORRHEA			SYPHILIS (Pri. & Sec.)			
	1980	CUM. 1980	CUM. 1980	1980	CUM. 1980	1980	CUM. 1980	1980	CUM. 1980	CUM. 1979*	1980	CUM. 1980	CUM. 1979*	CUM. 1980
UNITED STATES	528	9,010	26	5	100	8	28	18,212	324,422	327,254	439	9,112	8,347	2,018
NEW ENGLAND	16	267	–	–	5	–	1	460	8,390	8,459	14	260	157	15
Maine	1	18	–	–	–	–	–	36	514	589	–	3	3	14
N.H.	–	6	–	–	–	–	–	16	289	293	–	–	11	–
Vt.	–	9	–	–	–	–	–	7	215	161	1	3	–	–
Mass.	6	134	–	–	3	–	1	201	3,305	3,436	5	163	96	1
R.I.	3	33	–	–	1	–	–	25	497	696	–	11	4	–
Conn.	6	67	–	–	1	–	–	175	3,510	3,284	8	80	43	–
MID. ATLANTIC	73	1,548	1	1	27	–	2	1,768	35,262	34,978	62	1,289	1,287	2
Upstate N.Y.	13	290	–	–	5	–	–	398	6,422	5,517	4	102	102	–
N.Y. City	19	548	1	–	11	–	–	800	14,137	13,577	46	840	865	–
N.J.	21	339	–	–	3	–	1	176	6,079	6,932	8	172	177	2
Pa.	20	371	–	1	8	–	1	394	8,624	8,952	4	175	143	–
E.N. CENTRAL	108	1,303	1	–	10	–	–	2,739	51,448	50,332	22	860	1,169	292
Ohio	13	221	–	–	3	–	–	468	13,688	13,436	–	138	215	12
Ind.	16	149	–	–	–	–	–	341	5,117	4,284	6	78	68	34
Ill.	25	479	–	–	3	–	–	1,092	16,440	16,372	13	476	718	179
Mich.	52	383	1	–	3	–	–	557	11,120	11,787	–	130	132	–
Wis.	2	71	–	–	1	–	–	281	5,083	4,453	3	38	36	67
W.N. CENTRAL	9	290	9	1	2	–	2	755	14,442	15,811	5	97	115	580
Minn.	–	39	1	1	1	–	–	13	2,439	2,698	2	35	36	57
Iowa	–	27	4	–	–	–	–	83	1,590	2,031	–	4	18	120
Mo.	7	144	3	–	–	–	2	439	6,252	6,713	2	53	42	159
N. Dak.	1	12	–	–	–	–	–	18	211	270	–	–	–	49
S. Dak.	–	15	–	–	1	–	–	40	430	519	–	1	–	111
Nebr.	–	12	1	–	–	–	–	15	1,141	1,021	–	2	2	28
Kans.	1	41	–	–	–	–	–	147	2,379	2,559	1	2	17	56
S. ATLANTIC	130	2,030	7	–	16	7	13	4,706	77,994	77,690	110	2,177	2,022	131
Del.	–	28	–	–	1	–	–	42	1,065	1,244	–	5	12	–
Md.†	17	263	1	–	1	1	1	596	8,254	9,476	4	152	146	–
D.C.	24	114	–	–	3	–	–	282	5,645	4,654	5	153	150	–
Va.	15	231	–	–	2	–	1	423	6,712	7,417	8	188	203	1
W. Va.	5	81	–	–	1	–	–	65	991	1,124	2	8	28	3
N.C.	22	356	2	–	1	4	7	568	11,659	11,652	8	159	176	–
S.C.	7	168	–	–	2	1	2	417	7,529	6,939	5	107	100	19
Ga.	–	253	4	–	–	–	–	1,229	14,658	15,111	41	658	531	76
Fla.	40	536	–	–	5	1	2	1,084	21,481	20,073	37	747	676	32
E.S. CENTRAL	27	832	2	–	3	–	2	1,468	26,911	27,849	50	727	533	120
Ky.	10	180	–	–	1	–	–	214	3,836	3,678	4	55	57	55
Tenn.	5	265	2	–	–	–	2	454	9,584	9,606	31	286	219	57
Ala.	12	241	–	–	1	–	–	401	7,804	8,476	6	149	106	8
Miss.	–	146	–	–	1	–	–	399	5,687	6,089	9	237	151	–
W.S. CENTRAL	67	882	2	–	3	1	8	2,467	41,798	43,019	69	1,709	1,390	626
Ark.	17	83	2	–	–	1	4	121	3,055	3,547	–	61	42	82
La.	14	184	–	–	–	–	–	434	7,323	7,571	11	399	320	5
Okla.	3	86	–	–	1	–	2	216	4,087	3,815	3	28	26	105
Tex.	33	529	–	–	2	–	2	1,696	27,333	28,086	55	1,221	1,002	434
MOUNTAIN	16	244	2	1	7	–	–	564	12,461	12,899	5	209	152	52
Mont.	–	12	–	–	1	–	–	32	463	675	1	1	6	3
Idaho	–	9	1	–	–	–	–	37	612	542	1	13	11	–
Wyo.	–	13	–	–	–	–	–	18	363	303	–	7	3	–
Colo.	3	23	–	–	2	–	–	181	3,293	3,464	2	55	39	–
N. Mex.	2	54	–	–	1	–	–	64	1,588	1,642	–	41	24	16
Ariz.	7	109	1	1	2	–	–	105	3,401	3,575	–	62	42	33
Utah	4	11	–	–	1	–	–	20	601	653	–	5	3	–
Nev.	–	13	–	–	–	–	–	107	2,140	2,045	1	25	24	–
PACIFIC	82	1,614	2	2	27	–	–	3,285	55,716	56,217	102	1,784	1,522	200
Wash.	8	129	–	–	–	–	–	387	4,784	4,805	NA	73	92	–
Oreg.	4	74	–	2	4	–	–	214	3,924	3,578	2	39	75	–
Calif.	62	1,373	2	–	23	–	–	2,579	44,957	45,078	97	1,608	1,310	157
Alaska	8	24	–	–	–	–	–	67	1,295	1,819	–	3	7	43
Hawaii	–	14	–	–	–	–	–	38	756	937	3	61	38	–
Guam	NA	11	–	NA	–	NA	–	NA	27	34	NA	–	–	–
P.R.	2	48	–	–	–	–	–	36	911	723	8	192	178	16
V.I.	NA	–	–	NA	–	NA	–	NA	54	62	NA	7	–	–
Pac. Trust Terr.	NA	7	–	NA	–	NA	–	NA	94	163	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 May 3, 1980 (18th week)

REPORTING AREA	ALL CAUSES, BY AGE (YEARS)					P&I** TOTAL
	ALL AGES	≥65	45-64	25-44	<1	
NEW ENGLAND	658	428	161	46	11	38
Boston, Mass.	171	90	48	25	3	8
Bridgeport, Conn.	48	34	8	5	1	4
Cambridge, Mass.	19	14	5	–	–	2
Fall River, Mass.	24	18	5	1	–	1
Hartford, Conn.	68	44	21	3	–	1
Lowell, Mass.	22	15	7	–	–	–
Lynn, Mass.	14	11	3	–	–	–
New Bedford, Mass.	35	28	6	–	1	4
New Haven, Conn.	44	27	8	4	1	1
Providence, R.I.	72	45	22	3	2	5
Somerville, Mass.	2	2	–	–	–	–
Springfield, Mass.	39	26	6	3	1	6
Waterbury, Conn.	43	33	8	1	1	3
Worcester, Mass.	57	41	14	1	1	3
MID. ATLANTIC	2,592	1,696	605	146	71	115
Albany, N.Y.	53	35	9	4	3	1
Allentown, Pa.	27	23	4	–	–	–
Buffalo, N.Y.	112	78	28	1	3	4
Camden, N.J.	31	21	9	–	1	2
Elizabeth, N.J.	28	22	4	1	–	2
Erie, Pa.†	38	24	9	1	2	2
Jersey City, N.J.	48	32	12	3	1	1
Newark, N.J.	117	52	35	16	7	10
N.Y. City, N.Y.	1,288	861	295	75	21	50
Paterson, N.J.	19	10	5	1	3	–
Philadelphia, Pa.†	324	184	82	27	19	19
Pittsburgh, Pa.†††	130	80	35	6	5	5
Reading, Pa.	38	24	12	1	–	5
Rochester, N.Y.	123	92	21	3	3	7
Schenectady, N.Y.	21	17	3	–	–	–
Scranton, Pa.†	21	15	5	1	–	–
Syracuse, N.Y.	80	59	16	2	2	2
Trenton, N.J.	44	25	13	4	1	2
Utica, N.Y.	22	18	4	–	–	2
Yonkers, N.Y.	28	24	4	–	–	1
E.N. CENTRAL	2,275	1,398	577	156	73	58
Akron, Ohio	74	49	14	4	3	–
Canton, Ohio	45	27	13	4	–	–
Chicago, Ill.	552	327	145	46	17	7
Cincinnati, Ohio	158	105	29	11	7	13
Cleveland, Ohio	164	91	49	16	3	2
Columbus, Ohio	135	84	31	8	6	4
Dayton, Ohio	103	67	21	7	4	4
Detroit, Mich.	265	146	86	19	8	5
Evansville, Ind.	32	23	6	1	2	1
Fort Wayne, Ind.	68	41	18	2	3	3
Gary, Ind.	10	7	2	1	–	1
Grand Rapids, Mich.	55	38	11	5	1	6
Indianapolis, Ind.	146	83	46	7	2	1
Madison, Wis.	20	10	3	4	3	–
Milwaukee, Wis.	147	96	36	9	3	1
Peoria, Ill.	52	34	12	3	1	5
Rockford, Ill.	51	41	6	3	–	1
South Bend, Ind.	49	32	11	1	5	2
Toledo, Ohio	90	62	21	2	3	2
Youngstown, Ohio	59	35	17	3	2	–
W.N. CENTRAL	754	495	155	41	31	25
Des Moines, Iowa	53	38	9	2	1	3
Duluth, Minn.	23	17	3	1	–	–
Kansas City, Kans.	38	23	9	2	2	2
Kansas City, Mo.	98	62	22	4	7	2
Lincoln, Nebr.	28	21	5	1	–	3
Minneapolis, Minn.	98	61	17	8	5	4
Omaha, Nebr.	100	70	20	5	5	2
St. Louis, Mo.	153	105	31	8	4	4
St. Paul, Minn.	72	48	15	3	4	–
Wichita, Kans.	91	50	24	7	3	5

REPORTING AREA	ALL CAUSES, BY AGE (YEARS)					P&I** TOTAL
	ALL AGES	≥65	45-64	25-44	<1	
S. ATLANTIC	1,224	718	312	74	63	36
Atlanta, Ga.	148	73	46	15	6	6
Baltimore, Md.	186	107	58	9	5	3
Charlotte, N.C.	67	34	23	6	3	1
Jacksonville, Fla.	122	79	29	6	2	2
Miami, Fla.	120	79	30	6	–	2
Norfolk, Va.	53	27	13	2	8	3
Richmond, Va.	82	48	20	6	4	6
Savannah, Ga.	38	21	9	2	2	1
St. Petersburg, Fla.	93	78	12	–	2	5
Tampa, Fla.	82	49	19	5	4	2
Washington, D.C.	181	98	41	15	17	5
Wilmington, Del.	52	25	12	2	10	–
E.S. CENTRAL	685	406	167	52	29	30
Birmingham, Ala.	102	58	30	6	3	1
Chattanooga, Tenn.	58	44	6	2	4	2
Knoxville, Tenn.	54	32	15	3	3	1
Louisville, Ky.	87	55	21	4	1	5
Memphis, Tenn.	159	86	41	21	4	11
Mobile, Ala.	63	34	17	7	2	1
Montgomery, Ala.	53	23	13	7	7	4
Nashville, Tenn.	109	74	24	2	5	5
W.S. CENTRAL	1,249	735	300	109	42	47
Austin, Tex.	51	42	6	3	–	3
Baton Rouge, La.	31	15	9	3	1	1
Corpus Christi, Tex.	55	30	17	3	3	–
Dallas, Tex.	197	113	47	21	5	4
El Paso, Tex.	46	25	12	2	2	–
Fort Worth, Tex.	95	69	14	9	1	15
Houston, Tex.	195	88	61	22	9	9
Little Rock, Ark.	73	44	19	5	4	2
New Orleans, La.	159	84	45	12	6	–
San Antonio, Tex.	207	133	42	18	9	7
Shreveport, La.	63	41	14	4	1	3
Tulsa, Okla.	77	51	14	7	1	3
MOUNTAIN	639	372	156	53	26	10
Albuquerque, N. Mex.	71	36	20	10	2	–
Colo. Springs, Colo.	30	20	8	1	–	2
Denver, Colo.	121	72	29	7	7	2
Las Vegas, Nev.	67	29	26	9	–	2
Ogden, Utah	17	9	5	–	1	–
Phoenix, Ariz.	149	81	35	15	7	–
Pueblo, Colo.	21	14	5	1	1	1
Salt Lake City, Utah	58	32	13	4	6	2
Tucson, Ariz.	105	79	15	6	2	1
PACIFIC	1,727	1,154	373	95	56	51
Berkeley, Calif.	17	12	3	1	1	–
Fresno, Calif.	50	35	11	–	2	3
Glendale, Calif.	42	35	6	–	–	1
Honolulu, Hawaii	75	50	15	5	3	2
Long Beach, Calif.	97	61	27	1	4	5
Los Angeles, Calif.	473	305	103	40	13	6
Oakland, Calif.	65	38	20	2	3	5
Pasadena, Calif.	39	30	5	1	–	2
Portland, Oreg.	139	100	29	4	5	2
Sacramento, Calif.	77	47	20	3	4	5
San Diego, Calif.	136	93	32	7	3	2
San Francisco, Calif.	116	86	23	4	–	2
San Jose, Calif.	148	99	27	11	8	8
Seattle, Wash.	158	99	32	10	9	5
Spokane, Wash.	48	33	9	3	–	3
Tacoma, Wash.	47	31	11	3	1	–
TOTAL	11,803	7,402	2,806	772	402	410

*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.

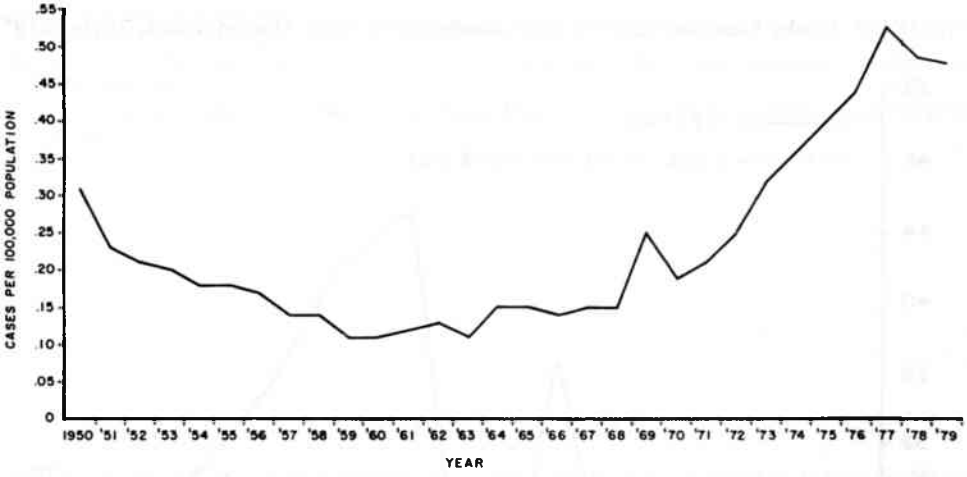
††Data not available this week. Figures are estimates based on average percent of regional total.

Surveillance Summary

Rocky Mountain Spotted Fever — United States, 1979

A provisional total of 1,067 cases of Rocky Mountain spotted fever (RMSF) were reported to CDC for 1979. This is almost identical to the 1978 total of 1,063, but 7.5% less than the 1977 high of 1,153. The overall incidence dropped slightly in 1979, from 0.49/100,000 to 0.48/100,000 (Figure 1).

FIGURE 1. Rocky Mountain spotted fever, reported cases per 100,000 population, by year, United States, 1950-1979*



*1979 total is provisional.

The South Atlantic states accounted for 600, or 56.2% of all reported cases. The incidence rate of RMSF was highest in North Carolina, which had 4.34/100,000 (243 cases), followed by South Carolina (2.73/100,000; 80 cases), Oklahoma (2.18/100,000; 63 cases), Maryland (1.81/100,000; 75 cases), Virginia (1.73/100,000; 90 cases), Tennessee (1.71/100,000; 75 cases), and Georgia 1.62/100,000; 83 cases).

States submitted case-report forms on 961 (90.1%) of all reported cases. Of these, 504 were confirmed by Weil-Felix agglutination, complement-fixation (CF), or micro-immunofluorescent (MIF) techniques. The age distribution (58.1% <20 years old), male/female ratio (1.63:1), and race (86.2% white) changed little from 1978. However, the case-fatality rate dropped in 1979—from 3.7% to 3.1% (Figure 2). This decrease was most striking among those at highest risk, namely, persons 40 and older (10.0% to 5.1%) and blacks (16.4% to 7.0%).

Although cases occurred throughout the year, 89.9% had onset between the 15th and 36th weeks (early April through early September).

Reported by Respiratory and Special Pathogens Br, Viral Diseases Div, Bur of Epidemiology, CDC.

Editorial Note: Reported cases and incidence of RMSF have leveled off over the past 3 years, after a sustained climb from a low of 0.11/100,000 in 1959 (*1,2*).

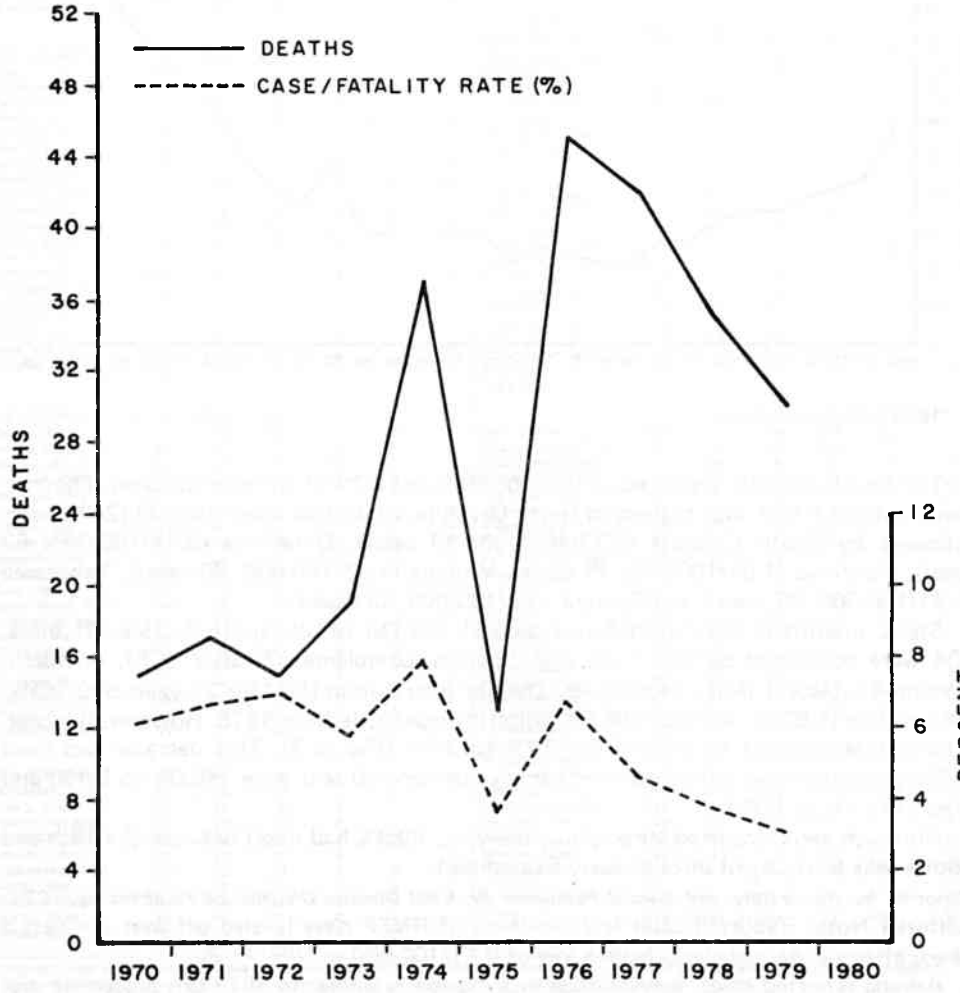
Among reported cases, age/sex/race distribution is similar to 1978 (*3*), suggesting that the decrease in mortality rates for blacks and those 40 and older is not a reporting artifact.

Rocky Mountain Spotted Fever — Continued

This may be due to greater awareness and earlier treatment of illness or to greater access to health care. Despite these decreases, RMSF mortality rates, when calculated by race and age, continue to be highest among blacks and persons ⩾40, respectively. A rash is seen less frequently, and a laboratory diagnosis is made more frequently in these groups—suggesting that the clinical diagnosis is more difficult.

Further reduction in mortality will rely on early diagnosis of the presenting symptoms of fever, headache, rash, and myalgia in persons who have a history of possible tick exposure. Lack of known tick exposure, late onset of rash, and gastrointestinal complaints are more frequent in fatal cases (*4*). Serologic confirmation of the clinical diagnosis,

FIGURE 2. Rocky Mountain spotted fever, death-to-case ratio, United States, 1970-1979*



*Based on case-report form data; 1979 figure is preliminary.

Rocky Mountain Spotted Fever — Continued

by the Weil-Felix agglutination test or, preferably, the more specific CF or MIF tests (*5*), is not possible until the 10th-14th day of illness.

Since ticks must be attached for several hours before infection can occur, the only preventive measure available for those persons, such as hikers, who are likely to be exposed to ticks is to check for them frequently. No vaccine is currently available, although one is in the early stages of development.

References

1. CDC: Rickettsial disease surveillance report no. 1 1975-1978. Atlanta: CDC, 1979. (DHEW publication no. (CDC)79-8379).
2. D'Angelo LJ, Winkler WG, Bregman DJ. Rocky Mountain spotted fever in the United States, 1975-77. J Infect Dis 1978;138:273-6.
3. MMWR 1979:28:181-2.
4. Hattwick MAW, Retailliau H, O'Brien RJ, et al. Fatal Rocky Mountain spotted fever. JAMA 1978; 240:1499-1503.
5. Hechemy KE. Laboratory diagnosis of Rocky Mountain spotted fever. N Engl J Med 1979;300: 859-60.

Erratum, Vol. 29, No. 17

p203 In the article, "Legionellosis in a Child — Kentucky," a name in the credit section was misspelled. The correct name and affiliation are: CM Cottrill, MD, University of Kentucky Medical Center, Lexington.

The Morbidity and Mortality Weekly Report, circulation 88,700, is published by the Center for Disease Control, Atlanta, Georgia. The data in this report are provisional, based on weekly telegraphs to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday.

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

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

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
PUBLIC HEALTH SERVICE / CENTER FOR DISEASE CONTROL
ATLANTA, GEORGIA 30333 **OFFICIAL BUSINESS**

Postage and Fees Paid
U.S. Department of HHS
HHS 396

HHS Publication No. (CDC) 80-8017