CENTERS FOR DISEASE CONTROL

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MORBIDITY AND MORTALITY WEEKLY REPORT

Current Trends

Rubella — United States, 1978-1981

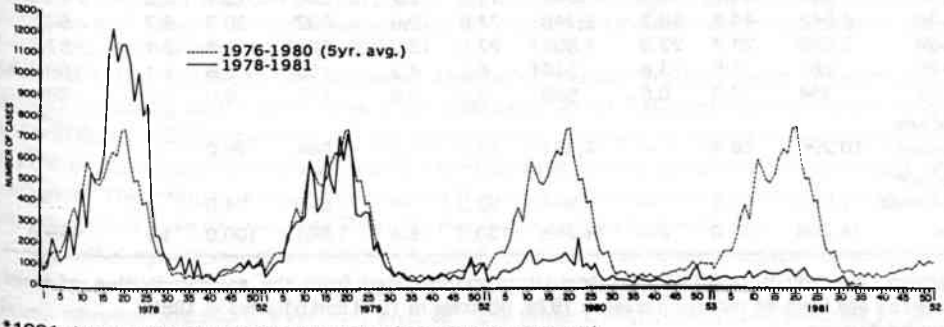
A record low number of 3,904 cases of rubella was reported in the United States for 1980. This was 66.9% less than the 1979 total of 11,795 cases, the previous record low. Between 1978 and 1980, the number of reported rubella cases declined 78.6%. This trend continued throughout the first 35 weeks of 1981 (ending September 5), when 1,717 cases of rubella were reported, a 46.3% decline from the 3,196 cases reported for the same period in 1980 (Figure 1).

Age-specific data were available for 2,964 (76.0%) of the cases reported for 1980. The reported age-specific incidence rate of rubella has decreased for all age groups over the past 2 years, with the greatest decline being that for the 15- to 24-year-old group (Table 1). This has resulted in a marked change in the age-specific characteristics. In 1978, the highest age-specific incidence rate was for 15- to 19-year olds. From 1978 through 1979, 73.8% of the reported cases of rubella were among persons ≥15 years old. For 1980, only 46.6% of the cases were reported among persons ≥15 years old, and the highest incidence rate was for the <5-year olds.

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

Editorial Note: Initially, rubella-control programs in the United States emphasized vaccination of preschool and elementary school children; vaccination of older individuals received only secondary emphasis. This strategy caused a dramatic decline in reported rubella and eliminated the characteristic 6- to 9-year cycle of epidemic rubella (*1*). There was also a marked change in the age characteristics for reported rubella cases. Whereas rubella was considered a disease of young children before vaccine licensure in 1969, from 1976 through 1979 approximately 70% of reported rubella cases were among individuals >15 years of age and the highest incidence rate was for the 15- to 19-year olds (*2*).

FIGURE 1. Rubella cases, by week of report, United States, 1978-1981*



*1981 data is through the first 35 weeks (ending September 5).

Rubella — Continued

The 1980 and 1981 surveillance data show a continuation of the rapid decline in reported rubella to record low levels. Much of this recent decrease is probably due to the Childhood Immunization Initiative which began in 1977. The goal of the initiative was to achieve and maintain immunization levels in excess of 90% for all childhood, vaccine-preventable diseases, including rubella. Because of improvement in and better enforcement of school immunization laws, rubella vaccination is now required in many states. The Measles Elimination Initiative, begun in 1978, has probably further influenced reduction in the incidence of rubella since most of the measles vaccine administered during this program has been given as MMR (measles, mumps, rubella vaccine) or MR (measles, rubella vaccine).

Data on age-specific incidence rates for 1980 show that rates for adolescents and young adults are now similar to those for young children. This shift probably results from the fact that the young children who were targeted for vaccination in 1969 moved into older age groups and from the increased effort over the past 2-3 years to vaccinate adolescents and young adults. Increased efforts to vaccinate adolescents and young adults were prompted by continued reporting of 27-50 cases of congenital rubella syndrome per year from 1971 through 1979 (*1*) and by the knowledge that 10%-25% of adolescents and adults were susceptible to rubella (*3-5*).

The current strategy for rubella control is based on continued routine vaccination of all children ≥12 months of age, vaccination of all school children not vaccinated in infancy and vaccination of susceptible adults—particularly females and/or hospital personnel (*6*). Such a combined strategy, if applied rigorously, may eliminate both rubella and the congenital rubella syndrome in the United States.

References

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2. CDC. Rubella—United States 1977-1980. MMWR 1980;29:378-80.
3. Schiff GM, Linnemann CC Jr, Shea L, et al. Rubella surveillance and immunization among college women. Obstet Gynecol 1974;43:142-7.

TABLE 1. Percentage distribution and incidence rates* of reported rubella cases, by age, United States, 1978-1980

Age (years)	1978			1979			1980			Percentage rate change 1978-1980
	Number	%	Rate	Number	%	Rate	Number	%	Rate	
<5	786	7.6	9.0	799	10.0	7.5	715	24.1	5.8	−35.6
5-9	619	6.0	6.5	583	7.3	5.2	477	16.1	3.8	−41.5
10-14	1,051	10.2	10.0	943	11.8	7.7	390	13.1	2.8	−72.0
15-19	4,543	44.1	38.3	2,748	34.6	19.6	602	20.3	3.7	−90.3
20-24	2,540	24.7	22.3	1,803†	22.6	13.0	438†	14.8	2.7	−87.9
25-29	363	3.5	3.6	516†	6.5	4.2	165†	5.6	1.1	−69.4
≥30	394	3.8	0.6	569	7.2	0.8	177	6.0	0.2	−66.7
Total age known	10,296	56.4	—	7,961	67.7	—	2,964	76.0	—	—
Total age unknown	7,973	43.6	—	3,834	82.3	—	940	24.0	—	—
Total	**18,269**	**100.0**	**8.4**	**11,795**	**100.0**	**5.4**	**3,904**	**100.0**	**1.7**	**−79.8**

*Incidence rate equals cases/100,000 population extrapolated from the age distribution of cases reported by age from 44 reporting areas in 1978, 46 areas in 1979 and 51 areas in 1980.
†Excludes Arizona.

Rubella — Continued

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Epidemiologic Notes and Reports

Raynaud's Phenomenon in a Foundry — Wisconsin

A high prevalence of Raynaud's phenomenon (also called vibration-induced white finger, or VWF) among metal foundry workers exposed to hand vibration when using air hammers and grinding tools was recently found in a National Institute for Occupational Safety and Health (NIOSH) investigation.

In June 1980, the International Molders and Allied Workers Union requested that NIOSH evaluate 74 men employed as chippers and grinders in 2 metal casting cleaning rooms (51 in Room A and 23 in Room B) at a foundry in Wisconsin. In August and September 1980, NIOSH investigators conducted medical evaluations and assessed vibration exposure.

Sixty-four employees (47 in Room A and 17 in Room B) were interviewed and examined. Fifty-five percent (26/47) of Room A employees and 18% (3/17) of Room B employees reported experiencing symptoms of Raynaud's phenomenon since beginning work as chippers. Men who were symptomatic also tended to have decreased sensory abilities in their hands. Of 14 men with 3 or more years of work as chippers in Room A, 2 had not suffered episodes of Raynaud's phenomenon.

Assessment of vibration exposure revealed that the chipping hammer (a tool similar to a small jackhammer used to remove excess metal from castings) had handle accelerations in the range of 15-60 x *g* (comparable to those of similar tools previously measured by NIOSH [*1*]), and the handles of the grinding machines had accelerations in the range of 15-20 x *g* (15-50 times the level of similar tools previously measured by NIOSH). Room A employees used the chipping hammer approximately 2-3 hours/day and the grinding machines 4-5 hours/day, while Room B employees used vibrating tools to a lesser extent because the Room B castings required less thorough or precise metal removal. The lower prevalance of Raynaud's symptoms in Room B employees may be due to the lower mean years of exposure of these workers (Room B, 2.3 years; Room A, 4.1 years) and the lesser time per day that they used vibrating tools.

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Editorial Note: European and American studies of foundry workers using chippers and of loggers operating chain saws have shown prevalences of Raynaud's phenomenon ranging from 20% to 90% (depending on the duration and intensity of vibration exposure), while <10% of male controls not exposed to vibration experienced symptoms of Raynaud's phenomenon. The increased risk of developing Raynaud's phenomenon due to long-term use of vibrating hand tools has received little attention in the United States (*2-5*).

The initial symptoms of vibration-induced Raynaud's phenomenon consist of an episodic blanching and numbness of a fingertip and are usually initiated by exposure to cold. With continued vibration exposure, VWF may involve more fingers, require less cold stimulus for initia-

Raynaud's Phenomenon — Continued

tion and, consequently, occur more frequently. Even persons with only moderately advanced VWF avoid outdoor activities (occupational endeavors, fishing, hunting, etc.) in cool or cold weather, because exposure to cold brings on attacks of Raynaud's phenomenon, and they are unable to grasp objects or safely hold tools. Many persons with advanced disease have decreased sensory abilities in the hand and are unable to grasp small objects or perform fine motor and/or hand movements. A small proportion of workers develop ulceration or gangrene of the fingers because of peripheral arterial occlusion. If vibration exposure is stopped before symptoms become severe, episodes of Raynaud's phenomenon usually subside over a period of several years. The pathogenesis of the initial blanching episodes and subsequent sensory and motor impairment is not well understood, particularly whether the primary lesion is neurologic or vascular (*2,4,5*).

While changes in work practice may lessen an individual worker's vibration exposure, ultimate control of vibration-induced Raynaud's phenomenon depends on development of tools which greatly reduce the vibration imparted to the user's hand.

References

1. Wasserman D, Taylor W, Behrens V, et al. Vibration white finger disease in U.S. workers using pneumatic chipping and grinding hand tools. Cincinnati: National Institute for Occupational Safety and Health (in press).
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TABLE I. Summary — cases of specified notifiable diseases, United States

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

DISEASE	41st WEEK ENDING		MEDIAN	CUMULATIVE, FIRST 41 WEEKS		
	October 17 1981	October 11 1980	1976-1980	October 17 1981	October 11 1980	MEDIAN 1976-1980
Aseptic meningitis	311	243	182	7,095	5,735	4,883
Brucellosis	6	1	3	124	145	145
Chickenpox	855	610	620	169,735	159,880	159,880
Diphtheria	-	-	-	3	2	63
Encephalitis: Primary (arthropod-borne & unspec.)	45	66	39	1,078	914	914
Post-infectious	5	6	6	69	171	183
Hepatitis, Viral: Type B	353	398	287	15,897	14,030	11,807
Type A	414	638	612	19,446	22,110	23,453
Type unspecified	197	232	177	8,549	9,002	6,938
Malaria	21	33	11	1,092	1,611	588
Measles (rubeola)	24	64	87	2,722	13,021	24,375
Meningococcal infections: Total	47	49	40	2,788	2,160	1,940
Civilian	47	49	40	2,777	2,144	1,917
Military	-	-	-	11	16	17
Mumps	40	92	130	3,373	7,392	13,889
Pertussis	26	43	43	954	1,356	1,354
Rubella (German measles)	6	34	48	1,815	3,388	10,890
Tetanus	-	-	1	45	67	58
Tuberculosis	486	577	459	21,208	21,333	22,911
Tularemia	3	8	4	209	181	134
Typhoid fever	26	27	12	455	409	401
Typhus fever, tick-borne (Rky. Mt. spotted)	16	26	16	1,118	1,085	975
Venereal diseases:						
Gonorrhea: Civilian	20,084	23,757	19,845	784,887	789,267	789,267
Military	400	974	393	22,026	21,925	21,796
Syphilis, primary & secondary: Civilian	618	537	497	23,848	20,914	19,022
Military	21	3	3	306	251	244
Rabies in animals	104	108	70	5,789	5,232	2,512

TABLE II. Notifiable diseases of low frequency, United States

	CUM. 1981		CUM. 1981
Anthrax	-	Poliomyelitis: Total	4
Botulism	61	Paralytic	3
Cholera	3	Psittacosis (Ariz. 1, Calif. 2)	88
Congenital rubella syndrome (Calif. 1)	10	Rabies in man	1
Leprosy (Calif. 2)	198	Trichinosis	115
Leptospirosis (Mich. 1)	37	Typhus fever, flea-borne (endemic, murine)	37
Plague	9		

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 October 17, 1981 and October 11, 1980 (41st week)

REPORTING AREA	ASEPTIC MENINGITIS	BRUCELLOSIS	CHICKENPOX	DIPHTHERIA		ENCEPHALITIS			HEPATITIS (VIRAL), BY TYPE			MALARIA	
						Primary		Post-infectious	B	A	Unspecified		
	1981	1981	1981	1981	CUM. 1981	1981	1980	1981	1981	1981	1981	1981	CUM. 1981
UNITED STATES	311	6	855	–	3	45	66	5	353	414	197	21	1,092
NEW ENGLAND	9	–	108	–	–	–	1	–	23	19	15	2	59
Maine	–	–	46	–	–	–	–	–	2	1	1	–	1
N.H.	1	–	4	–	–	–	–	–	–	–	–	–	3
Vt.	–	–	5	–	–	–	–	–	1	3	–	–	6
Mass.	2	–	35	–	–	–	1	–	5	3	14	–	31
R.I.	3	–	5	–	–	–	–	–	2	3	–	–	3
Conn.	3	–	13	–	–	–	–	–	13	9	–	2	15
MID. ATLANTIC	27	–	35	–	–	2	3	–	53	30	13	6	146
Upstate N.Y.	8	–	11	–	–	1	2	–	6	6	2	–	34
N.Y. City	2	–	24	–	–	–	–	–	26	11	4	5	55
N.J.	6	–	NN	–	–	–	–	–	21	13	7	–	42
Pa.	11	–	–	–	–	1	1	–	NA	NA	NA	1	15
E.N. CENTRAL	134	–	356	–	–	27	24	5	51	57	12	–	52
Ohio	69	–	40	–	–	13	10	5	13	12	4	–	8
Ind.	19	–	10	–	–	9	8	–	7	8	1	–	6
Ill.	–	–	18	–	–	–	–	–	6	9	4	–	17
Mich.	46	–	183	–	–	4	4	–	24	26	3	–	21
Wis.	–	–	105	–	–	1	2	–	1	2	–	–	–
W.N. CENTRAL	14	2	83	–	–	3	5	–	20	23	8	1	31
Minn.	6	1	1	–	–	3	–	–	5	3	1	1	12
Iowa	2	1	43	–	–	–	3	–	2	9	–	–	4
Mo.	1	–	1	–	–	–	1	–	5	7	3	–	3
N. Dak.	1	–	4	–	–	–	–	–	–	–	–	–	1
S. Dak.	–	–	–	–	–	–	–	–	–	–	–	–	1
Nebr.	3	–	13	–	–	–	1	–	5	2	3	–	2
Kans.	1	–	21	–	–	–	–	–	3	2	1	–	8
S. ATLANTIC	52	2	116	–	1	4	6	–	91	57	32	4	133
Del.	–	1	–	–	–	–	–	–	2	1	–	–	1
Md.	8	–	15	–	–	1	–	–	32	5	5	3	31
D.C.	–	–	–	–	–	–	–	–	5	2	1	–	9
Va.	19	–	4	–	–	1	1	–	11	1	2	–	27
W. Va.	4	1	55	–	–	1	–	–	2	6	–	–	4
N.C.	3	–	NN	–	–	1	2	–	4	5	4	–	11
S.C.	2	–	–	–	–	–	1	–	3	2	6	–	2
Ga.	2	–	2	–	–	–	–	–	7	6	–	–	8
Fla.	14	–	40	–	1	–	2	–	25	29	14	1	40
E.S. CENTRAL	16	1	23	–	–	1	2	–	19	16	2	–	10
Ky.	1	–	22	–	–	–	–	–	3	6	1	–	–
Tenn.	6	–	NN	–	–	1	–	–	2	4	1	–	–
Ala.	8	–	–	–	–	–	–	–	12	2	–	–	9
Miss.	1	1	1	–	–	–	2	–	2	4	–	–	1
W.S. CENTRAL	13	1	20	–	–	2	20	–	33	93	59	3	87
Ark.	–	–	–	–	–	–	–	–	1	3	3	–	4
La.	1	–	NN	–	–	–	–	–	4	18	16	–	7
Okla.	2	–	–	–	–	1	–	–	8	9	4	–	6
Tex.	10	1	20	–	–	1	20	–	20	63	36	3	70
MOUNTAIN	17	–	9	–	1	1	3	–	14	33	19	2	38
Mont.	1	–	–	–	1	–	–	–	–	1	–	–	1
Idaho	5	–	–	–	–	–	–	–	–	4	–	–	3
Wyo.	–	–	1	–	–	–	–	–	–	1	–	–	–
Colo.	2	–	2	–	–	–	–	–	5	9	3	–	18
N. Mex.	1	–	–	–	–	–	–	–	–	2	3	1	3
Ariz.	6	–	NN	–	–	1	3	–	6	10	12	1	6
Utah	2	–	–	–	–	–	–	–	–	–	–	–	4
Nev.	–	–	6	–	–	–	–	–	3	6	1	–	3
PACIFIC	29	–	105	–	1	5	2	–	49	86	37	3	536
Wash.	4	–	89	–	–	2	–	–	3	11	1	1	25
Oreg.	1	–	–	–	–	–	–	–	12	19	8	–	15
Calif.	24	–	4	–	–	3	–	–	31	54	28	1	486
Alaska	–	–	–	–	1	–	2	–	–	–	–	–	1
Hawaii	–	–	12	–	–	–	–	–	3	2	–	1	9
Guam	NA	NA	NA	NA	–	NA	–	–	NA	NA	NA	NA	2
P.R.	–	–	19	–	–	–	–	–	8	21	14	–	11
V.I.	–	–	–	–	–	–	–	–	–	–	–	–	4
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 October 17, 1981 and October 11, 1980 (41st week)

REPORTING AREA	MEASLES (RUBEOLA)			MENINGOCOCCAL INFECTIONS TOTAL			MUMPS		PERTUSSIS	RUBELLA		TETANUS
	1981	CUM. 1981	CUM. 1980	1981	CUM. 1981	CUM. 1980	1981	CUM. 1981	1981	1981	CUM. 1981	CUM. 1981
UNITED STATES	24	2,722	13,021	47	2,788	2,160	40	3,373	26	6	1,815	45
NEW ENGLAND	4	86	674	3	182	116	1	172	1	2	118	2
Maine	–	5	33	1	22	5	1	33	–	–	33	–
N.H.	–	7	331	–	17	7	–	21	1	2	48	–
Vt.	–	3	226	–	7	14	–	6	–	–	–	–
Mass.	4	61	58	2	60	39	–	47	–	–	25	–
R.I.	–	–	2	–	16	9	–	22	–	–	–	–
Conn.	–	10	24	–	60	42	–	43	–	–	12	2
MID. ATLANTIC	–	824	3,803	12	392	374	3	576	7	–	217	3
Upstate N.Y.	–	215	695	1	129	115	2	118	1	–	105	1
N.Y. City	–	87	1,190	2	64	95	1	80	6	–	54	2
N.J.	–	58	837	3	89	81	–	89	–	–	47	–
Pa.	–	464	1,081	6	110	83	–	289	–	–	11	–
E.N. CENTRAL	–	81	2,430	5	338	276	18	943	4	1	373	7
Ohio	–	16	380	3	130	79	1	155	1	–	3	1
Ind.	–	9	92	–	45	41	1	111	1	–	132	2
Ill.	–	23	342	–	79	81	–	180	1	–	89	–
Mich.	–	30	241	2	79	60	12	316	1	–	34	3
Wis.	–	3	1,375	–	5	15	4	181	–	1	115	1
W.N. CENTRAL	–	9	1,334	2	125	79	4	191	1	–	77	3
Minn.	–	2	1,099	2	44	18	–	8	1	–	6	2
Iowa	–	1	20	–	21	9	1	54	–	–	4	–
Mo.	–	1	65	–	38	37	–	18	–	–	2	1
N. Dak.	–	–	–	–	2	1	–	–	–	–	–	–
S. Dak.	–	–	–	–	5	5	–	1	–	–	–	–
Nebr.	–	4	83	–	–	–	–	3	–	–	1	–
Kans.	–	1	67	–	15	9	3	107	–	–	64	–
S. ATLANTIC	12	440	1,947	12	643	517	4	486	2	2	141	8
Del.	–	–	3	–	4	2	–	10	–	–	1	–
Md.	–	5	83	1	44	46	–	86	–	–	1	–
D.C.	–	1	–	–	3	2	–	3	–	–	–	–
Va.	–	9	327	1	80	50	–	122	1	1	12	–
W. Va.	–	9	9	1	24	18	–	82	–	–	22	–
N.C.	–	3	130	2	95	92	–	18	–	–	5	2
S.C.	–	2	159	3	82	58	–	15	–	–	8	2
Ga.	–	112	826	1	107	92	–	38	–	1	37	1
Fla.	12	299	410	3	204	157	4	112	1	–	55	3
E.S. CENTRAL	–	4	331	3	199	185	1	81	–	–	37	2
Ky.	–	–	55	–	56	58	–	40	–	–	21	–
Tenn.	–	2	170	–	56	50	–	21	–	–	15	–
Ala.	–	2	22	2	62	50	–	16	–	–	1	2
Miss.	–	–	84	1	25	27	1	4	–	–	–	–
W.S. CENTRAL	6	875	950	6	444	236	3	206	–	–	165	11
Ark.	3	21	16	–	26	18	–	5	–	–	3	3
La.	–	4	11	3	109	88	–	5	–	–	9	2
Okla.	–	6	775	–	37	18	–	–	–	–	1	1
Tex.	3	844	148	3	272	112	3	196	–	–	152	5
MOUNTAIN	–	35	473	2	115	84	–	121	1	1	90	2
Mont.	–	–	2	–	9	3	–	10	–	–	4	–
Idaho	–	1	–	–	4	4	–	6	–	–	3	–
Wyo.	–	1	–	–	1	3	–	1	1	1	11	–
Colo.	–	10	24	2	42	21	–	45	–	–	27	–
N. Mex.	–	8	12	–	7	10	–	–	–	–	5	–
Ariz.	–	5	379	–	20	14	–	29	–	–	20	1
Utah	–	–	47	–	5	6	–	17	–	–	8	1
Nev.	–	10	9	–	27	23	–	13	–	–	12	–
PACIFIC	2	368	1,079	2	350	293	6	597	10	–	597	7
Wash.	–	3	177	–	62	51	2	145	3	–	89	–
Oreg.	–	5	–	–	51	47	–	62	–	–	51	–
Calif.	2	353	890	1	222	186	3	357	7	–	445	7
Alaska	–	–	6	1	11	9	–	11	–	–	1	–
Hawaii	–	7	6	–	4	–	1	22	–	–	11	–
Guam	NA	5	6	–	–	1	NA	6	NA	NA	1	–
P.R.	3	283	156	1	11	9	4	139	1	–	4	5
V.I.	–	25	6	–	1	1	–	5	–	–	1	–
Pac. Trust Terr.	NA	1	11	–	–	–	NA	15	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 October 17, 1981 and October 11, 1980 (41st week)

REPORTING AREA	TUBERCULOSIS		TULAREMIA	TYPHOID FEVER		TYPHUS FEVER (Tick-borne) (RMSF)		VENEREAL DISEASES (Civilian)						RABIES (in Animals)
								GONORRHEA			SYPHILIS (Pri. & Sec.)			
	1981	CUM. 1981	CUM. 1981	1981	CUM. 1981	1981	CUM. 1981	1981	CUM. 1981	CUM. 1980	1981	CUM. 1981	CUM. 1980	CUM. 1981
UNITED STATES	486	21,208	209	26	455	16	1,118	20,084	784,887	789,267	618	23,848	20,914	5,789
NEW ENGLAND	14	611	3	–	16	–	9	404	19,719	20,016	9	468	412	39
Maine	3	41	–	–	1	–	–	22	1,021	1,156	–	5	5	13
N.H.	–	18	–	–	–	–	–	9	698	711	–	11	3	7
Vt.	–	20	1	–	–	–	–	9	336	459	1	15	5	–
Mass.	7	345	1	–	8	–	5	128	8,201	8,441	–	297	242	11
R.I.	1	46	–	–	–	–	2	45	1,154	1,282	–	26	26	2
Conn.	3	141	1	–	7	–	2	191	8,309	7,967	8	114	131	6
MID. ATLANTIC	51	3,291	10	3	69	1	40	2,682	94,976	86,960	83	3,483	2,928	96
Upstate N.Y.	14	595	10	–	12	–	14	615	16,281	15,885	3	308	256	67
N.Y. City	20	1,244	–	2	38	–	3	1,348	39,640	33,467	53	2,097	1,894	–
N.J.	8	718	–	–	11	1	10	160	17,896	16,128	17	502	356	21
Pa.	9	734	–	1	8	–	13	559	21,159	21,480	10	576	422	8
E.N. CENTRAL	66	2,885	5	2	35	–	46	2,486	114,803	121,876	13	1,665	1,981	770
Ohio	14	535	–	–	9	–	35	1,156	37,363	32,430	4	233	299	60
Ind.	9	332	4	–	2	–	3	253	10,215	12,098	3	237	150	82
Ill.	30	1,174	–	2	15	–	6	248	30,398	38,268	–	822	1,131	490
Mich.	11	691	1	–	7	–	1	580	25,951	27,784	4	297	326	13
Wis.	2	153	–	–	2	–	–	249	10,876	11,296	2	76	75	125
W.N. CENTRAL	8	732	31	–	18	1	50	1,282	37,788	37,265	19	523	277	2,322
Minn.	2	127	–	–	2	–	2	167	5,723	6,164	4	164	96	402
Iowa	–	71	–	–	3	–	7	85	4,071	4,034	–	21	22	760
Mo.	5	337	25	–	8	–	26	686	17,784	16,334	11	291	129	210
N. Dak.	–	28	–	–	–	–	–	15	476	532	1	8	3	330
S. Dak.	–	53	1	–	1	–	–	28	1,035	1,119	–	2	4	276
Nebr.	–	20	3	–	2	–	3	64	2,797	2,881	2	9	7	168
Kans.	1	96	2	–	2	1	12	237	5,902	6,201	1	28	16	176
S. ATLANTIC	91	4,604	15	1	58	10	643	5,088	195,165	197,819	221	6,431	5,052	490
Del.	1	55	1	–	–	–	3	59	3,110	2,804	–	13	14	1
Md.	10	474	–	–	14	1	58	622	22,986	21,196	14	470	351	40
D.C.	6	279	–	–	1	1	1	214	11,041	13,744	12	526	374	–
Va.	–	468	3	–	1	3	107	332	17,839	18,001	29	558	448	100
W. Va.	3	146	–	–	6	–	6	65	2,966	2,660	1	18	15	25
N.C.	18	807	4	1	3	5	285	1,175	30,181	28,907	17	509	363	16
S.C.	8	427	3	–	1	–	101	412	18,915	18,631	16	444	293	37
Ga.	12	757	4	–	4	–	72	939	40,477	38,597	48	1,596	1,465	189
Fla.	33	1,191	–	–	28	–	10	1,270	47,650	53,279	84	2,297	1,729	82
E.S. CENTRAL	74	1,905	8	–	7	2	129	1,579	65,936	64,259	27	1,571	1,749	393
Ky.	17	468	3	–	–	–	2	276	8,155	9,416	2	78	111	114
Tenn.	17	639	5	–	3	1	80	497	24,932	23,186	8	573	733	187
Ala.	36	524	–	–	2	–	20	522	20,120	19,057	9	461	385	88
Miss.	4	274	–	–	2	1	27	284	12,729	12,600	8	459	520	4
W.S. CENTRAL	73	2,416	94	12	113	1	166	2,744	104,697	99,554	129	5,792	4,200	953
Ark.	7	267	51	–	4	–	38	456	8,221	7,882	2	126	162	133
La.	10	441	5	–	2	–	–	406	18,228	18,138	29	1,322	1,055	33
Okla.	–	263	24	–	4	–	94	335	11,294	10,001	8	130	82	187
Tex.	56	1,445	14	12	103	1	34	1,547	66,954	63,533	90	4,214	2,901	600
MOUNTAIN	11	593	35	–	22	–	28	820	30,979	30,574	14	596	492	235
Mont.	–	28	5	–	4	–	12	38	1,144	1,158	–	11	2	110
Idaho	–	8	4	–	–	–	5	32	1,388	1,305	–	17	16	7
Wyo.	–	9	1	–	–	–	5	8	770	896	1	10	10	17
Colo.	1	71	8	–	8	–	1	260	8,162	8,305	6	178	129	35
N. Mex.	3	116	3	–	–	–	–	87	3,415	3,718	2	105	82	27
Ariz.	7	273	–	–	9	–	–	224	9,293	8,288	4	150	176	25
Utah	–	47	13	–	1	–	2	36	1,549	1,534	1	23	13	9
Nev.	–	41	1	–	–	–	3	135	5,258	5,370	–	102	64	5
PACIFIC	98	4,171	8	8	117	1	7	2,999	120,824	130,944	103	3,319	3,823	491
Wash.	8	304	1	–	3	–	1	341	10,205	11,157	–	112	199	15
Oreg.	4	153	1	–	4	–	–	278	7,465	8,882	3	86	89	9
Calif.	78	3,533	6	5	106	1	6	2,228	97,476	105,212	99	3,053	3,395	451
Alaska	–	48	–	–	–	–	–	91	3,209	3,137	–	12	8	16
Hawaii	8	133	–	3	4	–	–	61	2,469	2,556	1	56	132	–
Guam	NA	28	–	NA	–	NA	–	NA	72	105	NA	–	5	–
P.R.	1	339	–	–	4	–	–	30	2,556	2,155	5	529	489	63
V.I.	–	1	–	–	6	–	–	6	181	108	–	16	10	–
Pac. Trust Terr.	NA	49	–	NA	–	NA	–	NA	329	327	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 October 17, 1981 (41st week)

REPORTING AREA	ALL CAUSES, BY AGE (YEARS)						P&I** TOTAL
	ALL AGES	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	646	458	131	29	12	16	38
Boston, Mass.	180	114	37	15	6	8	16
Bridgeport, Conn.	48	33	11	2	2	–	3
Cambridge, Mass.	29	22	5	1	–	1	7
Fall River, Mass.	22	17	5	–	–	–	–
Hartford, Conn.	62	35	19	4	2	2	–
Lowell, Mass.	24	12	9	2	–	1	–
Lynn, Mass.	17	12	4	–	–	1	–
New Bedford, Mass.	23	16	7	–	–	–	–
New Haven, Conn.	35	26	8	1	–	–	2
Providence, R.I.§	43	41	–	1	–	1	2
Somerville, Mass.	9	9	–	–	–	–	1
Springfield, Mass.	53	40	9	2	1	1	1
Waterbury, Conn.	42	35	7	–	–	–	4
Worcester, Mass.	59	46	10	1	1	1	2
MID. ATLANTIC	2,616	1,724	610	168	68	46	101
Albany, N.Y.	52	35	12	–	4	1	–
Allentown, Pa.	25	20	5	–	–	–	–
Buffalo, N.Y.	150	106	34	5	2	3	17
Camden, N.J.	28	14	8	4	2	–	1
Elizabeth, N.J.	31	24	5	2	–	–	2
Erie, Pa.†	43	29	9	1	1	3	–
Jersey City, N.J.	55	32	22	1	–	–	–
N.Y. City, N.Y.	1,409	946	309	98	36	20	49
Newark, N.J.	67	31	21	8	4	3	4
Paterson, N.J.	29	20	5	1	–	3	1
Philadelphia, Pa.†	200	113	58	17	7	5	6
Pittsburgh, Pa.†	133	82	35	11	3	2	2
Reading, Pa.	40	34	5	1	–	–	2
Rochester, N.Y.	128	89	27	7	3	2	9
Schenectady, N.Y.	19	10	8	1	–	–	–
Scranton, Pa.†	28	19	9	–	–	–	1
Syracuse, N.Y.	79	53	14	5	4	3	3
Trenton, N.J.	43	21	14	5	2	1	–
Utica, N.Y.	22	17	5	–	–	–	3
Yonkers, N.Y.	35	29	5	1	–	–	1
E.N. CENTRAL	2,271	1,468	484	169	65	84	49
Akron, Ohio	96	57	26	4	2	7	–
Canton, Ohio	38	27	6	3	–	2	1
Chicago, Ill.	487	276	126	43	22	20	10
Cincinnati, Ohio	137	93	27	6	2	9	3
Cleveland, Ohio	176	102	51	10	6	7	–
Columbus, Ohio	133	80	32	9	3	9	3
Dayton, Ohio	115	73	22	15	3	2	2
Detroit, Mich.	282	173	55	34	8	12	6
Evansville, Ind.	51	36	11	3	1	–	1
Fort Wayne, Ind.	58	48	7	1	2	–	2
Gary, Ind.	20	11	6	2	–	1	–
Grand Rapids, Mich.	58	40	12	4	1	1	2
Indianapolis, Ind.	156	91	39	18	6	2	4
Madison, Wis.	36	26	1	5	1	3	6
Milwaukee, Wis.	116	87	22	3	2	2	1
Peoria, Ill.	53	38	12	2	1	–	–
Rockford, Ill.	57	37	13	2	3	2	2
South Bend, Ind.	43	37	4	1	–	1	1
Toledo, Ohio§	97	91	–	2	1	2	2
Youngstown, Ohio	62	45	12	2	1	2	3
W.N. CENTRAL	683	437	159	35	28	24	19
Des Moines, Iowa	63	37	16	5	–	5	–
Duluth, Minn.	23	16	6	1	–	–	–
Kansas City, Kans.	33	15	9	3	4	2	–
Kansas City, Mo.	117	76	27	4	6	4	6
Lincoln, Nebr.	35	31	3	–	1	–	2
Minneapolis, Minn.	69	44	13	5	3	4	2
Omaha, Nebr.	90	53	24	6	4	3	2
St. Louis, Mo.	132	85	26	8	7	6	1
St. Paul, Minn.	69	45	20	1	3	–	2
Wichita, Kans.	52	35	15	2	–	–	4
S. ATLANTIC	947	561	248	75	31	31	32
Atlanta, Ga.	107	69	23	11	3	1	6
Baltimore, Md.	84	42	31	6	3	2	–
Charlotte, N.C.	43	19	14	5	2	2	–
Jacksonville, Fla.	103	61	27	7	7	1	1
Miami, Fla.	108	70	21	11	2	4	–
Norfolk, Va.	54	29	19	3	1	2	5
Richmond, Va.	61	34	18	7	–	2	3
Savannah, Ga.	32	14	11	2	2	3	3
St. Petersburg, Fla.	63	55	3	2	1	2	3
Tampa, Fla.	70	41	21	2	4	2	6
Washington, D.C.	177	95	50	17	6	9	5
Wilmington, Del.	45	32	10	2	–	1	–
E.S. CENTRAL	592	357	133	45	29	28	23
Birmingham, Ala.	93	52	21	12	5	3	1
Chattanooga, Tenn.	39	28	9	1	–	1	4
Knoxville, Tenn.	42	32	9	1	–	–	–
Louisville, Ky.	87	54	23	2	5	3	8
Memphis, Tenn.	154	90	29	10	10	15	8
Mobile, Ala.	58	37	12	5	2	2	1
Montgomery, Ala.	36	19	8	5	3	1	1
Nashville, Tenn.	83	45	22	9	4	3	–
W.S. CENTRAL	1,253	709	301	123	74	46	33
Austin, Tex.	54	32	12	3	5	2	1
Baton Rouge, La.	53	40	3	3	2	5	2
Corpus Christi, Tex.	37	21	9	3	1	3	–
Dallas, Tex.	154	88	37	14	7	8	–
El Paso, Tex.	52	31	7	7	4	3	2
Fort Worth, Tex.	79	47	19	7	3	3	8
Houston, Tex.	424	198	117	66	39	4	3
Little Rock, Ark.	45	25	14	2	–	4	5
New Orleans, La.	108	67	25	6	5	5	1
San Antonio, Tex.	145	93	33	7	6	6	5
Shreveport, La.	22	13	8	–	–	1	1
Tulsa, Okla.	80	54	17	5	2	2	5
MOUNTAIN	609	346	141	56	36	30	35
Albuquerque, N.Mex.	94	37	27	15	14	1	4
Colo. Springs, Colo.	47	28	12	4	3	–	9
Denver, Colo.	126	70	23	13	6	14	3
Las Vegas, Nev.	55	28	21	2	1	3	1
Ogden, Utah	19	12	3	4	–	–	3
Phoenix, Ariz.	117	71	24	8	6	8	4
Pueblo, Colo.	20	16	3	1	–	–	2
Salt Lake City, Utah	44	29	7	4	2	2	3
Tucson, Ariz.	87	55	21	5	4	2	6
PACIFIC	1,624	1,077	310	113	59	64	59
Berkeley, Calif.	27	17	5	–	2	3	1
Fresno, Calif.	70	49	8	7	2	4	4
Glendale, Calif.	16	14	1	1	–	–	1
Honolulu, Hawaii	51	28	16	2	1	4	3
Long Beach, Calif.	86	52	24	8	1	1	1
Los Angeles, Calif.	436	292	85	36	14	9	11
Oakland, Calif.	77	45	20	6	3	3	3
Pasadena, Calif.	26	23	–	2	1	–	1
Portland, Oreg.	89	62	11	6	5	5	4
Sacramento, Calif.	60	41	12	1	2	4	4
San Diego, Calif.	165	102	38	10	3	12	6
San Francisco, Calif.	144	94	28	8	6	7	2
San Jose, Calif.	161	118	27	7	6	3	7
Seattle, Wash.	133	84	25	13	6	5	6
Spokane, Wash.	42	28	7	4	1	2	4
Tacoma, Wash.	41	28	3	2	6	2	1
TOTAL	11,241††	7,137	2,517	813	402	369	389

*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.

††Total includes unknown ages.

§Data not available this week. Figures are estimates based on average percent of regional totals.

Raynaud's Phenomenon — Continued

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4. Taylor W. The vibration syndrome. London: Academic Press, 1974.
5. Wasserman D, Taylor W, Curry M, eds. Proceedings of the International Occupational Hand-Arm Vibration Conference. Cincinnati: National Institute for Occupational Safety and Health, 1977. (DHEW publication no. [NIOSH] 77-170).

Surveillance Summary

Nutrition Surveillance — United States, 1980

The Coordinated Nutrition Surveillance Program of the Centers for Disease Control uses nutrition-related data collected by local health departments as part of routine delivery of child health services. During 1980, data were submitted for more than 250,000 children, ages 6 months-10 years. These data concerned new patients at more than 1,300 clinics in 22 states.

The data consist primarily of identifying demographic information, height (length), weight, birth weight, and hemoglobin and/or hematocrit determinations. Data on height (length), weight, and age are converted to percentiles for height-for-age and weight-for-height, using the National Center for Health Statistics reference population (*1*). Levels <5th percentile height-for-age and weight-for-height and >95th percentile weight-for-height are reported as potentially abnormal values. Results based on these cutoff points are shown in Table 2. (Asians 6-10 years old are not represented because data for <100 children were reported.)

TABLE 2. Nutrition indices, by age and ethnic group*

Age group	Number examined	Height-for-age: Percentage in the 5th %tile	Weight-for-height: Percentage in the 5th %tile	Weight-for-height: Percentage in the 95th %tile
6-11 months				
White	20,072	9.1	4.2	7.8
Black	10,622	12.4	4.8	10.1
Hispanic	2,572	10.4	4.0	9.9
American Indian	843	9.8	3.1	13.3
Asian	244	14.8	4.5	6.6
12-23 months				
White	27,810	10.9	4.7	9.7
Black	13,879	12.2	5.1	11.2
Hispanic	3,494	12.4	4.8	12.0
American Indian	934	15.5	5.5	14.0
Asian	407	28.0	9.1	5.7
2-5 years				
White	61,911	9.0	2.4	7.4
Black	30,057	6.3	3.6	6.9
Hispanic	8,143	11.9	2.2	11.6
American Indian	2,122	10.9	2.3	16.1
Asian	927	28.3	2.4	6.6
6-10 years				
White	18,347	6.5	2.3	5.2
Black	10,358	3.1	3.7	3.7
Hispanic	1,144	8.9	1.9	7.7
American Indian	200	2.5	1.0	5.5

*For children screened January-December 1980, CDC Coordinated Nutrition Surveillance.

Nutrition — Continued

For children 6 months-5 years old, data from the surveillance population show greater percentages of children in each age/ethnic group whose height-for-age levels are <5th percentile than do data from the reference population. These percentages are highest among Asian children who range from 14.8% for the 6-11 month age group to 28.3% for the 2-5 year group. Low height-for-age values (<5th percentile) show a peak for 11-23 month olds. There is a slight decrease in the prevalence of these low values for the 2-5 year age group and a more marked decrease for the 6-10 year age group. This pattern is particularly evident in the black population, where the prevalence of low height-for-age levels is 12.2% for the 11-23 month age group and 3.1% for 6-10 year olds. These changes with increasing age may represent secular differences among age cohorts or may be a result of catch-up growth, but this cannot be determined from cross-sectional data alone. A comparison of low height-for-age values for 11-23 month old whites, blacks, and Hispanics in 1978 with values for 3-4 year olds in 1980 suggests that there may indeed be catch-up growth and improvement in overall nutritional status.

Weight-for-height is the anthropometric index related to possibly acute undernutrition. The prevalence of low weight-for-height levels (<5th percentile) is consistently at or below 5% for all age/ethnic groups (except Asians 11-23 months old). The data suggest that acute undernutrition is not a major public health problem in these ethnic populations and that the overall growth and development of these groups is similar to that of a representative group of U.S. children. However, overweight children (weight-for-height >95th percentile) constitute more than the 5% of the population that would be expected from a normal distribution of anthropometric values. Overweight is generally more prevalent among Hispanics and American Indians than among other ethnic groups. There is a slight decrease with age in the tendency for children to be overweight except among American Indians, for whom there is an increase.

In 1980, there was a large influx into the United States of Southeast Asian refugee children, many of whom were treated at clinics submitting nutrition surveillance data. Data on more than 1,700 of these children, ages 6 months-10 years, are presented in Table 3. Comparison of these figures with those in Table 2 shows that the refugee children have greater prevalences of low height-for-age and low weight-for-height levels than do any of the other groups of children. This is consistent with data from developing countries throughout the world. Attempts have been made to separate data on Southeast Asians from those on other Asians, but the high percentage of low height-for-age and low weight-for-height values seen in the total Asian population may result partially from the inclusion of some refugee children.

There is no consensus on which levels of hemoglobin and/or hematocrit should be used to define low values and/or anemia. Most clinics providing data to the nutrition surveillance system have adjusted the levels to reflect normal increases in hemoglobin that occur with age. At present, these values are 10.0 g/100 ml for children 6-23 months old, 11.0 g/100 ml

TABLE 3. Nutrition indices for Southeast Asian refugees by age*

		Height-for-age	Weight-for-height	
Age group	Number examined	Percentage in the 5th %tile	Percentage in the 5th %tile	Percentage in the 95th %tile
6-23 months	329	31.6	10.0	3.0
2-5 years	810	42.6	5.3	4.2
6-10 years	579	47.3	4.3	1.6

*For children screened January-December 1980, CDC Coordinated Nutrition Surveillance.

Nutrition — Continued

for 2-5 year olds, and 12.0 g/100 ml for 6-10 year olds. The World Health Organization and others have suggested the use of 11.0 g/100 ml for the age range 6 months-5 years. To provide widely useful information, Table 4 lists, by age and ethnic group, 4 selected cutoff points for hemoglobin prevalences. These data show that the prevalence of low hemoglobin levels is greatest for the 6-23 month group, remains high for 2-5 year olds, and decreases markedly for the 6-10 year group. In all age groups, blacks tend to have greater prevalences of low hemoglobin values than do other ethnic groups, with the exception of 6-23 month old Asians. Here, too, the inclusion of Southeast Asian refugee children may have lowered the hemoglobin values in Asians ≤2 years old. Data on the prevalence of hematocrit levels below the 4 selected cutoff points are presented in Table 5. The same pattern of prevalences among age/ethnic groups is evident for both hematocrit and hemoglobin data.

Low hemoglobin and/or hematocrit levels, indicative of probable anemia due to iron deficiency, remain a major problem in these population groups. Because the selection of any specific cutoff level for hematocrit/hemoglobin values identifies a population consisting of both normal and abnormal individuals, the lower the level selected the higher the probability that individuals in that group will be abnormal. The use of a commonly accepted hemoglobin cutoff of 11.0 g/100 ml for the group 6-23 months old, suggests that between 25% and 33% of this population are potentially anemic.

Reported by Field Services Br, Nutrition Div, Center for Health Promotion and Education, CDC.

Reference

1. National Center for Health Statistics. NCHS growth curves for children, birth-18 years, United States. Rockville, Md.: National Center for Health Statistics, 1977. (Vital and health statistics. Series II: Data from the National Health Survey, no. 165).

TABLE 4. Prevalence (%) of persons examined with hemoglobin values below selected cutoff points by age and ethnic group

Age group	Number examined	Hemoglobin (g/100 ml) 10.0	11.0	11.5	12.0
6-11 months					
White	5,387	6.8	27.9	51.4	64.0
Black	3,526	7.6	33.9	55.2	69.9
Hispanic	1,049	6.2	23.5	40.1	57.7
Asian	88	9.1	34.1	53.4	62.5
12-23 months					
White	8,117	6.8	25.9	46.2	58.3
Black	5,465	8.4	31.8	51.2	66.3
Hispanic	1,273	8.1	24.4	38.6	52.9
Asian	164	15.2	34.8	44.5	59.1
2-5 years					
White	15,805	2.7	15.6	29.7	43.6
Black	9,919	4.7	22.4	40.4	56.6
Hispanic	3,019	2.5	11.5	21.2	32.3
Asian	325	2.2	14.2	23.7	36.3
6-10 years					
White	1,819	0.1	1.8	6.1	16.1
Black	1,514	0.6	6.1	17.8	32.4
Hispanic	401	0.5	1.2	3.5	8.5

*For children screened January-December 1980, CDC Coordinated Nutrition Surveillance.

Nutrition – Continued

TABLE 5. Prevalence (%) of persons examined with hematocrit values below selected cutoff points by age and ethnic group*

Age group	Number examined	Hematocrit (%) 31	33	35	37
6-11 months					
White	16,362	7.8	21.0	46.5	73.5
Black	8,842	8.7	21.8	48.0	74.4
Hispanic	1,722	8.5	24.0	51.0	77.4
Asian	185	8.6	18.9	33.3	58.1
12-23 months					
White	21,677	6.2	16.4	39.0	67.3
Black	11,090	8.5	20.1	44.0	70.5
Hispanic	2,495	6.4	17.7	39.8	68.0
Asian	315	6.3	18.1	33.3	58.1
2-5 years					
White	54,391	3.1	9.2	26.5	55.8
Black	27,436	4.9	12.3	31.9	59.6
Hispanic	5,849	3.3	10.2	29.7	57.0
Asian	736	3.0	8.7	21.6	48.0
6-10 years					
White	18,090	0.3	1.3	6.5	23.5
Black	10,403	0.7	2.5	10.0	30.9
Hispanic	904	0.7	2.8	8.7	27.5

*For children screened January-December 1980, CDC Coordinated Nutrition Surveillance.

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