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Epidemiologic Notes and Reports

Heatstroke — United States, 1980

During the summer heat wave of 1980, deaths in the United States due to the heat were estimated at 1,265 (*1*). An investigation by state and local health officials and CDC (*2,3*) found 784 deaths and severe illnesses which could be attributed to heat in the 2 cities of St. Louis and Kansas City, Missouri, in 1980.

The investigation included a review of the demographic characteristics of 208 heatstroke cases* and a case-control study of 156 of these cases. Heatstroke rates in persons age 65 or older were 12 to 13 times the rates in the remainder of the population. Low socioeconomic status and race other than white were characteristics also associated with increased rates of heatstroke. Biologic or medical conditions which were associated with heatstroke included inability to care for oneself, alcoholism, mental illness, and the use of certain antipsychotic drugs (phenothiazines, butyrophenones, and thioxanthenes). Heatstroke tended to occur among residents of homes which lacked air conditioning or which were surrounded by only sparse growth of trees and shrubbery. Living on the higher floors of a multistory building was also associated with increased risk, but available data did not clarify whether distance from the ground or proximity to the roof was most important. Reducing activity, spending more time in air-conditioned places (independent of whether or not there was a home air conditioner), and taking extra liquids appeared to be effective preventive measures. Heatstroke patients reported having been warned about danger from the heat less often than controls.

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Editorial Note: Hot weather is a significant cause of morbidity and mortality in the United States. On the average, high ambient temperature is associated with the deaths of more than 200 Americans annually (*4*). However, summers with sustained periods of very hot weather (heat waves) are associated with even more widespread health effects (*5,6*).

Advanced age is a characteristic strongly associated with risk of heat-related illness (*5,6*). Infants under 1 year of age have also been reported to be at high risk, although this was not apparent in the Missouri study (*7*). Certain groups of young adults may also

*Defined as severe hyperthermia often accompanied by altered mental status and anhidrosis.

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be at high risk (e.g., military recruits and those occupationally exposed to high temperatures) (*5-8*). Low socioeconomic status has also been associated with high risk of heatstroke, probably functioning not as a cause but as a correlate of a cause or group of causes of heatstroke (*9*). Studies of race and sex as predisposing factors for heat-related illness have yielded inconsistent results (*6,9,10*).

Other high-risk groups include the chronically ill or bedfast, the mentally ill, those taking antipsychotic or anticholinergic drugs, and alcoholics (*5,10-13*).

During heat waves, those at highest risk should avoid the heat as much as possible, staying in the coolest available place (not necessarily indoors). If economically feasible, an air conditioner should be acquired. Otherwise, an effort should be made to spend some time each day in an air-conditioned place. It is important to reduce activity during the heat.

Especially important is adequate fluid intake. Thirst may not be adequate to stimulate complete fluid replacement. As much as 50% more fluid than the amount dictated by thirst may be needed (*14*). However, certain individuals should consult a physician before increasing their consumption of liquid: those with epilepsy or with heart, kidney, or liver disease; those who have fluid-retention problems; and those who are on restricted fluids.

Although adequate salt intake with meals is important, salt tablets are of doubtful benefit and should not be taken unless prescribed by a physician (*14*). Alcohol consumption should be reduced or eliminated during very hot weather.

Programs directed toward the prevention of heatstroke should be targeted preferentially toward inhabitants of urban areas rather than rural and suburban areas, which are at less risk. Widespread dissemination of information warning of adverse health effects of the heat and advising appropriate preventive measures is likely to be beneficial.

The Missouri study offered no support for the widespread distribution of fans as an effective measure for the prevention of heatstroke. Air-conditioned heat-wave shelters, though of greater potential benefit, are apparently underutilized. This problem may be corrected by facilitating access to them and by sponsoring efforts to identify high-risk persons and encouraging them to use shelters.

In the construction of buildings consideration should be given to the prevention of heat-related illness. Architects and builders should be cognizant of the need for utilizing design and construction criteria that maximize air movement and for incorporating provisions for adequate insulation and air-handling equipment. Further environmental assessment is required in urban areas with high heat-related mortality to further clarify the environmental determinants of heatstroke.

Those wishing to contact CDC regarding heat-related illness in the general population should direct their inquiries to the Special Studies Branch, Chronic Diseases Division, Center for Environmental Health. Information on the prevention of occupational heat illness can be obtained from the Division of Biomedical and Behavioral Sciences, National Institute for Occupational Safety and Health.

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Recommendation of the Public Health Service Immunization Practices Advisory Committee

Influenza Vaccine 1981-82

This annual revision of influenza vaccine recommendations updates information on influenza activity in the United States during 1980-81 and provides information on the vaccine to be available for the 1981-82 influenza season.

INTRODUCTION

Influenza virus infections occur every year in the United States but vary greatly in incidence and geographic distribution. Infections may be asymptomatic, or they may produce a spectrum of manifestations, ranging from mild upper-respiratory infection to pneumonia and death. Influenza A and B viruses are responsible for only a small portion of all respiratory disease. However, they are unique in their ability to cause periodic widespread outbreaks of febrile respiratory disease in both adults and children.

Influenza epidemics are frequently associated with deaths in excess of the number normally expected. During the period 1968-1981, more than 150,000 excess deaths are estimated to have occurred during epidemics of influenza in the United States. Preliminary data indicate that excess mortality in the 1980-81 influenza season, especially among the elderly, was the highest recorded since the influenza pandemic of 1968-69.

Efforts to prevent or control influenza in the United States have been aimed at protecting those at greatest risk of serious illness or death. Observations during influenza epidemics indicate that influenza-related deaths occur primarily in chronically ill children and adults and in older persons, especially those over age 65. Therefore, annual vaccination is recommended for these high-risk persons.

Influenza A viruses are classified into subtypes on the basis of 2 antigens: hemag-

Influenza — Continued

glutinin (H) and neuraminidase (N). Three subtypes of hemagglutinin (H1-H3) and 2 subtypes of neuraminidase (N1, N2) are recognized among viruses causing widespread disease in humans. Immunity to these antigens, especially hemagglutinin, reduces the likelihood of infection and reduces the severity of disease in infected persons. However, there may be sufficient antigen variation (antigen drift) within the same subtype over time so that infection or immunization with 1 strain may not induce immunity to distantly related strains. Although influenza B viruses have shown much more antigenic stability than influenza A viruses, antigen variation does occur. It was noted in the 1979-80 influenza season. As a consequence, the antigen characterization of current strains is very important in selecting the virus strain(s) to be included in the vaccine.

The predominant influenza viruses causing illness in the United States during 1980-81 were influenza A(H3N2) strains, generally closely related to A/Bangkok/1/79. All age groups were affected. As in the preceding 3 years, influenza A (H1N1) viruses circulated primarily among children and young adults but caused few documented outbreaks. The majority of H1N1 isolates resembled A/England/333/80, a strain shown by sensitive laboratory methods to be slightly different from A/Brazil/11/78. Tests of antibody responses to vaccines indicate that vaccines containing A/Brazil/11/78 antigen should protect against the H1N1 strains that were prevalent in 1980-81.

No outbreaks caused by influenza B virus were detected.

INFLUENZA VIRUS VACCINES FOR 1981-82

Field studies of influenza vaccines conducted on many occasions since the 1940s have shown marked variation in vaccine efficacy, ranging from undemonstrable to 70%-80%. The general explanation for these findings has been the relative "match" between vaccine antigens, necessarily selected almost a year in advance, and the viruses ultimately causing disease—an example of antigen drift. In recent years, titers of antibody induced by vaccines were sometimes low with respect to strains which became prevalent—one explanation for the lower-than-expected vaccine effectiveness sometimes observed. One way to improve vaccine effectiveness against viruses that have undergone some antigen drift is to increase the concentration of related antigens in the vaccine. This increases antibody levels not only against vaccine strains but also against related strains.

Increasing the concentration of vaccine antigens raises the possibility of inducing more side effects. However, in studies in 1976 and 1978 which evaluated vaccines containing at least twice the amount of antigen as the vaccine used in 1980-81, increased side effects were not observed.

In view of these considerations, the potency of influenza vaccine for 1981-82 has been doubled. For each component antigen of the trivalent vaccine, the hemagglutinin content will be 15 μg/0.5 ml dose. (It was 7 μg in 1980-81.) The specific antigens in the vaccine will be the same as those in 1980-81: A/Brazil/78 (H1N1), A/Bangkok/79 (H3N2), and B/Singapore/79.

Persons 29 years old and older will require only 1 dose. Because of lack of previous contact with H1N1 strains, persons less than 29 years of age who did not receive at least 1 dose of the 1978-79, 1979-80, or 1980-81 trivalent vaccine will require 2 doses of the 1981-82 vaccine. Those who did receive the 1978-79, 1979-80, or 1980-81 vaccine will require only 1 dose. The 1981-82 vaccine will be available as whole-virion (whole-virus) and subvirion (split-virus) preparations. Based on past data, split-virus vaccines have been associated with somewhat fewer side effects in children than whole-virus vaccines. Thus, only split-virus vaccines are recommended for persons less than 13 years old.

Influenza – Continued

VACCINE USAGE

General Recommendations

Annual vaccination is strongly recommended for all persons, children and adults, who are at increased risk of adverse consequences from infections of the lower respiratory tract. Conditions predisposing to such risk include 1). acquired or congenital heart disease with actually or potentially altered circulatory dynamics, such as mitral stenosis, congestive heart failure, or pulmonary vascular overload; 2). any chronic disorder with compromised pulmonary function, such as chronic obstructive pulmonary disease, bronchiectasis, tuberculosis, severe asthma, cystic fibrosis, neuromuscular and orthopedic disorders with impaired ventilation, and residual pulmonary dysplasia following the neonatal respiratory distress syndrome; 3). chronic renal disease with azotemia or the nephrotic syndrome; 4). diabetes mellitus and other metabolic diseases with increased susceptibility to infection; 5). chronic, severe anemia, such as sickle cell disease; and 6). conditions which compromise the immune mechanism, including certain malignancies and immunosuppressive therapy.

Vaccination is also generally recommended for older persons, particularly those over age 65, because excess mortality in influenza outbreaks occurs in this age group.

In balancing the benefits, risks, and costs for the community, some localities have elected to vaccinate persons who provide essential community services and medical care personnel who are at increased risk of exposure. Uniform recommendations cannot be made about this matter. However, vaccination programs for community groups should not take precedence over vaccination of persons specified to be at high risk.

Table 1 summarizes vaccine and dosage recommendations by age group for 1981-82.

TABLE 1. Influenza vaccine* dosage, by age, 1981-82

Age group	Product	Dosage (ml)	Number of doses
29 years and older	whole virion (whole virus) or subvirion (split virus)	0.5	1
13-28 years	whole virion (whole virus) or subvirion (split virus)	0.5	2†
3-12 years	subvirion (split virus)	0.5	2†
6-35 months‡	subvirion (split virus)	0.25	2†

*Contains 15 μg each of A/Brazil/78, A/Bangkok/79, and B/Singapore/79 hemagglutinin antigens in each 0.5 ml.

†4 weeks or more between doses; both doses essential for good protection, unless the individual received at least 1 dose of 1978-79, 1979-80, or 1980-81 vaccine. In the latter instance, 1 dose is sufficient.

‡Based on limited data. Since the likelihood of febrile convulsions is greater in this age group, special care should be taken in weighing relative risks and benefits.

Use in Pregnancy

Physicians should evaluate pregnant women's need for influenza immunization on the same basis used for other persons, that is, vaccination should be advised for pregnant women who have underlying high-risk conditions. Only in the pandemics of 1918-19 and 1957-58 was there persuasive evidence that influenza infection increased maternal mortality.

When vaccine is to be given in pregnancy, however, it is reasonable to avoid giving it during the first trimester. There is no evidence to suggest that influenza vaccine carries any maternal or fetal risk, and, being inactivated, it does not share any of the theoretical

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risks of live-virus-vaccine infection of the fetus. Nonetheless, waiting until the second or third trimester should minimize any concern over teratogenicity.

SIDE EFFECTS AND ADVERSE REACTIONS

Based on data accumulated during extensive studies in 1976 and 1978, the increased concentration of antigens in the 1981-82 influenza vaccine should not significantly increase the frequency or severity of side effects. Vaccines used in recent years have generally been associated with only a few reactions; local redness and induration at the site of injection lasting 1 or 2 days have been observed in less than one-third of vaccinees. Systemic reactions have been of 3 types:

1. Fever, malaise, myalgia, and other systemic symptoms of toxicity, although infrequent, occur more often in children and others who have had no experience with influenza viruses containing the vaccine antigen(s). These reactions, which begin 6-12 hours after vaccination and persist 1-2 days, are usually attributed to the influenza virus itself (even though it is inactivated) and constitute most of the side effects of influenza vaccination.

2. Immediate, presumably allergic, responses such as flare and wheal or various respiratory expressions of hypersensitivity occur extremely rarely after influenza vaccination. They probably result from sensitivity to some vaccine component, most likely

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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	23rd WEEK ENDING		MEDIAN	CUMULATIVE, FIRST 23 WEEKS		
	June 13 1981	June 7 1980	1976-1980	June 13 1981	June 7 1980	MEDIAN 1976-1980
Aseptic meningitis	96	75	59	1,583	1,411	928
Brucellosis	6	1	1	63	75	75
Chickenpox	5,686	6,991	5,463	148,377	133,999	134,663
Diphtheria	–	–	–	3	2	35
Encephalitis: Primary (arthropod-borne & unspec.)	14	10	15	313	260	260
Post-infectious	2	6	7	41	85	90
Hepatitis, Viral: Type B	360	346	342	8,525	7,176	5,687
Type A	407	510	557	10,981	11,769	12,858
Type unspecified	205	181	191	4,933	4,799	3,912
Malaria	16	50	15	557	750	232
Measles (rubeola)	106	611	1,142	2,103	10,240	18,434
Meningococcal infections: Total	53	46	46	1,920	1,432	1,277
Civilian	50	46	46	1,911	1,422	1,216
Military	3	–	–	9	10	10
Mumps	105	213	466	2,457	6,039	10,783
Pertussis	23	14	14	440	468	468
Rubella (German measles)	46	99	372	1,378	2,565	9,152
Tetanus	1	–	3	20	24	24
Tuberculosis	592	543	592	11,730	11,473	12,447
Tularemia	9	7	4	72	56	55
Typhoid fever	10	6	9	200	156	156
Typhus fever, tick-borne (Rky. Mt. spotted)	67	52	52	325	220	202
Venereal diseases:						
Gonorrhea: Civilian	18,150	17,193	18,307	425,245	412,220	412,220
Military	651	551	577	12,610	11,964	11,964
Syphilis, primary & secondary: Civilian	588	374	394	13,082	11,333	10,577
Military	9	2	6	162	144	137
Rabies in animals	155	141	75	3,175	2,978	1,286

TABLE II. Notifiable diseases of low frequency, United States

	CUM. 1981		CUM. 1981
Anthrax	–	Poliomyelitis: Total	–
Botulism (Colo. 1, Calif. 2)	27	Paralytic	–
Cholera	1	Psittacosis (Iowa 1, Tex. 3, Ariz. 1, Nev. 1, Wash. 1)	50
Congenital rubella syndrome	4	Rabies in man	–
Leprosy (Ill. 2)	100	Trichinosis (N.J. 2)	80
Leptospirosis	17	Typhus fever, flea-borne (endemic, murine) (Ohio 1, Tex. 2)	14
Plague	4		

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 June 13, 1981 and June 7, 1980 (23rd week)

REPORTING AREA	ASEPTIC MENINGITIS	BRUCELLOSIS	CHICKEN-POX	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	96	6	5,686	-	3	14	10	2	360	407	205	16	557
NEW ENGLAND	4	1	980	-	-	-	-	1	16	5	13	2	28
Maine	-	-	164	-	-	-	-	-	-	-	-	-	1
N.H.	1	-	113	-	-	-	-	-	1	-	-	-	3
Vt.	-	-	28	-	-	-	-	-	-	-	1	-	3
Mass.	-	1	322	-	-	-	-	-	2	1	11	-	12
R.I.	3	-	110	-	-	-	-	-	1	3	-	-	1
Conn.	-	-	243	-	-	-	-	1	12	1	1	2	8
MID. ATLANTIC	7	-	613	-	-	-	2	-	19	10	4	7	64
Upstate N.Y.	5	-	302	-	-	-	1	-	14	8	4	1	16
N.Y. City	2	-	311	-	-	-	1	-	5	2	-	3	22
N.J.	-	-	NN	-	-	-	-	-	-	-	-	3	19
Pa.	NA	NA	NA	NA	-	NA	-	-	NA	NA	NA	NA	7
E.N. CENTRAL	-	-	2,718	-	-	3	2	1	46	40	27	1	22
Ohio	-	-	304	-	-	2	-	-	19	9	12	-	5
Ind.	-	-	402	-	-	1	-	1	1	5	5	-	6
Ill.	-	-	769	-	-	-	-	-	18	19	7	-	3
Mich.	-	-	537	-	-	-	2	-	7	7	3	1	8
Wis.	-	-	706	-	-	-	-	-	1	-	-	-	-
W.N. CENTRAL	1	-	126	-	-	3	1	-	9	22	8	1	17
Minn.	-	-	-	-	-	-	-	-	1	1	-	1	7
Iowa	-	-	90	-	-	-	1	-	-	2	1	-	2
Mo.	1	-	3	-	-	2	-	-	5	8	6	-	2
N. Dak.	-	-	19	-	-	-	-	-	-	-	-	-	1
S. Dak.	-	-	3	-	-	-	-	-	-	-	-	-	1
Nebr.	-	-	11	-	-	-	-	-	3	5	-	-	-
Kans.	-	-	-	-	-	1	-	-	-	6	1	-	4
S. ATLANTIC	16	1	848	-	1	1	2	-	132	68	29	2	64
Del.	-	-	1	-	-	-	-	-	1	1	-	-	1
Md.	3	-	159	-	-	-	-	-	32	4	5	-	10
D.C.	-	-	3	-	-	-	-	-	-	2	-	-	1
Va.	1	-	137	-	-	-	-	-	16	10	8	-	11
W. Va.	1	-	137	-	-	-	-	-	1	3	-	-	3
N.C.	-	-	NN	-	-	1	1	-	7	7	-	-	6
S.C.	-	-	36	-	-	-	1	-	24	1	-	-	1
Ga.	1	1	5	-	-	-	-	-	17	9	-	-	8
Fla.	10	-	370	-	1	-	-	-	34	31	16	2	23
E.S. CENTRAL	11	-	25	-	-	3	-	-	10	11	3	-	3
Ky.	3	-	10	-	-	-	-	-	-	-	-	-	-
Tenn.	4	-	NN	-	-	3	-	-	5	5	2	-	-
Ala.	3	-	12	-	-	-	-	-	4	1	1	-	2
Miss.	1	-	3	-	-	-	-	-	1	5	-	-	1
W.S. CENTRAL	19	-	199	-	-	2	-	-	19	62	45	-	38
Ark.	-	-	1	-	-	-	-	-	1	4	3	-	2
La.	2	-	NN	-	-	-	-	-	1	3	11	-	2
Okla.	2	-	-	-	-	-	-	-	3	8	3	-	4
Tex.	15	-	198	-	-	2	-	-	14	47	28	-	30
MOUNTAIN	1	2	43	-	1	-	1	-	9	46	21	3	19
Mont.	1	-	-	-	1	-	-	-	-	3	-	-	-
Idaho	-	-	-	-	-	-	-	-	-	18	-	-	-
Wyo.	-	-	-	-	-	-	-	-	-	-	-	-	-
Colo.	-	-	33	-	-	-	1	-	4	7	3	3	9
N. Mex.	-	-	-	-	-	-	-	-	-	1	2	-	1
Ariz.	-	-	NN	-	-	-	-	-	4	15	12	-	4
Utah	-	-	-	-	-	-	-	-	-	-	1	-	2
Nev.	-	2	10	-	-	-	-	-	1	2	3	-	3
PACIFIC	37	2	134	-	1	2	2	-	100	143	55	-	302
Wash.	1	-	89	-	-	1	1	-	3	6	2	-	17
Oreg.	1	-	1	-	-	-	1	-	9	6	1	-	8
Calif.	34	2	14	-	-	1	-	-	86	129	51	-	273
Alaska	-	-	16	-	1	-	-	-	1	2	1	-	1
Hawaii	1	-	14	-	-	-	-	-	1	-	-	-	3
Guam	NA	NA	NA	NA	-	NA	-	-	NA	NA	NA	NA	-
P.R.	2	-	51	-	-	-	-	-	6	8	6	-	4
V.I.	NA	NA	NA	NA	-	NA	-	-	NA	NA	NA	NA	2
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 June 13, 1981 and June 7, 1980 (23rd 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	106	2,103	10,240	53	1,920	1,432	105	2,457	23	46	1,378	20
NEW ENGLAND	1	72	617	4	125	87	4	116	–	1	97	1
Maine	–	5	29	–	18	3	1	23	–	–	33	–
N.H.	–	4	299	–	12	5	–	13	–	1	34	–
Vt.	–	1	225	2	7	10	–	4	–	–	–	–
Mass.	–	54	42	–	29	30	–	35	–	–	20	–
R.I.	–	–	2	–	11	7	–	17	–	–	–	–
Conn.	1	8	20	2	48	32	3	24	–	–	10	1
MID. ATLANTIC	6	602	3,136	4	244	248	11	379	2	10	161	1
Upstate N.Y.	5	190	584	3	85	86	8	74	2	6	70	–
N.Y. City	–	48	877	1	40	68	3	48	–	3	44	1
N.J.	1	50	667	–	59	50	–	78	–	1	43	–
Pa.	NA	314	1,008	–	60	44	NA	179	NA	NA	4	–
E.N. CENTRAL	2	72	1,636	6	219	158	24	720	3	7	291	4
Ohio	–	15	187	6	80	61	4	111	–	–	–	–
Ind.	1	8	79	–	34	31	2	86	3	1	98	–
Ill.	1	21	260	–	51	19	5	132	–	1	68	–
Mich.	–	27	216	–	50	38	8	274	–	–	31	3
Wis.	–	1	894	–	4	9	5	117	–	5	94	1
W.N. CENTRAL	–	7	1,163	6	87	58	–	170	2	1	72	2
Minn.	–	3	939	1	30	16	–	6	1	–	6	1
Iowa	–	1	20	1	17	5	–	39	–	–	3	–
Mo.	–	1	61	4	25	26	–	27	–	–	3	1
N. Dak.	–	–	–	–	1	1	–	–	–	–	–	–
S. Dak.	–	–	–	–	3	4	–	1	–	–	–	–
Nebr.	–	1	80	–	–	–	–	3	–	–	1	–
Kans.	–	1	63	–	11	6	–	94	1	1	59	–
S. ATLANTIC	5	310	1,617	9	458	335	31	332	6	1	125	2
Del.	–	–	1	–	4	2	–	8	–	–	1	–
Md.	–	1	46	–	29	32	6	65	–	–	1	–
D.C.	–	1	–	–	1	1	–	–	–	–	–	–
Va.	3	6	286	1	55	31	17	80	–	1	5	–
W. Va.	–	7	7	2	19	11	2	59	–	–	17	–
N.C.	–	4	107	3	66	68	1	12	–	–	4	–
S.C.	–	–	137	3	62	42	–	7	1	–	7	1
Ga.	–	99	710	–	79	63	1	33	1	–	42	–
Fla.	2	192	323	–	143	85	4	68	4	–	48	1
E.S. CENTRAL	–	–	288	1	144	137	3	63	2	–	24	1
Ky.	–	–	47	–	43	46	2	30	2	–	13	–
Tenn.	–	–	137	–	41	37	1	20	–	–	10	–
Ala.	–	–	21	–	44	33	–	12	–	–	1	1
Miss.	–	–	83	1	16	21	–	1	–	–	–	–
W.S. CENTRAL	64	744	851	6	329	167	3	152	4	3	115	3
Ark.	1	1	13	1	21	14	–	1	–	–	1	1
La.	–	–	11	–	80	62	–	3	–	–	9	–
Okla.	–	6	718	1	26	14	–	–	–	–	–	1
Tex.	63	737	109	4	202	77	3	148	4	3	105	1
MOUNTAIN	4	29	243	–	65	55	6	91	–	5	61	1
Mont.	–	–	1	–	5	2	–	5	–	–	3	–
Idaho	–	1	–	–	3	4	–	4	–	–	2	–
Wyo.	–	–	–	–	–	2	–	1	–	–	1	–
Colo.	–	5	15	–	29	14	–	39	–	–	26	–
N. Mex.	3	9	11	–	6	7	–	–	–	–	2	–
Ariz.	1	4	163	–	14	8	6	20	–	4	17	1
Utah	–	–	46	–	4	2	–	11	–	–	3	–
Nev.	–	10	7	–	4	16	–	11	–	1	7	–
PACIFIC	24	267	689	17	249	187	23	434	4	18	432	5
Wash.	–	1	157	7	50	31	5	124	–	2	55	–
Oreg.	–	3	–	2	37	38	6	53	–	–	30	–
Calif.	24	261	522	8	154	116	12	239	4	16	342	5
Alaska	–	–	5	–	4	2	–	4	–	–	–	–
Hawaii	–	2	5	–	4	–	–	14	–	–	5	–
Guam	NA	1	4	–	–	1	NA	1	NA	NA	–	–
P.R.	11	193	72	–	8	7	8	80	–	–	3	1
V.I.	NA	4	6	–	–	1	NA	4	NA	NA	–	–
Pac. Trust Terr.	NA	–	6	–	–	–	NA	4	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 June 13, 1981 and June 7, 1980 (23rd 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	592	11,730	72	10	200	67	325	18,150	625,245	412,220	588	13,082	11,333	3,175
NEW ENGLAND	16	319	-	2	12	1	4	596	10,471	10,662	15	285	241	11
Maine	-	23	-	-	1	-	-	40	536	634	-	1	4	6
N.H.	-	8	-	-	-	-	-	11	367	350	-	9	1	1
Vt.	2	11	-	-	-	-	-	6	196	255	-	13	3	-
Mass.	11	175	-	-	7	-	2	259	4,232	4,326	9	184	134	1
R.I.	-	19	-	-	-	-	-	23	524	646	-	16	13	-
Conn.	3	83	-	2	4	1	2	257	4,626	4,451	6	62	86	3
MID. ATLANTIC	57	1,905	10	-	36	-	7	2,053	49,943	44,974	67	1,965	1,645	16
Upstate N.Y.	21	332	10	-	6	-	2	432	8,449	8,174	-	175	134	15
N.Y. City	29	741	-	-	21	-	2	1,200	20,554	17,685	56	1,202	1,083	-
N.J.	7	410	-	-	5	-	1	421	9,840	8,307	11	262	209	-
Pa.	NA	422	-	NA	4	NA	2	NA	11,100	10,808	NA	326	219	1
E.N. CENTRAL	107	1,576	1	1	14	3	5	2,946	64,204	64,304	21	827	1,085	400
Ohio	25	295	-	1	1	3	5	1,581	23,252	17,245	5	119	173	32
Ind.	-	148	-	-	-	-	-	176	5,829	6,284	12	89	89	23
Ill.	43	642	-	-	6	-	-	281	15,541	20,132	-	411	603	317
Mich.	35	416	1	-	5	-	-	679	13,857	14,286	3	162	176	3
Wis.	4	75	-	-	2	-	-	229	5,715	6,357	1	46	44	25
W.N. CENTRAL	17	415	5	-	7	-	6	886	20,302	17,923	16	252	132	1,378
Minn.	3	61	-	-	2	-	-	143	3,280	3,056	5	95	45	242
Iowa	-	48	-	-	2	-	-	112	2,070	2,013	-	13	8	442
Mo.	6	181	4	-	1	-	2	342	9,270	7,411	11	121	67	113
N. Dak.	1	20	-	-	-	-	-	23	288	268	-	4	1	208
S. Dak.	-	30	-	-	1	-	-	21	571	562	-	2	1	167
Nebr.	-	15	1	-	1	-	-	64	1,585	1,539	-	3	3	104
Kans.	7	60	-	-	-	-	4	181	3,238	3,074	-	14	7	102
S. ATLANTIC	137	2,633	8	3	27	44	184	4,293	105,080	101,138	177	3,479	2,704	179
Del.	-	35	1	-	-	-	-	90	1,570	1,413	-	7	7	-
Md.	11	268	-	1	8	6	22	172	11,339	10,646	12	270	187	1
D.C.	1	153	-	-	1	-	-	232	6,660	7,099	20	296	185	-
Va.	-	250	-	-	1	6	25	487	9,592	8,781	19	326	245	29
W. Va.	2	84	-	1	4	1	3	76	1,592	1,290	-	9	11	9
N.C.	33	455	1	-	1	13	59	727	16,430	15,010	17	266	194	2
S.C.	41	277	2	-	-	9	49	382	9,883	9,657	14	241	140	13
Ga.	22	421	4	-	2	8	21	1,176	21,378	19,317	42	890	807	90
Fla.	27	690	-	1	10	1	5	951	26,636	28,225	53	1,174	928	35
E.S. CENTRAL	48	1,001	2	-	5	9	39	1,434	35,484	33,636	36	870	920	209
Ky.	13	263	2	-	-	-	2	144	4,461	4,983	4	43	70	60
Tenn.	14	330	-	-	1	8	28	635	13,286	11,834	14	350	373	118
Ala.	21	278	-	-	2	-	2	410	11,159	9,900	14	233	184	31
Miss.	-	130	-	-	2	1	7	245	5,578	6,919	4	244	293	-
W.S. CENTRAL	85	1,285	34	3	18	10	75	2,529	56,418	53,455	159	3,177	2,199	603
Ark.	2	122	17	-	-	-	14	144	3,882	3,961	3	63	73	83
La.	4	248	2	-	-	-	-	556	9,273	9,340	63	734	508	20
Okla.	19	155	9	-	3	5	49	334	5,997	5,328	1	79	39	112
Tex.	60	760	6	3	15	5	12	1,495	37,266	34,826	92	2,301	1,579	388
MOUNTAIN	13	333	10	1	16	-	4	875	16,921	15,746	12	332	266	82
Mont.	-	22	4	-	4	-	-	29	580	589	-	8	1	51
Idaho	-	5	2	-	-	-	1	12	702	731	1	8	8	-
Wyo.	-	5	1	-	-	-	2	17	387	462	1	5	7	4
Colo.	-	41	2	-	3	-	-	188	4,549	4,203	3	102	66	4
N. Mex.	2	65	-	-	-	-	-	79	1,836	1,969	-	67	48	14
Ariz.	10	141	-	1	9	-	-	353	5,349	4,219	-	69	93	7
Utah	1	17	1	-	-	-	-	51	804	749	3	11	5	-
Nev.	-	37	-	-	-	-	1	146	2,714	2,824	4	62	38	2
PACIFIC	112	2,263	2	-	65	-	1	2,538	66,422	70,382	85	1,895	2,141	297
Wash.	3	180	1	-	3	-	-	279	5,447	5,717	-	55	110	-
Oreg.	13	87	-	-	3	-	-	90	4,282	4,966	3	45	49	3
Calif.	92	1,908	1	-	59	-	1	2,019	53,681	56,521	81	1,754	1,895	281
Alaska	-	24	-	-	-	-	-	86	1,704	1,675	-	5	3	13
Hawaii	4	64	-	-	-	-	-	64	1,308	1,503	1	36	84	-
Guam	NA	-	-	NA	-	NA	-	NA	14	62	NA	-	2	-
P.R.	1	149	-	-	3	-	-	76	1,475	1,148	8	308	246	37
V.I.	NA	1	-	NA	1	NA	-	NA	57	93	NA	3	10	-
Pac. Trust Terr.	NA	23	-	NA	-	NA	-	NA	134	187	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 June 13, 1981 (23rd week)

REPORTING AREA	ALL CAUSES, BY AGE (YEARS)						P&I** TOTAL
	ALL AGES	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	663	442	147	42	21	11	40
Boston, Mass.	193	116	53	16	6	2	18
Bridgeport, Conn.	55	39	11	2	3	–	3
Cambridge, Mass.	18	12	4	2	–	–	–
Fall River, Mass.	27	19	6	2	–	–	2
Hartford, Conn.	62	34	14	11	2	1	3
Lowell, Mass.	22	17	4	1	–	–	1
Lynn, Mass.	17	16	1	–	–	–	–
New Bedford, Mass.	25	21	4	–	–	–	1
New Haven, Conn.	31	20	4	2	4	1	–
Providence, R.I.	68	44	14	5	3	2	5
Somerville, Mass.	9	6	2	–	1	–	–
Springfield, Mass.	43	29	10	1	–	3	–
Waterbury, Conn.	37	31	3	–	2	1	5
Worcester, Mass.	56	38	17	–	–	1	2
MID. ATLANTIC	2,682	1,739	602	184	78	79	111
Albany, N.Y.	54	37	12	3	1	1	1
Allentown, Pa.	24	17	7	–	–	–	–
Buffalo, N.Y.	150	95	42	8	1	4	15
Camden, N.J.	35	17	12	3	2	1	–
Elizabeth, N.J.	30	22	6	2	–	–	1
Erie, Pa.†	35	22	8	1	3	1	–
Jersey City, N.J.	42	28	8	3	–	3	2
N.Y. City, N.Y.	1,378	893	290	107	54	34	48
Newark, N.J.	63	29	20	5	2	7	4
Paterson, N.J.	23	14	6	2	–	1	–
Philadelphia, Pa.	395	247	96	28	6	18	20
Pittsburgh, Pa.†	53	36	13	2	–	2	1
Reading, Pa.	31	26	3	1	1	–	–
Rochester, N.Y.	129	91	27	3	4	4	13
Schenectady, N.Y.	34	22	7	5	–	–	–
Scranton, Pa.†	23	16	4	3	–	–	1
Syracuse, N.Y.	107	66	30	5	3	3	1
Trenton, N.J.	32	22	7	2	1	–	1
Utica, N.Y.	13	12	1	–	–	–	1
Yonkers, N.Y.	31	27	3	1	–	–	2
E.N. CENTRAL	2,207	1,319	569	143	81	95	67
Akron, Ohio	64	41	11	2	5	5	4
Canton, Ohio	41	26	12	2	1	–	1
Chicago, Ill.	518	293	141	44	18	22	11
Cincinnati, Ohio	154	93	41	6	3	11	9
Cleveland, Ohio	167	98	45	9	6	9	2
Columbus, Ohio	137	85	31	12	6	3	5
Dayton, Ohio	99	67	21	6	3	2	2
Detroit, Mich.	270	140	81	21	7	21	6
Evansville, Ind.	48	34	11	2	1	–	3
Fort Wayne, Ind.	43	27	8	3	3	2	2
Gary, Ind.	18	7	5	1	4	1	1
Grand Rapids, Mich.	71	43	18	3	1	6	3
Indianapolis, Ind.	167	104	44	9	4	6	3
Madison, Wis.	43	27	7	3	4	2	4
Milwaukee, Wis.	116	73	33	7	3	–	–
Peoria, Ill.	55	36	13	1	3	2	2
Rockford, Ill.	30	22	5	1	1	1	1
South Bend, Ind.	22	15	5	1	1	–	2
Toledo, Ohio	90	53	24	7	4	2	2
Youngstown, Ohio	54	35	13	3	3	–	4
W.N. CENTRAL	757	503	163	44	23	24	44
Des Moines, Iowa	71	47	19	2	3	–	1
Duluth, Minn.	35	22	7	3	2	1	3
Kansas City, Kans.	34	16	8	7	2	1	1
Kansas City, Mo.	112	71	33	4	3	1	6
Lincoln, Nebr.	27	18	7	1	–	1	–
Minneapolis, Minn.	93	60	15	9	2	7	2
Omaha, Nebr.	85	58	20	5	2	–	1
St. Louis, Mo.	149	95	33	7	4	10	23
St. Paul, Minn.	87	71	9	3	3	1	–
Wichita, Kans.	64	45	12	3	2	2	7
S. ATLANTIC	1,099	639	262	88	49	61	39
Atlanta, Ga.	134	73	34	13	7	7	–
Baltimore, Md.	143	90	33	9	8	3	4
Charlotte, N.C.	63	35	17	5	4	2	7
Jacksonville, Fla.	88	49	16	7	5	11	3
Miami, Fla.	109	55	27	15	5	7	5
Norfolk, Va.	55	28	14	5	6	2	4
Richmond, Va.	55	32	14	3	2	4	3
Savannah, Ga.	33	21	10	1	–	1	2
St. Petersburg, Fla.	102	81	15	2	3	1	6
Tampa, Fla.	72	41	15	11	3	2	2
Washington, D.C.	185	97	50	13	5	20	3
Wilmington, Del.	60	37	17	4	1	1	–
E.S. CENTRAL	774	470	196	34	32	41	30
Birmingham, Ala.	118	78	28	6	4	2	2
Chattanooga, Tenn.	71	38	29	3	1	–	1
Knoxville, Tenn.	44	34	8	2	–	–	–
Louisville, Ky.	75	58	11	3	1	2	5
Memphis, Tenn.	211	123	48	8	11	21	11
Mobile, Ala.	82	42	20	4	5	10	5
Montgomery, Ala.	45	27	16	–	1	1	1
Nashville, Tenn.	128	70	36	8	9	5	5
W.S. CENTRAL	1,230	668	325	118	68	51	38
Austin, Tex.	35	13	11	4	5	2	1
Baton Rouge, La.	52	25	19	4	2	2	2
Corpus Christi, Tex.	21	13	6	1	–	1	–
Dallas, Tex.	179	99	49	16	8	7	1
El Paso, Tex.	42	23	12	1	3	3	7
Fort Worth, Tex.	128	63	32	17	14	2	6
Houston, Tex.	317	164	79	40	17	17	4
Little Rock, Ark.	61	34	18	6	–	3	4
New Orleans, La.	122	64	36	10	6	6	–
San Antonio, Tex.	163	102	35	12	11	3	7
Shreveport, La.	34	20	11	2	1	–	–
Tulsa, Okla.	76	48	17	5	1	5	6
MOUNTAIN	643	352	164	63	36	28	11
Albuquerque, N.Mex.	75	20	32	20	2	1	1
Colo. Springs, Colo.	36	23	8	3	1	1	–
Denver, Colo.	124	73	28	11	7	5	3
Las Vegas, Nev.	81	37	28	9	7	–	5
Ogden, Utah	26	18	3	3	–	2	–
Phoenix, Ariz.	140	81	38	8	7	6	–
Pueblo, Colo.	24	20	2	–	1	1	1
Salt Lake City, Utah	51	26	10	5	4	6	–
Tucson, Ariz.	86	54	15	4	7	6	1
PACIFIC	1,730	1,079	406	131	60	53	66
Berkeley, Calif.	17	15	1	1	–	–	–
Fresno, Calif.	42	27	12	2	–	1	8
Glendale, Calif.	31	20	9	2	–	–	–
Honolulu, Hawaii	61	32	19	5	1	4	2
Long Beach, Calif.	90	57	23	3	1	6	–
Los Angeles, Calif.	501	309	118	34	22	17	12
Oakland, Calif. §	85	54	18	6	4	3	4
Pasadena, Calif.	38	24	11	1	1	1	4
Portland, Oreg.	136	92	24	10	3	7	4
Sacramento, Calif.	73	42	18	4	6	3	5
San Diego, Calif.	126	83	26	10	5	2	–
San Francisco, Calif.	139	80	36	13	5	5	3
San Jose, Calif.	159	99	34	20	5	1	13
Seattle, Wash.	150	93	36	15	5	1	4
Spokane, Wash.	46	27	12	4	1	2	1
Tacoma, Wash.	36	25	9	1	1	–	6
TOTAL	11,785††	7,211	2,834	847	448	443	446

*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 this week. Figures are estimates based on average percent of regional totals.

Influenza – Continued

residual egg protein. Although current influenza vaccines contain only a small quantity of egg protein, on rare occasions they can induce hypersensitivity reactions. Individuals with anaphylactic hypersensitivity to eggs should not be given influenza vaccine. This would include persons who, on eating eggs, develop swelling of the lips or tongue or experience acute respiratory distress or collapse.

3. Guillain-Barré syndrome (GBS) is an uncommon illness characterized by ascending paralysis, usually self-limited and reversible. Although most persons with GBS recover without residual weakness, approximately 5% of cases are fatal. Before 1976, no association of GBS with influenza vaccination was recognized. That year, however, GBS appeared with excess frequency among persons who had received the A/New Jersey/76 (swine) influenza vaccine. For the 10 weeks following vaccination, the excess risk was found to be approximately 10 cases of GBS for every million persons vaccinated—an incidence 5-6 times higher than that in unvaccinated persons. Younger persons (under 25 years) had a lower relative risk than others and also had a lower case-fatality rate.

Data on the occurrence of GBS have been collected during the 3 influenza seasons since active surveillance began in 1978. They show no clear association between influenza vaccination and GBS. Surveillance is continuing, but available evidence indicates that any risk of GBS from influenza vaccine appears to be far lower than the risks associated with influenza in persons for whom the vaccine is indicated. Those who are candidates for influenza vaccine should be given this information.

SUPPLEMENTARY MEASURES

Annual immunization continues to be the most important way to prevent influenza and should become routine for all persons at high risk of serious and fatal disease. Supplementary measures intended to reduce the likelihood of exposure in community outbreaks, such as limiting the number of large group events, may delay spread but are not uniformly effectively.

Amantadine hydrochloride, an antiviral drug, can play a supplementary role in helping prevent influenza A in certain persons and circumscribed groups. It is not a substitute for vaccine and not generally applicable to public health practice, but it may be useful in persons who need protection but have not been vaccinated. Effectiveness is about 70%.

Amantadine protects only against influenza A, not influenza B, and must be taken daily for the duration of the epidemic (6-8 weeks, generally) or until active immunity can be expected (about 10-14 days after vaccination). Precaution must be exercised in patients with certain chronic conditions, and there sometimes are mild but occasionally troublesome side effects—especially in older-age patients. Amantadine, being a prescription drug, must be ordered and monitored by a physician. Dosage, precautions, and other information on use are specified in the drug's labeling.

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Epidemiologic Notes and Reports

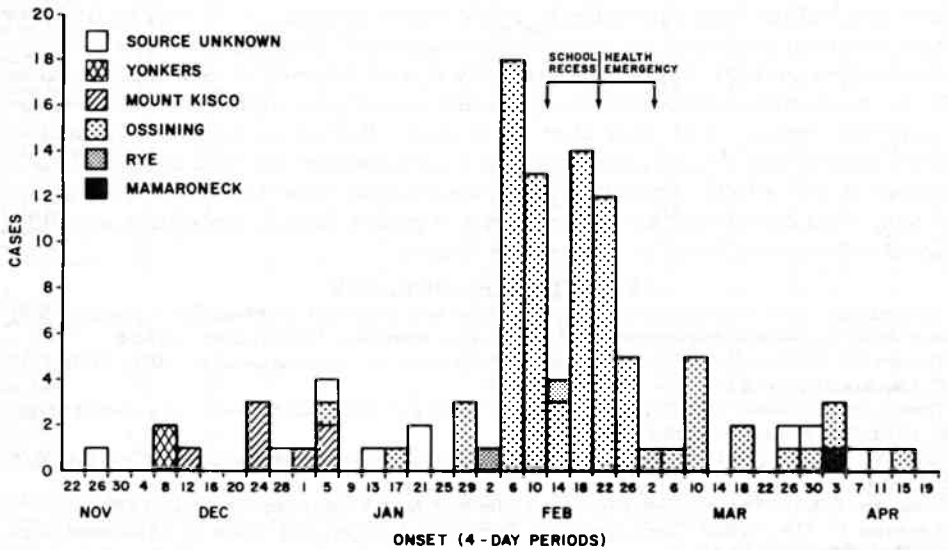
Multiple Measles Importations — New York

In the period November 26, 1980-April 14, 1981, 106 clinically confirmed cases of measles* were reported from Westchester County, New York (Figure 1). Several unrelated, known or suspected foreign importations of measles were the source of most of these cases, as detailed below.

Yonkers: Two sisters, aged 6 and 7 years, had resided until December 4, 1980, at a U.S. Air Force base in England, where measles was occurring. They had onset of rash on December 8 and 9, respectively, in Yonkers.

*Generalized maculopapular rash of ≥3 days' duration, fever ≥38.3 C [≥101 F], if measured, and 1 of the following: cough, coryza, or conjunctivitis; 18 of these cases were serologically confirmed.

FIGURE 1. Cases of clinically confirmed measles and association with original importation site, by date of rash onset, Westchester County, New York, November 22, 1980-April 19, 1981



Measles — Continued

Mount Kisco: A 24-year-old nuclear engineer spent the period from November 27 to December 3 in Venezuela. He arrived on a business trip to Westchester County on December 12 and stayed at a hotel in Mount Kisco. Although no known exposure occurred in Venezuela or in the United States, onset of measles rash developed on December 14. Except for a visit to a hospital emergency room on December 17, he reported remaining in his hotel room from December 14-22. Most of his meals were brought to his room by a 21-year-old bellhop, who had onset of a measles rash on December 26. In addition, 2 boys, 10- and 11-year-old brothers who then resided at the hotel, developed measles rashes on December 26 and 27, respectively. These children visited their uncle's house in Yorktown Heights on Christmas, exposing a 10-year-old girl and a 6-month-old infant, who both developed clinical measles with rash onset on January 4 and 7, respectively. The same 2 boys also exposed a 10-year-old boy on December 26; he had onset of measles rash on January 6.

Ossining: A 19-year-old woman and her 12-month-old infant visited Portugal from December 4, 1980, through January 4, 1981. While there, the woman developed a febrile generalized rash illness clinically compatible with measles; the rash began shortly before Christmas. After the woman and child returned to Ossining, the infant developed clinically confirmed measles; the rash began on January 6. On January 17, a measles rash began on her 13-year-old cousin, who visited during the course of the infant's illness. This cousin did not attend school during her prodrome, but did attend a Portuguese community reading session on the day her rash began. There she exposed an 8-year-old girl and a 14-year-old boy, who both subsequently developed a measles rash on January 29. These children attended the local public elementary school and middle school, respectively, during their prodromal illnesses and transmitted measles to other students. Ultimately, 85 epidemiologically related cases occurred from January 6-April 14 in Ossining and the surrounding area.

Rye: A 43-year-old man visited France from January 15-22. On February 5, without any known exposure to measles, he developed a rash illness that was clinically compatible with measles and complicated by pneumonia. On February 16, his 10-year-old son developed a measles rash. No further spread was documented.

Mamaroneck: A 5-year-old French boy, who arrived with his family in the United States on April 2, developed a measles rash on April 6. No further cases were reported.

Countywide: On February 18, Westchester County health officials declared a countywide health emergency; it went into effect on February 23, when schools reopened after a 1-week recess. All kindergarten, elementary-, and secondary-school children who did not have proof of adequate immunity to measles† were excluded from school and interscholastic sporting events. Of over 161,000 public school enrollees in the county, 4,280 were excluded until they were vaccinated or provided proper documentation of measles immunity. This state of emergency was lifted on March 4; most cases after this date occurred within or near Ossining and were predominantly in preschool and college-age-or-older individuals (Table 2).

Reported by AS Curran, MD, KA Raciti, MD, K FaSenntao, Westchester County Dept of Health; A DeMartino, MD, I Mills, New York State Dept of Health; Immunization Div, Center for Prevention Services, CDC.

Editorial Note: In recent years, the proportion of all reported measles cases in the United States that are imported has been low. In 1980, 94 persons were reported to have devel-

†Live measles vaccine given after the first birthday, or prior physician-diagnosed measles.

Measles – Continued

oped measles after traveling or living abroad in 31 countries; 36 of these individuals were U.S. citizens. In 11 cases, at least 1 additional secondary case was also reported. Generally, imported cases have led to relatively few other cases (*1,2*). In Westchester County, 4 of the importations resulted in limited spread. However, the importation from Portugal resulted in spread into the school system, where many other cases subsequently occurred.

Measles vaccination programs should prevent measles cases occurring more than 14 days after the program (*3*). Already incubating cases may not be prevented. The health emergency declared for the entire county of Westchester (estimated 1980 population: 864,648) was instrumental in curtailing further spread of measles in school-age children and in ending the outbreak. Only 4 cases occurred in school-age children more than 14 days after exclusion orders were implemented. Countywide exclusion may be necessary even when only a few cases are reported since measles may spread rapidly over wide geographic areas.

Before the outbreak occurred, New York state was in the process of implementing a revised state law requiring physician documentation of adequate immunity to measles for all kindergarten through 12th-grade students by September 1981. Had the importation occurred after that date, substantial transmission probably would not have occurred.

Although the transmission of indigenous measles is decreasing in the United States, measles introduction from exogenous sources will continue as long as measles transmission persists elsewhere in the world. Therefore, the best means of preventing spread from an individual arriving from outside the United States in the incubation stage of illness is to ensure that immunization levels in this country are high. School laws should be vigorously enforced and accurate records of immunizations, maintained. Suspected measles cases should be reported rapidly to public health authorities so that appropriate control measures can be taken to prevent further transmission. U.S. citizens who travel abroad, particularly persons born since 1957, should have an adequate history of immunity to measles.

References

1. CDC. Imported measles – United States. MMWR 1980;29:38.
2. Frank JA Jr, Hoffman RE, Mann JM, Crowe JD, Hinman AR. Imported measles: a potential control problem. JAMA 1981;245:264-6.
3. Orenstein WA, Irvin J, Jennings MR, et al. Measles in a rural Ohio county. Am J Epidemiol 1980; 111:777-89.

TABLE 2. Age-group distribution of measles cases, by date of rash onset and temporal relationship to March 9 (14 days after implementation of health emergency)

	Number of cases (percentage)	
	Before March 9	March 9-April 14
School-age		
6-18 years	59 (67%)	4 (22%)*
Nonschool-age		
<6 years	14 (16%)	7 (39%)
>18 years	15 (17%)	7 (39%)
Total	88 (100%)	18 (100%)

*$p<0.01$ by chi-square 2x2 comparing school-age with nonschool-age cases.

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The revised mailing list for the MMWR will go into effect on July 3, 1981.* Beginning with that issue (no. 25), readers who did not return their renewal cards and/or arrange to be included in a bulk mailing will not receive the MMWR. Any mailing list additions, deletions, or address changes should be sent promptly to: Distribution Services, Management Analysis and Services Offices, 1-SB-419, Centers for Disease Control, Atlanta, Georgia 30333.

*Does not include overseas subscribers. The revised list for that group becomes effective on July 31.

Erratum, Vol. 30, No. 21

p250. In the article, "Dengue Type 4 Infections in U.S. Travelers to the Caribbean," the first line of the editorial note states that dengue type 4 frequently occurs in Africa; in fact, it has not been documented on that continent.

The Morbidity and Mortality Weekly Report, circulation 118,223, is published by the Centers 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.

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