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MORBIDITY AND MORTALITY WEEKLY REPORT

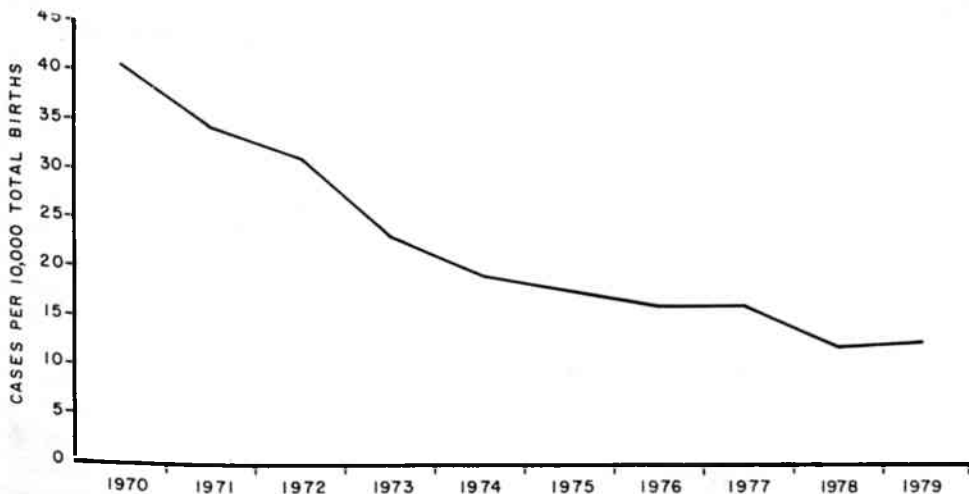
Current Trends

Rh Hemolytic Disease — Connecticut, United States, 1970-1979

Until the late 1960s, Rh hemolytic disease of the newborn (RhHDN) was a frequent cause of perinatal morbidity and mortality. The introduction of Rh immune globulin (RhIG) in 1968, however, gave promise of significantly reducing the incidence of this disease. When administered to unsensitized Rh-negative women after abortion, amniocentesis, ectopic pregnancy, or delivery of an Rh-positive infant, RhIG prevents maternal sensitization, thereby averting RhHDN in subsequent pregnancies. The effect of RhIG on RhHDN incidence during the past decade in the United States and Connecticut is discussed below.

Incidence rates for RhHDN in the United States (Figure 1) were ascertained through the CDC Birth Defects Monitoring Program (BDMP), which collects information from hospital discharge summaries nationwide on about 1 million births annually (7). Since the hospitals included are self-selected and not a random sample, the percentage of births monitored varies among geographic regions. Overall, about one-third of the nation's births are included. In the period 1970-1979, the crude incidence of RhHDN decreased from 40.5 cases/10,000 to 14.3/10,000 total births (live and stillbirths). Most of this decline took place in the years 1970-1975. More recently, the incidence has stabilized,

FIGURE 1. Incidence of Rh hemolytic disease of the newborn, by year, United States, 1970-1979



Rh Hemolytic Disease — Continued

despite minor year-to-year fluctuations. Crude incidence rates in 1976, 1977, and 1978 were 16.0, 16.1, and 13.5 cases per 10,000 births, respectively.

To assess the accuracy of BDMP rates, RhHDN incidence rates for Connecticut, calculated from the BDMP, were compared with incidence rates calculated from Connecticut's Rh Registry (Figure 2). The Connecticut State Department of Health Services has maintained active surveillance of all cases of RhHDN and of the use of RhIG since 1969 (2). During the 1970s, about two-thirds of Connecticut's births were included in the BDMP surveillance. Although the rates reported by the BDMP were consistently lower than those based on Connecticut's Rh registry, trends in BDMP incidence rates—including the decrease in 1978—closely parallel trends observed in the registry data (Figure 2).

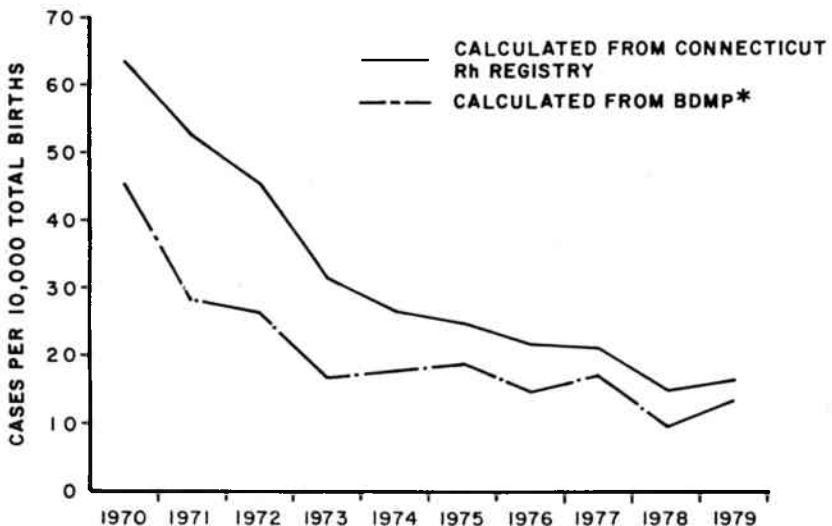
Since the risk of RhHDN increases with birth order, data from Connecticut's Rh registry were used to calculate annual birth-order-specific incidence rates. For the years 1972-1977, RhHDN incidence for third-order births decreased from 77.0/10,000 births to 25.2/10,000. During that same period, the incidence for fourth-order births decreased from 98.4/10,000 births to 62.4/10,000, but showed greater fluctuations than for other birth orders—probably due to a smaller sample size. The incidence of RhHDN for first- and second-order births did not change significantly (chi-square test).

Since maternal age generally increases as maternal birth order increases, data from Connecticut's Rh registry also were used to calculate maternal age-specific RhHDN incidence. During 1972-1978, the annual incidence rates of RhHDN for maternal ages <25 years were fairly stable despite year-to-year fluctuations. In comparison, incidences for maternal ages 25-29 and 30-34 decreased from 44.2/10,000 births to 12.5/10,000 and from 108.6/10,000 births to 20.6/10,000, respectively.

Reported by J Gustafson, Office Maternal and Child Health, Connecticut State Dept of Health Services; and Birth Defects Br, Chronic Diseases Div, Center for Environmental Health, CDC.

Editorial Note: In recent years, the nationwide crude incidence of RhHDN has decreased gradually, with minor year-to-year fluctuations. A similar pattern appears for Connecticut, although the incidence rates are higher—probably due to more complete ascertain-

FIGURE 2. Incidence of Rh hemolytic disease, Connecticut, 1970-1979



*Birth Defects Monitoring Program, CDC.

Rh Hemolytic Disease — Continued

ment. Review of Connecticut's birth-order-specific and maternal age-specific incidence rates suggests that the greatest decrease has occurred among higher-order births and among women ages 25-34. The lack of change in RhHDN incidence among births to younger women is consistent with the observation of no change in the incidence among first- and second-order births.

The lack of a statistically significant change in RhHDN incidence for first- and second-order births may indicate that the lowest possible incidence that can be obtained by current practices of RhIG administration has been achieved. Because of the high utilization of RhIG during the past decade in Connecticut—99.5% of eligible Rh-negative women received RhIG postabortion and postpartum in 1979—the effect of RhIG on RhHDN incidence is particularly relevant. Birth-order-specific RhHDN rates for 1972-1977 averaged 6.2/10,000 first-order births and 20.7/10,000 second-order births; thus, the lowest attainable crude incidence may be within this range. Supporting this possibility are the recently observed crude incidence rates in Connecticut, which in 1977, 1978, and 1979 were 21.0, 14.6, and 16.1 per 10,000 births, respectively.

Current RhHDN incidence may be attributed to previous gaps in RhIG utilization, administration of an insufficient dose of RhIG, failure of RhIG to prevent sensitization, or sensitization during the third trimester. Since 1% of Rh-negative women may become isoimmunized by transplacental exchange during pregnancy (3), some physicians advocate the use of RhIG at 28 weeks' gestation for all unsensitized Rh-negative women. However, this approach has potential drawbacks (4). If acceptable techniques become available to identify women at high risk of isoimmunization or to identify fetal Rh type, selective antenatal administration of RhIG only to those at risk would be possible. Currently, RhHDN incidence can best be controlled by administering RhIG to unsensitized Rh-negative women after abortion, amniocentesis, ectopic pregnancy, or delivery of an Rh-positive infant.

References

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2. Rincon F, Gustafson J. Anti-Rh programs. *Perinatal Care* 1978;2:45-51.
3. Davey MG. McMaster conference proceedings. *Vox Sang* 1979;36:50-64.
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Varicella-Zoster Immune Globulin — United States

The Massachusetts Public Health Biologic Laboratories (MPHBL) has been licensed by the Bureau of Biologics, Food and Drug Administration, to produce Varicella-Zoster Immune Globulin (VZIG) for passive immunization of susceptible immunodeficient patients exposed to varicella-zoster virus. For the past 3 years, VZIG has been an investigational new drug available only through the Sidney Farber Cancer Institute in Boston. This arrangement will terminate February 1, 1981, and VZIG will be distributed in the United States by the American Red Cross Blood Services-Northeast Region (ARCBS-NE), through 13 regional blood centers. All requests for VZIG should be directed to the nearest regional distribution center (Table 1), although physicians experienced with VZIG will continue to be available for consultation at the Immunization Division, CDC.

VZIG is produced by the MPHBL in cooperation with ARCBS-NE using plasma obtained from healthy volunteer blood donors in Massachusetts and Maine. VZIG has been shown to be as effective (1) as an earlier unlicensed product, Zoster Immune Globulin

Varicella-Zoster Immune Globulin – Continued

(ZIG) (2-5) in reducing the severity of chickenpox (varicella) in immunodeficient children. ZIG was usually in short supply because of the limited availability of the source material, zoster convalescent plasma. The program to produce VZIG through the screening of normal donors was developed jointly by the Sidney Farber Cancer Institute and MPHBL (6). Clinical evaluation of VZIG was supported by CDC.

Currently, supplies of VZIG are limited; administration should be restricted to individuals meeting the 5 criteria listed in Table 2. The recommended dosage of VZIG (in vials) is based on body weight, with 1 complete vial given for each 10 kg (22 lb) up to a maximum of 5 vials. For example, a child weighing 15 kg would receive 2 complete vials.

VZIG is intended primarily for passive immunization of susceptible immunodeficient children after significant exposure to chickenpox or zoster. These children include those with primary immune deficiency disorders or neoplastic diseases, recipients of immunosuppressive treatment, and newborns of mothers who develop chickenpox within 5 days before delivery or 48 hours after delivery. Epidemiologic (7) and seroprevalence data (8,9) indicate that relatively few individuals ≥ 15 years of age are at risk of infection. Therefore, the need for VZIG administration to this age group should be evaluated on an individual basis, using information on the patient's underlying condition, the type of exposure, and the likelihood of previous infection (based on family size, birth order, etc.). The greatest protection is to be expected when VZIG is administered within 96

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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	2nd WEEK ENDING		MEDIAN 1976-1980	CUMULATIVE, FIRST 2 WEEKS		
	January 17, 1981	January 12, 1980		January 17, 1981	January 12, 1980	MEDIAN 1976-1980
Aseptic meningitis	77	62	43	149	115	95
Brucellosis	3	1	3	3	2	4
Chickenpox	4,730	3,639	4,569	7,287	5,238	7,244
Diphtheria	–	–	–	–	–	–
Encephalitis: Primary (arthropod-borne & unspec.)	10	14	9	19	17	17
Post-infectious	1	1	1	2	2	2
Hepatitis, Viral: Type B	314	296	257	589	448	466
Type A	403	403	495	706	705	867
Type unspecified	180	184	163	347	282	287
Malaria	39	12	8	57	24	13
Measles (rubeola)	54	61	228	69	80	384
Meningococcal infections: Total	50	43	35	96	66	66
Civilian	50	43	35	96	64	64
Military	–	–	–	–	2	–
Mumps	84	245	335	145	323	564
Pertussis	12	15	30	20	23	59
Rubella (German measles)	38	47	99	66	69	171
Tetanus	2	1	–	3	1	1
Tuberculosis	419	404	406	684	585	685
Tularemia	3	3	3	4	4	4
Typhoid fever	15	5	5	21	5	8
Typhus fever, tick-borne (Rky. Mt. spotted)	1	–	–	4	1	1
Venereal diseases:						
Gonorrhea: Civilian	18,723	17,986	18,675	36,910	32,118	34,985
Military	635	494	494	1,190	732	1,026
Syphilis, primary & secondary: Civilian	596	564	428	1,094	899	862
Military	4	3	3	12	18	10
Rabies in animals	87	76	41	150	137	85

TABLE II. Notifiable diseases of low frequency, United States

	CUM. 1981		CUM. 1981
Anthrax	–	Poliomyelitis: Total	–
Botulism	2	Paralytic	–
Cholera	–	Psittacosis Mich. 1, Calif. 2	4
Congenital rubella syndrome	–	Rabies in man	–
Leprosy Calif. 4	6	Trichinosis Ups. NY 2	2
Leptospirosis Ga. 1	1	Typhus fever, flea-borne (endemic, murine)	–
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
January 17, 1981, and January 12, 1980 (2nd week)

REPORTING AREA	ASEPTIC MENIN- GITIS	BRU- CEL- LOSIS	CHICKEN- POX	DIPHThERIA		ENCEPHALITIS			HEPATITIS (VIRAL), BY TYPE			MALARIA	
						Primary		Post-in- fectious	B	A	Unspecified		
						1981	1981	1981	1981	CUM. 1981	1981	1980	1981
UNITED STATES	77	3	4,730	-	-	10	14	1	314	403	180	39	57
NEW ENGLAND	-	-	511	-	-	1	3	-	4	8	14	-	1
Maine	-	-	137	-	-	-	-	-	1	1	-	-	1
N.H.	-	-	3	-	-	-	-	-	-	3	-	-	-
Vt.	-	-	31	-	-	-	-	-	-	-	-	-	-
Mass.	-	-	214	-	-	1	-	-	2	2	14	-	-
R.I.	-	-	21	-	-	-	-	-	1	-	-	-	-
Conn.	-	-	105	-	-	-	3	-	-	2	-	-	-
MID. ATLANTIC	3	-	175	-	-	-	1	-	60	38	14	4	9
Upstate N.Y.	2	-	65	-	-	-	1	-	11	12	3	1	3
N.Y. City	1	-	41	-	-	-	-	-	19	7	3	3	6
N.J.	-	-	NN	-	-	-	-	-	19	9	5	-	-
Pa.	-	-	69	-	-	-	-	-	11	10	3	-	-
E.N. CENTRAL	5	-	1,759	-	-	-	2	-	21	24	5	2	2
Ohio	-	-	189	-	-	-	1	-	-	1	-	-	-
Ind.	1	-	260	-	-	-	-	-	-	1	2	-	-
Ill.	-	-	202	-	-	-	-	-	12	11	3	-	-
Mich.	4	-	567	-	-	-	1	-	9	11	-	2	2
Wis.	-	-	541	-	-	-	-	-	-	-	-	-	-
W.N. CENTRAL	2	1	986	-	-	-	2	-	12	26	8	1	1
Minn.	-	-	2	-	-	-	-	-	2	-	1	-	-
Iowa	-	-	442	-	-	-	2	-	1	3	3	-	-
Mo.	2	1	-	-	-	-	-	-	5	9	1	1	1
N. Dak.	-	-	39	-	-	-	-	-	-	-	-	-	-
S. Dak.	-	-	39	-	-	-	-	-	1	-	1	-	-
Nebr.	-	-	33	-	-	-	-	-	2	-	2	-	-
Kans.	-	-	431	-	-	-	-	-	1	14	-	-	-
S. ATLANTIC	20	2	485	-	-	3	-	1	49	37	12	1	4
Del.	-	-	11	-	-	-	-	-	-	1	-	-	-
Md.	2	-	66	-	-	-	-	-	10	1	6	-	-
D.C.	-	-	-	-	-	-	-	-	1	-	-	-	-
Va.	-	-	-	-	-	-	-	-	7	3	1	1	2
W. Va.	9	2	15	-	-	3	-	-	1	2	-	-	-
N.C.	1	-	139	-	-	-	-	-	6	3	2	-	-
S.C.	6	-	NN	-	-	-	-	-	8	-	2	-	-
Ga.	-	-	27	-	-	-	-	-	12	18	-	-	1
Fla.	2	-	138	-	-	-	-	1	4	9	1	-	1
E.S. CENTRAL	4	-	180	-	-	1	1	-	12	23	-	-	-
Ky.	1	-	171	-	-	-	1	-	5	7	-	-	-
Tenn.	1	-	NN	-	-	1	-	-	4	6	-	-	-
Ala.	2	-	1	-	-	-	-	-	3	3	-	-	-
Miss.	-	-	8	-	-	-	-	-	-	7	-	-	-
W.S. CENTRAL	10	-	186	-	-	2	1	-	20	31	26	1	1
Ark.	-	-	1	-	-	1	-	-	-	5	3	1	1
La.	-	-	NN	-	-	-	-	-	-	1	-	-	-
Okla.	-	-	-	-	-	-	-	-	-	2	3	-	-
Tex.	10	-	185	-	-	1	1	-	20	23	20	-	-
MOUNTAIN	3	-	94	-	-	-	2	-	16	42	17	2	2
Mont.	-	-	-	-	-	-	1	-	-	-	-	-	-
Idaho	-	-	2	-	-	-	-	-	-	-	-	-	-
Wyo.	-	-	-	-	-	-	-	-	1	2	1	-	-
Colo.	-	-	-	-	-	-	-	-	-	5	-	-	-
N. Mex.	2	-	87	-	-	-	1	-	10	24	4	1	1
Ariz.	-	-	-	-	-	-	-	-	-	9	8	1	1
Utah	-	-	NN	-	-	-	-	-	4	9	3	-	-
Nev.	1	-	3	-	-	-	-	-	1	2	1	-	-
PACIFIC	30	-	354	-	-	3	2	-	120	174	84	28	37
Wash.	1	-	341	-	-	1	-	-	2	2	-	-	-
Oreg.	2	-	-	-	-	-	-	-	5	12	-	-	-
Calif.	23	-	-	-	-	2	2	-	112	159	84	28	37
Alaska	-	-	7	-	-	-	-	-	-	-	-	-	-
Hawaii	4	-	6	-	-	-	-	-	1	1	-	-	-
Guam	NA	NA	NA	NA	-	NA	-	-	NA	NA	NA	NA	-
P.R.	NA	NA	NA	NA	-	NA	-	-	NA	NA	NA	NA	-
V.I.	NA	NA	NA	NA	-	NA	-	-	NA	NA	NA	NA	-
Pac. Trust Terr.	NA	NA	NA	NA	-	NA	-	-	NA	NA	NA	NA	-

NA: 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 January 17, 1981, and January 12, 1980 (2nd 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	54	69	80	50	96	66	84	145	12	38	66	3
NEW ENGLAND	1	1	4	5	13	2	4	8	1	7	14	-
Maine	-	-	-	-	-	-	1	2	-	5	12	-
N.H.	-	-	-	-	-	-	-	-	-	-	-	-
Vt.	1	1	4	-	-	-	1	1	-	-	-	-
Mass.	-	-	-	2	5	1	2	3	-	2	2	-
R.I.	-	-	-	-	1	-	-	-	1	-	-	-
Conn.	-	-	-	3	7	1	-	2	-	-	-	-
MID. ATLANTIC	14	20	7	3	12	9	10	19	-	3	11	-
Upstate N.Y.	9	10	-	2	4	8	2	5	-	-	2	-
N.Y. City	2	4	7	-	-	1	2	4	-	1	2	-
N.J.	3	3	-	1	8	-	2	5	-	-	5	-
Pa.	-	3	-	-	-	-	4	5	-	2	2	-
E.N. CENTRAL	5	5	14	2	5	8	20	34	5	7	9	-
Ohio	-	-	-	-	1	1	1	2	-	-	-	-
Ind.	-	-	-	1	3	3	3	6	-	4	5	-
Ill.	-	-	1	-	-	-	2	3	-	-	-	-
Mich.	5	5	10	1	2	4	11	15	5	1	1	-
Wis.	-	-	3	-	-	-	3	8	-	2	3	-
W.N. CENTRAL	-	-	16	3	4	3	5	6	-	2	3	2
Minn.	-	-	-	2	2	-	-	-	-	-	-	1
Iowa	-	-	-	-	1	-	2	3	-	-	-	-
Mo.	-	-	15	1	1	3	-	-	-	-	-	1
N. Dak.	-	-	-	-	-	-	-	-	-	-	-	-
S. Dak.	-	-	-	-	-	-	-	-	-	-	-	-
Nebr.	-	-	1	-	-	-	-	3	-	-	-	-
Kans.	-	-	-	-	-	-	3	3	-	2	3	-
S. ATLANTIC	3	3	2	5	17	21	12	21	4	3	7	1
Del.	-	-	-	-	1	-	1	2	-	-	-	-
Md.	-	-	1	-	-	7	3	3	-	-	-	-
D.C.	-	-	-	-	-	-	-	-	-	-	-	-
Va.	-	-	-	-	-	2	2	2	-	2	5	-
W. Va.	-	-	-	-	2	1	2	8	1	-	-	-
N.C.	-	-	-	2	3	4	-	-	-	1	2	-
S.C.	-	-	-	1	4	2	-	1	-	-	-	1
Ga.	1	1	-	1	4	1	1	2	2	-	-	-
Fla.	2	2	1	1	3	4	3	3	1	-	-	-
E.S. CENTRAL	-	-	7	9	12	5	6	8	-	2	3	-
Ky.	-	-	3	5	5	3	4	5	-	1	2	-
Tenn.	-	-	-	3	6	-	2	3	-	1	1	-
Ala.	-	-	-	-	-	2	-	-	-	-	-	-
Miss.	-	-	4	1	1	-	-	-	-	-	-	-
W.S. CENTRAL	5	5	3	9	11	3	8	9	-	3	3	-
Ark.	-	-	1	2	3	-	-	-	-	-	-	-
La.	-	-	-	-	-	-	-	-	-	-	-	-
Okla.	1	1	-	-	-	-	-	-	-	-	-	-
Tex.	4	4	2	7	8	3	8	9	-	3	3	-
MOUNTAIN	-	4	2	4	9	7	4	5	-	-	-	-
Mont.	-	-	-	-	-	-	-	-	-	-	-	-
Idaho	-	-	-	-	1	-	-	-	-	-	-	-
Wyo.	-	-	-	-	-	1	-	-	-	-	-	-
Colo.	-	-	-	2	2	4	4	4	-	-	-	-
N. Mex.	-	-	-	-	3	1	-	-	-	-	-	-
Ariz.	-	-	1	1	1	1	-	1	-	-	-	-
Utah	-	-	-	1	2	-	-	-	-	-	-	-
Nev.	-	4	1	-	-	-	-	-	-	-	-	-
PACIFIC	26	31	25	10	13	8	15	35	2	11	16	-
Wash.	-	-	1	2	2	4	3	12	-	2	-	-
Oreg.	-	-	-	-	-	-	-	2	-	-	-	-
Calif.	26	30	22	8	11	4	12	20	2	11	16	-
Alaska	-	-	-	-	-	-	-	-	-	-	-	-
Hawaii	-	1	2	-	-	-	-	1	-	-	-	-
Guam	NA	-	-	-	-	-	NA	-	NA	NA	-	-
P.R.	-	-	-	-	-	-	-	-	-	-	-	-
V.I.	NA	-	-	-	-	-	NA	-	NA	NA	-	-
Pac. Trust Terr.	NA	-	1	-	-	-	NA	-	NA	NA	-	-

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 January 17, 1981, and January 12, 1980 (2nd week)

REPORTING AREA	TUBERCULOSIS		TULA- REMIA	TYPHOID FEVER		TYPHUS FEVER (Tick-borne) (RMSF)		VENEREAL DISEASES (Civilian)						RABIES (in Animals)
	1981	CUM. 1981	CUM. 1981	1981	CUM. 1981	1981	CUM. 1981	GONORRHEA			SYPHILIS (Pri. & Sec.)			CUM. 1981
								1981	CUM. 1981	CUM. 1980	1981	CUM. 1981	CUM. 1980	
UNITED STATES	419	684	4	15	21	1	4	18,723	36,910	32,118	596	1,094	899	150
NEW ENGLAND	17	21	-	-	1	-	-	444	897	1,060	5	16	21	-
Maine	2	3	-	-	-	-	-	23	54	66	-	-	-	-
N.H.	-	-	-	-	-	-	-	19	42	38	-	-	-	-
Vt.	-	-	-	-	-	-	-	8	18	30	-	-	-	-
Mass.	14	16	-	-	1	-	-	143	335	391	4	13	9	-
R.I.	-	-	-	-	-	-	-	23	45	35	1	1	-	-
Conn.	1	2	-	-	-	-	-	228	403	500	-	2	12	-
MID. ATLANTIC	70	132	-	1	2	-	-	2,040	3,696	3,597	85	159	131	-
Upstate N.Y.	17	25	-	-	-	-	-	167	167	90	14	14	-	-
N.Y. City	21	36	-	1	2	-	-	850	1,625	1,600	50	95	100	-
N.J.	19	49	-	-	-	-	-	447	964	931	9	19	13	-
Pa.	13	22	-	-	-	-	-	576	940	976	12	31	18	-
E.N. CENTRAL	32	65	-	-	-	-	-	1,483	4,055	6,102	24	41	97	19
Ohio	8	13	-	-	-	-	-	731	1,258	1,954	17	21	9	-
Ind.	-	-	-	-	-	-	-	128	315	255	1	4	15	2
Ill.	22	50	-	-	-	-	-	76	803	2,217	-	-	56	7
Mich.	-	-	-	-	-	-	-	278	1,168	1,051	4	7	12	-
Wis.	2	2	-	-	-	-	-	270	511	625	2	9	5	10
W.N. CENTRAL	7	12	-	-	-	1	1	1,186	1,989	1,545	9	18	7	58
Minn.	-	-	-	-	-	-	-	50	130	233	2	2	1	9
Iowa	1	4	-	-	-	-	-	93	193	197	-	-	1	28
Mo.	-	-	-	-	-	1	1	710	1,055	681	7	12	5	6
N. Dak.	-	-	-	-	-	-	-	19	29	24	-	-	-	10
S. Dak.	4	4	-	-	-	-	-	26	57	39	-	-	-	6
Nebr.	-	-	-	-	-	-	-	67	161	125	-	2	-	2
Kans.	2	4	-	-	-	-	-	221	364	246	-	2	-	3
S. ATLANTIC	98	146	2	-	2	-	2	4,271	8,596	8,160	106	233	166	10
Del.	-	-	1	-	-	-	-	44	185	142	-	1	1	-
Md.	7	13	-	-	-	-	-	171	670	505	14	23	21	-
D.C.	9	9	-	-	-	-	-	225	502	514	13	27	15	-
Va.	13	13	-	-	-	-	-	429	768	530	6	11	13	1
W. Va.	7	10	-	-	2	-	-	76	138	112	-	-	-	1
N.C.	19	38	-	-	-	-	2	895	1,547	1,126	9	28	12	-
S.C.	9	15	1	-	-	-	-	498	937	1,053	8	19	4	-
Ga.	17	17	-	-	-	-	-	927	2,025	1,359	32	69	44	5
Fla.	17	31	-	-	-	-	-	1,006	1,824	2,819	24	55	56	3
E.S. CENTRAL	48	70	1	1	1	-	1	1,459	3,580	2,163	59	119	76	6
Ky.	13	13	1	-	-	-	-	213	486	322	2	5	5	2
Tenn.	9	19	-	-	-	-	1	583	1,186	955	23	44	29	3
Ala.	26	38	-	-	-	-	-	330	1,180	316	18	45	10	1
Miss.	-	-	-	1	1	-	-	333	728	570	16	25	32	-
W.S. CENTRAL	23	36	-	-	-	-	-	3,356	7,017	3,912	168	311	174	31
Ark.	-	-	-	-	-	-	-	192	288	336	-	-	3	11
La.	10	14	-	-	-	-	-	596	797	230	35	35	34	-
Okl.	8	17	-	-	-	-	-	332	587	378	3	3	1	5
Tex.	5	5	-	-	-	-	-	2,236	5,345	2,968	130	273	136	15
MOUNTAIN	3	10	1	-	-	-	-	667	1,324	1,260	10	13	14	5
Mont.	1	1	-	-	-	-	-	30	45	63	-	-	-	5
Idaho	-	-	-	-	-	-	-	9	34	64	-	-	-	-
Wyo.	-	-	-	-	-	-	-	4	45	34	-	-	1	-
Colo.	-	1	1	-	-	-	-	243	403	252	5	7	9	-
N. Mex.	2	6	-	-	-	-	-	89	168	196	-	-	2	-
Ariz.	-	-	-	-	-	-	-	144	315	352	-	-	-	-
Utah	-	-	-	-	-	-	-	18	51	65	-	-	-	-
Nev.	-	2	-	-	-	-	-	130	263	234	5	6	2	-
PACIFIC	121	192	-	13	15	-	-	3,817	5,756	4,319	130	184	213	21
Wash.	9	16	-	-	-	-	-	288	426	471	-	-	12	-
Oreg.	5	7	-	-	-	-	-	171	354	141	3	4	4	-
Calif.	105	167	-	12	13	-	-	3,207	4,728	3,529	125	176	194	21
Alaska	-	-	-	-	-	-	-	69	112	129	1	2	-	-
Hawaii	2	2	-	1	2	-	-	82	136	49	1	2	3	-
Guam	NA	-	-	NA	-	NA	-	NA	-	-	NA	-	-	-
P.R.	-	-	-	-	-	-	-	56	101	-	9	10	-	-
V.I.	NA	-	-	NA	-	NA	-	NA	-	2	NA	-	3	-
Pac. Trust Terr.	NA	-	-	NA	-	NA	-	NA	-	28	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
January 17, 1981 (2nd week)

REPORTING AREA	ALL CAUSES, BY AGE (YEARS)					P & I** TOTAL	REPORTING AREA	ALL CAUSES, BY AGE (YEARS)					P & I** TOTAL
	ALL AGES	>65	45-64	25-44	<1			ALL AGES	>65	45-64	25-44	<1	
NEW ENGLAND	741	545	133	38	10	99	S. ATLANTIC	1,830	1,077	495	134	58	112
Boston, Mass.	171	118	33	8	4	28	Atlanta, Ga.	204	110	57	22	3	11
Bridgeport, Conn.	58	45	10	3	-	5	Baltimore, Md.	460	275	139	24	5	22
Cambridge, Mass.	24	19	3	2	-	5	Charlotte, N.C.	70	39	23	5	-	8
Fall River, Mass.	40	33	-	6	-	-	Jacksonville, Fla.	146	81	38	8	11	8
Hartford, Conn.	74	44	17	5	4	6	Miami, Fla.	231	132	56	24	8	8
Lowell, Mass.	17	14	3	-	-	-	Norfolk, Va.	82	58	19	5	-	9
Lynn, Mass.	22	16	5	1	-	-	Richmond, Va.	107	63	35	4	3	12
New Bedford, Mass.	39	34	4	1	-	2	Savannah, Ga.	45	27	11	3	2	5
New Haven, Conn.	36	23	11	1	-	7	St. Petersburg, Fla.	97	82	10	5	-	8
Providence, R.I.	83	62	13	5	2	12	Tampa, Fla.	88	61	17	4	3	8
Somerville, Mass.	14	12	2	-	-	2	Washington, D.C.	233	112	70	25	21	9
Springfield, Mass.	56	42	11	3	-	11	Wilmington, Del.	67	37	20	5	2	4
Waterbury, Conn.	31	23	8	-	-	7							
Worcester, Mass.	76	60	13	3	-	14							
MID. ATLANTIC	3,351	2,235	754	200	90	221	E.S. CENTRAL	984	620	225	63	39	72
Albany, N.Y.	59	34	15	5	2	3	Birmingham, Ala.	175	95	47	16	10	1
Allentown, Pa.	26	18	8	-	-	3	Chattanooga, Tenn.	84	47	23	8	-	4
Buffalo, N.Y.	252	175	63	8	2	23	Knoxville, Tenn.	38	31	4	2	-	3
Camden, N.J.	29	18	7	2	1	1	Louisville, Ky.	203	123	51	16	6	23
Elizabeth, N.J.	29	18	10	-	1	1	Memphis, Tenn.	196	132	34	10	16	15
Erie, Pa.†	42	31	9	1	1	1	Mobile, Ala.	53	39	8	2	1	4
Jersey City, N.J.	55	32	19	2	1	2	Montgomery, Ala.	61	41	14	2	1	4
Newark, N.J.	77	38	20	9	8	7	Nashville, Tenn.	174	112	44	7	5	18
N.Y. City, N.Y.	1,860	1,239	395	129	51	99							
Paterson, N.J.	39	22	11	4	2	2	W.S. CENTRAL	1,693	1,021	411	121	68	88
Philadelphia, Pa.†	352	223	86	21	13	27	Austin, Tex.	67	44	15	4	2	3
Pittsburgh, Pa.†	72	48	19	4	1	4	Baton Rouge, La.	43	24	13	3	1	5
Reading, Pa.	52	42	8	2	-	11	Corpus Christi, Tex.	35	19	7	5	3	-
Rochester, N.Y.	142	102	32	4	2	13	Dallas, Tex.	252	157	51	16	16	9
Schenectady, N.Y.	38	24	4	-	-	3	El Paso, Tex.	84	57	16	5	3	12
Scranton, Pa.†	34	23	10	1	-	3	Fort Worth, Tex.	90	63	16	9	-	7
Syracuse, N.Y.	100	70	21	3	4	10	Houston, Tex.	290	151	89	19	16	3
Trenton, N.J.	46	32	7	4	1	1	Little Rock, Ark.	104	58	33	6	5	8
Utica, N.Y.	25	16	6	-	-	4	New Orleans, La.	299	167	87	21	10	2
Yonkers, N.Y.	35	30	4	1	-	3	San Antonio, Tex.	246	158	42	21	9	22
							Shreveport, La.	43	25	11	5	1	2
							Tulsa, Okla.	140	98	31	7	2	15
E.N. CENTRAL	3,058	2,000	739	137	100	190	MOUNTAIN	779	498	159	61	38	53
Akron, Ohio	114	73	31	5	2	-	Albuquerque, N. Mex.	60	37	15	5	2	5
Canton, Ohio	50	36	11	-	-	5	Colo. Springs, Colo.	37	25	7	2	2	2
Chicago, Ill.	684	419	171	40	14	31	Denver, Colo.	192	124	40	10	11	16
Cincinnati, Ohio	245	166	60	10	5	37	Las Vegas, Nev.	64	40	13	10	-	2
Cleveland, Ohio	228	128	71	15	10	12	Ogden, Utah	16	13	-	1	1	-
Columbus, Ohio	178	116	38	9	9	3	Phoenix, Ariz.	204	121	50	18	11	10
Dayton, Ohio	158	122	27	3	3	16	Pueblo, Colo.	28	18	6	2	1	1
Detroit, Mich.	372	235	94	20	11	24	Salt Lake City, Utah	59	37	9	5	6	-
Evansville, Ind.	56	40	16	-	-	-	Tucson, Ariz.	119	83	19	8	4	17
Fort Wayne, Ind.	64	43	16	3	-	4							
Gary, Ind.	21	12	4	3	1	-							
Grand Rapids, Mich.	88	59	21	2	3	4	PACIFIC	2,535	1,767	508	127	58	184
Indianapolis, Ind.	178	118	37	6	7	7	Berkeley, Calif.	26	18	7	1	-	4
Madison, Wis.	45	28	11	3	-	10	Fresno, Calif.	125	89	24	5	6	12
Milwaukee, Wis.	182	127	46	4	3	2	Glendale, Calif.	57	49	4	3	-	10
Peoria, Ill. ††	58	40	13	2	3	8	Honolulu, Hawaii	65	48	9	2	4	3
Rockford, Ill.	47	31	12	1	2	7	Long Beach, Calif.	152	102	36	6	4	11
South Bend, Ind.	68	49	12	3	1	2	Los Angeles, Calif.	817	577	145	46	19	58
Toledo, Ohio	146	112	23	5	5	15	Oakland, Calif.	102	59	31	8	2	6
Youngstown, Ohio	76	46	25	3	1	3	Pasadena, Calif.	48	38	9	-	-	10
							Portland, Ore.	177	124	30	8	8	2
							Sacramento, Calif.	98	66	22	6	1	14
W.N. CENTRAL	958	655	204	44	35	61	San Diego, Calif.	177	134	30	6	3	6
Des Moines, Iowa	60	44	10	2	4	4	San Francisco, Calif.	180	128	40	7	1	11
Duluth, Minn.	37	25	8	3	1	5	San Jose, Calif.	213	149	40	15	2	24
Kansas City, Kans.	32	19	12	-	-	1	Seattle, Wash.	180	108	51	11	3	4
Kansas City, Mo.	173	123	36	9	4	9	Spokane, Wash.	66	42	20	-	3	3
Lincoln, Nebr.	39	33	5	1	-	3	Tacoma, Wash.	52	36	10	3	2	6
Minneapolis, Minn.	118	78	22	5	5	7							
Omaha, Nebr.	114	67	32	5	8	3							
St. Louis, Mo.	180	124	39	8	5	13							
St. Paul, Minn.	75	55	13	4	2	3							
Wichita, Kans.	130	87	27	7	6	13							
TOTAL	15,929	10,418	3,628	925	496	1,080							

*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 totals.

Varicella-Zoster Immune Globulin – Continued

hours after exposure; treatment after 96 hours is of uncertain value. There is no evidence that established infection with varicella-zoster virus can be modified by VZIG.

VZIG is not indicated for prophylactic use in children or adults when there is a past history of chickenpox, unless the patient subsequently received a bone marrow transplant. VZIG is also not recommended for non-immunodeficient patients, including pregnant women, because the expected severity of chickenpox is so much less than in immunosuppressed patients (10). There are no reported studies indicating whether or not administering VZIG to pregnant women is effective in preventing fetal infection. At this time, the routine use of VZIG in early pregnancy for postexposure prophylaxis of fetal chickenpox infection is not recommended.

It is recommended that immunodeficient patients, especially children, with a negative or unknown history of chickenpox be screened for antibody to varicella-zoster virus. Detection of antibodies to this virus in such patients would avoid unnecessary administration of VZIG in the event of significant future exposure(s) to chickenpox.

TABLE 1. Distribution centers for Varicella-Zoster Immune Globulin (VZIG), as of February 1, 1981

Service area	Regional center	24-hour telephone numbers
Massachusetts	Massachusetts Public Health Biologic Laboratories Jamaica Plain, MA 02130	617-522-3700
Connecticut, Maine, New Hampshire, Rhode Island, Vermont	American Red Cross Blood Services Northeast Region 60 Kendrick St. Needham, MA 02194	617-731-2130
New Jersey, New York	The Greater New York Blood Program 310 E. 67th St. New York, NY 10021	212-570-3067 (day)* 212-570-3068 (night)
Delaware, Pennsylvania	American Red Cross Blood Services Penn-Jersey Region 23rd and Chestnut Sts. Philadelphia, PA 19103	215-299-4114
Maryland, Virginia, Washington, DC, West Virginia	American Red Cross Blood Services Washington Region 2025 E St., NW Washington, DC 20006	202-857-2021
Alabama, Georgia, Mississippi, North Carolina, Puerto Rico, South Carolina	American Red Cross Blood Services Atlanta Region 1925 Monroe Dr., NE Atlanta, GA 30324	404-881-9800
Florida	John Elliott Community Blood Center 1675 Northwest 9th Ave. P.O. Box 420100 Miami, FL 33142	305-324-8341
Indiana, Michigan, Ohio	American Red Cross Blood Services Southeastern Michigan Region 100 Mack Ave. P.O. Box 351 Detroit, MI 48232	313-833-4440

*day: 9AM-5PM, Mon-Fri.

night: after 5PM and on weekends and holidays.

*Varicella-Zoster Immune Globulin – Continued***TABLE 1. Distribution centers for Varicella-Zoster Immune Globulin (VZIG), as of February 1, 1981 – Continued**

Service area	Regional center	24-hour telephone numbers
Iowa, Minnesota, Nebraska, North Dakota, Northern Illinois (Chicago), South Dakota, Wisconsin	The Blood Center of Southeastern Wisconsin 1701 W. Wisconsin Ave. P.O. Box 10G Milwaukee, WI 53201	414-933-5000
Arkansas, Kansas, Kentucky, Missouri, Southern Illinois, Tennessee	American Red Cross Blood Services Missouri-Illinois Region 4050 Lindell Blvd. St. Louis, MO 63108	314-658-2136
Louisiana, New Mexico, Oklahoma, Texas	Gulf Coast Regional Blood Center 1400 La Concha Houston, TX 77054	713-791-6250
Arizona, Hawaii, Southern California	American Red Cross Blood Services Los Angeles-Orange Counties Region 1130 S. Vermont Ave. Los Angeles, CA 90006	213-384-5261
Colorado, Nevada, Northern California, Utah, Wyoming	American Red Cross Blood Services Central California Region 333 McKendrie St. San Jose, CA 95110	408-292-6242
Alaska, Idaho, Montana, Oregon, Washington	Puget Sound Blood Center Terry at Madison Seattle, WA 98104	206-292-6525

TABLE 2. Indications and guidelines for the use of Varicella-Zoster Immune Globulin (VZIG) for the prophylaxis of chickenpox (varicella)

1. One of the following underlying illnesses or conditions
 - a. Leukemia or lymphoma
 - b. Congenital or acquired immunodeficiency
 - c. Under immunosuppressive treatment
 - d. Newborn of mother who had onset of chickenpox <5 days before delivery or within 48 hours after delivery.
2. One of the following types of exposure to chickenpox or zoster patients(s)
 - a. Household contact
 - b. Playmate contact (>1 hour play indoors)
 - c. Hospital contact (in same 2- to 4-bed room or adjacent beds in a large ward)
 - d. Newborn contact (newborn of mother who had onset of chickenpox <5 days before delivery or within 48 hours after delivery)
3. Negative or unknown prior history of chickenpox (see text)
4. Age of <15 years, with administration to older patients on an *individual* basis (see text)
5. Time elapsed after exposure is such that VZIG can be administered within 96 hours

Reported by GF Grady, MD, J Leszczynski, DPH, GG Wright, PhD, Massachusetts Public Health Biologic Laboratories, Jamaica Plain, Massachusetts; PL Page, MD, American Red Cross Blood Services-Northeast Region, Needham, Massachusetts; MJ Levin, MD, Sidney Farber Cancer Institute, Boston, JA Zaia, MD, City of Hope National Medical Center, Duarte, California; Immunobiologics Activity, Biological Products Div, Center for Infectious Diseases, Immunization Div, Center for Prevention Services, CDC.

*Varicella-Zoster Immune Globulin – Continued**References*

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Influenza – United States, Worldwide

United States: For the week ending January 10, 1981, 9 states—Massachusetts, Rhode Island, New York, North Carolina, Tennessee, Colorado, North Dakota, Utah, and Alaska—reported widespread outbreaks of influenza. Seventeen states, primarily in the Northeast and Midwest, reported regional outbreaks. Deaths due to pneumonia and influenza, recorded in 121 cities, were elevated for the sixth consecutive week since December 13, 1980 (Figure 3). Excess mortality has now been observed in all regions of the country.

Worldwide: Influenza A (H1N1) viruses, which have been responsible for outbreaks this winter in Hungary and the United Kingdom, were isolated during December in Bulgaria, Czechoslovakia, and Israel. This virus subtype continues to affect children and young adults almost exclusively. The extent of activity in these countries varies from sporadic to widespread.

Influenza A(H3N2) strains have also been reported, mainly from sporadic cases or local outbreaks, in Belgium, Bulgaria, Federal Republic of Germany, France, Pakistan, Spain, Sweden, and the U.S.S.R. Outbreaks and sporadic cases of influenza B have occurred in Japan, Romania, Republic of China (Taiwan), the U.S.S.R., and the United Kingdom.

(Continued on page 24)

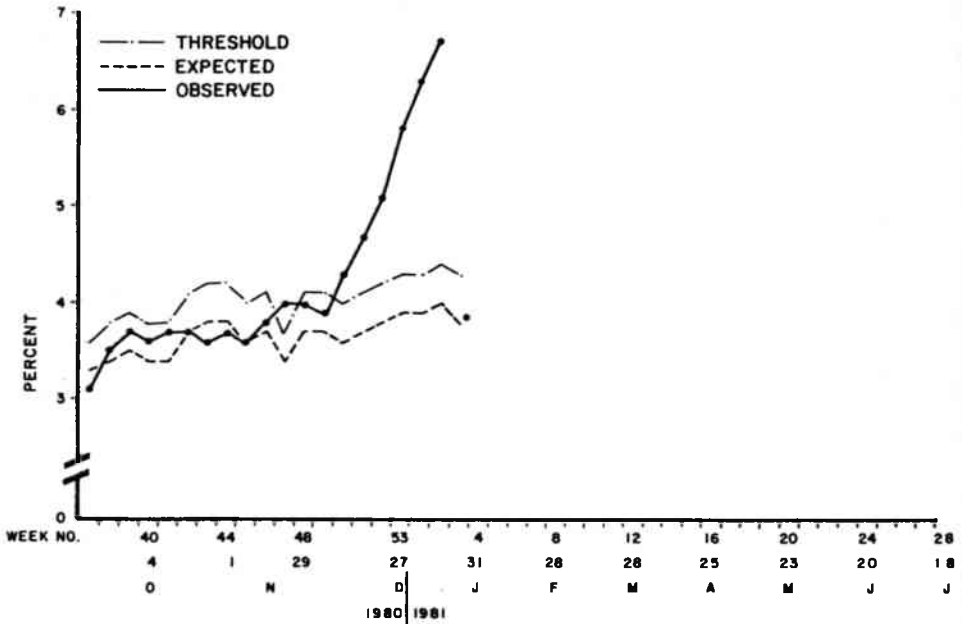
The **Morbidity and Mortality Weekly Report**, circulation 102,241, is published by the Centers for Disease Control, Atlanta, Georgia. The data in this report are provisional, based on weekly telegraphs to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday.

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

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Influenza - Continued

FIGURE 3. Observed and expected ratio of deaths attributed to pneumonia and influenza in 121 United States cities, 1980-1981



*Forecasts are made at 4-week intervals.

Reported by World Health Organization (WHO) Virus Diseases Unit, Geneva, Switzerland; and WHO Collaborating Center for Influenza, Virology Div, Center for Infectious Diseases, Immunization Div, Center for Prevention Services, Consolidated Surveillance and Communications Activity, Epidemiology Program Office, CDC.

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