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Current Trends

Elimination of Rubella and Congenital Rubella Syndrome — United States

The administration of more than 123 million doses of rubella vaccine since 1969, the year of licensure, has successfully prevented epidemics of rubella and congenital rubella syndrome (CRS) from occurring in the United States (*1,2*). Reported cases of rubella and CRS are at all-time lows. The provisional 1984 totals for rubella cases and confirmed and compatible cases of CRS are 745 and two, respectively. Compared to prevaccine years, the number of reported rubella cases has decreased 98.7% overall, with 90% or higher declines recorded for all age groups (*3-5*). Similarly, the number of reported confirmed and compatible CRS cases has declined by 97.1% since 1970, the year the highest number of such cases was reported (*4*). Although there is believed to be underreporting of both rubella and CRS, these figures represent considerable progress.

Rubella vaccination has had a dramatic effect on the occurrence of rubella and CRS. Nonetheless, CRS cases continue to be reported at a low endemic level because the current 10%-20% susceptibility rate to rubella in the childbearing-aged population (*6-8*) has changed little from that noted in prevaccine years (*9*). The initial vaccination strategy adopted by the United States was aimed at controlling rubella in preschool-aged and young school-aged children, the known reservoirs for rubella transmission (*9*). The intent was to prevent exposure of susceptible pregnant women to rubella virus (*10*). Accordingly, the primary target group for vaccination was children of both sexes. Secondary emphasis was placed on vaccinating susceptible adolescents and young adults, especially women. While more than 95% of school enterers now provide evidence of immunization against rubella, comparable levels of rubella immunization have not been achieved in the postpubertal population. As a result, there is continuing endemic rubella activity among adolescents and young adults (*3,11*).

As the highly immune cohorts of young children enter the childbearing age, CRS can be expected to disappear from this country. However, since this process will take 10-30 years, potentially preventable cases of CRS will occur (*2*). It is estimated that each case incurs an average lifetime cost of over $200,000 (*12*). Furthermore, unnecessary instances of miscarriages, stillbirths, and induced abortions resulting from congenital infection will continue to occur.

Recent focus on the continued occurrence of rubella in childbearing-aged populations has led to increased efforts to effectively vaccinate this population and thus hasten the elimination of CRS (*3-5,11*). The number of doses of rubella vaccine administered in the public sector to postpubertal individuals doubled between 1978 and 1981 (*3*). The trend of increasing vaccination of this population is continuing. This has been accomplished in part by vaccinating susceptible students attending junior and senior high schools, clients of family planning clinics, hospital personnel, college and university students, women following premarital screening, and women immediately postpartum.

Rubella and Congenital Rubella Syndrome — Continued

There still are, however, gaps in attempts to hasten CRS elimination. A number of states do not require proof of rubella immunity for postpubertal female elementary and secondary school students. The same is true of many colleges, universities, and health-profession institutions. When women are seen by internists or obstetricians/gynecologists, rubella immune status is not commonly considered. When women are screened for rubella immunity either premaritally or prenatally or in family planning clinics, only a low proportion of susceptibles so identified are subsequently vaccinated.

An initiative to hasten elimination of rubella has recently begun. As with measles elimination, efforts to eliminate CRS are aimed at (1) achieving and maintaining high immunization levels, (2) intensified surveillance of rubella and CRS, and (3) prompt outbreak control (*2,11*). Specific activities will focus on further increases in the delivery of rubella vaccine to women of childbearing age and enhancement of the lay and medical communities' awareness of the current rubella and CRS situation.

Vaccination of a nonschool-based population poses many logistical problems. A multifaceted approach that involves both the public and private sectors will be needed (*2,13*). Furthermore, information that may help identify select groups at increased risk of not being vaccinated will have to be sought to help focus vaccination efforts. However, considering the economic impact of CRS and the other outcomes of rubella infection during pregnancy, any effort that can hasten the elimination of CRS should be undertaken.

Reported by Div of Immunization, Center for Prevention Svcs, CDC.

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Preventing Lead Poisoning in Young Children — United States

CDC has issued a new statement on preventing lead poisoning in young children (*1*). This statement replaces the 1978 statement (*2*), which defined levels for elevated blood lead, undue lead absorption, lead toxicity, and lead poisoning. The 1985 statement is intended to serve as a guideline for lead-poisoning prevention programs in the United States.

Since 1978, investigators have reported adverse effects from low-level lead exposure on children's behavior and intelligence (*3*), hemoglobin formation in red blood cells (*4*), and

Lead Poisoning — Continued

metabolism of vitamin D (*5*). These studies demonstrate that little or no margin of safety is associated with a level of 30 micrograms of lead per deciliter (μg/dl) of whole blood—the lowest level defined as elevated in CDC's 1978 statement.

To be successful, a screening program designed to prevent childhood lead poisoning requires, not only an acceptable and cost-effective screening procedure, but also medical follow-up and means of preventing the child from future exposure to lead (*6*). The erythrocyte protoporphyrin (EP) test is recommended as the screening test for lead toxicity because it can be easily performed on a drop of blood obtained from a finger prick and placed in a portable fluorometer. Since EP levels increase in both lead poisoning and iron deficiency, follow-up testing for elevated blood lead and/or iron deficiency must be done.

Some major changes in the 1985 statement compared with the 1978 statement are:

1. An elevated blood lead level, which reflects excessive absorption of lead, is defined as a concentration of lead in whole blood of 25 μg/dl or greater (formerly 30 μg/dl or greater).
2. Lead toxicity is defined as an elevated blood lead level with an EP level in whole blood of 35 μg/dl or greater (formerly 50 μg/dl or greater).
3. Lead is most harmful to children between the ages of 9 months and 6 years. Ideally, all children should be screened. As more children are screened for iron deficiency by EP testing, simultaneous lead screening of these same groups becomes feasible.
4. For EP levels greater than 35 μg/dl, EP values obtained with hematofluorometers are generally lower than EP values obtained by the extraction method. Therefore, separate cutoff levels are used for classifying the urgency of medical follow-up.
5. Greater reliance is placed on the calcium disodium EDTA mobilization ("Provocative Chelation") test in determining whether a full course of chelation therapy is indicated for children with blood lead levels in the 25-55 μg/dl range.

The revised lead statement, Preventing Lead Poisoning In Young Children: A Statement by the Centers for Disease Control: January 1985, will be available on request after March 1, 1985, from: Publication Activities, Center for Environmental Health, Centers for Disease Control, Atlanta, Georgia 30333; (404) 452-4102.

Reported by Special Studies Br, Chronic Diseases Div, Center for Environmental Health, CDC.

Editorial Note: The second National Health and Nutrition Examination Survey (NHANES II, 1976-1980) found that children from all geographic and socioeconomic groups are at risk of lead poisoning (*7*). An estimated 3.9% (or nearly one of 25) of the children in the United States under 5 years of age had blood lead levels of 30 μg/dl or greater—levels possibly causing adverse physiologic and neurobehavioral effects. Between 1976 and 1980, the overall mean blood lead levels dropped from 14.6 μg/dl to 9.2 μg/dl, and this corresponded with a decline in the sales of leaded gasoline during this period (*8*).

Lead-based paint continues to be the major source of high-dose lead exposure and asymptomatic lead poisoning for children in the United States. Since 1977, paint produced for household use must, by regulation, contain no more than 0.06% (600 parts per million [ppm]) lead by dry weight, but some paints manufactured in the 1940s for indoor use contained more than 50% (500,000 ppm) lead. An estimated 27,000,000 households in this country remain contaminated by lead paint (*9*).

Typically, symptomatic lead poisoning occurs among children under 6 years old living in deteriorated, pre-World War II housing. Repeated ingestion of nonfood substances has been shown to be associated with lead poisoning in young children (*10*), but it is not a prerequisite for lead poisoning (*11*), since children's normal mouthing behavior alone is sufficient to cause those living in contaminated homes to have high lead exposure. Lead poisoning has been reported in children whose parents moved to a city as "urban homesteaders"; the children were exposed to chips, dust, or fumes from lead-based paint when the old houses were remodeled or renovated (*10*).

Lead Poisoning — Continued

Other potential sources of lead exposure include the use of imported lead-glazed pottery for cooking (*12*) or storing food and hobbies and activities involving lead, such as working with stained glass or casting lead objects.

The highest priority for screening should be given to 12- to 36-month-old children who live in or frequently visit older, dilapidated housing, who live near lead smelters or other industrial sources of lead, or whose parents work with materials containing lead.

Screening all children for lead toxicity—including those not suspected of having been exposed to lead—is feasible, since the EP test can also be used as the screening for iron deficiency. Recently, in a nutritional assistance program, the EP test was used to screen children for iron deficiency (*13*), and some Hmong refugee children were found to have lead toxicity. The source was traced to a Hmong folk remedy used for treating infants and children with fevers.

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

Disease	5th Week Ending			Cumulative, 5th Week Ending		
	Feb. 2, 1985	Feb. 4, 1984	Median 1980-1984	Feb. 2, 1985	Feb. 4, 1984	Median 1980-1984
Acquired Immunodeficiency Syndrome (AIDS)	154	68	N	509	348	N
Aseptic meningitis	55	88	88	311	464	433
Encephalitis: Primary (arthropod-borne & unspec.)	18	21	13	60	75	78
Post-infectious	1	-	1	5	5	7
Gonorrhea: Civilian	16,575	15,247	19,189	74,295	81,011	92,424
Military	393	409	622	1,414	2,049	2,572
Hepatitis: Type A	474	402	513	1,707	1,785	2,202
Type B	552	516	375	1,978	2,121	1,666
Non A, Non B	74	71	N	316	302	N
Unspecified	91	71	183	353	363	752
Legionellosis	12	5	N	48	31	N
Leprosy	1	1	4	10	16	14
Malaria	13	16	16	49	61	61
Measles: Total*	11	101	40	23	143	143
Indigenous	1	52	N	3	87	N
Imported	10	49	N	20	56	N
Meningococcal infections Total	65	64	62	224	257	277
Civilian	65	64	62	224	257	269
Military	-	-	-	-	-	1
Mumps	46	61	75	199	301	379
Pertussis	17	15	29	84	117	95
Rubella (German measles)	2	7	35	16	35	137
Syphilis (Primary & Secondary): Civilian	527	607	645	2,214	2,648	2,915
Military	3	2	7	15	33	42
Toxic Shock syndrome	8	13	N	29	43	N
Tuberculosis	282	388	442	1,380	1,559	1,912
Tularemia	5	-	2	13	3	8
Typhoid fever	6	4	7	13	26	32
Typhus fever, tick-borne (RMSF)	-	1	1	2	6	6
Rabies, animal	51	84	93	237	337	422

TABLE II. Notifiable diseases of low frequency, United States

	Cum. 1985		Cum. 1985
Anthrax	-	Plague	-
Botulism: Foodborne	-	Poliomyelitis: Total	-
Infant	3	Paralytic	-
Other	-	Psittacosis (W. Va. 6, Ariz. 1, Calif. 2)	14
Brucellosis (Upstate N.Y. 2, Mich. 1, Calif. 1)	5	Rabies, human	-
Cholera	-	Tetanus (W. Va. 1)	3
Congenital rubella syndrome	-	Trichinosis	4
Diphtheria	-	Typhus fever, flea-borne (endemic, murine)	-
Leptospirosis	5		

*Five of the 11 reported cases for this week were imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending February 2, 1985 and February 4, 1984 (5th Week)

Reporting Area	AIDS	Aseptic Menin-gitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionel-losis	Leprosy
			Primary	Post-in-fectious			A	B	NA,NB	Unspeci-fied		
	Cum. 1985	1985	Cum. 1985	Cum. 1985	Cum. 1985	Cum. 1984	1985	1985	1985	1985	1985	Cum. 1985
UNITED STATES	509	55	60	5	74,295	81,011	474	552	74	91	12	10
NEW ENGLAND	17	1	2	-	2,449	2,728	9	28	4	21	1	-
Maine	1	-	-	-	101	106	-	-	-	-	-	-
N.H.	-	1	1	-	47	61	-	3	1	-	-	-
Vt.	-	-	-	-	26	33	-	-	-	-	-	-
Mass.	11	-	1	-	843	985	5	16	3	19	-	-
R.I.	1	-	-	-	186	134	2	3	-	-	1	-
Conn.	4	-	-	-	1,246	1,409	2	6	-	2	-	-
MID ATLANTIC	218	5	2	-	9,864	9,583	29	68	6	6	1	1
Upstate N.Y.	41	5	2	-	958	1,417	15	37	4	4	-	-
N.Y. City	130	-	-	-	4,278	4,116	3	9	-	1	-	1
N.J.	31	-	-	-	1,352	1,374	8	5	-	1	-	-
Pa.	16	-	-	-	3,276	2,676	3	17	2	-	1	-
E.N. CENTRAL	36	12	20	2	10,544	12,130	42	51	5	2	5	-
Ohio	9	3	8	1	2,798	2,662	8	10	-	-	4	-
Ind.	2	-	4	-	959	1,607	3	8	1	1	-	-
Ill.	15	2	-	-	3,601	3,462	3	3	-	1	-	-
Mich.	6	7	7	-	3,019	3,245	28	30	4	-	1	-
Wis.	4	-	1	1	167	1,154	-	-	-	-	-	-
W.N. CENTRAL	8	2	3	-	4,300	3,603	13	21	2	1	1	-
Minn.	1	-	-	-	639	555	3	6	-	1	-	-
Iowa	1	-	3	-	449	463	1	2	1	-	-	-
Mo.	4	-	-	-	1,952	1,550	-	12	1	-	1	-
N. Dak.	-	-	-	-	24	39	-	-	-	-	-	-
S. Dak.	-	2	-	-	91	122	9	1	-	-	-	-
Nebr.	-	-	-	-	400	270	-	-	-	-	-	-
Kans.	2	-	-	-	745	604	-	-	-	-	-	-
S. ATLANTIC	57	9	8	-	15,614	20,247	17	77	8	4	1	-
Del.	1	-	1	-	355	335	2	1	-	-	-	-
Md.	7	1	2	-	2,089	2,867	-	4	3	2	-	-
D.C.	10	-	-	-	1,257	1,438	-	6	-	-	-	-
Va.	6	3	-	-	1,657	2,082	1	14	1	-	-	-
W. Va.	-	-	-	-	255	216	-	2	-	-	-	-
N.C.	6	1	5	-	3,008	3,091	1	7	1	-	-	-
S.C.	1	-	-	-	2,222	1,879	-	9	1	-	-	-
Ga.	7	-	-	-	-	3,968	1	12	-	1	1	-
Fla.	19	4	-	-	4,771	4,371	12	22	2	1	-	-
E.S. CENTRAL	4	5	2	2	6,310	6,561	14	39	2	1	-	-
Ky.	1	3	-	-	714	866	13	17	1	1	-	-
Tenn.	-	-	1	-	2,577	2,687	-	14	-	-	-	-
Ala.	2	1	1	2	2,035	2,111	-	6	1	-	-	-
Miss.	1	1	-	-	984	897	1	2	-	-	-	-
W.S. CENTRAL	36	5	3	-	11,757	11,096	55	20	5	26	-	-
Ark.	-	-	-	-	1,112	1,020	1	-	-	-	-	-
La.	1	-	-	-	2,390	2,748	5	5	1	-	-	-
Okla.	-	2	3	-	1,166	1,287	14	2	3	4	-	-
Tex.	35	3	-	-	7,089	6,041	35	13	1	22	-	-
MOUNTAIN	12	4	3	-	2,464	2,384	55	36	3	7	-	-
Mont.	-	-	-	-	80	117	3	1	1	-	-	-
Idaho	-	-	-	-	82	104	3	-	-	-	-	-
Wyo.	-	-	-	-	45	63	-	1	-	-	-	-
Colo.	4	-	2	-	630	604	11	5	-	1	-	-
N. Mex.	2	-	-	-	316	293	14	13	1	-	-	-
Ariz.	4	-	-	-	806	641	14	11	1	2	-	-
Utah	-	4	1	-	106	135	5	-	-	4	-	-
Nev.	2	-	-	-	399	427	5	5	-	-	-	-
PACIFIC	121	12	17	1	10,993	12,679	240	212	39	23	3	9
Wash.	1	-	1	-	620	788	12	10	2	-	-	-
Oreg.	4	-	-	-	662	643	19	15	2	-	-	1
Calif.	116	11	16	1	9,262	10,791	209	186	35	23	3	7
Alaska	-	-	-	-	292	275	-	1	-	-	-	-
Hawaii	-	1	-	-	157	182	-	-	-	-	-	1
Guam	-	U	-	-	-	31	U	U	U	U	U	-
P.R.	8	2	1	-	419	301	14	8	1	-	-	-
V.I.	-	-	-	-	39	49	-	-	-	-	-	-
Pac. Trust Terr.	-	U	-	-	-	-	U	U	U	U	U	-

N: Not notifiable U: Unavailable

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending February 2, 1985 and February 4, 1984 (5th Week)

Reporting Area	Malaria	Measles (Rubeola)					Menin-gococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported *		Total									
	Cum. 1985	1985	Cum. 1985	1985	Cum. 1985	Cum. 1984	Cum. 1985	1985	Cum. 1985	1985	Cum. 1985	Cum. 1984	1985	Cum. 1985	Cum. 1984
UNITED STATES	49	1	3	10	20	143	224	46	199	17	84	117	2	16	35
NEW ENGLAND	1	-	-	-	-	-	15	1	7	-	1	2	-	2	1
Maine	-	-	-	-	-	-	1	-	1	-	-	-	-	-	1
N.H.	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-
Vt.	-	-	-	-	-	-	2	-	-	-	1	-	-	-	-
Mass.	1	-	-	-	-	-	3	1	5	-	-	-	-	1	-
R.I.	-	-	-	-	-	-	6	-	-	-	-	1	-	-	-
Conn.	-	-	-	-	-	-	3	-	1	-	-	-	-	-	-
MID ATLANTIC	7	-	-	1	1	-	24	4	31	2	16	5	1	5	-
Upstate N.Y.	2	-	-	1†	1	-	8	4	26	1	4	5	1	1	-
N.Y. City	2	-	-	-	-	-	1	-	-	-	4	-	-	3	-
N.J.	-	-	-	-	-	-	8	-	3	-	-	-	-	1	-
Pa.	3	-	-	-	-	-	7	-	2	1	8	-	-	-	-
E.N. CENTRAL	4	-	1	-	-	103	48	14	59	2	19	15	-	-	4
Ohio	1	-	-	-	-	-	20	6	31	-	8	5	-	-	-
Ind.	-	-	-	-	-	-	5	3	6	2	10	-	-	-	-
Ill.	-	-	-	-	-	11	3	-	8	-	-	5	-	-	3
Mich.	3	-	-	-	-	92	16	5	13	-	1	3	-	-	1
Wis.	-	-	1	-	-	-	4	-	1	-	-	2	-	-	-
W.N. CENTRAL	1	-	-	-	-	-	12	2	6	4	5	41	-	1	2
Minn.	-	-	-	-	-	-	3	-	-	-	1	2	-	-	-
Iowa	-	-	-	-	-	-	2	-	1	-	-	3	-	-	-
Mo.	1	-	-	-	-	-	6	2	3	2	2	1	-	-	-
N. Dak.	-	-	-	-	-	-	-	-	-	2	2	-	-	-	1
S. Dak.	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Nebr.	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-
Kans.	-	-	-	-	-	-	-	-	2	-	-	33	-	1	1
S. ATLANTIC	7	1	1	1	1	-	34	4	17	6	11	14	-	1	2
Del.	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Md.	1	-	-	-	-	-	4	-	-	1	1	1	-	-	-
D.C.	1	-	-	1†	1	-	-	-	-	-	-	-	-	-	-
Va.	1	-	-	-	-	-	4	1	5	-	-	4	-	-	-
W. Va.	1	-	-	-	-	-	-	2	6	-	-	2	-	-	-
N.C.	1	-	-	-	-	-	10	-	-	2	4	1	-	-	-
S.C.	-	-	-	-	-	-	5	-	1	-	-	-	-	1	-
Ga.	-	-	-	-	-	-	3	-	2	1	1	3	-	-	1
Fla.	2	1	1	-	-	-	7	1	3	2	5	3	-	-	1
E.S. CENTRAL	2	-	-	-	-	2	13	-	1	-	2	2	-	1	-
Ky.	-	-	-	-	-	-	2	-	-	-	-	1	-	1	-
Tenn.	-	-	-	-	-	2	6	-	1	-	1	1	-	-	-
Ala.	2	-	-	-	-	-	4	-	-	-	1	-	-	-	-
Miss.	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
W.S. CENTRAL	1	-	-	-	-	7	13	4	16	-	4	12	-	1	4
Ark.	-	-	-	-	-	-	-	-	1	-	2	7	-	1	1
La.	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Okla.	-	-	-	-	-	-	1	N	N	-	2	2	-	-	-
Tex.	1	-	-	-	-	7	11	4	15	-	-	3	-	-	3
MOUNTAIN	-	-	-	5	8	17	15	4	25	1	3	12	-	-	3
Mont.	-	-	-	5§	8	-	2	-	1	-	-	1	-	-	-
Idaho	-	-	-	-	-	-	-	-	2	-	-	1	-	-	1
Wyo.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Colo.	-	-	-	-	-	-	4	1	4	1	1	9	-	-	-
N. Mex.	-	-	-	-	-	-	3	N	N	-	1	1	-	-	-
Ariz.	-	-	-	-	-	-	3	2	16	-	1	-	-	-	-
Utah	-	-	-	-	-	17	2	-	-	-	-	-	-	-	2
Nev.	-	-	-	-	-	-	1	1	2	-	-	-	-	-	-
PACIFIC	26	-	1	3	10	14	50	13	37	2	23	14	1	5	19
Wash.	4	-	-	-	-	2	6	1	2	-	1	6	-	-	-
Oreg.	-	-	-	-	-	-	3	N	N	-	4	4	-	-	-
Calif.	20	-	1	3†	9	10	41	11	30	-	15	4	1	5	19
Alaska	1	-	-	-	-	-	-	-	1	-	1	-	-	-	-
Hawaii	1	-	-	-	1	2	-	1	4	2	2	-	-	-	-
Guam	-	U	-	U	-	9	-	U	-	U	-	-	U	-	1
P.R.	-	-	15	-	-	-	8	2	11	-	1	-	2	2	1
V.I.	-	2	2	-	-	-	-	-	1	-	-	-	-	-	-
Pac. Trust Terr.	-	U	-	U	-	-	-	U	-	U	-	-	U	-	-

*For measles only, imported cases includes both out-of-state and international importations.

N: Not notifiable U: Unavailable †International §Out-of-state

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending February 2, 1985 and February 4, 1984 (5th Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum. 1985	Cum. 1984	1985	Cum. 1985	Cum. 1984	Cum. 1985	Cum. 1985	Cum. 1985	Cum. 1985
UNITED STATES	2,214	2,648	8	1,380	1,559	13	13	2	237
NEW ENGLAND	54	71	-	48	46	-	1	-	-
Maine	2	1	-	2	4	-	-	-	-
N H	-	-	-	-	3	-	-	-	-
Vt	-	-	-	-	-	-	-	-	-
Mass	26	46	-	32	16	-	-	-	-
R I	1	3	-	6	9	-	-	-	-
Conn	25	21	-	8	14	-	1	-	-
MID ATLANTIC	316	330	-	345	298	-	1	-	57
Upstate N Y	15	31	-	34	41	-	1	-	9
N Y City	200	187	-	170	131	-	-	-	-
N J	62	62	-	56	71	-	-	-	-
Pa	39	50	-	85	55	-	-	-	48
E N CENTRAL	118	148	3	162	195	-	-	1	4
Ohio	10	29	1	30	49	-	-	1	-
Ind	8	21	-	19	21	-	-	-	-
Ill	77	72	-	75	79	-	-	-	1
Mich	18	17	2	29	36	-	-	-	-
Wis	5	9	-	9	10	-	-	-	3
W N CENTRAL	19	49	1	28	41	4	2	-	29
Minn	6	12	-	4	3	-	2	-	1
Iowa	-	4	1	12	8	-	-	-	17
Mo	8	26	-	5	19	3	-	-	4
N Dak	-	-	-	-	1	-	-	-	5
S Dak	1	-	-	2	1	-	-	-	-
Nebr	1	3	-	2	5	1	-	-	2
Kans	3	4	-	3	4	-	-	-	-
S ATLANTIC	539	828	1	275	362	3	3	1	17
Del	3	-	-	3	4	-	-	-	-
Md	47	44	-	32	53	-	1	-	-
D C	25	23	-	18	8	-	-	-	-
Va	32	44	-	9	30	-	1	-	5
W Va	-	5	-	10	12	-	-	-	-
N C	68	73	-	24	62	3	-	1	-
S C	75	86	-	36	51	-	-	-	2
Ga	-	146	1	30	39	-	-	-	10
Fla	289	407	-	113	103	-	1	-	-
E S CENTRAL	215	169	-	102	142	1	-	-	14
Ky	9	7	-	15	30	-	-	-	2
Tenn	36	45	-	31	51	1	-	-	1
Ala	88	60	-	53	58	-	-	-	11
Miss	82	57	-	3	3	-	-	-	-
W S CENTRAL	477	586	1	102	99	1	-	-	46
Ark	32	20	-	6	1	-	-	-	6
La	109	134	-	41	22	-	-	-	3
Okla	22	13	1	16	12	1	-	-	4
Tex	314	419	-	39	64	-	-	-	33
MOUNTAIN	92	59	-	21	29	3	-	-	35
Mont	-	-	-	2	1	-	-	-	11
Idaho	1	2	-	-	1	-	-	-	-
Wyo	2	1	-	-	-	-	-	-	2
Colo	19	7	-	-	-	-	-	-	-
N Mex	7	8	-	2	9	1	-	-	1
Ariz	58	20	-	14	16	-	-	-	21
Utah	1	3	-	-	1	2	-	-	-
Nev	4	18	-	3	1	-	-	-	-
PACIFIC	384	408	2	297	347	1	6	-	35
Wash	-	17	1	5	17	-	-	-	-
Oreg	15	13	-	9	13	1	-	-	-
Calif	362	366	1	275	282	-	6	-	35
Alaska	-	-	-	-	8	-	-	-	-
Hawaii	7	12	-	8	27	-	-	-	-
Guam	-	-	U	-	-	-	-	-	-
P R	105	91	-	16	22	-	1	-	1
V I	-	1	-	-	-	-	-	-	-
Pac. Trust Terr.	-	-	U	-	-	-	-	-	-

U Unavailable

TABLE IV. Death in 121 U.S. cities,* week ending February 2, 1985 (5th Week)

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	824	618	131	40	15	19	78
Boston, Mass.	231	166	43	12	4	6	29
Bridgeport, Conn.	67	53	6	6	1	1	4
Cambridge, Mass.	26	23	1	2	-	-	4
Fall River, Mass.	25	21	4	-	-	-	1
Hartford, Conn.	73	51	13	2	2	4	3
Lowell, Mass.	24	22	1	-	-	1	2
Lynn, Mass.	18	14	4	-	-	-	2
New Bedford, Mass.	25	22	1	1	1	-	1
New Haven, Conn.	86	57	19	6	2	2	2
Providence, R.I.	86	69	11	2	3	1	11
Somerville, Mass.	15	11	2	1	1	-	2
Springfield, Mass.	57	41	13	1	-	2	4
Waterbury, Conn.	24	19	3	2	-	-	3
Worcester, Mass.	67	49	10	5	1	2	10
MID. ATLANTIC	3,349	2,287	703	213	68	77	211
Albany, N.Y.	64	40	15	3	4	2	1
Allentown, Pa.	14	13	1	-	-	-	-
Buffalo, N.Y.	232	163	42	19	3	4	22
Camden, N.J.	59	36	17	2	4	-	2
Elizabeth, N.J.	25	19	3	3	-	-	2
Erie, Pa.†	56	47	8	-	-	1	9
Jersey City, N.J.	57	37	15	3	-	2	2
N.Y. City, N.Y.	1,795	1,219	372	131	40	33	119
Newark, N.J.	125	61	36	10	5	13	3
Paterson, N.J.	45	29	10	3	1	2	2
Philadelphia, Pa.†	318	205	76	21	7	9	23
Pittsburgh, Pa.†	109	75	23	7	-	4	5
Reading, Pa.	30	25	4	1	-	-	2
Rochester, N.Y.	143	117	21	2	3	-	12
Schenectady, N.Y.	32	24	6	1	-	1	-
Scranton, Pa.†	20	15	5	-	-	-	1
Syracuse, N.Y.	106	73	25	3	1	4	2
Trenton, N.J.	46	33	9	2	-	2	1
Utica, N.Y.	24	18	5	1	-	-	2
Yonkers, N.Y.	49	38	10	1	-	-	1
E.N. CENTRAL	2,632	1,843	477	129	73	109	132
Akron, Ohio	70	47	16	-	4	3	4
Canton, Ohio	42	33	7	1	1	-	6
Chicago, Ill. §	568	465	13	29	18	42	17
Cincinnati, Ohio	208	140	46	9	6	7	25
Cleveland, Ohio	201	125	54	7	5	10	4
Columbus, Ohio	131	92	26	6	3	4	7
Dayton, Ohio	144	102	35	4	2	1	3
Detroit, Mich.	312	190	69	29	11	13	10
Evansville, Ind.	55	36	17	1	-	1	3
Fort Wayne, Ind.	66	47	8	5	1	5	3
Gary, Ind.	18	7	5	1	5	-	1
Grand Rapids, Mich.	62	44	15	3	-	-	9
Indianapolis, Ind.	209	132	52	11	5	9	5
Madison, Wis.	37	22	11	1	1	2	4
Milwaukee, Wis.	160	110	35	6	2	7	5
Peoria, Ill.	53	35	9	5	2	2	5
Rockford, Ill.	60	46	8	4	1	1	7
South Bend, Ind.	46	37	7	1	1	-	5
Toledo, Ohio	122	79	32	4	5	2	7
Youngstown, Ohio	68	54	12	2	-	-	2
W.N. CENTRAL	845	588	175	38	18	26	61
Des Moines, Iowa	69	52	12	2	1	2	8
Duluth, Minn.	24	17	5	1	-	1	-
Kansas City, Kans.	32	21	9	1	1	-	1
Kansas City, Mo.	117	80	28	5	1	3	14
Lincoln, Nebr.	29	23	3	1	2	-	1
Minneapolis, Minn.	90	62	19	2	3	4	9
Omaha, Nebr.	95	64	20	5	2	4	5
St. Louis, Mo.	210	154	35	11	3	7	10
St. Paul, Minn.	63	43	15	5	-	-	2
Wichita, Kans.	116	72	29	5	5	5	11

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
S. ATLANTIC	1,520	973	364	95	34	53	62
Atlanta, Ga.	178	105	49	16	6	2	4
Baltimore, Md.	349	206	95	25	10	13	6
Charlotte, N.C.	81	52	18	4	2	5	4
Jacksonville, Fla.	129	86	35	6	2	-	7
Miami, Fla.	147	85	49	8	1	4	3
Norfolk, Va.	57	32	11	4	1	9	1
Richmond, Va.	92	54	31	3	2	2	5
Savannah, Ga.	58	35	15	6	2	-	3
St. Petersburg, Fla.	163	135	16	6	3	3	21
Tampa, Fla.	80	37	28	9	-	5	4
Washington, D.C. §	119	104	1	5	3	6	3
Wilmington, Del.	67	42	16	3	2	4	1
E.S. CENTRAL	854	546	207	46	30	24	56
Birmingham, Ala.	122	78	31	6	3	4	7
Chattanooga, Tenn.	55	40	12	2	1	-	7
Knoxville, Tenn.	78	48	21	5	4	-	1
Louisville, Ky.	134	85	27	8	5	9	9
Memphis, Tenn.	191	125	45	10	7	4	16
Mobile, Ala.	64	45	10	4	2	2	2
Montgomery, Ala.	77	48	17	7	4	1	4
Nashville, Tenn.	133	77	44	4	4	4	10
W.S. CENTRAL	1,305	806	284	97	46	71	84
Austin, Tex.	51	28	10	9	2	2	7
Baton Rouge, La.	46	34	4	6	1	1	1
Corpus Christi, Tex.	65	42	14	5	2	2	1
Dallas, Tex.	217	126	50	18	6	17	10
El Paso, Tex.	70	38	23	5	1	3	10
Fort Worth, Tex.	100	53	23	8	6	9	12
Houston, Tex.	170	102	45	6	11	6	5
Little Rock, Ark.	54	32	10	5	3	4	7
New Orleans, La.	137	88	33	10	1	5	1
San Antonio, Tex.	224	142	42	17	9	14	23
Shreveport, La.	73	51	13	5	1	3	1
Tulsa, Okla.	98	70	17	3	3	5	6
MOUNTAIN	780	509	170	52	29	18	46
Albuquerque, N.Mex.	105	66	23	10	6	-	4
Colo. Springs, Colo.	43	25	14	3	-	1	9
Denver, Colo.	119	84	25	4	3	3	12
Las Vegas, Nev.	115	72	26	9	6	1	7
Ogden, Utah	26	17	4	2	-	3	1
Phoenix, Ariz.	179	111	40	14	9	5	1
Pueblo, Colo.	32	23	5	2	2	-	4
Salt Lake City, Utah	50	27	13	5	1	3	-
Tucson, Ariz.	111	84	20	3	2	2	8
PACIFIC	2,431	1,727	442	146	49	55	201
Berkeley, Calif.	25	17	5	2	1	-	1
Fresno, Calif.	86	65	13	4	1	3	17
Glendale, Calif.	28	16	9	3	-	-	1
Honolulu, Hawaii	75	55	14	5	1	-	10
Long Beach, Calif.	127	82	25	10	4	6	6
Los Angeles, Calif.	639	453	120	36	13	13	29
Oakland, Calif.	96	67	15	9	4	1	6
Pasadena, Calif.	40	33	3	2	-	2	2
Portland, Oreg.	150	111	28	7	3	1	20
Sacramento, Calif.	159	116	28	8	-	7	20
San Diego, Calif.	181	114	38	11	6	4	20
San Francisco, Calif.	254	176	46	19	4	9	16
San Jose, Calif.	235	173	38	16	5	3	26
Seattle, Wash.	203	158	28	11	4	2	14
Spokane, Wash.	39	27	8	1	2	1	8
Tacoma, Wash.	94	64	24	2	1	3	5
TOTAL	14,540††	9,897	2,953	856	362	452	931

* 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. Figures are estimates based on average of past 4 weeks.

Lead Poisoning — Continued

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Epidemiologic Notes and Reports

Hepatitis B among Dental Patients — Indiana

Between April 1, and December 30, 1984, nine cases of clinical hepatitis B (HB) occurred in a rural Indiana county (population 35,000); this was nine times the normal yearly HB incidence for the past decade. Two of the cases resulted in fatal fulminant hepatitis; an additional case was complicated by polyarteritis nodosa, mononeuritis multiplex, and paralysis. All cases except one had been treated by a dentist in the county.

In mid-September, the dentist, who had practiced general family dentistry in the county for 20 years and saw between 100 and 150 patients per week, noted that all three of the cases to date had been his patients. Because of his possible involvement, he was tested for hepatitis B surface antigen (HBsAg) and found to be positive. He then voluntarily suspended his practice and notified health authorities. Initial investigation by the Indiana State Board of Health and CDC revealed that seven patients who had developed clinical HB between April 1 and October 1 were among the dentist's patients. All were positive for HBsAg, subtype *ad*, and all of six available sera were positive for the IgM fraction of hepatitis B core antibody (anti-HBc IgM), indicating probable recent infection. Although the dentist had no known history of HB infection, his serum was positive for HBsAg, subtype *ad*, and hepatitis e antigen (HBeAg) but negative for anti-HBc IgM.

The dentist did not routinely wear gloves when treating patients but denied lacerations or dermatitis on the hands. He gave no history of hepatitis and had no knowledge of HB carriers in his practice. Other than practicing dentistry, he denied all risk factors for HB. He was not a blood donor and had never been tested serologically for hepatitis. On April 25, and May 30, 1984, he had received his first two doses of HB vaccine.

Further investigation of the outbreak by CDC in late October concentrated on case-finding and interviews of the dentist, his assistants, and the known HB patients and their families. Appropriate blood specimens were also taken. A comparison of the dentist's 1984 patient list with reported HB cases in Indiana uncovered no new cases. However, a review of county resi-

Hepatitis B — Continued

dents rejected for blood donation because of HBsAg-positivity found one patient, who, asymptomatic at the time, had been treated by the dentist several times between May and July and was rejected for blood donation in August. Since she had donated blood in March, her HB infection was considered outbreak-related. Clinical disease, however, did not develop until November 13, nearly 3 months after she became antigen-positive.

The spouse of one HB patient was found to be HBsAg positive, serotype *ad*, HBeAg positive, and anti-HBc IgM negative. He had not been treated by the dentist within the last 2 years but had other risk factors for HB. No other patient's family member had positive HB markers. The patients had no histories of risk factors for HB except traumatic dental work (procedures that produced bleeding) by the dentist 3-5 months before onset of symptoms. None of the HB patients were taking hepatotoxic drugs. Antibody and antigen tests for delta virus were negative on the dentist and all seven of the HB patients tested.

In mid-December, a large seroprevalence study was carried out on the dentist's patients in an attempt to determine the degree of subclinical transmission; results of this study are pending. The dentist has not resumed his practice.

Reported by RH Hamm, MD, RB Peare, MD, WL Painter, KC Allman, M Hamilton, K Cutting, CL Barrett, MD, State Epidemiologist, Indiana State Board of Health; Hepatitis Br, Div of Viral Diseases, Center for Infectious Diseases, CDC.

Editorial Note: HB is a significant health risk for dental professionals (*1,2*) but is only rarely associated with transmission from dentist to patient. Seven HB outbreaks traced to dentists or oral surgeons have been reported. In each instance, the dental professional was a chronic carrier of HB virus and was HBeAg positive, indicating high titers of HB virus in blood. None used gloves when treating patients. Transmission of HB virus was thought to occur by transfer of infective serum from the dentist's hands into the patient's mouth through small abrasions, lacerations, or dermatitis. When subclinical transmission was studied, the overall rate of infection ranged from 1.5 infections per 100 patients screened to 11.1/100. The risk of transmission correlated with the amount of trauma involved in the dental procedure. For those dentists who remained carriers and returned to work, wearing gloves was usually successful in preventing further transmission (*3*).

The present outbreak illustrates again that HBsAg-positive dentists can unknowingly transmit infection to patients. Available epidemiologic and serologic data suggest that the Indiana dentist was infected before January 1984, too early to be affected by HB vaccine started in April, and that he probably obtained his infection while treating an HB-carrier patient. The dentist and the HB patients had matching antigenic subtypes. However, since *ad* subtype is extremely common in the United States, this does not prove that the dentist was the source of the outbreak as convincingly as the time/place clustering in his practice and the lack of other risk factors among the HB patients.

The 22% case-fatality rate in this outbreak is much higher than the usual rate of 1% of hospitalized HB patients. Furthermore, one patient suffered severe polyarteritis nodosa, a complication seen in no more than 1 of 500 cases. Neither coinfection with delta virus nor the use of hepatotoxic drugs explain the unusual amount of severe disease in this outbreak. CDC is continuing to investigate the possibility that a non-B hepatitis virus could be a cofactor in the outbreak.

This is the first reported outbreak of HB traceable to a dentist that has involved deaths. It illustrates an uncommon but serious consequence of HB infection in the dental profession. Outbreaks of this type should reinforce efforts to deliver HB vaccine to dental professionals early in their careers.

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Hepatitis B — Continued

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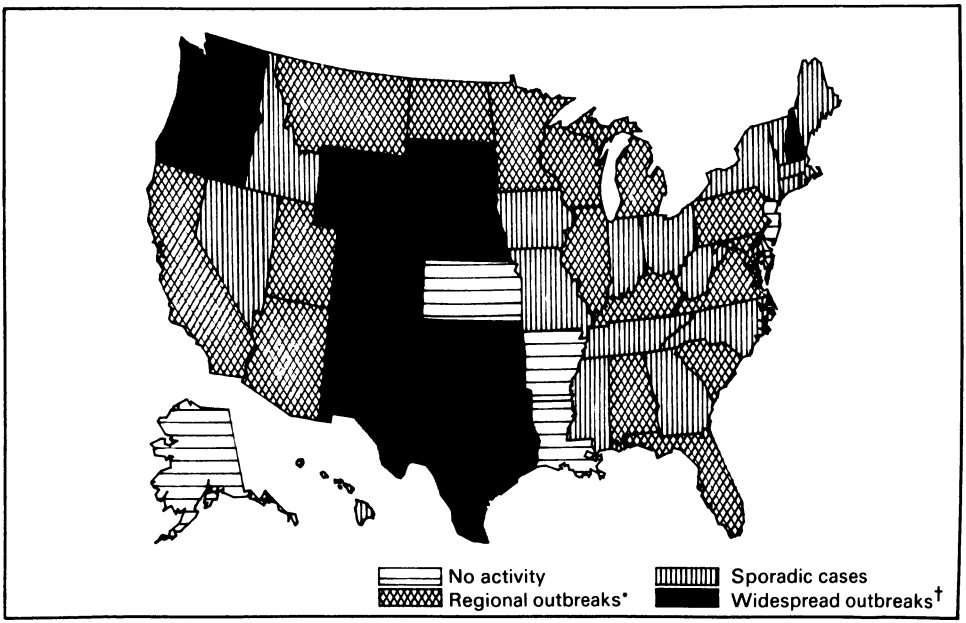
Update: Influenza Activity — United States

Ten states reported widespread outbreaks of influenza-like illness, and 16 states reported regional outbreaks for the week ending February 2, 1985 (Figure 1). This was an increase in the number of states reporting widespread outbreaks from one state for the week ending January 19 and seven for the week ending January 26 (*1*).

The most recent states to report their first isolates of influenza type A(H3N2) virus for the season were Nebraska and Rhode Island. States reporting type A(H3N2) this season are Alabama, Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Florida, Georgia, Hawaii, Illinois, Iowa, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Utah, Washington, West Virginia, and Wisconsin.

During the last week of January, isolates of influenza type B virus from sporadic cases were reported for the first time this season from New York and South Dakota. Four other states (Hawaii, New Jersey, Ohio, and Texas) have reported type B viruses this season.

FIGURE 1. Influenza morbidity reported by state — United States, week ending February 2, 1985



*Outbreaks involving areas with less than 50% of state's population.

†Outbreaks involving areas with more than 50% of state's population.

Influenza – Continued

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Notice to Readers

Ansamycin LM427

Since October 1983, CDC's Division of Tuberculosis Control, Center for Prevention Services, has supplied the experimental drug, ansamycin LM427, under a "compassionate" investigational new drug permit to physicians treating patients with serious mycobacterial disease unresponsive to conventional therapy. Beginning Monday, February 18, 1985, physicians requesting the drug for *new* patients should contact the CDC Drug Service at (404) 329-3670 during normal working hours. Ansamycin LM427 is not released at night or during weekends. The Division of Tuberculosis Control ([404] 329-2530) will continue to provide medical consultation on the treatment of mycobacterial diseases.

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