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Current Trends

Surveillance of Occupational Injuries Treated in Hospital Emergency Rooms — United States

The National Institute for Occupational Safety and Health (NIOSH), in conjunction with the Consumer Product Safety Commission (CPSC), produces periodic estimates of occupational injuries,* based on surveillance data collected in 66 representative U.S. hospital emergency rooms (ER) (*1*); these facilities are part of the National Electronic Injury Surveillance System (NEISS) conducted by CPSC. The sex- and age-specific estimates are combined with estimated numbers of employees and estimated hours worked per week to produce estimated incidence rates (*2*). These estimates pertain only to work-related injuries treated in hospital ER and do not indicate the overall incidence of occupational injuries.

During the first 9 months of 1982, of approximately 100 million workers, an estimated 2.4 million patients with occupational injuries were treated in ER in the continental United States. Of these, 1.83 million (76%) were males and over 563,000 (24%) were females; ages ranged from 16 to over 65.

To determine any seasonal trends, estimated injury incidence rates (injuries per 100 full-time workers per year) based on monthly data by sex and age were also produced. These estimates showed marked differences among groups and times. All age groups showed seasonal variations, which were most pronounced for males aged 16-17 years and 20-24 years. The incidence appears highest in summer and lowest in winter for workers aged 20 years and older, although variations are small in older workers. The trends are similar but less obvious for younger age groups (16-17 and 18-19 years).

On the basis of these estimates, male workers aged 18-19 years appear at highest risk of job-related injury requiring treatment, with an average rate of 11.95. During the summer months, a male worker in this group is 5 times more likely to be injured than a male worker aged 55 years or over. Differences by sex in the estimated monthly incidence rates are also pronounced.

The largest sex-risk ratio is for the 18-19-year group in July, when the incidence rate for males is over 4 times that for females. The smallest is for workers over 65 years of age during November, when the risk for males is 36% that for females. For nearly all months, the difference in risk between males and females diminishes with increasing age. The seasonal variation of incidence is also reflected in the male-to-female ratios.

Reported by the Div of Safety Research, NIOSH, CDC.

Editorial Note: The estimated incidence rates reported here are for injuries treated in ER and indicated as job-related by the injured person. Although the numerators and denominators are

*Acute damage resulting from exposure to physical energy (thermal, mechanical, electrical, chemical, or radiational) in the workplace. The workplace is any location where people work for compensation.

Occupational Injuries — Continued

derived from samples, the rates appear similar to other published rates for work-related injuries in the United States by month (*3*) and by sex (*4*). The numerators (estimates of occupational injuries treated in ER) should be clearly distinguished from other estimates of total injuries based on workers' compensation data (*5*) or other surveys (*6, 7*).

Data from the Health Interview Survey suggest that job-related injuries treated in hospital ER represent about 36% of all job-related injuries; the remainder are treated at doctors' offices, industrial medical facilities, and elsewhere (*7*). Other data from this survey indicate that males initially seek ER treatment for 47% of medically treated injuries and females for 35%; persons aged 17-44 years initially seek ER treatment for 42%, while those over 45 years old do so for 36%.

Although these data clarify the role of the ER in treating job-related injuries, they do not explain the observed differences in the risk of injury between male and female workers, between younger and older workers, and among seasons of the year. Differences in job tasks and exposures specific to male and female workers most likely account for the observed differences in risk. The inexperience of younger workers may be a major factor in the higher incidence of injuries in this group. One hypothesis for the marked seasonal variation for males is that industries with characteristically higher risks of injury, such as construction, often employ their largest numbers of workers, including new workers, during the summer. In an attempt to more accurately characterize the risks of occupational injury, further analysis is under way to explore these and other factors.

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Zinga Virus: A Strain of Rift Valley Fever Virus

Rift Valley fever (RVF), an arthropod-borne viral disease, has caused widespread epizootics in domestic animals and epidemics in humans in sub-Saharan Africa and, in 1977 and 1978, in Egypt (*1*). In humans, RVF virus (RVFV) infection is associated with febrile illness, which may be complicated by encephalitis, blinding retinitis, or fatal hemorrhage (*2*). Zinga virus, originally isolated from mosquitoes and humans in the Central African Republic (C.A.R) (*3,4*), produces a disease similiar to RVF, but was believed to be a serologically ungrouped arthropod-borne virus. Although RVFV was previously known to be indigenous to Nigeria (*5,6*), isolations of Zinga from mosquitoes collected in Senegal, Madagascar, and Guinea, and from infected humans in Senegal, further extend the confirmed range of RVFV activity in West Africa (*7*).

Zinga Virus – Continued

While testing antisera to African viruses in an enzyme-linked immunosorbent assay using RVFV as antigen, the Yale Arbovirus Research Unit detected a cross-reaction between Zinga virus hyperimmune antisera and RVFV. The relationship between RVF and Zinga viruses was determined using three monoclonal antibodies, each highly specific for different antigenic sites on three structural proteins found in all RVFV strains that have been examined. In indirect fluorescent antibody tests, each monoclonal antibody reacted to either RVFV or Zinga virus antigen with identical titers. Plaque reduction neutralization tests with reference hyperimmune antisera confirmed that the prototype strain of Zinga virus (Institut Pasteur strain Ar B 1976) was serologically identical to RVFV.

Because of its threat to humans and to animal production, research on RVFV in the United States is restricted to high containment laboratories. During the last few years, Zinga virus has been studied in many laboratories in North America, Europe, and Africa, and numerous Zinga infections have resulted from laboratory accidents (7). Any laboratory with Zinga virus in its collection should be aware that it is a strain of RVFV and represents a substantial biohazard to people and animals.

Reported by JM Meegan, PhD, RE Shope MD, Yale Arbovirus Research Unit, Yale University School of Medicine, New Haven, Connecticut; CJ Peters, MD, US Army Medical Research Institute for Infectious Diseases, Frederick, Maryland; JP Digoutte, MD, Institut Pasteur de Dakar, Dakar, Senegal; Animal and Plant Health Inspection Svc, US Dept of Agriculture; Special Pathogens Br, Div of Viral Diseases, Center for Infectious Diseases, CDC.

Editorial Note: The discovery that Zinga virus cannot be differentiated from RVFV is important to laboratorians who may have been working with Zinga, unaware of its pathogenic potential, and to public health and agriculture officials concerned with RVF control in livestock. Documentation that the geographic range of RVF includes much of West Africa should alert physicians to consider RVF in the differential diagnosis of dengue-like illnesses or hemorrhagic fever in travelers returning from that area. Since the onset of meningoencephalitis and retinitis may occur late in RVF, clinicians should be aware that these complications may be the presenting features of RVF in a returning traveler.

RVF is primarily an arthropod-borne viral disease of man, sheep, goats, and cattle. In epizootics, the infection results in significant mortality among adult animals, and abortion rates and mortality rates in young animals approach 100%. The 1977 epidemic in completely susceptible human populations of Egypt resulted in an estimated 20%-30% attack rate in epidemic areas, with a case-fatality ratio of 3% (*8*). Thus, RVF has proven to be a disease of both economic significance and public health importance.

Importation of RVF into the United States is regarded as a threat to the livestock industry and to human public health. Although animals imported from areas known to have enzootic RVF are quarantined before entry, viremic travelers could introduce the virus, since indigenous mosquitoes may serve as vectors. Because of these potential threats and the many documented cases of laboratory-acquired RVF, work with this virus is restricted to laboratories with high-containment facilities. The U.S. Department of Agriculture (USDA) has developed contingency plans to respond to and control an RVF outbreak.

Importation regulations for laboratory strains of RVF and other exotic etiologic agents and vectors are a joint responsibility of the US Public Health Service and USDA. Under the Foreign Quarantine Regulations (42CFR Section 71.156), a permit is required for importation and subsequent domestic transport of such agents and vectors. Adherence to these regulations rests on the good faith of laboratorians. The potential usefulness of such regulation is shown in this instance in which Zinga could be traced to two laboratories in the United States. Other laboratories that have Zinga should contact the Animal and Plant Health Inspection Service of the USDA (301-436-8017) for instructions on proper disposal.

Zinga Virus — Continued

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

Disease	7th Week Ending			Cumulative, 7th Week Ending		
	February 19, 1983	February 20, 1982	Median 1978-1982	February 19, 1983	February 20, 1982	Median 1978-1982
Aseptic meningitis	52	62	50	593	542	447
Encephalitis: Primary (arthropod-borne & unspec.)	12	14	7	105	99	85
Post-infectious	-	-	1	5	5	15
Gonorrhea: Civilian	13,414	14,606	17,376	120,173	126,868	128,379
Military	254	529	494	3,257	3,915	3,821
Hepatitis: Type A	272	462	597	2,973	2,772	3,518
Type B	275	330	308	2,620	2,346	1,977
Non A, Non B	25	33	N	347	195	N
Unspecified	98	108	187	914	1,017	1,262
Legionellosis	5	9	N	58	34	N
Leprosy	5	7	3	29	17	22
Malaria	7	11	13	74	83	83
Measles: Total	8	12	260	43	64	969
Indigenous	8	N	N	29	N	N
Imported*	-	N	N	14	N	N
Meningococcal infections: Total	58	56	67	402	387	403
Civilian	58	55	66	393	385	398
Military	-	1	1	9	2	2
Mumps	56	66	309	507	568	1,750
Pertussis	21	26	26	131	112	135
Rubella (German measles)	16	44	89	99	214	420
Syphilis (Primary & Secondary): Civilian	453	668	466	4,401	4,551	3,537
Military	15	6	6	78	62	52
Toxic-shock syndrome	1	N	N	45	N	N
Tuberculosis	358	469	456	2,615	2,879	2,926
Tularemia	3	3	1	18	10	12
Typhoid fever	8	4	7	34	56	46
Typhus fever, tick-borne (RMSF)	2	1	1	9	14	7
Rabies, animal	59	72	72	575	541	541

TABLE II. Notifiable diseases of low frequency, United States

	Cum. 1983		Cum. 1983
Anthrax	-	Plague	-
Botulism: Foodborne (Ky 1)	4	Poliomyelitis: Total	1
Infant	6	Paralytic (Ky. 1)	1
Other	-	Psittacosis	4
Brucellosis (Va. 1)	12	Rabies, human	-
Cholera	-	Tetanus (N.C. 1)	7
Congenital rubella syndrome	4	Trichinosis	3
Diphtheria	-	Typhus fever, flea-borne (endemic, murine)	2
Leptospirosis (Va. 1, Fla. 1)	3		

*None of the eight 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 19, 1983 and February 20, 1982 (7th week)

Reporting Area	Aseptic Menin-gitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionel-losis	Leprosy	Malaria
		Primary	Post-in-fectious			A	B	NA,NB	Unspeci-fied			
	1983	Cum. 1983	Cum. 1983	Cum. 1983	Cum. 1982	1983	1983	1983	1983	1983	Cum. 1983	Cum. 1983
UNITED STATES	52	105	5	120,173	126,868	272	275	25	98	5	29	74
NEW ENGLAND	4	4	-	3,301	2,848	3	13	-	9	-	-	1
Maine	-	-	-	184	146	1	1	-	-	-	-	-
N.H.	1	-	-	91	110	-	-	-	-	-	-	-
Vt.	-	-	-	57	71	-	2	-	-	-	-	-
Mass.	-	3	-	1,465	1,200	-	6	-	9	-	-	-
R.I.	3	-	-	175	186	1	2	-	-	-	-	-
Conn.	-	1	-	1,329	1,135	1	2	-	-	-	-	1
MID ATLANTIC	13	18	-	15,617	14,927	26	33	3	17	-	3	11
Upstate N.Y.	5	8	-	2,155	2,152	3	11	3	2	-	-	4
N.Y. City	2	6	-	6,391	6,478	15	1	-	1	-	3	6
N.J.	3	2	-	3,068	2,841	8	21	-	14	-	-	1
Pa.	3	2	-	4,003	3,456	-	-	-	-	-	-	-
E.N. CENTRAL	6	21	1	15,259	17,515	47	56	5	6	3	1	3
Ohio	3	11	1	4,984	5,017	21	27	2	3	-	1	-
Ind.	3	-	-	1,804	2,063	1	1	-	-	-	-	-
Ill.	-	-	-	2,084	4,536	-	2	-	-	-	-	-
Mich.	-	10	-	4,880	4,319	25	26	3	3	3	-	3
Wis.	-	-	-	1,507	1,580	-	-	-	-	-	-	-
W.N. CENTRAL	2	6	-	5,808	5,824	13	7	1	-	-	-	2
Minn.	-	-	-	917	912	2	4	1	-	-	-	-
Iowa	-	5	-	598	594	1	-	-	-	-	-	1
Mo.	2	-	-	2,737	2,609	2	3	-	-	-	-	-
N. Dak.	-	-	-	59	68	-	-	-	-	-	-	-
S. Dak.	-	-	-	173	181	-	-	-	-	-	-	-
Nebr.	-	1	-	327	334	5	-	-	-	-	-	-
Kans.	-	-	-	997	1,126	3	-	-	-	-	-	1
S. ATLANTIC	8	23	1	30,583	33,150	44	83	5	12	2	1	10
Del.	-	-	-	639	503	1	-	1	1	-	-	-
Md.	-	1	-	3,939	4,272	2	12	-	2	2	-	3
D.C.	-	-	-	1,956	1,573	-	-	-	-	-	-	-
Va.	5	10	1	2,800	2,675	3	7	3	1	-	-	2
W. Va.	-	-	-	322	358	3	4	-	-	-	-	1
N.C.	2	6	-	4,243	5,525	2	8	-	1	-	-	-
S.C.	-	1	-	3,205	2,844	8	2	-	-	-	-	-
Ga.	1	1	-	5,862	5,648	7	25	1	-	-	-	-
Fla.	-	4	-	7,617	9,752	18	25	-	7	-	1	4
E.S. CENTRAL	-	6	2	10,910	10,466	23	23	3	-	-	-	1
Ky.	-	-	-	1,453	1,342	17	4	-	-	-	-	-
Tenn.	-	1	-	4,103	3,992	5	13	1	-	-	-	-
Ala.	-	5	2	3,487	3,202	-	6	2	-	-	-	1
Miss.	-	-	-	1,867	1,930	1	-	-	-	-	-	-
W.S. CENTRAL	16	7	-	17,721	17,800	72	33	-	46	-	2	3
Ark.	-	-	-	1,394	1,565	3	4	-	5	-	-	-
La.	-	-	-	2,758	2,912	7	6	-	3	-	-	-
Okla.	1	1	-	2,149	1,886	2	1	-	-	-	-	2
Tex.	15	6	-	11,420	11,437	60	22	-	38	-	2	1
MOUNTAIN	-	5	-	3,498	4,611	27	13	4	7	-	2	4
Mont.	-	-	-	184	214	-	-	-	-	-	-	-
Idaho	-	-	-	177	207	2	-	-	-	-	-	-
Wyo.	-	1	-	111	129	-	2	-	1	-	-	-
Colo.	-	1	-	1,034	1,293	14	5	2	5	-	-	2
N. Mex.	-	-	-	489	591	6	4	-	-	-	-	-
Ariz.	U	-	-	709	1,202	U	U	U	U	U	2	2
Utah	-	3	-	168	172	3	-	2	-	-	-	-
Nev.	-	-	-	626	803	2	2	-	1	-	-	-
PACIFIC	3	15	1	17,476	19,727	17	14	4	1	-	20	39
Wash.	1	1	-	1,062	1,662	9	6	4	1	-	1	2
Oreg.	-	-	-	917	1,139	6	6	-	-	-	1	2
Calif.	U	13	1	14,725	16,107	U	U	U	U	U	13	35
Alaska	-	-	-	405	486	2	1	-	-	-	-	-
Hawaii	2	1	-	367	333	-	1	-	-	-	5	-
Guam	U	-	-	-	14	U	U	U	U	U	-	-
P.R.	1	-	-	390	407	4	2	-	21	-	-	1
V.I.	-	-	-	32	32	-	-	-	-	-	-	-
Pac. Trust Terr.	U	-	-	-	69	U	U	U	U	U	-	-

N: Not notifiable U: Unavailable

TABLE III. (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending February 19, 1983 and February 20, 1982 (7th week)

Reporting Area	Measles (Rubeola)					Menin-gococcal Infections	Mumps			Pertussis			Rubella		
	Indigenous		Imported *		Total										
	1983	Cum. 1983	1983	Cum. 1983	Cum. 1982	Cum. 1983	1983	Cum. 1983	Cum. 1982	1983	Cum. 1983	Cum. 1982	1983	Cum. 1983	Cum. 1982
UNITED STATES	8	29	-	14	64	402	56	507	568	21	131	112	16	99	214
NEW ENGLAND	-	-	-	-	2	18	1	25	62	2	8	8	2	3	8
Maine	-	-	-	-	-	1	-	4	13	-	-	-	-	-	-
N.H.	-	-	-	-	-	1	-	7	5	1	2	-	-	-	8
Vt.	-	-	-	-	2	-	1	3	3	-	1	-	1	1	-
Mass.	-	-	-	-	-	6	-	4	32	1	4	3	1	2	-
R.I.	-	-	-	-	-	1	-	2	5	-	1	3	-	-	-
Conn.	-	-	-	-	-	9	-	5	4	-	-	2	-	-	-
MID ATLANTIC	1	1	-	1	15	50	7	31	39	7	28	13	1	3	11
Upstate N.Y.	-	-	-	1	10	21	2	10	16	5	16	8	-	1	7
N.Y. City	1	1	-	-	4	7	2	5	6	2	3	3	1	2	4
N.J.	-	-	-	-	-	5	3	9	4	-	3	1	-	-	-
Pa.	-	-	-	-	1	17	-	7	13	-	6	1	-	-	-
E.N. CENTRAL	-	-	-	5	4	68	22	257	231	6	37	39	2	13	29
Ohio	-	-	-	-	-	29	6	152	123	3	19	10	-	1	-
Ind.	-	-	-	-	1	11	-	8	11	-	3	4	-	-	3
Ill.	-	-	-	-	1	7	5	13	21	3	11	7	2	4	9
Mich.	-	-	-	5	2	20	8	72	52	-	1	6	-	2	6
Wis.	-	-	-	-	-	1	3	12	24	-	3	12	-	6	11
W.N. CENTRAL	-	-	-	-	-	24	6	48	26	3	9	6	1	9	9
Minn.	-	-	-	-	-	2	2	4	3	-	-	2	-	2	1
Iowa	-	-	-	-	-	4	1	24	8	-	2	-	-	-	-
Mo.	-	-	-	-	-	12	-	2	3	1	2	3	-	-	6
N. Dak.	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
S. Dak.	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-
Nebr.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kans.	-	-	-	-	-	4	3	18	12	2	5	-	1	7	2
S. ATLANTIC	7	8	-	2	10	84	5	21	71	1	16	11	1	8	8
Del.	-	-	-	-	-	-	-	-	1	-	-	4	-	-	-
Md.	-	-	-	-	-	9	1	3	6	-	-	-	-	1	-
D.C.	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
Va.	-	1	-	1	9	12	2	8	9	1	7	-	-	-	5
W. Va.	-	-	-	-	1	-	-	6	33	-	-	2	-	1	1
N.C.	-	-	-	-	-	18	2	3	4	-	-	1	-	-	-
S.C.	-	-	-	1	-	11	-	-	2	-	-	2	-	-	-
Ga.	-	-	-	-	-	14	-	1	2	-	8	-	-	2	1
Fla.	7	7	-	-	-	19	-	-	14	-	1	2	1	4	1
E.S. CENTRAL	-	-	-	-	4	27	4	9	8	-	-	2	-	1	5
Ky.	-	-	-	-	1	6	4	6	1	-	-	-	-	1	5
Tenn.	-	-	-	-	3	9	-	3	4	-	-	1	-	-	-
Ala.	-	-	-	-	-	12	-	-	1	-	-	-	-	-	-
Miss.	-	-	-	-	-	-	-	-	2	-	-	1	-	-	-
W.S. CENTRAL	-	-	-	-	2	55	8	51	22	2	20	6	8	19	15
Ark.	-	-	-	-	-	2	-	1	2	-	1	-	-	-	-
La.	-	-	-	-	-	7	-	-	-	1	2	-	-	-	-
Okla.	-	-	-	-	-	7	-	-	-	-	2	-	-	-	1
Tex.	-	-	-	-	2	39	8	50	20	1	15	6	8	19	14
MOUNTAIN	-	-	-	1	-	13	1	17	16	-	9	7	1	4	8
Mont.	-	-	-	-	-	-	-	-	1	-	1	-	1	1	1
Idaho	-	-	-	-	-	2	-	1	2	-	-	-	-	-	-
Wyo.	-	-	-	-	-	-	-	-	1	-	-	-	-	1	1
Colo.	-	-	-	1	-	6	-	1	2	-	4	1	-	-	-
N. Mex.	-	-	-	-	-	1	-	-	-	-	4	2	-	-	1
Ariz.	U	-	U	-	-	1	U	11	3	U	-	4	U	1	1
Utah	-	-	-	-	-	3	1	4	5	-	-	-	-	1	3
Nev.	-	-	-	-	-	-	-	-	2	-	-	-	-	-	1
PACIFIC	-	20	-	5	27	63	2	48	93	-	4	20	-	39	121
Wash.	-	-	-	-	9	14	1	7	17	-	-	4	-	-	4
Oreg.	-	1	-	-	-	4	-	-	-	-	-	2	-	2	-
Calif.	U	18	U	5	17	43	U	34	75	U	4	14	U	37	116
Alaska	-	-	-	-	-	-	-	4	1	-	-	-	-	-	-
Hawaii	-	1	-	-	1	2	1	3	-	-	-	-	-	-	1
Guam	U	-	U	-	-	-	U	-	1	U	-	-	U	-	1
P.R.	4	13	-	-	12	4	3	22	4	-	-	1	-	-	2
V.I.	-	2	-	3	-	-	-	-	-	-	-	-	-	1	-
Pac. Trust Terr.	U	-	U	-	-	-	U	-	-	U	-	-	U	-	-

*For measles only, imported cases includes both out-of-state and international importations. U: Unavailable †International §Out-of-state

TABLE III. (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending February 19, 1983 and February 20, 1982 (7th week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum. 1983	Cum. 1982	1983	1983	Cum. 1983	Cum. 1983	Cum. 1983	Cum. 1983	Cum. 1983
UNITED STATES	4,401	4,551	1	358	2,615	18	34	9	575
NEW ENGLAND	113	84	-	13	53	-	2	1	-
Maine	2	-	-	1	5	-	-	-	-
N.H.	-	-	-	2	5	-	-	-	-
Vt.	-	-	-	-	-	-	-	-	-
Mass.	81	59	-	7	21	-	2	1	-
R.I.	2	6	-	1	6	-	-	-	-
Conn.	28	19	-	2	16	-	-	-	-
MID ATLANTIC	498	600	-	70	505	-	10	-	19
Upstate N.Y.	16	52	-	22	109	-	2	-	14
N.Y. City	304	395	-	30	189	-	3	-	-
N.J.	96	67	-	10	110	-	5	-	-
Pa.	82	86	-	8	97	-	-	-	5
E.N. CENTRAL	192	248	1	60	424	-	3	1	40
Ohio	91	48	-	8	56	-	1	-	6
Ind.	28	24	-	17	61	-	-	-	-
Ill.	25	128	-	26	214	-	1	-	18
Mich.	32	33	1	5	74	-	1	1	-
Wis.	16	15	-	4	19	-	-	-	16
W.N. CENTRAL	51	82	-	16	85	7	1	2	92
Minn.	27	16	-	5	10	-	-	-	26
Iowa	2	1	-	1	15	-	-	-	28
Mo.	16	50	-	6	47	7	1	2	10
N. Dak.	-	2	-	-	-	-	-	-	7
S. Dak.	-	-	-	3	5	-	-	-	6
Nebr.	1	2	-	-	2	-	-	-	5
Kans.	5	11	-	1	6	-	-	-	10
S. ATLANTIC	1,194	1,220	-	92	581	6	6	1	210
Del.	9	2	-	2	3	-	-	-	-
Md.	65	73	-	12	104	1	2	-	96
D.C.	49	76	-	5	20	-	-	-	-
Va.	89	89	-	6	31	1	2	-	84
W. Va.	2	4	-	-	20	-	1	-	7
N.C.	108	98	-	16	47	4	-	-	1
S.C.	107	68	-	2	52	-	-	-	2
Ga.	206	264	-	23	110	-	-	-	16
Fla.	559	546	-	26	194	-	1	1	4
E.S. CENTRAL	315	356	-	30	267	1	1	3	41
Ky.	21	19	-	12	84	-	-	-	11
Tenn.	79	88	-	9	79	1	1	1	24
Ala.	140	118	-	6	69	-	-	2	6
Miss.	75	131	-	3	35	-	-	-	-
W.S. CENTRAL	1,130	1,230	-	58	216	3	1	-	101
Ark.	17	34	-	4	11	3	-	-	20
La.	210	221	-	8	39	-	-	-	1
Okla.	34	21	-	7	39	-	-	-	11
Tex.	869	954	-	39	127	-	1	-	69
MOUNTAIN	94	119	-	7	78	1	-	-	29
Mont.	2	1	-	-	6	-	-	-	27
Idaho	1	9	-	-	5	-	-	-	-
Wyo.	2	7	-	-	2	-	-	-	-
Colo.	22	33	-	-	5	-	-	-	-
N. Mex.	37	22	-	2	16	1	-	-	-
Ariz.	18	22	U	U	37	-	-	-	2
Utah	5	3	-	4	4	-	-	-	-
Nev.	7	22	-	1	3	-	-	-	-
PACIFIC	814	612	-	12	406	-	10	1	43
Wash.	25	14	-	3	25	-	1	-	-
Oreg.	13	24	-	2	21	-	-	-	-
Calif.	761	555	U	U	325	-	9	1	42
Alaska	5	4	-	-	-	-	-	-	1
Hawaii	10	15	-	7	35	-	-	-	-
Guam	-	-	U	U	-	-	-	-	-
P.R.	84	60	-	2	68	-	-	-	10
V.I.	1	-	-	-	-	-	-	-	-
Pac. Trust Terr.	-	-	U	U	-	-	-	-	-

U: Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending February 19, 1983 (7th week)

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	711	485	168	25	11	20	62
Boston, Mass.	181	108	42	13	7	11	19
Bridgeport, Conn.	28	14	12	1	-	1	1
Cambridge, Mass.	27	21	5	-	1	-	5
Fall River, Mass.	25	21	4	-	-	-	1
Hartford, Conn.	80	59	18	2	-	1	3
Lowell, Mass.	15	11	4	-	-	-	1
Lynn, Mass.	22	16	6	-	-	-	-
New Bedford, Mass.	34	27	6	1	-	-	1
New Haven, Conn.	41	29	11	-	-	1	3
Providence, R.I.	61	39	18	2	1	1	7
Somerville, Mass.	18	16	2	-	-	-	1
Springfield, Mass.	61	43	10	3	1	3	7
Waterbury, Conn.	49	33	12	3	-	-	7
Worcester, Mass.	69	48	18	-	1	2	6
MID. ATLANTIC	2,972	2,357	351	105	65	70	146
Albany, N.Y.	65	41	17	4	2	1	-
Allentown, Pa.	18	16	2	-	-	-	-
Buffalo, N.Y.	144	100	28	11	3	2	26
Camden, N.J.	48	28	17	1	1	1	3
Elizabeth, N.J.	43	28	13	2	-	-	3
Erie, Pa.†	43	33	8	-	1	1	1
Jersey City, N.J.	77	55	14	1	-	7	-
N.Y. City, N.Y. §	1,517	1,388	13	24	32	37	59
Newark, N.J.	92	48	18	13	6	6	12
Paterson, N.J.	56	39	6	8	2	1	3
Philadelphia, Pa.†	349	210	103	20	10	6	11
Pittsburgh, Pa.†	62	38	16	3	3	2	2
Reading, Pa.	35	29	6	-	-	-	2
Rochester, N.Y.	164	133	22	8	-	1	14
Schenectady, N.Y.	30	20	8	1	1	-	2
Scranton, Pa.†	34	23	10	1	-	-	1
Syracuse, N.Y.	101	61	33	2	1	4	1
Trenton, N.J.	27	19	5	3	-	-	1
Utica, N.Y.	27	20	4	-	3	-	-
Yonkers, N.Y.	40	28	8	3	-	1	5
E.N. CENTRAL	2,347	1,521	556	139	60	71	101
Akron, Ohio	88	52	21	9	4	2	-
Canton, Ohio	36	28	8	-	-	-	1
Chicago, Ill	510	313	134	37	12	14	17
Cincinnati, Ohio	115	68	29	8	6	4	7
Cleveland, Ohio	160	103	40	6	4	7	6
Columbus, Ohio	131	88	32	9	1	1	6
Dayton, Ohio	98	66	21	6	3	2	1
Detroit, Mich.	303	162	82	29	14	16	9
Evansville, Ind.	52	42	6	2	1	1	5
Fort Wayne, Ind.	52	36	13	2	-	1	2
Gary, Ind.	29	15	10	4	-	-	1
Grand Rapids, Mich.	60	45	10	1	1	3	7
Indianapolis, Ind.	212	131	56	11	6	8	6
Madison, Wis.	32	22	9	-	-	1	6
Milwaukee, Wis.	142	104	29	4	3	2	9
Peoria, Ill.	40	23	12	4	-	1	4
Rockford, Ill.	43	34	7	1	1	-	3
South Bend, Ind.	66	54	9	1	1	1	3
Toledo, Ohio	104	85	11	4	1	3	7
Youngstown, Ohio	74	50	17	1	2	4	1
W.N. CENTRAL	814	568	171	32	18	25	47
Des Moines, Iowa	73	50	19	1	3	-	6
Duluth, Minn.	33	30	3	-	-	-	2
Kansas City, Kans.	40	21	16	1	1	1	1
Kansas City, Mo.	114	66	35	6	3	4	8
Lincoln, Nebr.	26	23	3	-	-	-	2
Minneapolis, Minn.	104	75	19	3	2	5	3
Omaha, Nebr.	108	72	26	6	2	2	6
St. Louis, Mo.	136	96	23	7	6	4	8
St. Paul, Minn.	104	83	13	4	-	4	5
Wichita, Kans.	76	52	14	4	1	5	6

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
S. ATLANTIC	1,195	763	278	95	29	30	58
Atlanta, Ga.	153	99	31	16	5	2	7
Baltimore, Md.	99	55	31	6	2	5	3
Charlotte, N.C.	83	53	16	7	3	4	-
Jacksonville, Fla.	126	84	31	8	3	-	13
Miami, Fla.	109	64	26	12	3	4	3
Norfolk, Va.	67	36	25	3	2	1	4
Richmond, Va.	62	36	14	7	1	4	7
Savannah, Ga.	59	45	11	2	-	1	3
St. Petersburg, Fla.	121	102	15	4	-	-	8
Tampa, Fla.	94	58	23	7	3	3	4
Washington, D.C.	159	92	41	17	4	5	3
Wilmington, Del.	63	39	14	6	3	1	3
E.S. CENTRAL	769	480	185	53	35	15	34
Birmingham, Ala.	131	81	35	8	5	2	1
Chattanooga, Tenn.	48	32	8	3	4	1	3
Knoxville, Tenn.	65	51	12	2	-	-	2
Louisville, Ky.	123	71	34	10	1	7	10
Memphis, Tenn.	197	125	39	21	9	2	8
Mobile, Ala.	61	30	16	5	9	1	1
Montgomery, Ala.	37	27	8	1	1	-	2
Nashville, Tenn.	107	63	33	3	6	2	7
W.S. CENTRAL	1,327	788	326	98	58	56	65
Austin, Tex.	68	43	15	4	2	4	4
Baton Rouge, La.	60	33	22	4	-	1	7
Corpus Christi, Tex.	49	32	12	3	2	-	-
Dallas, Tex.	181	101	48	17	8	7	4
El Paso, Tex.	54	32	14	2	5	1	4
Fort Worth, Tex.	67	54	7	4	2	-	7
Houston, Tex.	307	169	75	34	14	15	7
Little Rock, Ark.	72	46	15	3	4	4	11
New Orleans, La.	130	67	38	12	9	4	-
San Antonio, Tex.	187	111	47	11	8	10	8
Shreveport, La.	59	37	16	1	1	4	1
Tulsa, Okla.	93	63	17	3	3	6	12
MOUNTAIN	731	456	177	50	25	23	35
Albuquerque, N.Mex.	71	41	16	5	2	7	3
Colo. Springs, Colo.	31	23	4	1	2	1	3
Denver, Colo.	153	87	47	11	5	3	7
Las Vegas, Nev.	71	33	29	6	1	2	4
Ogden, Utah	17	14	3	-	-	-	2
Phoenix, Ariz.	188	123	39	12	10	4	4
Pueblo, Colo.	26	17	7	1	1	-	3
Salt Lake City, Utah	48	32	10	2	1	3	1
Tucson, Ariz.	126	86	22	12	3	3	8
PACIFIC	1,842	1,227	370	110	68	64	111
Berkeley, Calif.	16	14	1	1	-	-	-
Fresno, Calif.	78	52	14	5	3	4	4
Glendale, Calif.	40	35	4	-	-	-	1
Honolulu, Hawaii	63	41	16	3	2	1	1
Long Beach, Calif.	105	69	24	5	4	3	5
Los Angeles, Calif.	529	338	109	44	24	14	23
Oakland, Calif.	70	46	11	3	6	4	4
Pasadena, Calif.	32	18	7	3	-	4	2
Portland, Oreg.	119	74	26	11	4	4	7
Sacramento, Calif.	64	43	15	1	3	2	3
San Diego, Calif.	162	111	29	7	10	4	21
San Francisco, Calif.	163	102	38	11	3	9	4
San Jose, Calif.	175	122	37	8	3	4	23
Seattle, Wash.	139	103	18	6	4	8	5
Spokane, Wash.	43	23	15	1	1	3	3
Tacoma, Wash.	44	36	6	1	1	-	5
TOTAL	12,708††	8,645	2,582	707	369	374	659

* 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.

Update: Influenza Activity — United States

Influenza type A(H3N2) virus related to Bangkok/79 has accounted for greater than 90% of all influenza isolates reported during the 1982-1983 season. In recent weeks, increased numbers of type A(H1N1) virus isolates, related to the Brazil component of the current vaccine, have been identified; they have been reported in 11 states, while type A(H3N2) isolates have been reported in 37 states.

Four states (Nebraska, Ohio, Oklahoma, and Texas) reported widespread influenza activity for the week ending February 19. Another 15 states (Colorado, Idaho, Illinois, Iowa, Kansas, Kentucky, Maine, Michigan, Missouri, Montana, Nevada, Tennessee, South Dakota, Virginia, and Wisconsin) reported outbreaks in one or more locations. For the week ending February 19, the observed ratio of pneumonia and influenza (P&I) deaths to total deaths was 5.2, and the expected ratio was 4.1. This is the sixth consecutive week that an excess in the ratio of P&I deaths was recorded from the 121 reporting cities.

Reported by Respective state epidemiologists and laboratory directors; U.S. Air Force School of Aerospace Medicine; Div of Surveillance and Epidemiologic Studies, Epidemiology Program Office, WHO Collaborating Center for Influenza, Influenza Br, Div of Viral Diseases, Center for Infectious Diseases, CDC.

Update: Raccoon Rabies — Mid-Atlantic States

The outbreak of wildlife rabies in Virginia, West Virginia, Maryland, Pennsylvania (*1*), and the District of Columbia (*2*) continues (Table 1). Over 75% of the animals reported rabid in the mid-Atlantic area have been raccoons; other affected wildlife include: skunks, bats, foxes, and groundhogs, in decreasing order of frequency. Cases have also occurred in dogs, cats, and cattle, suggesting that "spillover" has occurred from rabid wildlife into domestic animals.

Within the affected area, the number of raccoons reported rabid has increased in recent years as follows: 1977—1, 1978—3, 1979—12, 1980—21, 1981—132, 1982—837. As of February 14, 1983, nine cases had been reported in Washington, D.C., since October 1982. Northeastern Virginia/western Maryland remains the area of greatest involvement, but the outbreak continues to radiate from its original focus on the Virginia/West Virginia border.

TABLE 1. Reported wildlife rabies—mid-Atlantic states, January 1-February 15, 1983

	Species						
State	Raccoon	Fox	Cat	Bat	Skunk	Other	Total
Maryland	85	—	1	2	1	1*	90
Virginia	74	3	1	—	3	1†	82
W Virginia	7	—	—	—	3	—	10
Wash., D.C.	4	—	—	—	—	—	4
Pennsylvania	2	—	—	—	1	1§	4
Total	172	3	2	2	8	3	190

*beaver
†calf
§horse

Raccoon Rabies — Continued

The outbreak area has increased by approximately 25-50 miles per year. New Jersey and Delaware now appear as the most likely states into which the outbreak may spread.

No adequate control methods have been found for rabies in wildlife. Domestic-pet rabies immunization programs and public education programs have been intensified to reduce the risk of human exposure. No human rabies has been associated with this outbreak.

Reported by EJ Witte, VMD, CW Hays, MD, State Epidemiologist, Pennsylvania State Dept of Health; GB Miller Jr, MD, State Epidemiologist, Virginia State Dept of Health; LE Haddy, MS, Acting State Epidemiologist, West Virginia State Dept of Health; ME Levy, MD, State Epidemiologist, District of Columbia Dept of Human Svcs; E Israel MD, State Epidemiologist, Maryland State Dept of Health and Mental Hygiene; Div of Viral Diseases, Center for Infectious Diseases, CDC.

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Epidemiologic Notes and Reports

Kawasaki Syndrome — United States

Since October 1982, four outbreaks of Kawasaki syndrome (KS), a rare illness affecting primarily preschool-aged children, have been reported to CDC. The outbreaks consisted of 43 cases in four states over a 3-month period. There were no fatalities.

Illinois: Eleven cases occurred in four contiguous counties—Cook, Will, DuPage, and McHenry—in December and January. The mean age was 4.3 years (range 11 months-12 years); four were female; 10 were white; one was black. Eight were hospitalized. Two reportedly had coronary aneurysms.

Michigan: Nine children with onset of KS between November 3 and December 31, 1982, were reported in Kent County (Grand Rapids). Their mean age was 3.1 years (range 8 months-8 years 5 months); seven were female; six were white; three were black. Eight of the nine were hospitalized. Illness in one child was complicated by carditis, pericardial effusion, and mild ST segment elevation. Scattered cases have been reported elsewhere in the state.

New York: Seven cases with onset between October 15, 1982, and January 20, 1983, were reported in two adjoining counties, Oneida and Herkimer. The mean age was 2.6 years (range 12 months-6 years 1 month); four cases occurred in females; all were white. Six of the seven were hospitalized. One developed coronary artery aneurysms.

Wisconsin: Sixteen cases occurred between November 28, 1982, and February 3, 1983, in Milwaukee and four adjoining counties. The mean age was 2.3 years (range 8 months-6 years 4 months); eight of the children were female; 12 were white; two were black; two were Asian. All 16 were hospitalized. The echocardiograms of eight children were abnormal, showing tubular dilatation of the right and left coronary arteries in one child, mild left heart enlargement in five children, and minimal posterior pericardial effusion in two children.

Reported by A Baker, MD, Oneida County Health Dept, R Maggiolino, R Rothenberg, MD, State Epidemiologist, New York State Dept of Health; S Gardner, S Shulman, MD, Children's Memorial Hospital, Northwestern University Medical School, Chicago, KT Reddi, MD, Chicago Board of Health, BJ Francis, MD, State Epidemiologist, Illinois State Dept of Public Health; D Mack, MD, C Jillson, Kent County Health Dept, WN Hall, MD, KR Wilcox, Jr, MD, State Epidemiologist, Michigan State Dept of Public Health; DW Wortman, MD, B Mohr, Milwaukee Children's Hospital, JP Davis, MD, State Epidemiologist, Wisconsin Div of Health; Div of Viral Diseases, Center for Infectious Diseases, CDC.

Kawasaki Syndrome — Continued

Editorial Note: KS, first described by a Japanese pediatrician in 1967, has been occurring in the United States since at least 1971 (*1*). The etiology is unknown. The diagnosis is clinical, and by CDC definition, a KS patient must have fever lasting 5 or more days without other reasonable explanation and satisfy at least four of the following criteria: 1) bilateral conjunctival injection; 2) at least one of the following mucous membrane changes: injected or fissured lips, injected pharynx, or "strawberry" tongue; 3) at least one of the following extremity changes: erythema of palms or soles, edema of the hands or feet, or generalized or periungual desquamation; 4) rash; and 5) cervical lymphadenopathy (at least one node 1.5 cm or larger in diameter). Coronary artery aneurysms are present in 17%-31% of cases (*2*), and the case-fatality ratio is approximately 1% (*3*).

KS outbreaks have been reported previously in the New York City area (*4*), Monroe County, New York (*5*), Los Angeles, California (*6*), eastern Massachusetts (*5*), Hawaii (*7*), and Denver, Colorado (*8*). These outbreaks, as well as cases reported to CDC through the national surveillance system (*9*), tend to occur during winter and spring.

Investigation of the Monroe County and eastern Massachusetts outbreaks revealed that children with KS had a higher incidence of an antecedent, primarily respiratory, illness (during the 30 days before onset of KS) than did controls matched for age, sex, and race. Neither serologic nor isolation studies incriminated a single etiologic agent for this antecedent illness. This investigation also revealed that KS was more likely to occur in children of middle and upper socioeconomic status.

A recently reported case-control study conducted during the Denver outbreak revealed that 11 (48%) of 23 case families, compared with nine (10%) of 86 control families, had shampooed their carpets within 30 days before onset of illness. Ten of these case parents allowed their children on the newly shampooed carpets within 2 hours, whereas control parents who shampooed tended to keep children off the carpets for 4 or more hours. The interval between shampooing and illness for nine of the 11 patients was 16-25 days.

Japanese investigators have proposed an association between house-dust mites (*Dermatophagoides*) and KS. In one study, serum levels of anti-mite-specific IgG in 15 of 20 KS patients were more than two SD above that found in 45 age-range-matched, non-atopic controls. Serum levels of anti-mite-specific IgE were similarly elevated in six of 20 KS patients. Mite antigen was found in circulating immune complexes in three of eight KS patients (*10*). This and another study (*11*) have not yet been repeated by other investigators, and their significance has yet to be determined.

In cooperation with CDC, state and local health departments in Michigan, New York, and Wisconsin are currently conducting outbreak investigations. Reports of any outbreaks or cases, or requests for further information, may be directed through local and state health departments to the Epidemiology Office, Division of Viral Diseases, Center for Infectious Diseases, CDC.

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Kawasaki Syndrome – Continued

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The *Morbidity and Mortality Weekly Report* is prepared by the Centers for Disease Control, Atlanta, Georgia, and distributed by the National Technical Information Service, Springfield, Virginia. The data in this report are provisional, based on weekly reports 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. Such reports and any other matters pertaining to editorial or other textual considerations should be addressed to: ATTN: Editor, *Morbidity and Mortality Weekly Report,* Centers for Disease Control, Atlanta, Georgia 30333.

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