CENTERS FOR DISEASE CONTROL

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Perspectives in Disease Prevention and Health Promotion

Unintentional Poisoning Among Young Children — United States

The Poison Prevention Packaging Act of 1970* provides that certain potentially hazardous drugs and household products be sold in child-resistant containers. Since this act has been implemented, reported incidents of children ingesting regulated products, such as aspirin and aspirin substitutes, lighter fluids, oven cleaners and other lye preparations, and antifreeze, have declined (*1*).

From 1974 to 1981, U.S. Consumer Product Safety Commission (CPSC) estimates of regulated products ingested by children under 5 years of age that prompted emergency room (ER) visits decreased from 48,000 (2.9/1,000 population under 5 years) to 34,000 (2.0/1,000).† During the same period, estimated ER visits for children under 5 years old prompted by ingestion of unregulated products increased from 51,000 (3.2/1,000) to 56,000 (3.3/1,000) (*2*).

Morbidity and mortality data from unintentional ingestions of aspirin and aspirin substitutes, often used to measure the effect of child-resistant containers (*3*), have dramatically decreased. Such ingestions by young children as reported by poison control centers have declined 65% since the act was introduced (*1*); mortality among children under 5 years old declined from 58 in 1970 to 18 in 1978—a 69% reduction (*2,4*).

Despite these advances, unintentional poisoning remains a significant public health concern. In 1981, an estimated 90,000 children under 5 years old received ER care because of ingested hazardous substances (*2*).

Unintentional carbon monoxide (CO) intoxication remains a major environmental hazard for all age groups (*5*), and for reasons not fully understood, CO-related fatalities have increased among young children. CO deaths among children under 5 years old increased 143% from 1973 to 1978 (from 14 to 34 cases); during the same period, CO deaths among persons over 5 years old increased 5% (from 1,235 to 1,295 cases) (*2,6*).

Pediatric lead poisoning is still a problem in the United States. In fiscal year 1981, over 500,000 children were reportedly screened for this condition, and nearly 22,000 (4.1%) had lead toxicity. Medical care and environmental intervention were required to identify and reduce the sources of lead exposure for these children (*7*).

Reported by Southeastern Regional Office, US Consumer Product Safety Commission; Environmental Health Svcs Div, Center for Environmental Health, CDC.

Editorial Note: March 20-26, 1983, is National Poison Prevention Week (PPW). This campaign, held annually since Congress mandated it in 1962, alerts Americans to the problem

*Administered by the U.S. Consumer Product Safety Commission.

†These estimates are based on data from 73 representative U.S. hospital emergency rooms, which comprise CPSC's National Electronic Injury Surveillance System.

Poisoning – Continued

of unintentional poisoning among children. PPW is sponsored by the PPW Council, a nonprofit group of trade associations, health and safety groups, and federal agencies that provides educational programs and materials for health professionals and the public designed to reduce unintentional poisonings among children.

Although unintentional ingestions and deaths have dropped significantly since child-resistant packaging was introduced, many preventable ingestions and deaths still occur among young children. Causes include failure to correctly use child-resistant packaging, improper storage of poisonous substances, and ignorance of proper emergency steps to take when ingestion of hazardous substances occurs.

Members of the PPW Council are currently involved in the following major activities:

1. CPSC held a public hearing in Washington, D.C., on March 10, 1983, concerning proposed changes in tests for child-resistant closures.
2. CPSC Regional Offices are holding seminars for pharmacists and physicians to emphasize the importance of using child-resistant closures in compliance with the Poison Prevention Packaging Act. Seminars will take place in Ft. Mitchell and Midway, Kentucky, on March 29 and April 26, respectively. Additional seminars are being scheduled in Georgia during April and in other states in the future.
3. The American Association of Poison Control Centers is promoting the message "Know Your Poison Control Center Number." There are more than 600 Poison Control Centers in the United States, which are equipped to provide quick and accurate instructions for dealing with poisoning incidents. Phone numbers for these centers are generally listed with other emergency numbers in the white pages of the phone book.
4. Through workshops, school programs, and the media, many PPW Council agencies are providing information to consumers on proper storage of hazardous substances, the importance of child-resistant packaging, and the services of local poison control centers.

References

1. Steorts NH. National poison prevention week announcement. Washington D.C.: U.S. Consumer Product Safety Commission, February 1983.
2. National Safety Council. Accident facts, 1982. Chicago: National Safety Council 1982.
3. Garrettson LK. The child resistant container: a success and a model for accident prevention (editorial). Am J Public Health 1977;67:135-6.
4. National Safety Council. Accident facts, 1974. Chicago: National Safety Council 1974.
5. CDC. Carbon monoxide intoxication—a preventable environmental health hazard. MMWR 1982;31:529-31.
6. National Safety Council. Accident facts, 1975. Chicago: National Safety Council 1975.
7. CDC. Lead poisoning. In: Annual summary 1981: reported morbidity and mortality in the United States. MMWR 1982;30:112-3.

Premature Death — United States

In *MMWR* 1982;31:109-10, Table V was introduced to reflect CDC's increased responsibility for promoting actions that reduce premature mortality. For 1980, causes of death were listed in a column in decreasing order of the years of potential life lost to age 65. In this issue, the order has been changed to reflect data for 1981.

From 1980 to 1981, the years of potential life lost for persons between ages 1 and 65 years decreased 1.3%. A 3.6% decrease in years of potential life lost in motor vehicle and other accidents accounted for a large proportion of the overall decrease; however, accidents remain the leading cause of premature loss of life. Although the number of deaths from sui-

Premature Death — Continued

cide and homicide decreased 1.3%, the number of years of potential life lost from these causes increased slightly, 0.1%, a shift that may be attributed to a 5.9% increase in the number of suicides of persons 1-34 years old. Suicide, homicide, and accidents caused 40.4% of the total years of potential life lost in 1981.

Generally, the column for years of potential life lost in 1981 reflects relatively little change from that in 1980. Cerebrovascular diseases have replaced chronic liver disease and cirrhosis as the fourth leading cause, although both causes demonstrated a slight decrease in years of potential life lost. Chronic obstructive pulmonary diseases and allied conditions replaced diabetes mellitus as the eighth leading cause. Although the contribution of these pulmonary diseases to all causes of death in 1981 increased only from 1.1% to 1.2%, they caused a 5.2% increase in the number of years of potential life lost. The number of deaths attributed to chronic obstructive pulmonary diseases and allied conditions increased 22.8% for persons between the ages of 1 and 44 years.

Reported by Div of Surveillance and Epidemiologic Studies, Epidemiology Program Office, CDC.

Current Trends

Cataract — A Major Blinding Condition

Of the four diseases of greatest concern to the World Health Organization (WHO) Program for the Prevention of Blindness—trachoma, onchocerciasis, xerophthalmia, and cataract—cataract alone is the leading cause of blindness in all countries of the world. Cataract is the leading blinding condition in the 116 countries covered by the Blindness Data Bank* in the WHO Program for the Prevention of Blindness. An estimated 42 million people are affected by severe loss of vision, and cataract causes 17 million of these losses. Cataract was indicated as the prime cause of blindness in 43.6% of country reports and accounts for 30%-50% of blindness in approximately half the reports in which relative blindness prevalence is indicated. It is especially prevalent in developing countries of the tropical belt.

Developing countries indicate cataract as the major cause of severe visual impairment. Cataract frequency differs greatly in different geographic areas. A population-based prevalence survey for blindness (defined as visual acuity less than 3/60), carried out with WHO assistance in various African areas not endemic for trachoma or onchocerciasis, revealed a blindness rate of approximately 1%, with cataract accounting for 40%-50% of visual loss. However, analysis of data from a blindness survey of Australian aborigenes indicates an increased cataract rate in cases of severe trachoma scarring.

Senile cataract appears to have earlier onset in certain areas in Africa than in other parts of the world, with incidence becoming significant in the 40-50-year age group. A recent report from Asia indicated that, in a certain population group in Nepal, cataract apparently starts at about 35 years of age. In one region of India, with a total cataract prevalence of 4.3% for all ages, a prevalence rate of 1% was revealed for the 30-49-year age group and increased markedly to 67% for ages 70 and older.

A WHO-assisted survey of blinding conditions, carried out in several areas of Africa and Asia, detected cataract blindness in 0.3%-4% of the population. Age-specific prevalence of blindness due to cataract rose steadily, starting at 45 years of age. In a survey in North Africa, cataract contributed to blindness in 0.3% of the total population, in 2% of those aged 41-60

*WHO. Weekly Epidemiological Record 1982;57:145-6.

Cataract — Continued

years, and in 11.6% of those aged over 60. Cataract is expected to become even more prevalent with the general increase in life expectancy. In developing countries, the estimated 13 million persons who are blind due to cataract may reach 30 million by the year 2000 unless efficient, full-scale treatment programs reach all rural areas.

The present WHO strategy to combat blindness from cataract is based on simple ocular surgery, which, in certain peripheral areas, is not adequate to keep up with new cases or with the backlog of cases. Because of the rapidly increasing impact of cataract, research on possible prophylactic measures is gaining attention.

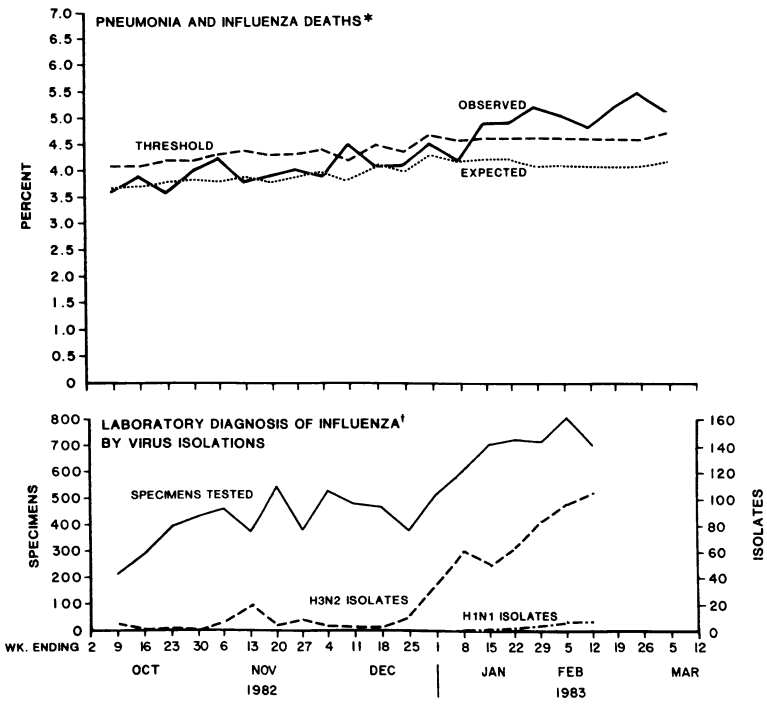
Reported by WHO. Weekly Epidemiological Record *1982;57:397-8.*

Update: Influenza Activity — United States

Influenza isolates reported to CDC this season have increased from a cumulative total of 276 last month (*1*) to 707 (Figure 1). Most virus isolates (93%) have been identified as type A(H3N2) related to the A/Bangkok/79 component of the current vaccine, and 5% have been identified as type A(H1N1) related to the A/Brazil/78 component.

Influenza virus isolates have now been reported from 41 states. Forty states have reported influenza type A(H3N2) virus, and 15, including Kentucky, which recently reported its first in-

FIGURE 1. Indicators of influenza activity — United States, 1982-1983



*REPORTED TO CDC BY 121 CITIES
†REPORTED TO CDC BY WHO COLLABORATING LABORATORIES (INCLUDING MILITARY SOURCES)

Influenza – Continued

fluenza isolate for this season, have reported type A(H1N1) virus. Six states have reported influenza type B virus (10 isolates).

For the week ending March 4, five states (Iowa, Kentucky, Nebraska, Ohio, and Virginia) reported widespread influenza activity, and 11 states reported regional influenza activity. For the same week, an excess in the ratio of pneumonia and influenza (P&I) deaths to total deaths was reported from 121 cities for the 8th consecutive week (Figure 1). The ratio was 5.1, and the expected ratio was 4.2. During the last season the P&I ratio was significantly elevated—1980/81—the observed ratio rose more abruptly and peaked near 7.0.

Reported by Respective state epidemiologists and laboratory directors; 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.

References

1. CDC. Update: influenza activity—United States. MMWR 1983;32:75-6.

Epidemiologic Notes and Reports

Tuberculosis in a Nursing Care Facility — Washington

In November 1980, a 95-year-old female nursing home resident was found to have sputum smears positive for acid-fast bacilli. She died in December 1980, less than a week after beginning multiple drug therapy for tuberculosis. Sputum culture results confirmed the diagnosis of tuberculosis; the organisms were sensitive to all antituberculosis drugs. Subsequently, 11 other individuals were found to have bacteriologically proven tuberculosis.

The index patient had been a resident of the nursing home since November 1969. In 1975, she was examined as a contact of two patients with tuberculosis in the facility. She had a significant skin test reaction and a normal chest radiograph. Preventive therapy with isoniazid (INH) was not given. During the year before death, she lost 52 pounds and was seen by a physician several times because of a recurrent cough and "flu-like" symptoms. However, sputum examination for tuberculosis was not performed until November 1980.

The index patient lived in a 156-bed skilled nursing care facility, which housed 139 other residents and had 118 employees. Since 1975, skin testing recommended by state regulation had identified 48 residents and 29 employees with significant skin-test reactions. None of the residents was given INH preventive therapy. Repeat skin testing of the other residents and employees in December 1980 and January 1981 identified 59 (65%) of 91 residents and 38 (44%) of 87 employees as newly infected. All those with new infections were started on preventive therapy with INH. Regular visitors to the nursing home were not examined as contacts except those who requested testing in February 1981 after reports of the outbreak appeared in a local newspaper.

Chest radiographs were performed on all persons, including visitors requesting examination, who had significant skin test reactions. Eleven individuals who had suspicious films were found to have current pulmonary tuberculosis, all with sputum cultures positive for *Mycobacterium tuberculosis*. Seven of these patients were residents of the facility, one was an employee, and three were visitors of the facility. None of the seven residents shared sleeping quarters with each other or the index patient, but they did share common hallway, activity center, and dining area space. The air circulation system drew air from the residents' rooms, the activity center, and dining areas, and expelled it through two vents at each end of the hallway.

Tuberculosis — Continued

M. tuberculosis isolates from the index patient and the 11 other patients were phage-typed at CDC. The index case had been excreting phage type 2. The same phage type was found in the sputum of five other residents, the one employee, and one visitor. For the preceding year, this visitor had spent 2-3 hours per day in the room of one of the residents with phage type 2. Two other visitors, a husband and wife, had phage type 5. The remaining two residents were infected with phage type 7.

Reported by R Munger, MD, Chelan-Douglas Health District, K Anderson, R Leahy, MD, J Allard, PhD, JM Kobayashi, MD, State Epidemiologist, Washington State Dept of Social and Health Svcs; Mycobacteriology Section, Div of Bacterial Diseases, Center for Infectious Diseases, Div of Tuberculosis Control, Center for Prevention Svcs, CDC.

Editorial Note: This episode illustrates several aspects of tuberculosis control. First, health workers, particularly those serving high risk populations, such as those in nursing homes and prisons, must consider a diagnosis of tuberculosis in a person with chronic weight loss and respiratory symptoms (*1,2*). Early diagnosis of the index patient might have prevented some additional cases and new infections. Second, existence of a skin-testing program for nursing

(Continued on page 128)

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

Disease	9th Week Ending			Cumulative, 9th Week Ending		
	March 5, 1983	March 6, 1982	Median 1978-1982	March 5, 1983	March 6, 1982	Median 1978-1982
Aseptic meningitis	91	72	65	751	697	581
Encephalitis: Primary (arthropod-borne & unspec.)	16	11	11	138	130	107
Post-infectious	2	-	2	8	5	25
Gonorrhea: Civilian	17,186	17,960	17,960	155,557	162,917	162,917
Military	547	656	564	4,258	4,915	4,895
Hepatitis: Type A	495	517	612	4,150	3,944	4,630
Type B	401	424	348	3,535	3,213	2,557
Non A, Non B	56	43	N	490	273	N
Unspecified	175	210	201	1,291	1,444	1,677
Legionellosis	12	12	N	88	52	N
Leprosy	1	1	4	37	19	28
Malaria	12	10	10	104	117	117
Measles: Total	40	20	324	127	92	1,465
Indigenous	39	N	N	95	N	N
Imported*	1	N	N	32	N	N
Meningococcal infections: Total	55	72	83	518	544	546
Civilian	54	72	81	508	541	541
Military	1	-	-	10	3	3
Mumps	83	158	296	666	902	2,276
Pertussis	32	23	23	197	168	186
Rubella (German measles)	34	55	116	154	312	627
Syphilis (Primary & Secondary): Civilian	573	569	513	5,753	5,798	4,523
Military	10	5	10	91	76	74
Toxic-shock syndrome	6	N	N	58	N	N
Tuberculosis	463	491	523	3,568	3,890	3,940
Tularemia	3	3	2	26	15	15
Typhoid fever	5	7	9	55	67	67
Typhus fever, tick-borne (RMSF)	-	-	1	9	15	10
Rabies, animal	120	88	88	816	754	754

TABLE II. Notifiable diseases of low frequency, United States

	Cum. 1983		Cum. 1983
Anthrax	-	Plague	-
Botulism: Foodborne (Wash. 1)	5	Poliomyelitis: Total	1
Infant (Kans. 1, Calif. 3)	10	Paralytic	1
Other	-	Psittacosis	7
Brucellosis (Minn. 1, Va. 1, Idaho 2)	18	Rabies, human	-
Cholera	-	Tetanus	7
Congenital rubella syndrome (Calif. 2)	6	Trichinosis	3
Diphtheria	-	Typhus fever, flea-borne (endemic, murine)	3
Leptospirosis	4		

*One of the forty reported cases for this week was 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 March 5, 1983 and March 6, 1982 (9th week)

Reporting Area	Aseptic Meningitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionellosis	Leprosy	Malaria
		Primary	Post-infectious			A	B	NA,NB	Unspecified			
	1983	Cum. 1983	Cum. 1983	Cum. 1983	Cum. 1982	1983	1983	1983	1983	1983	Cum. 1983	Cum. 1983
UNITED STATES	91	138	8	155,557	162,917	495	401	56	175	12	37	104
NEW ENGLAND	3	6	-	4,024	3,675	11	15	-	11	-	-	1
Maine	-	-	-	237	188	2	-	-	-	-	-	-
N.H.	1	-	-	116	140	-	1	-	-	-	-	-
Vt.	-	-	-	69	82	-	1	-	-	-	-	-
Mass.	-	4	-	1,713	1,634	8	4	-	11	-	-	-
R.I.	1	-	-	216	266	1	2	-	-	-	-	-
Conn.	1	2	-	1,673	1,365	-	7	-	-	-	-	1
MID ATLANTIC	24	20	1	20,051	19,245	64	82	7	16	6	3	18
Upstate N.Y.	3	9	-	2,813	3,031	4	17	2	-	-	-	6
N.Y. City	5	6	-	8,528	8,328	31	8	-	1	1	3	8
N.J.	9	3	-	3,683	3,452	12	40	4	13	-	-	3
Pa.	7	2	1	5,027	4,434	17	17	1	2	5	-	1
E.N. CENTRAL	11	29	2	18,961	22,990	23	44	4	7	1	1	3
Ohio	1	13	1	5,585	6,428	8	14	-	3	1	1	-
Ind.	8	2	1	2,673	2,817	5	1	-	-	-	-	-
Ill.	-	-	-	2,714	6,087	-	6	-	2	-	-	-
Mich.	2	13	-	6,055	5,580	10	23	4	2	-	-	3
Wis.	-	1	-	1,934	2,078	-	-	-	-	-	-	-
W.N. CENTRAL	5	8	1	7,447	7,464	9	10	1	1	-	-	2
Minn.	-	-	-	1,160	1,081	5	1	-	-	-	-	-
Iowa	4	7	-	761	825	1	2	-	-	-	-	1
Mo.	1	-	-	3,502	3,314	2	6	1	1	-	-	-
N. Dak.	-	-	-	76	102	-	-	-	-	-	-	-
S. Dak.	-	-	-	205	214	-	-	-	-	-	-	-
Nebr.	-	1	-	392	442	1	1	-	-	-	-	-
Kans.	-	-	1	1,351	1,486	-	-	-	-	-	-	1
S. ATLANTIC	16	27	1	40,289	42,420	59	92	12	19	-	1	15
Del.	-	-	-	810	670	-	-	-	-	-	-	-
Md.	2	2	-	5,177	5,857	5	11	3	1	-	-	3
D.C.	1	-	-	2,814	1,999	1	5	-	-	-	-	2
Va.	1	11	1	3,489	3,548	2	19	4	1	-	-	3
W. Va.	-	-	-	396	472	-	2	-	-	-	-	1
N.C.	2	6	-	5,650	6,907	3	7	-	1	-	-	-
S.C.	-	1	-	4,099	3,857	5	5	1	2	-	-	1
Ga.	6	1	-	8,171	6,997	11	24	1	2	-	-	-
Fla.	4	6	-	9,683	12,113	32	19	3	12	-	1	5
E.S. CENTRAL	4	6	2	14,106	13,420	63	26	6	2	-	-	2
Ky.	2	-	-	1,813	1,749	51	4	2	-	-	-	-
Tenn.	-	1	-	5,286	5,098	3	9	3	-	-	-	-
Ala.	-	5	2	4,539	4,084	4	8	1	2	-	-	1
Miss.	2	-	-	2,468	2,489	5	5	-	-	-	-	1
W.S. CENTRAL	2	14	-	22,284	22,180	86	31	3	76	-	2	7
Ark.	-	-	-	1,839	1,888	-	-	-	4	-	-	1
La.	-	2	-	3,599	3,736	11	3	1	5	-	-	-
Okla.	1	4	-	2,683	2,413	17	5	2	10	-	-	3
Tex.	1	8	-	14,163	14,143	58	23	-	57	-	2	3
MOUNTAIN	5	8	-	4,731	6,024	40	19	3	8	2	4	4
Mont.	-	-	-	245	283	2	-	-	-	-	-	-
Idaho	-	-	-	242	241	1	-	-	-	-	-	-
Wyo.	-	1	-	147	174	-	-	-	-	-	-	-
Colo.	3	2	-	1,356	1,677	7	4	1	-	-	1	2
N. Mex.	-	-	-	638	753	3	-	1	3	-	-	-
Ariz.	2	-	-	1,093	1,630	21	8	1	2	1	3	2
Utah	-	5	-	226	220	3	4	-	2	1	-	-
Nev.	-	-	-	784	1,046	3	3	-	1	-	-	-
PACIFIC	21	20	1	23,664	25,499	140	82	20	35	3	26	52
Wash.	-	1	-	1,525	2,212	-	2	-	-	-	2	2
Oreg.	-	-	-	1,162	1,414	13	2	1	-	-	1	2
Calif.	6	17	1	19,962	20,786	126	74	18	33	3	18	48
Alaska	-	-	-	536	644	-	3	-	-	-	-	-
Hawaii	15	2	-	479	443	1	1	1	2	-	5	-
Guam	U	-	-	6	23	U	U	U	U	U	-	-
P.R.	-	-	-	489	528	4	7	-	4	-	-	1
V.I.	-	-	-	50	41	-	-	-	-	-	-	-
Pac. Trust Terr.	U	-	-	-	86	U	U	U	U	U	-	-

N: Not notifiable U: Unavailable

TABLE III. (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending March 5, 1983 and March 6, 1982 (9th week)

Reporting Area	Measles (Rubeola)					Menin-gococcal Infections	Mumps			Pertussis			Rubella		
	Indigenous		Imported*		Total										
	1983	Cum. 1983	1982	Cum. 1983	Cum. 1982	Cum. 1983	1983	Cum. 1983	Cum. 1982	1983	Cum. 1983	Cum. 1982	1983	Cum. 1983	Cum. 1982
UNITED STATES	39	95	1	32	92	518	83	666	902	32	197	168	34	154	312
NEW ENGLAND	-	-	-	-	5	27	5	34	73	-	9	15	-	2	8
Maine	-	-	-	-	-	4	-	5	18	-	-	-	-	-	-
N.H.	-	-	-	-	-	1	1	9	6	-	2	4	-	-	8
Vt.	-	-	-	-	2	-	-	4	3	-	1	-	-	1	-
Mass.	-	-	-	-	-	8	3	7	35	-	5	4	-	1	-
R.I.	-	-	-	-	-	1	-	3	6	-	1	5	-	-	-
Conn.	-	-	-	-	3	13	1	6	5	-	-	2	-	-	-
MID ATLANTIC	-	-	-	3	16	68	6	43	59	2	45	21	-	9	18
Upstate N.Y.	-	-	-	1	10	27	4	18	20	1	24	12	-	6	12
N.Y. City	-	-	-	1	4	8	-	5	9	-	5	3	-	2	6
N.J.	-	-	-	1	-	11	1	10	10	1	6	2	-	1	-
Pa.	-	-	-	-	2	22	1	10	20	-	10	4	-	-	-
E.N. CENTRAL	13	26	1	8	9	79	33	331	437	4	46	58	1	16	41
Ohio	-	-	1†	1	-	33	16	185	263	3	24	10	-	1	-
Ind.	-	-	-	-	1	13	-	8	17	-	3	6	-	-	5
Ill.	13	26	-	2	5	10	4	22	24	-	14	19	1	5	10
Mich.	-	-	-	5	3	21	13	97	71	1	2	7	-	4	12
Wis.	-	-	-	-	-	2	-	19	62	-	3	16	-	6	14
W.N. CENTRAL	-	-	-	-	-	31	8	58	29	-	9	9	1	10	13
Minn.	-	-	-	-	-	3	3	7	3	-	-	3	1	3	1
Iowa	-	-	-	-	-	5	1	27	10	-	2	-	-	-	-
Mo.	-	-	-	-	-	16	-	2	3	-	2	4	-	-	8
N. Dak.	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
S. Dak.	-	-	-	-	-	1	-	-	-	-	-	1	-	-	1
Nebr.	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-
Kans.	-	-	-	-	-	4	4	22	13	-	5	-	-	7	3
S. ATLANTIC	22	38	-	4	13	122	4	27	95	6	26	14	3	12	10
Del.	-	-	-	-	-	-	-	-	1	-	-	4	-	-	-
Md.	1	1	-	-	-	15	-	4	6	-	-	-	-	1	1
D.C.	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-
Va.	-	1	-	1	9	17	-	8	13	1	8	1	-	1	5
W. Va.	-	-	-	-	1	1	-	6	47	1	2	3	-	-	1
N.C.	-	-	-	-	-	22	-	3	4	-	-	1	-	-	-
S.C.	-	-	-	3	-	15	1	2	3	-	2	2	-	-	1
Ga.	1	2	-	-	-	20	3	4	2	3	11	-	2	4	1
Fla.	20	34	-	-	2	31	-	-	19	1	3	3	1	6	1
E.S. CENTRAL	-	-	-	-	4	35	1	10	15	2	3	3	2	3	7
Ky.	-	-	-	-	1	6	-	6	7	1	1	-	2	3	7
Tenn.	-	-	-	-	3	12	1	4	4	1	2	2	-	-	-
Ala.	-	-	-	-	-	13	-	-	2	-	-	-	-	-	-
Miss.	-	-	-	-	-	4	-	-	2	-	-	1	-	-	-
W.S. CENTRAL	-	-	-	11	2	63	7	69	45	6	31	10	3	26	24
Ark.	-	-	-	11	-	3	-	1	3	-	1	-	-	-	-
La.	-	-	-	-	-	9	-	-	-	-	2	-	-	-	-
Okla.	-	-	-	-	-	10	-	-	-	3	7	1	-	-	1
Tex.	-	-	-	-	2	41	7	68	42	3	21	9	3	26	23
MOUNTAIN	-	-	-	1	-	15	4	23	23	10	21	10	2	6	11
Mont.	-	-	-	-	-	-	-	-	1	-	1	-	-	1	1
Idaho	-	-	-	-	-	2	-	1	2	1	1	-	-	-	-
Wyo.	-	-	-	-	-	1	-	-	1	-	-	-	-	1	3
Colo.	-	-	-	1	-	6	1	2	4	9	15	4	-	-	1
N. Mex.	-	-	-	-	-	2	-	-	-	-	4	2	-	-	1
Ariz.	-	-	-	-	-	1	3	16	8	-	-	4	2	3	1
Utah	-	-	-	-	-	3	-	4	5	-	-	-	-	1	3
Nev.	-	-	-	-	-	-	-	-	2	-	-	-	-	-	1
PACIFIC	4	31	-	5	43	78	15	71	126	2	7	28	22	70	180
Wash.	-	1	-	-	14	16	-	9	18	-	1	4	-	-	6
Oreg.	-	2	-	-	-	9	-	-	-	-	-	4	3	5	1
Calif.	4	27	-	5	28	51	12	51	104	2	6	20	19	65	171
Alaska	-	-	-	-	-	-	1	6	3	-	-	-	-	-	1
Hawaii	-	1	-	-	1	2	2	5	1	-	-	-	-	-	1
Guam	U	-	U	-	-	-	U	-	1	U	-	-	U	-	1
P.R.	-	13	-	-	19	5	3	27	9	-	1	2	-	1	2
V.I.	-	1	-	4	-	-	-	-	-	-	-	-	-	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 March 5, 1983 and March 6, 1982 (9th 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	5,753	5,798	6	463	3,568	26	55	9	816
NEW ENGLAND	149	107	-	14	75	-	2	1	1
Maine	3	-	-	2	7	-	-	-	1
N.H.	3	-	-	1	6	-	-	-	-
Vt.	1	-	-	-	1	-	-	-	-
Mass.	101	75	-	8	33	-	2	1	-
R.I.	3	8	-	1	7	-	-	-	-
Conn.	38	24	-	2	21	-	-	-	-
MID ATLANTIC	673	785	-	133	715	-	14	-	20
Upstate N.Y.	32	80	-	13	130	-	3	-	15
N.Y. City	403	496	-	51	273	-	5	-	-
N.J.	134	84	-	17	163	-	6	-	-
Pa.	104	125	-	52	149	-	-	-	5
E.N. CENTRAL	233	363	4	49	549	-	7	1	49
Ohio	93	59	1	7	71	-	2	-	6
Ind.	38	44	-	5	79	-	1	-	-
Ill.	36	186	-	37	281	-	1	-	25
Mich.	50	59	3	-	95	-	3	1	-
Wis.	16	15	-	-	23	-	-	-	18
W.N. CENTRAL	70	109	-	23	124	9	1	2	114
Minn.	35	21	-	2	18	-	-	-	27
Iowa	2	3	-	1	17	-	-	-	37
Mo.	24	67	-	16	71	8	1	2	13
N. Dak.	-	2	-	-	-	-	-	-	8
S. Dak.	-	-	-	2	7	-	-	-	11
Nebr.	1	3	-	-	2	-	-	-	5
Kans.	8	13	-	2	9	1	-	-	13
S. ATLANTIC	1,514	1,570	-	54	704	7	8	1	324
Del.	10	2	-	-	1	-	-	-	-
Md.	82	94	-	12	123	2	2	-	147
D.C.	57	100	-	1	22	-	-	-	-
Va.	114	102	-	6	42	1	3	-	121
W. Va.	4	6	-	1	32	-	2	-	16
N.C.	149	123	-	8	66	4	-	-	2
S.C.	123	86	-	8	63	-	-	-	6
Ga.	276	351	-	-	117	-	-	-	27
Fla.	699	706	-	18	238	-	1	1	5
E.S. CENTRAL	404	452	-	47	349	3	1	3	61
Ky.	23	22	-	9	100	-	-	-	14
Tenn.	111	110	-	15	98	2	1	1	38
Ala.	162	155	-	10	89	-	-	2	9
Miss.	108	165	-	13	62	1	-	-	-
W.S. CENTRAL	1,470	1,487	-	52	322	5	1	-	147
Ark.	23	40	-	5	18	3	-	-	25
La.	302	282	-	-	43	2	-	-	6
Okla.	42	29	-	4	47	-	-	-	18
Tex.	1,103	1,136	-	43	214	-	1	-	98
MOUNTAIN	121	159	-	7	94	1	1	-	33
Mont.	2	1	-	2	8	-	-	-	27
Idaho	1	12	-	2	7	-	-	-	-
Wyo.	2	7	-	-	2	-	-	-	-
Colo.	32	49	-	1	6	-	-	-	-
N. Mex.	47	33	-	1	17	1	-	-	1
Ariz.	20	28	-	-	41	-	1	-	5
Utah	6	4	-	1	8	-	-	-	-
Nev.	11	25	-	-	5	-	-	-	-
PACIFIC	1,119	766	2	84	636	1	20	1	67
Wash.	39	24	-	6	39	-	1	-	-
Oreg.	18	30	1	2	29	-	-	-	-
Calif.	1,038	686	1	73	522	1	19	1	61
Alaska	5	5	-	-	4	-	-	-	6
Hawaii	19	21	-	3	42	-	-	-	-
Guam	-	-	U	U	-	-	-	-	-
P.R.	97	90	-	-	84	-	-	-	11
V.I.	4	-	-	-	-	-	-	-	-
Pac. Trust Terr.	-	-	U	U	-	-	-	-	-

U: Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending March 5, 1983 (9th week)

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	729	516	140	39	12	22	55
Boston, Mass.	182	107	44	13	9	9	21
Bridgeport, Conn.	51	31	14	2	3	1	5
Cambridge, Mass.	32	24	4	4	-	-	2
Fall River, Mass.	40	32	6	1	-	1	1
Hartford, Conn.	57	44	10	1	-	2	4
Lowell, Mass.	34	28	4	2	-	-	2
Lynn, Mass.	26	20	5	1	-	-	-
New Bedford, Mass.	24	17	6	1	-	-	1
New Haven, Conn.	57	44	9	3	-	1	2
Providence, R.I.	69	48	14	4	-	3	7
Somerville, Mass.	8	7	1	-	-	-	1
Springfield, Mass.	41	29	8	1	-	3	2
Waterbury, Conn.	43	35	6	2	-	-	5
Worcester, Mass.	65	50	9	4	-	2	2
MID. ATLANTIC	2,787	1,894	593	177	55	65	146
Albany, N.Y.	44	35	5	1	-	3	2
Allentown, Pa.	16	14	2	-	-	-	-
Buffalo, N.Y.	128	92	23	7	5	1	12
Camden, N.J.	40	26	11	2	-	1	2
Elizabeth, N.J.	28	21	6	-	-	1	3
Erie, Pa.†	53	41	8	3	-	1	3
Jersey City, N.J.	55	25	22	4	-	4	-
N.Y. City, N.Y.	1,563	1,058	321	124	32	28	64
Newark, N.J.	108	58	23	11	4	9	13
Paterson, N.J.	28	22	4	-	-	2	3
Philadelphia, Pa.†	206	133	50	13	6	4	16
Pittsburgh, Pa.†	72	41	26	3	-	2	1
Reading, Pa.	30	25	4	1	-	-	3
Rochester, N.Y.	157	113	35	1	2	6	11
Schenectady, N.Y.	34	32	-	2	-	-	3
Scranton, Pa.†	30	24	5	1	-	-	2
Syracuse, N.Y.	94	58	26	3	4	3	2
Trenton, N.J.	42	29	10	1	2	-	1
Utica, N.Y.	25	19	6	-	-	-	-
Yonkers, N.Y.	34	28	6	-	-	-	5
E.N. CENTRAL	2,469	1,613	537	156	81	82	101
Akron, Ohio	83	50	22	3	2	6	-
Canton, Ohio	56	34	18	3	-	1	5
Chicago, Ill	477	299	104	38	19	17	13
Cincinnati, Ohio	168	103	41	10	6	8	20
Cleveland, Ohio	176	118	34	14	7	3	4
Columbus, Ohio	178	120	37	9	4	8	5
Dayton, Ohio	121	73	32	11	1	4	5
Detroit, Mich.	272	162	68	20	13	9	7
Evansville, Ind.	72	52	14	-	4	2	2
Fort Wayne, Ind.	46	36	7	2	1	-	2
Gary, Ind.	17	11	4	1	1	-	-
Grand Rapids, Mich.	65	45	13	4	3	-	3
Indianapolis, Ind.	214	129	53	16	8	8	9
Madison, Wis.§	40	38	1	-	-	1	5
Milwaukee, Wis.	148	106	28	6	2	6	3
Peoria, Ill.	32	25	3	1	2	1	5
Rockford, Ill.	58	39	11	4	2	2	4
South Bend, Ind.	48	29	14	3	1	1	2
Toledo, Ohio	131	89	26	10	3	3	5
Youngstown, Ohio	67	55	7	1	2	2	2
W.N. CENTRAL	815	557	169	41	20	28	42
Des Moines, Iowa	90	63	20	5	1	1	12
Duluth, Minn.	32	23	5	2	-	2	1
Kansas City, Kans.	38	21	12	-	3	2	1
Kansas City, Mo.	94	64	16	7	1	6	1
Lincoln, Nebr.	45	28	11	3	1	2	8
Minneapolis, Minn.	87	64	16	5	1	1	1
Omaha, Nebr.	91	60	26	1	3	1	1
St. Louis, Mo.	164	108	33	10	4	9	2
St. Paul, Minn.	100	72	17	6	3	2	3
Wichita, Kans.	74	54	13	2	3	2	12
S. ATLANTIC	1,311	791	346	87	37	50	63
Atlanta, Ga.	167	102	40	14	9	2	7
Baltimore, Md.	273	159	81	16	8	9	6
Charlotte, N.C.	87	36	21	6	2	2	4
Jacksonville, Fla.	135	77	46	6	2	4	14
Miami, Fla.	77	45	25	3	3	1	1
Norfolk, Va.	54	32	12	5	1	4	5
Richmond, Va.	102	58	31	4	2	7	6
Savannah, Ga.	36	25	5	4	1	1	4
St. Petersburg, Fla.	107	86	14	4	1	2	4
Tampa, Fla.	72	44	15	5	2	6	7
Washington, D.C.	169	91	45	17	5	11	4
Wilmington, Del.	52	36	11	3	1	1	1
E.S. CENTRAL	803	476	214	54	28	31	37
Birmingham, Ala.	106	67	26	6	6	1	4
Chattanooga, Tenn.	60	31	16	8	4	1	4
Knoxville, Tenn.	65	41	15	5	-	4	3
Louisville, Ky.	125	69	42	4	3	7	11
Memphis, Tenn.	216	122	54	18	8	14	7
Mobile, Ala.	84	57	18	4	5	-	4
Montgomery, Ala.	41	22	17	1	1	-	1
Nashville, Tenn.	106	67	26	8	1	4	3
W.S. CENTRAL	1,607	961	373	148	60	65	86
Austin, Tex.	76	50	11	7	5	3	5
Baton Rouge, La.	39	16	16	4	-	3	5
Corpus Christi, Tex.	61	34	14	6	4	3	2
Dallas, Tex.	221	135	46	27	6	7	9
El Paso, Tex.	67	44	16	3	3	1	7
Fort Worth, Tex.	121	76	24	9	4	8	8
Houston, Tex.	435	229	114	56	21	15	17
Little Rock, Ark.	82	49	25	5	1	2	9
New Orleans, La.	160	105	38	6	7	4	-
San Antonio, Tex.	172	106	37	11	5	13	15
Shreveport, La.	64	41	12	3	4	4	-
Tulsa, Okla.	109	76	20	11	-	2	9
MOUNTAIN	747	467	157	50	29	44	42
Albuquerque, N.Mex.	90	56	18	7	3	6	8
Colo. Springs, Colo.	58	40	8	4	4	2	10
Denver, Colo.	160	100	24	12	4	20	10
Las Vegas, Nev.	65	37	20	5	2	1	1
Ogden, Utah	18	13	2	1	2	-	1
Phoenix, Ariz.	175	108	46	10	7	4	3
Pueblo, Colo.	32	20	6	4	2	-	2
Salt Lake City, Utah	46	24	10	2	3	7	2
Tucson, Ariz.	103	69	23	5	2	4	5
PACIFIC	1,961	1,337	408	109	45	61	98
Berkeley, Calif.	20	12	4	1	-	3	-
Fresno, Calif.	59	40	10	3	2	4	3
Glendale, Calif.	44	32	11	1	-	-	2
Honolulu, Hawaii	66	43	12	3	5	3	6
Long Beach, Calif.	82	60	14	5	1	2	5
Los Angeles, Calif.	609	427	125	31	13	13	20
Oakland, Calif.	64	36	14	8	2	4	3
Pasadena, Calif.	21	13	4	3	-	1	-
Portland, Oreg.	138	100	21	5	1	11	4
Sacramento, Calif.	85	55	22	5	1	2	5
San Diego, Calif.	174	116	43	9	2	3	12
San Francisco, Calif.	149	100	33	8	4	4	2
San Jose, Calif.	171	115	33	14	6	3	20
Seattle, Wash.	184	120	46	8	6	4	10
Spokane, Wash.	49	33	10	1	1	4	3
Tacoma, Wash.	46	35	6	4	1	-	3
TOTAL	13,229††	8,612	2,937	861	367	448	670

* 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.

TABLE V. Years of potential life lost, deaths, and death rates, by cause of death, and estimated number of physician contacts, by principal diagnosis, United States

Cause of morbidity or mortality (Ninth Revision ICD, 1975)	Years of potential life lost before age 65 by persons dying in 1981[1]	Estimated mortality October 1982		Estimated number of physician contacts October 1982[4]
		Number[2]	Annual Rate/100,000[3]	
ALL CAUSES (TOTAL)	9,879,590	167,080	847.6	89,397,000
Accidents and adverse effects (E800-E807, E810-E825, E826-E949)	2,587,140	8,380	42.5	4,346,000
Malignant neoplasms (140-208)	1,821,900	37,080	188.1	1,730,000
Diseases of heart (390-398, 402, 404-429)	1,621,290	63,220	320.7	5,153,000
Suicides, homicides (E950-E978)	1,403,560	4,200	21.3	—
Cerebrovascular diseases (430-438)	275,000	13,680	69.4	870,000
Chronic liver disease and cirrhosis (571)	267,350	2,420	12.3	146,000
Pneumonia and influenza[5] (480-487)	123,420	3,780	19.2	842,000
Chronic obstructive pulmonary diseases and allied conditions (490-496)	116,280	4,830	24.5	1,438,000
Diabetes mellitus (250)	105,960	2,520	12.8	2,399,000
Prenatal care[6]				2,112,000
Infant mortality[6]		3,600	11.1 /1,000 live births	

[1]Years of potential life lost for persons between 1 year and 65 years old at the time of death are derived from the number of deaths in each age category as reported by the National Center for Health Statistics, *Monthly Vital Statistics Report* (MVSR), Vol. 30, No. 13, December 20, 1982, multiplied by the difference between 65 years and the age at the midpoint of each category. As a measure of mortality, "Years of potential life lost" underestimates the importance of diseases that contribute to death without being the underlying cause of death.

[2]The number of deaths is estimated by CDC by multiplying the estimated annual mortality rates (MVSR Vol. 31, No. 11, February 11, 1983, pp. 8-9) and the provisional U.S. population in that month (MVSR Vol. 31, No. 10, January 17, 1983, p.1) and dividing by the days in the month as a proportion of the days in the year.

[3]Annual mortality rates are estimated by NCHS (MVSR Vol. 31, No. 11, February 11, 1983, pp. 8-9), using the underlying cause of death from a systematic sample of 10% of death certificates received in state vital statistics offices during the month and the provisional population of those states included in the sample for that month.

[4]IMS America *National Disease and Therapeutic Index* (NDTI), Monthly Report, October 1982, Section III. This estimate comprises the number of office, hospital, and nursing home visits and telephone calls prompted by each medical condition based on a stratified random sample of office-based physicians (2,100) who record all private patient contacts for 2 consecutive days each quarter.

[5]Data for "infectious diseases and their sequelae" as a cause of death and physician visits comparable to other multiple-code categories (e.g., "malignant neoplasms") are not presently available.

[6]"Prenatal care" (NDTI) and "Infant mortality" (MVSR Vol. 31, No. 10, January 17, 1983, p.1) are included in the table because "Years of potential life lost" does not reflect deaths of children < 1 year.

Tuberculosis — Continued

home employees and residents did not prevent the outbreak. Infected persons at high risk of developing disease who are identified in screening programs must be given INH treatment to prevent development of disease (*3,4*). Third, thorough and careful investigation of close contacts should be performed whenever exposure to infectious tuberculosis occurs, and treatment or preventive therapy should be given when indicated (*5*). Investigation of contacts in this outbreak identified 11 additional tuberculosis cases and a large number of newly infected persons, all of whom required treatment.

This report demonstrates the epidemiologic usefulness of phage typing in tuberculosis outbreaks (*6*). In an outbreak of drug-resistant tuberculosis in rural Mississippi, phage types corresponded well with the history of contact between patients (*7*). In this nursing home outbreak, the same phage type tubercle bacillus caused disease in the index case, five other residents, one employee, and a visitor, suggesting a common source for these infections. The other two visitors and two residents appear to have acquired infection from other sources. Phage typing of *M. tuberculosis* can be performed at CDC when circumstances suggest it may be useful in investigating a tuberculosis outbreak.

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5. Iseman MD, Bentz RR, Fraser RI, Locks MO, Ostrow JH, Sewell EM. Guidelines for the investigation and management of tuberculosis contacts. Am Rev Respir Dis 1976;114:459-63.
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Exposure to a Rabid Cow — Pennsylvania

On November 28, 1982, a dairy cow from Lancaster County, Pennsylvania, was admitted to the Large Animal Hospital of the School of Veterinary Medicine (New Bolton Center), University of Pennsylvania, with a 2-day history of hind-limb paresis, head tremor, and diarrhea. No other animals in the herd were sick. Since the farmer reported having removed a bat from the cow 2 months earlier, the differential diagnosis on admission included rabies. The cow was agitated, stopped eating, and was subsequently euthanized. The brain was submitted for rabies testing and, on December 1, was reported as fluorescent-antibody positive.

Working closely with personnel from the Chester County Health Department and the Pennsylvania State Department of Health, 47 persons were identified with possible exposure to the rabid cow or its secretions or to blood, cerebrospinal fluid, or tissues. These included 12 veterinarians, six nurses, eight veterinary students, eight nursing students, two laboratory technicians, eight barn staff, and three other employees. Twenty-nine persons were exposed in the barn, 12 in the necropsy room, three in the laboratory, and three elsewhere. Thirty-two persons were determined to have sufficient exposure to justify post-exposure prophylaxis. Four persons on the farm, the referring veterinarian, and the truck driver who transported the cow, also underwent rabies post-exposure prophylaxis.

Rabid Cow — Continued

The dairy herd from which this cow originated has been placed under a 90-day quarantine. It was recommended that the unvaccinated cats and a dog on the farm be humanely destroyed.

Because of an approximately 5-fold increase in the incidence of animal rabies in Pennsylvania last year, especially among skunks and raccoons, the Pennsylvania State Department of Health and the Pennsylvania Bureau of Animal Industry had issued a rabies alert several months earlier. Rabies appears to be moving northward from Virginia and Maryland and poses a threat to domestic animals and humans. Four dogs were confirmed as rabid in Pennsylvania in 1982.

In May 1982, several New Bolton Center staff and students received pre-exposure rabies prophylaxis under a voluntary Chester County Health Department program. By October 1982, the University of Pennsylvania had also initiated a rabies pre-exposure prophylaxis immunization program, which now includes the faculty and staff of the Veterinary Hospital.

Reported by L Glickman VMD, University of Pennsylvania School of Veterinary Medicine, H Russell, VMD, J Maher, MD, Chester County Health Dept, M McCarthy, EJ Witte, VDM, CW Hays, MD, State Epidemiologist, Pennsylvania State Dept of Health, G Landis, DVM, Pennsylvania Dept of Agriculture; Div of Viral Diseases, Center for Infectious Diseases, CDC.

Editorial Note: This episode demonstrates the potential impact of a rabies case on a veterinary teaching hospital. Since veterinary practitioners often refer such clinical cases to a teaching hospital for further evaluation, many individuals commonly examine each animal; thus, when rabies is diagnosed, many persons have been exposed and require antirabies prophylaxis. Other instances in which rabies cases in teaching hospitals resulted in large numbers of exposed persons have been previously reported. (*1-3*).

The need for veterinary schools to provide pre-exposure rabies prophylaxis for persons with animal contact—including students, faculty, staff, and animal handlers—cannot be overemphasized. Veterinarians are urged to consider any animal with neurologic signs of unknown etiology as a rabies suspect. Pet owners should be informed of the rabies epizootic in wildlife and be advised to contact their veterinarians concerning recommendations for rabies vaccination. Livestock owners should also consider the economics of rabies vaccination for their animals.

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Dermatitis Associated with Cashew Nut Consumption — Pennsylvania

During April 1982, a poison ivy-like dermatitis affected 54 persons who consumed cashew nut pieces sold by a Little League organization in a southcentral Pennsylvania community. The cashew pieces, sold in 7-oz. bags, were imported from Mozambique and processed for distribution by a Pittsburgh company. The Little League had purchased 2,928 bags from a local distributor, and another 4,512 bags were sold by a distributor in small quantities throughout south-central Pennsylvania and northern Maryland.

Of 322 people interviewed who had purchased cashews from the Little League, 54 (20%) of 274 who ate cashews developed pruritic rash; none of the 48 who did not eat cashews developed rash ($p < 0.01$).

Dermatitis – Continued

Illness histories were obtained for 31 persons; 21 (68%) were male. Pruritic rash beginning 1-8 days (median 2) after cashew consumption and lasting 5-21 days (median 7) was reported by 29 persons; rash occurred on: extremities—97%, trunk—66%, groin—45%, axilla—34%, buttocks—21%. In addition, four persons reported perianal itching, and three reported blistering of the mouth. Thirteen (42%) of the 31 persons saw physicians; none required hospitalization. Patients' ages ranged from 9 to 72 years (median 32). Cashew-extract patch testing of 19 persons did not reliably predict clinical illness.

Fourteen bags of cashews were opened and visually inspected; five (36%) contained pieces of cashew shell. The absence of cashew shell from 2/3 of the bags may account for the lack of correlation between patch-testing results and clinical illness.

The Food and Drug Administration, the Pennsylvania Department of Agriculture, and the Allegheny County Health Department were informed of the investigation, and each inspected the processing plant independently and reported no obvious violations in processing cashews.

Reported by R Aber, MD, J Marks, MD, Hershey Medical Center, T DeMelfi, MA McCarthy, E Witte, VMD, E Moore, CW Hays, MD, State Epidemiologist, Pennsylvania State Dept of Health; Special Studies Br, Center for Environmental Health, CDC.

Editorial Note: The cashew tree, *Anacardium occidentale*, belongs to the same family of plants (Anacardiaceae) as the Rhus species, which cause poison ivy, poison oak, and poison sumac (*1*). This tree bears a pear-shaped fruit called the cashew apple. On the distal end of the fruit is the cashew nut, which is not encased in the pulp of the fruit. It is composed of an inner kernel and a double layered outer shell. Between the layers of shell is an oil containing 12 chemically distinct antigens, including cardol and anacardic acid, which are immunochemically related to the pentadecylcatechols found in the Rhus species (*2*). These oils have irritant and allergenic properties. Cashew nuts are partially processed before importation into the United States to remove shells and oil, and then cooked and packaged before distribution.

Pruritic dermatitis is a common problem among workers who shell the nuts by hand (*3*). Modern processing equipment has reduced the frequency of dermatitis among workers, and has increased the efficiency of oil extraction from cashew nuts.

This report documents what may be the largest outbreak of cashew nut-related dermatitis among persons not working directly with the raw nut or its oil. A previous report described six cases of dermatitis among dock workers who unloaded whole, unprocessed nuts, one case in a person who shelled and ate raw cashews, and one case in a chemist who prepared an ether extract of cashew nut oil (*4*). A second report described four cases of vesicular dermatitis among children who played with souvenir toy burros made of cashew nuts and beads wired together (*5*). A third report described five cases of generalized eczematous dermatitis among persons who ate raw cashew nuts; all five were also exquisitely sensitive to Rhus antigen (*6*).

Hypersensitivity to Rhus antigens appears to overlap hypersensitivity to cashew nut oil allergens, and hence, incompletely processed cashew nuts may pose a health risk to persons sensitive to poison ivy, poison oak, or poison sumac.

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Outbreak of Murine Typhus — Texas

A cluster of cases of murine (endemic) typhus has been reported from Texas. From October 25 to November 11, 1982, five persons became ill with fever (temperature ≥40C [≥104F]) (all five patients), headache (three patients), and myalgia (two patients). On the 4th or 5th day of illness, three patients developed a macular rash that began on the trunk and spread to the extremities. Blood specimens obtained on December 16, 1982, from three patients demonstrated indirect fluorescent antibody titers of 1:512 or greater to typhus-group rickettsiae; cross-absorption studies performed at CDC using antigens to *Rickettsia typhi* (the causative organism of endemic typhus) and *R. prowazekii* (the causative organism of epidemic typhus) indicated the former as the cause of the elevated titers. No serum specimens were obtained from the other two patients. Four patients received appropriate antimicrobial therapy with tetracycline; all five recovered without sequelae.

Three patients—a 27-year-old male, a 25-year-old female, and a 6-year-old female—lived in a house that had been unoccupied for 5 years before being moved in July 1982 to its present site on a peanut farm in Comanche County in northcentral Texas. The other two cases occurred in a 24-year-old female who visited this family at their home every 1 or 2 weeks and a 48-year-old female, the grandmother of the 6-year-old, who lived one-quarter mile away and visited the house at least once a month. Inspection of the house revealed holes in the roof, walls, and floors, and a large space beneath the house. Family members had heard rodents in the attic before the outbreak, and a mouse had recently been killed in the bathroom. Two or 3 weeks before the outbreak, rat poison had been placed inside the house. Five cats, present in the home before the outbreak, died during the outbreak period, four of unexplained causes, one in an accident. The cats slept indoors and had fleas. The family also owned three dogs, which usually slept underneath the house; they remained healthy during the outbreak period. None of the patients recalled being bitten by fleas.

An exterminator visited the house on November 19, 1982, and applied insecticide and rat poison. No further illnesses among family members or visitors to the house have been reported.

Reported by T Ford, Region 4, CR Webb, Jr, MD, State Epidemiologist, Texas Dept of Health; Div of Viral Diseases, Center for Infectious Diseases, CDC.

Editorial Note: The causative agent of murine typhus—*R. typhi* (formerly *R. mooseri*) is maintained in nature by commensal rats and their ectoparasites. Humans acquire the infection through contact with the infected rat flea, *Xenopsylla cheopis*. The flea defecates while feeding, and irritation from the bite causes the host to scratch and thus deposit rickettsiae from the feces into the wound. Other mammals and ectoparasites, including cats and cat fleas, have been found infected with *R. typhi*, although these infections, as well as those in humans, are not important in maintaining the agent in nature.

In the early 1940's, 2,000-5,000 cases of murine typhus were reported annually in the United States, most in the Southeastern and Gulf Coast states. Incidence of the disease declined when rat control programs were instituted after World War II. Currently, murine typhus is not reportable in most states, and only 60-80 cases are reported annually to CDC. In recent years, approximately 80% of these cases have been reported from Texas. In 1981, the most recent year for which information is available, Texas reported 49 cases of murine typhus, with treatment information available for 43; 39 (91%) patients received appropriate therapy with tetracycline or chloramphenicol. There were no deaths.

Although much information concerning the ecology of murine typhus is available (*1*), unresolved issues remain. In this outbreak, for example, whether the cats or their fleas were in-

Typhus – Continued

volved in transmitting typhus to humans, whether they were uninvolved but also acquired infection, or whether their deaths were entirely unrelated to the outbreak could not be determined. (Dogs and dog fleas have not been found to harbor *R. typhi.*) Prompt reporting and investigation of similar outbreaks in the future might help resolve such issues.

The use of rat poison in the home 2-3 weeks before the outbreak may have precipitated the human illnesses. Rat fleas will seek alternative hosts when rodents are not available and thus may transmit the disease to man. In areas where murine typhus is known to occur, rat control programs should be preceded by applying insecticides to control these ectoparasites.

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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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