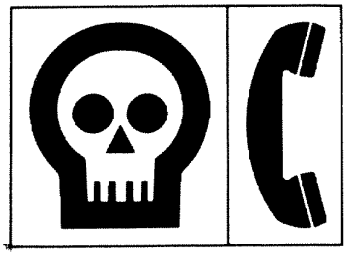

1984 ANNUAL REPORT OF THE AMERICAN ASSOCIATION OF POISON CONTROL CENTERS NATIONAL DATA COLLECTION SYSTEM

Reprinted from American Journal of Emergency Medicine (ISSN 0735-6757), Volume 3, Number 5 (September)

Toxicology

A special contribution from the American Association of Poison Control Centers.

1984 Annual Report of the American Association of Poison Control Centers National Data Collection System

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In 1983, the American Association of Poison Control Centers (AAPCC) piloted a project to collect epidemiological data on poison exposures reported to poison centers nationwide.[1] In 1984 the Data Collection System was available to all interested AAPCC member poison centers and was established as an ongoing National Database. The following data represent the annual report for 1984 for this National Data Collection System.

CHARACTERIZATION OF PARTICIPATING CENTERS

Forty-seven poison centers participated in the 1984 AAPCC National Data Collection System. Of these, three submitted data for a period less than 12 months. Fifteen of the 47 centers were certified as regional poison control centers by AAPCC during the data collection interval. Individual center call volumes (human poison exposure cases only) ranged from 1,524 to 54,667 (mean 15,537). Center penetrance (defined as the number of human poison exposure cases reported to a center divided by the population served by that center) ranged from 1.6 to 20.6/1,000, with a mean of 7.3 reported exposures per thousand.

A total population of 99.8 million was served by the participating centers including portions of 28 states and the District of Columbia (Fig. 1). In as much as the estimated population of the United States during 1984 was 236.2 million, the data included herein represent approximately 42% of the human poison exposures reported to poison control centers in the United States each year. Thus the 730,224 human

From the Data Collection Committee, American Association of Poison Control Centers.

Centers participating in this year's report include: Alabama Poison Center, Tuscaloosa, AL; Arizona Poison Control System, Tucson, AZ; St. Luke's Poison Center, Phoenix, AZ; Fresno Community Hospital Regional Poison Control Center, Fresno, CA; Orange County Poison Center, Orange, CA; San Diego Regional Poison Center, San Diego, CA; San Francisco Bay Area Regional Poison Center, San Francisco, CA; Rocky Mountain Poison Center, Denver, CO; National Capital Poison Center, Washington, DC; Idaho Poison Control Center, Boise, ID; Mid-America Poison Center, Kansas City, KS; Kentucky Regional Poison Center of Kosair-Children's Hospital, Louisville, KY; Louisiana Regional Poison Control Center, Shreveport, LA; Maryland Poison Center, Baltimore, MD; Children's Hospital of Michigan Poison Control Center, Detroit, MI; Blodgett Regional Poison Center, Grand Rapids, MI; Great Lakes Poison Control Center, Kalamazoo, MI; Midwest Poison Center, Kalamazoo, MI; Hennepin Poison Center, Minneapolis, MN; Minnesota Poison Control System, St. Paul, MN; Mid-Plains Poison Control Center, Omaha, NE; New Jersey Poison Information and Education System, Newark, NJ; Western New York Poison Center, Buffalo, NY; Hudson Valley Poison Center, Nyack, NY; Triad Poison Center, Greensboro, NC; North Dakota Poison Center, Fargo, ND; Greater Cleveland Poison Control Center, Cleveland, OH; Oregon Poison Center, Portland, OR; Keystone Region Poison Center, Altoona, PA; Northwest Poison Center, Erie, PA; Capital Area Poison Center, Hershey, PA; St. Joseph Poison Center, Lancaster, PA; Pittsburgh Poison Center, Pittsburgh, PA; Rhode Island Poison Center, Providence, RI; Southern Poison Center, Inc., Memphis, TN; Intermountain Regional Poison Control Center, Salt Lake City, UT; Blue Ridge Poison Center, Charlottesville, VA; Tidewater Poison Center, Norfolk, VA; Central Virginia Poison Center, Richmond, VA; Seattle Poison Center, Seattle, WA; Spokane Poison Center, Spokane, WA; Mary Bridge Poison Center, Tacoma, WA; Central Washington Poison Center, Yakima, WA; West Virginia Poison Center, Charleston, WV; University of Wisconsin Hospital Regional Poison Control Center, Madison, WI; Milwaukee Children's Hospital Poison Center, Milwaukee, WI; Wyoming Poison Center, Cheyenne, WY.

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Key Words: Poisoning, toxicology.

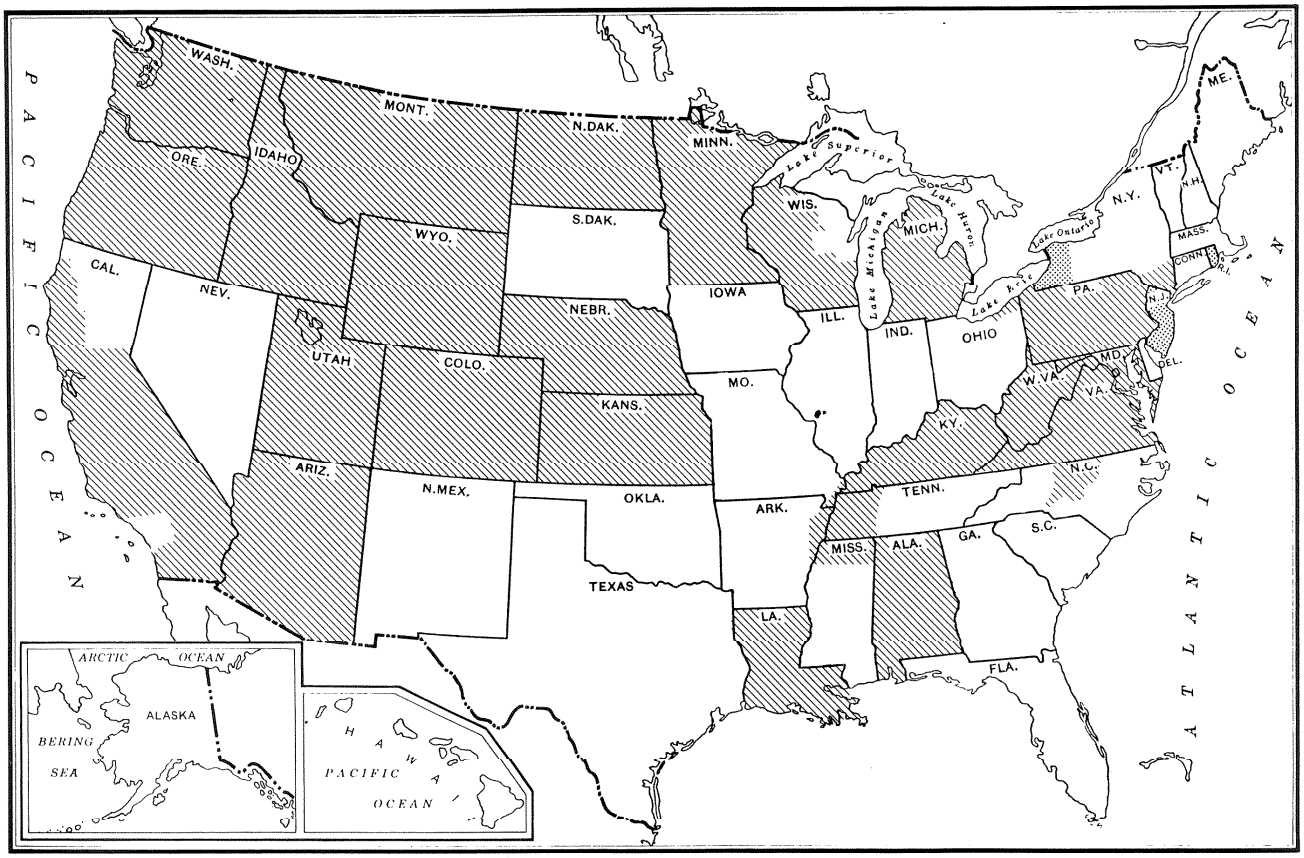

FIGURE 1. Forty-seven poison centers participated in the Data Collection System in 1984. The lightly stippled areas represent regions served by poison centers reporting data during only a portion of the year. Cross-hatched areas denote reporting during the entire year. (Map adapted from Hammond's Outline Map of the United States.)

poison exposures reported in this database (Table 1) can be extrapolated to predict a nationwide incidence of human poison exposures in excess of 1.7 million. Extrapolations from the frequency of reported poisonings to the frequency of actual poisonings occurring annually in the United States cannot be made from these data alone, as considerable variations in poison center penetrance were noted. Indeed, assuming all centers reached the penetrance level of 20.6 poisonings/1,000 population reported by one center, then 4.9 million poisonings would have been reported to poison control centers in 1984. Because of the pilot nature of the 1983 report, we are unable to identify a trend in the overall incidence of poisonings in the United States. However the data of the individual centers reporting during both years demonstrate that there was clearly no decline in poisoning frequency.

REVIEW OF THE DATA

The 730,224 human poison exposures reported to the American Association of Poison Control Centers (AAPCC) National Data Collection System in 1984 constitute a database nearly three times larger than any poison-exposure database ever compiled in the United States. Although a smaller number of animal exposures were also reported by some participating centers (Table 1), this report focuses on the 730,224 human-exposure cases, 90.5% of which occurred in the home (Table 2). It is of interest that 5,743 reported poisonings actually occurred in physicians' offices, clinics, and hospitals. Poison center peak call volumes occurred from 5:00 PM to 8:00 PM, although call frequency remained consistently high between 9:00 AM and 10:00 PM, with 82.6% of all calls logged during this 13-hour period (Fig. 2).

TABLE 1. Types of Calls Reported by Participating Centers

Call Type	Number	%
Human poison exposure	730,224	98.2
Animal poison exposure	13,333	1.8
Unknown	54	0.0
Total	743,611	100.0

TABLE 2. Site of Caller and Site of Exposure in Human Exposure Cases Only

	Site of Caller (%)	Site of Exposure (%)
Residence	81.7	90.5
Health-care facility	14.0	0.8
Workplace	1.5	2.3
School	0.6	0.8
Other	1.1	1.9
Unknown	1.1	3.7
Total	100.0	100.0

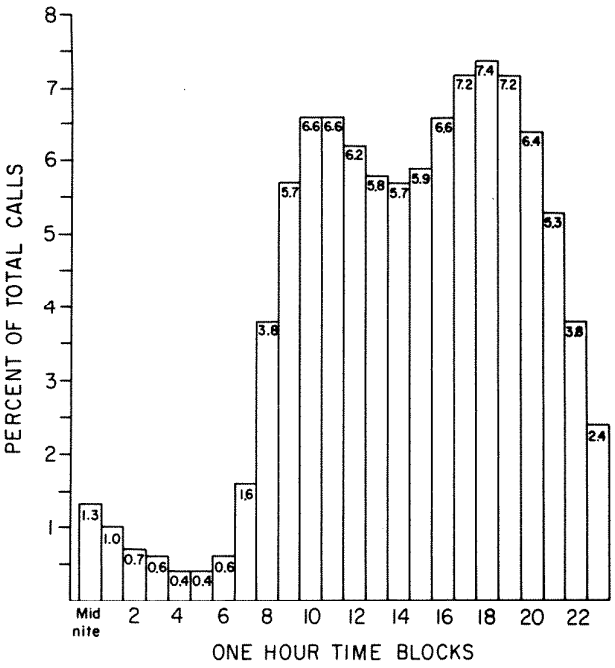

FIGURE 2. Distribution of poison center call volume by hour of the day.

The age and sex distributions are outlined in Table 3. One and two-year-old children together constituted 40.2% of reported cases, and 64.1% of cases involved children under six years of age. A male predominance is seen in victims under 13 years of age, but the gender distribution is reversed in teenagers and adults.

A single substance was implicated in 93% of reports, and only 2.3% of patients were exposed to more than two possibly poisonous drugs or products (Table 4). Most cases of human exposure were acute (98%), as were most poison-related fatalities (92%). (Chronic exposures were arbitrarily defined as repeated exposures to the same toxic substance or a single exposure lasting longer than eight hours.)

The vast majority (90.0%) of poison exposures were accidental (Fig. 3); suicidal intent was present in 4.9% of cases (Table 5). Whereas accidental poisonings outnumbered both intentional poisonings and adverse reactions in all age groups (Table 6), the ratio was lower in teenage and adult cases. In contrast, of the 293 human poisoning fatalities reported, this ratio was reversed among the adult deaths, with 3.8 times as many deaths resulting from intentional as from accidental exposures (Table 7). The striking daytime predominance of accidental poisonings is not observed in the intentional exposures (Fig. 4).

Ingestions accounted for 78.8% of poison exposures (Table 8), followed in frequency by dermal, ophthalmic, inhalation, bite and sting, and parenteral routes. The 293 fatalities included 225 ingestions (76.8%), 46 inhalational exposures (15.7%), 8 paren-

TABLE 3. Age and Sex Distribution among Human Poison Exposure Cases

Age (years)	Male	Female	Unknown	Total
	Number (%)	Number (%)	Number (%)	Number (%)
<1	31,538 (51.9)	27,701 (45.6)	1,476 (2.4)	60,715 (8.3)
1	74,851 (52.4)	65,216 (45.6)	2,885 (2.0)	142,952 (19.6)
2	79,582 (52.9)	67,595 (44.9)	3,218 (2.1)	150,395 (20.6)
3	37,437 (53.9)	30,467 (43.9)	1,493 (2.1)	69,397 (9.5)
4	16,709 (55.9)	12,542 (42.0)	625 (2.1)	29,876 (4.1)
5	8,228 (55.8)	6,179 (41.9)	350 (2.4)	14,757 (2.0)
6–12	20,063 (57.8)	13,929 (40.1)	735 (2.1)	34,727 (4.8)
13–17	11,683 (40.8)	16,442 (57.4)	512 (1.8)	28,637 (3.9)
>17	76,816 (43.7)	95,686 (54.4)	3,320 (1.9)	175,822 (24.1)
Unknown*	7,597 (33.1)	8,059 (35.1)	7,290 (31.7)	22,946 (3.1)
Total	364,504 (49.9)	343,816 (47.1)	21,904 (3.0)	730,224 (100.0)

* In the unknown category, although the exact age was not reported, 741 were infants and 5,354 were children aged 2 to 12 years.

teral exposures (2.7%), 1 envenomation (0.3%) and 7 unknown exposure routes (2.4%). In addition, 5 victims (1.7%) had multiple exposure routes.

Table 9 displays the assessment of symptoms at the time of the initial call to the participating poison center. In addition to the 24.7% of patients with symptoms clearly related to the exposure, symtoms developed during the subsequent course in 8,311 initially asymptomatic patients. Thus, symptoms definitely related to the exposure eventually developed in 25.8% of patients. An additional 4.4% of patients were symptomatic, but it could not be determined whether these symptoms were related to the poisonous agent.

The majority of cases reported to poison centers

TABLE 4. Number of Substances Involved in Human Poison Exposure Cases

No. of Substances	No. of Cases	% of All Cases
1	678,906	93.0
2	34,023	4.7
3	7,010	1.0
4	1,654	0.2
5	641	0.1
6	270	0.0
7	110	0.0
8	62	0.0
9	30	0.0
≥10	121	0.0
Unknown	7,397	1.0
Total	730,224	100.0

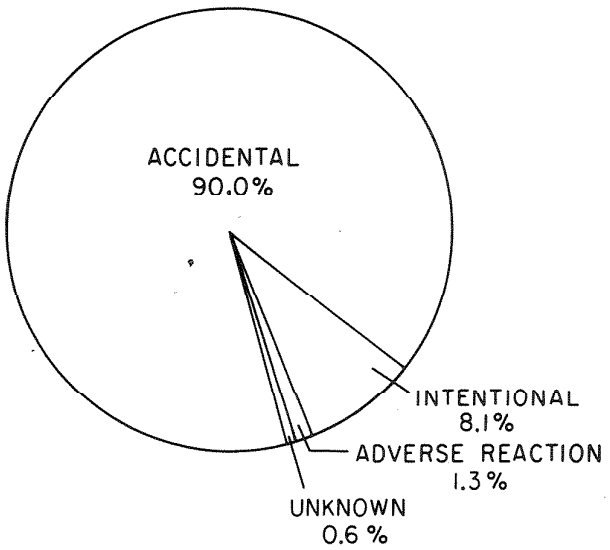

FIGURE 3. Reason for exposure.

TABLE 5. Reason for Human Poison Exposure Cases

	Number	%
Accidental		
General	630,529	86.3
Misuse*	11,099	1.5
Occupational	10,149	1.4
Environmental	3,810	0.5
Unknown	1,372	0.2
Total	656,959	90.0
Intentional		
Suicidal	35,931	4.9
Abuse†	8,820	1.2
Misuse‡	7,354	1.0
Unknown	6,948	1.0
Total	59,053	8.1
Adverse reaction		
Drug	4,294	0.6
Food	3,810	0.5
Other	1,685	0.2
Total	9,789	1.3
Unknown	4,423	0.6
Total	730,224	100.0

* Improper use of a substance where therapeutic or beneficial results were intended, *e.g.*, an overdose occurring because both parents gave the same medication to a child and neither was aware (at the time) of the other's action, or a case where misreading the label of a product results in an unintended exposure.

† Improper use of a substance by which the patient was seeking a psychotropic effect.

‡ Intentional incorrect use of a substance where a psychotropic effect was not sought, *e.g.*, intentional excessive dosing to obtain a more rapid or superior pharmacologic effect for presumed "therapeutic purposes."

TABLE 6. Distribution of Reason for Exposure by Age in Human Exposure Cases Only

Reason	≤5 yrs	6–12 yrs	13–17 yrs	>17 yrs	Unknown	Total
	Number (%)	Number (%)	Number (%)	Number (%)	Number (%)	Number (%)
Accidental	470,838 (64.5)	32,111 (4.4)	15,686 (2.1)	125,050 (17.1)	13,274 (1.8)	656,959 (90.0)
Intentional	807 (0.1)	1,652 (0.2)	12,100 (1.7)	41,647 (5.7)	2,847 (0.4)	59,053 (8.1)
Adverse Reaction	1,267 (0.2)	723 (0.1)	457 (0.1)	6,979 (1.0)	363 (0.0)	9,789 (1.3)
Unknown	1,275 (0.2)	241 (0.0)	394 (0.0)	2,146 (0.3)	367 (0.0)	4,423 (0.6)
Total	474,187 (64.9)	34,727 (4.8)	28,637 (3.9)	175,822 (24.1)	16,851 (2.3)	730,224 (100.0)

were managed in a non-health-care facility (74.5%), usually at the site of exposure in the patient's own home (Table 10). Treatment was rendered in a health care facility in 21.5% of all cases, and of these patients, 51.5% were treated and released and 17.4% were admitted for medical care. (The remaining patients were either admitted for psychiatric care or lost to follow-up.)

Table 11 displays the medical outcome of the human poison exposure victims distributed by age, emphasizing the more severe outcome observed in the older age groups. Table 12 compares medical outcome and reason for exposure, demonstrating the greater involvement of intentional exposures in cases with a major effect or fatality. Follow-up of initial poison center contacts allowed definitive outcome determination in 461,948 cases. Of these, 34.7% had a minor effect (non-life-threatening symptoms followed the exposure, resolved within 24 hours, and resulted in no residual disability). A major effect was observed in 1.3% of cases with adequate follow-up (symptoms lasted more than 24 hours, were life-threatening, or resulted in disfigurement or residual disability). The 293 reported fatalities were further investigated to verify that the death was related to the poisoning.

Table 13 outlines the use of initial decontamination procedures and specific antidotes in the treatment of patients reported in this database. These must be interpreted as minimum frequencies of use because of the limitations of telephone data gathering. Ipecac syrup was administered in 12.9% of cases. In children, ipecac syrup was most often administered outside a health-care facility (Table 14).

The most frequently ingested plants are listed in Table 15. Philodendron and Dieffenbachia, two plants containing insoluble oxalate, lead the list. Although frequently ingested, many of the plants on this list are not toxic. Nonetheless, they generated frequent calls to poison control centers by patients, parents, or health professionals unaware of their non-toxic nature.

A summary of the 293 fatal exposures is presented in Table 16. A review of the fatality data demonstrates frequent deaths from antidepressant drugs (57), analgesics (53), sedative hypnotics (51), and carbon monoxide (22). Tables 17 and 18 provide comprehensive demographic data on patient age, reason for exposure, medical outcome, and use of a health-care facility for all 730,224 human exposures presented by category. Table 17 focuses on non-pharmaceuticals, and Table 18 focuses on drugs. A small percentage of cases involved exposure to multiple substances simultaneously, thus producing an occasional unexpected medical outcome likely related to the concomitantly ingested substance instead.

TABLE 7. Distribution of Reason for Exposure According to Age for 293 Human Fatalities

	≤5 years	6–12 years	13–17 years	>17 years	Total
Accidental					
General	18	2	2	29	51
Misuse	1	0	0	3	4
Occupational	0	0	0	8	8
Unknown	0	0	1	8	9
Environmental	0	0	0	1	1
Total	19	2	3	49	73
Intentional					
Suicide	0	0	10	155	165
Misuse	0	0	0	1	1
Abuse	0	0	4	16	20
Unknown	0	0	0	14	14
Total	0	0	14	186	200
Adverse Reaction	2	0	0	0	2
Unknown	0	0	0	18	18
Total	21	2	17	253	293

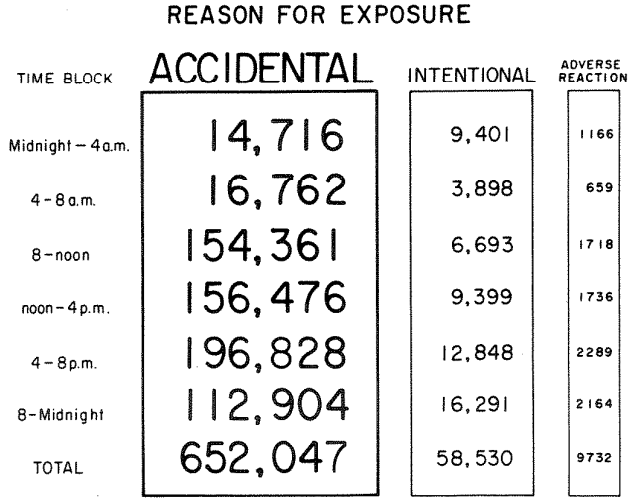

FIGURE 4. Distribution of poison center call volume by hour of the day and reason for exposure.

TABLE 8. Distribution of Route of Exposure by Patient Management Site for Human Poison Exposure Cases

	Non-health-care Facility	Health-care Facility	Unknown Site	Total
	Number (%)	Number (%)	Number (%)	Number (%)
Ingestion	460,619 (77.1)	57,807 (9.7)	79,142 (13.2)	597,568 (78.8)
Dermal	34,807 (73.5)	5,980 (12.6)	6,545 (13.8)	47,332 (6.2)
Ophthalmic	27,970 (68.1)	7,400 (18.0)	5,695 (13.9)	41,065 (5.4)
Inhalation	19,836 (54.8)	7,551 (20.8)	8,835 (24.4)	36,222 (4.8)
Bites and stings	18,038 (69.4)	3,059 (11.8)	4,907 (18.9)	26,004 (3.4)
Other/unknown	3,716 (44.8)	1,697 (20.4)	2,889 (34.8)	8,302 (1.1)
Parenteral	517 (24.7)	833 (39.9)	739 (35.4)	2,089 (0.3)

* Multiple routes of exposure were observed in many poison exposure victims. Percentage reflects human exposures with each route of ingestion; thus, the total percentage exceeds 100, and total number of routes of exposure exceeds 730,224 (number of human exposure victims).

TABLE 9. Assessment of Symptoms at Time of Initial Call to Poison Center for Human Poison Exposures

	Number	%
Asymptomatic	485,966	66.6
Symptomatic, related to exposure	180,422	24.7
Symptomatic, unrelated to exposure	9,110	1.2
Symptomatic, unknown whether related	31,998	4.4
Unknown	22,728	3.1
Total	730,224	100.0

TABLE 10. Management Site of Human Poison Exposure Cases

	Number	%
Non-health-care facility	543,764	74.5
Health-care facility		
Already there at time of call to poison center	81,116	11.1
Referred to by poison center	75,788	10.4
Other/unknown	29,556	4.0
Total	730,224	100.0

TABLE 11. Medical Outcome of Human Poison Exposure Cases by Patient Age (Years)

	<6	6–12	13–17	>17	Unknown	Total
	Number (%)	Number (%)	Number (%)	Number (%)	Number (%)	Number (%)
No effect	246,141 (33.7)	11,619 (1.6)	6,037 (0.8)	27,454 (3.8)	4,272 (0.6)	295,523 (40.5)
Minor effect	57,665 (7.9)	10,206 (1.4)	11,718 (1.6)	76,092 (10.4)	4,626 (0.6)	160,307 (22.0)
Major effect	686 (0.1)	150 (0.0)	571 (0.1)	4,217 (0.6)	201 (0.0)	5,825 (0.8)
Death	21 (0.0)	2 (0.0)	17 (0.0)	253 (0.0)	0 (0.0)	293 (0.0)
Unknown, non-toxic*	128,585 (17.6)	8,347 (1.1)	3,999 (0.5)	25,597 (3.5)	2,852 (0.4)	169,380 (23.2)
Unknown, potentially toxic†	29,679 (4.1)	3,540 (0.5)	5,210 (0.7)	36,656 (5.0)	3,633 (0.5)	78,718 (10.8)
Unknown	11,410 (1.6)	863 (0.1)	1,085 (0.1)	5,553 (0.8)	1,267 (0.2)	20,178 (2.8)
Total	474,187 (64.9)	34,727 (4.8)	28,637 (3.9)	175,822 (24.1)	16,851 (2.3)	730,224 (100.0)

* No follow-up because exposure was assessed as non-toxic.
† Patient lost to follow-up. Exposure was assessed as potentially toxic.

TABLE 12. Distribution of Medical Outcome by Reason for Exposure for Human Poison Exposure Victims

	Accidental	Intentional	Adverse Reaction	Unknown	Total
	Number (%)	Number (%)	Number (%)	Number (%)	Number (%)
No effect	284,757 (96.3)	8,920 (3.0)	825 (0.3)	1,021 (0.3)	295,523 (40.5)
Minor effect	130,762 (81.6)	22,839 (14.2)	5,559 (3.5)	1,147 (0.7)	160,307 (22.0)
Major effect	2,261 (38.8)	3,298 (56.6)	119 (2.0)	147 (2.5)	5,825 (0.8)
Death	73 (24.9)	200 (68.3)	2 (0.7)	18 (6.1)	293 (0.0)
Unknown, non-toxic	163,264 (96.4)	4,021 (2.4)	1,432 (0.8)	663 (0.4)	169,380 (23.2)
Unknown, potentially toxic	58,231 (74.0)	17,783 (22.6)	1,595 (2.0)	1,109 (1.4)	78,718 (10.8)
Unknown	17,611 (87.3)	1,992 (9.9)	257 (1.3)	318 (1.6)	20,178 (2.8)
Total	656,959 (90.0)	59,053 (8.1)	9,789 (1.3)	4,423 (0.6)	730,224 (100.0)

The categories most frequently implicated in poison exposures were cleaning substances (67,237), plants (63,328), and analgesics (62,837). Exposure frequencies often represent only market shares of products or home availability and should not be interpreted as toxicity data. Instead, the medical outcome data, especially the fatality rate, should be used for this purpose. For example, although there were nearly 1.7 times more ingestions of acetaminophen as compared with salicylates, the fatality rate for salicylates was more than twice that for acetaminophen. Likewise, in Table 15, poinsettia, jade, and schefflera are listed as the

TABLE 13. Therapy Provided in Human Poison Exposure Cases

	Number	%*
Initial Decontamination		
Dilution	300,320	41.1
Irrigation/washing	128,949	17.7
Ipecac syrup	94,496	12.9
Activated charcoal	29,265	4.0
Cathartic	25,999	3.6
Gastric lavage	11,454	1.6
Other emetic	2,167	0.3
Specific antidote administration		
N-acetylcysteine (PO)	3,016	0.4
Naloxone	1,942	0.3
Antivenin/antitoxin	969	0.1
Atropine	412	0.1
Physostigmine	367	0.0
Deferoxamine	352	0.0
Ethanol	311	0.0
Calcium salts	224	0.0
N-acetylcysteine (IV)	169	0.0
Pralidoxime (2-PAM)	123	0.0
Cyanide antidote kit	102	0.0
Dimercaprol (BAL)	101	0.0
Penicillamine	94	0.0
EDTA	77	0.0
Pyridoxine	71	0.0
Methylene blue	54	0.0
FAB fragments	41	0.0
Hydroxocobalamin	30	0.0
Thioctic acid	20	0.0
Measures to enhance elimination		
Urinary alkalinization (with or without diuresis)	2,179	0.3
Forced diuresis	265	0.0
Hemodialysis	187	0.0
Urinary acidification (with or without diuresis)	84	0.0
Hemoperfusion (charcoal or resin)	75	0.0
Exchange transfusion	41	0.0
Peritoneal dialysis	24	0.0

* Percentage of 730,224 human exposure cases receiving each treatment.

TABLE 14. *Ipecac Administration by Site and Age*

Age (years)	Non-health-care Facility Number (%)	Health-care Facility Number (%)	Unknown Number (%)	Total Number (%)
<1	1,115 (43.1)	1,430 (55.2)	45 (1.7)	2,590 (2.7)
1	10,509 (62.4)	6,146 (36.4)	191 (1.1)	16,846 (17.8)
2	18,075 (63.2)	10,090 (35.2)	422 (1.5)	28,587 (30.3)
3	8,905 (64.6)	4,709 (34.2)	170 (1.2)	13,784 (14.6)
4	3,273 (65.5)	1,666 (33.3)	57 (1.1)	4,996 (5.3)
5	1,234 (66.3)	604 (32.5)	22 (1.2)	1,860 (2.0)
6–12	1,370 (54.7)	1,081 (43.2)	52 (2.1)	2,503 (2.6)
13–17	610 (10.5)	5,109 (87.7)	104 (1.8)	5,823 (6.2)
>17	1,416 (9.0)	13,960 (90.0)	310 (1.9)	15,686 (16.6)
Unknown	568 (31.2)	1,176 (64.6)	77 (4.2)	1,821 (1.9)
Total	47,075 (49.8)	45,971 (48.6)	1,450 (1.5)	94,496 (100.0)

TABLE 15. Plants* Most Frequently Involved in Human Exposure Cases Reported to Poison Centers

Plant	Number of exposures
Philodendron spp, Philodendron	5,657
Dieffenbachia spp, Dumbcane	2,776
Euphorbia pulcherrima, Poinsettia	2,048
Crassula argentea, Jade plant	2,015
Brassaia actinophylla, Schefflera	1,756
Ilex spp, Holly	1,657
Pyracantha spp, Firethorn	1,071
Phytolacca americana or *rigida,* Pokeweed	949
Taxus spp, Yew	818
Rhododendron spp, Rhododendron, azalea	803
Scindapsus aureus or *pictus*	785
Anthericum and *Chlorophytum,* Spider plant	784
Capsicum annuum conoides "Fiesta", Ornamental pepper	780
Sorbus spp, Mountain ash	685
Lonicera spp, Honeysuckle	656
Solanum dulcamara, Climbing nightshade	623
Aloe spp, Medicine plant	622
Toxicodendron radicans, Poison ivy	600
Ficus elastica, Rubber plant	578
Ficus benjamina, Weeping fig tree	533
Asparagus spp, Asparagus fern	526
Saintpaulia ionantha, African violet	523
Nephthytis spp, Arrowhead vine	509
Chrysanthemum spp, Chrysanthemum	504
Taraxacum officinale, Dandelion	476
Prunus domestica, Plum (pits)	469
Episcia spp, Flame violet	461
Aglaonema modestum, Chinese evergreen	430
Narcissus spp, Daffodil	428
Rheum rhaponticum, Rhubarb (leaves)	427
Begonia spp, Begonia	425
Hedera helix, English ivy	411
Plectranthus australis, Swedish ivy	403
Mahonia spp, Oregon grape	396
Cotoneaster spp, Cotoneaster	390
Nerium oleander, Oleander	386
Zygocactus truncatus, Christmas cactus	382
Quercus spp, Oak	368
Dracaena spp, Corn plant	353

* List reflects plant exposures most commonly reported to poison control centers. Not all of these plants are poisonous.

third, fourth and fifth most frequently ingested plants, but all three pose minimal, if any, toxic hazard. In addition, plants were the second most common category of implicated substances, but only one fatality was documented in this group (one death in 63,328 exposures). In contrast, the fatality rate for antidepressants was more than 400 times higher (0.63%).

The AAPCC thanks Micromedex, Inc. for their generous contribution to the programming and processing of this annual report.

REFERENCES

1. Veltri JC, Litovitz TL: 1983 Annual Report of the American Association of Poison Control Centers National Data Collection System. Am J Emerg Med 1984;2:420–443.

TABLE 16. Summary of Fatal Exposures*

Age†	Reason‡	Exposure Type	Route of Exposure	Substance 1	Substance 2	Substance 3
Adhesives/glues/cements/pastes						
>17	int abuse	acute	inhalation	toluene/xylene		
Alcohols						
25	int suicide	acute	ingestion	ethanol		
36	unknown	unknown	ingestion	ethanol		
>17	int suicide	chronic	ingestion	ethanol	acetaminophen/codeine	
>17	int suicide	acute	ingestion	ethanol	acetaminophen/oxycodone	
>17	int suicide	acute	ingestion	ethanol	acetaminophen/propoxyphene	
>17	int suicide	acute	ingestion	ethanol	aspirin	
13–15	int suicide	acute	ingestion	ethanol	aspirin (adult)	
>17	int suicide	acute	ingestion	ethanol	aspirin (adult)	
60	int suicide	acute	ingestion	ethanol	battery acid	
>17	int abuse	acute	ingestion	ethanol	diazepam	
>17	int abuse	acute	ingestion	ethanol	diazepam	aspirin/oxycodone
>17	int suicide	acute	ingestion	ethanol	diazinon	
>17	int suicide	acute	ingestion	ethanol	diphenhydramine	
>17	int suicide	acute	parenteral	ethanol	heroin	barbiturate
>17	int suicide	acute	ingestion	ethanol	imipramine	
>17	acc gen	acute	ingestion	ethanol	industrial cleaner	
62	int suicide	acute	ingestion	ethanol	organophosphate	
13–17	int suicide	acute	ingestion	ethanol	propranolol	
>17	int suicide	acute	ingestion	ethanol	quinine	
>17	int suicide	acute	ingestion	ethanol	thioridazine	
>17	int suicide	unknown	ingestion	ethanol	trazodone	
>17	unknown	acute	ingestion	isopropanol		
>17	int suicide	acute	ingestion	methanol		
Arts/crafts/writing products/office supplies						
13–17	int abuse	acute	inhalation	typewriter correction fluid		
13–17	int abuse	acute	inhalation	typewriter correction thinner		
>17	int abuse	acute	inhalation	typewriter correction fluid		
Automotive/aircraft/boat products						
>17	int suicide	acute	ingestion	antifreeze (ethylene glycol)		
>17	acc unknown	acute	ingestion	antifreeze (ethylene glycol)		
37	int suicide	acute	ingestion	antifreeze (ethylene glycol)		
69	int suicide	acute	ingestion	antifreeze (ethylene glycol)		
>17	int suicide	acute	ingestion	gasline antifreeze (methanol)	methylphenidate	
18 mo	acc gen	acute	ingestion	windshield washer (methanol)		
Batteries						
60	int suicide	acute	ingestion	battery acid	ethanol	
Bites and envenomations						
4	acc gen	acute	bite	rattlesnake		

Chemicals					
>17	int suicide	acute	ingestion	cyanide	
>17	int suicide	acute	ingestion	cyanide	
>17	int suicide	acute	inhalation	cyanide	
>17	int suicide	acute	ingestion	cyanide	
>17	int suicide	acute	ingestion	cyanide	
>17	int unknown	acute	ingestion	ethylene dichloride	
13–17	int suicide	acute	ingestion	ethylene glycol	
>17	unknown	unknown	ingestion	ethylene glycol	
>17	acc environ	acute	inhalation	hydrogen sulfate	nitrogen oxides
>17	int suicide	acute	ingestion	lye	
>17	acc gen	acute	ocular & dermal	lye	
>17	int suicide	acute	ingestion	muriatic acid	
>17	int unknown	acute	ingestion	muriatic acid	ammonia cleaner
>17	int suicide	acute	ingestion	nitric acid	methylene chloride stripper
>17	int suicide	acute	ingestion	phenol	
>17	acc occup	chronic	inhalation	sodium nitrate	
>17	int suicide	acute	ingestion	sulfuric acid	
Cleaning substances					
>17	acc occup	acute	inhal & dermal	ammonia cleaner	
82	int suicide	acute	ingestion	ammonia cleaner	
>17	int unknown	acute	ingestion	ammonia cleaner	muriatic acid
>17	int suicide	acute	ingestion	drain opener (alkali)	
40	int suicide	acute	ingestion	drain opener	
>17	acc gen	acute	dermal	industrial cleaner (alkali)	
>17	acc gen	acute	ingestion	industrial cleaner	ethanol
72	int suicide	acute	ingestion	liquid laundry detergent	
1	acc gen	acute	ingestion	pine oil disinfectant	
1	acc gen	acute	ingestion	pine oil disinfectant	
22	acc occup	acute	inhalation	trichlorethane cleaning fluid	
13–17	int abuse	acute	inhalation	trichloroethane suede cleaner	
Fumes/gases/vapors					
5	acc gen	acute	inhalation	carbon monoxide	
6–12	acc gen	acute	inhalation	carbon monoxide	
13–17	int suicide	unknown	inhalation	carbon monoxide	
13–17	acc gen	acute	inhalation	carbon monoxide	
>17	acc gen	acute	inhalation	carbon monoxide	
>17	int suicide	acute	inhalation	carbon monoxide	
>17	acc unknown	acute	inhalation	carbon monoxide	
>17	unknown	acute	inhalation	carbon monoxide	
>17	int suicide	acute	inhalation	carbon monoxide	
>17	int suicide	acute	inhalation	carbon monoxide	
>17	acc gen	acute	inhalation	carbon monoxide	
>17	int suicide	acute	inhalation	carbon monoxide	
>17	unknown	acute	inhalation	carbon monoxide	
>17	int suicide	acute	inhalation	carbon monoxide	
>17	acc gen	acute	inhalation	carbon monoxide	
17	int suicide	acute	inhalation	carbon monoxide	
23	int suicide	acute	inhalation	carbon monoxide	

Continued next page

TABLE 16. Continued

Age†	Reason‡	Exposure Type	Route of Exposure	Substance 1	Substance 2	Substance 3
>17	int suicide	acute	ingestion	aspirin	ethanol	
>17	int suicide	acute	ingestion	aspirin (adult)		
>17	int unknown	acute	ingestion	aspirin (adult)		
>17	int suicide	acute	ingestion	aspirin (adult)		
>17	int suicide	acute	ingestion	aspirin (adult)		
>17	int suicide	acute	ingestion	aspirin (adult)		
>17	acc misuse	acute	ingestion	aspirin (adult)		
>17	int suicide	acute	ingestion	aspirin (adult)		
40	int suicide	acute	ingestion	aspirin (adult)		
53	acc gen	acute	ingestion	aspirin (adult)		
>17	int suicide	acute	ingestion	aspirin (adult)	chlordiazepoxide	
>17	int suicide	acute	ingestion	aspirin (adult)	diazepam	
13–15	int suicide	acute	ingestion	aspirin (adult)	ethanol	
>17	int suicide	acute	ingestion	aspirin (adult)	ethanol	
<1	acc misuse	chronic	ingestion	aspirin (pediatric)		
31	unknown	acute	ingestion	aspirin/butalbital/caffeine		
>17	int suicide	unknown	ingestion	aspirin/caffeine		
>17	int suicide	acute	ingestion	aspirin/caffeine	imipramine	
>17	int suicide	acute	ingestion	aspirin/codeine	butalbital	
>17	int suicide	acute	ingestion	aspirin/narcotic		
19	acc gen	acute	ingestion	aspirin/orphenadrine/caffeine		
>17	int abuse	acute	ingestion	aspirin/oxycodone	diazepam	ethanol
>17	int suicide	unknown	ingestion	codeine	carisoprodol	chlordiazepoxide
>17	int suicide	acute	ingestion	colchicine		
>17	unknown	acute	ingestion	diflunisal	amitriptyline/chlordiazepoxide	
>17	int suicide	acute	ingestion	morphine	oral hypoglycemics	
>17	int unknown	acute	ingestion	phenylbutazone		
>17	int suicide	acute	ingestion	propoxyphene		
>17	int unknown	chronic	ingestion	salsalate		
Anesthetics						
4	adrx drug	acute	inhal/paren	nitrous oxide	chloral hydrate	
Anticholinergic						
>17	unknown	unknown	ingestion	benztropine	loxapine	
>17	int suicide	acute	ingestion	trihexane	phenothiazines	
Anticonvulsants						
13–17	int suicide	acute	ingestion	carbamazepine		
44	int suicide	acute	ingestion	carbamazepine	thiothixene	acetaminophen/hydrocodone
>17	int suicide	acute	ingestion	phenytoin	phenobarbital	carbamazepine
>17	int suicide	acute	ingestion	valproic acid	thioridazine	
Antidepressants						
49	int suicide	acute	ingestion	amitriptyline		
>17	int suicide	acute	ingestion	amitriptyline		
>17	int suicide	acute	ingestion	amitriptyline		
>17	int suicide	acute	ingestion	amitriptyline		

>17	int unknown	acute	ingestion	amitriptyline		
>17	int unknown	acute	ingestion	amitriptyline		
>17	unknown	acute	ingestion	amitriptyline	cardiac glycosides	
>17	int suicide	acute	ingestion	amitriptyline	desipramine	
>17	int suicide	acute	ingestion	amitriptyline	fluphenazine	
38	int suicide	acute	ingestion	amitriptyline	flurazepam	
>17	int suicide	acute	ingestion	amitriptyline	mesoridazine	
26	int suicide	acute	ingestion	amitriptyline	street drug	talbutal
>17	unknown	acute	ingestion	amitriptyline/chlordiazepoxide	diflunisal	
29	acc gen	acute	ingestion	amoxapine		
>17	int suicide	acute	ingestion	amoxapine		
>17	int suicide	acute	ingestion	amoxapine		
39	int suicide	acute	ingestion	amoxapine		
60	int suicide	acute	ingestion	amoxapine		
21	int suicide	acute	ingestion	amoxapine	imipramine	
>17	int suicide	acute	ingestion	amoxapine	loxapine	
>17	int suicide	acute	ingestion	amoxapine	thioridazine	
17	acc unknown	acute	ingestion	desipramine		
>17	unknown	acute	ingestion	desipramine		
>17	int suicide	acute	ingestion	desipramine		
>17	int suicide	acute	ingestion	desipramine		
>17	int suicide	acute	ingestion	desipramine		
>17	int suicide	acute	ingestion	desipramine		
>17	int suicide	acute	ingestion	doxepin		
>17	acc gen	acute	ingestion	doxepin		
>17	int suicide	acute	ingestion	doxepin	carisoprodol	
>17	int suicide	acute	ingestion	doxepin	chlordiazepoxide	
>17	int suicide	acute	ingestion	doxepin	thioridazine	
>17	int suicide	acute	ingestion	imipramine		
>17	int suicide	acute	ingestion	imipramine		
>17	int suicide	acute	ingestion	imipramine		
>17	int suicide	acute	ingestion	imipramine	aspirin/caffeine	
>17	int suicide	acute	ingestion	imipramine	ethanol	
>17	acc gen	acute	ingestion	imipramine	thioridazine	
>17	acc gen	acute	ingestion	lithium		
>17	int suicide	acute	ingestion	lithium		
>17	int suicide	unknown	ingestion	lithium	thiothixene	
>17	int suicide	acute	ingestion	lithium	unknown cyclic antidepressant	
>17	unknown	unknown	ingestion	loxapine	benztropine	
>17	unknown	acute	ingestion	nortriptyline		
>17	int suicide	acute	ingestion	nortriptyline		
>17	int suicide	acute	ingestion	nortriptyline	imipramine	
>17	int suicide	acute	ingestion	phenelzine		
30	int unknown	acute	ingestion	phenelzine		
>17	acc gen	acute	ingestion	trazodone	diphenhydramine	
>17	int suicide	unknown	ingestion	trazodone	ethanol	
51	int suicide	acute	ingestion	trazodone	phenelzine	chlorpromazine
>17	int suicide	acute	ingestion	unknown cyclic antidepressant		
Antihistamines						
>17	int suicide	acute	ingestion	diphenhydramine		

Continued next page

TABLE 16. Continued

Age†	Reason‡	Exposure Type	Route of Exposure	Substance 1	Substance 2	Substance 3
48	int unknown	acute	ingestion	diphenhydramine		
>17	int suicide	acute	ingestion	diphenhydramine		
>17	acc gen	acute	inhalation	diphenhydramine	carbon monoxide	
>17	int suicide	acute	ingestion	diphenhydramine	ethanol	
>17	int suicide	acute	ingestion	diphenhydramine	strychnine	
>17	acc gen	acute	ingestion	diphenhydramine	trazodone	
Antimicrobials						
>17	int unknown	acute	ingestion	doxycycline	guanabenz	
Antineoplastics						
>17	acc gen	acute	parenteral	mithracin		
>17	int suicide	acute	ingestion	azathioprine	theophylline	
Asthma therapies						
17	int suicide	acute	ingestion	theophylline		
>17	acc misuse	acute	ingestion	theophylline		
>17	int suicide	acute	ingestion	theophylline		
>17	acc unknown	chronic	ingestion	theophylline		
62	unknown	chronic	ingestion	theophylline		
>17	int suicide	acute	ingestion	theophylline	azathioprine	
13–17	int suicide	acute	ingestion	theophylline (long-acting)		
19	int suicide	acute	ingestion	theophylline (long-acting)		
>17	int suicide	acute	ingestion	theophylline (long-acting)		
62	unknown	acute	ingestion	theophylline (long-acting)		
Cardiovascular drugs						
>17	unknown	unknown	ingestion	cardiac glycosides	amitriptyline	
>17	acc gen	acute	ingestion	digoxin		
>17	int suicide	acute	ingestion	digoxin	furosemide	
1	acc gen	acute	ingestion	digoxin	quinidine	
>17	int suicide	acute	ingestion	disopyramide		
>17	int unknown	acute	ingestion	guanabenz	doxycycline	
>17	acc gen	acute	ingestion	metoprolol		
25	int unknown	acute	ingestion	metoprolol		
>17	int suicide	acute	ingestion	metoprolol	haloperidol	
16	int suicide	acute	ingestion	metoprolol	verapamil	
>17	acc misuse	acute	ingestion	procainamide		
>17	int suicide	acute	ingestion	propranolol		
13–17	int suicide	acute	ingestion	propranolol	ethanol	
2	acc gen	acute	ingestion	quinidine		
1	acc gen	acute	ingestion	verapamil		
35	int suicide	acute	ingestion	verapamil		
Cough and cold preparations						
>17	int abuse	acute	ingestion	decongestant/antihistamine	acetaminophen (adult)	
Diuretics						
>17	int suicide	acute	ingestion	furosemide	digoxin	

Electrolytes/minerals						
1	acc gen	acute	ingestion	iron		
13–17	int suicide	acute	ingestion	iron		
Gastrointestinal preparations						
>17	int suicide	acute	ingestion	dicyclomine	warfarin rodenticide	
Hormones						
>17	int abuse	acute	ingestion	insulin	cocaine	
>17	int suicide	acute	ingestion	oral hypoglycemics	morphine	
Miscellaneous drugs						
>17	int suicide	unknown	ingestion	guanidine	alprazolam	
Muscle relaxants						
>17	acc gen	acute	ingestion	baclofen		
>17	*int suicide*	*unknown*	*ingestion*	*carisoprodol*	*codeine*	chlordiazepoxide
>17	int suicide	acute	ingestion	carisoprodol	doxepin	
>17	int suicide	acute	ingestion	quinine	ethanol	
Sedatives/hypnotics/antipsychotics						
>17	int suicide	acute	ingestion	alprazolam		
>17	int suicide	acute	ingestion	alprazolam	quanidine	
<1	adrx drug	acute	unknown	barbiturate		
>17	int suicide	acute	parenteral	barbiturate	heroin	ethanol
>17	int suicide	acute	ingestion	butalbital	aspirin/codeine	
4	adrx drug	acute	inhal/paren	chloral hydrate	nitrous oxide	
>17	int suicide	acute	ingestion	chlordiazepoxide	aspirin (adult)	
>17	int suicide	acute	ingestion	chlordiazepoxide	carisoprodol	codeine
>17	int suicide	acute	ingestion	chlordiazepoxide	doxepin	
>17	int suicide	acute	ingestion	chlorpromazine		
51	int suicide	acute	ingestion	chlorpromazine	phenelzine	trazodone
>17	int unknown	acute	ingestion	diazepam		
>17	int suicide	acute	ingestion	diazepam	aspirin	
>17	int suicide	acute	ingestion	diazepam	aspirin (adult)	
>17	int abuse	acute	ingestion	diazepam	ethanol	
>17	int abuse	acute	ingestion	diazepam	ethanol	aspirin/oxycodone
>17	int suicide	acute	ingestion	diazepam	short-acting barbiturates	
>17	int suicide	acute	ingestion	diazepam		
>17	int suicide	acute	ingestion	diazepam	warfarin rodenticide	acetaminophen/oxycodone
27	int suicide	acute	ingestion	ethchlorvynol		
>17	int suicide	acute	ingestion	fluphenazine	amitriptyline	
38	int suicide	acute	ingestion	flurazepam	amitriptyline	
>17	int suicide	acute	ingestion	haloperidol	metoprolol	
>17	*int suicide*	*acute*	*ingestion*	*mesoridazine*	*amitriptyline*	
>17	int unknown	acute	ingestion	methaqualone	benzodiazepines	
>17	int suicide	acute	ingestion	methyprylon		
>17	int suicide	acute	ingestion	nembutal		
>17	int suicide	acute	ingestion	OTC sleep aid		
>17	int suicide	acute	ingestion	phenobarbital	ethchlorvynol	
>17	unknown	acute	unknown	phenobarbital	pentazocine/tripelennamine	
>17	int suicide	acute	ingestion	phenobarbital	phenytoin	carbamazepine
60	int suicide	acute	ingestion	phenothiazine		

Continued next page

TABLE 16. Continued

Age†	Reason‡	Exposure Type	Route of Exposure	Substance 1	Substance 2	Substance 3
>17	int suicide	acute	ingestion	phenothiazine	trihexane	
>17	int suicide	acute	ingestion	short-acting barbiturates	benzodiazepines	
>17	int suicide	acute	ingestion	short-acting barbiturates	diazepam	
26	int suicide	acute	ingestion	talbutal	unknown street drug	amitriptyline
56	int suicide	acute	ingestion	thioridazine		
>17	int suicide	acute	ingestion	thioridazine	acetaminophen	
>17	int suicide	acute	ingestion	thioridazine	amoxapine	
>17	int suicide	acute	ingestion	thioridazine	doxepin	
>17	int suicide	acute	ingestion	thioridazine	ethanol	
>17	acc gen	acute	ingestion	thioridazine	imipramine	
>17	int suicide	acute	ingestion	thioridazine		
44	int suicide	acute	ingestion	thiothixene	acetaminophen/hydrocodone	carbamazepine
>17	int suicide	unknown	ingestion	thiothixene	lithium	
>17	int suicide	acute	ingestion	trimeprazine	acetaminophen/codeine	
Stimulants and street drugs						
>17	int suicide	acute	ingestion	amphetamine	acetaminophen	
>17	int suicide	acute	ingestion	caffeine		
>17	int suicide	acute	ingestion	caffeine		
>17	int suicide	acute	ingestion	caffeine/ephedrine		
>17	int abuse	acute	inhalation	cocaine		
>17	int abuse	acute	unknown	cocaine		
>17	int abuse	chronic	inhalation	cocaine		
>17	int unknown	acute	ingestion	cocaine		
>17	int abuse	acute	ingestion	cocaine		
>17	int abuse	acute	parenteral	cocaine	amphetamine	
>17	int abuse	acute	unknown	cocaine	insulin	
>17	int abuse	acute	parenteral	heroin		
>17	int suicide	acute	parenteral	heroin	barbiturate	ethanol
>17	int abuse	acute	parenteral	heroin	cocaine	
>17	int abuse	acute	ingest/paren	heroin	PCP	
>17	int abuse	chronic	parenteral	methylphenidate		
>17	int suicide	acute	ingestion	methylphenidate	gasline antifreeze (methanol)	
>17	int abuse	acute	unknown	pentazocine/tripelennamine	phenobarbital	
26	int suicide	acute	ingestion	unknown street drug	amitriptyline	talbutal
Topicals						
62	int abuse	acute	ingestion	antiseptic (ethanol)		
2	acc gen	acute	ingestion	methyl salicylate		
>17	acc gen	acute	ingestion	methyl salicylate		
>17	acc unknown	acute	ingestion	methyl salicylate		
Unknown drug						
>17	int suicide	acute	ingestion	unknown drug	diazepam	

* Cases are listed two or three times if two or three substances are involved in exposure.Where multiple substances are implicated in a fatality, substances are not listed in order of causality. Substances separated by a slash (/) were formulated together and ingested as a single drug or product.

† Age in years unless otherwise indicated; specific age provided where known.

‡ Reason for exposure may be: accidental general (acc gen), accidental misuse (acc misuse), accidental occupational (acc occup), accidental unknown (acc unknown), intentional suicide (int suicide), intentional misuse (int misuse), intentional abuse (int abuse), intentional unknown (int unk), adverse reaction to drug (adrx drug), or unknown.

TABLE 17. Demographic Profile of Exposure Cases* by Generic Category of Substances and Products: Non-pharmaceuticals

	Number of Exposures	Age (years)			Reason			Treated in Health Facility	Medical Outcome (Effect)					
		<6	6–17	>17	Acc†	Int‡	Adv§ rxn		None	Minor	Major	Unk‖ NT	Unk** PT	Death
Adhesives/glues/cements/pastes°	7,058	4,043	788	1,990	6,963	70	6	1,313	2,537	1,898	9	1,941	514	1
Alcohols														
Ethanol (excluding rubbing alcohol)	20,496	9,534	1,710	8,694	12,734	7,347	131	8,014	6,147	6,046	433	3,425	3,873	21
Isopropanol (excluding rubbing alcohol)	3,209	2,389	174	584	3,078	111	4	584	1,479	634	16	736	276	1
Methanol	923	437	51	413	869	47	1	425	397	250	13	110	120	1
Rubbing alcohol														
Ethanol	955	754	62	127	919	33	0	145	553	108	0	203	73	0
Isopropanol	2,587	2,089	130	323	2,430	144	0	492	1,400	418	6	462	244	0
Unknown type	710	561	46	96	658	43	1	157	361	116	1	115	79	0
Other/unknown	1,398	802	339	215	1,310	80	1	242	542	340	6	326	141	0
Total	30,278	16,566	2,512	10,452	21,998	7,805	138	10,059	10,879	7,912	475	5,377	4,806	23
Arts and crafts and office supplies	7,999	6,659	856	364	7,928	46	5	286	3,887	393	4	3,327	248	3
Automotive/aircraft/boat products														
Glycols	1,275	491	85	661	1,225	37	0	458	517	396	24	144	142	4
Hydrocarbons	384	222	26	123	378	1	0	81	151	122	4	49	41	0
Methanol	418	216	34	161	399	15	3	216	207	103	6	38	52	2
Other/unknown	675	355	50	251	659	11	1	180	216	240	3	93	100	0
Total	2,752	1,284	195	1,196	2,661	64	4	935	1,091	861	37	324	335	6
Batteries														
Penlight/flashlight/dry cells	449	297	102	43	445	3	0	52	197	129	0	81	35	0
Automotive	429	73	44	299	427	1	1	152	69	232	4	32	74	1
Button batteries	659	467	113	66	648	10	0	431	421	59	2	64	101	0
Other/unknown	175	99	36	33	175	0	0	45	86	40	1	19	23	0
Total	1,712	936	295	441	1,695	14	1	680	773	460	7	196	233	1
Bites and envenomations														
Small mammals	1,847	461	567	747	1,824	4	16	859	279	795	1	406	316	0
Snakes indigenous to U.S.														
Rattlesnake	243	21	36	173	243	0	0	209	25	104	57	6	33	1
Copperhead	65	5	13	42	65	0	0	60	8	29	12	1	12	0
Coral	8	1	1	6	6	0	2	5	3	2	0	1	1	0
Cottonmouth	10	0	0	10	10	0	0	8	3	5	1	0	1	0
Unknown crotalid	21	2	9	10	21	0	0	18	2	11	5	1	1	0
Non-poisonous snake	325	46	144	124	323	1	1	89	83	108	0	106	20	0
Unknown type of snake	366	48	149	145	366	0	0	225	*73*	*175*	*13*	*45*	*53*	*0*
Exotic snakes	138	12	44	74	137	1	0	54	37	60	1	31	7	0
Other/unknown reptile	171	47	61	59	171	0	0	34	27	70	2	56	14	0
Ant/fire ant	312	124	51	135	304	0	7	48	20	225	4	23	35	0
Bee/wasp/hornet	9,620	2,446	2,028	4,927	9,361	1	239	1,776	525	6,070	40	1,421	1,360	0
Black widow spider	1,599	234	208	1,129	1,592	1	2	439	350	851	24	84	238	0
Brown recluse spider	359	28	43	265	357	1	1	238	18	165	20	18	119	0
Other spider	610	124	112	335	604	0	4	116	79	345	0	88	72	0

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TABLE 17. Continued

	Number of Exposures	Age (years)			Reason			Treated in Health Facility	Medical Outcome (Effect)					
		<6	6–17	>17	Acc†	Int‡	Adv§ rxn		None	Minor	Major	Unk‖ NT	Unk** PT	Death
Caterpillars	249	89	54	103	245	0	2	33	18	169	1	23	35	0
Other/unknown spider/insect	7,918	1,963	1,172	4,612	7,773	3	115	1,994	570	4,450	22	1,176	1,508	0
Fish stings	353	15	56	262	345	0	4	155	8	236	3	28	68	0
Coelenterate stings	110	12	34	59	108	0	2	31	3	70	3	14	17	0
Mosquito	118	61	20	35	116	0	2	26	6	62	0	20	23	0
Scorpion	1,459	106	271	1,044	1,455	0	0	221	111	1,077	4	54	167	0
Tick	507	181	118	178	503	0	1	115	170	118	1	79	125	0
Total	26,408	6,046	5,191	14,474	25,929	12	398	6,753	2,418	15,197	214	3,681	4,225	1
Building/construction supplies	2,716	1,569	196	870	2,665	22	15	619	986	682	11	581	377	0
Chemicals														
Acetone (excluding nail polish removers)	2,324	1,726	169	388	2,276	34	6	345	890	516	0	688	180	0
Acids														
Hydrofluoric acid	459	23	17	386	447	5	1	333	40	260	25	13	105	0
Other/unknown acid	4,106	840	423	2,643	3,994	76	9	1,748	782	2,021	63	404	717	5
Alkali	7,548	4,072	550	2,666	7,334	144	25	2,319	2,430	2,703	111	1,117	980	2
Borates/boric acid (excluding topicals and insecticides)	1,260	803	82	339	1,221	34	1	245	613	209	3	299	111	0
Chlorates (excluding matches and fireworks)	109	67	13	29	109	0	0	27	37	25	0	20	21	0
Cyanide (excluding rodenticides)	232	21	11	179	210	12	6	143	51	92	10	29	40	5
Dioxin	65	7	21	34	62	0	0	20	22	5	1	6	27	0
Formaldehyde/formalin	824	261	108	411	787	26	8	274	196	294	5	127	174	0
Glycols (excluding automotive products)	3,665	2,668	243	693	3,611	42	3	499	1,613	653	8	1,104	217	2
Ketones	812	460	43	286	802	5	2	228	291	274	2	112	110	0
Methylene chloride (excluding paint strippers)	1,069	329	100	593	1,045	16	1	400	250	481	11	139	161	0
Nitrates and nitrites (excluding medications & abused substances)	1,462	1,021	170	245	1,428	29	1	185	619	187	9	530	96	1
Phenol/creosote (excluding disinfectants)	1,792	698	222	802	1,751	23	7	495	477	753	8	268	243	1
Strychnine (excluding rodenticides)	15	1	0	13	5	9	0	11	2	3	4	2	3	0
Toluene diisocyanate	279	25	8	232	276	1	0	147	41	155	4	30	44	0
Other	9,552	6,112	811	2,318	9,296	193	26	1,874	3,575	1,836	44	3,032	861	1
Total	35,570	19,104	2,991	12,257	34,654	649	96	9,290	11,020	10,467	308	7,020	4,090	17
Cleaning substances														
Ammonia cleaners	4,237	1,945	350	1,796	4,118	100	6	1,152	1,152	1,733	40	614	593	3
Bleaches (household)														
Hypochlorite-containing	10,592	5,815	723	3,775	10,262	275	15	2,432	3,261	3,962	38	2,030	1,173	0
Other/unknown	1,530	907	94	501	1,495	29	3	279	511	415	3	370	186	0
Cleansers														
Anionic/nonionic	1,749	1,522	41	156	1,734	9	1	122	914	267	1	431	104	0
Other/unknown	603	407	37	140	584	13	0	80	244	124	0	150	71	0

Disinfectants (household)														
Hypochlorite-containing	2,060	839	216	924	1,996	47	6	592	562	890	17	322	226	0
Phenol	1,184	852	59	252	1,144	38	0	207	493	287	8	247	123	0
Pine oil	437	341	23	67	425	10	0	130	233	105	2	47	43	2
Other/unknown	175	101	18	52	171	4	0	44	74	51	0	24	20	0
Electric dishwasher detergent														
Alkali	2,193	1,923	52	195	2,186	4	1	210	1,158	367	1	438	180	0
Other/unknown	368	310	13	39	366	0	2	27	187	70	0	58	34	0
Fabric softeners														
Cationic	804	741	20	36	798	2	1	45	434	94	1	203	55	0
Other/unknown	51	46	0	4	51	0	0	2	34	3	0	7	5	0
Glass cleaners (household)	2,773	2,337	158	237	2,725	37	0	178	1,350	487	2	723	171	0
Hand dishwashing detergents	4,047	3,181	220	582	4,004	27	2	171	1,512	963	1	1,250	245	0
Industrial cleaners														
Acids	478	120	24	323	469	7	0	199	79	263	7	38	79	0
Alkali	504	194	22	272	491	8	0	263	114	266	10	53	51	1
Other/unknown	662	175	50	392	637	16	1	331	110	342	4	55	120	1
Laundry detergents														
Anionic/nonionic	3,241	2,675	124	405	3,207	22	4	269	1,393	817	1	752	216	1
Alkali	1,721	1,505	45	158	1,705	8	3	275	796	471	5	266	150	0
Other/unknown	753	625	21	92	740	7	4	72	312	149	1	193	69	0
Miscellaneous cleaners														
Acid	605	356	19	210	595	6	3	148	236	208	5	85	57	0
Alkali	3,322	2,424	149	678	3,250	53	1	481	1,432	791	23	707	298	2
Anionic/nonionic	9,062	7,374	343	1,210	8,911	100	26	776	3,661	1,710	14	3,024	511	0
Cationic	2,190	1,480	123	539	2,143	36	3	432	919	518	7	505	195	0
Methanol/glycols	135	96	12	22	125	9	0	28	65	32	0	29	8	0
Isopropanol	1,567	1,188	86	277	1,433	127	0	303	734	316	15	349	132	0
Ethanol	485	388	22	66	463	20	1	55	207	108	0	126	38	0
Other/unknown	1,055	748	61	205	1,040	6	2	160	451	182	4	286	105	0
Oven cleaners														
Alkali	1,501	549	94	809	1,482	7	5	534	282	807	16	142	229	0
Other/unknown	174	58	13	95	172	1	0	50	40	70	1	24	31	0
Rust removers														
Hydrofluoric acid	202	40	13	143	197	4	0	136	23	127	4	7	37	0
Other acid	157	45	7	96	156	1	0	58	38	84	0	10	18	0
Other/unknown	57	18	1	34	57	0	0	11	20	22	0	8	7	0
Spot remover/dry cleaning agents	786	572	42	155	766	16	0	203	382	208	5	98	79	2
Toilet bowl cleaners														
Acid	1,289	645	86	527	1,253	33	0	359	437	512	7	144	166	0
Other/unknown	462	356	13	83	451	8	0	63	243	71	2	91	45	0
Wall/floor/tile cleaners														
Alkali	2,424	1,623	116	638	2,385	25	7	453	830	762	12	490	266	0
Anionic/nonionic	830	654	27	140	819	9	0	88	370	163	1	223	54	0
Glycols	312	265	15	28	309	3	0	37	149	55	1	79	18	0
Other/unknown	460	215	48	182	446	8	2	143	153	169	1	60	61	0
Total	67,237	45,655	3,600	16,535	65,761	1,137	99	11,598	25,597	19,041	260	14,758	6,269	12
Cosmetics/personal-care products														
Bath oil/bubble bath	1,054	988	39	20	1,045	2	5	30	506	121	0	325	76	0

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TABLE 17. *Continued*

	Number of Exposures	Age (years)			Reason			Treated in Health Facility	Medical Outcome (Effect)					
		<6	6–17	>17	Acc†	Int‡	Adv§ rxn		None	Minor	Major	Unk‖ NT	Unk** PT	Death
Creams, lotions, make-up	2,455	2,173	71	189	2,416	14	17	131	1,220	179	0	875	114	0
Dental care products	610	491	47	63	600	6	0	39	260	100	0	209	27	0
Deodorants	2,776	2,508	85	150	2,746	17	4	118	1,293	350	1	952	131	0
Depilatories	27	15	1	11	25	0	2	4	10	8	0	4	4	0
Douches	93	65	4	22	89	1	2	12	42	18	0	21	9	0
Eye products	1,369	1,236	30	92	1,358	7	3	48	597	92	0	614	40	0
Hair care products	6,636	5,562	293	686	6,511	64	37	535	2,828	1,242	13	1,822	480	0
Lipsticks and lip balms	427	410	4	7	425	0	0	11	214	21	0	150	30	0
Mouthwash	1,840	1,378	279	163	1,758	67	4	193	999	256	1	458	98	0
Nail polish	1,826	1,708	52	43	1,820	4	1	110	793	400	0	436	134	0
Nail polish removers	3,718	3,268	145	262	3,662	48	0	487	2,024	560	1	835	246	0
Nail products, miscellaneous	470	400	21	42	463	2	3	50	229	96	1	111	28	0
Perfume/cologne/aftershave	13,841	13,149	265	325	13,727	78	3	839	7,623	1,399	5	3,745	779	0
Peroxide	501	315	32	144	489	5	0	57	212	123	2	122	34	0
Soaps (bar, hand, complexion)	3,908	3,461	126	270	3,873	14	10	148	1,650	622	2	1,296	254	0
Suntan/sunscreen products	211	174	15	20	207	1	2	15	86	48	0	61	12	0
Powders	2,125	1,943	75	78	2,105	12	2	227	989	454	0	501	127	0
Total	43,887	39,244	1,584	2,587	43,319	342	101	3,054	21,575	6,089	26	12,660	2,623	0
Deodorizers (not for personal use)														
Diaper pail deodorizers	1,037	1,019	4	6	1,033	0	0	56	628	42	0	304	48	0
Other	2,358	2,131	79	127	2,343	13	0	207	1,220	253	1	700	121	0
Total	3,395	3,150	83	133	3,376	13	0	263	1,848	295	1	1,004	169	0
Dyes	2,506	2,344	63	71	2,479	8	9	89	1,320	95	4	965	81	0
Essential oils	1,167	825	179	137	1,127	30	8	158	354	444	2	212	122	0
Fertilizers	4,371	3,435	292	546	4,335	14	8	243	2,167	304	2	1,530	269	0
Fire extinguishers	478	62	101	287	458	14	4	129	116	200	4	92	56	0
Food products/food poisoning	20,812	5,102	2,451	12,451	17,131	74	3,485	2,104	4,821	7,161	33	4,426	3,621	0
Foreign bodies/toys/miscellaneous														
Bubble blowing solutions	350	330	14	3	349	0	0	5	159	73	0	100	9	0
Christmas ornaments	702	662	27	5	701	1	0	24	368	31	0	243	50	0
Coins	1,634	1,400	178	46	1,626	5	0	205	734	110	2	617	139	0
Dessicants	544	495	20	18	542	0	0	10	312	6	0	217	1	0
Feces/urine	716	653	16	36	709	2	1	32	319	40	0	293	44	0
Glass	391	224	32	129	383	1	5	59	174	37	0	100	70	0
Soil	603	567	14	18	601	0	0	22	284	31	0	262	15	0
Thermometer	3,394	2,083	809	391	3,374	13	1	115	1,783	63	0	1,399	88	0
Toys	1,286	1,169	99	13	1,280	3	0	47	609	63	0	524	65	0
Other/unknown foreign body	9,796	6,767	1,253	1,625	9,618	43	114	1,465	3,717	1,407	3	3,909	560	0
Total	19,418	14,350	2,462	2,284	19,183	68	121	1,984	8,459	1,861	5	7,664	1,049	0
Fumes/gases/vapors														
Carbon monoxide	2,524	260	351	1,841	2,432	64	4	1,405	239	1,496	74	135	484	22

Chloramine	731	38	20	633	706	20	3	215	36	442	2	108	130	0
Chlorine gas (mixing household products)	743	30	50	637	723	19	0	245	43	556	10	35	85	1
Chlorine gas (other)	1,724	276	305	1,059	1,701	9	8	632	191	1,073	16	169	239	1
Hydrogen sulfide	238	17	20	187	236	1	0	110	40	124	11	12	40	3
Methane	244	35	26	166	230	7	1	118	48	137	8	19	21	3
Propane/simple asphyxiants	334	39	26	250	326	6	0	125	58	161	3	26	73	0
Other/unknown	2,609	324	248	1,878	2,531	52	11	974	420	1,141	30	378	558	4
Total	9,147	1,019	1,055	6,651	8,885	178	27	3,824	1,075	5,130	154	882	1,630	34
Fungicides (non-medicinal)	836	422	63	322	820	10	1	190	337	198	3	154	111	0
Heavy metals														
Arsenic	1,198	847	73	249	1,131	49	1	359	700	144	11	148	144	1
Copper	360	123	80	139	345	13	1	92	118	117	2	67	41	0
Lead	717	355	96	243	703	7	0	241	249	104	20	162	159	0
Mercury	710	313	105	257	670	31	1	274	287	80	9	209	93	1
Metal/polymer fume fever	699	69	19	579	686	4	3	226	82	358	4	72	153	0
Selenium	43	21	3	17	35	4	2	10	14	11	0	12	4	0
Thallium	8	2	1	5	7	1	0	5	2	3	0	1	2	0
Zinc	723	491	32	182	695	13	14	131	299	140	2	195	68	0
Other/unknown	669	323	94	231	654	9	3	182	237	157	3	175	80	0
Total	5,127	2,544	503	1,902	4,926	131	25	1,520	1,988	1,114	51	1,041	744	2
Herbicides														
2,4-D or 2,4,5-T	988	365	114	482	974	10	0	229	302	310	5	180	152	0
Diquat/paraquat	153	24	11	107	135	12	3	87	29	43	8	20	42	1
Other/unknown	1,269	355	113	759	1,248	10	3	394	329	406	8	277	188	0
Total	2,410	744	238	1,348	2,357	32	6	710	660	759	21	477	382	1
Hydrocarbons														
Benzene	85	30	3	47	82	3	0	36	29	29	0	12	13	0
Diesel fuel	1,268	479	200	546	1,238	27	0	318	452	489	7	168	133	2
Gasoline	8,795	2,966	1,741	3,910	8,559	202	3	1,645	2,517	3,607	33	1,188	1,229	0
Halogenated hydrocarbons	1,397	186	102	1,008	1,353	32	3	387	408	493	7	255	192	1
Kerosene	1,916	1,474	83	320	1,892	16	1	640	812	580	23	243	207	0
Lighter fluid/naphtha	1,029	821	48	139	1,006	20	0	281	493	259	9	122	117	0
Lubricating/motor oils	1,278	1,043	55	164	1,270	5	0	134	709	220	0	212	107	1
Mineral seal oil	723	662	17	31	715	6	0	101	475	68	5	113	46	0
Mineral spirits/varsol	1,819	1,221	124	418	1,787	24	1	371	800	547	4	282	136	1
Toluene/xylene	3,004	1,902	230	794	2,917	76	3	673	1,101	922	13	630	276	0
Turpentine	1,034	621	113	281	951	72	2	324	369	339	10	146	143	0
Other/unknown	15,482	11,067	894	3,141	15,125	272	17	3,333	6,956	3,647	67	2,950	1,466	4
Total	37,830	22,472	3,610	10,799	36,895	755	30	8,243	15,121	11,200	178	6,321	4,065	9
Insecticides/pesticides (excluding rodenticides)														
Borates/boric acid	1,227	975	47	182	1,197	22	0	210	670	135	1	339	70	0
Carbamates	3,033	1,860	169	902	2,981	33	6	628	1,466	577	15	588	309	0
Chlorinated hydrocarbon	2,643	1,498	204	849	2,554	63	18	695	1,177	529	23	465	359	1
Metaldehyde	280	225	9	38	271	5	0	37	157	16	0	70	27	0
Organophosphate alone	5,710	2,232	410	2,857	5,524	134	19	1,712	2,085	1,650	90	887	823	9

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TABLE 17. *Continued*

	Number of Exposures	Age (years)			Reason			Treated in Health Facility	Medical Outcome (Effect)					
		<6	6–17	>17	Acc†	Int‡	Adv§ rxn		None	Minor	Major	Unk‖ NT	Unk** PT	Death
Organophosphate + carbamate	1,226	616	114	459	1,168	49	3	242	448	309	6	304	132	0
Organophosphate + chlorinated hydrocarbon	200	71	22	98	192	4	1	49	79	57	0	31	26	1
Organophosphate + other pesticide	352	200	19	121	344	4	0	82	142	97	3	59	50	0
Piperonyl butoxide alone	271	146	20	100	264	6	0	49	109	59	2	62	30	0
Piperonyl butoxide + pyrethrins	1,048	571	110	336	1,014	19	10	294	362	376	7	194	91	0
Pyrethrins alone	1,132	548	72	473	1,092	21	13	252	366	356	5	264	119	1
Insect repellents	1,155	922	149	71	1,146	4	2	91	532	351	0	196	59	0
Other/unknown	2,449	1,084	211	1,035	2,351	57	21	617	803	663	10	449	434	1
Total	20,726	10,948	1,556	7,521	20,098	421	93	4,958	8,396	5,175	162	3,908	2,529	13
Lacrimators	1,587	618	463	457	1,531	40	3	330	182	1,005	4	183	189	0
Matches/fireworks/explosives	1,194	1,014	68	97	1,178	7	4	65	470	83	1	532	76	0
Moth repellents														
Naphthalene	1,653	1,473	67	91	1,642	7	1	325	1,067	159	5	261	140	0
Paradichlorobenzene	586	534	12	32	580	4	0	55	333	35	2	183	24	0
Other/unknown	602	537	25	29	601	0	0	95	404	47	1	90	47	0
Total	2,841	2,544	104	152	2,823	11	1	475	1,804	241	8	534	211	0
Mushrooms	5,806	4,742	322	639	5,499	235	51	118	3,761	887	22	390	560	1
Paints & stripping agents	8,860	5,660	677	2,321	8,720	82	22	1,299	3,348	1,935	30	2,606	740	4
Photographic products	545	377	63	92	535	4	4	54	201	66	1	211	54	0
Plants														
Anticholinergic	368	235	66	54	294	74	0	134	185	85	9	24	49	0
Cardiac glycosides	1,617	1,293	146	141	1,576	27	3	369	960	136	4	278	175	0
Colchicine	50	45	2	2	49	1	0	7	28	10	0	4	4	0

Cyanogenic glycosides	2,216	1,790	222	178	2,177	23	7	149	1,123	102	1	795	145	0
Depressants	1,245	1,110	76	37	1,238	1	1	141	851	179	0	134	63	0
Dermatitis	6,034	4,036	503	1,343	5,848	32	136	606	2,166	1,553	2	1,760	433	0
Gastrointestinal irritants	9,616	8,330	538	591	9,476	86	17	598	5,090	931	2	2,676	662	0
Hallucinogenic	438	311	85	32	402	34	1	59	237	47	3	97	46	0
Nicotine (no tobacco products)	235	150	42	40	223	9	2	53	115	44	0	45	28	0
Non-toxic plant	20,492	18,835	697	675	20,356	44	31	480	9,198	745	4	9,568	391	0
Oxalate	11,844	10,963	367	384	11,751	50	11	516	6,414	1,579	1	2,591	984	0
Solanine	1,555	1,437	52	48	1,547	4	3	226	1,087	150	1	157	122	0
Stimulants	270	228	12	26	263	7	0	46	169	34	4	42	13	1
Toxalbumins	221	151	35	30	211	7	1	86	113	56	1	23	22	0
Other/unknown	7,127	5,766	638	613	7,025	51	22	851	3,716	888	10	1,515	726	0
Total	63,328	54,689	3,481	4,194	62,436	453	235	4,321	31,455	6,539	42	19,709	3,863	1
Polishes and waxes	436	359	23	43	431	4	0	53	233	67	1	82	45	0
Radio-isotopes	19	4	3	10	18	1	0	7	10	0	0	5	3	0
Rodenticides														
Anticoagulants	3,703	3,355	92	198	3,610	80	0	749	2,123	144	6	1,116	237	2
Strychnine	119	38	9	58	80	38	0	80	37	25	13	2	35	2
Other/unknown	567	451	29	69	534	31	0	218	327	51	2	79	91	2
Total	4,389	3,844	130	325	4,224	149	0	1,047	2,487	220	21	1,197	363	6
Sporting equipment	205	96	71	31	201	3	1	44	91	48	0	48	14	1
Swimming pool/aquarium products	656	582	28	38	652	1	1	45	347	61	0	201	27	0
Tobacco products	3,798	3,529	99	147	3,742	33	11	541	1,801	742	6	884	295	0
Unknown non-drug substances	4,048	1,870	502	1,530	3,368	104	464	1,518	1,003	1,313	41	929	644	0

* Patients with totally unknown age, reason, or medical outcome were omitted from the respective tabulations.
† Acc = accidental.
‡ Int = intentional.
§ Adv rxn = adverse reaction.
‖ Unk NT = unknown nontoxic.
** Unk PT = unknown potentially toxic.

TABLE 18. Demographic Profile of Exposure Cases by Generic Category of Substance: Pharmaceuticals

	Number of Exposures	Age (years)			Reason			Treated in Health Facility	Medical Outcome (Effect)					
		<6	6–17	>17	Acc†	Int‡	Adv§ rxn		None	Minor	Major	Unk‖ NT	Unk** PT	Death
Analgesics														
Acetaminophen only														
Adult formulation	8,284	2,898	1,985	3,127	4,364	3,770	46	4,446	3,448	1,594	171	1,295	1,446	10
Pediatric formulation	16,759	16,246	351	67	16,596	114	16	2,023	10,088	620	8	5,011	624	0
Unknown type	2,916	2,115	306	433	2,394	468	23	780	1,323	308	32	903	267	0
Acetaminophen in combination with:														
Aspirin	103	43	21	35	52	47	0	37	42	20	0	25	13	2
Codeine	2,803	474	361	1,858	1,102	1,508	144	1,643	580	924	76	305	799	4
Oxycodone	563	104	61	390	246	288	24	315	126	171	20	71	148	2
Propoxyphene	1,114	208	129	736	419	646	28	745	266	405	45	79	284	1
Other narcotic/analog	617	237	83	273	370	215	23	272	184	190	8	71	149	1
Other drug	1,915	866	293	702	1,167	691	32	912	719	515	23	261	316	3
Aspirin only														
Adult formulations	6,390	1,966	1,809	2,392	3,000	3,244	60	3,516	2,117	1,710	164	778	1,381	9
Pediatric formulations	4,171	3,887	202	43	4,075	71	7	761	2,371	390	7	1,030	252	1
Unknown type	2,285	1,316	365	556	1,705	525	35	767	860	432	23	568	322	0
Aspirin in combination with:														
Codeine	634	112	95	406	242	358	24	413	121	251	24	52	165	1
Oxycodone	659	145	49	436	271	349	25	393	148	205	18	64	205	1
Other narcotic/analog	403	96	45	253	182	199	17	218	90	121	14	57	100	1
Other drug	4,182	1,732	905	1,436	2,396	1,675	72	2,021	1,534	1,095	86	600	730	10
Non-aspirin salicylates	206	159	21	24	180	24	2	57	113	29	1	38	23	1
Codeine	983	583	107	269	719	212	42	348	356	256	8	160	169	1
Methadone/heroin/morphine	194	4	9	160	31	159	3	135	14	70	28	8	64	1
Non-steroidal antiinflammatory drugs	5,263	2,394	641	2,079	3,194	1,791	219	2,112	2,048	1,142	64	934	915	3
Pentazocine	229	23	18	176	81	125	15	142	30	93	16	17	63	0
Propoxyphene	560	82	65	387	181	357	13	374	86	193	29	47	187	1
Phenazopyridine	351	258	29	58	292	45	10	119	170	72	2	53	42	0
Other/unknown	1,253	401	133	666	660	512	58	35	294	356	41	149	373	0
Total	62,837	36,349	8,083	16,692	43,919	17,393	938	25,323	27,128	11,162	908	12,576	9,037	53
Anesthetics	1,981	1,521	142	269	1,855	86	28	303	996	261	19	477	161	1
Anticholinergic	4,038	1,930	517	1,478	2,611	1,279	95	1,855	1,537	1,112	90	473	694	2
Anticoagulants	1,036	865	36	108	973	55	3	293	575	64	3	270	95	0
Anticonvulsants														
Phenytoin	1,638	519	180	880	919	654	32	991	432	545	91	177	338	1
Other/unknown	1,051	416	191	418	691	313	30	572	336	336	73	110	151	3
Total	2,689	935	371	1,298	1,610	967	62	1,563	768	881	164	287	489	4
Antidepressants														
Cyclic antidepressants														
Amitriptyline	2,004	266	193	1,465	634	1,301	31	1,586	309	724	381	88	414	12
Amoxapine	277	50	27	194	90	180	4	214	42	105	31	12	63	8
Desipramine	344	60	36	234	125	202	15	267	60	122	57	20	65	7

Doxepin	1,170	93	100	929	306	806	25	946	144	472	169	48	279	5
Imipramine	1,031	269	147	583	445	553	20	771	245	364	111	56	202	8
Maprotiline	326	57	20	240	119	194	9	242	70	117	39	14	74	0
Nortriptyline	168	18	13	127	51	106	9	129	25	65	19	9	40	3
Protriptyline	31	6	2	22	11	19	1	19	6	11	2	3	9	0
Formulated with a														
Benzodiazepine	314	44	31	226	96	207	5	246	49	125	44	22	60	1
Phenothiazine	623	110	47	447	215	393	3	491	129	228	65	25	149	0
Other/unknown	324	21	21	268	102	201	13	220	42	112	40	34	78	3
Lithium	727	87	43	570	292	381	34	514	166	251	54	61	164	4
MAO inhibitor	237	27	6	200	83	118	34	172	45	85	29	18	46	3
Trazodone	548	74	41	413	189	327	26	381	91	237	25	41	128	3
Other/unknown	74	13	8	51	24	40	0	50	9	23	5	6	28	0
Total	8,198	1,195	735	5,969	2,782	5,028	229	6,248	1,432	3,041	1,071	457	1,799	57
Antihistamines	6,037	2,575	822	2,483	3,579	2,288	101	2,852	2,056	1,817	112	767	1,101	7
Antimicrobials														
Antibiotics	12,638	8,674	1,361	2,325	10,186	1,621	731	2,092	5,255	1,536	31	4,357	1,130	1
Antifungals	494	380	24	75	466	15	8	47	245	61	0	138	38	0
Anthelmintics	1,647	1,135	77	405	1,623	17	3	134	948	89	0	511	73	0
Antiparasitics	1,692	1,031	150	467	1,320	193	166	381	722	257	10	427	232	0
Antituberculars														
Isoniazid	130	26	33	63	56	71	2	97	35	30	28	12	20	0
Other/unknown	17	7	5	5	10	6	1	9	3	5	0	6	2	0
Antivirals	951	771	49	114	878	30	33	80	447	90	1	317	69	0
Other/unknown	62	36	5	19	52	3	5	15	24	16	0	14	8	0
Total	17,631	12,060	1,704	3,473	14,591	1,956	949	2,855	7,679	2,084	70	5,782	1,572	1
Antineoplastics	119	35	11	67	98	18	2	62	48	28	1	9	27	2
Asthma therapies														
Aminophylline/theophylline	2,832	1,168	713	865	1,917	754	114	1,533	990	874	148	281	425	10
Other/unknown	592	300	110	167	412	148	24	253	218	193	9	68	91	0
Total	3,424	1,468	823	1,032	2,329	902	138	1,786	1,208	1,067	157	349	516	10
Cardiovascular drugs														
Antiarrhythmics	433	138	29	246	296	114	16	200	165	93	24	60	79	4
Anti-hypertensives	946	579	72	277	737	187	13	595	351	316	58	61	139	1
Beta-blockers	2,117	1,055	172	846	1,510	556	36	1,046	1,019	377	55	238	353	6
Calcium antagonists	481	256	21	194	383	80	13	222	242	98	18	50	58	3
Cardiac glycosides	784	444	63	265	651	120	6	370	381	147	30	99	101	4
Vasodilators	1,724	1,214	105	375	1,494	207	10	573	926	245	20	275	230	0
Other/unknown	255	153	12	82	212	33	9	107	137	39	3	31	38	0
Total	6,740	3,839	474	2,285	5,283	1,297	103	3,113	3,221	1,315	208	814	998	18
Cold and cough preparations														
Acetaminophen + decongestant/ antihistamine	1,188	704	180	287	899	252	27	1,264	541	286	4	196	122	1
Aspirin and acetaminophen + decongestant/antihistamine	568	200	99	251	357	181	25	233	170	183	7	82	106	0
Aspirin + decongestant/antihistamine	718	316	128	254	458	228	24	303	256	215	7	98	120	0

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TABLE 18. Continued

	Number of Exposures	Age (years)			Reason			Treated in Health Facility	Medical Outcome (Effect)					
		<6	6–17	>17	Acc†	Int‡	Adv§ rxn		None	Minor	Major	Unk‖ NT	Unk¶ PT	Death
Expectorants/antitussives	3,101	2,670	166	232	2,917	137	16	218	1,580	626	3	560	258	0
Other formulations for cough/colds	22,983	18,385	1,905	2,394	20,608	1,975	292	6,009	11,146	5,369	76	3,679	2,123	0
Total	28,558	22,275	2,478	3,418	25,239	2,773	384	8,027	13,693	6,679	97	4,615	2,729	1
Diagnostic agents	82	53	3	24	76	3	3	19	42	4	2	25	6	0
Diuretics	2,477	1,471	266	700	1,938	475	36	925	1,131	521	35	387	342	1
Electrolytes/minerals														
Calcium salts	4,479	4,119	110	202	4,404	41	22	126	2,133	165	4	1,917	142	0
Fluoride (excl. vitamins)	2,258	2,329	158	46	2,530	16	6	247	1,220	424	2	643	168	0
Iron (excl. vitamins)	1,738	1,337	126	229	1,514	201	13	737	782	386	26	280	175	2
Magnesium salts	243	190	8	39	232	8	1	34	113	52	1	60	14	0
Potassium salts	418	270	35	107	357	49	7	101	210	47	4	98	49	0
Sodium salts	1,779	1,383	136	235	1,737	34	3	213	870	264	1	486	119	0
Zinc	723	491	32	182	695	13	14	131	299	140	2	195	68	0
Other/unknown	87	52	11	22	80	3	1	16	27	20	1	29	8	0
Total	12,025	10,171	616	1,062	11,549	365	67	1,605	5,654	1,498	41	3,708	743	2
Eye/ear/nose/throat preparations	6,217	4,746	470	926	5,796	344	56	1,326	3,247	955	12	1,377	489	0
Gastrointestinal preparations														
Antacids	5,841	5,208	223	347	5,621	168	32	343	2,835	289	9	2,313	246	0
Antidiarrheals/antispasmodics	1,310	785	157	332	961	314	24	719	513	393	35	115	220	1
Laxatives	476	372	28	67	437	34	5	93	173	154	1	80	54	0
Other/unknown	10,908	9,446	507	802	10,565	269	39	968	4,537	1,770	16	3,512	809	0
Total	18,535	15,811	915	1,548	17,584	785	100	2,123	8,058	2,606	61	6,020	1,329	1
Hormones and hormone antagonists														
Corticosteroids	3,357	2,775	125	411	3,206	85	48	193	1,530	190	7	1,424	140	0
Insulin	153	19	21	110	88	53	8	86	38	41	8	14	41	1
Oral contraceptives	4,625	4,275	193	111	4,492	113	11	243	2,102	158	1	2,034	196	0
Oral hypoglycemics	337	177	32	124	253	73	10	187	161	69	17	19	59	1
Thyroid preparations	1,598	1,298	82	199	1,467	110	12	447	856	160	4	347	180	0
Other/unknown	1,107	819	80	186	965	117	16	205	497	128	5	346	94	0
Total	11,177	9,363	533	1,141	10,471	551	105	1,361	5,184	746	42	4,184	710	2
Miscellaneous drugs														
Allopurinol	121	94	5	20	106	12	1	33	77	9	1	17	13	0
L-Dopa and related drugs	79	34	2	43	62	12	3	28	37	21	0	6	13	0
Disulfiram	497	46	25	407	201	235	50	315	75	168	16	42	178	0
Ergot alkaloids	304	172	26	101	233	50	17	127	127	85	6	32	45	0
Homeopathic/herbal preparations	162	102	11	40	134	16	10	31	70	28	2	51	10	0
Other	1,462	803	154	447	1,093	285	69	374	486	372	8	345	197	1
Total	2,625	125	223	1,058	1,829	610	150	908	872	683	33	493	456	1
Muscle relaxants	3,105	413	400	2,159	959	2,042	46	2,171	601	1,148	118	201	901	4

Sedative/hypnotics/antipsychotics														
Barbiturates														
Long-acting	2,391	701	289	1,310	1,248	1,073	21	1,481	559	862	190	227	484	4
Short/intermed-acting	1,014	121	106	736	314	658	14	723	165	411	68	58	287	5
Unknown type	5	0	0	5	1	4	0	4	1	1	1	0	0	2
Benzodiazepines	12,227	1,982	874	8,847	4,040	7,831	147	7,933	2,059	4,761	514	1,006	3,497	17
Chloral hydrate	186	51	8	120	79	99	6	118	27	79	15	13	46	1
Ethchlorvynol	247	18	4	213	57	176	4	200	11	100	53	9	63	2
Glutethimide	139	3	4	127	29	108	0	124	9	53	33	4	34	0
Meprobamate	383	54	37	271	133	233	5	257	69	141	26	23	108	0
Methaqualone	197	22	26	134	55	135	1	130	20	79	7	4	82	1
OTC sleep aids	2,185	259	275	1,543	603	1,519	22	1,586	410	829	80	122	659	1
Phenothiazines	4,345	1,089	393	2,699	1,922	2,144	191	2,881	1,056	1,667	229	311	911	17
Other/unknown	351	45	35	250	89	250	9	251	52	116	11	19	136	1
Total	23,670	4,345	2,051	16,255	8,570	14,230	420	15,688	4,438	9,099	1,227	1,796	6,309	51
Serums, toxoids, and vaccines	83	28	14	39	51	3	29		24	36	0	7	14	0
Stimulants and street drugs														
Amphetamines	2,207	755	402	959	1,177	968	27	1,263	537	745	65	163	621	4
Amyl/butyl nitrites	67	10	13	57	41	45	1	39	16	29	3	11	26	0
Caffeine	1,675	644	425	540	969	644	27	676	493	603	10	201	318	3
Cocaine	887	29	35	758	147	723	7	609	39	333	56	45	380	8
Diet aids														
Phenylpropanolamine (PPA)	661	326	153	162	437	200	14	297	255	210	10	60	110	0
PPA + caffeine	1,471	596	401	447	840	580	29	742	472	494	19	105	321	0
Other/unknown	334	138	73	113	185	123	22	183	116	93	7	19	89	0
Heroin	78	1	1	66	6	72	0	54	3	25	13	0	32	4
LSD	308	21	70	186	75	222	1	211	19	162	9	16	95	0
Marijuana	550	114	133	279	200	324	15	293	57	213	14	79	171	0
Mescaline/peyote	142	43	24	65	68	71	2	98	26	70	2	15	24	0
Phencyclidine	347	24	86	208	77	260	0	287	24	170	46	8	88	1
PPA-containing "look-alikes"	127	35	24	66	50	73	1	90	27	53	5	6	33	0
Other/unknown	904	195	227	443	342	529	14	555	146	343	18	61	302	2
Total	9,778	2,931	2,067	4,349	4,614	4,834	160	5,397	2,230	3,543	277	789	2,610	22
Topicals														
Acne preparations	288	195	32	55	278	2	5	39	113	72	0	83	12	0
Boric acid antiseptics	1,130	694	71	339	1,101	21	6	168	541	192	1	281	86	0
Camphor	2,249	1,872	89	260	2,191	49	0	946	1,351	317	12	323	197	0
Camphor + methyl salicylate	3,356	2,844	146	326	3,311	19	19	474	1,636	603	4	777	242	0
Diaper care products	3,825	3,737	24	31	3,814	1	0	43	1,863	149	0	1,622	107	0
Hexachlorophene antiseptics	225	153	13	54	213	9	1	56	99	46	1	58	15	0
Hydrogen peroxide	5,492	3,631	448	1,288	5,369	97	5	322	2,345	964	4	1,756	315	0
Iodine antiseptics	860	410	75	344	752	90	9	253	375	177	4	187	96	0
Mercurial antiseptics	999	859	31	91	971	23	0	127	566	62	0	306	54	0
Methyl salicylate	1,310	1,139	61	93	1,289	15	2	224	751	219	5	230	77	3
Podophyllin	48	24	4	18	40	7	1	19	16	12	0	11	8	0
Salicylic acid	607	490	43	69	591	12	2	92	285	129	3	129	45	0
Other/unknown	3,193	2,701	131	317	3,144	39	4	255	1,644	383	3	961	137	1
Total	23,582	18,749	1,168	3,285	23,064	384	54	3,018	11,585	3,325	37	6,724	1,391	4

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