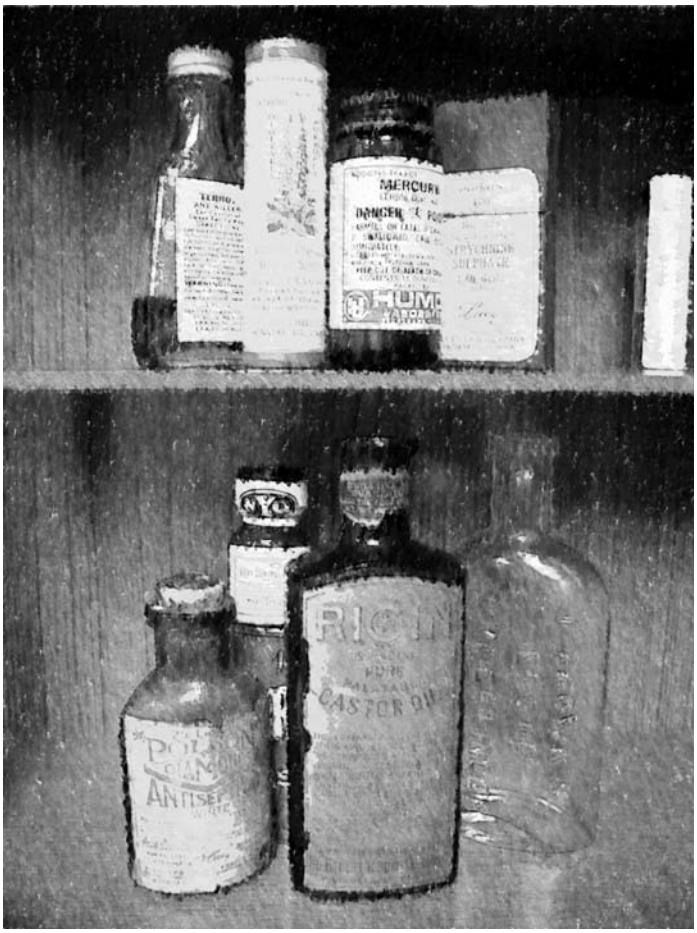
# INDIANA POISON CENTER

# 2006 Annual Statistical Summary

**Designated as the Regional Poison Information Center for Indiana by the Indiana State Department of Health and Certified by the American Association of Poison Control Centers**




Indiana State Department of Health

***A state-wide community health initiative of the Indiana State Department of Health and Clarian Health.***

Clarian Health

*During 2006, the Indiana Poison Center received almost 83,000 calls for help. We responded to approximately the same number of human exposures compared to 2005 and over 20,000 information calls. Children remain our most commonly exposed age group, although usually with benign effects. Intentional poisonings continue to contribute a continued more severe case mix. We are very pleased that our contacts in the health care community remain strong. Your input is always welcome to help develop our program to better serve the needs of health care providers throughout the state. Examples of this are continuation of the state's only inpatient medical toxicology consult service at four Indianapolis hospitals to help manage the care of poisoned patients and of our Medical Toxicology Fellowship program to train physicians in medical toxicology. The ACGME accredited Medical Toxicology Fellowship is one of only 14 in the US. Response to these services remains brisk. Reports of animal poisoning decreased this year by 3.4% to 3,537 cases, but follow up calls back to users of our service increased by 4.5% to 78,410.*

*The strength of our personnel continues to be the backbone of the Center. Nationally, many poison centers remain in shaky financial condition as host institutions and government agencies attempt to reduce medical care costs. The Indiana Poison Center is not immune to this. As a consequence, our Member Hospital Network increased its yearly membership fees and charges to non-member hospitals for consultations in 2006, as the program was no longer providing sufficient funds to cover our expenses. Calls from non-member hospitals continue to be depressed, which is concerning. Poison centers, such as the Indiana Poison Center, have been at the forefront of managed care and medical care cost containment since their inception and their cost effectiveness is well documented.[1,2,3] The CDC and HRSA Final Report of the Poison Control Center Advisory Work Group urged Federal ongoing "fair share" support of poison centers including interim support of poison centers until permanent funding can be found and recommended six projects to improve poison center function, including a national toll-free number.[3] This toll free number was activated in Indiana early in 2001 and a steady increase in calls through this line has been seen. We are now in the 5th full year of federal funding from the "**The Poison Control Center Enhancement and Awareness Act"** and "**The Poison Control Center Enhancement and Awareness Act Amendments of 2004**". These funds were first used to update the technology capabilities of the center, and are now supporting staff salaries and greatly enhancing public education and awareness activities. Funding is available through FY 2009 from these acts although considerable work is necessary each year to secure the yearly congressional appropriation. In 2004, the Institute of Medicine published* ***"Forging a Poison Prevention and Control System"***, a *comprehensive, in-depth analysis of poison centers in the United States. They made 12 specific recommendations including increasing collaboration and integration with public health agencies, developing an all-hazards emergency preparedness infrastructure, increasing funding by the Federal Government 5-fold to $100 million/year for core activities, enhancing toxicosurveillance and research on poisoning epidemiology, treatment, prevention, access, delivery and cost-effectivenss.[4] Development of stable, adequate, ongoing, and dedicated sources of funding for the Indiana Poison Center still remains crucial for it's survival in this era of medical care cost cutting. Toward that end, we continue to attempt to develop stable state sources for primary funding of this critical public health service. We look forward to the coming year as an opportunity for our services to you to further evolve, in order to meet the toxicologic needs of Indiana.*

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1. Harrison DL et al. Cost-effectiveness of regional poison control centers. Arch Intern Med 1996; 156:2601.
2. Miller TR. Cost of poisoning in the United States and savings from poison control centers: a benefit cost analysis. Ann Emerg Med 1998; 29:239.
3. The Poison Control Center Advisory Work Group. Final Report. Centers for Disease Control and Health Resources and Services Administration, December 1996.
4. Committee on Poison Prevention and Control. Forging a Poison Prevention and Control System. Institute of Medicine – National Academies of Science, 2004. (http://books.nap.edu/catalog/10971.html)

## INTRODUCTION

The Indiana Poison Center (IPC) was established to provide toll-free access to emergency poison exposure information for all Hoosiers. In its twenty-third year of operation, the center is a round-the-clock information and treatment resource for all citizens of Indiana.

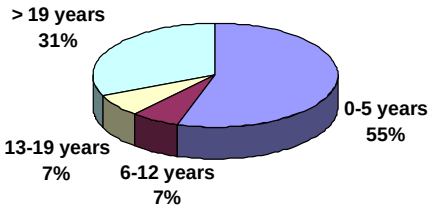
The IPC is a collaborative effort of the Indiana State Department of Health, Clarian Health Partners, Federal Maternal and Child Health Bureau and health care providers throughout the state. It is designated as the official poison information center for the state by the Indiana State Department of Health and is certified as a regional poison information center by the American Association of Poison Control Centers, one of only 54 in the nation and the only one in Indiana.

In 2006, the IPC received 82,675 requests for assistance (averaging 227 calls per day). Of these calls, 62,432 concerned exposures to poisons and 20,243 were callers seeking information without an exposure. The 62,432 poison exposure calls resulted from 58,893 human and 3,537 animal poisoning cases. The 58,893 human poison exposure cases managed represent a 0.8% decrease over 2005. In addition, the staff of the Poison Center placed 78,410 calls to patients and health care professionals for follow-up (averaging 215 calls per day).

This report presents an overview of IPC poisoning data and other activities for 2006. Additional information is available upon request. Data was available to evaluate 58,716 confirmed human cases.

## AGE

Poisonings remain a major health hazard among young children. Children under six years of age account for the majority (56%) of the poisonings managed by the IPC during 2006, approximately the same as in 2005. Although the incidence of poisoning is still greater in children, most severe poisonings and poisoning deaths occur in adolescents and adults (39% of cases) due to their exposures being intentional in nature. The trend for increasing age as compared to historical averages was once again seen this year.




| Age (Years) | Number Males | Females | Total | % |
|---|---|---|---|---|
| <1 | 1,738 | 1,581 | 3,355 | 5.3% |
| 1 | 4,972 | 4,641 | 9,632 | 16.1% |
| 2 | 6,015 | 5,523 | 11,551 | 19.4% |
| 3 | 2,563 | 2,163 | 4,732 | 8.0% |
| 4 | 1,165 | 1,009 | 2,179 | 3.6% |
| 5 | 678 | 502 | 1,182 | 2.0% |
| 6 – 12 | 2,244 | 1,601 | 3,896 | 6.5% |
| 13 – 19 | 2,056 | 2,161 | 4,224 | 7.1% |
| 20 – 29 | 2,283 | 2,546 | 4,833 | 8.2% |
| 30 – 39 | 1,610 | 2,189 | 3,799 | 6.4% |
| 40 – 49 | 1,408 | 1,917 | 3,327 | 5.6% |
| 50 – 59 | 907 | 1,343 | 2,251 | 3.8% |
| 60 – 69 | 439 | 794 | 1,234 | 2.1% |
| 70 – 99 | 492 | 1,034 | 1,529 | 2.6% |
| Unk Adult | 694 | 988 | 1,753 | 3.0% |
| Unk Infant | 15 | 13 | 35 | 0.1% |
| Unk Child | 71 | 46 | 129 | 0.2% |
| Unknown | 46 | 60 | 139 | 0.2% |
| **Total** | 28,891 | 29,619 | 58,716 | 100% |

## GENDER

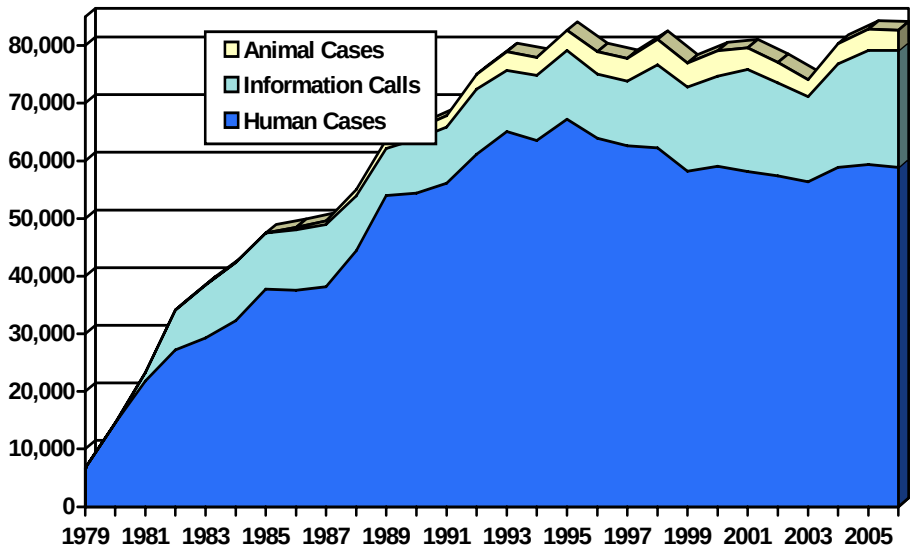
Examination of calls where the gender was documented shows an almost even split between males and females. Males predominate slightly in childhood (53%), while females predominate in both the adolescent and adult ages (57%).

## GEOGRAPHIC DISTRIBUTION

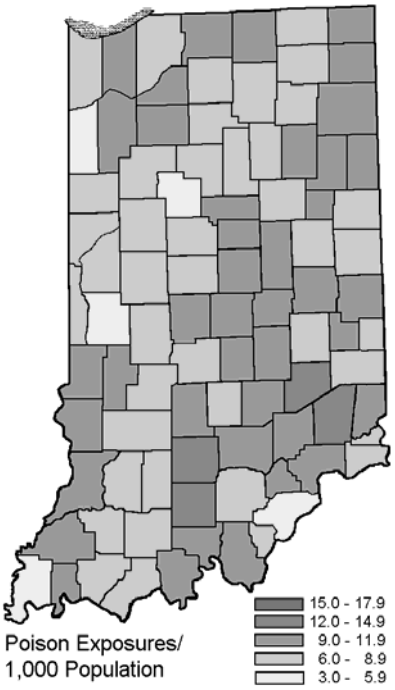
Overall, 98.6% of exposure calls originated in Indiana. In addition, the IPC received calls from 47 other states and foreign countries, with Kentucky, Illinois, Michigan, and Ohio accounting for 72% of these out-of-state calls. One out of every 79 Hoosiers utilized the Indiana Poison Center's services in 2006.

## CALLER

In 2006, 63,909 calls (77%) were received from the general public. Calls were also received from 18,766 health caregivers (physicians, nurses, EMT's, paramedics, and pharmacists), with 8,863 of these coming from hospitals throughout the state. Daily contacts were made consisting of IPC referral of patients to emergency departments for treatment or hospital initiated requests for information and/or consultation on cases managed either in-house or by telephone.



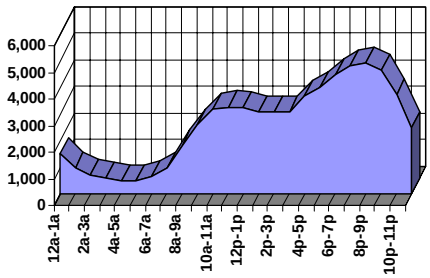

| City | Hospital | Patients Referred to ED | Request or Consult |
|---|---|---|---|
| Anderson | Community | 40 | 73 |
| | St. John's | 34 | 116 |
| Angola | Cameron | 28 | 70 |
| Auburn | DeKalb | 13 | 58 |
| Avon | Clarian West | 44 | 70 |
| Batesville | Margaret Mary | 26 | 41 |
| Bedford | Bedford Regional | 21 | 41 |
| | Dunn Memorial | 17 | 51 |
| Beech Grove | St. Francis Center | 58 | 166 |
| Bloomington | Bloomington | 137 | 186 |
| | Monroe | 1 | 2 |
| Bluffton | Bluffton Regional | 21 | 52 |
| Booneville | St. Mary's Warrick | 18 | 12 |
| Brazil | St. Vincent Clay | 13 | 26 |
| Bremen | Community | 4 | 16 |
| Carmel | Clarian North | 12 | 30 |
| | St. Vincent Carmel | 25 | 68 |
| Charlestown | Saint Catherine | 5 | 0 |
| Clinton | West Central | 12 | 10 |
| Columbia City | Parkview Whitley | 21 | 25 |
| Columbus | Columbus Regional | 58 | 120 |
| Connersville | Fayette Memorial | 30 | 32 |
| Corydon | Harrison County | 16 | 7 |
| Crawfordsville | St. Clare | 29 | 53 |
| Crown Point | St. Anthony | 41 | 163 |
| Danville | Hendricks Regional | 80 | 78 |
| Decatur | Adams Memorial | 31 | 22 |
| Dyer | St. Margaret Mercy | 20 | 127 |
| East Chicago | St. Catherine | 11 | 8 |
| Elkhart | Elkhart General | 75 | 267 |
| Elwood | St. Vincent Mercy | 6 | 11 |
| Evansville | Deaconess | 102 | 185 |
| | Evansville State | 1 | 8 |
| | St. Mary's | 83 | 84 |
| | St. Mary's Welborn | 4 | 2 |
| Fort Wayne | Dupont | 34 | 26 |
| | Lutheran | 87 | 55 |
| | Parkview | 152 | 204 |
| | Parkview North | 27 | 27 |
| | St. Joseph's | 27 | 34 |
| | Veterans Admin | 1 | 5 |
| Frankfort | St. Vincent | 13 | 48 |
| Franklin | Johnson | 33 | 24 |
| Gary | Methodist Northlake | 20 | 109 |
| Goshen | Goshen General | 51 | 125 |



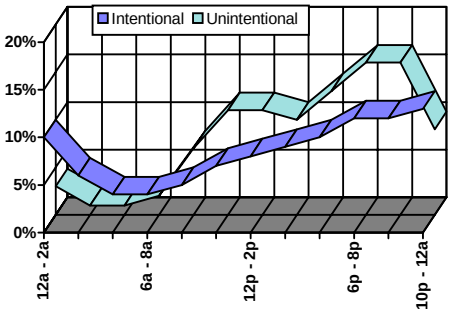

| City | Hospital | Patients Referred to ED | Request or Consult |
|---|---|---|---|
| Greencastle | Putnam County | 19 | 48 |
| Greenfield | Hancock County | 30 | 75 |
| Greensburg | Decatur County | 18 | 68 |
| Hammond | St. Margaret Mercy | 20 | 224 |
| Hartford City | Blackford County | 16 | 19 |
| Hobart | St. Mary | 15 | 80 |
| Huntingburg | St. Joseph's | 8 | 6 |
| Huntington | Parkview Huntington | 22 | 49 |
| Indianapolis | Community East | 66 | 127 |
| | Community North | 122 | 220 |
| | Community South | 57 | 167 |
| | Indiana Heart | 0 | 2 |
| | Indiana University | 11 | 29 |
| | Larue Carter | 0 | 2 |
| | Methodist | 224 | 517 |
| | Riley Children's | 83 | 61 |
| | St. Francis South | 85 | 134 |
| | St. Vincent | 149 | 262 |
| | Veterans Admin | 9 | 16 |
| | Westview | 2 | 2 |
| | Wishard | 150 | 356 |
| Jasper | Memorial | 34 | 69 |
| Jeffersonville | Clark County | 38 | 10 |
| Kendallville | Parkview Noble | 23 | 56 |
| Knox | Starke | 12 | 32 |
| Kokomo | Howard | 44 | 38 |
| | St. Joseph | 23 | 29 |
| Lafayette | Lafayette Home | 77 | 240 |
| | St. Elizabeth | 26 | 66 |
| LaGrange | Parkview LaGrange | 22 | 23 |
| LaPorte | LaPorte | 38 | 66 |
| Lawrenceburg | Dearborn County | 31 | 132 |
| Lebanon | Witham Health | 20 | 52 |
| Linton | Greene County | 13 | 45 |
| Logansport | Memorial Hospital | 17 | 82 |
| Madison | King's Daughters' | 36 | 8 |
| | Madison State | 0 | 4 |
| Marion | Marion General | 51 | 72 |
| | Veterans Admin | 1 | 4 |
| Martinsville | Morgan County | 26 | 56 |
| Merrillville | Methodist Southlake | 24 | 104 |
| Michigan City | St. Anthony | 29 | 113 |
| Mishawaka | St. Joseph | 35 | 65 |
| Monticello | White County | 12 | 27 |
| Mooresville | St. Francis Mooresville | 1 | 4 |
| Muncie | Ball Memorial | 87 | 73 |
| Munster | Community | 40 | 141 |
| New Albany | Floyd Memorial | 38 | 14 |
| New Castle | Henry Memorial | 33 | 89 |
| Newburgh | Deaconess Gateway | 34 | 20 |
| Noblesville | Riverview | 51 | 65 |
| North Vernon | St. Vincent Jennings | 25 | 20 |
| Paoli | Bloomington Orange County | 24 | 73 |
| Peru | Dukes Memorial | 16 | 35 |
| Plymouth | St. Joseph's | 27 | 48 |
| Portage | Portage Community | 22 | 143 |
| Portland | Jay County | 8 | 17 |
| Princeton | Gibson General | 16 | 39 |
| Rensselaer | Jasper County | 14 | 60 |
| Richmond | Reid Health Care | 37 | 121 |
| Rochester | Woodlawn | 21 | 35 |
| Rushville | Rush Memorial | 5 | 16 |
| Salem | Washington County | 13 | 6 |
| Scottsburg | Scott County | 17 | 13 |
| Seymour | Schneck | 30 | 80 |
| Shelbyville | Major | 27 | 107 |
| South Bend | Memorial | 103 | 265 |
| | St. Joseph Regional | 41 | 158 |
| Sullivan | Sullivan County | 18 | 64 |
| Tell City | Perry County | 15 | 34 |
| Terre Haute | Terre Haute Regional | 37 | 70 |
| | Union | 63 | 18 |
| Tipton | Tipton County | 15 | 22 |
| Valparaiso | Porter Memorial | 95 | 159 |
| Vincennes | Good Samaritan | 35 | 97 |
| Wabash | Wabash County | 15 | 43 |
| Warsaw | Kosciusko | 45 | 9 |
| Washington | Daviess | 25 | 57 |
| West Lafayette | Purdue University | 0 | 12 |
| Williamsport | St. Vincent Williamsport | 14 | 8 |
| Winamac | Pulaski Memorial | 8 | 26 |
| Winchester | St. Vincent Randolph | 7 | 12 |

## TIME OF CALLS

The total call volume to IPC shows an initial peak between 10 am and noon with a larger peak occurring between 7 pm and 8 pm.




This is primarily accounted for by the distribution of accidental poisonings peaking around mealtimes. Intentional poisonings, on the other hand, show a higher incidence than unintentional poisonings from midnight to 6 am and then steadily increase throughout the day, finally peaking at between 8 pm and 10 pm.




## CIRCUMSTANCE

Acute exposures account for 96.8% of the total calls, while 1.7% are chronic in nature. Occupational exposure calls have remained essentially constant from 1989 through 2006, while therapeutic errors and misuse have increased substantially. Malicious cases have remained at our background incidence after the anthrax scares of 2001. The specific reasons for exposures are:

| Reason | Number | Percent |
|---|---|---|
| **Unintentional** | | |
| General | 31,697 | 54.0% |
| Environmental | 1,106 | 1.9% |
| Occupational | 896 | 1.5% |
| Therapeutic error | 5,699 | 9.7% |
| Misuse | 6,468 | 11.0% |
| Bite / sting | 782 | 1.3% |
| Food poisoning | 939 | 1.6% |
| Unknown | 61 | 0.1% |
| Total Unintentional | 47,648 | 81.2% |
| **Intentional** | | |
| Suspected suicide | 5,716 | 9.7% |
| Misuse | 1,437 | 2.5% |
| Abuse | 1,436 | 2.5% |
| Unknown | 143 | 0.2% |
| Total Intentional | 8,732 | 14.9% |
| **Other** | | |
| Contamination / tampering | 73 | 0.1% |
| Malicious | 238 | 0.4% |
| Withdrawal | 28 | 0.1% |
| Total Other | 339 | 0.6% |
| **Adverse reaction** | | |
| Drug | 929 | 1.6% |
| Food | 145 | 0.3% |
| Other | 367 | 0.6% |
| Total Adverse reaction | 1,441 | 2.5% |
| **Unknown** | 556 | 1.0% |

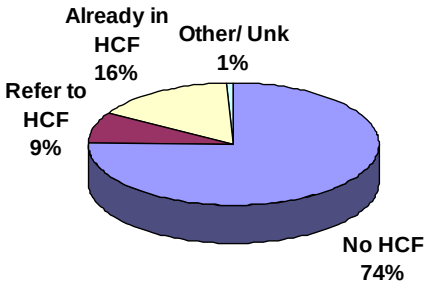
## SITE OF EXPOSURE

The most frequent site of exposure is a residence, while calls for exposures in the workplace account for 2.1% of our calls, a small increase from last year.

| Site of Exposure | Number | Percent |
|---|---|---|
| Own residence | 52,355 | 89.2% |
| Other residence | 2,275 | 3.9% |
| Workplace | 1,218 | 2.1% |
| Health care facility | 162 | 0.3% |
| School | 858 | 1.5% |
| Restaurant / food service | 289 | 0.5% |
| Public area | 532 | 0.9% |
| Other | 599 | 1.0% |
| Unknown | 428 | 0.7% |

## TREATMENT LOCATION

The majority of poison exposures either require no treatment or can be treated at the exposure site. The most common treatments at the exposure site include observation and dilution for oral exposures and flushing or irrigating the skin or eyes for dermal or ocular exposures.




| Location | Number | Percent |
|---|---|---|
| **NonHealth Care Facility (HCF)** | 43,686 | 74.4% |
| **Referred to HCF by IPC** | | |
| Treated and released | 1,915 | 3.3% |
| Admit to critical care | 381 | 0.6% |
| Admit to noncritical care | 227 | 0.4% |
| Admit to psychiatry | 188 | 0.3% |
| Lost to follow-up/left AMA | 586 | 1.0% |
| Refused referral | 1,711 | 2.9% |
| Total Referred | 5,008 | 8.5% |
| **Patient Already in HCF** | | |
| Treated and released | 4,626 | 7.9% |
| Admit to critical care | 2,981 | 5.1% |
| Admit to noncritical care | 657 | 1.1% |
| Admit to psychiatry | 1,031 | 1.8% |
| Lost to follow-up/left AMA | 287 | 0.5% |
| Total Already in HCF | 9,582 | 16.3% |
| **Other** | 311 | 0.5 |
| **Unknown** | 129 | 0.2 |

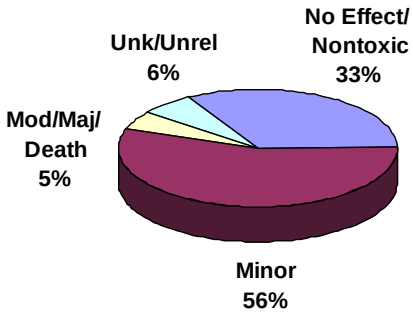
Overall, the IPC referred 5,008 (8.5%) patients for medical care and was consulted on another 9,582 cases that were already in a health care facility (HCF).

## FOLLOW-UP CALLS

The IPC attempts to make follow-up calls on all cases with the potential for toxicity to the patient to ensure patient compliance with treatment recommendations, direct the management of the case and verify the medical outcome. In 2006, follow-up was made 76,104 times on 25,714 human cases (3.0 calls/case). An additional 55,401 cases or information calls did not require or refused follow-up.

## MEDICAL OUTCOME

The medical outcome is assessed based upon the inherent toxicity of the agent, and the severity of the clinical effects noted during case management. The increased severity in case mix seen since 1990 has been continued in 2006 with a 16% increase in the percentage of cases with severe toxicity and deaths maintaining the large increase noted in 2005.




| Medical Outcome | Number | Percent |
|---|---|---|
| No effect | 11,531 | 19.6% |
| Minor effect | 9,985 | 17.0% |
| Moderate effect | 2,335 | 4.0% |
| Major effect | 461 | 0.8% |
| Death | 51 | 0.1% |
| Death, indirect report | 7 | 0.0% |
| No follow-up | | |
| Judged nontoxic | 7 | 13.3% |
| Judged Minimal Effects | 22 | 38.8% |
| Potentially Toxic | 2 | 3.7% |
| Unrelated effect | 1,591 | 2.7% |

## AGENTS INVOLVED

During 2006, the IPC staff managed 58,716 human poison exposures. Prescription and nonprescription drugs accounted for 52% of these exposures, while an additional 38% were to household products. Plants, animals, industrial and agricultural products were also commonly reported. A single substance was involved in 90.9% of the cases and two substances in 5.9% of cases, but exposures to over nine substances were seen in other cases.

| Agent Involved | Number |
|---|---|
| Analgesics | 7,254 |
| Anesthetics | 227 |
| Anticholinergic drugs | 233 |
| Anticoagulants | 186 |
| Anticonvulsants | 1,061 |
| Antidepressants | 2,684 |
| Antihistamines | 1,850 |
| Antimicrobials | 1,551 |
| Antineoplastics | 32 |
| Asthma therapies | 558 |
| Cardiovascular drugs | 1,928 |
| Cold and cough preparations | 3,017 |
| Diagnostic agents | 17 |
| Dietary supplements/herbals homeopathic | 570 |
| Diuretics | 297 |
| Electrolytes and minerals | 837 |
| Eye/ear/nose/throat preparations | 481 |
| Gastrointestinal preparations | 1,297 |
| Hormones and hormone antagonists | 1,199 |
| Miscellaneous drugs | 586 |
| Muscle relaxants | 613 |
| Narcotic antagonists | 4 |
| Radiopharmaceuticals | 0 |
| Sedative/hypnotics/antipsychotics | 3,856 |
| Serums, toxoids, vaccines | 76 |
| Stimulants and street drugs | 1,149 |
| Topical preparations | 2,943 |
| Veterinary drugs | 102 |
| Vitamins | 1,637 |
| Unknown drug | 378 |
| **Total Drugs** | **36,623** |

| Agent Involved | Number |
|---|---|
| Adhesives/glues | 482 |
| Alcohols | 1,806 |
| Arts/crafts/office supplies | 988 |
| Automotive/aircraft/boat products | 347 |
| Batteries | 273 |
| Bites and envenomations | 922 |
| Building and construction products | 204 |
| Chemicals | 1,137 |
| Cleaning substances (household) | 4,959 |
| Industrial cleaners | 281 |
| Cosmetics/personal care products | 5,581 |
| Deodorizers | 562 |
| Dyes | 50 |
| Essential oils | 214 |
| Fertilizers | 203 |
| Fire extinguishers | 108 |
| Food products/food poisoning | 1,626 |
| Foreign bodies/toys/miscellaneous | 2,930 |
| Fumes/gases/vapors | 1,158 |
| Heavy metals | 297 |
| Hydrocarbons | 1,339 |
| Information calls | - |
| Lacrimators | 149 |
| Matches/fireworks/explosives | 40 |
| Mushrooms | 211 |
| Paints and stripping agents | 472 |
| Pesticides - Fumigants | 17 |
| Pesticides - Fungicides | 2 |
| Pesticides - Herbicides | 190 |
| Pesticides - Insecticides | 1,228 |
| Pesticides - Repellants | 290 |
| Pesticides - Rodenticides | 517 |
| Photographic products | 25 |
| Plants | 1,471 |

| Agent Involved | Number |
|---|---|
| Polishes and waxes | 145 |
| Radioisotopes | 6 |
| Sporting equipment | 17 |
| Swimming pool/aquarium | 294 |
| Tobacco products | 228 |
| Weapons of mass destruction | 2 |
| Other/unknown nondrug substances | 485 |
| **Total Non-Drugs** | **31,256** |
| **Total Agents** | **67,879** |

Additional information that is useful to note are the most common poisonings in the pediatric age group and intentional exposures.

| Pediatric Top Ten | Number |
|---|---|
| Cosmetics/personal care products | 4,356 |
| Cleaning substances (household) | 3,177 |
| Analgesics | 2,679 |
| Topical preparations | 2,431 |
| Foreign bodies/toys | 2,251 |
| Cold and cough preparations | 1,922 |
| Vitamins | 1,262 |
| Pesticides | 1,275 |
| Plants | 1,065 |
| Antimicrobials | 891 |

The pediatric top ten changed this year only with a switch in relative order in vitamins and pesticides. All substances on the intentional top ten remained the same with cold and cough preparations and anticonvulsants switching in relative order compared to 2005.

| Intentional Top Ten | Number |
|---|---|
| Analgesics | 3,185 |
| Sedative/hypnotics/antipsychotics | 2,778 |
| Antidepressants | 1,685 |
| Alcohols | 1,089 |
| Stimulants and street drugs | 625 |
| Antihistamines | 549 |
| Cold and cough preparations | 525 |
| Anticonvulsants | 518 |
| Muscle relaxants | 412 |
| Cardiovascular drugs | 332 |

The following table represents the substances seen in the most serious poisonings resulting in major symptoms or death. Serious alcohol exposures increased 42% pushing stimulants and street drugs and cardiovascular agents down to the fifth and sixth most common causes. Muscle relaxants and antihistamines traded places also. Analgesics remained the most frequent cause of severe toxicity. Classes with large increases included muscle relaxants at 67% and anticonvulsants at 56%.

| Most Serious Intoxications | Number |
|---|---|
| Analgesics | 270 |
| Sedative/hypnotics/antipsychotics | 195 |
| Antidepressants | 186 |
| Alcohols | 64 |
| Cardiovascular drugs | 61 |
| Stimulants and street drugs | 57 |
| Anticonvulsants | 56 |
| Muscle relaxants | 40 |
| Antihistamines | 23 |
| Hormones and hormone antagonists | 22 |

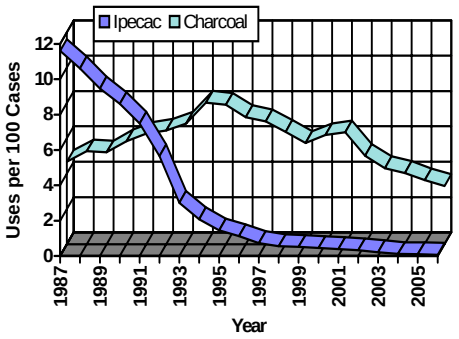
## THERAPY

Supportive care is the single most critical component in the care of the poisoned patient. In 3,859 (6.6%) patients no therapy was needed and observation alone was used in an additional 5,935 (10.1%). IPC advice was refused in 1,358 cases (2.3%). Specific therapeutic methods utilized in poisonings included decontamination, antidotal therapy, and enhancing elimination. Decontamination alone was utilized in 35,766 (60.9%) cases, other therapies alone in 3,836 cases (6.5%) and a combination of the two in 2,216 (3.8%). The most common antidotal treatments were oxygen, n-acetylcysteine, benzodiazepines, naloxone, alkalinization and antihistamines. A major change in the pattern of n-acetylcysteine use was that the intravenous form is used more than the oral regimen, a switch from 2005. The following table summarizes some specific therapies follows:

| Decontamination | Number |
|---|---|
| Ipecac* | 38 |
| Charcoal, single dose | 1,916 |
| Charcoal, multiple doses | 14 |
| Lavage | 115 |
| Cathartic | 65 |
| Whole bowel irrigation | 10 |
| Other emetic | 161 |
| Dilute/irrigate/wash | 34,041 |
| Fresh air | 1,982 |
| Food/snack | 1,691 |
| **Total Decontamination** | 40,033 |
| **No Decontamination** | 20,734 |

| Antidotal / Other Therapy | |
|---|---|
| Fluids, IV | 3,435 |
| Oxygen | 1,038 |
| n-Acetylcysteine (PO – 165, IV – 427) | 592 |
| Benzodiazepines | 550 |
| Intubation | 474 |
| Ventilator | 432 |
| Antibiotics | 352 |
| Naloxone | 323 |
| Alkalinization | 273 |
| Antihistamines | 262 |
| Total Antidotal / Other Therapy | 10,751 |

**Enhancement of Elimination**

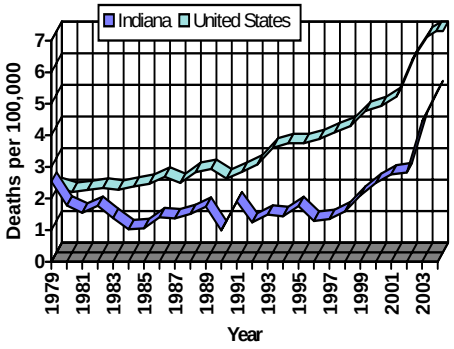



| | |
|---|---|
| Hemodialysis | 69 |
| Hemoperfusion | 5 |
| Other | 11 |
| **Total Enhancement** | 85 |

Use of activated charcoal again greatly exceeded that of syrup of ipecac. Syrup of ipecac use has dropped 99% in the past nineteen years (54% in 2006 alone), while the use of activated charcoal initially increased by 73% and now shows a continual decrease since then reflecting changes in usage in the hospital setting. *In all instances in which ipecac was used in 2006, the IPC did not recommend its use.**

## MORTALITY

Data from the National Center for Injury Prevention and Control showed 334 unintentional poison deaths in Indiana for 2004, an increase of 22%. The average number since the inception of the Poison Center has been 106 per year down from an average of 116 per year prior to 1979. Indiana's unintentional death rate (5.43/100,000) continues to be well below the national figure for 2004 (7.13/100,000) although it seems to be increasing more rapidly compared to the national rate after years of lagging behind. National data suggests that the majority of this increase in is due to unintentional overdoses with drugs of abuse in the 30-49 year old age range.



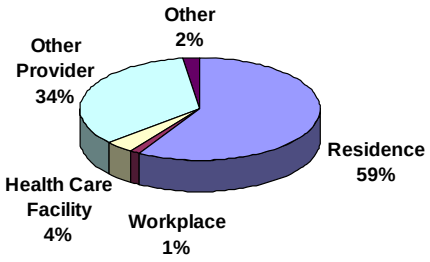

The Indiana Poison Center was consulted on 58 patients who died during 2006. Most of the deaths (43) were intentional in nature (27 suspected suicide and 9 abuse). In some cases, the cause of death was eventually determined not to be related to the exposure.

| Age | Sex | Agent (Reason) |
|---|---|---|
| 2d | F | heparin (therapeutic error) |
| 5d | F | heparin (therapeutic error) |
| 5d | F | heparin (therapeutic error) |
| 4y | F | foreign body (unintentional – general) |
| 15y | F | bupropion, clonidine, fluoxetine, topiramate, SSRI (suicide) |
| 17y | M | methadone, ethanol, methamphetamine, cocaine (abuse) |
| 20y | M | venlafaxine, eszopiclone, pregabalin, valproic acid, ramelteon, alprazolam (suicide) |
| 21y | M | fentanyl, hydrocodone, acetaminophen (suicide) |
| 22y | M | cocaine, fentanyl; (abuse) |
| 23y | M | oxycodone, ethanol (abuse) |
| 25y | F | unknown drug (unknown) |
| 25y | F | ecstasy (MDMA), benzodiazepine (abuse) |
| 25y | M | acetaminophen (suicide) |
| 28y | M | oxycodone, ethanol (abuse) |
| 29y | M | cocaine (unknown) |
| 32y | F | bupropion, cyclobenzaprine, benzodiazepine (suicide) |
| 32y | F | heroin, cocaine (abuse) |
| 32y | F | cocaine, antifreeze (unknown) |
| 33y | M | clonazepam, morphine (suicide) |
| 34y | F | acetaminophen, oxycodone, alprazolam (suicide) |
| 35y | M | cocaine (abuse) |
| 36y | M | doxylamine (suicide) |
| 37y | F | methamphetamine (unknown) |
| 37y | F | hydrocodone, acetaminophen, rabeprazole (intentional - misuse) |
| 37y | M | morphine (intentional - misuse) |
| 39y | M | morphine, alprazolam (intentional – unknown) |
| 40y | M | venlafaxine, bupropion, amphetamine/dextroamphetamine (suicide) |
| 40y | M | tricyclic antidepressant (unknown) |
| 41y | F | Methadone, alprazolam (suicide) |
| 41y | F | aspirin, fluoxetine, naproxen (suicide) |
| 43y | F | amitriptyline (suicide) |
| 45y | M | Bupropion, sertraline (suicide) |
| 46y | F | aspirin, opioid, acetaminophen, benzodiazepine (unknown) |
| 46y | M | ethanol (suicide) |
| 48y | M | Metformin, vardenafil, lisinopril, pioglitazone, lovastatin (suicide) |
| 49y | F | INH, fluoxetine (suicide) |
| 49y | F | quinine, metoprolol, acetaminophen, codeine, propoxyphene, olanzapine, venlafaxine, mirtazapine, gabapentin, diazepam (abuse) |
| 50y | F | meperidine (suicide) |
| 50y | F | acetaminophen (suicide) |
| 50y | M | hydrocodone, acetaminophen, ibuprofen (intentional - misuse) |
| 52y | M | ethanol (abuse) |
| 53y | M | cocaine, ethanol (unknown) |
| 53y | M | amitriptyline (suicide) |
| 54y | F | acetaminophen, diphenhydramine, doxepin, citalopram, trazodone, flurazepam, niacin (suicide) |
| 54y | F | duloxetine, fluoxetine, montelukast, fenofibrate, triamcinolone (suicide) |
| 54y | F | tricyclic antidepressant, benzodiazepine (suicide) |
| 56y | M | acetaminophen (suicide) |
| 59y | F | glipizide, alprazolam, zolpidem (suicide) |
| 60y | F | acetaminophen, diphenhydramine (intentional – misuse) |
| 62y | M | cocaine, acetaminophen (unknown) |
| 65y | F | morphine, minoxidil (unknown) |
| 70y | M | Insulin, zaleplon (suicide) |
| 85y | M | levofloxacin (suicide) |
| 87y | F | digoxin (adverse reaction) |
| adult | F | phenytoin (therapeutic error) |
| adult | M | cocaine, opiate, tricyclic antidepressant, benzodiazepine (intentional – unknown) |
| adult | M | gabapentin, unknown drug (intentional – unknown) |
| adult | M | tricyclic antidepressant (suicide) |
| adult | M | alprazolam, ethanol (suicide) |

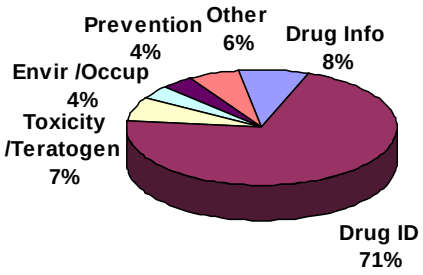
The most common substance classes involved in deaths reported to the IPC were antidepressants (24 cases including 7 tricyclics), opiates (16 cases, including 4 morphine, 3 hydrocodone, 2 methadone), acetaminophen (15 cases), benzodiazepines (15 cases), cardiac drugs (7 cases), stimulants/street drugs (13 cases including, 9 cocaine, 3 amphetamine / methamphetamine) and hypoglycemic agents (4 cases). Three deaths due to therapeutic error involving heparin were reported in neonates.

## INFORMATION CALLS

In 2006, the IPC staff responded to 20,252 inquiries from health professionals and the general public when no poison exposure had occurred. Sixty-two percent of the calls were received from the general public, 59% in a residence and 1% in the workplace.

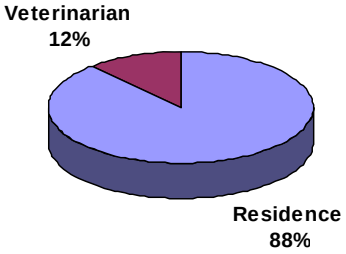



The information calls can be divided into several categories: 1) drug identification / information, 2) environmental, 3) medical, 4) occupational, 5) toxicity / symptoms, 6) prevention and safety, 7) teratogenicity and 8) other.




## ANIMAL POISONINGS

In 2006, the IPC managed 3,539 poisonings to domestic animals, a 3.4% decrease from 2005. Calls were received primarily from the pet's owners although veterinarians generated a significant proportion.




Eight out of the top ten animal exposures were also seen in children. Significant differences included a very large percentage of insecticide / rodenticide and plant exposures as compared to children.

| Animal Top Ten | Number |
|---|---|
| Pesticides | 830 |
| Cleaning substances (household) | 203 |
| Plants | 183 |
| Analgesics | 169 |
| Foreign bodies/toys/miscellaneous | 156 |
| Cosmetics/personal care products | 126 |
| Antimicrobials | 123 |
| Topical preparations | 121 |
| Hormones and hormone antagonists | 118 |
| Cardiovascular drugs | 95 |

## EDUCATION PROGRAMS

Personnel from the IPC teach health care professionals basic and advanced techniques in the management of poison emergencies and provide assistance, consultation, and programs in teaching poison prevention to private citizens.

**Professional Education**

Professional education activities include the Annual Regional Toxicology Symposium, a quarterly education bulletin (TOXI-GRAM), and numerous inservices and lectures.

**Health Professional Education**

| Contact Hours Supervised Experience in Poison Center/Toxicology Service | |
|---|---|
| Medical Residents (52) | 8,320 |
| ICU Fellow (1) | 160 |
| Doctor of Pharmacy (1) | 160 |
| Registered Nurse (1) | 160 |
| Doctor of Pharmacy Students (4) | 640 |
| Doctor of Pharmacy Residents (4) | 640 |
| Family Practice Residents (1) | 4Medical |
| Students (5) | 800 |
| Pharmacy Students (7) | 28 |
| Nursing Students (5) | 15 |
| Academic and Continuing Education Lectures Presented | 40 |

Under the guidance of Daniel Rusyniak, M.D. the two-year Medical Toxicology Fellowship program started in 1994 continues to draw outstanding physicians in training. This fellowship program is one of only 14 accredited by the American Council for Graduate Medical Education in the United States. All our past fellows have passed their Medical Toxicology boards and are practicing in Wisconsin, Indiana, Virginia, Missouri, Michigan, Arizona and Connecticut. Our fellow for the year was Dr. Blake Froberg.

The staff of IPC also contributed to the medical toxicology literature in 2006 with 8 journal articles, 3 consensus treatment guidelines, 1 book chapter and eight abstracts presented at the North American Congress of Clinical Toxicology.

*Journal Articles*

- Danielson C. Houseworth J. Skipworth E. Smith D. McCarthy L. Nanagas K. Arsine toxicity treated with red blood cell and plasma exchanges. Transfusion. 46(9):1576-9, 2006 Sep.
- Furbee RB. Criminal poisoning: medical murderers. Clinics in Laboratory Medicine. 26(1):255-73, 2006 Mar.
- Furbee RB. Barlotta KS. Allen MK. Holstege CP. Hepatotoxicity associated with herbal products. Clinics in Laboratory Medicine. 26(1):227-41, 2006 Mar.
- Furbee RB. Kao LW. Ibrahim D. Brown recluse spider envenomation. Clinics in Laboratory Medicine. 26(1):211-26, 2006 Mar.
- Rusyniak DE. Sprague JE. Hyperthermic syndromes induced by toxins. Clinics in Laboratory Medicine. 26(1):165-84, 2006 Mar.
- Kao LW. Nanagas KA. Toxicity associated with carbon monoxide. Clinics in Laboratory Medicine. 26(1):99-125, 2006 Mar.
- Ibrahim D. Froberg B. Wolf A. Rusyniak DE. Heavy metal poisoning: clinical presentations and pathophysiology. Clinics in Laboratory Medicine. 26(1):67-97, 2006 Mar.
- Vetter RS. Furbee RB. Caveats in interpreting poison control centre data in spider bite epidemiology studies. Public Health. 120(2):179-81, 2006 Feb.

*Consensus Treatment Guidelines*

- Manoguerra AS. Erdman AR. Wax PM. Nelson LS. Caravati EM. Cobaugh DJ. Chyka PA. Olson KR. Booze LL. Woolf AD. Keyes DC. Christianson G. Scharman EJ. Troutman WG. American Association of Poison Control Centers. Camphor Poisoning: an evidence-based practice guideline for out-of-hospital management. Clinical Toxicology. 44(4):357-70, 2006.
- Scharman EJ. Erdman AR. Wax PM. Chyka PA. Caravati EM. Nelson LS. Manoguerra AS. Christianson G. Olson KR. Woolf AD. Keyes DC. Booze LL. Troutman WG. Diphenhydramine and dimenhydrinate poisoning: an evidence-based consensus guideline for out-of-hospital management. Clinical Toxicology. 44(3):205-23, 2006.
- Dart RC. Erdman AR. Olson KR. Christianson G. Manoguerra AS. Chyka PA. Caravati EM. Wax PM. Keyes DC. Woolf AD. Scharman EJ. Booze LL. Troutman WG. American Association of Poison Control Centers. Acetaminophen poisoning: an evidence-based consensus guideline for out-of-hospital management. Clinical Toxicology. 44(1):1-18, 2006.

*Guest Editors*

- Clinics in Laboratory Medicine (Vol 26, Issue 1) "Medical Toxicology", Christopher P. Holstege, MD and Daniel E. Rusyniak, MD, March 2006.

*Book Chapters*

- Nanagas KA, Furbee RB. Chapter 63. Class 1A Antiarrhythmics: Quinidine, Procainamide, and Disopyramide. Shannon MW, Borron SW, Burns MJ, eds. Haddad and Winchester's Clinical Management of Poisoning and Drug Overdose (4th Edition). WB Saunders Co: Philadelphia; 1009-18

*Abstracts*

- Ibrahim D, Kao LW, Furbee RB. Credible brown recluse spider bite followed by id reaction and complete recovery. Clinical Toxicology. 44(5):645-46, 2006.
- Ibrahim D, Furbee RB, Kao LW. Massive bupropion overdose with recurrent QRS widening and cardiac arrest. Clinical Toxicology. 44(5):653, 2006.
- Ibrahim D, Wolff A, Kao LW, Furbee RB. Chronic mercury inhalation produces acrodynia, tremor and erythism and mimics pheochromocytoma in a 14-year-old. Clinical Toxicology. 44(5):719, 2006.
- Ibrahim D, Rusyniak DE, Kao LW. Significant QT prolongation following severe valproate toxicity. Clinical Toxicology. 44(5):765, 2006.
- Froberg BA, Kao LW. Generalized seizure following accidental pediatric tiagabine ingestion. Clinical Toxicology. 44(5):719, 2006.
- Nanagas KA, Wermuth ME, Rusyniak DE, Johnson JA, Scott MD. Isolated bilateral hippocampal infarctions and server anterograde amnesia as sequelae of carbon monoxide poisoning. Clinical Toxicology. 44(5):660, 2006.
- Smolinski SC, Casavant MJ, Baker SD, Daubert GP, Didrichsons R, Eisenga B, Krenzelok E, Mowry J, Mrvos R, Spiller HA, White S. National Toxicity Trends Associated with Waterproofing Agents. Clinical Toxoicology 44 (5):704-5,2006.
- Smolinski SC, White S, Daubert GP, Eisenga B, Didrichsons R, Mowry J, Mrvos R, Krenzelok E, Baker SD, Casavant MJ, Spiller HA. Respiratory Illness Associated with Boot Sealant Products. Clinical Toxicology. 44(5):752-3, 2006

**Public Education**

In 2006, the IPC web site www.clarian.org/poisoncontrol was redesigned to be more user friendly. The site is kept up to date with current educational materials that can be downloaded and printed as well as annual reports and news releases on various poison safety topics.

IPC added some new education materials to its inventory in 2006. Information for seniors had previously focused on keeping grandchildren safe from poison. A second handout has now been developed, which focuses on seniors' safe use of their personal medication. Key tags bearing the emergency number and steps to take in a poison emergency were also added to the inventory. IPC continues to lend "look-a-like boxes" for community events. These boxes show potentially poisonous items that look like non-poisonous items and demonstrate how easily a poison can be mistaken for something that is good to eat or drink.

"Making the Right Call" is an instructor workshop that trains volunteers interested in teaching injury prevention. This program is intended to expand public education efforts and establish a consistent poison prevention message throughout the state. Participants attend a three-hour workshop and learn how to conduct a simple program for poison prevention in their community. The program has a strong evaluation component to determine its success. As of December 31, 2006, 521 instructors from 82 Indiana counties have been trained to deliver this public education program.

2006 was the second year of the Clarian Health Values Fund, a grant awarded to IPC to conduct a two year outreach program to Hispanic residents of Indiana. 50 volunteer instructors who work specifically with Hispanic families have been trained to use the Spanish version of "Making the Right Call" program in their communities.

IPC has continued to network with other agencies in the state. Safe Kids, member hospitals and member physicians have continued to be partners with the poison center. Additionally, IPC has made efforts to forge links with parish nurses, fire and law enforcement professionals, obstetric and pediatric physicians, EMS agencies and Head Start programs. IPC continues to look for partnerships with other agencies that have an interest in injury prevention.

**Public Education Activities**

| | |
|---|---|
| Pieces of Poison Prevention Material Distributed | 385,731 |
| TV & Radio appearances | 29 |
| Newspaper / Magazine interviews | 5 |
| News Releases Distributed | 13 |
| Public Education Presentations | 55 |
| Estimated Audience | 16,309+ |

TOXIC TRIVIAs Published
- Have a Safe New Year (Winter)
- Spring into Poison Safety (Spring)
- Ideas for a Poison Safe Fall (Summer)
- Winter Poison Safety (Fall)

National Poison Prevention Week (NPPW) activities included distributing press packets to all print and broadcast news organizations in the state. Resource packets, including ideas to promote the week and promotional items, were sent to a wide variety of organizations throughout the state. A poster competition was held for Indiana elementary school students. The 6 winners received their prizes at an awards ceremony held at Methodist Hospital.

The news release distribution program in conjunction with the Indianapolis FDA Office continued to reach all print and broadcast media in the State as well as county health organizations. The quarterly newsletter, "Toxic Trivia" was published four times in 2006. The list of people subscribing to this free newsletter continues to grow with the addition of newly trained instructors and other community members who are interested in receiving useful news from the world of poison prevention.

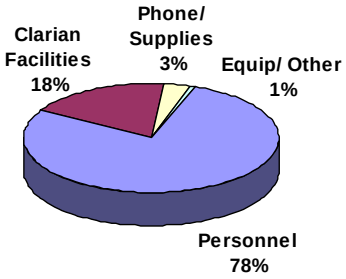
Cooperative long-term efforts such as these maintain a coordinated statewide poison prevention education program and bolster the efforts of the IPC to increase awareness of poison safety measures and reduce death and injury from poisoning.

## FINANCIAL REVIEW

**Expenses**

Recent studies have shown that ***every dollar*** spent on poison centers returned ***$6.50*** in medical care cost savings through the prevention of unnecessary hospital visits for poison exposures. Factoring in medical inflation rates, over the past 26 years, this represents savings of **$229 million** in Indiana.

Total direct expenses have risen from $117,369 in 1979 to $1,530,684 in 2006 with a total cost per human poison case of $34 which is well below the 2004 national average of $43 and a cost per productive call of $24. As can be seen, the vast majority of expenses for the poison center are for the personnel to run the emergency telephone service and facilities to house the center.

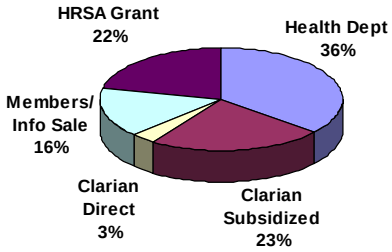



| | |
|---|---|
| Personnel | $1,554,610 |
| Clarian Health Facilities | $366,025 |
| Telephone | $33,904 |
| Supplies (w/information resources) | $31,398 |
| Equipment/Other | $11,506 |
| Total Expenses | $1,997,443 |

**Revenues**

Direct state funding through the Indiana State Department of Health has increased slightly this year to $719,503. The percent of direct state funding, which had increased from a low of 35% in 2002 to 44% in 2004, now rests at 36% of revenue compared to 66% in 1995. Membership fees were increased in 2006 to $3,500 per year with non-member hospitals now charged $200 per consultation they generate. These increases resulted in a 17% increase in revenues from that source. The fifth full year of Federal HRSA support of the poison center (now through the Healthcare Services Bureau) contributed about 22% of the operating budget and was 21% higher than in 2005 reflecting the efforts of poison centers nationwide to ensure adequate federal support for poison centers and changes in the administration of the HRSA grant. Clarian Health provides up to $100,000 in direct support as needed and also contributes space and other subsidized expenses for the operation of the IPC.

Clarian's direct support of the poison center for 2006 reflects the effects of the increased revenues available from the Member Hospital Program, the substantial increase in federal funding and the modest increase in state funding.




| | |
|---|---|
| Indiana State Department of Health | $719,503 |
| Clarian Health – Subsidized | $466,759 |
| Federal HRSA Grant | $430,792 |
| Members / Information Sales | $314,152 |
| Clarian Health – Direct | $66,238 |
| Total Revenues | $1,997,443 |

## STAFF MEMBERS

**Our Specialists in Poison Information**

The backbone of the Indiana Poison Center is its highly trained and dedicated Specialists in Poison Information: registered nurses and pharmacists who handle the emergency calls 24 hours a day.

The Specialists in Poison Information provide precise, immediate information in situations where seconds could make the difference between life and death. The Center's poison information staff are required to be certified by the American Association of Poison Control Centers. Currently, all staff that are eligible have either fulfilled the requirements or are currently working toward certification.

**Our Administrative Team**

James B. Mowry, Pharm.D., Director of the IPC since August 1981, is a Diplomat of the American Board of Applied Toxicology, a Fellow of the American Academy of Clinical Toxicology, and has more than 28 years of experience in pharmacology and clinical toxicology.

Serving as the Center's Medical Director is Brent Furbee, M.D. Dr. Furbee is board certified in medical toxicology and emergency medicine with more than 26 years of experience in emergency medicine and medical toxicology.

Mary Wermuth, MD, Louise Kao, MD, Kristine Nanagas, MD and Daniel Rusyniak, MD, all graduates of our medical toxicology fellowship, act as Associate Medical Directors with primary emergency medicine practices at Methodist and Wishard Memorial

Hospitals respectively. Dr. Rusyniak assumed the position as director of the medical toxicology fellowship program in July 2005.

Gwenn Christianson, RN, MSN, CSPI, through funding provided by the Federal HRSA grant, began a position as Team Leader for the Indiana Poison Center in 2004. Gwenn's responsibilities include special projects, quality assurance and additional administrative support for the center. Gwenn has been a Specialist in Poison Information since 1988 and is actively involved a number of committees on the national level in the American Association of Poison Control Centers including the national consensus treatment guidelines panel.

Barbara Cole, BS, also joined the Indiana Poison Center in 2004 as Coordinator – Poison Prevention. Mrs. Cole brings a vast experience in public health education to the poison center and is responsible for coordinating our state wide poison prevention program including evaluation, re-assessment, design and production.

Maggie Showalter serves as Administrative Secretary for the Indiana Poison Center and Medical Toxicology of Indiana. In addition to her secretarial duties she acts as liaison with Member Hospitals, coordinates patient appointments for the occupation toxicology clinic and coordinates medical toxicology rotations for the medical residents from Indiana University School of Medicine and the administrative aspects of the medical toxicology fellowship. She is assisted in her responsibilities on a part-time basis by Jennifer Connor, who was hired late in 2005.

## CONSULTANTS

The IPC maintains a relationship with a number of expert consultants in many areas related to toxicology should a question be found that our usual and customary resources cannot handle. We would like to acknowledge their contributions to the program.

Robert J. Alonso, M.D.
Robert T. Anger, M.S.
Rita E. Banes
Waqar Bhatti, Ph.D.
James A. Brenneman, Ph.D.
Michael Buran, M.D.
Mark A. Carfagra, Ph.D.
Charles B. Carter, M.D.
R. Lyle Christensen, PhD
Lola Cook MS
Peg Davee, MS
Peter A. Dillman
Quentin B. Emerson, M.D.
Michael Evans, Ph.D.
William E. Fields, Ph.D.
Charlene Graves, M.D.
Alan R. Hanks, Ph.D.
Steven Hooser, DVM. Ph.D.
Daniel McCoy, Ph.D.
John W. Mead
John Pless, M.D.
James E. Robbers, Ph.D.
Charles Sinclair, DVM, MSPH
Sam S. Slosman
Kenneth Sun, Ph.D.
Walter Sundberg, Ph.D.
Michael R. Tansey, Ph.D.
David Weaver, M.D.

**Indiana Poison Center Staff**

**Director**
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**Medical Director**
R. Brent Furbee, MD

**Associate Medical Directors**
Louise Kao, MD
Kristine Nanagas, MD
Daniel Rusyniak, MD

**Associate Medical Director/ HBO Coordinator**
Mary Wermuth, MD

**Administrative Secretaries**
Maggie Showalter
Jennifer Connor

**Coordinator – Poison Prevention**
Barbara Cole, BS

**Medical Toxicology Fellowship**
Daniel Rusyniak, MD, Director
Danyal Ibrahim, MD, Fellow
Blake Froberg, MD, Fellow

**Team Leader**
Gwenn Christianson, RN, MSN, CSPI*

**Specialists in Poison Information**
Lynn Ballentine, BSN, CSPI*
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Susan Boots, RN, CSPI*
David Burns, BSN, CSPI*
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Susan Jackson, RN, CSPI*
Jo Johnson, RN, CSPI*
Karen Lytle, BSN, CSPI*
Tonya Mains, BSN, MS, CSPI*
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Laura Miller, Pharm.D., CSPI*
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Laura Smith, BSN, CSPI*
Charissa Weiss, BSN

* AAPCC Certified Specialist in Poison Information

## MEMBER HOSPITALS FOR 2006

It is with great appreciation that we recognize the support and contributions made by the following people and institutions to the Indiana Poison Center.

The Indiana Poison Center Member Hospital Network was significantly revised in 1996 in response to decreasing state funding. The membership fee, which had been $1,000 for many years, was increased to $3,000 per year. In addition, hospitals that chose not to join the network, were charged $150 per poison consultation generated by their hospital. Starting January 2006, fees associated with the member hospital program will increase to $3,500 and $200 respectively. Full or partial year membership in the network has increased by 100%, from 42 in 1995 to 84 members in 2006, an increase from 78 members in 2005.

Adams Memorial Hospital, Decatur
Bedford Regional Medical Center, Bedford
Blackford County Hospital, Hartford City
Bloomington Hospital, Bloomington
Bloomington Hospital Orange Co., Paoli
Bluffton Regional Medical Center, Bluffton
Cameron Memorial Community Hospital, Angola
Columbus Regional Hospital, Columbus
Community Hospital, Munster
Community Hospital Anderson, Anderson
Community Hospital East, Indianapolis
Community Hospital North, Indianapolis
Community Hospital South, Indianapolis
Daviess Community Hospital, Washington
Deaconess Hospital, Evansville
Dearborn County Hospital, Lawrenceburg
Decatur County Memorial Hospital, Greensburg
DeKalb Memorial Hospital, Auburn
Dunn Memorial Hospital, Bedford
Elkhart General Hospital, Elkhart
Fayette Memorial Hospital, Connersville
Gibson General Hospital, Princeton
Good Samaritan Hospital, Vincennes
Goshen General Hospital, Goshen
Greene County General Hospital, Linton
Hancock County Memorial Hospital, Greenfield
Hendricks Regional Health, Danville
Henry Memorial Hospital, New Castle
Indiana University Hospital, Indianapolis
Jasper County Hospital, Rensselaer
Lafayette Home Hospital, Lafayette
LaPorte Hospital, LaPorte
Lutheran Hospital of Indiana, Fort Wayne
Major Hospital, Shelbyville
Margaret Mary Community Hospital, Batesville
Marion General Hospital, Marion
Memorial Hospital, Jasper
Memorial Hospital, Logansport
Memorial Hospital of South Bend, South Bend
Methodist Hospital, Indianapolis
Methodist Hospital (Northlake), Gary
Methodist Hospital (Southlake), Merrillville
Morgan County Memorial Hospital, Martinsville
Parkview Huntington Hospital, Huntington
Parkview LaGrange Hospital, LaGrange
Parkview Memorial Hospital, Fort Wayne
Parkview Noble Hospital, Kendallville
Parkview Whitley Memorial Hospital, Columbia City
Perry County Memorial Hospital, Tell City
Portage Community Hospital, Portage
Porter Memorial Hospital, Valparaiso
Pulaski Memorial Hospital, Winamac
Putnam County Hospital, Greencastle
Reid Health Care Services, Richmond
Riley Hospital for Children, Indianapolis
Riverview Hospital, Noblesville
Schneck Medical Center, Seymour
St. Anthony Medical Center, Crown Point
St. Anthony Memorial Hospital, Michigan City
St. Clare Medical Center, Crawfordsville
St. Elizabeth Medical Center, Lafayette
St. Francis Hospital Center, Beech Grove
St. Francis Hospital South, Indianapolis
St. John's Health System, Anderson
St. Joseph Community Hospital, Mishawaka
St. Joseph Regional Medical Center, South Bend
St. Joseph's Hospital of Marshall Co., Plymouth
St. Margaret Mercy Hospital, Dyer
St. Margaret Mercy Hospital, Hammond
St. Mary Medical Center, Hobart
St. Vincent Clay Hospital, Brazil
St. Vincent Frankfort Hospital, Frankfort
St. Vincent Hospital, Indianapolis
St. Vincent Hospital - Carmel, Carmel
St. Vincent Jennings Hospital, North Vernon
St. Vincent Williamsport Hospital, Williamsport
Sullivan County Community Hospital, Sullivan
Terre Haute Regional Hospital, Terre Haute
Tipton Co. Memorial Hospital, Tipton
Wabash County Hospital, Wabash
White County Memorial Hospital, Monticello
Wishard Memorial Hospital, Indianapolis
Witham Health Services, Lebanon
Woodlawn Hospital, Rochester

The following hospitals, while not members, supported the Indiana Poison Center through use of the poison center on the fee per call basis.

Clarian North Medical Center, Carmel
Community Hospital, Bremen
Dukes Memorial Hospital, Peru
Dupont Hospital, Fort Wayne
Floyd Memorial Hospital, New Albany
Harrison County Hospital, Corydon
Howard Community Hospital, Kokomo
Jay County Hospital, Portland
Johnson Memorial Hospital, Franklin
King's Daughters' Memorial Hospital, Madison
Kosciusko Community Hospital, Warsaw
Monroe Hospital, Bloomington
Rush Memorial Hospital, Rushville
Scott County Memorial Hospital, Scottsburg
St. Joseph Memorial Hospital, Kokomo
St. Mary's Medical Center, Evansville
St. Mary's of Warrick County Hospital, Booneville
St. Vincent Mercy Hospital, Elwood
St. Vincent Randolph Hospital, Winchester
Starke Memorial Hospital, Knox
Union Hospital, Terre Haute
Veterans Administration Hospital, Indianapolis
Veterans Administration Hospital, Marion
Washington County Memorial Hospital, Salem
Westview Hospital, Indianapolis

## OTHER INDIANA POISON CENTER DATA SETS

The annual Indiana Poison Center statistical data also includes other frequency distributions and cross-tabulations of selected data items. Copies of these reports are available upon request.

| Rpt # | Report Title | Database |
|---|---|---|
| 3 | Month by Call Type | All Calls |
| 4 | Patient Type by Multiple Exposures | Exposures |
| 5 | Months by Patient Type | Exposures |
| 6 | Acute/Chronic | Human |
| 8 | Callsite Codes by Call Type | All Calls |
| 10 | Exposure to Multiple Substances | Human |
| 11 | Route of Exposure | Human |
| 12 | Frequency of Clinical Effects | Human |
| 13 | Distribution of Clinical Effects | Human |
| 15 | Management Site by Referral Pattern | Human |
| 16 | Initial HCF by Referral Pattern | Human |
| 17 | Final HCF | Human |
| 18 | Initial HCF by Disposition | Human |
| 19 | Decontamination and Therapeutic Intervention | Human |
| 23 | Duration of Effects by Medical Outcome | Human |
| 24 A | Day of Week by Hour | Human |
| 24 B | Day of Week by Hour | All Calls |
| 25 | Call Site by Call Type | All Calls |
| 26 | Age by Gender | Human |
| 27 | Age (Year/Month/Day by Gender) | Human |
| 28 | Age by Trimester of Pregnancy | Human |
| 29 | Pregnancy Duration | Human |
| 30 | Initial HCF by Age | Human |
| 31 | Reason by Age (Adults lumped) | Human |
| 32 | Reason by Age (Adults in decades) | Human |
| 33 | Reason by Gender | Human |
| 34 | Reason by Term of Pregnancy | Human |
| 35 | Route by Management Site | Human |
| 36 | Clinical Effects by Age | Human |
| 37 | Clinical Effects by Reason | Human |
| 38 A | Medical Outcome by Reason Group | Human |
| 38 B | Medical Outcome by Reasons | Human |
| 39 | Medical Outcome by Mgmt Site | Human |
| 40 | Ipecac by Age by Management Site | Human |

| Rpt # | Report Title | Database |
|---|---|---|
| 41 | Charcoal by Age/Mgmt Site | Human |
| 42 | Reason by Exposure Chronicity | Human |
| 43 | Route of Exposure by Age | Human |
| 44 | Route of Exposure by Reason | Human |
| 45 | Management Site by Age | Human |
| 46 | Treatment by Management Site | Human |
| 47 | Decontamination by Management Site | Human |
| 48 | Other Therapy by Management Site | Human |
| 51 A | Medical Outcome by Age/ Lumped | Human |
| 51 B | Medical Outcome by Age/ Decades | Human |
| 52 | Log by Generic Categories | Human |
| 53 | Log by Specific Products | Human |
| 54 | Generic Codes by Category by Call | All Calls |
| 55 | Generic Codes by Category by Age | Human |
| 56 | Generic Codes by Category by Reason | Human |
| 57 | Generic Codes by Category by Outcome | Human |
| 58 | Generic Codes by Category by Mgmt Site | Human |
| 59 A | Caller State, County by Call Type | All Calls |
| 59 B | Caller State, City by Call Type | All Calls |
| 60 | Caller State by Call Type | Human |
| 65 | Patient Species | Exposures |
| 72 | Medical Outcome by Exposure Route | Human |
| 73 | Age, Reason, HCF, Outcome Summary by Generic Code | Human |
| 77 | Number of Patients Involved in Poisoning Incidents | Human |
| 79 | Scenario by Age | Human |
| 80 | Scenario by Reason | Human |
| 81 | Scenario by Outcome | Human |
| 82 | Scenario County by Age | Human |
| 00 | State, County by Age in Years (Adults in Decades) | Human |