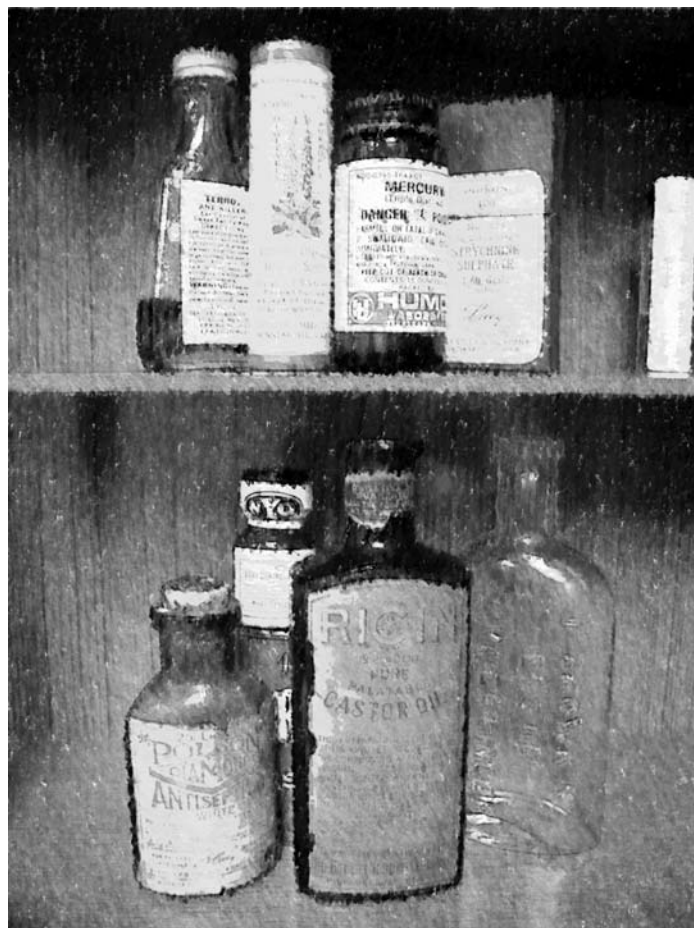


INDIANA **POISON** CENTER

2011 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
Indiana University Health.*

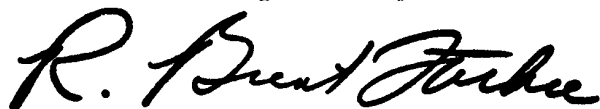


Indiana University Health

During 2011, the Indiana Poison Center received over 68,500 calls for help. Human exposures calls decreased 3.3% compared to 2010 and over 12,000 information calls were fielded along with over 71,000 follow up calls to users of our service. Children remain our most commonly exposed age group, although usually with benign effects. Intentional poisonings continue to contribute a more severe case mix. Animal poisoning cases decreased this year by 13% to 2,484 cases.

We are very pleased that our contacts in the health care community remain strong. Your input is always welcome to help develop our programs to better serve the needs of health care providers throughout the state. This includes the state's only medical toxicology consult service to help manage the care of poisoned patients and our ACGME accredited Medical Toxicology Fellowship program to train physicians in medical toxicology, one of only 27 in the US. Response to these services remains brisk.

*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, having taken a 15% reduction in state funding since 2010. As a consequence, our Member Hospital Network remains an important element for the continuation of the Indiana Poison Center. 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} Poison centers have been shown to reduce the number of emergency department visits, decrease hospital admissions and decrease hospital length of stay for poisonings.^{4,5,6} The CDC and HRSA Poison Control Center Advisory Work Group urged Federal ongoing "fair share" support of poison centers and recommended six projects to improve poison center function, including the national toll-free number activated in Indiana early in 2001.³ We are now in the 10th full year of federal funding from the "**The Poison Control Center Enhancement and Awareness Act**", its amendments in 2004 and the "**Poison Center Support, Enhancement and Awareness Act of 2008**". These funds have been used to update technology in our center, and now support staff salaries and greatly enhanced public education and awareness activities. Funding is available through FY 2014 from these acts, although they continue to require considerable work 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-effectiveness.⁷ 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 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.*



R. Brent Furbee, M.D., FACEP, ABMT
Medical Director
Indiana Poison Center



James B. Mowry, Pharm.D., DABAT, FAACT
Program Director
Indiana Poison Center

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. Lovecchio F et al. Poison control centers decrease emergency healthcare utilization costs. J Med Toxicol 2008;4:221.
5. Bunn et al. The effect of poison control center consultation on accidental poisoning inpatient hospitalizations with preexisting medical conditions. J Toxicol Environ Health 2008; 71:283.
6. Vassilev ZP et al. The impact of a poison control center on the length of hospital stay for patients with poisoning. J Toxicol Environ Health 2007; 70:107.
7. 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 thirty-second year of operation, the center is a round-the-clock information and treatment resource for all citizens of Indiana.

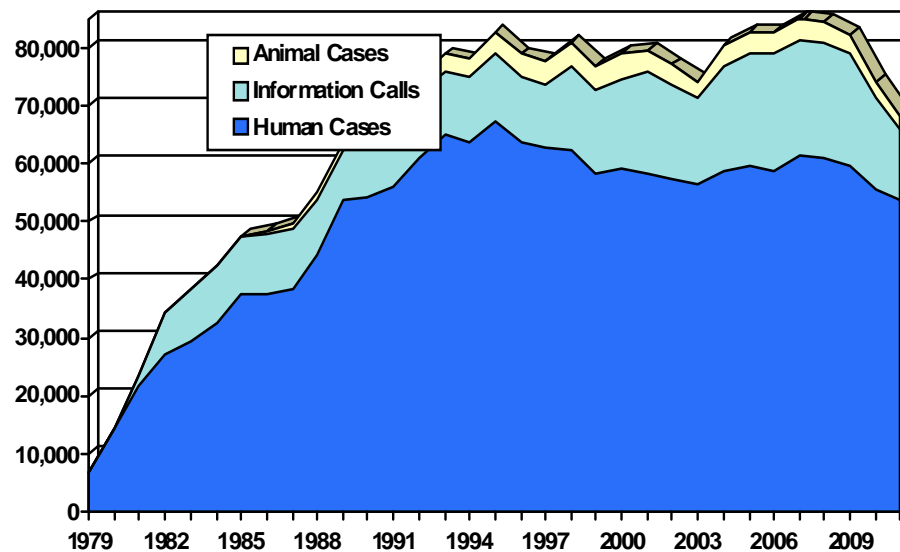
The IPC is a collaborative effort of the Indiana State Department of Health, Indiana University Health, the Federal Healthcare Services Bureau within HRSA and health care providers throughout the state. It is designated as the official poison information center for the state by the Indiana State Department of Health and is certified as a regional poison information center by the American Association of Poison Control Centers, one of only 55 in the nation and the only one in Indiana.

In 2011, the IPC received 68,519 requests for assistance (averaging 188 calls per day). Of these calls 56,332 concerned exposures to poisons and 12,187 were callers seeking information without an exposure. The 56,332 poison exposure calls resulted from 53,848 human and 2,484 animal poisoning cases. The 53,848 human poison exposure cases managed represent a 3.3% decrease from 2010. In addition, the staff of the Poison Center placed 71,148 calls to patients and health care professionals for follow-up (averaging 195 calls per day).

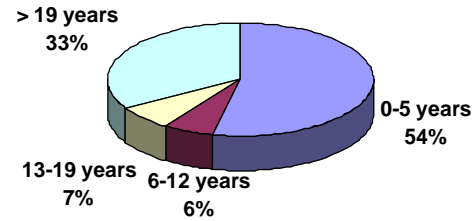
This report presents an overview of IPC poisoning data and other activities for 2011. Additional information is available upon request. Data was available to evaluate 53,710 confirmed human cases.

AGE

Poisonings remain a major health hazard among young children. Children under six years of age account for the majority (51%) of the poisonings managed by the IPC during



2011, slightly decreased from 2010. Although the incidence of poisoning is still greater in children, most severe poisonings and poisoning deaths occur in adolescents and adults (97% of cases) due to their exposures being intentional in nature. The trend for increasing age as compared to historical averages was maintained this year.



Age (Years)	Number		Total	%
	Males	Females		
<1	1,288	1,233	2,528	4.7%
1	4,416	3,941	8,365	15.6%
2	5,146	5,025	10,179	19.0%
3	2,331	1,973	4,310	8.0%
4	1,126	901	2,032	3.8%
5	615	458	1,074	2.0%
6-12	1,868	1,438	3,328	6.2%
13-19	1,875	1,964	3,856	7.2%
20-29	2,141	2,288	4,434	8.3%
30-39	1,512	1,973	3,487	6.5%
40-49	1,269	1,707	2,976	5.5%
50-59	972	1,481	2,453	4.6%
60-69	517	938	1,455	2.7%
70-99	542	1,046	1,589	3.0%
Unk Adult	559	857	1,458	2.7%
Unk Infant	13	13	31	0.1%
Unk Child	37	26	75	0.1%
Unknown	21	32	80	0.2%
Total	26,248	27,294	53,710	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 adolescence (51%) and adults (58%).

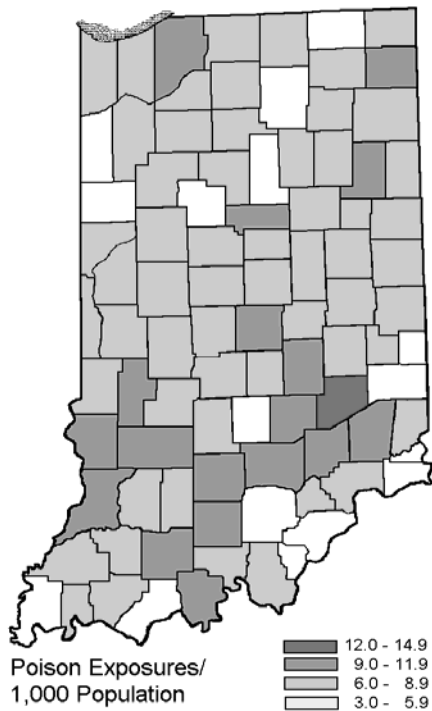
GEOGRAPHIC DISTRIBUTION

Overall, 97.2% of exposure calls originated in Indiana. In addition, the IPC received calls from 52 other states and foreign countries, with Kentucky, Illinois, Michigan, and Ohio accounting for 47% of these out-of-state calls. One out of every 98 Hoosiers utilized the Indiana Poison Center's services in 2011.

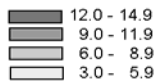
CALLER

In 2011, 51,819 calls (76%) were received from the general public. Calls were also received from 11,475 health caregivers (physicians, nurses, EMT's, paramedics, and pharmacists), with 9,243 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. Police from throughout the state accounted for an additional 4,820 calls.

City	Hospital	Patients Referred to ED	Request or Consult
Anderson	Community	26	75
	St. John's Health	30	9
Angola	Cameron Memorial	14	65
Auburn	DeKalb Memorial	30	43
Avon	IU Health West	42	108
Batesville	Margaret Mary	20	45
Bedford	IU Health Bedford	15	33
	St. Vincent Dunn	15	36
Beech Grove	Franciscan St. Francis	47	119
Bloomington	IU Health Bloomington	95	150
	Monroe	3	11
Bluffton	Bluffton Regional	20	71
Booneville	St. Mary's Warrick	11	11
Brazil	St. Vincent Clay	20	53
Bremen	Community	8	11
Carmel	IU Health North	36	46
	St. Vincent Carmel	14	62
Charlestown	Saint Catherine	4	4
Chesterton	Franciscan St. Anthony	0	0
Clarksville	Kenuckiana Med Cntr	1	0
Clinton	Union Clinton	7	13
Columbus	Columbus Regional	60	143
Connersville	Fayette Memorial	21	22
Corydon	Harrison County	24	13
Crawfordsville	St. Elizabeth	18	64
Crown Point	Franciscan St. Anthony Health	31	159
	Hendricks Regional	35	33
Danville	Adams Memorial	18	34
Decatur	Franciscan St. Margaret	12	187
Dyer	St. Catherine	14	24
East Chicago	Elkhart General	65	274
Elkhart	St. Vincent Mercy	14	17
Elwood	Deaconess	55	235
Evansville	St. Mary's	72	58
Fishers	IU Health Saxony	0	1
	St. Vincents	9	26
	Medical Center NE		
Fort Wayne	Dupont	30	21
Fort Wayne	Lutheran of Indiana	92	57
	Parkview Randallia	107	225



Poison Exposures/
1,000 Population

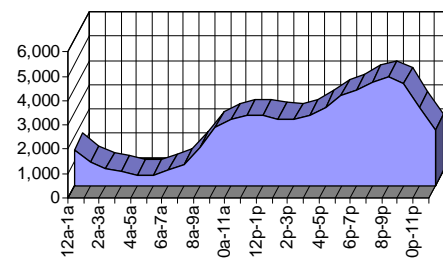


<u>City</u>	<u>Hospital</u>	<u>Patients Referred to ED</u>	<u>Request or Consult</u>
	Parkview Regional	16	29
	Medical Center		
	St. Joseph Hospital	23	27
	Veterans Admin	3	6
Frankfort	St. Vincent Frankfort	11	60
Franklin	Johnson Memorial	26	29
Gary	Methodist	27	89
Goshen	IU Health Goshen	36	132
Greencastle	Putnam County	15	52
Greenfield	Hancock Regional	25	105
Greensburg	Decatur County	30	72
Hammond	Franciscan St.	11	253
	Margaret		
Hartford City	IU Health Blackford	8	9
Hobart	St. Mary	30	113
Huntington	Parkview	17	39
Indianapolis	Community East	36	114
	Community North	82	229
	Community South	36	220
	Franciscan St.	63	122
	Francis		
	Indiana Heart	2	0
	IU Health Methodist	174	507
	IU Health University	21	18
	Riley @ IU Health	116	103
	St. Vincent	204	259
	Veterans Admin	5	23
	Westview	0	2
	Wishard Memorial	78	315
Jasper	Memorial	52	110
Jeffersonville	Clark Memorial	22	15
Kendallville	Parkview Noble	17	76
Knox	IU Health Starke	9	45
Kokomo	Howard Regional	33	56
	St. Joseph	30	15
Lafayette	Franciscan St.	31	157
	Elizabeth Central		
	Franciscan St.	53	109
	Elizabeth East		
	IU Health Arnett	47	74
LaGrange	Parkview LaGrange	7	52
LaPorte	IU Health La Porte	27	136
Lawrenceburg	Dearborn County	40	137
Lebanon	Witham Health	17	46

<u>City</u>	<u>Hospital</u>	<u>Patients Referred to ED</u>	<u>Request or Consult</u>
Linton	Greene County	12	74
Logansport	Memorial	10	81
Madison	King's Daughters'	23	5
Marion	Marion General	56	107
	Veterans Admin	1	6
Martinsville	IU Health Morgan	30	40
Merrillville	Methodist	16	77
Michigan City	Franciscan St.	28	134
	Anthony		
Mishawaka	St. Joseph Regional	50	93
Monticello	IU Health White	13	49
Mooresville	Franciscan St.	26	62
	Francis		
Muncie	IU Health Ball	64	61
Munster	Community	41	205
New Albany	Floyd Memorial	27	8
New Castle	Henry County	29	90
Newburgh	Deaconess Gateway	49	104
Newburgh	Deaconess Women's	0	0
Noblesville	Riverview	30	85
North Vernon	St. Vincent Jennings	18	61
Paoli	IU Health Paoli	5	64
Peru	Dukes Memorial	13	9
Plymouth	St. Joseph's.	16	42
Portage	Portage Community	20	117
Portland	Jay County	10	26
Princeton	Gibson General	15	40
Rensselaer	Jasper County	16	74
Richmond	Reid	31	120
Rochester	Woodlawn	3	30
Rushville	Rush Memorial	9	28
Salem	St. Vincent Salem	5	3
Scottsburg	Scott County	15	7
	Memorial		
Seymour	Schneck Med Cntr	33	111
Shelbyville	Major	22	137
South Bend	Memorial	128	377
Sullivan	Sullivan County	15	64
Tell City	Perry County	7	47
Terre Haute	Regional	34	19
	Union	52	32
Tipton	IU Health Tipton	10	24
Valparaiso	Porter Regional	87	222
Vincennes	Good Samaritan	20	133
Wabash	Wabash County	22	31
Warsaw	Kosciusko	25	6
Washington	Daviess	13	70
Williamsport	St. Vincent	8	14
Winamac	Pulaski Memorial	3	12
Winchester	St. Vincent	8	11
	Randolph		
Zionsville	Witham Health Anson	4	10

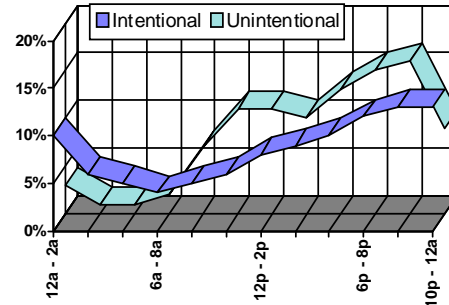
TIME OF CALLS

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



This is primarily accounted for by the distribution of unintentional 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 midnight.



CIRCUMSTANCE

Acute exposures account for 96.7% of the total calls, while 2.2% are chronic in nature. Occupational exposure calls have remained essentially constant from 1989 through 2011, 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:

<u>Reason</u>	<u>Number</u>	<u>Percent</u>
Unintentional		
General	28,378	52.8%
Environmental	1,264	2.4%
Occupational	548	1.0%
Therapeutic error	5,962	11.1%
Misuse	5,133	9.6%
Bite / sting	513	1.0%
Food poisoning	573	1.1%
Unknown	43	0.1%
Total Unintentional	42,414	79.0%
Intentional		
Suspected suicide	5,276	9.8%
Misuse	1,755	3.3%
Abuse	1,788	3.3%
Unknown	389	0.7%
Total Intentional	9,208	17.1%
Other		
Contamination / tampering	72	0.1%
Malicious	204	0.4%
Withdrawal	47	0.1%
Total Other	323	0.6%
Adverse reaction		
Drug	912	1.7%
Food	114	0.2%
Other	275	0.5%
Total Adverse reaction	1,301	2.4%
Unknown		
	464	0.9%

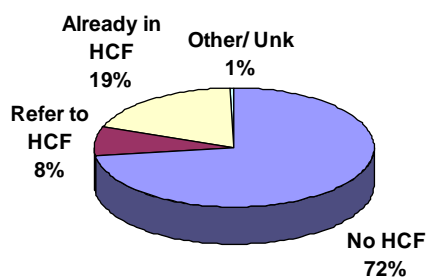
SITE OF EXPOSURE

The most frequent site of exposure is a residence, while calls for exposures in the workplace account for 1.4% of our calls, slightly increased over last year.

<u>Site of Exposure</u>	<u>Number</u>	<u>Percent</u>
Own residence	49,216	91.6
Other residence	1,602	3.0
Workplace	771	1.4
Health care facility	115	0.2
School	721	1.3
Restaurant / food service	115	0.2
Public area	446	0.8
Other	489	0.9
Unknown	235	0.4

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.



<u>Location</u>	<u>Number</u>	<u>Percent</u>
NonHealth Care Facility (HCF)	39,157	72.9%
Referred to HCF by IPC		
Treated and released	1,530	2.8%
Admit to critical care	304	0.6%
Admit to noncritical care	180	0.3%
Admit to psychiatry	122	0.2%
Lost to follow-up/left AMA	593	1.1%
Refused referral	1,359	2.5%
Total Referred	4,088	7.6%
Patient Already in HCF		
Treated and released	4,519	8.4%
Admit to critical care	3,327	6.2%
Admit to noncritical care	873	1.6%
Admit to psychiatry	1,087	2.0%
Lost to follow-up/left AMA	336	0.6%
Total Already in HCF	10,142	18.9%
Other	216	0.4%
Unknown	107	0.2%

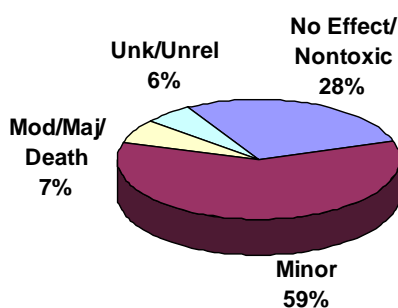
Overall, the IPC referred 4,088 (9.4%) patients for medical care and was consulted on another 10,142 cases that were already in a health care facility (HCF).

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 2011, follow-up was made 71,259 times on 24,114 human cases (3.0 calls/case). An additional 44,405 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 2011 with moderate and major outcomes, including death, up 17% compared to 2010.



<u>Medical Outcome</u>	<u>Number</u>	<u>Percent</u>
No effect	10,146	18.9%
Minor effect	8,880	16.5%
Moderate effect	3,170	5.9%
Major effect	425	0.8%
Death	40	0.1%
Death, indirect report	10	0.0%
No follow-up		
Judged nontoxic	5,145	9.6%
Judged Minimal Effects	22,903	42.6%
Potentially Toxic	1,854	3.5%
Unrelated effect	1,137	2.1%

AGENTS INVOLVED

During 2011, the IPC staff managed 53,848 human poison exposures. Prescription and nonprescription drugs accounted for 58% of these exposures, while an additional 29% were to household products. Plants, animals, industrial and agricultural products were also commonly reported. A single substance was involved in 89.2% of the cases and two substances in 6.7% of cases, but exposures to over nine substances were seen in other cases.

<u>Agent Involved</u>	<u>Number</u>
Analgesics	7,864
Anesthetics	177
Anticholinergic drugs	281
Anticoagulants	184
Anticonvulsants	1,139
Antidepressants	2,586
Antihistamines	2,179
Antimicrobials	1,434
Antineoplastics	40
Asthma therapies	485
Cardiovascular drugs	2,397
Cold and cough preparations	1,860
Diagnostic agents	10
Dietary supplements/herbals	
homeopathic	874
Diuretics	254
Electrolytes and minerals	804
Eye/ear/nose/throat preparations	462
Gastrointestinal preparations	1,232
Hormones and hormone antagonists	1,305
Miscellaneous drugs	565
Muscle relaxants	640
Narcotic antagonists	15
Radiopharmaceuticals	0
Sedative/hypnotics/antipsychotics	3,905
Serums, toxoids, vaccines	47
Stimulants and street drugs	1,838
Topical preparations	2,531
Veterinary drugs	71
Vitamins	1,586
Unknown drug	344

Total Drugs 37,109

<u>Agent Involved</u>	<u>Number</u>
Adhesives/glues	354
Alcohols	1,593
Arts/crafts/office supplies	720
Automotive/aircraft/boat products	318
Batteries	230
Bites and envenomations	621
Building and construction products	214
Chemicals	899
Cleaning substances (household)	4,298
Industrial cleaners	182
Cosmetics/personal care products	5,290
Deodorizers	689
Dyes	45
Essential oils	256
Fertilizers	138
Fire extinguishers	56
Food products/food poisoning	1,055
Foreign bodies/toys/miscellaneous	2,632
Fumes/gases/vapors	919
Heavy metals	236
Hydrocarbons	996
Information calls	0
Lacrimators	111
Matches/fireworks/explosives	55
Mushrooms	141
Paints and stripping agents	268
Pesticides - Fumigants	2
Pesticides - Fungicides	22
Pesticides - Herbicides	155
Pesticides - Insecticides	1,225
Pesticides - Repellants	194
Pesticides - Rodenticides	396

<u>Agent Involved</u>	<u>Number</u>
Photographic products	5
Plants	1,050
Polishes and waxes	141
Radioisotopes	11
Sporting equipment	10
Swimming pool/aquarium	231
Tobacco products	247
Waterproofers/sealants	7
Weapons of mass destruction	3
Other/unknown nondrug substances	625

Total Non-Drugs 26,640

Total Agents 63,749

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

<u>Pediatric Top Ten</u>	<u>Number</u>
Cosmetics/personal care products	4,264
Analgesics	2,964
Cleaning substances (household)	2,765
Topical preparations	2,061
Foreign bodies/toys/ miscellaneous	1,945
Vitamins	1,179
Antihistamines	1,073
Cold and cough preparations	903
Antimicrobials	804
Gastrointestinal preparations	791

The pediatric top ten replaced plants with antimicrobials. Analgesics and cleaning substances traded places on the list. All substances on the intentional top ten remained the same with stimulants/street drugs and alcohols, anticonvulsants and antihistamines, and cough / cold preparations and muscle relaxants switching in relative order compared to 2010.

<u>Intentional Top Ten</u>	<u>Number</u>
Analgesics	3,422
Sedative/hypnotics/antipsychotics	2,841
Antidepressants	1,654
Stimulants and street drugs	1,126
Alcohols	719
Anticonvulsants	604
Antihistamines	534
Cardiovascular drugs	532
Muscle relaxants	474
Cold and cough preparations	407

The following table represents the substances seen in the most serious poisonings resulting in major symptoms or death. Analgesics remained the most frequent cause of severe toxicity. Only the stimulants/street drugs class increased this year, moving it up 2 places on the list, reflecting the appearance of new drugs of abuse such as THC homologs ("K2/Spice") and synthetic cathinones ("bath salts").

<u>Most Serious Intoxications</u>	<u>Number</u>
Analgesics	258
Sedative/hypnotics/antipsychotics	192
Antidepressants	125
Stimulants and street drugs	90
Alcohols	51
Cardiovascular drugs	51
Anticonvulsants	45
Muscle relaxants	42
Antihistamines	40
Hormones and hormone antagonists	25

THERAPY

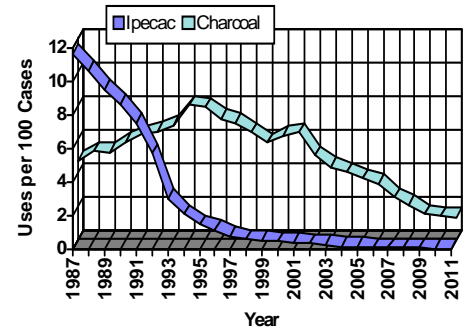
Supportive care is the single most critical component in the care of the poisoned patient. In 4,969 (8.8%) patients no therapy was needed and observation alone was used in an additional 6,234 (11.1%). IPC advice was refused in 1,095 cases (1.9%). Specific therapeutic methods utilized in poisonings included decontamination, antidotal therapy, and enhancing elimination. Decontamination alone was utilized in 31,027 (55.1%) cases, other therapies alone in 5,712 cases (10.1%) and a combination of the two in 1,775 (3.2%). The most common antidotal treatments were oxygen, acetylcysteine, benzodiazepines, naloxone, alkalization and antihistamines. Intravenous acetylcysteine continues to be the preferred route of administration. The following table summarizes some specific therapies used:

<u>Decontamination</u>	<u>Number</u>
Ipecac*	6
Charcoal, single dose	688
Charcoal, multiple doses	26
Lavage	41
Cathartic	31
Whole bowel irrigation	7
Other emetic	481
Dilute/irrigate/wash	34,186
Fresh air	1,798
Food/snack	2,197
Total Decontamination	39,461

No Decontamination 23,531

Antidotal / Other Therapy

Fluids, IV	4,285
Oxygen	1,086
Benzodiazepines	795
Acetylcysteine (PO – 53, IV – 560)	613
Intubation	520
Ventilator	491
Naloxone	461
Sedation (other)	423
Antiemetics	323
Antihistamines	236
Antibiotics	271
Alkalization	261
Total Antidotal / Other Therapy	13,199



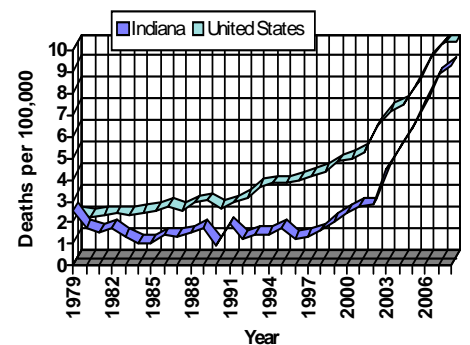
Enhancement of Elimination

Hemodialysis	67
Hemoperfusion	4
Other	4
Total Enhancement	75

Use of activated charcoal again greatly exceeded that of syrup of ipecac. Syrup of ipecac use has now been essentially abandoned over the last twenty years, while the use of activated charcoal which initially increased by 73% now shows a continual decrease reflecting changes in usage in the hospital setting. *In no instances in which ipecac was used in 2011, did the IPC recommend its use.

MORTALITY

Data from the National Center for Injury Prevention and Control showed 593 unintentional poison deaths in Indiana for 2008, an increase of 6%. The average number since the inception of the Poison Center has now increased to 161 per year from an average of 116 per year prior to 1979. Indiana's unintentional death rate (9.30/100,000) is now only 9% below the



national figure for 2008 (10.23/100,000) as it is 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 prescription drugs in the 30-49 year old age range.

The Indiana Poison Center was consulted on 50 patients who died during 2011. Most of the deaths (36) were intentional in nature (26 suspected suicide, 7 abuse, 1 misuse, and 2 unknown). In some cases, the cause of death

was eventually determined not to be related to the exposure.

Age Sex Agent (Reason)

2y	F	smoke inhalation (environmental)
5y	M	smoke inhalation (environmental)
19y	F	bath salts, opiates (suicide)
20s	M	(suicide)
23y	F	smoke inhalation (environmental)
26y	F	bupropion, lamotrigine, olanzapine/fluoxetine (suicide)
26y	M	phencyclidine, freon (abuse)
28y	M	smoke inhalation (environmental)
30s	M	fentanyl, oxycodone, acetaminophen, ethanol (abuse)
32y	F	hydroxyzine, acetaminophen, diphenhydramine, lorazepam (suicide)
32y	M	diphenhydramine (suicide)
32y	M	acetaminophen, hydrocodone (suicide)
33y	M	aspirin, diphenhydramine, unknown SSRI, melatonin (suicide)
36y	M	heroin (abuse)
37y	M	acetaminophen, hydrocodone, cyclobenzaprine, naproxen (unknown)
40y	M	heroin (abuse)
40y	M	alprazolam, ropinirole, chlorzoxazone, amitriptyline, acetaminophen, hydrocodone (unknown)
41y	M	methanol (abuse)
41y	M	acetaminophen (unknown)
45y	M	nitroglycerin, amlodipine / atorvastatin, glyburide / metformin, losartan, hydrochlorothiazide, lisinopril (suicide)
46y	F	temazepam, clonazepam,, hydrochlorothiazide, thyroid, bupropion, levocetirizine (suicide)
46y	M	metformin (suicide)
47y	M	other non-drug substance (suicide)
48y	M	ziprasidone, lorazepam, amlodipine / benazepril, nefazodone, quetiapine (suicide)
48y	F	hydrocodone, acetaminophen (unknown)
49y	M	oxycodone, bath salts, THC homologs, oxymorphone (abuse)
49y	F	amitriptyline (suicide)
50y	F	caffeine, acetaminophen, butalbital (intentional misuse)
50y	M	heroin (abuse)
50y	F	fluoxetine, unknown drug, levothyroxine (unknown)
50y	M	glyphosate, diquat (suicide)
52y	F	citalopram (suicide)
53y	M	morphine, acetaminophen (unknown)

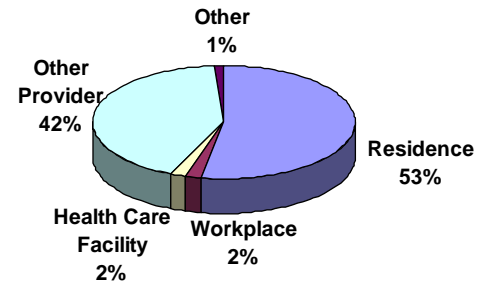
Age Sex Agent (Reason)

54y	M	methylphenidate, prednisone (suicide)
55y	M	water, unknown drug (unknown)
56y	F	olanzapine, bupropion, lamotrigine, mirtazapine (suicide)
57y	F	hydromorphone, gabapentin, citalopram, brompheniramine, acetaminophen, clonazepam, ibuprofen, celecoxib, oxycodone, metoprolol, acetaminophen, hydrocodone (suicide)
58y	F	clopidogrel, duloxetine, aspirin, acetaminophen, caffeine, digoxin, esomeprazole (suicide)
59y	F	bleach, pine-oil, isopropyl alcohol (suicide)
61y	F	acetaminophen, hydrocodone (suicide)
61y	F	quetiapine, loperamide, clonazepam, venlafaxine (suicide)
61y	M	aspirin (suicide)
64y	M	smoke inhalation (environmental)
67y	M	cyclobenzaprine, ethylene glycol, metformin, cocaine, methamphetamine, alprazolam (suicide)
69y	M	lorazepam, diphenhydramine (intentional unknown)
73y	M	aspirin (suicide)
75y	F	diltiazem, acetaminophen (therapeutic error)
87y	M	dabigatran (adverse reaction)
91y	M	acid toilet bowl cleaner (suicide)
unk	unk	armodafinil, benzodiazepine (intentional unknown)

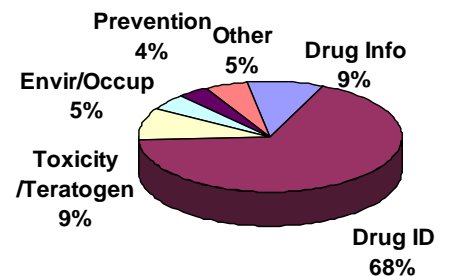
The most common substance classes involved in deaths reported to the IPC were opioids (17 cases including 6 hydrocodone and 3 each of heroin and oxycodone), acetaminophen (14 cases alone or in combination), sedative/hypnotics (19 cases including 10 benzodiazepine and 5 atypical antipsychotics), stimulants/street drugs (9 cases including 2 cases each of synthetic cathinones and caffeine), antidepressants (12 cases), cardiac drugs (10 cases), aspirin (4 cases) and carbon monoxide (5 cases).

INFORMATION CALLS

In 2011, the IPC staff responded to 12,186 inquiries from health professionals and the general public when no poison exposure had occurred. Fifty-six percent of the calls were received from the general public, 53% in a residence and 2% in the workplace. Of the other providers, 93% were from law enforcement agencies for drug identification.

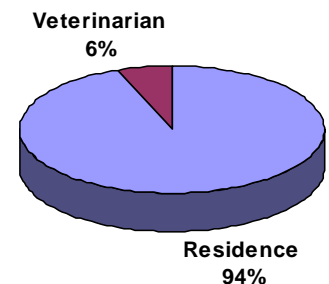


The information calls can be divided into several categories: 1) drug identification / information, 2) environmental, 3) medical, 4) occupational, 5) toxicity / symptoms, 6) prevention and safety, 7) teratogenicity and 8) other. Drug identifications now account for 72% of our information calls, up from 54% 10 years ago.



ANIMAL POISONINGS

In 2011, the IPC managed 2,479 poisonings to domestic animals, down 13% from 2010. Calls were received primarily from the pet's owners although veterinarians generated a significant proportion of calls.



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

<u>Animal Top Ten</u>	<u>Number</u>
Pesticides	624
Cleaning substances (household)	174
Analgesics	134
Plants	123
Foreign bodies/toys/miscellaneous	117
Cosmetics/personal care products	92
Topical preparations	92
Antimicrobials	84
Other/unknown nondrug substances	76
Sedative/hypnotics/antipsychotics	71

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 a periodic Regional Toxicology Symposium and numerous inservices and lectures. The "School Nurses' Prescription", an electronic newsletter designed and written by our Team Leader, Gwenn Christianson, RN, MSN, reaches over 800 nurses every month. The e-mail list is also used to issue alerts and credible information to school nurses about potential emerging hazards such as alcohol hand sanitizers and Magic Erasers.

Under the guidance of Louise Kao, MD 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 completing the fellowship in 2011 was Dr. Laura Tormoehlen who stayed after graduation as a neurotoxicologist.

Health Professional Education

Contact Hours Supervised Experience in Poison Center/Toxicology Service

Medical Residents (53)	7,840
Doctor of Pharmacy Students (2)	320
Doctor of Pharmacy Residents (6)	960
Medical Students (4)	640
Pharmacy Students (11)	44

Academic and Continuing Education Lectures Presented

19

The staff of IPC also contributed to the medical toxicology literature in 2011 with 9 articles in peer reviewed journals, 3 book chapters and 4 abstracts presented at the North American Congress of Clinical Toxicology and 1 presentation at other professional meetings. In addition IPC staff were guest editors for an issue of Neurologic Clinics and organized the one-day ACMT Pre-Meeting Symposium at the North American Congress of Clinical Toxicology.

Journal Articles

- Neurologic Clinics (Vol 29, Issue 3) "Frontiers in Neurotoxicology", Guest Editors: Michael Dobbs, MD and Daniel E. Rusyniak, MD, August 2011.

- Furbee RB, Welding and Parkinsonism; Neurologic Clinics: Frontiers in Neurotoxicology, April 2011, 29(3) 624-640
- Jang DH, Rusyniak DE, Hard Impact: Journal Impact Factor and JMT. J Med Toxicol. 2011 Dec;7(4):256-8.2011
- Rusyniak DE. Neurologic manifestations of chronic methamphetamine abuse. Neurologic Clinics. 29(3):641-55. 2011.
- Rusyniak DE; Neurologic manifestations of chronic methamphetamine abuse; Neurologic Clinics: Frontiers in Neurotoxicology, April 2011, 29(3) 641-655
- Tormoehlen L; Toxic leukoencephalopathies; Neurologic Clinics: Frontiers in Neurotoxicology, April 2011, 29(3) 591-605
- Tormoehlen LM, Mowry JB, Bodle JD, Rusyniak DE. Increased adolescent opioid use and complications reported to a poison control center following the 2000 JCAHO pain initiative. Clin Toxicol 2011;49(6):492-8.
- Tormoehlen LM. Toxic Leukoencephalopathies. Neurologic Clinics of North America 2011; 29: 591-605.
- Warrick B, Hill M, Lehr B, Mowry J, Gummin D, Anderson D, Wahl M, Goetz, R, Smolinske S. A review of bath salts exposures reported to six regional poison centers. Clinical Toxicology 2011;49:562.
- Zaretsky DV. Zaretskaia MV. Rusyniak DE. Dimicco JA. Stress-free microinjections in conscious rats. Journal of Neuroscience Methods. 199(2):199-207, 2011 Aug 15.

Book Chapters

- Acciani J, Kao LW. Hydrofluoric Acid. In: Kazzi and Shih et al (eds). The AAEM/RSA Toxicology Handbook, Second Edition. United Press; 2011
- Froberg B; Agents used by past poisoners: Animals; Criminal Poisoning: Criminal and Forensic Perspectives; Jones & Bartlett Publishers, Sudbury MA (2011) pp 39-48
- Tormoehlen LM and Nanagas KN. Hydrocarbons. In: Kazzi and Shih et al (eds). The AAEM/RSA Toxicology Handbook, Second Edition. United Press; 2011.

Abstracts

- Nanagas K, Tormoehlen L. Extremely high urine arsenic level after remote seafood ingestion. [abstract] Clinical Toxicology 2011; 49(6): 515-627. Presented at: North American Congress of Clinical Toxicology, Denver CO: 2011.
- Schmeissing S, Nanagas K, Ballentine L, Wermuth M. Double Trouble: Infant Intraventricular Hemorrhage and Demise after Maternal Brodifacoum Poisoning. [abstract] Clinical

- Toxicology 2011; 49(6): 515-627. Presented at: North American Congress of Clinical Toxicology, Denver CO: 2011.
- Tormoehlen L, Kao L, Mowry J. Bullous Eruption following Extravasation of IV Acetylcysteine. [abstract] Clinical Toxicology 2011; 49(6): 515-627. Presented at: North American Congress of Clinical Toxicology, Denver CO: 2011.
- Tormoehlen L, Mowry J. Toxicokinetics of Ethanol in an Infant. [abstract] Clinical Toxicology 2011; 49(6): 515-627. Presented at: North American Congress of Clinical Toxicology, Denver CO: 2011.

Presentations

- Symposium Organizer and Moderator, American College of Medical Toxicology Pre Meeting, North American Congress of Clinical Toxicology; Inside the Beltway and Beyond: The Intersection of Medical Toxicology and Federal Government. Washington DC; September 21, 2011
- Rusyniak D. The role of orexin and its receptors in behavioral and physiologic responses evoked by amphetamines. 2011 Annual International Behavioral Neuroscience Society Meeting

Public Education

The quarterly newsletter, "Toxic Trivia" was published four times in 2011. 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.

IPC added a new educational piece to its inventory in 2011. "What should I do if I think someone's been poisoned?" provides information in the form of a chart to provide guidance on when to call 9-1-1 versus the IPC for a poisoning.

After completing a thorough evaluation of the "Making the Right Call" instructor training, the program was refined and needed changes made. The newly evolved "Poison Safety for Families" was piloted at the IU School of Nursing in June 2011 and was well received by nursing students and faculty members. 80 instructors representing 34 Indiana counties were trained to deliver this public education program between June and December 2012.

The Midwest Injury Prevention Alliance (MIPA), an organization of injury professionals from states in Federal Health and Human Services Region V (Illinois, Indiana, Minnesota, Michigan, Ohio, and Wisconsin) that works collaboratively to reduce unintentional and intentional injury-related death and disability was established

in 2011. IPC's health educator was one of two individuals chosen to represent Indiana and joined the MIPA Board of Directors in June 2011.

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 potential poison prevention instructors as well as partnerships with other agencies that have an interest in injury prevention.

National Poison Prevention Week (NPPW) activities included distributing press packets by mail and electronically 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 medicine collection day was coordinated with all Marsh Pharmacies at the start of NPPW. The public was able to drop off unused and expired medication at 42 separate sites in Central Indiana.

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.

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.

Public Education Activities	
Pieces of Poison Prevention Material Distributed	117,978
TV & Radio appearances	20
Newspaper / Magazine interviews	16
News Releases Distributed	12
Public Education Presentations	90
Estimated Audience	15,500+
<u>TOXIC TRIVIAS Published</u>	
Spring Safety (Spring)	
Summer Safety (Summer)	
How to Use Medication Safely (Fall)	
Winter Safety (Winter)	

FINANCIAL REVIEW

Cost Savings

Older studies showed 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 31 years, this represented savings of **\$374 million** in Indiana.

More recent data indicate that the Indiana Poison Center conservatively saves over **\$36 million dollars a year** in health care costs, or about \$15 for every dollar spent on providing poison center services to Indiana.

How is that figure reached? It's based on what the IPC does every day and what the cost would be if IPC funding was cut and the center closed leaving Indiana with no poison center services.

Reduction in ER visits: Lovecchio et al showed in "Poison Control Centers decrease Emergency Healthcare Utilization Costs" that 70% of home callers would seek emergency care if no poison center services were available.⁴ Additionally, they showed the emergency charge would be about \$1,150 per ER visit for a poisoning that could be treated at home. The IPC treated over 39,000 people in 2011 with simple first aid instructions over the phone without referral to a hospital or doctor's office. If 70% of those individuals sought emergency care, the resulting emergency charges would be over \$37 million in 2011 alone.

Decreasing Hospital Admissions: Congressional testimony in 1994 indicated that the number of people admitted to the hospital increased 16% when poison center consultation was denied to health care providers.³ This occurred as the result of the closing of a regional poison center in Michigan where Blue Cross Blue Shield insurance claims for admissions increased 16%. There are 5,848 admissions for poisoning according to Indiana State Department of Health data, an extra 936 admissions would add an additional \$16 million in charges annually at the average \$17,697 per admission.

Decreasing patient Length of Stay (LOS) in a hospital: Doctors and nurses consulted the Indiana Poison Center over 10,000 times in 2011. Studies from Kentucky and New Jersey show that the LOS decreased 1.2 to 3.0 days when a poison center was consulted vs. when a poison center was not consulted.^{5,6} According to ISDH hospital discharge data, the average hospital charge for a poisoning admission is \$6,591 per day. The IPC was consulted on 4,680 admitted patients in 2011. If their LOS was extended 1.2 to 3 days, the additional hospital charges would range from \$37 million to \$92 million per year.

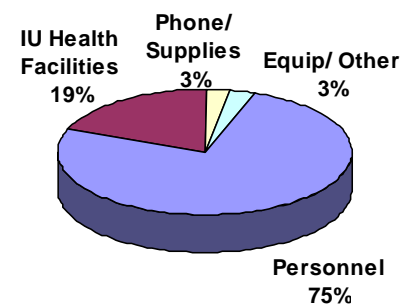
In summary, if no poison center was available, the public would seek a higher level of more labor intensive and expensive care. In addition, if health care providers were deprived of the expertise of a poison

center, hospital admissions and hospital LOS would increase due to lack of a critical information resource for clinical decision makers.

When the numbers of hospital charges saved are added up, savings range from \$91 million to \$147 million. Hospital payment however is different than hospital charges and typically payment is about 40 to 50% of charges. When converted to payments (costs) it is reasonable to conservatively estimate that the IPC saves over \$36 million every year in unnecessary health care costs.

Expenses

Total direct expenses have risen from \$117,369 in 1979 to \$1,804,371 in 2011 with a total cost per human poison case of \$44 which is essentially the same as the 2004 national average of \$43 and a cost per productive call of \$33. 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	\$1,813,559
IU Health Facilities	\$467,151
Telephone*	\$30,765
Supplies (w/information resources)	\$29,552
Equipment/Other#	\$67,511

Total Expenses \$2,408,537

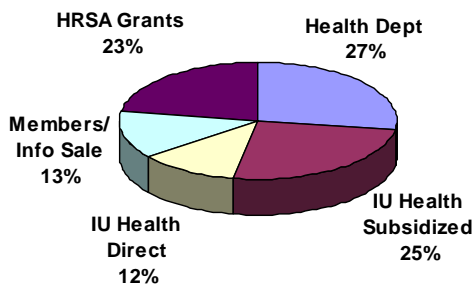
*Includes Federal subsidy of 800 telephone line and IU Health subsidy for telephone.

#Includes renovation and moving expenses.

Revenues

Direct state funding through the Indiana State Department of Health has decreased this year to \$665,000 from the \$800,00 appropriated due to a 15% reserve imposed by the State. The percent of direct state funding, which had increased from a low of 35% in 2002 to 44% in 2004, is now at 27% of revenue compared to the high point of 66% in 1995. Membership fees were increased in 2006 to \$3,500 per year with non-member hospitals charged \$200 per consultation they generate. These increases resulted in a 17% increase in revenues from that source. Yearly increases consistent with medical services inflation have been implemented for the past four years. The tenth full year of Federal HRSA support of the poison center through the Healthcare Services Bureau contributed

about 23% of the operating budget and was slightly increased compared to 2010 reflecting the efforts of poison centers nationwide to ensure adequate federal support for poison centers and changes in the administration of the HRSA grant. This amount now also includes a HRSA subsidy of the nationwide 800 toll free number. IU Health provides direct support as needed and also contributes space and other subsidized expenses for the operation of the IPC. IU Health's direct support of the poison center for 2011 reflects the effects of increased revenues from the Member Hospital Program, some poison center foundation funds, a modest increase in federal funding and the decrease in state funding coupled with continually increasing wage costs.



Indiana State Department of Health	\$665,000
IU Health – Subsidized	\$604,167
Federal HRSA Grant	\$544,144
Members / Information Sales	\$315,373
Clarian Health – Direct	\$279,885
Total Revenues	\$2,408,537

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, a Distinguished Pharmacy Practitioner of the National Academies of Practice and has more than 33 years of experience in pharmacology and clinical

Indiana Poison Center Staff	
Director James B. Mowry, PharmD	Team Leader Gwenn Christianson, RN, MSN, CSPI*
Medical Director R. Brent Furbee, MD	Specialists in Poison Information Lynn Ballentine, BSN, CSPI* Jo Beckerich, BSN, MS, CSPI* David Burns, BSN, CSPI* Gwenn Christianson, RN, MSN, CSPI* Marietta Herod, BSN, CSPI* Susan Jackson, RN, CSPI* Jo Johnson, RN, CSPI* Tricia Loy, BSN, CSPI* Karen Lytle-Bickers, BSN Tonya Mains, BSN, MS, CSPI* Susie McKnight, RN, CSPI* Laura Miller, Pharm.D., CSPI* Janis Parker, BSN Warren Patitz, BA, RN, CSPI* Jayne Santfleben, BSN, CSPI* Joanne Smith, BA, RN, CSPI* Laura Smith, BSN, CSPI* Amy Wallace, RN, CSPI*
Associate Medical Directors Blake Froberg, MD Louise Kao, MD Kristine Nanagas, MD Daniel Rusyniak, MD Mary Wermuth, MD Jennifer Acciani, MD, Fellow	* AAPCC Certified Specialist in Poison Information
Administrative Assistant Maggie Showalter	
Coordinator – Poison Prevention Barbara Cole, BS	
Medical Toxicology Fellowship Louise Kao, MD, Director Laura Tormoehlen, MD, Fellow (ends 6/11)	

toxicology. Dr. Mowry holds academic clinical appointments in pharmacy (Purdue University and Butler University) and emergency medicine (Indiana University School of Medicine) He is currently on the American Association of Poison Control Centers Board of Directors, Chair of the AAPCC National Poison Data Steering Committee and an editorial board member of the journal Clinical Toxicology. He was awarded the American Academy of 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 31 years of experience in emergency medicine and medical toxicology. He is also full clinical professor of Emergency Medicine with the Indiana University School of Medicine.

Mary Wermuth, MD, Louise Kao, MD, Kristine Nanagas, MD, Daniel Rusyniak, MD, Blake Froberg, MD, and Jennifer Acciani, MD, all graduates of our medical toxicology fellowship, act as Associate Medical Directors with primary emergency medicine practices at Methodist Hospital (MW, LK, KN) and Wishard Memorial Hospitals (DR, JA) and hospitalist and toxicologist at Riley Hospital for Children (BF) respectively. Dr. Kao has been director of the medical toxicology fellowship program since July 2007.

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 2002. 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 AAPCC Board of Directors.

Barbara Cole, BS, also joined the Indiana Poison Center in 2002 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.

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. Breneman, Ph.D.
Michael Buran, M.D.
Mark A. Carfagna, 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.

MEMBER HOSPITALS FOR 2011

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 increased to \$3,500 and \$200 respectively, and starting in April 2009 increase annually consistent with medical care inflation rates. Full or partial year membership in the network has increased from 42 in 1995 to 89 members in 2011.

Adams Memorial Hospital, Decatur
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
Daviness Community Hospital, Washington
Deaconess Gateway Hospital, Newburgh
Deaconess Hospital, Evansville
Dearborn County Hospital, Lawrenceburg
Decatur County Memorial Hospital, Greensburg
DeKalb Memorial Hospital, Auburn
Elkhart General Hospital, Elkhart
Fayette Memorial Hospital, Connersville
Franciscan St. Anthony Health - Crown Point, Crown Point
Franciscan St. Anthony Health - Michigan City, Michigan City
Franciscan St. Elizabeth - Lafayette Central, Lafayette
Franciscan St. Elizabeth Health - Lafayette East, Lafayette
Franciscan St. Francis Health - Beech Grove, Beech Grove
Franciscan St. Francis Health - Indianapolis, Indianapolis
Franciscan St. Francis Health - Mooresville, Mooresville
Franciscan St. Margaret Health - Dyer, Dyer
Franciscan St. Margaret Health - Hammond, Hammond
Gibson General Hospital, Princeton
Good Samaritan Hospital, Vincennes
Greene County General Hospital, Linton
Hancock Regional Hospital, Greenfield
Hendricks Regional Health, Danville
Henry County Memorial Hospital, New Castle
IU Health Arnett Hospital, Lafayette
IU Health Ball Memorial Hospital, Muncie
IU Health Bedford Hospital, Bedford
IU Health Bloomington Hospital, Bloomington
IU Health Goshen Hospital, Goshen
IU Health La Porte Hospital, LaPorte
IU Health Methodist Hospital, Indianapolis
IU Health Morgan Hospital, Martinsville
IU Health North Hospital, Carmel
IU Health Paoli Hospital, Paoli
IU Health Tipton Hospital, Tipton
IU Health University Hospital, Indianapolis
IU Health West Hospital, Avon

IU Health White Memorial Hospital, Monticello
Jasper County Hospital, Rensselaer
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 (Northlake), Gary
Methodist Hospital (Southlake), Merrillville
Parkview Hospital Randallia, Fort Wayne
Parkview Huntington Hospital, Huntington
Parkview LaGrange Hospital, LaGrange
Parkview Noble Hospital, Kendallville
Parkview Regional Medical Center, Fort Wayne
Parkview Whitley Hospital, Columbia City
Perry County Memorial Hospital, Tell City
Portage Community Hospital, Portage
Porter Regional Hospital, Valparaiso
Putnam County Hospital, Greencastle
Reid Hospital & Health Care Services, Richmond
Riley Hospital @ IU Health, Indianapolis
Riverview Hospital, Noblesville
Schneck Medical Center, Seymour
St. Elizabeth Health - Crawfordsville, Crawfordsville
St. Joseph's Hospital of Marshall Co., Plymouth
St. Mary Medical Center, Hobart
St. Mary's Medical Center, Evansville
St. Vincent Carmel Hospital, Carmel
St. Vincent Clay Hospital, Brazil
St. Vincent Dunn Hospital, Bedford
St. Vincent Frankfort Hospital, Frankfort
St. Vincent Hospital, Indianapolis
St. Vincent Jennings Hospital, North Vernon
St. Vincent Williamsport Hospital, Williamsport
St. Vincents Medical Center Northeast, Fishers
Sullivan County Community Hospital, Sullivan
Union Hospital, Terre Haute
Union Hospital Clinton, Clinton
Wabash County Hospital, Wabash
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.

Community Hospital of Bremen, Bremen
 Dukes Memorial Hospital, Peru
 Dupont Hospital, Fort Wayne
 Floyd Memorial Hospital, New Albany
 Harrison County Hospital, Corydon
 Jay County Hospital, Portland
 Johnson Memorial Hospital, Franklin
 Kosciusko Community Hospital, Warsaw
 Monroe Hospital, Bloomington
 Pulaski Memorial Hospital, Winamac
 Rush Memorial Hospital, Rushville

Scott County Memorial Hospital, Scottsburg
 St. Catherine Hospital, East Chicago
 St. John's Health System, Anderson
 St. Joseph Hospital, Fort Wayne
 St. Joseph Hospital, Kokomo
 St. Mary's Warrick Hospital, Booneville
 St. Vincent Mercy Hospital, Elwood
 St. Vincent Randolph Hospital, Winchester
 Veterans Administration Hospital, Indianapolis
 Westview Hospital, Indianapolis
 Witham Health Services at Anson, Zionsville

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.

<u>Rpt #</u>	<u>Report Title</u>	<u>Database</u>	<u>Rpt #</u>	<u>Report Title</u>	<u>Database</u>
3	Month by Call Type	All Calls	41	Charcoal by Age/Mgmt Site	Human
4	Patient Type by Multiple	Exposures	42	Reason by Exposure Chronicity	Human
5	Months by Patient Type	Exposures	43	Route of Exposure by Age	Human
6	Acute/Chronic	Human	44	Route of Exposure by Reason	Human
8	Callsite Codes by Call Type	All Calls	45	Management Site by Age	Human
10	Exposure to Multiple Substances	Human	46	Treatment by Management Site	Human
11	Route of Exposure	Human	47	Decontamination by Management Site	Human
12	Frequency of Clinical Effects	Human	48	Other Therapy by Management Site	Human
13	Distribution of Clinical Effects	Human	51 A	Medical Outcome by Age/ Lumped	Human
15	Management Site by Referral Pattern	Human	51 B	Medical Outcome by Age/ Decades	Human
16	Initial HCF by Referral Pattern	Human	52	Log by Generic Categories	Human
17	Final HCF	Human	53	Log by Specific Products	Human
18	Initial HCF by Disposition	Human	54	Generic Codes by Category by Call	All Calls
19	Decontamination and Therapeutic Intervention	Human	55	Generic Codes by Category by Age	Human
23	Duration of Effects by Medical Outcome	Human	56	Generic Codes by Category by Reason	Human
24 A	Day of Week by Hour	Human	57	Generic Codes by Category by Outcome	Human
24 B	Day of Week by Hour	All Calls	58	Generic Codes by Category by Mgmt Site	Human
25	Call Site by Call Type	All Calls	59 A	Caller State, County by Call Type	All Calls
26	Age by Gender	Human	59 B	Caller State, City by Call Type	All Calls
27	Age (Year/Month/Day by Gender)	Human	60	Caller State by Call Type	Human
28	Age by Trimester of Pregnancy	Human	65	Patient Species	Exposures
29	Pregnancy Duration	Human	72	Medical Outcome by Exposure Route	Human
30	Initial HCF by Age	Human	73	Age, Reason, HCF, Outcome Summary by Generic Code	Human
31	Reason by Age (Adults lumped)	Human	77	Number of Patients Involved in Poisoning Incidents	Human
32	Reason by Age (Adults in decades)	Human	79	Scenario by Age	Human
33	Reason by Gender	Human	80	Scenario by Reason	Human
34	Reason by Term of Pregnancy	Human	81	Scenario by Outcome	Human
35	Route by Management Site	Human	82	Scenario County by Age	Human
36	Clinical Effects by Age	Human	00	State, County by Age in Years (Adults in Decades)	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			