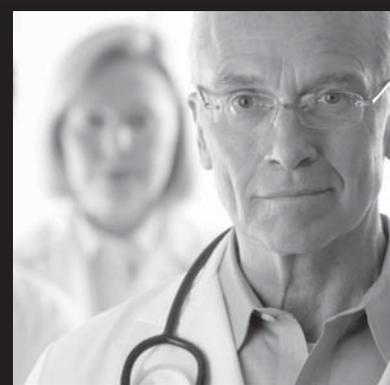




Partnership between Iowa Health System and University of Iowa Hospitals & Clinics

## 2008-2009 Annual Report



**CHILDREN • ADULTS • EDUCATORS • HEALTHCARE PROFESSIONALS**

### Facts at a Glance

Incoming calls	58,323
Follow-up calls	39,645
Human exposures	31,381
Animal exposures	1,879
Information calls	25,063
Peak call volume	6-10 p.m.
Poisonings managed at home/on-site	73%
Poisonings involving children < 6 yrs of age	53%
Cost savings to Iowa and its residents	> \$7.4M

### From the Director ...

*"Efficiency is doing better what is already being done."* Peter Drucker



If ever a time illustrated the importance of the Poison Center's work, this is it. Each day at the Iowa Statewide Poison Control Center, a skeleton crew of highly skilled, well-trained nurses field over 200 calls a day providing fast, accurate and free information and treatment recommendations to people who may have been poisoned. They also provide expertise to doctors and hospitals in emergency situations. Because the center manages

over 70 percent of their cases over the phone, unnecessary emergency room visits, ambulance use, or trips to a doctor's office are avoided. That saves money, time and medical resources. The ISPC saves state taxpayers more than \$7 million annually, largely by helping avoid unnecessary medical costs.

The residents of Iowa entrust us to deliver expert advice in a timely and cost efficient manner and in today's dynamic and challenging financial environment, we must continue to perform effectively and efficiently. In FY 2009, we met our budget and controlled expenses, working hard to promote efficiencies throughout our organization. Caller satisfaction and other key indicators continue to remain strong as they relate to ISPC service delivery.

Operational excellence requires talented and motivated people. Our nursing staff

### Our Mission

To reduce illness, deaths and costs associated with poisoning through providing statewide 24-hour emergency telephone advice, poison prevention information and education.

*continued on page 2*

deserves enormous accolades for their dedication and commitment. The ISPC operates on a very lean staffing model. Our call volume has grown considerably and staffing patterns were adjusted to meet the increasing volume of calls without adding staff, overtime was reduced and productivity enhanced. Our full-time physician toxicologist provides around-the-clock consultation and case management assistance. I am grateful to work with such a capable crew.

As we enter our tenth year of providing statewide services to the residents of Iowa, our relationships with key partners remain strong. From the beginning, Iowa's Department of Public Health has been providing funding support. The operation of the ISPC is overseen by a 10-member Board of Directors representing Iowa Health System and University of Iowa Hospitals and Clinics. Their leadership is especially crucial at this time when ISPC's call volume has reached record levels yet state financial support has declined. The Federal government (HRSA) has provided funding for the national toll-free number along with much needed financial support to the 60 poison centers across the nation.

Achieving long-term sustainable funding is our highest priority for the coming year. This will not be an easy task and will require our greatest collective efforts. We must seek new opportunities and partnerships. I ask for your continued support to ensure that all Iowans continue to have access to this vital and cost-effective health resource in the future.

I am proud and grateful for the chance to be working with you and for you. Please accept my very best wishes for 2010.

*Linda B. Kalin*

Linda B. Kalin, Director

## Spreading The Word

Educating the public about the services of the Poison Control Center and how to prevent poisonings is a key component of the Iowa Statewide Poison Control Center's efforts. Public education efforts are intended to help increase awareness of the poisons that are found in homes, business, and schools, and to help prevent poisonings from occurring. Educational materials, presentations, and health/safety fairs are targeted towards parents with children under age six, health care professionals, multi-cultural populations and seniors.

In FY09, the ISPC provided speakers and/or materials for poison prevention programs in Iowa. ISPC Education Coordinator Tammy Noble taught classes for preschoolers to senior citizens with a total audience of 1,745. Several organizations partnered with the ISPC to provide education to their patients, customers, clients, and students. These organizations include hospitals, physician clinics, fire departments, police departments, childcare agencies, pharmacies, Red Cross, Head Start, and school nurses. In all, more than 125,000 pieces of poison prevention materials (brochures, phone stickers, magnets, teachers kits, and other pieces) were distributed across the state. The ISPC is also an important resource for the media. In FY09, the ISPC staff participated in 22 media interviews on a variety of poison-related topics.

Professional education is targeted toward the needs of the health care professionals. Programs and materials are designed to help the health care provider better manage poisoning and overdose cases that end up in a health care facility. In FY09, ISPC staff conducted 69 programs at hospitals, colleges, regional and state conferences. These programs were attended by more than 4,189 physicians, nurses, EMS providers, pharmacists, physician assistants and other health care providers.

In FY09, the ISPC began monthly distribution of the Poison Hotline, an electronic newsletter for healthcare professionals. The newsletter highlights various poison topics, including the use of Flumazenil in overdose patients, mushrooms, EKG changes from toxins, and the role of activated charcoal. Past issues of the Poison Hotline can be found on the ISPC website.



## Contact Us

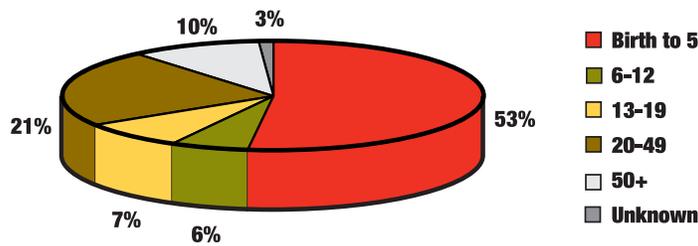
The ISPC's website, [www.iowapoisson.org](http://www.iowapoisson.org), has sections targeting the needs of parents, adults and seniors, educators, and health professionals.

What you can do on the site:

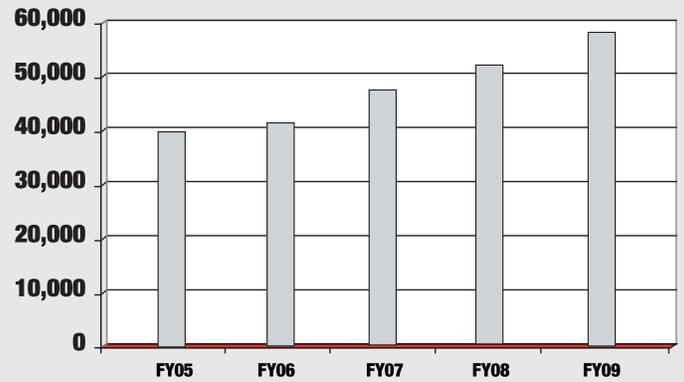
- Complete a caller satisfaction survey
- Download activity sheets and a coloring book for children
- Sign up for newsletters
- Order educational materials



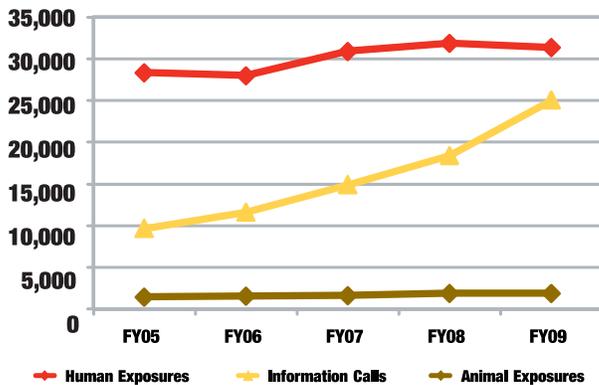
## Patient Age Distribution



## ISPCCC Call Volume

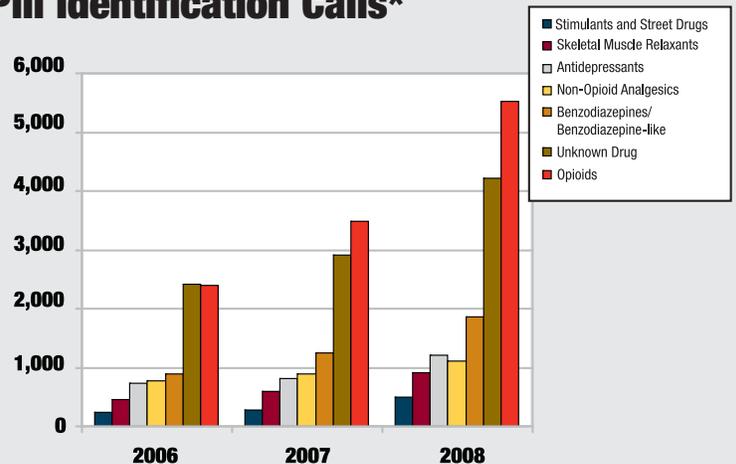


## Types of Calls



\* Pill identification calls made up 86% of information calls in FY09.

## Pill Identification Calls\*



(\*from Public and Health Care Providers)

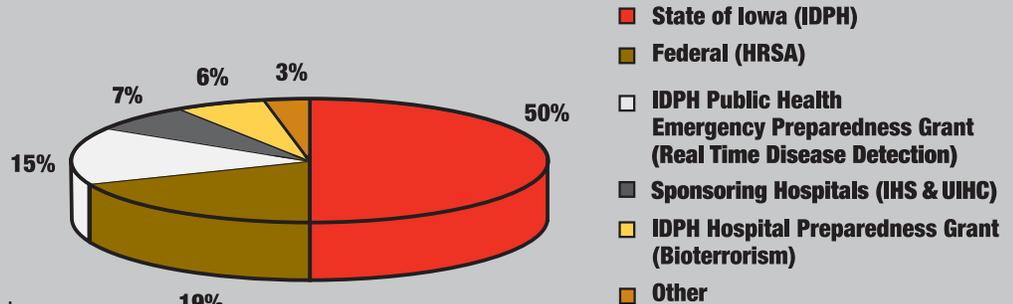
Pill ID trends may provide important information about drug abuse patterns and diverted pharmaceuticals.

## Financial Review

In FY 08-09, the annual operating budget for the ISPCCC was \$1,196,222. Personnel costs comprised 81% of the direct operating costs. State funding through the Iowa Department of Public Health provided 50% of funding. Grant funding continues to be needed to sustain services. A federal grant awarded by the Department of Health and Human Services, HRSA, funded 19% of total operating costs. A bioterrorism grant of \$74,250 provided funding to maintain telephone and computer systems and increase surge capacity. Funding through the Center for Disease Control Public Health Emergency Preparedness Grant supported activities to improve the surveillance, early detection and investigative capabilities of the center and to promote awareness of the ISPCCC's 24/7 toll-free phone number to immediately access poison center services. The ISPCCC receives additional funding from hospital partners Iowa Health System and University of Iowa Hospitals and Clinics.

- Every \$1 invested in the ISPCCC returns at least \$9 to Iowa's health care system
- Cost per human exposure call to the ISPCCC is \$38\*; far below national average
- 73% of cases were managed at home resulting in annual net savings to Iowa & its residents of >\$7.4 million
- 32% of calls were covered by Medicaid resulting in savings of >\$2.3 million

## Financial Review



## FY 08-09 Fatalities

The deaths listed below are those cases reported by health care facilities to the ISPC for management of a suspected poisoning where the ISPC received confirmation of a fatal outcome. In those cases where several substances were ingested, the cause of death is ascribed exclusively to the substance that was deemed to have had the most toxic effect. The relatively small number of deaths reported to the ISPC does not accurately represent the true extent of poisoning as a cause of acute injury and death in the state. Poisoning-related deaths continue to rise at the national level. There are several reasons that the majority of death cases may go unreported to the ISPC. Patients that are found dead on arrival or whose history indicates treatment with a known EMS protocol may not be reported to the ISPC by first responders, law enforcement, medical examiners or other health care providers. Overdoses of abused substances may also go unrecognized as a poisoning case.

- 44 y/o female, desipramine, fluoxetine, duloxetine, trazodone, oxybutynin, metoclopramide, diazepam, alcohol
- 41 y/o female, acetaminophen, diphenhydramine, alcohol
- 41 y/o female, bupropion, citalopram, alcohol
- 17 y/o male, unknown drug
- 43 y/o male, nortriptyline
- 50s female, carbon monoxide
- 56 y/o male, oxycontin, alcohol
- 20s male, oxymorphone
- 64 y/o male, carvedilol
- 39 y/o male, alprazolam
- 27 y/o male, methamphetamine, cadmium
- 34 y/o female, morphine, citalopram, spironolactone
- 49 y/o male, carbon monoxide
- 52 y/o male, unknown drug
- 37 y/o male, propoxyphene, alcohol
- 30 y/o male, alcohol, propoxyphene
- 50 y/o female, diltiazem, aspirin
- 49 y/o male, citalopram, mirtazapine, gabapentin, hydroxyzine
- 18 y/o male, amphetamine, dextroamphetamine
- 48 y/o female, bupropion, hydroxyzine, alcohol
- Unknown adult (over 20 years) male, fentanyl
- 49 y/o female, verapamil, duloxetine, alprazolam, cyclobenzaprine
- 54 y/o male, methanol
- 32 y/o female, acetaminophen, doxylamine, pseudoephedrine, dextromethorphan
- 48 y/o male, acetaminophen
- 20 y/o male, methadone
- 35 y/o female, hydromorphone
- 59 y/o female, nebivolol, amlodipine/benazepril, diltiazem

## Seven Staff Ace Certification Exam

Specialists in poison information (SPI) are the individuals who staff the emergency phone lines 24 hours daily. These are registered nurses with critical care experience who have received additional training in the evaluation and treatment of toxic exposures. Seven of our specialists took and passed the Certified Specialist in Poison Information (CSPI) examination this year. Currently, 73% of the ISPC's specialists in poison information are CSPI's. The CSPI Exam is administered by the American Association of Poison Control Centers (AAPCC), and it tests a specialist's knowledge base and problem solving skills regarding management of poison exposures. The exam covers medications, household products, biologicals (venomous bites, food poisoning and plants), pesticides, chemicals and metals.

Candidates for the examination must be a registered nurse or pharmacist currently employed as a SPI and have at least one year (2,000 hours) of experience and handled at least 2,000 human poison exposure telephone consultations. The SPI must pass the exam every seven years. In order for a poison control center to be accredited by the American Association of Poison Control Centers, at least 50% of the SPI's must be certified. Congratulations to these CSPIs!



*L to R: Cheryl Current, Randy Crouch, Pat Gunia*



*L to R: Tammy Noble, Sue Ringling, Sue Gottsch  
Not pictured: Denise Brumm*

## Dr. Bottei Receives National Honor

ISPC Medical Director, Edward Bottei, MD, was named a Fellow of the American College of Medical Toxicology in October, 2008. Fellowship in the ACMT recognizes a physician's contribution to the world of toxicology not only through the practice of medical toxicology, but also through teaching, research, and public service. Dr. Bottei has been the medical director of the ISPC since June, 2002, and also serves as the state medical toxicologist for the Iowa Department of Public Health. He is board certified in internal medicine, critical care medicine and medical toxicology.





## Board of Directors

FY 08-09

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Interim Associate Director, Hospital  
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University of Iowa Hospitals & Clinics  
Iowa City, IA

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Iowa Health System  
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### **Eric Dickson, MD\***

Director, Emergency Medicine Program  
University of Iowa Hospitals & Clinics  
Iowa City, IA

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and Chief Financial Officer  
University of Iowa Hospitals & Clinics  
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Chief Operating Officer and  
Executive Vice President  
Iowa Health-Des Moines  
Des Moines, IA

### **Ted Townsend**

President/CEO  
St. Luke's Hospital  
Cedar Rapids, IA

\*Resigned to relocate out of area  
effective May, 2009

## Poison Centers Help Reduce Healthcare Costs

In these challenging times of identifying ways to deliver health care more cost effectively and efficiently, poison control centers play a central role in reducing health care costs. Poison control centers (PCCs) save dollars because over 70% of the cases assisted by PCCs are managed over the telephone which avoids unnecessary emergency room visits, ambulance use and hospital admissions. Consultation with a PCC can significantly decrease the patient's length of stay in a hospital. It has been estimated that every dollar spent on PCC saves \$7 in healthcare costs; based on current data, this may be grossly underestimated. The major beneficiaries include the self-pay or co-paying general public, health care providers (institutions and practitioners), governmental public health entities, government, and commercial insurance companies.

Physicians, hospitals, public health departments, and the public depend on PCCs to provide indispensable and life-saving emergency advice and treatment information for poisonings, and to be available 24 hours during each day of the year. Last year 100% of Iowa hospitals utilized ISPCCC services and 11 Iowa hospitals called more than 100 times! No other health care service has the facilities or expertise to monitor the millions of consumer products by which people are unintentionally poisoned every day and to provide the proper treatment advice once a poisoning occurs.

Despite their clinical contributions and their recognized value as a source of cost savings to the medical system, many PCCs remain financially unstable and at risk of closure or drastically reducing the services they provide. Closing a poison control center is not in the public interest and will cost taxpayers million more than any short term dollars saved.

Last year in Iowa, 73% of cases were managed at home resulting in annual net savings to Iowa & its residents of >\$7.4 million! Over half of the poisonings involve a child under the age of five. If the Iowa PCC was not available, 76.6% of Iowans would seek more costly and less accessible healthcare alternatives such as emergency departments, private physician offices, 911/EMS agencies, fire departments or urgent care centers. Some people may not seek help at all needlessly placing the lives of millions of people at risk for serious adverse outcomes.

The Iowa Statewide Poison Control Center is providing exceptionally efficient and effective critical services to 2.9 million Iowans. The center is saving lives and providing extreme cost savings to health care providers and the state of Iowa.

## Top 10 Substances Involved in a Poisoning

1. Pain Medicine
2. Cosmetics/Personal Care Products
3. Household Cleaning Substances
4. Sedative/Hypnotics/  
Antipsychotics
5. Antidepressants
6. Foreign Bodies/Toys/  
Miscellaneous
7. Topical Preparations
8. Cardiovascular Medicines
9. Pesticides
10. Alcohols

## We Get Calls

The ISPCCC gets all kinds of questions. Here are some of the more unusual calls of recent months.

- Mother calls about child taking a bath and grabbing the wrong bottle and accidentally put Nair in his hair instead of shampoo.
- Lady states coworker put super glue on her pop bottle so when she took a drink her mouth was stuck to it.
- Caller accidentally used Neosporin ointment on her dentures instead of the denture cream.
- Caller from a jewelry store relates they were buffing a tarnished ring, only to learn the ring previously had contact with mercury and five staff are now concerned about inhalation of the mercury after buffing the ring.
- Caller wondering about an “experiment” she wants to perform. Asking if she can put Epsom salts in the bath water along with some D Cell batteries to “ionize” the water and this will help detoxify her system of toxins she’s exposed to in the environment.
- School nurse calling about a child playing with a “fart bag” toy that he brought to school and some of liquid inside got on his hands.
- Father calling because child got into jar of catfish bait and ate small amount.
- Caller wants a recipe for a “homemade vomit inducer,” as she is getting a babysitting job soon.
- Man adamant that since we were the poison center we should know how to poison bed bugs to get rid of them.
- Caller’s herd of dairy goats ate a box of rat/mouse poison. Wondering if they can still use the goats’ milk to make cheese?
- Caller relates he dropped his Viagra pill and the dog ate it.
- Teen used a thermometer to stir his coffee and later found mercury in the bottom of his cup.
- Man calls after he fell in a sewage lagoon and now wondering if he needs to be concerned about exposure to germs from the sewage.
- Three year old little boy painted his penis with his sister’s nail polish. Mom calling wondering what to use to get the polish off.

## HRSA’s OPR Team Conducts Site Visit

Health Resources and Services Administration (HRSA), a Federal agency within the Department of Health and Human Services (DHHS), has provided direct financial assistance, in the form of grants, to the nation’s poison control centers since 2000 and funds the national Poison Help number (1-800-222-1222), Poison Help website and campaign ([www.poisonhelp.hrsa.gov](http://www.poisonhelp.hrsa.gov)).

To assure that HRSA funded programs are accomplishing their intended purposes, HRSA continuously tracks and analyzes the performance of its grantees. The Office of Performance Review (OPR) plays a central role in achieving the HRSA mission and its program performance goals. On May 4-6, 2009 a team of four review officers from the regional division in Kansas City, led by CAPT Dave Ellison, RPh, MPA, visited the ISPCCC. Through systematic pre-site and on-site analysis using the Performance Review Protocol, the OPR team works collaboratively with grantees to measure program performance, analyze the factors impacting performance, and identify effective strategies and partnerships to improve program performance.

Program strengths identified include the ISPCCC’s highly-skilled, experienced and efficient work force demonstrated by unsurpassed productivity and lean staffing, low employee turnover, and superior quality management. Performance improvement goals include securing sustainable and predictable funding to support and strengthen ongoing operations, technology enhancements, and expansion of educational efforts through public and private partnerships.

We continue to build on the valued relationships we have with our federal partners to address common goals together.

## Trouble in the Medicine Chest: Drug Abuse Growing

The use of prescription medications for non-medical use is increasing at an alarming rate. Nationally, prescription drugs are the second most widely abused substance behind marijuana and ahead of cocaine, heroin, methamphetamine, and other drugs. Recent deaths involving high-profile celebrities have alerted the public to the perils of prescription drugs, both as readily available substances and as poisons--when overused or when combined with other prescriptions and unregulated over-the-counter (OTC) medications.

Medication abuse is on the rise across the U.S., and the situation is also of concern in Iowa. Calls to the ISPCCC regarding prescription and OTC medications for pill identification have risen from 10 percent of all calls in 2002 to 33 percent in 2008.

The statistics associated with prescription drug abuse are sobering:

- Nationally, upwards of nine million people are reported to use prescription medications for non-medical uses.
- 70 percent of people who abuse prescription pain relievers say they got the drugs from friends or relatives.
- Seniors are vulnerable because they are prescribed more medications. Increased availability plus mix-ups due to either poor vision or inadvertent combinations of medications put seniors at increased risk.
- Public calls to the ISPCCC to identify hydrocodone and oxycodone pills have increased 1,225% since 2002.
- From January to June 2009, the ISPCCC received more than 150 calls for assistance with teens who had used a substance in order to get high. The majority (84%) of these calls involved prescription and OTC medications.

Many Iowans benefit from the appropriate use of prescription pain killers, but, when abused, they can be as addictive and dangerous as illegal drugs. Prescription drugs should only be taken exactly as directed by a medical professional. As with most public health issues, the key is prevention. These statistics serve as an excellent reminder to Iowa residents to cleanse homes of unused or expired medicines. Aggressive action is necessary to keep all Iowans safe year-round. Call the ISPCCC at 1-800-222-1222 for the proper recommendations on how to dispose of unused or expired medicines.



Partnership between Iowa Health System and  
University of Iowa Hospitals & Clinics

### Iowa Statewide Poison Control Center

401 Douglas St., Suite 402  
Sioux City, Iowa 51101

### 24-Hour Poison Information and Emergency

1.800.222.1222  
(TTY accessible)

**Administration** 712.279.3710

**Fax** 712.234.8775

### Education

Sioux City 712.279.3717  
Iowa City 319.356.2600

### Web Site

<http://www.lowapoinson.org>

*Nationally accredited by the  
American Association of Poison  
Control Centers*

## On Our Team

### Medical Director

Edward Bottei, MD, FCCP, FACMT  
BotteiEM@ihs.org

### Associate Medical Director

Howard Burns, MD, FACEP, FACMT  
HowBu@aol.com

### Managing Director

Linda Kalin, RN, BS, CSPI  
KalinLB@ihs.org

### Education Coordinator

Tammy Noble, RN, BSN, CSPI  
NobleTF@ihs.org

### Education Coordinator, Iowa City

Mary Ross, RPh, MBA  
Mary-b-ross@uiowa.edu

### Specialists in Poison Information:

Denise Brumm, RN, CSPI  
Randy Crouch, RN, MS, CSPI  
Jennifer Cullenward, RN  
Cheryl Current, RN, CSPI  
Sue Gottsch, RN, BSN, CSPI  
Janet Gray, RN, BSN, CSPI  
Pat Gunia, RN, BSN, CSPI  
Bill Motz, RN, BSN  
Sue Ringling, RN, BSN, CSPI  
Carol Searls, RN, MS

## The Reality of Poisonings in 2009

- Poisoning is the second leading cause of unintentional injury-related death in the United States
- Almost 2.5 million human exposures are reported to U.S. poison centers each year.
- The American Academy of Pediatrics' statistics reveal that 60% of all children will need help from a poison center before the age of six.



**SOMEONE** calls a poison center every 13 seconds in the U.S.

**A CHILD** needs a poison center every 30 seconds

**An ADULT** needs a poison center every 39 seconds

**POISON  
Help**  
1-800-222-1222

The Iowa Statewide Poison Control Center is available to every Iowa resident through a toll-free telephone number, 1-800-222-1222. Access is available for the hearing impaired through TDD/TTY, and non-English speaking callers are supported by interpreters who are conferenced in by phone on a moment's notice.