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## **2008 Annual Report**

Nebraska Regional Poison Center is sponsored by:  
The Nebraska Medical Center and University of Nebraska Medical Center

# 2008 Staff

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## ***Managing Director***

Kathy Jacobitz, RN, CSPI\*

## ***Assistant Medical Director***

Claudia Barthold, MD

## ***Public Education Coordinator***

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## Nebraska Regional Poison Center

The Nebraska Regional Poison Center (NRPC) is certified as a regional poison center by the American Association of Poison Control Centers. It is designated by state health departments to serve Nebraska, Wyoming, American Samoa, and the Federated States of Micronesia.

NRPC and its programs are sponsored through collaborative community support from The Nebraska Medical Center and University of Nebraska Medical Center.

This report highlights services provided throughout the region in 2008.

### 24-Hour Emergency Telephone Service

Nebraska Regional Poison Center operates 24 hours a day, seven days per week, and is staffed by a nationally certified team of registered nurses and physicians. Its primary function is to assess and make treatment recommendations during poisonings. The emergency telephone service is available to both health care professionals and the public. The following is a 2008 summary:

- \* Handled 40,961 incoming calls in 2008
- \* 25,240 calls were regarding human poisonings
- \* 1,003 calls were regarding animal poisonings
- \* 14,718 calls were for poison or drug information
- \* 27,483 follow-up calls were made by NRPC staff
- \* 58% of the poisoning exposures involved children less than 6 years of age
- \* 85% of poisoning exposures were unintentional; 12% were intentional; 2% were the result of an adverse reaction to a drug or food; 1% were due to substance contamination, tampering or malicious intent
- \* Common exposure substances include medications, cosmetics/personal care products, cleaning products, foreign bodies, and pesticides
- \* 74% of poisoning exposures were treated safely at home
- \* 13% of calls originated from health care professionals requesting treatment advice for poisoned patients

### Toxicologist Consultations

A medical toxicologist is available by telephone 24 hours a day to provide consultations as needed. In 2008, toxicologists provided telephone consultations directly with health care professionals on 199 cases and consulted with Poison Center staff on another 370 cases. In addition, toxicologists provided bedside consultations on 22 poisoned patients at The Nebraska Medical Center, Children's Hospital, and Creighton University Medical Center.

## Public Education

Nebraska Regional Poison Center's public education activities are organized by the education coordinator, Joan McVoy, RN, CSPI. She works closely with schools, healthcare organizations, parenting groups, childcare providers and business groups throughout the region. Each activity is designed to inform the public about the 24-hour emergency telephone service and to provide education on methods to prevent poisonings. The following is a summary of 2008 activities:

**Live Presentations by NRPC Staff** Eighty-eight live presentations were conducted during 2008 by the education coordinator. A population of 4,899 people heard a variety of presentations.

**Educational Materials** NRPC distributed 209,460 poison prevention brochures, telephone stickers, magnets, and other educational materials throughout its region. Pinky the Elephant, NRPC's mascot costume, was used during 274 presentations.

**Video Tape Loan Library** NRPC maintains a lending library of audio-visual programs available to groups in its service area. This table represents usage in 2008.

<b><u>Program</u></b>	<b><u>Number</u></b>	<b><u>Audience</u></b>
Primary (Preschool - Second Grade)	649	37,786
Intermediate (Third Grade - Jr. High)	100	2,674
Adult (Sr. High & Adults)	44	1,100
<b>Total</b>	<b>793</b>	<b>41,560</b>

All 93 counties in Nebraska and 23 counties in Wyoming participated in at least one NRPC public education program.

### **Community Partners**

***Pharmacy Students:*** NRPC partnered with pharmacy students at the University of Nebraska Medical Center (UNMC), Creighton University, and University of Wyoming. This program helps NRPC reach more schools, and it also educates future pharmacists.

- Creighton University pharmacy students provided 11 presentations to an audience of 518.
- University of Wyoming pharmacy students provided 6 presentations to an audience of 379.
- UNMC pharmacy students provided 1 presentation to an audience of 60.

***Kohl's Pharmacy & Homecare:*** NRPC and Kohl's Pharmacy & Homecare partnered to provide poison prevention programs to area schools. In 2008, Kohl's pharmacists doubled their efforts and conducted 142 poison prevention presentations reaching 8,234 students.

***Casper-Natrona (Wyoming) Health Department:*** Tami Haines, NREMT, gave 153 poison prevention presentations, serving a total of 3,743 people.

***University of Wyoming Cooperative Extension Service:*** Phyllis Lewis from the University of Wyoming Cooperative Extension Service gave 309 presentations to an audience of 658 students in the counties of Washakie, Hot Springs, Big Horn, and Park.

***American Samoa:*** The managing director, educator, and a partnering toxicologist made a trip to American Samoa to do public and professional education in April. Presentations were given

to school children and teachers, hospital and health department staff, and EMS providers. A total of 15 presentations were given to 1,744 children in American Samoa schools in 2008.

***Nebraska Injury Prevention Coalition:*** NRPC is a member of the Injury Prevention Coalition, a statewide network of professionals dedicated to reducing the risk of serious injury to Nebraska residents.

**Web Site** NRPC's web site ([www.nebraskapoisson.com](http://www.nebraskapoisson.com)) is continuously updated with educational materials.

**National Poison Prevention Week** Congress intended this event as a means for local communities to raise awareness of the dangers of accidental poisoning. In 2008, NRPC participated in the following activities:

- Proclamation from the Governor of Nebraska and the Omaha City Council.
- All day care providers and preschools in Nebraska and Wyoming were sent a postcard informing them of the services and materials that are provided by the Nebraska Regional Poison Center.
- Area stores promoted Poison Prevention Week.
- Displays at various sites throughout our service area.
- Public service announcements, radio and television interviews, newspaper and magazine articles.
- Poster contest for Omaha and Grand Island area schools with the Tri-Cities Safe Kids, St. Francis Medical Center and the Omaha Safety and Health Council.
- Billboards in Omaha and Grand Island carried poison prevention messages for the month of March.
- Nebraska Public Health and Maternal/Child Health employees were sent materials for PPW.

**Media Interviews** The Nebraska Regional Poison Center regularly sends public service announcements on poison topics to the media. This generates radio and television interviews and newspaper and magazine articles.

## **Professional Education**

The Nebraska Regional Poison Center contributes regularly to health care professionals' knowledge in the area of clinical toxicology. Dr. Jennifer Oakes, NRPC's medical director, writes periodic clinical toxicology updates for emergency department physicians, physician assistants, and nurses. These are faxed to all Nebraska and Wyoming hospital emergency departments.

NRPC is a clerkship site for UNMC, Creighton, and University of Wyoming pharmacy students. Sixteen pharmacy students and one PharmD resident completed month-long rotations in 2008.

NRPC is also a training site for UNMC Emergency Medicine residents. Seven residents completed month-long rotations in 2008.

In addition, there were 22 pharmacy student and occupational medicine resident day-long visitors.

## Research

Nebraska Regional Poison Center staff's scientific publications include:

**Fladby, C, McVoy, J, Jacobitz, K.** Graying of Poison Centers. *Clin Toxicol*, 2008; 46(7):632.

**McVoy, J, Fladby, C, Jacobitz, K, Meza, J.** The Impact of Public Education Efforts on Wyoming's Call Volume – "I've Been Everywhere Man". *Clin Toxicol*, 2008; 46(7):594.

**Oakes J, Seifert S.** American Association of Poison Control Centers Database Characterization of Human Tilmicosin Exposures, 2001-2005. *Journal of Medical Toxicology*, 2008; 4: 225-231.

## Poisoning Data Collection

NRPC maintains an electronic database that captures poisoning case information, which is then uploaded to the American Association of Poison Control Centers' Toxic Exposure Surveillance System on a real-time basis. This data is used both nationally and locally for surveillance, to target poison prevention efforts, and to improve poisoning treatment.

## Hazardous Material Incidents/Terrorism

The Nebraska Regional Poison Center assists first responders, hospitals, and the public during hazardous material incidents such as chemical spills. It also assists with planning and response for nuclear, biological and chemical (NBC) terrorism including:

- ◆ Participates in a hazardous materials notification system with emergency medical response systems and area hospitals
- ◆ Provides immediate NBC treatment information to health care professionals and the public on a 24-hour basis
- ◆ Provides educational presentations to health care professionals on recognition and management of NBC agents
- ◆ Assists state and local health departments with surveillance
- ◆ Assists Nebraska Health and Human Services with the Health Alert Network
- ◆ Tracks pharmaceutical capabilities in the region and assists in the transfer of antidotes between hospitals
- ◆ Assists with staffing Nebraska Health and Human Services' 24/7 public health emergency notification center for health care professionals
- ◆ NRPC staff are actively involved with community disaster preparedness/public health planning:
  - Omaha Metropolitan Medical Response System (OMMRS) Steering Committee (Kathy Jacobitz)
  - OMMRS Pharmacy Subcommittee (Kathy Jacobitz, Co-Chair)
  - OMMRS Emergency Operations Center Subcommittee (Kathy Jacobitz)

- Center for Biopreparedness Education Consortium (Kathy Jacobitz)
- Nebraska Drug Endangered Child Alliance (Dr. Jennifer Oakes)
- Douglas County Health Department Pandemic Influenza Policy Committee (Kathy Jacobitz and Dr. Claudia Barthold)
- The Nebraska Medical Center Pandemic Influenza Triage Planning Committee (Dr. Claudia Barthold)
- The Nebraska Medical Center Pandemic Influenza Communication Planning Committee (Kathy Jacobitz)

## **Estimate of Medical Cost Savings From Nebraska Regional Poison Center's Services**

Nebraska Regional Poison Center (NRPC) curbs medical costs associated with treatment of poisoning by reducing inappropriate use of emergency departments and by preventing poisoning case progression through early intervention. In addition, NRPC reduces costs by preventing poisonings through its public education efforts. The following shows how NRPC reduced the cost of poisonings in 2008.

If NRPC was not in operation, theoretically, all callers in 2008 would need to visit an emergency department:

- Average charge for emergency department evaluation of poisonings = \$1,245
- Human poison exposures in 2008 = 25,240
- Total cost of emergency department visits = \$31,423,800

Because NRPC was in operation, certain exposures could be managed safely at home.

- In 2008, 18,709 poisoning exposures were managed by NRPC without the need for a visit to a health care facility.

The cost savings from NRPC's prevention of unnecessary emergency room visits is:

- $18,709 \times \$1,245 = \$23,292,705$

In 2008, NRPC reduced the cost of poisonings by 74%, resulting in savings of over **23 million dollars**. This estimate does not incorporate savings resulting from poison prevention efforts, increased efficiency in medical management of poisonings, and reductions in ambulance and inpatient care utilization.