



# **2013 Annual Report For Wyoming**

**Submitted by:  
Nebraska Regional Poison Center  
Omaha, Nebraska**

**Nebraska Regional Poison Center is sponsored by:  
Wyoming Department of Health Office of Emergency Medical Services, The  
Nebraska Medical Center, and University of Nebraska Medical Center**

# 2013 Staff

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## **Nebraska Regional Poison Center**

The Nebraska Regional Poison Center (NRPC) is committed to providing the highest quality of service for the citizens of Wyoming. It is certified as a regional poison center by the American Association of Poison Control Centers. The NRPC and its programs are sponsored through collaborative support from the Wyoming Department of Health Office of Emergency Medical Services, The Nebraska Medical Center, University of Nebraska Medical Center, and the U.S. Department of Health and Human Services.

This report highlights services provided to Wyoming, the medical cost savings associated with the use of NRPC, quality improvement activities, and Wyoming's 2013 poisoning statistics.

### **24-Hour Emergency Telephone Service**

The Nebraska Regional Poison Center operates an emergency telephone service 24 hours a day, seven days a week. It is staffed by a nationally-certified team of registered nurses, physicians, and a physician assistant whose primary function is to assess and make treatment recommendations during possible poisonings. This service is available to both health care professionals and to the public. A medical toxicologist is always available to provide toxicology consultations as needed.

The following is a summary of Wyoming calls managed by the NRPC in 2013:

- Managed 6,693 total calls in 2013
  - 5,183 calls were human and animal poisoning exposures
  - 1,510 calls were for poison or drug information
- Made 7,875 follow-up calls
- 56% of the poisoning exposures involved children less than 6 years of age
- 82% of poisoning exposures were unintentional; 15% were intentional; 2% were the result of an adverse reaction to a drug or food; and 1% due to contamination, tampering or malicious intent
- Commonly ingested items included medications, cosmetics/personal care products, household cleaning products, foreign bodies, and pesticides
- 67% of poisoning exposures were managed safely at home by NRPC staff
- Medical toxicologists provided consultations with Wyoming healthcare providers on the treatment of 159 poisoned patients

## Wyoming Public Education

Wyoming's Poison Center public education activities are organized through Joan McVoy RN CSPI, the education coordinator. 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 2013 activities in Wyoming.

### **Educational Materials:**

The Poison Center distributed 34,664 poison prevention brochures, telephone stickers, magnets, and other educational materials throughout Wyoming. Pinky the Elephant (mascot costume) was used during 18 presentations. At least one poison prevention program was done in every county of Wyoming.

### **Videotape Loan Library:**

The Poison Center maintains a lending library of audio-visual programs for all age groups. In 2013, a total 5,863 people in Wyoming viewed the programs. The following table represents a breakdown of program usage:

<b><u>Program Type</u></b>	<b><u>Number</u></b>
Primary (Preschool – Third Grade)	87
Intermediate (Fourth Grade – Junior High)	4
Adult (High School and Adults)	4
<b>Total</b>	<b>95</b>

### **Community Partners:**

Phyllis Lewis, University Extension Educator at the University of Wyoming in Worland, did a total of 5 presentations to an audience of 399 students in the counties of Washakie, Hot Springs, Big Horn and Park.

The University of Wyoming School of Pharmacy students gave 5 presentations in the Laramie area to an audience of 245.

### **Wyoming Visit:**

Joan McVoy, NRPC's education coordinator, visited Wyoming from September 20-September 24, 2013. Joan's presentations and meetings are summarized below.

- Visited the hospital emergency departments in Cheyenne, Laramie, Casper, Buffalo, Douglas and Wheatland. She spoke with hospital staff and asked for feedback on the NRPC's service. Poison prevention outreach materials were left at each hospital.
- Met with instructors and pharmacy students at the University of Wyoming, School of Pharmacy. She conducted a training session for the pharmacy students on teaching poison prevention to children. The pharmacy students will present poison prevention programs in Laramie elementary schools.

- Met with Safe Kids Coordinator at Wyoming Medical Center.

## **Presentations Given**

- Deming Elementary: Cheyenne, 40 students - 2 presentations
  - Hobbs Elementary: Cheyenne, 115 students - 2 presentations
  - Manor Heights Elementary: Casper, 105 students – 2 presentations
  - Paradise Valley Elementary: Casper, 160 students – 2 presentations
  - University of Wyoming College of Pharmacy: 20 students - 1 presentation
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- Distributed poison center brochures and magnets to several Wyoming pharmacies.
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- MEDIA: TV INTERVIEWS  
KTWO Casper  
KCWY Casper  
KGWN Cheyenne

### **Web Site:**

The Poison Center's web site is continuously updated with educational materials. The address is [www.nebraskapoisson.com](http://www.nebraskapoisson.com).

### **National Poison Prevention Week:**

Congress intended this event as a means for local communities to raise awareness of the dangers of accidental poisoning. In 2013, the Poison Center participated in the following activities:

- Public service announcements, radio, and newspaper interviews
- All daycares and preschools in Wyoming were sent postcards informing them of the poison center services and materials that are available to them.
- Proclamation by the Governor was signed for Poison Prevention Week

### **Media Outreach:**

The Poison Center regularly sends public service announcements on poison topics to media throughout Wyoming. This generates radio and television interviews and newspaper articles.

### **2013 Media Releases:**

- 4<sup>th</sup> of July Safety
- Carbon Monoxide
- Got Drugs?
- Halloween Safety
- Hydrocarbons

- Holiday Hazards
- Poison Prevention Week
- Thanksgiving Food Safety
- Things That Sting

The following table lists NRPC staff's interviews with Wyoming media in 2013:

Date	Media Type	Agency	Topic
1/6/2013	Radio	KGAB, Cheyenne	Carbon Monoxide
1/14/2013	Radio	Wyoming Public Radio	Carbon Monoxide
1/15/2013	Radio	Gap Broadcast	Carbon Monoxide
1/23/2013	Newspaper	Rawlins Daily Times	Carbon Monoxide
1/29/2013	Newspaper	Northern WY Daily News	Carbon Monoxide
1/29/2013	Newspaper	Star Tribune, Casper	Cassava Plant
3/6/2013	Newspaper	Northern WY Daily News	Poison Prevention Week
3/14/2013	Newspaper	Thermopolis Independent Record	Poison Prevention Week
3/14/2013	Radio	Gap Broadcasting	Poison Prevention Week and Prescription Drugs
3/16/2013	Newspaper	Northern WY Daily News	Pinky the Elephant's Visits
4/1/2013	Newspaper	Thermopolis Independent Press	PPW
4/13/2013	Newspaper	Greybull Standard	PPW
5/23/2013	Radio	Gap Broadcasting, Cheyenne	Hydrocarbons
5/28/2013	Newspaper	Northern WY Daily News	Hydrocarbons
6/25/2013	Newspaper	Rawlins Daily Times	Rattlesnake Bites
6/26/2013	Radio	Gap Broadcasting	4th of July Safety
7/2/2013	Newspaper	Rawlins Daily Times	Glow Sticks
9/19/2013	Radio	Gap Broadcast	Fall Hazards
9/23/2013	Television	KGWN Channel 5, Cheyenne	Poison Prevention
9/25/2013	Television	KTWO, Casper	Poison Prevention
9/26/2013	Television	KCWY Channel 13, Casper	Poison Prevention
10/16/2013	Newspaper	Gap Broadcasting	Halloween
10/22/2013	Newspaper	Worland News	Halloween
10/24/2013	Radio	Public Pulse, Sheridan	Halloween
10/26/2013	Radio	Fremont County 10	Halloween
10/30/2013	Radio	Sheridan Media	Halloween
12/09/2013	Television	KTWO, Casper	Holiday Hazards
12/13/2013	Radio	KGAB, Cheyenne	Holiday Hazards
12/19/2013	Radio	KTWO, Casper	Holiday Hazards

## Poisoning Data Collection

The Nebraska Regional Poison Center submits all of Wyoming's poisoning data to the American Association of Poison Control Centers' National Poison Data System. This data is used both nationally and locally to target poison prevention efforts, improve poisoning treatment, and identify poisoning trends.

## **Professional Education**

The Nebraska Regional Poison Center contributes regularly to health care professionals' knowledge in the area of clinical toxicology. The medical director writes periodic clinical toxicology updates for emergency department staff. These are faxed to all Wyoming hospital emergency departments and posted on the NRPC's web site. The following updates were sent to Wyoming hospitals in 2013:

- Acetaminophen (APAP) Pearls and Pitfalls
- Buprenorphine
- Button/disc battery ingestion
- Clenbuterol
- Complications of parenteral oral analgesic abuse
- High risk foreign bodies: Small magnets and water-absorbing balls
- Molly
- Neuroleptics
- Update on Synthetic Cannabinoids
- Use of Hydroxocobalamin for Smoke Inhalation Victims

## **Hazardous Material Incidents/Terrorism**

The Nebraska Regional Poison Center assists first responders, hospitals, and the public during hazardous material incidents. The center also assists with planning and response for chemical, biological, radiological, and nuclear (CBRN) incidents by:

- Providing immediate CBRN treatment information to health care professionals and the public on a 24-hour basis
  - NRPC staff have received specialized training on CBRN agents
  - NRPC houses an extensive reference library on CBRN agents
- Providing educational presentations to health care professionals on recognition and management of CBRN agents
- Assisting the Wyoming Department of Health with surveillance
- Tracking pharmaceutical capabilities in Wyoming and assisting in the transfer of antidotes between hospitals

## An Estimate of Medical Cost Savings from Poison Center Services

The Nebraska Regional Poison Center reduces medical costs associated with treatment of poisoning by decreasing the inappropriate use of emergency departments and by preventing poisoning case progression through early intervention. In addition, the NRPC reduces costs by preventing poisonings.

The following shows how NRPC reduced the cost of poisonings in Wyoming in 2013:

Average estimated cost for emergency department poisoning evaluations = \$1245

If Wyoming did not have a poison center, theoretically, all callers in 2013 would have visited an emergency department.

Human poison exposures in 2013 = 5,035

Total cost of emergency department visits = 6,268,575

The majority of exposures were managed safely at home by Wyoming's poison center. In 2013, 3,377 poisoning exposures were managed on-site in a non-health care facility.

The cost savings from the prevention of unnecessary emergency department visits is:  
 $3,377 \times \$1,245 = \$4,204,365$

In 2013, the State of Wyoming reduced the cost of poisonings by 67%, resulting in savings of at least **4.2 million dollars**. For every dollar spent on poison center services by the State of Wyoming, there is a return of 93 dollars in saved health care costs to the consumer. This estimate does not incorporate savings resulting from poison prevention efforts throughout Wyoming, increased efficiency in medical management of poisonings, or reductions in ambulance and inpatient care utilization.



# 2013 Quality Improvement Report

## **Case Audit:**

Case audit is an important component of the Nebraska Regional Poison Center's quality improvement program. All human exposure cases involving substances not included on the NRPC list of non-toxic substances are audited daily by Certified Specialists in Poison Information. Each case is reviewed to determine whether the call was handled appropriately, to check calculation accuracy and documentation completeness. The purpose of auditing is three-fold:

1. Quality Assurance - to ensure proper case management.
2. Education - to help the employee learn from mistakes or learn how a case might have been handled better. The audit is also used to commend the individual when cases are handled well.
3. Data Collection - to maintain a complete and accurate database of poisoning cases.

**Calculation Errors:** All assessment calculations are checked for accuracy. If the auditor identifies a calculation error, the case is forwarded to the Managing Director who generates a Calculation Error Report. The report summarizes the case history, identifies the specific error, and documents what the correct calculation should be. The reports are used as a teaching tool, especially for new Specialists, and are also used to identify calculations to focus on during orientation of new staff. Calculation errors are tracked and integrated into Specialists' performance evaluations.

In 2013, the Wyoming calculation error rate was 0.07% (5 errors out of 6,693 calls handled). None of the errors resulted in case mismanagement.

**Management Errors:** All cases are evaluated for appropriateness of case management. Most cases are audited the same day of the call, and the auditor takes immediate action to optimize patient outcome when a mismanaged case is identified. Deviation from appropriate case management or follow-up, and deviation from medical director-approved clinical triage/treatment protocols (unless the case has been discussed with the on-call toxicologist) results in a management error. Failure to do follow-ups at the time stipulated by the clinical protocol is also considered an error. If the auditor identifies an error, the case is forwarded to the Managing Director who generates a Management Error Report and discusses the case with the Specialist as needed. Management errors are tracked and integrated into Specialists' performance evaluations. The reports are used to identify problem areas in case management, which are then discussed with staff. The reports have also prompted the development of new or revised protocols or procedures.

In 2013, there were no Wyoming management errors.

## 2013 Quality Improvement Report

### Other Quality Assurance Activities:

In addition to the regular audit process, all Wyoming hospitalized cases are reviewed by the medical director, Dr. Ronald Kirschner. Feedback is then provided to the staff regarding management of those cases. Also, Dr. Kirschner does regular “rounds” with staff and student rotators, which is a discussion of the hospitalized cases being followed by staff. The “rounds” involve interactive discussion of the treatment plan and essential information needed during case follow-up.

The Nebraska Regional Poison Center conducted client satisfaction surveying in 2013. Surveys were periodically sent to a random portion of non-health care professional callers. Results are used to monitor overall satisfaction with the NRPC. A scale from one (poor) to six (excellent) is used.

Satisfaction Parameter	2013 Average Score
Courtesy	6.0
Clarity of Communication	5.95
Completeness of Information Provided	6.0
Overall Satisfaction With Service Provided	5.95

Continuing education contributes to quality assurance by providing up-to-date toxicology information for NRPC staff. Clinical presentations are provided by specialists in poison information, the medical directors, and various guest speakers. The following topics were presented to staff in 2013:

Date	Topic	Presenter
1/15/13	Salicylates	Ron Kirschner, MD
2/12/13	Anti-Diabetic Agents	Ron Kirschner, MD
3/14/13	Highlights of AAPCC Mid-Year Directors Meeting	Kathy Jacobitz, RN, BSN
4/11/13	Pesticides	Ron Kirschner, MD
5/9/13	Highlights of 2013 American College of Medical Toxicology Scientific Meeting	Ron Kirschner, MD
6/6/13	HazMat Group Exercise	Kathy Jacobitz, RN, BSN
8/1/13	Highlights of 2013 European Association of Poison Centers and Clinical Toxicologists	Ron Kirschner, MD
8/29/13	Testing for Ethylene Glycol and Methanol Quality Assurance Case Review	Dr. Nipper - Creighton Tox Lab Kathy Jacobitz, RN, BSN and Ron Kirschner, MD
9/24/13	Hydrocarbons	Ron Kirschner, MD
11/19/13	North American Congress of Clinical Toxicology Highlights	Ron Kirschner, MD