New Mexico Poison & Drug Information Center (NMPDIC)
ABOUT THE NMPDIC

Mission

The mission of the New Mexico Poison & Drug Information Center (NMPDIC) is to improve the health of New Mexicans by reducing morbidity and mortality associated with poisoning, and by encouraging proper use of medications. The NMPDIC is a twenty-four hour emergency telephone service accessible to all citizens of New Mexico. The Center assesses and makes treatment recommendations during possible poisonings, responds to drug information inquiries, and assists emergency personnel during hazardous material incidents. It also serves as a major teaching site for the University of New Mexico (UNM) College of Pharmacy and UNM Department of Emergency Medicine. The NMPDIC coordinates poison prevention throughout the state, and operates New Mexico’s only computerized toxicosurveillance system. The NMPDIC is certified as a Regional Poison Center by the American Association of Poison Control Centers.

History And General Overview

During the early and mid-70s, the center and its budget were transferred to UNM and the program was administratively attached to the College of Pharmacy. Since then, the program has been committed to providing the same level of service to all New Mexico citizens 24 hours a day with a full-time, dedicated staff. The number of calls received by the Center has grown steadily over the years from 12,000 in 1977 to over 27,000 in 2013.

From the moment it was incorporated into the University, the New Mexico Poison and Drug Information Center has pursued compliance with all professional standards, especially the certification requirements of the American Association of Poison Control Centers (AAPCC). The quality of the Center, its staff and its services has resulted in its certification as a Regional Poison Center by AAPCC for six consecutive 5-year periods (the latest in 2010).

With the formation of the UNM Health Sciences Center (HSC) in 1994, it became possible for the Center to share faculty positions with other HSC units. The NMPDIC Director is shared with the UNM College of Pharmacy and the Medical Director is shared with the UNM School of Medicine’s Department of Emergency Medicine.

The NMPDIC consists of two telephone-based services – a poison information service and a drug information service. The goals of the poison information service are to:

- Provide expert, 24-hour assistance to the citizens of New Mexico during possible poisoning emergencies.
- Reduce the costs associated with poisoning by treating less severe exposures at home with Center guidance.
- Train healthcare professionals in the field of clinical toxicology.
- Expand knowledge in the field of clinical toxicology through an active research program.
- Prevent poisonings through toxicosurveillance, education, regulation, and collaboration with local, state and federal agencies.

The goals of the drug information service are to:

- Provide individualized, accurate, relevant, and unbiased information to consumers and healthcare professionals regarding medication-related inquiries.
- Help train pharmacists to be drug information providers.
From July 1, 2013 to June 30, 2014 (FY 14), the Center received 27,935 calls for assistance. There were 6,680 drug information inquiries during FY14. Poisoning-related calls totaled 21,255 with 20,094 of these calls involving possible human poisonings (refer to the Table 1 on page 4). In 109 instances, further evaluation showed that the patient was not exposed to a poison. The map on page five shows human poisoning calls by county for FY 14.

Eighty-three percent of the poisoning exposures were managed safely at home with Poison Center assistance. By treating patients at home instead of in the emergency department, the cost of poisoning to New Mexicans was lowered by $16.4 million statewide (refer to the Table 1 on page 4).

The NMPDIC provided 4,302 telephone consultations to healthcare providers (refer to the Table 1 on page 4). The Center utilized physician toxicologists on 361 of these cases. At the University of New Mexico Hospital, the NMPDIC clinical service performed bedside consultations on 130 patients. In FY14, the Center also consulted on 1,330 animal exposures and responded to 6,680 requests for poisoning or drug information.

Throughout FY 14, 43% of the patients managed by the Center were less than six years of age. Medications accounted for 56% of the substances involved with poisoning (refer to graph 1 on page 6). Graph 2 on page six shows total calls to the NMPDIC since its inception.

The Center performs a risk assessment on each possible poisoning exposure. Each call results in the generation of a patient – specific treatment regimen, whether to the public, physicians, or to other healthcare professionals. The Center utilizes an extensive library of books, articles, and computerized information systems to provide the most current information available during poison treatment. With these resources, the Center can quickly identify and assess the acute toxicity of more than 1,000,000 commercial products. All cases are monitored with follow-up telephone calls until the patient is clearly out of danger. The average poisoning case generates 2.1 follow-up calls.

The Center’s staff is among the finest in the nation. All of the Pharmacist Specialists in Poison Information that have met the time-in-service qualifications for the AAPCC Certification Examination, have passed the exam with excellent scores, and two had the highest scores in the country during their examination years. The NMPDIC uses a computerized data collection system to collect and compile poisoning and drug information data. The data are used by the state and national agencies to enhance product safety, to target poison prevention efforts and to improve poison treatments.
During FY 14, the NMPDIC saved New Mexico $16.4 million in avoided health care costs by treating poisonings safely at home.

**TABLE 1: PROGRAM PERFORMANCE MEASURES**

The table below summarizes program performance parameters over the past five years.

<table>
<thead>
<tr>
<th>Program Performance Measure</th>
<th>FY10</th>
<th>FY11</th>
<th>FY12</th>
<th>FY13</th>
<th>FY14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of total calls</td>
<td>41,535</td>
<td>37,436</td>
<td>33,197</td>
<td>30,365</td>
<td>27,935</td>
</tr>
<tr>
<td>Number of drug information calls</td>
<td>13,622</td>
<td>11,453</td>
<td>8,683</td>
<td>8,260</td>
<td>6,680</td>
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<tr>
<td>Number of poisoning exposure calls</td>
<td>22,876</td>
<td>22,142</td>
<td>21,390</td>
<td>21,956</td>
<td>21,145</td>
</tr>
<tr>
<td>Number of poisoning exposures treated safely at home*</td>
<td>16,328</td>
<td>15,290</td>
<td>14,783</td>
<td>14,228</td>
<td>12,936</td>
</tr>
<tr>
<td>Percentage of exposures treated at home</td>
<td>79%</td>
<td>78%</td>
<td>80%</td>
<td>80%</td>
<td>83%</td>
</tr>
<tr>
<td>Cost savings associated with home treatment (assuming each emergency dept. visit costs $1,265**).</td>
<td>$20.1 M</td>
<td>$18.8 M</td>
<td>$18.2 M</td>
<td>$18 M</td>
<td>$16.4 M</td>
</tr>
<tr>
<td>Number of health care facility consultations with a toxicologist or specialist</td>
<td>4,020</td>
<td>4,319</td>
<td>4,347</td>
<td>4,363</td>
<td>4,302</td>
</tr>
<tr>
<td>Cost savings associated with poison center toxicologist involvement in exposures treated in health care facility (assuming each consult saves $1910/day x 3.2 days)***</td>
<td>$24.6 M</td>
<td>$26.4</td>
<td>$26.6</td>
<td>$26.7</td>
<td>$26.3</td>
</tr>
<tr>
<td>Total cost savings</td>
<td>$44.7 M</td>
<td>$45.2 M</td>
<td>$44.8 M</td>
<td>$44.7 M</td>
<td>$42.4 M</td>
</tr>
<tr>
<td>Number of students taught</td>
<td>61</td>
<td>72</td>
<td>78</td>
<td>80</td>
<td>65</td>
</tr>
</tbody>
</table>

*Caller from non-health-care facility treated or observed at non-health-care facility  
**2008 DHHS Medical Expenditure Panel Survey  
***Lewin Group report to AAPCC, 2012
In FY 14, the NMPDIC received 27,935 calls for assistance.
GRAPH 1: FY 14 CALLS BY SUBSTANCE
GRAPH 2: NMPDIC CALLS BY YEAR SINCE INCEPTION
Over 2 million people were reached with public education programs during FY 14.

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New Mexico Poison and Drug Information Center’s Health Educator, Jacqueline Kakos, made significant strides in revitalizing public educational outreach in FY 14. Table two below summarizes NMPDIC public education activity for this reporting period.

<table>
<thead>
<tr>
<th>Table 2: Program Performance Measure</th>
<th>FY 12</th>
<th>FY 13</th>
<th>FY 14</th>
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<tbody>
<tr>
<td>Poison prevention materials distributed</td>
<td>73,881</td>
<td>55,519</td>
<td>100,718</td>
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<tr>
<td>Poison prevention programs coordinated (includes presentations, health fairs &amp; conferences exhibits, etc.)</td>
<td>115</td>
<td>118</td>
<td>152</td>
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<tr>
<td>Media outreach (includes all press releases, interviews and public service announcements)</td>
<td>46</td>
<td>37</td>
<td>50</td>
</tr>
<tr>
<td>Percentage of counties having acceptable national poison center utilization rates (&gt; 6 exposures/1000 people)</td>
<td>97%</td>
<td>94%</td>
<td>85%</td>
</tr>
<tr>
<td>Number of counties reached (media outreach and prevention programs)</td>
<td>33/33</td>
<td>33/33</td>
<td>33/33</td>
</tr>
<tr>
<td>Number of people reached (media outreach and prevention programs)</td>
<td>1,976,661</td>
<td>2,623,081</td>
<td>2,600,705</td>
</tr>
</tbody>
</table>

In New Mexico, poisonings are the leading cause of unintentional injury death, and this is largely due to drug misuse and abuse (New Mexico Department of Health, The State of Health in New Mexico 2011). Thus, the NMPDIC health educator, Jacqueline Kakos, has focused her efforts heavily on drug overdose prevention during the last fiscal year. Jacqueline works with the University of New Mexico’s College of Pharmacy students and various agencies to deliver drug overdose prevention programs statewide.

In addition, Jacqueline is a member of the New Mexico Injury Prevention Coalition, and the Chair of the Coalition’s steering committee. As a member of this coalition, Jacqueline focuses on increasing the awareness of the NMPDIC’s role in the management and treatment of poisonings. Jacqueline also collaborates with state health officials in an effort to reduce the morbidity and mortality associated with poisonings, particularly those related to drug overdose. She has also developed several new innovative brochures to educate the public on medication safety and specific high volume poisoning hazards. The new Facebook page for the NMPDIC is active and gathering friends. A wallet card makes it easy to dial the phone number, go to the website, or visit the Facebook page using smart technology.
During FY 14, NMPDIC’s medical directors trained 31 medical students in toxicology.

Professional education and public health efforts continued at a brisk pace. In FY 14 Dr. Steven Seifert, the NMPDIC Medical Director, served on the Governor’s Advisory Panel on prescription opioid deaths.

He was also involved with an epidemiologist of the National Park Service Office of Public Health on a project to map snakebite locations in New Mexico and to compare them with reports of veterinary envenomations. Doctor Seifert also conducted professional education outreach programs at Gerald Champion Hospital (Alamogordo) on the management of snakebites and created three statewide webinars on snakebite, the agitated patient, and methemoglobinemia.

In recognition of a new formulation of powdered caffeine, Dr. Seifert prepared an educational video for UNM students. These professional education outreach programs were sponsored by a Health Resources and Services Administration Poison Control Center Enhancement and Awareness Act grant (CFDA: 93.253). Each program addressed new medical approaches to the management of poisoned patients.

Doctor Seifert presented two lectures to the NM ACEP annual symposium on snakebite and designer drugs, along with Grand Rounds to the UNM Department of Pediatrics and Department of Orthopedics. Within the University of New Mexico campus, the NMPDIC served as a 4-week teaching site for 25 pharmacy students in the drug information rotation and 31 medical students in the medical toxicology rotation.

Doctor Brandon Warrick was hired in May 2014 to serve as the Associate Medical Director for the NMPDIC. Doctor Warrick assists with teaching students in the medical toxicology rotation as well as assisting with bed-side consults and cases that require advanced consultation. Doctor Warrick is part of the core teaching faculty for the Emergency Medicine Residency Program at UNM. In addition, Dr. Warrick is active on several committees both at UNM and the American College of Medical Toxicology.

At the NMPDIC, Doctor Warrick served as a co-investigator for one the 20 national sites chosen to enroll patients in a clinical trial testing a new black widow antivenom. The clinical trial terminated in October 2014.

Doctor Warrick first authored a paper on non-native snake envenomations that was published in the journal, *Toxin*. Currently, Dr. Warrick is working on a paper in conjunction with the American Heart Association on energy drinks and associated caffeine toxicity, and another paper on fatal peak aspirin levels.
NMPDIC’s Status & Future Goals

The NMPDIC continues to face significant financial challenges, with some state resources threatened during FY14 and at risk in future years. Although the program has been able to provide uninterrupted telephone service to New Mexico, the reductions made in marketing, outreach, and education over the past three years have contributed to a decline in program utilization by home callers while increasing utilization among healthcare professionals.

Over the next year, the NMPDIC plans to continue innovative, community-driven public education programs, use technology more effectively to deliver professional education programs, develop a broader array of professional education offerings, including restoration of the APPE rotation in clinical toxicology, and leverage organizational partnerships to reach communities more effectively.