

ANNUAL REPORT 2008



NJ POISON INFORMATION & EDUCATION SYSTEM

It is amazing that we have successfully completed another year of service to the people of this state. It is gratifying to see that we have been able to sustain our efforts for such a long time. What started in 1983 as a small operation to provide coordinated prehospital care and consultative services for hospitalized poisoned patients in the state has grown to be a major force in emergency services. The New Jersey Poison Information and Education System has shown itself, through its work and publications, to be a cost effective value added service for the state. This is a tribute to the hard working dedicated information specialists who field the questions 24 hours a day/seven days a week.

The year has indeed been a challenging one. Stresses on the funding structure of our program produced a decrease in our operating budget from 2005 to 2008 of 22%. State budgetary cutbacks forced us to decrease our staff of information specialists. Despite the loss of nearly thirty percent of our staff, we made up for the cutback in staffing by using enhanced telephone and computer technology thereby increasing overall efficiency and becoming leaner and more productive than ever. Despite the cutbacks, our service, educational and research efforts have not faltered.

I would like to thank the many people who together are the New Jersey Poison Information and Education System. The information specialists who man the telephones, the educators who provide outreach education, the administrative staff that support these efforts, the volunteers who help "stuff" educational materials for mailing, all contribute to the finest poison system in the region.

Epidemiology

The summer brought with it an outbreak of poisonings from an outdoor torch product which resulted in one death and several critically injured individuals. As in previous years, NJPIES discovered the cluster and spearheaded national efforts to curtail the outbreak.

Academic Achievement (See NJPIES Showcase)

NJPIES staff provided over 50 continuing education programs to physicians, nurses and pharmacists around the state.

Two papers were published and four were accepted for publication in peer reviewed journals. Staff were represented on national panels and presented findings at national meetings. There was a report of two cases of a unique occupational illness in the U.S. Centers for Disease Control and Prevention's Morbidity and Mortality Weekly Report (MMWR):

Perrone J, Marcus SM, Blando JD et al. "Neurologic Illness Associated with Occupational Exposure to the Solvent 1-Bromopropane --- New Jersey and Pennsylvania, 2007–2008" MMWR December 5, 2008. 57(48)1300-1302.



Emergency Preparedness

As in previous years, NJPIES was involved in preparedness for all risks. The Executive Director is a member of the Health Emergency Preparedness Advisory Council, and the Newark Metropolitan Medical Response System's Surveillance Committee.

Future of NJPIES

As the financial conditions in the state worsen, we anticipate further stress on our budget. While we search for methods to improve efficiency, we are struck with the need to seek additional sources of revenue to produce a sustainable stream of revenue to continue functionality. We are hopeful that means can be found to guarantee the future existence of the program.

Steven M. Marcus, MD, Medical Director

Mission of NJPIES

The New Jersey Poison Information and Education System (NJPIES) was created by legislation (N.J.S.A. 26:2-119 et seq.) and began service on February 1, 1983, replacing 35 Poison Control Centers located in New Jersey hospitals. Its mission is to provide treatment and the provision of information concerning poisons drugs and targeted health issues through telephone management, consultation, education and research.

History & Organizational Background

New Jersey's first poison center was established in the late 1950s. By 1975 there were 32 "Poison Control Centers" located in acute care hospitals throughout the state. These centers were located in pharmacies and emergency rooms. The centers were not always open 24 hours a day. No center had staff entirely dedicated to poison center services and little or no records were kept of calls handled by these centers. Though some centers allocated funds to subscribe to a form of informational database, no center had a specific budget for its overall services.

In 1978, New Jersey developed a task force to look into how to provide poison center services in response to a federal initiative to develop regional emergency medical services.

In November 1982, the NJ state legislature passed legislation calling upon the New Jersey Department of Health to develop a drug and poison information program for New Jersey. In February 1983, as the result of this legislation and in a cooperative effort between the New Jersey Hospital Association and the New Jersey Department of Health, the regional poison control system, New Jersey Poison Information and Education System (NJPIES), was born. In 1982, a total of 5.000 calls to the 32 Poison Control Centers were reported. Over 1,000 of those calls were to one center, the future home of the regional program. In 1983, during the first 11 months of its existence, NJPIES responded to over 30,000 calls. The initial staff of 5 information specialists worked in a basement apartment furnished by the host hospital. Funding was provided by a small grant from the federal government and the state, voluntary contributions from the former 31 Poison Control Centers and a grant in aid from a pharmaceutical company. Administrative support and medical direction was provided by the host hospital.

In 1985, NJPIES became a "line item" in the New Jersey State Budget. In addition, the cost of membership in the state-wide drug and poison information system was determined to be an acceptable, reimbursable part of the member hospital's administrative costs.

In the early 1990's, membership in NJPIES became mandatory for all acute care hospitals under New Jersey State Department of Health and Senior Services licensing regulations. The call volume grew, mandating an increase in the size of the staff. The program added a part-time director of drug information and a health educator. In mid 1990, the program covered 100% of the Medical Director's salary and the number of specialists increased to 22. In addition, the service of a full time information technology professional was added as well as a computer clerk. Funding continued to come from the state budget and from hospital memberships.

Although funds approved by the New Jersey State Department of Health and Senior Services (NJDHSS) and the hospital membership program sufficiently cover the day to day activities of the program, outreach education services and other public health activities fell outside of the budget. The federal Poison Control Stabilization and Enhancement Act funded by the Health Resources and Service Agency (HRSA) of the U.S. Department of Health and Social Services provided the needed funds to cover the aforementioned activities and services.

The long-standing relationship with the original host hospital ceased in 2001, requiring NJPIES to resettle in a new home. The University of Medicine and Dentistry of New Jersey (UMDNJ) agreed to provide space and administrative support and became the new host of NJPIES. Using funds from the HRSA grant, NJPIES was able to establish a parallel hotline site at UMDNJ and the move was accomplished without a single dropped or lost call. NJPIES became part of the Department of Preventive Medicine and Community Health (DPMCH) as of January 1, 2002. UMDNJ provided a temporary space, on an emergency basis, until January 2006, when NJPIES opened its new, state-of-the art, call center in the Ambulatory Care Center Building on the UMDNJ campus located in Newark, NJ.

Who We Are & What We Do

NJPIES, often referred to as the Poison Control Center, is a member of the American Association of Poison Control Centers (AAPCC) and is designated as a regional Poison Control Center under AAPCC guidelines. The Center provides a valuable public service in time of crisis by serving as an information source for the New Jersey Department of Health and Senior Services (NJDHSS). This information may include cases of tampered or recalled products and incidents of food-borne illness. NJPIES provides a statewide emergency service for poison exposures, general poison and drug information 24 hours, 7 days a week. All calls are handled by specialists in Poison Information, who are physicians, nurses or pharmacists

In addition, NJPIES has managed the Department of Health and Senior Services AIDS/HIV/STD/Hepatitis Hotline for the past 20 years. The Center provides telephone consultation for people seeking information about HIV and other sexually transmitted diseases. Poison Specialists are "crosstrained" to handle calls for both hotlines.

Although many of the specialists are fluent in Spanish and several are fluent in additional languages, NJPIES contracts with a telephone interpretation service, allowing immediate access to hundreds of languages and dialects. We also offer a TDD/TTY service for the hearing impaired. Specialists answer questions about identification of medication, possible risks for drug interaction or the potential effects of medicines on pregnancy or breast feeding. Specialists also answer questions prior to exposure to or use of potentially poisonous or hazardous products, such as household chemicals, plants, cosmetics or environmental contaminants like lead. They help callers assess the possibility for harm or damage and give recommendations for minimizing or eliminating risk.

NJPIES' Services

- Poison emergency telephone service
- Drug information service
- · Occupational and environmental toxicology information service
- Professional education
- Public education
- Research and data collection

Media Spotlight

- New Jersey Newspapers ran nearly 250 features
- New Jersey radio and television stations conducted a total of 35 interviews with NJPIES' staff



NJPIES Showcase Publications Accepted or Printed in 2008:

Berrizbeitia LD, Calello DP, Dhir N, O'Reilly C, Marcus SM "Liquid Nitrogen Ingestion Followed by Gastric Perforation." Pediatric Emergency Care: accepted for publication.

Chu A, Marcus SM, Ruck B. "Poison Control Centers' Role in Glow Product-Related Outbreak Detection: Implications for a Comprehensive Surveillance System" accepted and scheduled for publication in the Prehospital and Disaster Medicine Journal, Volume 24, Number 1 (January-February 2009).

DeBellonia RR, Marcus S, Shih R, Kashani J, Rella JG, Ruck B. "Curanderismo: Consequences of Folk Medicine." Ped Emerg Care. (2008) 24(4) 228-9.

Hoffman RS, Kirrane BM, Marcus SM et al. "A Descriptive Study of an Outbreak of Clenbuterol-Containing Heron." Ann Emerg Med (2008) May 21 (Epub ahead of print).

Vassilev ZP, Chu A, Ruck B, Adams EH, and Marcus SM. "Adverse Reactions to Over-the Counter Cough and Cold Products among Children: The Cases Managed out of Hospitals." J Clin Pharm and Ther. (2009) 33:1-6.

Vassilev ZP, Chu AF, Ruck B, Adams EH, Marcus SM. "Evaluation of adverse drug reactions reported to a Poison Control Center between 2000 and 2007" Am J of Health-System Pharmacy. (2009) 66(5):481-487.

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North American Congress of Clinical Toxicology September 2008 (Toronto, ON Canada)

POSTER PRESENTATIONS

Poison Control Centers' Role in the Glow Product-Related Outbreak Detection: Implications for Comprehensive Surveillance System.

Incomplete Calls – How Bad Is It?

Ethanol-Induced Transient Myocardial Dysfunction in a Three Year Old.

Are We Ready for Prime Time? Prenatal Lead Screening.

Inappropriate use of

Physostigmine in TCA Toxicity:

An online Medical Reference May Be Partially Responsible.

Secular Trends In Adverse Outcomes From The National Poison Database: 2000-2007.

PLATFORM PRESENTATION

Validation of Putative Substance in Poisonings Involved in Fatal Poisonings.

American Association of Poison Control Centers Symposium: A Brief Guide to Epidemiology for the Posion Center.

Toxicology History Society Platform Presentation: Death in the ICU: the Cullen Case, How did He get Away With It For So Long?



24th International Congress of Pharmacoepidemiology & Therapeutic Risk Management (ICPE) August 2008 (Copenhagen, Denmark)

POSTER PRESENTATION

Adverse Drug Reaction Hospitalization Index: A Comparison of the Most Frequently Implicated Therapeutic Groups

Data Systems

Reporting directly to the NJPIES' Executive Director, the Data Systems Department manages all IT projects and systems within the Poison Control Center. This department is responsible for handling the research, design, evaluation, implementation, management and maintenance of all projects and systems. The Department designs, plans and directs daily and long term projects and operations. In addition to the design, implementation and management of all NJPIES computer domains and servers, the Data Systems Department acts as an in-house consultant for creating network and communication standards which assures compatibility and integrity between all systems. These responsibilities also include handling all telephone switches and other computer and telephone related hardware and systems.



Lead Poisoning

The state of New Jersey has had an active surveillance and treatment program for childhood lead poisoning for over 30 years. Dr. Steven Marcus, the Medical Director of NJPIES, has played a lead role in statewide efforts. He has served in a leadership role in the New Jersey Physicians Lead Poisoning Advisory Committee and has consulted widely. He was instrumental in developing the pilot program to increase awareness and screening for childhood lead poisoning which is now being implemented statewide. He was also involved in the training of individuals who are charged with the responsibility of educating pediatric health care

providers in various aspects of lead poisoning from primary prevention to chelation therapy. This was a cooperative effort of NJPIES, New Jersey Department of Health and Senior Services and the New Jersey Chapter of the American Academy of Pediatrics currently funded through a Robert Wood Johnson Foundation Grant. NJPIES educational



staff collaborates with major Medicaid managed care insurance carriers, to develop and distribute educational material to their enrolled population and beyond. NJPIES has re-established the New Jersey Lead Consortium; a monthly meeting of concerned health care and environmental professionals who review problem childhood lead poisoning cases and new relevant literature.

Drug Information and Professional Education

The provision of drug information and professional education are two additional facets of NJPIES that make our services valuable to the residents of New Jersey. Health professionals and the lay public recognize NJPIES' expertise in assisting with many types of nonexposure medication related questions. During 2008 NJPIES handled 11,000 requests for drug information.

The majority of these calls (8,484/11,000) were for drug identification. Health professionals called to identify medication taken by their patient 692 times this past year. Law enforcement called to identify and learn the federal class of drug found on a suspect 737 times and the lay public called to have medication identified 7,055 times. Almost sixty percent of drug identification calls (5,018/8,484) were regarding medications with a high potential for abuse and diversion.

Concerns regarding medication safety accounted for a large percentage of drug information calls. Callers often want to know about:

- interactions of their new medication with another medication or food (779 calls)
- side effects of medication/contraindications (253 calls)
- the appropriate administration, storage and disposal of medications (138 calls)
- medication safety during pregnancy or while breast feeding baby (138 calls)

Professional Education is something that we take great pride in at NJPIES and the demand for our programs remain high. During 2008, over 160 health professionals spent time at NJPIES. Almost every day, pharmacy students from Rutgers College of Pharmacy, medical residents and nursing students throughout the state participate in our activities. Students spending time at NJPIES learn about poison prevention and the management of the poisoned patient. They participate in daily rounds as well as in formal lectures and informal case discussions. In addition, students and residents that complete a 4-5 week rotation at NJPIES learn how to provide evidence-based responses to specific medical inquiries that arise and also assist our staff in many activities.

Several times each month, members of the poison center team provided educational experiences to physicians, pharmacists, nurses and students of various health professions. Formal presentations, case discussions and continuing education programs are given at the poison center, hospitals, universities and other venues throughout New Jersey.

Epidemiology

A number of activities were conducted through the epidemiology core of NJPIES to assess the population we served and the unmet needs for poison control and prevention services.

Patterns of Reported Exposures to Cough and Cold Medications Among Children Following the Release of an FDA Public Health Advisory

The risks/benefits of non-prescription cough and cold medications used among children younger than 2 years old raised concern following reports of serious adverse events in this population. After investigating the issue, the FDA issued a public health advisory recommending that these medications are not to be used to treat children in this age group. The goal was to assess and describe the patterns of reported pediatric exposures to cough and cold medications following the FDA recommendations regarding the use of these products among children less than 2 years old of age. We found that a total of 17,606 exposure cases to cough and cold products were reported to NJPIES in this nine-year period. Of these, 2,805 cases (16%) involved children younger than two years of age. Among this group, there was a 52% decrease in the total number of exposures reported in 2008 compared to those reported in 2000. The corresponding decrease among those ages older than 2 years was only 20% (Table 1). Further analysis revealed that the number of exposures reported among children younger than 2 years with OTC cough and cold medications were significantly lower in the period after the FDA Public Health Advisory as compared to the period before that (p=0.0016). The results of this study show that exposures to OTC cough and cold products among children less than

2 years of age reported to a major Poison Control Center have decreased following the FDA public health advisory recommending that such products are not used in this age group.

Table 1 Number of Exposures to Cough and Cold Medications Reported to NJPIES Between the Years 2000 and 2008

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	Total
< 2 years	364	331	320	312	343	371	322	261	176	2,800
>= 2 years	1,750	1,597	1,504	1,607	1,683	1,815	1,806	1,652	1,390	14,804
Total	2,114	1,928	1,824	1,919	2,026	2,186	2,128	1,913	1,566	17,604

A New At-risk Population: Suicide Attempts by Poisoning Patients 40-64 Years of Age

Death by suicide is rising nationally. The population experiencing the most rapid rise is the 40-64 year age group, with annual increases over the last 10 years of 2 to 3% as compared to <1%in the general population¹. We evaluated the age-specific rates of suicide attempts by poisoning in our population to determine whether there was a parallel trend in poisoning, and to examine the characteristics of suicide attempts in this age group. The overall rate of suicide attempts increased from 36.4 to 50.2 per 100,000 people over the nine-year study period with an annual increase of 4.7% in the State of New Jersey. In comparison to agespecific groups, the 40-64 years old group had the highest rate increase of 10.1% for each year between 2000 and 2008 (Figure 1). This group was composed of approximately 60% of females, a finding similar to the other age groups (except 13-19 years old group). In contrast to the other groups, this group was more likely to have multiple (2-5) ingestions, to be evaluated in a healthcare facility (HCF) and to have a moderate, major or death outcome. The most common substance class involved was the sedativehypnotics followed by analgesics. Medications were more likely to be prescription than over-the-counter, in contrast to the younger age groups. Although much attention is appropriately focused on the prevention of suicide in younger age groups, there has been a steady rise in the older age group which becomes steeper each year. Primary prevention efforts should include psychiatric and emotional health screening in patients 40-64 years of age and careful prescribing practices, as restriction to lethal means of suicide has been shown to decrease suicide rates². In addition, tertiary prevention of suicide completion involves poison centers' awareness of these trends when managing unknown overdose

patients in this population. An effort is under way to examine whether the similar trend in suicide attempts occurred in this mid-aged population in the U.S. the same as in the state of New Jersey.





References

1. Hu G, Wilcox HC, Wissow L, Baker Sp. Mid-life suicide: an increasing problem in U.S. Whites, 1999-2005. Am J Prev Med 2008; 35:589-593.

2. Mann JJ, Apter A, Bertolote J, et al. Suicide prevention strategies: a systematic review. JAMA 2005; 294:2064-2074.

Utilization of Poison Education and Prevention Services: Results from a Web-based Survey

Educating the public about poison prevention is one of the main objectives of Poison Control Centers in the United States. The purpose of this study was to describe the demographic profile of the residents of New Jersey who access NJPIES services via the Internet and to evaluate their previous, current and future intent to utilize Poison Control Center. Data revealed that a total of 1,204 completed surveys were obtained during 2008. Nearly one-half of the responders were between the ages of 41 and 55 years old; race/ethnicity consisted of 75% whites; 8% blacks, and 7% Hispanics; approximately 85% were females and more than 95% of the responders reported English as their primary language. Approximately two-thirds of responders were aware of the services provided by NJPIES; less than one-half of them ever used these services and more than 80% of the requesters will utilize poison services in the future. Females were significantly more likely than males to

be aware of the educational materials provided by NJPIES and to have had prior contact with NJPIES. However, no gender difference was found when examining access of NJPIES services in the past 12 months. Females, whites, and those ages between 41 and 55 years old were more likely to contact the Poison Control Center than all other groups (Figure 2). Although more responders reported an awareness of the services provided by NJPIES, less people actually utilized services/programs in the previous years. This survey provides NJPIES with valuable information about the utilization of its services. The knowledge gained will allow NJPIES to determine where additional outreach efforts are needed throughout the state.



Figure 2 – Number of Service Requests by Age Group - 2009

Prescription Drug Use Among Youth Ages 5 to 24 Years: 2000 - 2007

In response to the increased unintentional prescription drug overdose deaths in the United States and growing concerns of prescription drugs used among youth, NJPIES collected and analyzed its data between 2000 and 2007 for those ages from 5 through 24 years old. The preliminary results included:

- A total of 19,240 prescription drug-related calls were received by NJPIES between 2000 and 2007.
- Forty percent involved children aged 5 to 13 years; twenty-five percent were teenager ages 14 through 17 years; and approximately 35% were young adults between ages 18 to 24 years.

- Males were more likely to be younger in the 5 to 13 years age group and females were more likely to be in older age groups.
- Younger patients were more likely to be treated on site; whereas older patients were more likely to be referred or already arrived at the health care facility (HCF).
- Among those referred/already arrived to HCF, both 14 to 17 and 18 to 24 year groups were more likely to be admitted to the hospital.
- Exposures such as misuse or therapeutic error were more likely to be associated with younger children; whereas exposures such as suspected suicide were more likely in older patients.
- More than 40% of the children ages between 5 and 13 years reported a minor medical outcome as compared to 25% to 30% for the older age groups.
- Health care professionals were more likely to be the caller for both 14 to 17 and 18 to 24 years old age groups; whereas a relative (mother, father, or grandparent, etc.) was more likely to be the caller for 5 to 13 years old patients.
- Older age groups were significantly more likely to report multiple drugs as compared to individuals in the younger age group who reported a single drug use.
- The number of prescription drug related poison calls per 100,000 people from Atlantic, Bergen, Camden, Middlesex, and Salem counties increased significantly between 2000 and 2007.
- The number of prescription drug related poison calls per 100,000 people from Morris, Union, and Warren counties increased moderately between 2000 through 2007.
- The number of prescription drug related poison calls per 100,000 people from Burlington, Cumberland, and Essex counties decreased slightly between 2000 and 2007.
- The number of prescription drug related poison calls per 100,000 people from Hudson and Hunterdon counties did not show either increase or decrease trend between 2000 through 2007.

Public Education

Poison Prevention Education Can Help Save Lives!

In 1999, NJPIES hired a health educator to foster public awareness of the poison center's 24 hour Poison Help Hotline and services. Since then, the education initiative at NJPIES has evolved into a department consisting of a Director of Public Education and two Health Educators. The educators coordinate all aspects of health promotion for the poison center. Programs are developed and implemented for a variety of audiences including; children, parents, seniors, healthcare professionals, and child care providers. Through education, we can empower New Jersey residents with the information necessary to carry out poison safe practices in their workplace, homes, and communities

Spotlight: Media Campaign

The Poison Control Center contracted with an advertising agency in an effort to help increase the visibility of the Poison Control Center and promote its services. In mid August, a media campaign was launched targeting underserved populations in 13 counties around the state. The campaign utilized print media on thirteen (13) bus routes and three (3) light rail routes. Ads were displayed on the side/inside of buses and inside trains along routes frequented by the target population.



Accomplishments

- Nearly 40,000 individuals across the state attended a poison prevention program conducted by NJPIES' health educators.
- Over 900,000 pieces of printed educational material were distributed statewide to residents and providers in schools, community-based organizations, faith-based organizations, hospitals, health departments, emergency medical services, other healthcare facilities, etc.
- Residents received educational materials provided at over 100 state-wide health fairs.

- Monthly press releases were distributed to the public. (To view all press releases, log onto <u>www.njpies.org/News.php#Press_Releases</u>)
- Website Total Sessions (*a series of hits to the website over* a *specific period of time by one visitor*): 31,116 (1st quarter); 36,162 (2nd quarter); 22,757 (3rd quarter); 20,333 (4th quarter)
- Partnered with *The Gold Cross* (The Magazine of the New Jersey State First Aid Council, Inc.) to contribute articles for its quarterly publication.
- · Developed new educational materials
 - Medicine Information Poster
 - Poison Center Services Poster
 - Maternity Card This congratulatory card will be given to new parents during their stay in maternity wards of New Jersey Hospitals. The inside of the card informs new parents of how the Poison Control Center can help in the event of an emergency or if they have questions in regards to their newborn and/or other children. Project is scheduled to launch in 2009.
- Developed an extensive Train-the-Trainer curriculum that will be used to expand poison prevention outreach efforts throughout the state.
- Developed poison prevention information packets for participants of poison prevention programs. The packet consists of a letter and poison safety checklist to encourage residents to poison proof their homes, as well as, poison prevention educational materials (brochures and magnet).
- Developed new Public Service Announcements (PSAs). Paul Begala (a Democratic strategist who serves as a political contributor to CNN, appearing frequently on CNN's The Situation Room as well as other programs on all CNN networks) and Commissioner Heather Howard, NJ Department of Health and Senior Services (NJDHSS) recorded new PSAs for the Poison Control Center. PSAs were distributed to New Jersey radio stations.



Spotlight: Poison Prevention Education

The Education Department is proud to report that the number of individuals receiving poison prevention education programs in 2008 has increased from 2007. (See figure above)



The following materials can be ordered through visiting NJPIES' web site at www.njpies.org

BABY SITTER

- Babysitter's Do's and Don'ts *
- Carbon Monoxide Pamphlet *
- Children's activity sheets +
- Annual Report +
- Lesson plans, activities, videos, etc. +
- Your Poison Center Brochure *
- Poisons in the Home Brochure *
- Poison Control Center Services Poster *
- Look-A-Like Posters
- National Pet Poster
- Medicine Information Poster
- Medicine spoons
- National Poison Center 1-800 Hotline Magnet *
- · Telephone stickers for healthcare facilities
- Telephone stickers for in-home use *
- * Materials are available in both English and Spanish
- + Can be downloaded off the website

National Poison Prevention Week

In order to prevent unintentional poisonings, it is important to promote awareness of poison prevention through various activities and outreach initiatives. Each year, during the third week of March, NJPIES observes National Poison Prevention Week (March 16-22, 2008). This year's theme *"Children Act Fast...So Do Poisons"* highlights the dangers of unintentional poisonings in children. Parents, grandparents, and other caregivers as well as children should be alerted to the dangers of poisons.

In 2008, NJPIES promoted National Poison Prevention Week statewide. Hospitals, pharmacies, public and private schools, public libraries, health departments, emergency medical service agencies, police departments, county offices on aging, community-based organizations, members of the state legislature, pediatricians, childcare directors, Safe Kids, Federally Qualified Healthcare Centers (FQHC), etc. were invited to participate in National Poison Prevention Week by ordering free educational materials and/or requesting a poison prevention education program.

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As part of our National Poison Prevention Week campaign, NJPIES held an annual poster contest for fourth grade students. The Poster Contest is a way for students to learn about poison awareness and partake in a statewide competition. In observance of National Poison Prevention Week, NJPIES hosted an awards ceremony to recognize the winners of this contest.

Congratulations to the 2008 Winners...

1st Place: Juliette Castro, Mt. Arlington Public School 2nd Place: Trevor Cherkavskas, St. Paul School 3rd Place: Gabrielle Faraci, Mt. Arlington Public School



Website – www.njpies.org

In 1998, NJPIES introduced a comprehensive Internet Website, which since its launch, has received visitors from all over the world. In 2008, the center launched its new and improved site with the help of the Pacific Institute of Research and Evaluation (PIRE). The site enhances NJPIES' statewide presence and increases the public's awareness of the Poison Control Center's services. Visitors are

encouraged to log onto and explore all the site has to offer from alerts for potentially dangerous substances to interactive learning activities. In addition, the site acts as a resource for healthcare professionals.

All requests (education program or materials) can be submitted by logging onto <u>www.njpies.org</u> and clicking on the links on the homepage.





Resource Development and Marketing

The Poison Control Center is funded through a contract with the state of New Jersey, Federal and other grants, and private donations. With the support of the Foundation of University of Medicine and Dentistry of New Jersey (UMDNJ), NJPIES has been actively seeking funding from individuals, private foundations and corporate sponsors to help promote its 1-800-222-1222 Poison Help Hotline and poison prevention and education efforts. NJPIES is a tax exempt non-profit organization under the federal 501(c)3 guidelines.

For further information on how to support NJPIES or become a key partner in promoting our programs, please contact Martha L. Bahamon, Director of Development at the Foundation of UMDNJ at (973) 679-4685. For online donations please visit <u>www.umdnj.edu/foundation</u>.

NJPIES gives thanks to the following sponsors and key partners who support our efforts to ensure the safety and well being of New Jersey residents.

- Baskin Robbins
- Carvel
- Infineum
- Medco Health Solutions, Inc.
- Newark Bears, Minor League Baseball Team
- Pathmark
- PSE&G
- Somerset Patriots, Minor League Baseball Team
- Toys 'R' Us
- Wakefern ShopRite

Poison Help Hotline

NJPIES Poison Help Hotline is also the National Toll Free Hotline

1-800-222-1222

In February 2000, President Clinton signed the Poison Control Center Enhancement and Awareness Act (PL 106-174) to ensure every U.S. resident has access to a certified regional poison center. Funding was provided to create a single toll-free



number to be shared by poison centers across the country. The National Center for Injury Prevention and Control of the U.S. Centers for Disease Control (CDC) and Prevention and the Maternal and Child Health Bureau of the Health Resources and Services Administration (HRSA) are providing funding for the 1-800-222-1222 toll-free national number. By calling the number, callers reach specially trained health care specialists – nurses, pharmacists, and doctors - who can provide help with poison emergencies or answers to questions from drug information to breast feeding and medication use. The national number automatically and immediately identifies the caller's location, and then connects the caller to the closest Poison Control Center. All services are free and confidential, are available for the hearing impaired and for those who speak languages other than English.

New Jersey AIDS/HIV/STD/Hepatitis Hotline

1-800-624-2377

In 1988, NJPIES was asked to provide administrative responsibility and personnel to run the state AIDS Hotline. Over the past 18 years NJPIES has provided telephone consultation for people seeking information about the disease. Callers receive general information, referrals, counseling and testing locations and information on treatment and adverse reactions to medications. Based on a request from the New Jersey Department of Health and Senior Services (NJDHSS), services have expanded to include other sexually transmitted diseases and hepatitis. Poison Specialists are "cross-trained" to handle calls for both hotlines.

TDD/TTY Line (For the Hearing Impaired)

1-973-926-8008

For use by the hearing and speech impaired. We are developing the capability to handle these calls through the 1-800 Poison Help Hotline number. We hope to have this operational by mid 2009. Additionally, we are exploring text messaging technology to enable the hearing impaired to text their questions to an information specialist. Please check with us for updates.

Special Services

Bioterrorism

NJPIES became intimately involved with the state's efforts at homeland defense and counter-terrorism. The Medical Director was appointed by the governor to the MedPrep Terrorism Preparedness Council and subsequently also to its executive council. This program has morphed into the Health Emergency Preparedness Advisory Council (HEPAC) and NJPIES holds a "seat at the table." NJPIES became part of the Newark Metropolitan Medical Response System (MMRS). NJPIES' Medical Director serves on the MMRS' steering and surveillance committees. As part of his responsibility, he has been spending an increasing amount of his time in this process.

Computerized Case Records

Trends and patterns can be identified on cases through computerized medical records that are maintained by NJPIES. All calls are confidential. The American Association of Poison Control Centers (AAPCC) National Poison Data System receives data throughout the day from New Jersey Poison Control. Through the efforts of NJPIES, computerized formatted data on poison exposure in New Jersey has been available for over 10 years. An NJPIES epidemiologist reviews all data for trends and patterns in poisoning within the state. The epidemiology service can provide data to communities to the 5 digit zip code level.

Interpreters

Available 24 hours a day, 7 days a week with a myriad of languages and dialects through a contract with a language translation service.

Pesticide Surveillance

NJPIES assists and provides information to citizens regarding spraying and health issues related to pesticide use in New Jersey.

Public Health Surveillance

The New Jersey Poison Control Center is committed to reducing the impact of poisoning by collecting, analyzing and dispensing data for the development and implementation of poison prevention and awareness strategies. NJPIES stores information regarding poisoning-related calls in an electronic database. This information is used to educate residents, health care professionals and media on poisoning trends in the state of New Jersey. This information is also used in the development of poison prevention strategies. As a safeguard in instances of food poisonings, adverse drug or product reactions, and drug tampering, NJPIES notifies local and state agencies, the media and the public of potential health threats.

Member Hospital Program

The Member Hospital Program provides a large portion of funds that support NJPIES. In addition, the cooperation of every member hospital in the exchange of information facilitates the appropriate, timely and cost-efficient care of exposed individuals requiring hospital care. This cooperation, in the form of financial support, insures appropriate management in a cost efficient fashion. A phone call to the Poison Control Center early in the treatment process saves both time and money.

Expen	ses 2008	
Salaries	2,223,604.00	
Fringe	762,717.00	
Total Payroll	2,986,321.00	
Rent	120,000.00	
Education Program	190,328.00	
Subscriptions/Membership	57,085.00	*Includes \$44,031 Micromedex*
Postage	28,479.00	
Telephone	36,554.00	
Staff Training	1,492.00	
Staff Recruiting	938.00	
Tuition Reimbursement	1,361.00	
Travel	24,458.00	
Printing	4,610.00	
Services	1,361.00	
Maintenance	11,973.00	
Equipment: Educational, Office, Computer	32,732.00	
Capital	0.00	
Consultant Services	0.00	
Other	229,294.00	*CDC funded projects*
Miscellaneous	1,241.00	
Overhead	372,823.00	
Total Expense	4,101,050.00	

Income 2008

Cash receipt		Expenses to Report for CY 08
Hospitals	1,891,239.00	Includes receipts for 2007 received in 2008
State Grants	1,252,029.00	
Fed Grants	346,601.00	
Private Donations, Contracts	68,790.00	
Total	3,558,659.00	4,101,050.00

Balance Sheet 2008

Holdover Funds from 2007	(937,540.00)
Revenue Received	3,558,659.00
Expenses	4,101,050.00
Balance	(1,479,931.00)*

Deficit due to unforeseen delay in hospital billings for 2008

NJPIES Grants Inception to Date

Year	State EMS	State AIDS/ STD	Federal	Donations	Hospital Memberships Other	Total Year
1983	0	0	50,000	0	200,000	250,000
1984	350,000	0	50,000	0	130,000	530,000
1985	457,093	0	0	750	153,700	611,543
1986	437,126	0	0	9,610	177,621	624,357
1987	472,165	0	0	2,505	305,156	779,826
1988	678,058	24,490	0	0	409,954	1,112,502
1989	555,277	22,256	0	25,350	339,388	942,271
1990	562,513	312,661	0	0	446,564	1,321,738
1991	562,513	312,661	0	500	550,000	1,425,674
1992	575,000	330,000	0	1,300	734,675	1,640,975
1993	486,186	350,874	0	500	775,000	1,612,560
1994	486,186	350,874	0	0	1,062,942	1,900,002
1995	456,306	352,874	0	0	1,259,095	2,068,275
1996	456,306	375,221	0	18,337	1,448,604	2,298,468
1997	611,072	565,497	0	8,930	1,476,367	2,661,866
1998	649,441	398,219	0	2,110	1,248,811	2,298,581
1999	423,306	391,400	0	10,000	1,400,000	2,224,706
2000	423,306	397,400	0	164,993	1,656,835	2,642,534
2001	690,520	417,100	0	500	3,110,821	4,218,941
2002	490,000	439,700	442,507	2,455	2,045,913	3,420,575
2003	490,000	439,700	489,956	10,000	2,419,371	3,849,027
2004	490,000	439,700	530,500	10,000	2,575,866	4,046,066
2005	490,000	439,700	530,500	83,117	3,674,459	5,217,776
2006	538,000	439,700	530,500	63,501	2,498,975	4,070,676
2007	551,000	439,700	530,500	54,697	2,683,906	4,259,803
2008	812,329	439,700	346,601	68,790	1,891,239	3,558,659
TOTAL	13,193,703	7,679,427	3,501,064	537,945	34,675,262	59,587,401

The following statistics reflect only those poisonings reported to the New Jersey Poison Control Center during 2008. The data does not reflect the overall incidence of poisoning in New Jersey because poisoning victims may not call the New Jersey Poison Control Center for assistance. If you have any questions concerning the statistics or would like additional statistics, please feel free to call 1-800-222-1222 for more information.





2008

Call Volume: Age of those exposed



Location: Where the calls come from



Types of products involved



Call Reason: Unintentional Exposures



Call Reason: Intentional Exposures



MEDICATION RELATED EXPOSURES

2008

Substance	Number
Medications-other	3,882
Analgesics	3,524
Nonsteroidal anti inflammatory drugs	1,557
Antidepressants	1,147
Vitamins without iron	1,088
Antimicrobials	1,068
Sedative or hypnotic	1,016
Antihistamine - sedating	942
Antacids	581
Antipsychotics	527
Cold preparation - antihistamine + deconge	497
Anticonvulsants	493
Vitamins with iron	491
Opiates	463
Antihistamine - non-sedating	446
Cold prep antitusive	443
Steroids	411
Anxiolytics	403
Sympathomimetics	297
Beta blockers	276
Skeletal muscle relaxants	233
Calcium channel blockers	226
Hormone replacement	204
ACE inhibitors	200
Anticholinergics	198
Contraceptives	186
Antifungal	176
Homeopathic prods	170
Oral hypoglycemic	166
Thyroid derivatives	156
Diuretics	146
Leukotriene antagonist	145
Beta agonists	135
Anesthetics	134
Gastrointestinal Stimulants	132

(continued on next page)

MEDICATION RELATED EXPOSURES 2008

Substance	Number
Herbal Products	128
Cathartics, laxative	122
Antimanics	117
Antilipid agents	110
Medications - herbal/homeopathic	108
Alpha agonists	98
Vaccines	93
Anti Diarrheal	92
Local anesthetics	90
Antiviral - non-HIV	88
Antineoplastics	87
Insulins	84
Anticoagulant - oral	84
Osteoporosis	83
Platelet aggregation inhibitors	82
Antianemia medications	80
Inhaled Steroids	80
Sunscreens	80
Antiviral - HIV	78
Antimigraine	76
Cold preparation - expectorant	74
Anticoagulant - intravenous/subcutaneous	73
Thrombolytics	72
Cox 2 inhibitors	70
Antiemetics	65
Vasodilators	62
Weight loss medications	62
Alpha antagonists	59
Blood stimulant products	58

SUBSTANCES MOST FREQUENTLY INVOLVED IN HUMAN EXPOSURES 2008

Substance	Number
Analgesics	7,086
Cosmetics/personal care products	5,439
Cleaning substances (household)	4,199
Sedative/hypnotics/antipsychotics	3,830
Foreign bodies/toys/miscellaneous	3,455
Topical preparations	2,526
Alcohols	2,180
Cold and cough preparations	2,066
Antidepressants	1,978
Cardiovascular drugs	1,819
Antihistamines	1,789
Pesticides	1,686
Vitamins	1,616
Arts/crafts/office supplies	1,418
Food products/food poisoning	1,395
Antimicrobials	1,373
Hormones and hormone antagonists	1,078
Plants	1,074
Gastrointestinal preparations	1,038
Anticonvulsants	933
Stimulants and street drugs	901
Chemicals	882
Electrolytes and minerals	708
Hydrocarbons	682
Asthma therapies	562
Bites and envenomations	556
Miscellaneous drugs	537
Eye/ear/nose/throat preparations	505
Fumes/gases/vapors	502
Deodorizers	456
Other/unknown nondrug substances	453
Dietary supplements/herbals/homeopathic	428
Muscle relaxants	364

(continued on next page)

SUBSTANCES MOST FREQUENTLY INVOLVED IN HUMAN EXPOSURES 2008

Substance	Number
Adhesives/glues	356
Paints and stripping agents	345
Unknown drug	299
Swimming pool/aquarium	287
Anticholinergic drugs	261
Heavy metals	258
Batteries	214
Automotive/aircraft/boat products	213
Industrial cleaners	203
Building and construction products	186
Anesthetics	181
Diuretics	174
Essential oils	171
Fertilizers	167
Anticoagulants	122
Tobacco products	121
Polishes and waxes	118
Lacrimators	83
Dyes	78
Fire extinguishers	72
Mushrooms	60
Veterinary drugs	55
Antineoplastics	47
Matches/fireworks/explosives	37
Serums, toxoids, vaccines	36
Photographic products	17
Narcotic antagonists	11
Diagnostic agents	10
Sporting equipment	6
Radioisotopes	5
Radiopharmaceuticals	1
Waterproofer/sealants	1

Total

FATALITIES IN 2008

Patient Age	Patient Species	Substance Description/Verbatim	Selected Cases
5	Animal	ANTIFREEZE (dog died and may have ingested au	tomotive antifreeze)
52	Human	EFFEXOR (also Seroquel, Oxcontin, Methadone, Xar	nax, Valium)
41	Human	NITROPRUSSIDE (treated for hypertension and o	leveloped toxicity)
35	Human	NORTRIPTYLINE (also Percocet)	1
70	Human	AMARYL, GLYBURIDE	
59	Human	ASPIRIN	
56	Human	ASPIRIN, IBUPROFEN	
31	Human	TEGRETOL, XANAX, VISTARIL	
41	Human	HEROIN	
52	Human	ATENOLOL, BENZODIAZEPINES, ETHENO)L
46	Human	Cymbalta, seroquel, ambien	
20	Animal	POLYURETHANE (inhaled fumes)	
66	Human	RUSTY DUCK, FABULOUS BLASTER, ALIP	HATIC
		HYDROCARBONS, PETROLEUM DISTILLA	ATES, CASTROL
		ISOBUTANE, PURE NEATS, ALUMINUM E	BLACK
		(Multiple symptoms and signs and chronic expossure	to these solvents)
33	Human	XANAX, PERCOCET, TYLENOL	2
21	Human	PERCOCET, PHENOBARBITAL	
65	Human	SMOKE INHALATION	
45	Human	EFFEXOR, TRAMADOL	
49	Human	HEROIN	
52	Human	PERCOCET, PHENOBARBITAL, LITHIUM	
29	Human	METHANOI	
84	Human	PETROLEUM DISTILLATE	3
Age Unknown	Animal	SEVIN DUST	-
6	Human	ORGANOPHOSPHORUOUS COMPOUND)
48	Human	DE ICER (methanol, ethylene glycol)	
41	Human	VERAPAMIL SR. TRAZODONE, EFFEXOR.	
		COZAAR LUNESTA	
53	Human	MUSHROOM (wild mushroom-amanita bisparigea	. 4
44	Human	WINDSHIELD WASHER FLUID (methanol)	•
32	Human		5
44	Human	LORTAB	5
51	Human		6
38	Human	PROCARDIA ATENOLOL OLINAPRIL	· ·
22	Human	ERESH LINEN AIR ERESHENIER (buffing halo	ronated hydrocarbon)
51	Human		
JI	Turnan		ODARONE,
70	Human		
29 45		TVIENOI	NA 7
45			/
25 74	numan	IOPKOL, ETHANOL	
74	Human		
29	Human	POSSIBLY HEROIN, COCAINE (patient on Ce	elexa, Ability, Zyrtec)
59	Human	ETHANOL and unknown	
28	Human	HEROIN, COCAINE	
22	Human	HEROIN	
Selected C	ases: See pag	es 37 and 38 for description.	

Death Abstracts

1 - 35 year old female, presented unresponsive after an alleged overdose of Percocet and nortriptyline. Her ECG showed slight upward deflection of her R wave in AVR. She was given sodium bicarbonate and allegedly her ECG normalized. She was found to have an acetaminophen level of 52. She remained unresponsive and then declared brain dead and was an organ donor.

2 - 33 year old female was received in the ED unresponsive. She 'coded' 4 times prior to the call to the poison center. Her known medications consisted of Xanax, Percocet and Tylenol. Her initial labs revealed a prolonged INR (2.5) hyperkalemia (5.5), signs of renal failure (BUN 61, creatinine 5.9) and marked respiratory and metabolic acidosis (pH 6.62, pCO2 96, HCO3 9.8). initial ECG revealed a QRS interval of 144 ms and the possibility of Darvocet was entertained and she was given hypertonic bicarbonate. PCC also suggested blocking therapy for possible toxic alcohol ingestion. Five hours after the initial call to our center, call back to the ED revealed that she expired.

3 - 84 year old female was transported to the ED in the morning following a gathering at which she ingested Tiki Torch Fuel, accidentally, thinking that it was apple juice. She apparently vomited shortly after the ingestion. In the ED she was hypotensive, had a metabolic acidosis and on chest X-ray was found to have a large left sided infiltrate. She was placed on a ventilator but remained hypoxemic despite a FiO2 of 60%. She expired the next evening.

4 - 53 year old woman made a curry of mushrooms she picked outside of her home. She and 2 of her family developed delayed onset of symptoms. Despite aggressive therapy she developed fulminant hepatic failure and expired.

5 - 32 year old female was admitted to the hospital for altered mental status. Workup revealed a severe metabolic acidosis, abnormal liver enzymes. She did not receive n-acetyl cysteine therapy because her acetaminophen level on admission was "negative" and her liver studies were "normal". A follow-up acetaminophen level obtained while she was in the hospital showed a level of 237 mcg/ml. She developed an INR of 10.7, transaminases over 10K, a creatinine of 2.9 mg/dl. She was not considered for transplant and expired.

6 - 51 year old female with a history of chronic alcohol abuse, depression and end stage liver disease. She was thought to have ingested Fioricet, aspirin and alcohol. She was hypotensive on admission but responded to fluid challenge. She progressed to develop elevated transaminases, INR. Follow-up revealed she had expired.

7 - 45 year old female with a chronic pain syndrome, thought to be fibromyalgia, apparently ingested an overdose of acetaminophen-containing medication along with carisoprodol, meprobamate and hydrocodone. She developed fulminant hepatic failure and was transferred for liver transplant; in the transplant unit she developed cerebral edema which was nonmitigatable and she was declared brain dead.



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About NJPIES

NJPIES, often referred to as the Poison Control Center, is a poison emergency and drug information service. The center operates 24 hours a day, seven days a week. You can call NJPIES to get help in a poison emergency, for poison prevention information, for drug information or to get treatment advice following an animal bite. Specialists in Poison Information, who are physicians, nurses, or pharmacists, handle all calls. They will tell you what to do if you, your child or your pet is poisoned. The New Jersey Poison Control Center staff is ready to answer questions about poisons in your home and provides a wealth of information regarding general poison prevention.



New Jersey Poison Information and Education System (NJPIES) Located at UMDNJ 140 Bergen Street, Suite G 1600 P.O. Box 1709 Newark, NJ 07101-1709 Administrative Office: (973) 972-9280 Fax: (973) 643-2679 Poison Help Hotline: 800-222-1222 TDD/TTY Line (For the Hearing Impaired) 1-973-926-8008 Website: www.njpies.org