NJPIES 2011/2012 ANNUAL REPORT "Working Together as One"

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Director's Message

It has, once again, been my privilege to serve as both the medical and executive director of the New Jersey Poison Information and Education System. For nearly 30 years we have served the public and professionals of the state of New Jersey in their time of crises perceived or real. Despite some stresses on our abilities, we have never failed to accomplish our mission.

This report is constituted as a bi-annual report in an effort to save funds. The efforts of 2011 and 2012 were indeed eventful. Shortly after 2011 began, we found ourselves involved in an effort to treat a patient poisoned with an unusual substance. The treatment required a special antidote, one not stocked in most hospitals or pharmacies. Despite almost blizzard conditions, we were able to obtain the antidote across state lines, with the help of several agencies, from a federal "strategic stock" of agents potentially useful in a terrorist event. Although we showed that the system "worked," the victim did not survive.

The center was intimately involved in efforts to document the impact of the problem with emerging drugs of abuse such as the synthetic cannabinoids and so called "bath salts." Working with the Division of Consumer Affairs of the New Jersey Attorney General's Office (NJAG), we helped bring attention to this problem and worked with the NJAG's office to curtail the distribution of these agents. The end of 2012 was remarkable in our ability to remain operational during the storm of a lifetime. Despite enormous personal hardships suffered by many of our staff, we were able to serve the state without interruption.

We continue to be a resource for educating medical, nursing and pharmacy students and residents in emergency medicine, family medicine and pediatrics. Throughout the years, our health educators provide programs to school aged children and senior citizens in every county of the state.

We are again faced with the problem of funding. We have suffered cuts in both local and federal support. We are thankful that our support from the state budget has remained stable, but that represents less than 20% of our needed funds. We have devoted a large amount of time in efforts to attract additional funds. Those efforts have enabled us to keep functioning, for this year and next, but the future is less clear. We hope to be able to continue to serve the citizens of New Jersey and report that our mission is accomplished each year going forward.

Poisonings Happen Anywhere, At Any Time, to Anyone

Do you have items in your home that could be a potential poison if used in the wrong way? Of course you do and so does everyone else! Who doesn't have laundry detergent, medicines, pesticides, batteries, vitamins, cleaning products, mouthwash, rubbing alcohol, car/house maintenance products, gardening chemicals, etc. These are all safe when used for their intended purpose, but can cause harm when ingested or used inappropriately. Where are these products stored? Are they easily accessible by your loved ones, including pets?

Poisoning is a major public health issue and a danger to us all! Poisoning is now the leading cause of unintentional death from injury in this country, surpassing the number of deaths from motor vehicle crashes and firearms. Many think that by putting products up high and out of reach means that they are not accessible to certain loved ones (children, teens, and pets). The NJ Poison Experts argue to the contrary; experience has shown us that it's not enough to just put them out of reach. We recommend that all medicines and toxic substances be **locked up** and kept out of sight and reach. In fact, with prescription drug abuse at an all time high and abusers admitting that they often obtain their abused drugs without permission, medications should be stored in locked cabinets or medicine safes.

When the site of exposure is known, almost 90% of poisonings happen in the home. Children younger than 6 years of age account for approximately 50% of calls placed to poison centers involving exposure to/contact with poisons.

Often exposures occur when adults are distracted by the telephone or doorbell. Teenagers account for greater than 7% of exposure calls. While the exposures in those less than 5 years old are often due to the curious nature of children, exposures in teens tend to be abuse of medications and other substances, as well as, suicidal gestures.

Poisonings don't just happen to children, they happen to everyone – from children to seniors. Deaths in adults from poisonings are more common among those using drugs for abuse or in suicide attempts.

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Age Breakdown of Exposures

	% 2011	% 2012
Less than 1	5.07	5.10
1 to 2	12.81	12.69
2 to 3	12.41	11.81
3 to 5	12.76	12.68
5 to 10	7.29	7.24
10 to15	3.92	3.99
15 to 24	9.62	9.50
24 to 45	13.97	14.20
45 to 65	11.20	11.41
Greater than 65	5.01	5.13
Age Unknown	5.65	5.96

While the majority of calls concerned humans, the Poison Experts also received many information and exposure calls regarding animals.

2011 3,036 animals total	2,769 dogs	243 cats	24 other
2012 2781 animals total	2544 dogs	221 cats	16 other

Who Calls for Help

Parents and babysitters call when they believe that children are exposed to toxic substances. Seniors use poison centers when they fear they may have made an error in taking medicine. Doctors, nurses, pharmacists from all practice setting and emergency room staff place calls to the NJ Poison Experts for treatment advice on drug or poison-related cases. The staff of NJPIES is recognized by their "healthcare colleagues" as Poison Experts. In fact, calls for assistance by healthcare professionals have been increasing. In 2011, almost 12,000 requests for assistance came directly from healthcare professionals. In 2012 the number increased to almost 13,000 requests. These calls came from physicians, nurses, pharmacists, physician assistants, and first responders (ambulance, 911, paramedics, EMTs).

A continuous trend at NJPIES is the increase in calls from healthcare facilities such as hospitals (table below). Not only has the total number of calls gone up, so has the percentage of calls based upon total call volume.

Total Calls from Healthcare Facilities		
	Number	% of
		All Calls
2012	10,745	17.27
2011	10,539	16.05
2010	10,417	15.75
2009	10,273	14.45
2008	10,483	14.45
2007	10,173	13.41
2006	9,994	12.94
2005	9,354	11.95

Location of Caller	% 20 11	% 2012
Residence	64.27	60.88
Workplace	1.31	1.19
Healthcare Facility	16.05	17.27
School	0.89	0.81
Rest./Food Serv.	0.02	0.01
Public Area		
Other/Unk	17.46	19.84

Calls by County

Calls come to the NJ Poison Experts from every corner of the state. Citizens in every county make use of the experts' help. The calls seem to "follow" the citizens of the state when they travel. During holidays and vacation time, the location of the caller varies from the regular daily activity. During the summer months, a disproportionate number of calls reaching the poison center originate from traditional summer vacation locations, for example the "Jersey Shore."



COUNTY	2011	2012
Atlantic	2,375	2,527
Bergen	5,008	4,751
Burlington	3,253	3,206
Camden	4,947	4,655
Cape May	935	893
Cumberland	1,243	1,239
Essex	4,350	4,128
Gloucester	2,341	2,366
Hudson	2,780	2,699
Hunterdon	859	758
Mercer	2,774	2,588
Middlesex	4,177	3,862
Monmouth	4,811	4,545
Morris	3,112	2,945
Ocean	5,156	4,934
Passaic	2,244	2,114
Salem	476	427
Somerset	1,692	1,552
Sussex	1,143	925
Union	3,217	3,307
Warren	857	722
Other US	5,720	5,144
Unk or not US	2,195	1,929

America's New Drug Crisis

Our nation is in the midst of a prescription (Rx) drug crisis. Rates of prescription drug abuse in the U.S. are alarmingly high, as are the number of unintentional poisonings and overdoses due to these drugs. According to the National Institutes of Health, the availability of prescription pain medication has quadrupled in the past two decades. Unintentional poisoning deaths from medicine misuse/abuse now ranks as the number one cause of unintentional deaths from injuries, more than motor vehicle crashes. Rx and over-the-counter (OTC) medications are used every day by teens and adults to get high. Studies show that a large percentage of abused prescription drugs are obtained without permission from family and friends; the medications are easily accessible in home medicine cabinets, closets, pantries, purses, luggage, etc. and are highly susceptible to misuse and/or abuse.

Citizens can prevent the theft of their medications by locking them up and getting rid of all unused and/or expired prescription and OTC medications. Drop-off sites are available statewide where these medications can be properly disposed of. Contact the New Jersey Poison Experts at 1-800-222-1222 for a local drop-off site near you. Safely disposing of medications will help decrease the number of teens and

adults using these medications to get high, as well as decrease the number of toddlers who unintentionally ingest medications used for pain management, diabetes, blood pressure, heart, etc. Remind the seniors in your lives to do the same.

ABUSE CASES		2011		2012	
		No.	%	No.	%
Children (<20 years)					
	Child 6-12 years	11	0.84	6	0.52
	Teen 13-19 years	388	29.51	334	28.87
	Unknown child	0	0.00	0	0
	Subtotal	399	30.34	340	28.38
Adults (>=20 years)					
	20-29 years	421	32.02	376	32.50
	30-39 years	204	15.51	171	14.78
	40-49 years	151	11.48	139	12.01
	50-59 years	68	5.17	78	6.74
	60-69 years	27	2.05	26	2.25
	70-79 years	2	0.15	3	0.26
	80-89 years	2	0.15	0	0.00
	>= 90 years	0	0.00	0	0.00
	Unknown adult	25	1.90	10	0.86
	Subtotal	900	68.44	803	69.40
Other					
	Unknown age	16	1.22	14	1.21
	Invalid/missing age	0	0.00	0	0.00
Total		1,315	100.00	1,157	100.00

NJPIES is the state's primary defense against injury and deaths from poisoning, both intentional and unintentional. In 2011, NJPIES was involved in raising the alarm about dangerous products being marketed to young consumers thereby detecting an increase in the use of designer drugs. Designer drugs are manufactured to "mimic" drugs of abuse (most often illegal substances), in addition to avoiding existing drug laws. When first produced, most designer drugs are "considered legal". Over time, as use increases and adverse effects are detected and reported, law enforcement may make a designer drug or class of chemicals illegal.

In 2011, two new major designer drugs were detected in the state; a "synthetic" form of marijuana (also known as K2, spice, etc.) and an amphetamine derivative known on the street as "bath salts". NJPIES was instrumental, working with the NJ Attorney General's Division of Consumer Affairs, in getting both products classified as illegal. NJPIES provided the Attorney General with data demonstrating the significance of the problem. Subsequent to the classification, there was a decrease in calls related to those substances.

BATH SALTS - EXPOSURES AGE		2011		2012	
		No.	%	No.	%
	Teen 13-19 years	12	17.14	4	16.67
	Unknown child	0	0.00	0	0
	Subtotal	12	17.14	4	16.67
Adults (>=20 years)					
	20-29 years	32	45.71	8	33.33
	30-39 years	13	18.57	8	33.33
	40-49 years	11	15.71	2	8.33
	50-59 years	1	1.43	0	0
	60-69	0	0	0	0
	70-79	0	0	1	4.17
	Unknown Adult	0	0	1	4.17
	Subtotal	57	81.43	20	83.33
Other					
	Unknown age	1	1.43	0	0
Total		70	100.00	24	100

HETIC CANNABINOIDS (Marijuan	a Homologs)	
	2011	2012

		2011		2012	
		No.	%	No.	%
Children (<20 years)					
	<2 years	2	1.53	1	1.06
	3 years	0	0.00	0	0.00
	4 years	0	0.00	1	1.06
	5 years	0	0.00	0	0.00
	Unknown <= 5 years	0	0.00	0	0.00
	Child 6-12 years	1	0.76	0	0.00
	Teen 13-19 years	58	44.27	40	42.55
	Unknown child	0	0.00	0	0.00
	Subtotal	61	46.56	42	44.68
Adults (>=20 years)					
	20-29 years	39	29.77	25	26.60
	30-39 years	13	9.92	15	15.96
	40-49 years	10	7.63	5	5.32
	50-59 years	2	1.53	3	3.19
	60-69 years	1	0.76	0	0.00
	70-79 years	0	0.00	0	0.00
	80-89 years	0	0.00	0	0.00
	>= 90 years	0	0.00	0	0.00
	Unknown adult	2	1.53	1	1.06
	Subtotal	67	51.15	49	52.13
Other					
	Unknown age	1	0.76	2	2.13
	Invalid/missing age	2	1.53	1	1.06
Total		131	100.00	94	100.00

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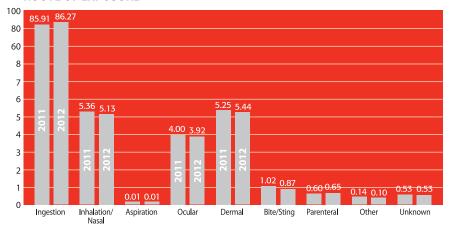


Snap Shot of Calls to NJPIES

ROUTE OF EXPOSURE

In 2011-2012, the NJ Poison Experts answered 127,880 calls for assistance from both the public and healthcare professionals. Exposure calls accounted for 103,295 cases. Among them, approximately 8,100 were related to suicide attempts. Of these suicide attempts, 1,636 were attempted by teenagers with 74% being females.

In addition, over 5,600 calls were related to abuse or inappropriate use (misuse) of medications. The majority of these calls were in the 20-29 year old age group followed by teenagers from 13-19 years old. The remaining 89,595 exposure calls involved unintentional ingestions; the majority of which occurred in children below the age of six (6).



Medications accounted for the greatest percentage of exposures (approximately 47% of all exposures); of these a little more than 50% were prescription and the remainder over-the-counter (OTC). Household products (i.e., cleaning products) were the next most common category of products involved in exposures reported to NJPIES.

SUBSTANCES INVOLVED IN EXPOSURES

SUBSTANCES	% 2011	% 2012
Alcohols	4.28	4.17
Auto Products	0.20	0.30
Bites	1.04	0.89
Corrosives	1.15	1.14
Cosmetics	8.88	7.02
Fertilizers	0.28	0.24
Food	2.83	3.10
Foreign Bodies	5.70	5.96
Gases/Fumes	1.40	1.53
Household Products	17.30	17.25
Hydrocarbons	1.44	1.67
Illicit Drugs	1.09	0.92
Industrial Chemicals	1.74	1.85
Medications	47.33	47.27
OTC	48.88	48.49
Prescriptive	61.04	51.51
Pesticides	4.30	3.72
Plants	2.08	2.01

Mission

Our mission is to educate the public to prevent poisonings and protect the health of the citizens of New Jersey by providing treatment and the provision of information concerning poisons, drugs and targeted health issues through telephone management, consultation, education and research.

New Jersey's Poison Center - Real People. Real Answers

NJPIES, also known as the NJ Poison Control Center, is New Jersey's only poison center, covering the entire state. The NJ Poison Experts have been available to assist citizens with life-saving poison emergency and information services for nearly 30 years. Since our founding, these experts have been leaders in the field of toxico-surveillance and public health. The following are testimony to the work of NJPIES.

NJPIES saves money for the State of New Jersey, insurance companies, hospitals, pharmaceutical and household-product companies. (Industrial hygienist)

NJPIES makes the latest scientific information concerning drugs and other chemicals associated with poisoning readily available to the citizens of New Jersey. This translation of up-to-date scientific knowledge is an economically efficient and medically sound way to enhance public health and safety. (UMDNJ/New Jersey Medical School - Professor)

NJPIES saves lives. NJPIES saves money. (Advocates for Children of New Jersey)

... the combined savings in lives, better health, and medical costs makes the NJPIES one of the best investments NJ taxpayers can make and should be a high priority item for funding by NJ government agencies. (New Jersey City University - Professor)

Your Poison Information Center is extremely important to the well-being of the people of the State of New Jersey. You possess resources that are beyond the capacity of any other institution to provide, and when it comes to acute care of accidental poisoning victims, it is you who get the calls from ERs -- they have no one else to turn to. (UMDNJ/New Jersey Medical School - Professor)

I am writing in support of full funding for the NJPIES. A glance at the record of services performed by NJPIES provides evidence that it makes a crucial contribution to healthcare in our state. Most importantly, it saves lives. In addition, it saves money. (Citizen Ed.D.)

Highly trained, experienced and dedicated health professionals (doctors, nurses and pharmacists) answer calls from citizens around the state regarding potential poisonings as well as questions involving chemicals or household products, the safe use and/or side effects of medications, plants, drug interactions, environmental contaminants, or other poisons. The Poison Help line (800-222-1222) is available 24 hours a day, seven days a week, every day of the year.

In addition to the Poison Experts on the phone, the center's Executive and Medical Director is a board certified medical toxicologist and a UMDNJ – New Jersey Medical School (NJMS) professor. On many occasions, he has "jumped" into his car and traveled throughout NJ to be at the bedside to assist physicians taking care of their patients. As additional medical backup, the center is "covered" by four medical toxicologists on call 24-hours a day. Expert consultants in the area of mushrooms, plants, and snake toxicology are also part of the team.

There have been numerous instances where our physicians and pharmacists have had to contact NJPIES to obtain critical and often life-saving information in the midst of trying to stabilize a patient. Their advice frequently saves us valuable time as well as money. Healthcare professionals have come to trust and depend on the quick and accurate response of NJPIES for drug related information. Additionally, NJPIES plays a crucial role in helping with patient care in the community, before the patient ever ends up in the hospital. (NJ Hospital/ Dept. of Pharmacy Services)

NJPIES serves as an early-warning system for state and federal law enforcement, pharmaceutical and other manufacturers, quickly alerting them to drug diversion, interaction, packaging and labeling issues before more people are harmed. (American Association of Poison Control Centers)

It is critical that the true worth of poison centers is recognized by those who are responsible for approving their funding. (Mycologist Consultant)

With a 2011 budget of just under \$3.0 million, NJPIES's returns over \$50 for every dollar in costs by reducing needless insured healthcare spending by state, federal, and private insurance plans. By investing in the poison center you can continue to ensure expert advice and treatment is provided to residents in need, while simultaneously reducing unnecessary medical costs to all parties involved during these difficult times. (RADARS System, Denver Health)

POISON R 1-800-222-1222

NEW JERSEY POISON INFORMATION

This first response service gives advice and counsel at the scene either to a parent or a physician treating a patient in a medical center, office, or responding to an emergency after hours on call. The service puts New Jersey's most expert toxicologists on cases in the fastest possible manner. The service is cost effective...thereby leaving other, more costly emergency services free for more acute cases. NJPIES provides consistent and exceptional service that is vital to the health and welfare of New Jersey residents. As pediatricians, we rely on various expert specialists to obtain the best and correct diagnoses for our young patients. NJPIES is part of our treatment team. (NJ Hospital/Dept. of Pediatrics)

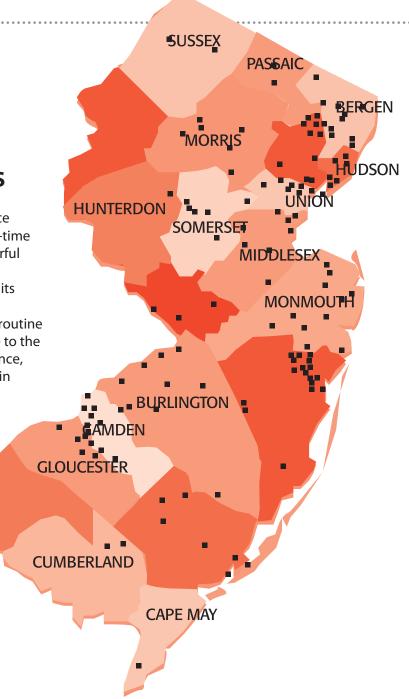
We call NJPIES in order to get treatment advice from a toxicologist on patients with symptoms that don't seem to always fit the internet information. We find that they provide straight forward, helpful insight that at times is life saving. In these difficult economic times, our Emergency Department is seeing more frequent and more complex intentional and unintentional ingestions. We rely regularly on NJPIES for advice. The expert advice allows us to start therapy quickly often preventing such devastating consequences such as liver or renal failure. (Hospital Emergency Medicine Clinician)

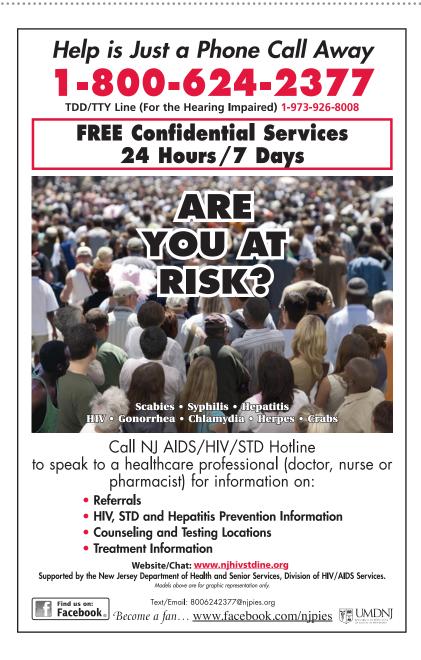
No question is too small and most cases can be resolved over the phone, usually avoiding an unnecessary and expensive trip to an emergency room. In 2011/12, the NJ Poison Experts managed 74,405 (~ 72%) cases on site (home, workplace, public area). This saves the person exposed (the patient) from an unnecessary trip to the emergency room, as well as, saving significant healthcare dollars.

Since 2001, NJPIES has been located at UMDNJ; part of the Department of Preventive Medicine & Community Health. As a part of our commitment to the state, we provide a training center for professional education programs and on-site continuing education training to medical professionals (emergency medicine, pediatric and family practice residents in training); medical, nursing and pharmacy students; and graduate nurses and pharmacists. We are committed to the improvement of medical care. NJPIES' staff maintains an active role in academia through publications in peer-reviewed journals and presentations at conferences.

24 hours of calls at NJPIES

In our center, the Geographical Interface System (GIS) plots call volume on a real-time basis; giving poison center staff a powerful tool in epidemiological evaluation of poisoning patterns around the state. In its commitment to reduce the impact of poisoning, poison center staff conduct routine surveillance of calls for assistance made to the Poison Help Line. Throughout its existence, NJPIES has played an instrumental role in detecting local, statewide and national epidemics.





In its commitment to target important public health issues, NJPIES has managed the NJ Department of Health's (NJDH) AIDS/HIV/STD/ Hepatitis Hotline for over 20 years. The staff provides telephone consultation for people seeking information about HIV/AIDS and other sexually transmitted diseases including hepatitis. Callers receive information tailored to their needs: discussion about prevention, referrals for testing sites and other related services. counseling and testing locations; information on treatment and adverse reactions to medications. Just over 2 years ago, NJPIES was asked by the NJDH to respond to questions from the general public, law enforcement and any healthcare professional regarding the state's needle exchange program. In our first full year of doing so (2011), our staff responded to over 300 calls related to this program. In 2012, the number increased to over 450 calls.

Cost Savings

Studies done in New Jersey and duplicated elsewhere have shown that calls to poison centers save millions of dollars in healthcare costs each year. In an article published in 2007, we showed that a hospital calling the poison center is associated with an apparent decrease in hospital stay of 3 days. The cost savings of such a decreased length of stay, even if it grossly overestimated, is in the tens of millions of dollars a year.

An expensive and perhaps risky trip to a hospital emergency room is often avoided by a call to NJPIES. With the majority of calls to the poison center coming from the lay public, NJPIES is able to manage most of these calls at home; thus saving the victim from unnecessary healthcare costs. When we surveyed other poison centers in other states, we found that our cost per call is among the lowest of all of the regional poison centers once similar cost structures are compared. NJPIES is a great example of regionalization. When NJPIES was first established, 32 hospitals in New Jersey had "their own poison center." With the formation of NJPIES, 32 centers were closed leading to one regional center, the New Jersey Poison Information and Education System (NJPIES).

We developed a model of a single poison center located somewhere in the United States taking calls from every U.S. citizen. Calculating only on the basis of incoming calls and attributing costs fairly among the states based on population, not only would NJ not save money, it would end up spending over a half million dollars more than it presently does for all poison center services, not just incoming calls. With the current economic situation, future funding of the program is in jeopardy. We have been forced to decrease staff and cut back on educational programs, while trying to maintain the best clinical and cost effective program as possible.

The Bottom Line: Poison centers make excellent economic sense for taxpayers, the government, healthcare facilities, insurance companies and the public. The NJ Poison Center saves money in addition to saving lives.

2011

NJPIES' FINANCES	EXPENSES
Salary	\$1,874,108.00
Fringe	\$ 627,534.00
Education expenses (includes printing)	\$ 27,776.00
Telephone	\$ 34,568.00
Postage	\$11,065.00
Equipment and equipment maintenance	\$ 22,886.00
Office supplies/costs	\$7,826.00
Microcomputer software	\$ 103,493.00
Subscriptions/memberships/books	\$ 9,245.00
Rent	\$130,000.00
Travel	\$15,243.00
Legal (arbitration)	\$ 900.00
Other	\$-128.00
Overhead	\$339,763.00
REV/CREDIT	\$-13,437.00
Total	\$3,190,842.00

2011

INCOME:	
HRSA	\$1,149,854.00
Hospitals	\$1,065,200.00
EMS	\$587,000.00
AIDS	\$439,700.00
RADARS	\$61,020.00
Other Data	\$5,500.00
Total:	\$3,308,274.00

Balance Sheet:

(Expenses)	(Income)	(Balance)
\$3,190,842.00	\$3,308,274.00	\$117,432.00

2012

NJPIES' FINANCES	EXPENSES
Salary	\$1,697,764.00
Fringe	\$ 630,369.00
Education	\$ 48,225.00
Telephone	\$ 39,663.00
Postage	\$ 3,575.00
Equipment and equipment maintenance	\$ 28,808.00
Office supplies/costs	\$1,856.00
Microcomputer software	\$59,396.00
Subscriptions/books	\$ 8,232.00
Rent	\$ 120,000.00
Tuition	0
Travel	\$ 11,088.00
Other	\$ 290.00
Overhead	\$ 262,602.00
REV/CREDIT	0
Total	\$2,911,868.00

2012

INCOME:	
HRSA	\$339,533.00
Hospitals	\$1,067,250.00
EMS	\$587,000.00
AIDS	\$439,700.00
RADARS	\$61,020.00
Other Data	\$9,203.00
Concerned Citizens for Poison Prevention	\$40,000.00
Total:	\$2,543,706.00

Balance Sheet:

(Expenses)	(Income)	(Balance)
\$2,911,868.00	\$2,543,706.00	-\$368,162.00



Invaluable Services – Value Added Public Services

Poison centers have expanded beyond their traditional role of just providing advice to people calling about a poison exposure. Today, they play a critical role in the preparedness and response to public health emergencies like natural disasters, emerging infectious diseases, food-or-waterborne illnesses, industrial accidents, dangerous consumer products, and terrorist events.

NJPIES has been on the front lines of identifying emerging public health issues for years. In 2011, data from NJPIES was used by the State Division of Consumer Affairs to get several designer drugs of abuse banned. Our monitoring efforts of this public health concern continue as NJ Poison Experts are on the lookout for newer designer drugs.

Super Storm Sandy – October 2012

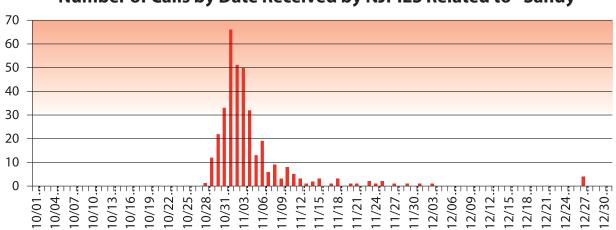
In October 2012, our poison center found itself face to face with a force of nature in the name of Super Storm Sandy. Located on the campus of New Jersey Medical School, we were fortunate to have been able to help plan the construction of the building and thus prepare for some of the adversity we were to face. The building has a generator which automatically turns on to insure adequate electrical power to the building. All of our vital equipment is attached to a battery backup, uninterruptable power supply which receives its power from the generator if the street power fails. As such, our staff experienced a

decrease in the room lighting, but their computers and telephones had power and continued to work while the rest of Newark lost power.

Our telephones suffered a momentary break in service when the telephone equipment in the street lost its power. Since we had prepared for such contingency, once the problem was identified, we were able to switch our telephone service to old fashioned regular telephone lines which enabled our staff to continue to respond to calls from the public and professionals of the state.

The first call identified as related to Sandy was received on October 28. Call volume increased daily, reaching its peak volume on November 1, when 66 calls related to Sandy were received. Calls continued to come in until December 27.





Number of Calls by Date Received by NJPIES Related to "Sandy"

We identified 448 calls related to Sandy. Calls came from every county in the state, except Salem. Monmouth County callers were the most represented followed by Bergen. There were 324 exposures to potentially toxic substances, 317 human and 7 animal exposures. There were 113 information calls received, 35 were environmental and 78 poison-related. In more than half, of the calls, 284, the exposure occurred in the residence of the caller.

Most of the victims of exposures were treated in their homes, without referral to a healthcare facility. One hundred seven calls were managed in a healthcare facility, 77 victims received treatment and were discharged, 10 were admitted and treated in a non-critical care unit, 11 were admitted to critical care, 2 to psychiatry and 7 were lost to follow-up/left against medical advice. In 88 of the calls a victim less than 20 years of age was identified while 249 were older than 20, in 113 calls no age was obtained.

Many of our staff suffered difficulties in their homes and in commuting to work. Several of the staff slept at the poison center to insure continued staffing. In summary, despite substantial obstacles, the center remained fully functional. Pharmacy students on rotation at NJPIES from the Rutgers College of Pharmacy and an Emergency Medicine resident from University Hospital came into the center to help despite the fact that the medical and pharmacy schools were officially closed. They developed a list of hospitals willing to take patients for emergency hyperbaric oxygen treatment in cases of carbon monoxide poisoning.

Train Derailment – November 2012

Soon after the call volume decreased from Sandy a train carrying vinyl chloride derailed and fell into a lake due to a faulty bridge. NJPIES responded to questions about 94 individuals, 81 were thought to be exposed. All of the calls originated in Camden and Gloucester Counties. Of the 81 thought to have had an exposure, 78 were seen at a healthcare facility and one was admitted.

Previous Public Health Threats Uncovered NJ Poison Experts

- It was the poison center that reported an outbreak of strange neurological symptoms in individuals eating fish and launched an investigation that spread to multiple states. This resulted in the discontinuation of fishing from a pier in Titusville Florida.
- Spotted an unusual number of drug overdoses in the greater Camden area which led to the uncovering of a nationwide outbreak of fentanyl being sold as heroin. This outbreak remained "under the radar" for nearly a year prior to our involvement.
- Alerted to an unusual number of overdoses in an intensive care unit, NJPIES was instrumental in bringing to justice, Charles Cullen, a nurse who is said to be the greatest mass murderer the state has ever seen.
- Involved in other important outbreaks, including, rogue botulinum toxin, ingestion of torch oil, and the use of the pigment Sindoor as food coloring, resulting in lead poisoning of a family and the uncovering of similar cases as far away as in India itself.

Public Education – Committed to Preventing Poisonings

Public education is a significant component of the work of NJPIES. It is more cost-effective to prevent poisonings from occurring than to treat them. Educators work with community leaders around the state to coordinate public education programs for the general public in an effort to reduce the incidence and severity of unintentional poisonings, as well as, increase awareness of NJPIES and its services.

The education department coordinates all aspects of health promotion for the poison center. It is committed to focusing attention on the dangers of poisonings and how to prevent them from occurring at home, work and play. Comprehensive programs are developed and implemented for all age groups. In 2011-2012, the department conducted over 340 educational programs statewide; educated nearly 21,000 residents; distributed over 690,000 pieces of education material.

In addition to offering free educational programs, NJPIES also provides free educational materials to members of the public, healthcare professionals, educators, etc. There are no costs for any of the services provided by the NJ Poison Center. Due to severe budgetary cuts, mailings of prevention education materials have been drastically reduced. Our educational materials are located on our website, **www.njpies.org**, and can be downloaded and printed for local distribution.

All requests for poison prevention education programs or educational materials can be submitted via our website at **www.njpies.org.**

Spread the Word ... Let's Make NJPIES Go Viral

Help NJPIES use social media to prevent poisonings and keep New Jersey families healthy and safe. Share poison prevention safety tips with your family, friends, coworkers, and community by posting what you learn on your personal Facebook and Twitter accounts. If interested in blogging for the NJ Poison Center, please email Alicia Gambino, Director of Public Education at **agambino@njpies.org.**

Connect With Us:

Visit our website: www.njpies.org

- Like us on Facebook: www.facebook.com/njpies
- Follow us on Twitter: @NJPoisonCenter
- Text in: 8002221222@njpies.org
- Live chat with a NJ Poison Expert: www.njpies.org

Tell us how the NJ Poison Experts helped you or your loved ones by sending an email to **agambino@njpies.org.**

10 Ways NJPIES Benefits New Jersey

- 1. 24/7 Beacon in the Emergency Service System. The role of the NJ Poison Center in detecting disease outbreaks is legendary. Literally, as New Jersey's Medical Early Warning Detection Service, it provides 24/7 first response services to both the public and medical and emergency service professionals throughout the state. Our trained poison specialists (physicians, registered nurses, and pharmacists) help ER doctors, EMS first responders as well as concerned at-home parents and residents determine if a poisoning has occurred and the correct immediate protocol. Timely intervention is frequently provided for children as well as teens, adults and senior citizens. NJPIES is a jewel in the continuum of services in New Jersey's emergency medical services. Can we really afford to tinker with that?
- 2. NJPIES saves lives. NJ Poison Center experts are ready to help with emergencies or questions whether there is a Nor'easter ready to dump 20+ inches of snow on the ground, a Category Five hurricane threatening the coast, pandemic flu crisis, or when other healthcare services and resources are closed for the day or holidays. Around the clock, NJPIES provides answers to everyone and anyone who calls our hotline, chats in via our website, or texts in via their cell phones.
- 3. NJPIES is a bargain to NJ taxpayers. As of now, NJPIES services remain free to the public. It is a great investment for NJ taxpayers. The National Public Services Institute found that poison centers provide a 1:7 ROI (Return On Investment) and save millions of dollars each year in avoiding unnecessary hospital and emergency care services and streamlining those services when they are needed. In New Jersey, conservative estimates are that NJPIES saves NJ \$9.5 million annually both in avoided hospital visits and ambulance calls, and shortened hospital stays. Calls to NJPIES reduce costs to individuals, hospitals and insurance companies.
- **4.** The need is greater not less during a Recession. During these difficult economic times, this free service is available to every NJ resident, and is needed more than ever. The center handles 200 calls a day, many from the state's uninsured, out-of-work, and most in-need. NJPIES' availability (24 hrs a day/ 7 days a week) and highly trained healthcare professionals efficiently keep thousands of patients out of doctors' offices and emergency rooms across the state. NJ Poison Experts aren't just there to help with emergencies. Their job also includes answering questions and educating the public about how to prevent poisonings.
- **5.** The Internet is not a substitute for real medical care. The Internet is replete with misinformation. Correct poison intervention requires the skills of trained toxicologists. During the last 5 years, the time of greatest Internet growth, NJPIES has seen a dramatic increase in call volume from hospitals.

Some make claims that doctors and citizens might be better served by searching the Internet for emergency medical advice rather than picking up the phone for a free call and consult with a medical expert. Internet medical sites are not the standard of care we are willing to use when lives are in immediate danger. Would you want your cardiac surgeon looking for surgical instructions on the Internet?

- 6. NJPIES supplements hospital care. Unintentional poisonings have exceeded motor vehicle crashes as the leading cause of unintentional injury death in New Jersey. NJPIES aides emergency room doctors with medical diagnosis and treatment plans, while handling less acute cases at home, thereby, keeping a substantial number of cases from ever reaching over-capacity emergency rooms around the state. NJ Poison Experts also assist 911 emergency medical service (EMS/paramedics) crews on what to do immediately once they have reached the patient.
- 7. NJPIES is a leader in children's health. Medical and Executive Director Steven Marcus is the state's preeminent expert in lead poisoning and children's public health issues. Trained first as a pediatrician, he is an adamant proponent for sensible legislation that protects the rights of children including the need for better regulations against lead poisoning in homes and schools and locked medicine cabinets to avoid unnecessary home poisonings. Children age 5 and under make up more than half (over 50 percent) of all poison exposures nationally and in New Jersey.
- 8. Early Warning System for Public Health/Statewide Public Health and Toxicosurveillance. The NJ Poison Center is a primary defense against injury and death from poisonings. We have the ability to detect public health threats in real-time as they emerge. NJPIES is equipped with a unique and uniform data collection system that contributes to the national poisoning data system, National Poison Data System (NPDS). NPDS provides an important data source in the development of a comprehensive surveillance system for early outbreak detection. Recently, the NJ Poison Experts were involved in tracking, trending and consulting on cases related to "bath salts" and "synthetic marijuana like K2."
- **9.** Component in Terrorism. The NJ Poison Center is a key component in New Jersey's terrorism response network. As shown by previous Anthrax scares, bio-terrorism from toxic, poisonous sources are a serious potential threat.
- **10. Medical Detective Experts.** Responding to poisoning emergencies takes expert medical detective work since exposures frequently have short turnaround times in order to save lives.

Take Home Message:

- Poisonings span a lifetime; they can occur anywhere, at any time, to anyone.
- When in doubt, check it out. The NJ Poison Experts are on standby waiting to help every caller Help is Just a Phone Call Away.
- Program cell, home and office phones with the Poison Help line 1-800-222-1222.
- Remember, poisonings are **PREVENTABLE** and should be a year-round responsibility for all.





NEW JERSEY POISON INFORMATION AND EDUCATION SYSTEM

- LOCATED AT -

University of Medicine and Dentistry of New Jersey 140 Bergen Street, Suite G 1600 P.O. Box 1709, Newark, New Jersey 07101-1709