



Minnesota Poison Control System

2013 Annual Report

Serving Minnesota since 1972
www.mnpoison.org

POISON
Help
1-800-222-1222



Hennepin County **Medical Center**

The Hennepin Regional Poison Center

has served the residents of Minnesota since 1972, and is designated by the state as the Minnesota Poison Control System. It is one of only 55 U.S. Poison Centers accredited by the American Association of Poison Control Centers (AAPCC), which sets stringent criteria to ensure quality service and care. Hennepin County Medical Center continues to generously provide a home for the Poison Center since its founding.



Ted Gray, III, RPh,
Certified Specialist in
Poison Information

In 2013 we answered 51,012 calls from Minnesota residents and health care facilities regarding patients that either were or were in danger of being poisoned. Calls to the Poison Center are answered 24/7 real time by experienced pharmacists certified by the AAPCC as Certified Specialists in Poison Information. This wealth of experience allows us to continue to keep 92%

of all patients safely in their homes while offering up-to-date, cutting edge advice to the small number of patients who require specialized critical care. Studies estimate for every dollar spent on Poison Centers, \$13.39 is saved in unnecessary health care costs and lost productivity, saving Minnesotans over \$32 million dollars last year.

Each year the epidemiology of poisonings changes in Minnesota and the Poison Center serves a unique surveillance role in tracking these trends. In 2013 we saw the emergence of e-cigarettes and the rise in the exposures of both adults and children to the concentrated nicotine liquid cartridges used. We also saw a steady upswing in heroin use from 56 cases in 2010 to 146 cases in 2013. In addition, we collaborated with the Minnesota Department of Health in an exploratory epidemiologic investigation to track the health care burden of illicit synthetic drug use in Duluth, Minnesota.

The Hennepin Regional Poison Center is supported by consulting medical toxicologists who volunteer their time to assist clinicians across the state treating critically ill poisoned patients. On behalf of our Associate Medical Directors, Drs. David Roberts, Benjamin Orozco, and Louis Ling we would like to sincerely thank Beth Baker MD, Elisabeth Bilden MD, Jennifer Englund MD, Carson Harris MD, Michael Kinnan MD, Samuel Stellpflug MD, Mathew Sztajnkrzyer MD, and Andrew Topliff MD for their service.

We strive to prevent poisonings wherever possible via an active education program. In 2013 the Poison Center conducted poison prevention events attended by 12,037 people and participated in professional events attended by 7,943 health care professionals. On site we educate students and residents in multiple specialties, including Emergency Medicine, Internal Medicine, Family Medicine, Occupational Medicine, Pediatrics and Pharmacy. We also continued our very successful collaboration with HealthPartners Institute for Graduate Medical Education as a major training site for Minnesota's only Medical Toxicology Fellowship.

The Poison Center staff and consultants continued to remain active in research. Twenty peer-reviewed abstracts were presented at the 2013 North American Congress of Clinical Toxicology in Atlanta, GA. Numerous peer-reviewed, indexed publications were also authored in 2013.

The Poison Center continues its dedication to reducing the morbidity and mortality of poisoning while simultaneously saving the state of Minnesota millions of dollars in unnecessary health care expenses. We look forward to serving Minnesota in 2014.

Jon B. Cole, MD
Medical Director

Deborah L. Anderson, PharmD
Managing Director

Meet Our Staff

Director

Deborah Anderson, PharmD

Medical Director

Jon Cole, MD, ABMS

Senior Associate Medical Directors

David Roberts, MD, ABMT, ABMS

Louis Ling, MD, FACMT, ABMT, ABMS

Associate Medical Director

Benjamin Orozco, MD

Clinical Supervisor

Stacey Bangh, PharmD, DABAT

Educator

Kirk Hughes, RN, EMT-B, CSPI

Specialists in Poison Information

Rachel Brandt, PharmD, CSPI

Alisha Floan, PharmD, CSPI

Gregory Grande, RPh, CSPI

Ted Gray, RPh, CSPI

Alyssa Klotz, PharmD, SPI

Samantha Lee, PharmD, CSPI

Chris Lintner, RPh, DABAT, CSPI, BCPS

Kevin Sell, RPh, CSPI

Steve Setzer, RPh, CSPI

Kelsey Stokkeland, PharmD, CSPI

Jill Topeff, PharmD, CSPI

Greg Wedin, PharmD, DABAT

Laurie Willhite, PharmD, CSPI

Poison Information Providers

Jenna Bednar

Gina Danielson

Sarah Derr

Calley Gruenhagen

Dustin Hadley

Huy Huynh

Amanda Kurtti

Renee Petroski

Consultants

Beth Baker, MD, ABMS

Elisabeth Bilden, MD, ABMS

Jennifer Englund, MD, ABMS

Carson Harris, MD

Mike Kinnan, MD, ABMS

Sam Stellpflug, MD, ABMS

Matthew Sztajnkrzyer, MD, ABMS

Andrew Topliff, MD, ABMS

JoAn Laes, MD,

Toxicology Fellow

Katherine Katzung, MD,

Toxicology Fellow

Rebecca Gardner, MD,

Toxicology Fellow

***ABMS American Board of Medical Specialties*

***DABAT Diplomate of the American Board of Applied Toxicology*

***CSPI Certified Specialist in Poison Information*



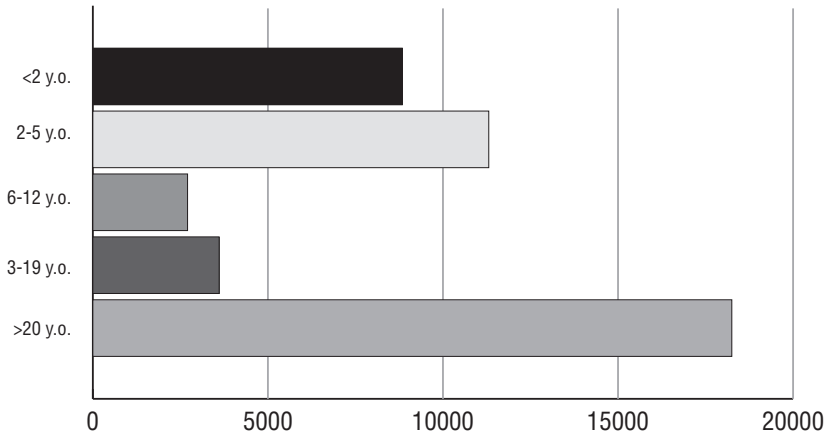
Jill Topeff, PharmD,
Certified Specialist in Poison Information



Deborah Anderson, PharmD, Director
Jon Cole, MD, Medical Director

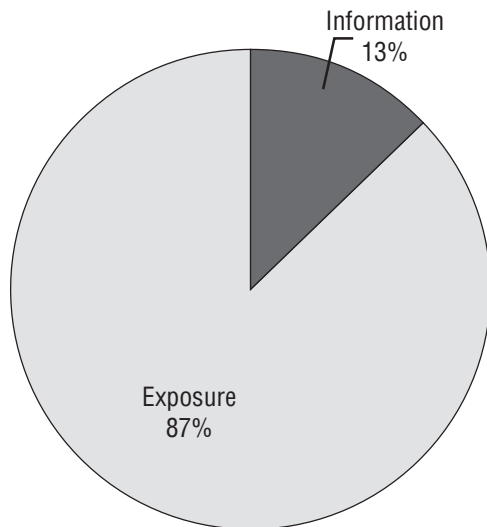


Age of Patients

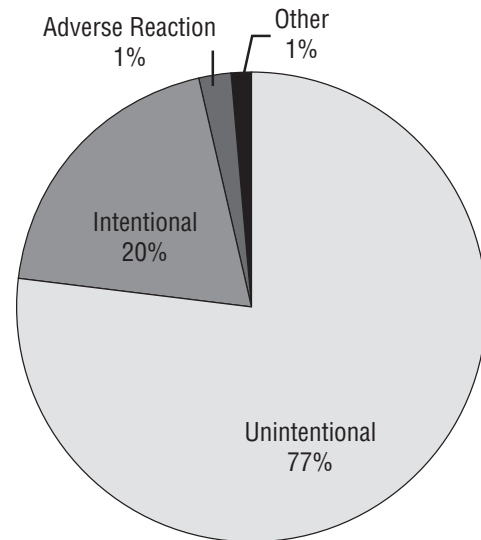


- Call 1-800-222-1222, 24/7, everyday
- Provided immediate help to 51,012 callers in 2013
- Calls are free of charge and confidential
- Minnesota Relay and interpretive services available
- Staffed by specially trained pharmacists nationally certified as Specialists in Poison Information
- 45% of calls involved a child under the age of 6 years

Number of Calls

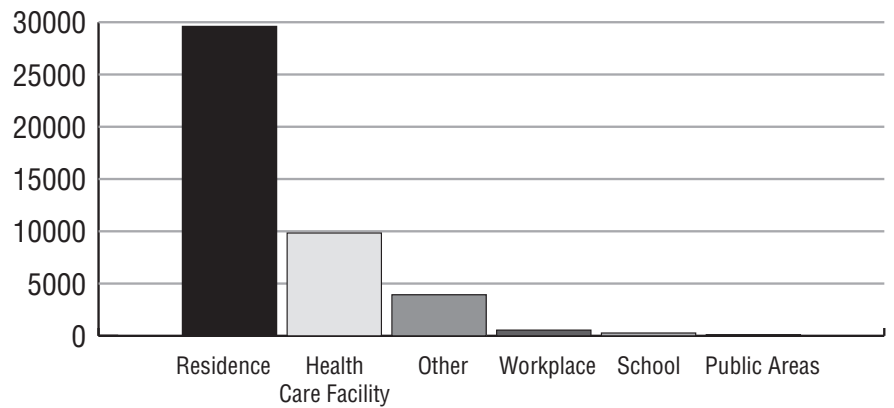


Reason for Exposure

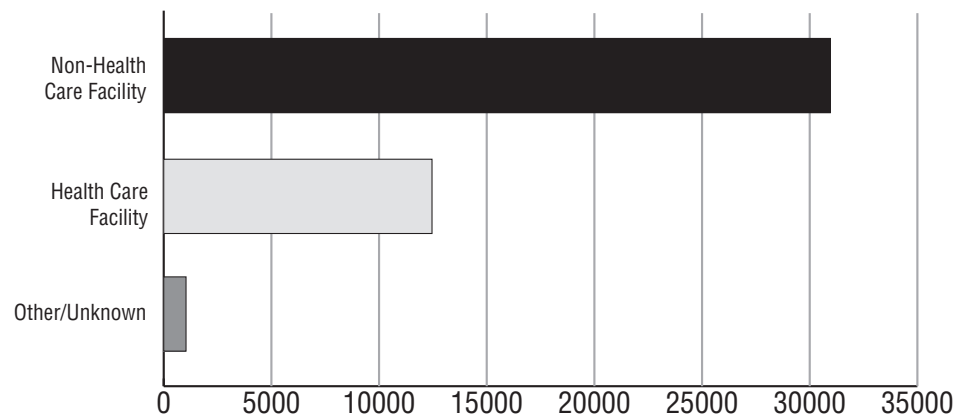


- 92% of exposures occurring in a residential setting were safely managed at home with Poison Center assistance
- 70% of callers would have sought emergency medical attention if the Poison Center was not available
- 22% of calls received are from health care providers seeking patient treatment recommendations
- 86% of calls transferred from nurse lines were managed at home
- 61% of exposures involve prescription and/or over-the-counter medications

Caller Site



Management Site



Top 5 Substances Involved in Poisoning

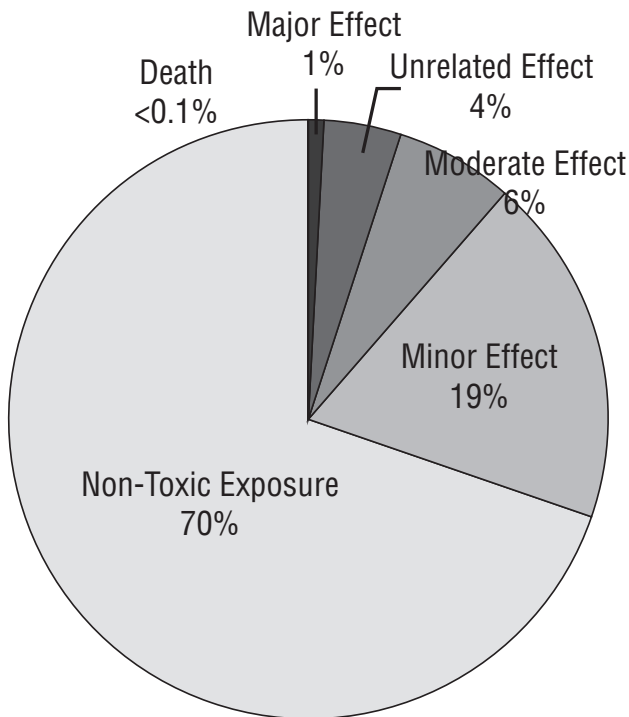
Non-Drug

1. Cosmetics, personal care items
2. Household cleaners
3. Foreign bodies, toys, silica gel packets
4. Alcohols
5. Pesticides

Drug

1. Analgesics
2. Sedatives, Hypnotics, Antipsychotics
3. Antidepressants
4. Cardiovascular drugs
5. Antihistamines

Medical Outcomes



- Patients admitted to hospitals with poisonings who receive Poison Center assistance have measurable reductions in average hospital stays
- Total annual expenses \$2,195,879
- 83% of budget are personnel expenses
- Every \$1 spent on Poison Center services saves an estimated \$13 on unnecessary health care costs and lost productivity
- \$28 million in costs avoided annually through use of the Poison Center

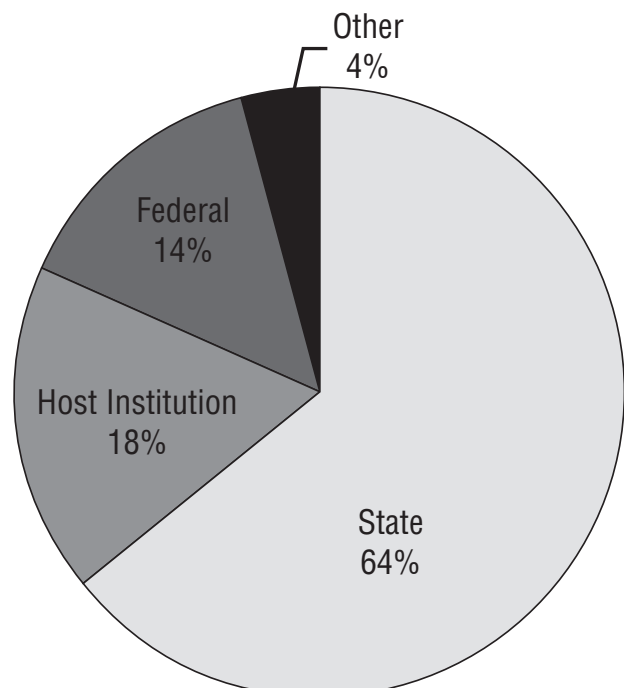
Statewide Public & Professional Education Outreach

- Distributed 98,613 pieces of poison prevention materials
- Participated in 116 public poison prevention events to over 13,500 Minnesotans
- Conducted 103 professional training events to public safety and health care professionals

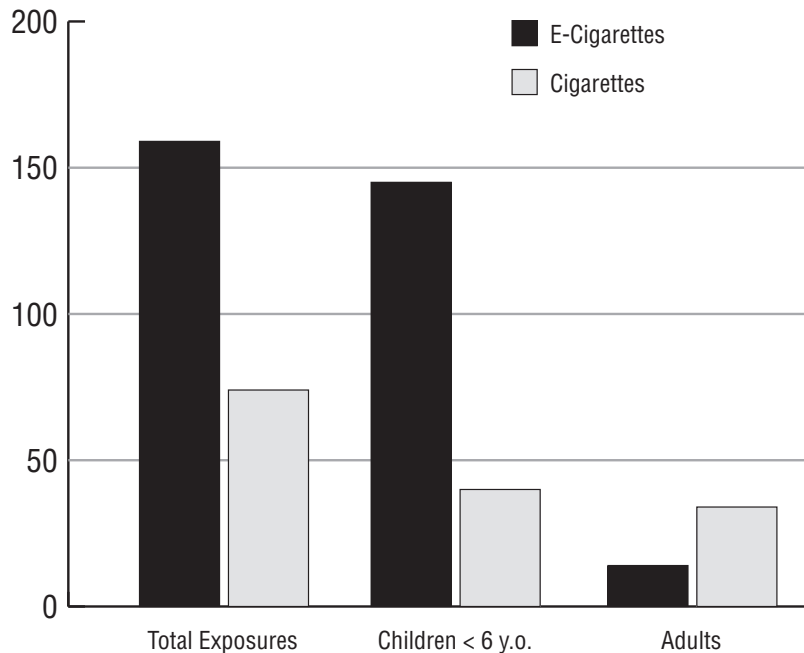
On-site Health Care Professional Education

- 34 medical residents (emergency medicine, family medicine, pediatrics)
- 3 physician medical toxicology fellows
- 28 pharmacy residents and students
- 17 medical students
- 1 Physician Assistant
- 5 Nursing Students

Funding Sources



Electronic Cigarette Poisonings



- Electronic Cigarettes are vaporizers that heat concentrated flavored nicotine liquid to be inhaled.
- In 2013 there were 74 exposures to e-cigarettes.
- Poisonings can occur by ingestion of the liquid, often by children handling the liquid refills or misuse of the device by adults.
- Nicotine poisoning, from traditional cigarettes or e-cigarettes, can cause agitation, nausea, vomiting, sweating, seizures, abnormal heart rhythms or difficulty breathing.
- Poison Center monitors new products and educates health care providers and the public about health concerns.



Minnesota Poison Control System
Hennepin County Medical Center
701 Park Avenue, Mail Code RL
Minneapolis, MN 55415

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