



Minnesota Poison Control System

2014 Annual Report

Serving Minnesota since 1972
www.mnpoison.org



The Minnesota Poison Control System

(Poison Center) is honored to continue to play a vital role in Minnesota's health care network. The Poison Center remains committed to providing immediate, real-time, expert telephone treatment recommendations to both the public at large and health care professionals working in the clinics, long-term care facilities, and hospitals of Minnesota. Through our work we strive to reduce the incidence and severity of poisoning in our state, improve patient outcomes, and decrease unnecessary use of valuable health care resources. When contacted by a caller from home, we continue to be able to keep that caller safely in their home over 90% of the time in a poisoning emergency.



Poison Center staff celebrating reaccreditation

Staffed by pharmacists, nurses and physicians all with specialty training in toxicology, the Poison Center provides life-saving services to Minnesota's citizens and health care professionals. In 2014, Poison Center experts handled 48,446 calls from homes, schools, workplaces, and health care facilities throughout Minnesota. Our service continues to be utilized statewide; 23,589 of our calls came from outside the seven-county metro area. We remain available anytime, anywhere, for anyone in Minnesota that has a poisoning emergency. We regularly handle calls involving plants, mushrooms, insect and snake bites, chemicals including carbon monoxide, household products, and illicit and prescription drugs. Many of our callers are concerned panicked parents calling from home regarding a child exposed to a potential poison; in the vast majority of cases we are able to allay fears and safely keep children in their homes.

Our 24-hour toll-free number (1-800-222-1222) continues to save Minnesota a tremendous amount of health care resources. According to the U.S. Health Resources and Services Administration (HRSA), for every dollar spent on poison center services thirteen dollars is saved. In 2014, the Poison Center saved Minnesotans \$35 million by avoiding unnecessary medical utilization and reducing hospital length of stay. When surveyed, the vast majority of our callers would present to an Emergency Department if the Poison Center was not available. Much of the money saved was in the prevention of over 27,000 Emergency Department visits last year.

The Poison Center also provides vital education for both medical professionals in training as well as the public. In 2014 we trained on site 22 resident physicians in Emergency Medicine, Family Medicine and Pediatrics, as well as 18 pharmacy residents and students and 20 medical students. We also provided professional education for the only 3 physician toxicology fellows in Minnesota. Offsite we held 107 events involving either public safety or professional health care education. Altogether we educated over 13,500 Minnesotans in 2014.

Looking to the future, we hope to continue our tradition of quality service while expanding our role in surveillance of emerging poisoning trends. Our data have been instrumental in understanding the emerging trends of e-cigarettes, synthetic drugs and prescription drug abuse, however we hope to offer Minnesota even more sophisticated surveillance while continuing to provide expert advice and education, one call at a time.

A handwritten signature in black ink, appearing to read "Jon B. Cole".

Jon B. Cole, MD
Medical Director

A handwritten signature in black ink, appearing to read "Deborah L. Anderson".

Deborah L. Anderson, PharmD
Managing Director

Meet Our Staff

Director

Deborah Anderson, PharmD

Medical Director

Jon Cole, MD, ABMS

Senior Associate Medical Directors

Louis Ling, MD, FACMT, ABMT, ABMS

David Roberts, MD, 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

Rebecca Lange, 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

Jane Axelrod

Jenna Bednar

Gina Danielson

Sarah Derr

Calley Gruenhagen

Dustin Hadley

Francis Herzog

Amanda Kurtti

Renee Petroski

Administrative Assistant

Marilyn Ciepielinski

Consultants

Beth Baker, MD, ABMS

Elisabeth Bilden, MD, ABMS

Jennifer Englund, MD, ABMS

Carson Harris, MD

Katherine Katzung, MD, ABMS

Mike Kinnan, MD, ABMS

JoAn Laes, MD, ABMS

Sam Stellpflug, MD, ABMS

Matthew Sztajnkrzyer, MD, ABMS

Andrew Topliff, MD, ABMS

Toxicology Fellows

Rebecca Gardner, MD

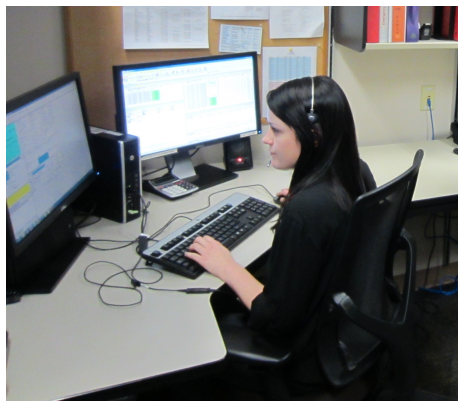
Jenna LeRoy, MD

Travis Olives, MD

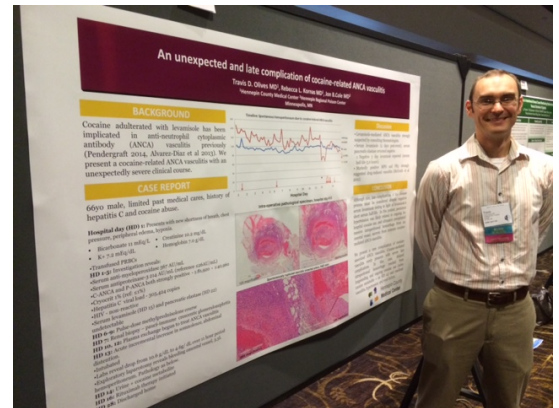
***ABMS American Board of Medical Specialties*

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

***CSPI Certified Specialist in Poison Information*



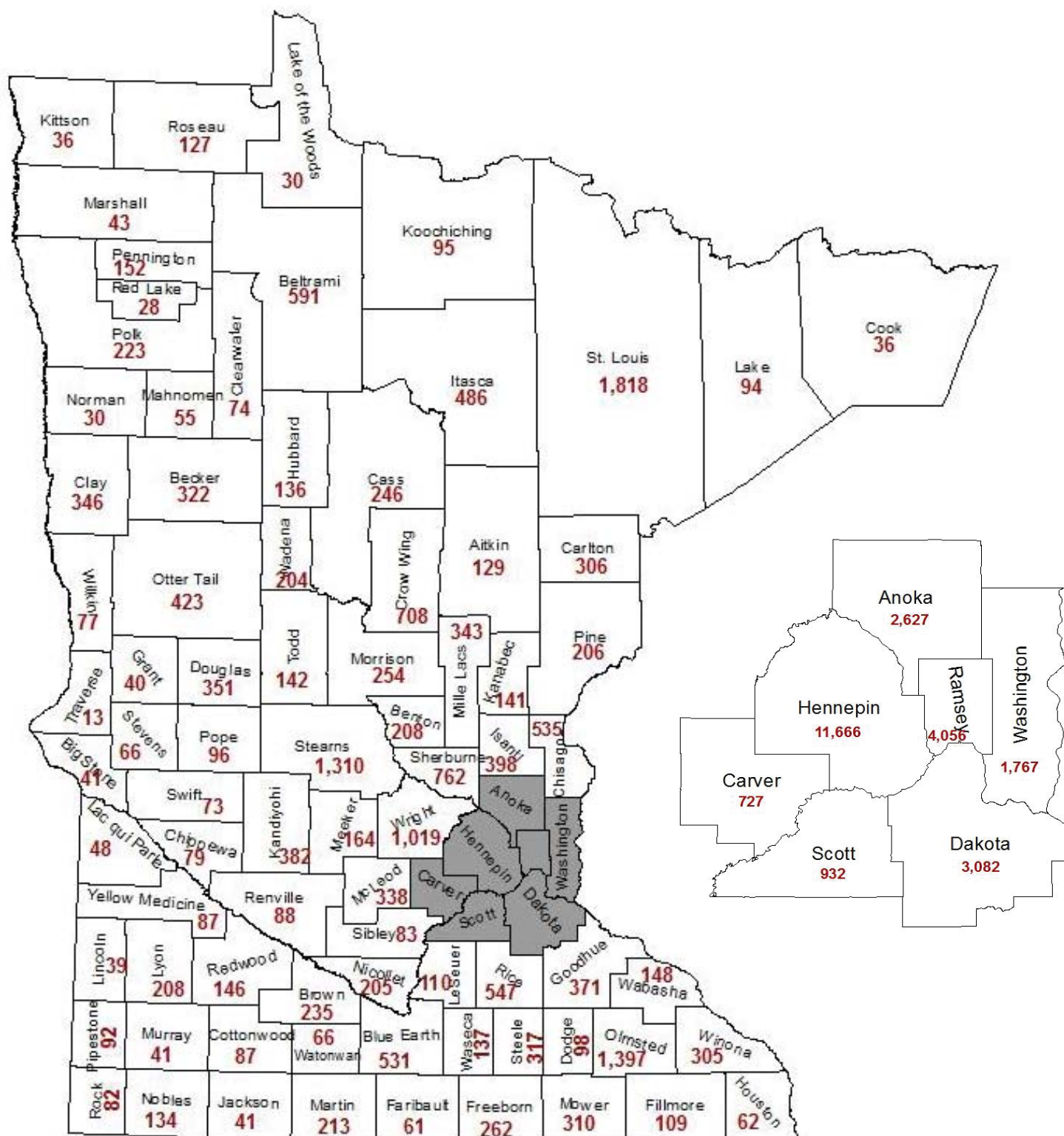
Rebecca Lange, PharmD,
Certified Specialist in Poison Information



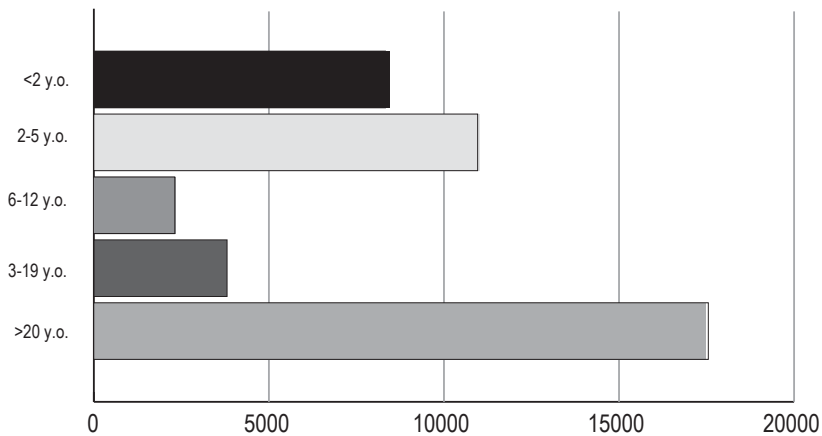
Travis Olives, MD,
Toxicology Fellow



Calls Per Minnesota County

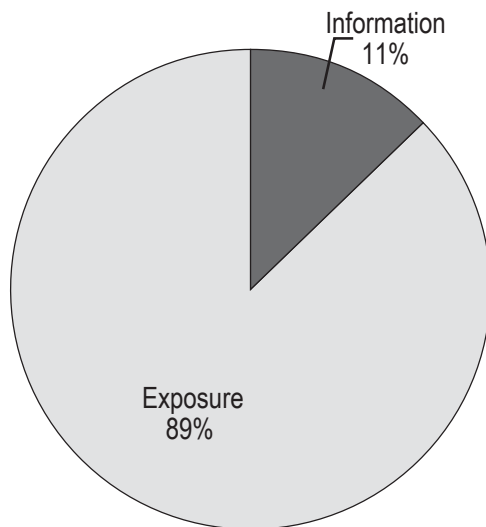


Age of Patients

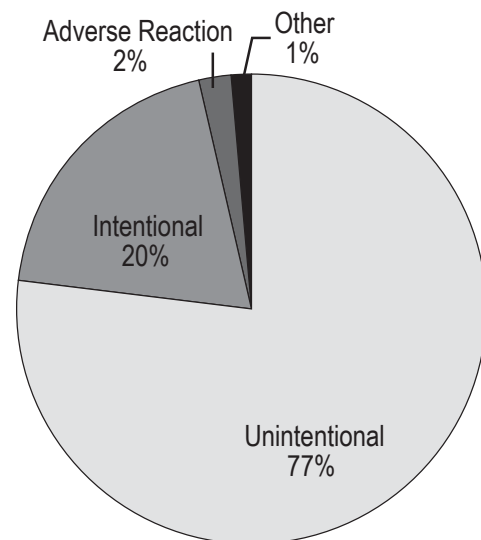


- 1-800-222-1222 is available 24 hours a day, 7 days a week
- Provided IMMEDIATE help to 48,446 callers in 2014
- Calls are free of charge and information is kept private
- Minnesota Relay and interpretive services available
- Staffed by specially trained pharmacists nationally certified as Specialists in Poison Information
- In 2014, 45% of calls involved a child under the age of 6 years

Number of Calls

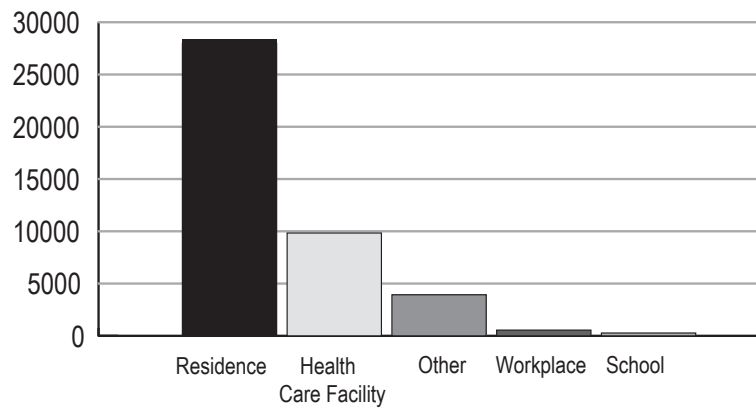


Reason for Exposure

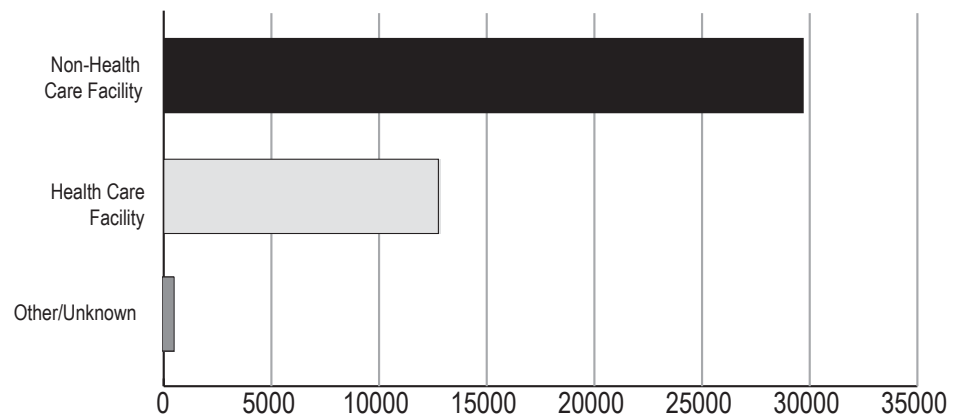


- 91% of exposures occurring in a residential setting were safely managed at home with Poison Center assistance
- 78% of callers would have sought emergency medical attention if the Poison Center was not available
- 23% of calls received were from health care providers seeking patient treatment recommendations
- 89% of calls transferred from nurse lines were able to be managed at home
- 61% of exposures involved prescription and/or over-the-counter medications

Caller Site



Management Site



Top 5 Substances Involved in Poisoning

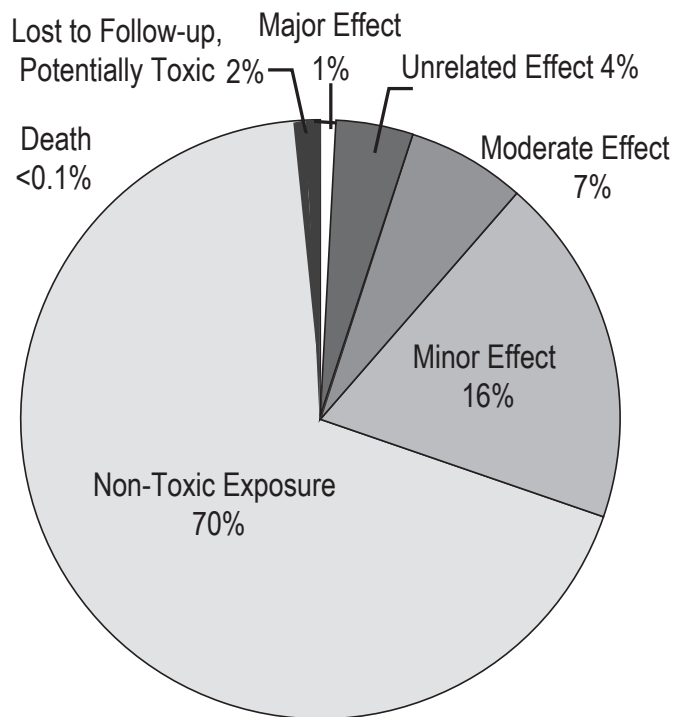
Non-Drug

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 \$2,237,083
- 81% of budget are personnel expenses
- Every \$1 spent on Poison Center services saves an estimated \$13 on unnecessary health care costs and lost productivity
- \$29 million in costs avoided annually through use of the Poison Center

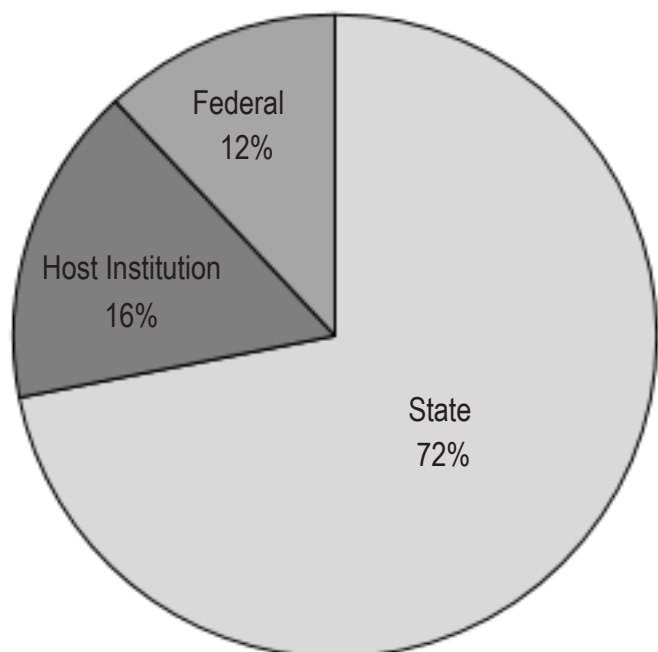
Statewide Public & Professional Education Outreach

- Distributed 68,893 pieces of poison prevention materials
- Participated in 113 public poison prevention events to over 20,500 Minnesotans
- Conducted 77 professional training events to public safety and health care professionals

On-site Health Care Professional Education

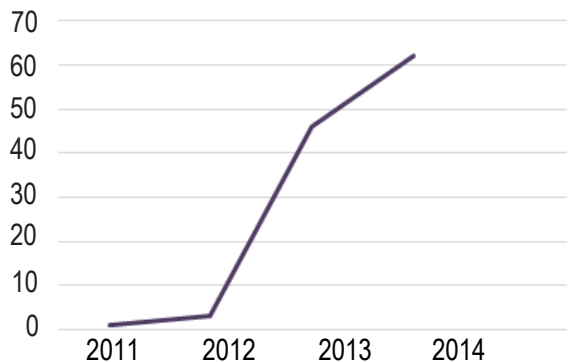
- 22 medical residents (emergency medicine, family medicine, pediatrics)
- 4 physician medical toxicology fellows
- 18 pharmacy residents and students
- 20 medical students

Funding Sources

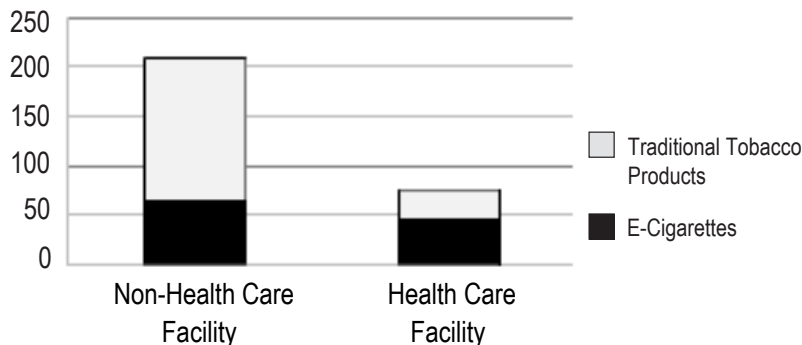


Electronic Cigarette Exposures

E-cigarette/Liquid Nicotine Exposures Among Minnesota Children
Ages 5 and Younger: 2011-2014



Management Sites Among All Ages



- Electronic Cigarettes are vaporizers that heat concentrated flavored nicotine liquid to be inhaled.
- Poisonings can occur by ingestion of the liquid, often by children handling the liquid refills or misuse of the device by adults.
- In 2014, there were 113 exposures to e-cigarettes and 175 exposures to traditional tobacco products among all ages.
- The majority of these exposures resulted in minimal/minor or no effects: 82.3% for e-cigarettes/liquid nicotine and 96% for tobacco products.
- The Minnesota Poison Control System monitors data related to these products and educates both patients and health care providers.



Minnesota Poison Control System
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