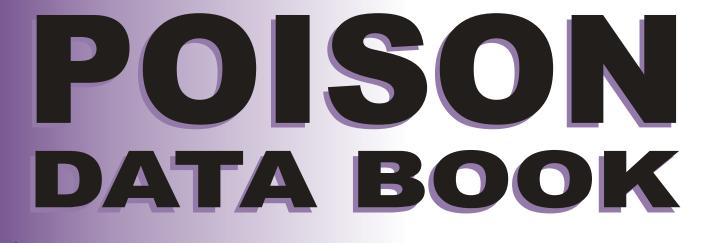
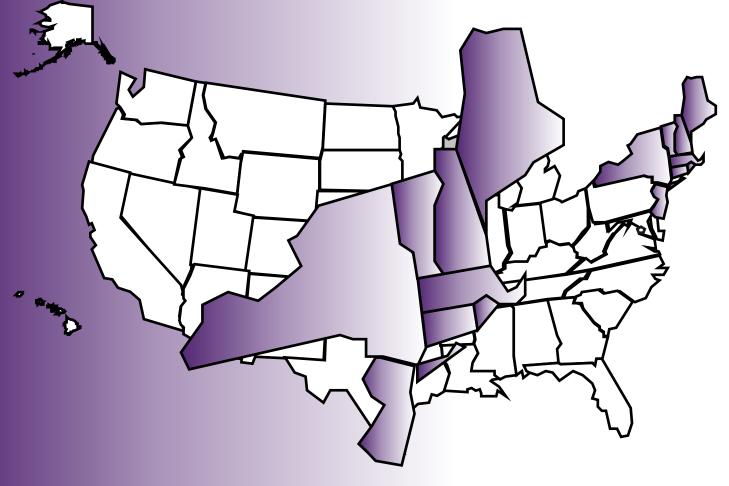
# **Northeast Regional Injury Prevention Network**









The Poison Control Program of the Maternal and Child Health Bureau, Health Resources and Services Administration, U.S. Department of Health and Human Services, supported this project under the Children's Safety Network contract 240-98-0006 and Poison Control Centers Technical Resource Center 240-03-0006.

# Northeast Regional Injury Prevention Network

# POISON DATA BOOK

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# INTRODUCTION

#### THE NORTHEAST INJURY PREVENTION NETWORK

Since 1989, the Northeast Injury Prevention Network (NEIPN), comprised of eight State health departments (Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont), and the Children's Safety Network (CSN), and funded by the Federal Maternal and Child Health Bureau (MCHB), has worked collaboratively to carry out regional activities to facilitate unintentional and intentional injury prevention. These activities have included multidisciplinary training initiatives in the areas of traffic safety, teen worker safety, program evaluation, and suicide prevention, in addition to creating a regional suicide data book. The suicide data book has been used to confirm suicide prevention as a priority issue in the Northeast region, as well as a reference for public health staff, private practitioners, and the media.

In this current report, the NEIPN has standardized poisoning data across the eight States in an attempt to increase the public health awareness of these events as a regional public health problem, and to enable comparisons between the participating States. The poison data presented are of poisoningrelated injuries or events including drug overdoses due to illicit substances, "accidental" drug overdoses of prescribed medication, "accidental" ingestion of non-medicinal household and industrial products, and ingestion of illicit, prescribed, and non-medicinal substances in an attempt to injure ones self.

The purpose of this regional poison data book is to serve as a catalyst for increasing attention on the prevention of poisoning, thereby reducing the morbidity and mortality associated with poisoning at all ages. Specifically, this book

applies a regional definition of a poisoning case in order to describe and compare the number and types of poisonrelated injuries/events in the Northeast region, and to identify potential risk factors for these injuries/events. This data book is unique because no other region has produced such a comprehensive resource utilizing three different data sources. In addition, this report incorporates a new regional definition for a poisoning case. It also points out the limitations of current poison-related data sources, such as the absence of any linkage between the International Classification of Diseases (ICD) classification of poison-related events and the Toxic **Exposure Surveillance System's (TESS)** classification of poison-related events.

# WHY STATE HEALTH DEPARTMENTS PARTICIPATE IN INJURY PREVENTION

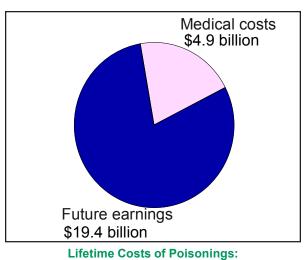
Throughout the United States, injuries are a leading cause of death and disability. They also contribute significantly to the costs of health care by necessitating emergency department visits and hospitalizations. Nationwide, injury is the leading cause of death in the total population (CDC, 2003).

Injuries are not "accidents." They are predictable and preventable events. Categorically, there are two broad types of injuries: intentional and unintentional injuries. Public health strategies, which have been used successfully for years to fight diseases, are proven to be effective in preventing injuries as well. Specifically, these strategies include data collection, the creation of strategic plans, risk factor identification, encouraging multi-disciplinary groups to confront the problem, using "best practices" while developing interventions and educational programs, and public policy initiatives. Ultimately, injuries have too significant an impact on emotional suffering, lost

income, productivity, and people's lives to be ignored.

#### POISONING IN THE NORTHEAST REGION

Poisonings are among the leading causes of injury mortality and morbidity in the northeastern region of the United States (U.S.). During the 1995 to 1998 timeframe, residents of the northeast region comprised 14.8 percent of the U.S. population, yet they accounted for 16 percent of fatal poisonings (CDC, 2003) and an estimated 18 percent of all hospital-admitted poisonings. Of the 2,888 poisoning fatalities that occurred each year, 60 percent were unintentional (crude average annual rate 4.23 per 100,000), and 20 percent were suicides (crude rate 1.41 per 100,000, CDC, 2003). During 1996, 22 percent of the suicides and 84 percent of the selfinflicted injury hospitalizations among residents of the region 10 years of age and older were due to poisonings (Northeast Injury Prevention Network Suicide Databook, 2000). In addition, during 2000-2001, approximately 279,000 northeast region residents were exposed to a poison on an annual basis.



\$24.3 billion (2002 dollars)

#### COSTS SAVED

The average call to a poison control center costs \$37 (American Association of Poison Control Centers, 1999) and saves \$250 in medical costs (Miller and Lestina, 1997). At \$37 a call, each \$1 spent on poison control center services saves \$7 in medical spending (Miller and Lestina, 1997).

Poison control centers are costeffective and economical because more than 70 percent of their cases are resolved over the telephone while the patient remains at home (Miller and Lestina, 1997). This avoids unnecessary emergency room visits, ambulance use, hospital admissions, and treatment delays. If poison control centers were not available nationwide, 600,000 additional poisoning victims would receive medical treatment annually at a much higher cost (Miller and Lestina, 1997).

#### THE NEED FOR POISON CONTROL CENTERS

Physicians, hospitals, public health departments, and the public depend on poison control centers to provide stateof-the-art emergency advice and treatment information 24-hours-a-day, 365 days a year. There is now one national telephone number for all poisoning emergencies: 1-800-222-1222. No other community health care service has the facilities and expertise to monitor the hundreds of thousands of consumer products by which people are unintentionally poisoned every day or to provide the proper advice once a poisoning occurs.

#### STATUS OF POISON CONTROL CENTERS

Currently, poison control centers are located throughout the United States; these centers handle a new poison exposure call every 15 seconds.

In the northeast region, 10 poison control centers cover the population of the eight states. Connecticut, New Hampshire, and New Jersey have cen-

#### INTRODUCTION

ters run from within the State. Massachusetts and Rhode Island are served by the same center located in Massachusetts. One center with a satellite site serves both Maine and Vermont. New York is served by five poison control centers from within the state. Nine of the 10 poison control centers in the northeast currently receive both Federal and State support.

#### METHODS

#### RATIONALE

Members of the Northeast Injury Prevention Network created a regional definition of a 'poison-related' case. This definition created to increase the uniformity between TESS and 'traditional' (i.e. previous and/or recommended) public health poisoning surveillance case definitions. State public health departments usually use the 'traditional' definition. However, to bridge the gap between TESS data coding and what States usually use, the traditional definition was expanded in this poison databook.

Traditional definitions select cases by looking primarily at the direct contribution of these exposures to injury. In addition to directly 'causing' poisoning injury, however, exposures to toxic substances can indirectly cause other injuries, disorders or disease, such as falls or motor vehicle crashes, neurological impairment, or cardiac arrest. In addition, traditional definitions primarily include cases with an International Classification of Disease, 9th Revision/ Clinical Modification (ICD-9/CM) external cause of injury (E code) due to a toxic substance, as recommended by the framework for presenting injury mortality and morbidity data (CDC, 2003). Poisonings, however, may be identified using two ICD-9/CM sub-classification schemes, external cause of injury codes (E codes) and nature of injury diagnoses codes (N codes).

Furthermore, using a single data source presents a limited view of poisonings. Current surveillance systems are unable to measure the full spectrum or continuum of outcomes associated with exposure to toxic substances. While the Toxic Exposure Surveillance System (TESS) attempts this, it is based on mostly self-reports which have limitations. Using multiple data sources may help overcome several of the inadequacies of using a single source.

Since surveillance efforts traditionally do not include cases indirectly associated with toxic exposures and those coded using either N codes or E codes, and since they inadequately ascertain certain outcomes, they may have underestimated the magnitude and public health impact of toxic exposures.

Therefore the NEIPN developed and applied a broader definition and revised case selection process. By this definition/method. first a search was conducted for cases that directly resulted from poison exposures. Specifically, to obtain counts of poison-related deaths, the underlying cause of death fields were searched for cases with E codes indicating toxic substances. To obtain counts of poison-related hospitalizations, the primary injury E code fields were searched for cases with toxic substance E codes. Next, a search for cases that indirectly resulted from poison exposures was conducted for observations that were not selected during the initial search. Among these observations, additional record fields (specifically the 20 record axes fields for deaths and the first two diagnostic fields for hospitalizations) were searched for N codes or E codes that indicated toxic substances. Cases due to venomous bites, acute and chronic alcohol or drug exposures, and fetal-maternal exposures, which are usually not considered, were also included.

This expanded definition produces 'poison-related' deaths and hospitalizations, as opposed to 'poisoning' deaths and hospitalizations because the substance indicated may not have necessarily directly caused the outcome, and the outcome might not be an 'injury'. For example, a death in this data book may be classified as a poison-related death if a contributing cause to death was due to a poisoning, but the underlying cause of death was not related to poisoning at all. To further illustrate this point, suppose a resident of the eight northeastern States "accidentally" overdosed on an illicit substance such as heroine (poison code E850.2 was listed as a contributing cause), and then died of a heart attack (a non-poison code listed as the underlying cause) during 1995-1998. This case would be included in this report as a poison-related death.

Furthermore, the data included in this report were standardized and complied from multiple sources so that a more comprehensive picture of the outcomes associated with exposure to toxic substances could be presented. It is expected that surveillance using this method will yield a more comprehensive and representative picture of the magnitude and public health impact of toxic exposures.

#### **DATA SOURCES**

Data shown in this book are from National Centers for Health Statistics (NCHS) mortality, State hospital discharge systems, Toxic Exposure Surveillance System (TESS), a selected poison control center, and the Bureau of the Census databases.

#### (1) Mortality Data

Mortality data for Connecticut (CT), Maine (ME), Massachusetts (MA), New Hampshire (NH), New Jersey (NJ), New York (NY), Rhode Island (RI), and Vermont (VT) came from the NCHS Multiple Cause of Death Public-Use Data Files for 1995-1998. These data are based on information from death records processed by NCHS annually. Demographic data and data on the underlying and contributing causes of death are contained within these death records. NCHS used the International Classification of Disease-9th revision (ICD-9) system for classifying mortality data to record the causes of death.

(2) Hospital Discharge Data

Hospital discharge data for 1997 for ME, MA, NH, NJ, NY, RI and VT were obtained directly from each state, as well as "poison-related" hospital discharge data for 1997 for CT. These data are of public hospitalizations, and do not include discharges from non-public hospitals in these States such as those from Veterans hospitals or private psychiatric hospitals. The ICD-9-Clinical Modification (CM) classification system was used to record the external cause of injury and primary and secondary diagnosis. Also contained within these files is information on the discharge status (whether patient was discharged alive), substance type, intent, age, sex, race/ ethnicity, State of residence, State of occurrence, and the day of week of hospitalization.

The following methods were used to standardize the hospital discharge data. First, for each State all patients discharged with an injury were identified; that identification was based on diagnostic codes as well as external cause of injury codes. Next, the primary E code for all injury patients was identified and any remaining E codes from other diagnostic fields were removed. Finally, after removal of all E codes from diagnostic fields, the diagnostic fields were then systematically renumbered.

#### (3) Poison Control Center Data/ TESS

Poison Control Center data of calls for human poison exposures in CT, ME, MA, NH, NJ, NY, RI, and VT were obtained from the American Association of Poison Control Centers (AAPCC) Toxic

#### INTRODUCTION

Exposure Surveillance System (TESS) or from local poison control centers serving these States. Six of the eight States are represented by TESS data for 2000 to 2001; however Maine data were for a single year, 2001. Vermont data for 2002 were supplied directly from the poison control center servicing the State. Data on the demographics and circumstances surrounding exposures to toxic subsistence were obtained from these files.

#### (4) Population Data

Mid-year population estimates for residents of CT, ME, MA, NH, NJ, NY, RI and VT were obtained from population files obtained from the Bureau of the Census. Bridged-race intercensal estimates of the resident population of the United States for July 1, 1995-1998 by State of residence, county, age group, sex, race, and Hispanic origin released on April 15, 2003 were used.

#### CASE SELECTION

The case definition and selection processes were developed with input from the Northeast Regional Injury Prevention Network. Poison-related deaths and hospitalizations and poison exposures were determined from the E codes, N codes, maternal/fetal codes, and acute/chronic alcohol/drug codes listed in Table 1. Although all codes from Table 1 were included in case selection process, the results presented in this report are only for e codes, N codes and maternal/fetal codes. After careful consideration, the NEIPN decided on a more conservative approach. Cases due to acute or chronic alcohol and drugs were not included in the counts presented. They were included during the case selection processes however. There are implications of not presenting these data versus not including them, as these methods produce slightly different counts. The decision was made to include chronic drug and alcohol cases during cases selection processes so that their counts may be available upon

request, or used in subsequent publications. For background information on the case selection criteria, please contact the Children's Safety Network Economics and Data Analysis Resource Center.

#### POISONING-RELATED DEATHS

Residents of CT, ME, MA, NH, NJ, NY, RI and VT who died during 1995-1998 due to poison-related causes were included. Cases were considered to have died from poison-related causes if they had one of the E codes listed in Table 1 in their underlying cause of death record field, or if they had one of the E codes or N codes listed in Table 1 in one of their 20 mortality record axes fields.

#### POISONING-RELATED HOSPITAL DISCHARGES

Residents of CT, ME, MA, NH, NJ, NY, RI and VT who were discharged alive from acute care hospitals located in their State of residence during 1997 due to poison-related causes were included. Cases with one of the E codes listed in Table 1 as their primary E code, or one of the E codes or N codes listed in Table 1 in either their first or second diagnoses fields were considered to be hospitalized from poison-related causes.

#### **POISON EXPOSURES**

Poison exposure cases included in this book are defined as cases that reported having contact with a substance that can potentially produce toxic effects. These reports were made via telephone calls to poison control centers. Poison exposures differ from poisoning injuries (i.e. deaths and hospitalizations) in that exposures do not necessarily result in injury, or harm. The substance implicated in poison exposures may not necessarily be severely toxic, or the amount involved in the exposure may be insufficient to cause toxicity. The AAPCC 65-category substance classification scheme was used to classify cases by substance type. The AAPCC classification system is different from the ICD-9/CM classification systems.

# **DESCRIPTIVE METHODS**

This investigation involved secondary data analyses of deaths, hospitalizations, and exposures from TESS, to describe poison-related events and their leading causes.

#### COUNTS, RATES & PERCENTS

Poison-Related Deaths and Hospitalizations: The distributions of deaths for 1995-1998 and hospitalizations for 1997 were determined by State of residence, location (for unintentional injuries only), intent, age group, sex, race/ ethnicity, and ICD-9/CM category. The mean annual number of deaths was calculated by dividing the sum of annual counts by four, and rounding the resultant to the nearest whole number. Percent calculations were also rounded to the nearest whole number, and therefore the sum of the percents may not add to exactly 100. Rates of death and hospitalization were calculated using census mid-year population estimates. For deaths, 4-year case counts for 1995-1998 were divided by the appropriate 4-year populations at risk for 1995-1998 and the resultant was multiplied by 100,000 to yield the rate per 100,000. State-specific, intent-specific, age-specific, gender-specific, and race/ ethnicity-specific death and hospitalization rates were also calculated.

*Poison Exposures:* Distributions of poison exposures were reported by State of origin, location of exposure, reason for exposures, causal agent category, age group, sex, medical outcome, and clinical effects. Counts for multiple years of TESS data were averaged to obtain mean annual frequencies, and were rounded to the nearest whole number. Due to rounding, percent totals may not add to 100 percent. Cases with unknown age, sex, intent, and location were excluded from stratified analyses but were included in the totals.

#### LEADING CAUSE RANKINGS

Causes with the highest number of cases were rated (top 4 for deaths and hospitalizations, and top 5 for exposures). Tables appear in each section of the data book. TESS substance classification scheme is different from the ICD-9 substance classification scheme.

Poison-Related Deaths and Hospitalizations: For poison-related deaths and hospitalizations, substance categories were identified and ranked using the ICD-9/CM external cause of injury code (E-code). Efforts were taken to account for differences in substance specificity between intentional and unintentional poisonings using ICD-9/CM codes. ICD-9/CM unintentional poisoning and poison-related diagnoses codes are directly linked to a single substance, where as ICD-9/CM intentional poison codes are grouped by substance type. Deaths and hospitalizations with external cause of injury codes (E codes in the range of E850.0-E869.0 (unintentional) or with nature of injury codes were ranked by their larger substance types using three-digit ICD-9/CM codes. All other cases were ranked using the four digit ICD-9/CM code. There are instances where the same substance name appears in the rankings for a particular group more than once. This is because the ICD-9/CM categories are first differentiated by intent and then by substance type. For example, Analgesics, Antirheumatics, and Antipyretics are coded as E850 (3 digit code) for unintentional poisonings, E950.0 for self-inflicted/ suicide poisonings (4-digit code), and E980.0 for undetermined poisonings (4 digit code). Since these codes were not collapsed into a single category that was non-differentiated by intent, it is possible to have them all separately appear in a particular ranking.

Poison Exposures: TESS human

#### INTRODUCTION

poison exposures were identified and ranked using the AAPCC 65-category substance classification scheme on pharmaceutical and non-pharmaceutical substances. For TESS human poison exposures, it is possible to have a case with more than one causal agent implicated. Therefore, the total number of agents implicated may have exceeded the total number of exposure cases for a particular region. See Appendix A for listings of ICD-9/CM and TESS substance categories.

# **ORGANIZATION OF THE BOOK**

Regional data are presented first in this data book. Then data for the eight northeastern States' are presented (in alphabetical order).

The regional section is divided into four main sections: Magnitude, Intent, Causes, and Demographic. Within each of these sections, relevant mortality, hospital discharge, and poison control center data are presented.

Data from each of the eight States are presented slightly different from the regional section. First, the mortality data are presented, then the hospital discharge data, followed by the TESS data. Further, the mortality, hospital discharge, and TESS data sections are divided into smaller sections, including Magnitude, Cause and Intent, and Demographics. At the request of the State, no state-level mortality or hospital discharge data are presented for New Hampshire; however, data from this State are included in the regional section.

Finally the book ends with Appendices A–F. The Appendices are comprised of five main sections. Appendix A contains a list of the International Classification of Disease, 9th Revision (ICD-9/Clinical Modification (CM)) external cause of injury codes that were used in

identifying and classifying poison-related cases. Appendix B contains tables of the rates of poison-related deaths and hospitalizations by State for the age, sex, and race/ethnicity of the case. The last page of Appendix B contains tables of the mid-year U.S. Census population data for 1995-1998 and for 1997. Appendix C contains tables of poison control center data by location of exposure, exposure method, management site, age and sex, reason for exposure, and medical out-The directory of the come. Poison Control Centers in the northeast region is in Appendix D, as is contact information for the other members of the NEIPN. The Glossary of Terms used in this book is located in Appendix E. Appendix F acknowledges those who worked on the data book.

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<u>www.edarc.org/csneirc/pubs/facts/</u> <u>poison.pdf</u> "Poison Control Centers Save Money and Lives." 1996; revised 2002.

	-	
	ICD-9/CM	Category Classification
1	E850-E859	Unintentional Drug Poisoning
2	E860-E869, E905	Unintentional Nondrug Poisoning
2	648.3, 655.5, 760.7, 779.4, 779.5	Maternal and Fetal Poisoning Codes
3	E950-E952	Suicide-Related Poisoning or Attempted Suicide
4	E962	Homicide-Related Poisoning or Assault
5	E980-E982	Undetermined Poisoning
6	960.0-989.9	Poison-Related Diagnosis (Nature of injury)
7	303.0, 790.3	Acute Alcohol and Drug Codes (Non-injury related)
8	291, 2652, 3039, 3575, 4255, 5353, 5723, V791, 3050, 5710, 5711-5713	Chronic Alcohol
9	292, 304, 3576	Chronic Drugs

#### Table 1. ICD-9/CM Category Classification Codes

# MAGNITUDE

#### DEATHS

 Between 1995 and 1998, the average annual poison-related death rate was 8.5 per 100,000 among residents of the Northeast region (an average of 3,426 deaths each year).

#### HOSPITAL DISCHARGES

• During 1997, the poison-related hospitalization rate was 84.6 per 100,000 among residents of the Northeast region (34,276 poison-related hospital discharges in the year).

#### **E**XPOSURES

 An average of 279,448 poison exposure cases originated from the Northeast region each year.

# INTENT

#### DEATHS

**Unintentional:** accidentally caused by oneself or another person

**Self-Inflicted:** caused by oneself with intent to cause harm

**Homicide:** caused by another person with intent to cause harm

 Unintentional intent was the leading intent in poison-related deaths in the Northeast region (62 percent; 4.6 per 100,000). Self-inflicted was the second leading intent (19 percent; 1.4 per 100,000).<sup>2</sup>

	Averag	Average Annual		Annual	
	Death Count	Death Rate	Hospital Discharges	Hospitalization Rate	Exposure Count
Connecticut	313	9.4	2,669	79.7	28,125
Maine	81	6.5	1,123	89.5	12,392
Massachusetts	582	9.4	5,099	81.9	39,174
New Hampshire	79	6.7	1,044	87.8	13,172
New Jersey	792	9.7	7,320	89.1	54,854
New York	1,447	7.8	15,747	84.4	121,118
Rhode Island	89	8.7	848	82.7	6,205
Vermont	43	7.2	426	71.3	4,408
NE Region	3,426	8.5	34,276	84.6	279,448

#### Table 1. Magnitude of Poison-Related Events by State, Northeast Region<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Mortality data from 1995–1998 and Hospital Discharge Data for 1997 were used to determine death and hospitalization rates for all states in the Northeast region. TESS data for 2000–2001 were used for Connecticut, Massachusetts, New Hampshire, New Jersey, New York, and Rhode Island. Maine TESS data were from the year 2001, and Vermont TESS data were from the year 2002. Counts from multiple years were averaged and rounded to the nearest whole number. Rates were calculated per 100,000 using United States (US) Census data.

<sup>&</sup>lt;sup>2</sup> The case count used (N = 2,988) is the average annual number of E coded cases for 1995–1998. It excludes an average of 438 poison-related deaths for which no intent was assigned.

## DEATHS (CONT'D)

- Residents of the region were 3.3 times more likely to die from an unintentional poisoning than from a self-inflicted poisoning (95 percent CI=2.99, 3.61).
- Poison-related deaths due to homicide rarely occurred, thus reliable rates

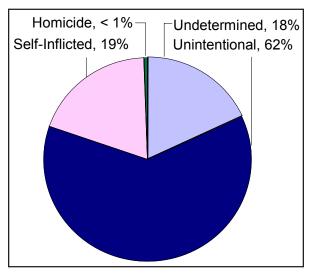


Figure 1. Poison-Related Deaths by Intent, Northeast Region Residents, 1995–1998 (N= 2,988)<sup>2</sup>

#### HOSPITAL DISCHARGES

**Unintentional:** accidentally caused by oneself or another person

**Self-Inflicted:** caused by oneself with intent to cause harm

**Homicide:** caused by another person with intent to cause harm

- The leading intent in poison-related hospital discharges among residents of the Northeast region was selfinflicted (54 percent; 44.3 per 100,000).<sup>3</sup> Unintentional intent ranked second (37 percent; 30.7 per 100,000).
- Residents were approximately 1.4 times more likely to be hospitalized

could not be produced for this intent category (less than 1 percent of poison-related deaths were homicides).

• The intent was undetermined in 18 percent of poison-related deaths (1.4 per 100,000).

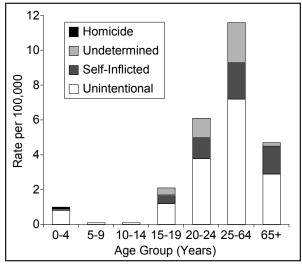


Figure 2. Rates of Poison-Related Deaths by Age Group and Intent, Northeast Region Residents, 1995–1998

from a self-inflicted poison-related injury than from an unintentional injury (95 percent CI=1.41, 1.48).

- The intent was undetermined in 8 percent of poison-related hospitalizations (6.8 per 100,000) in the region.
- Hospitalizations due to a poisonrelated assault were rare (less than 1 percent of hospitalizations).
- Among children younger than 10 and adults 65 years and older, poisonrelated hospitalizations were most often unintentional. Among cases 10-64 years, poison-related hospitalizations were mostly self-inflicted.

 $<sup>^{3}</sup>$  The case count used (N = 34,186) is the average annual number of E coded cases for 1997. It excludes 1,090 poison-related hospital discharges for which no intent was assigned.

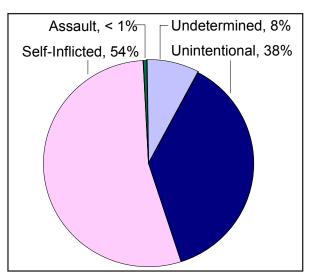


Figure 3. Average Annual Poison-Related Hospitalizations by Intent, Northeast Region Residents, 1997 (N = 33,186)<sup>3</sup>

#### Exposures

Unintentional: accidental, dosing errors

**Intentional:** self-inflicted, substance abuse, misuse

**Adverse Reaction:** drug reactions, allergies

**Other:** contamination, tampering, assault

• Eighty-four percent of poison exposure cases that originated from the North-east region were unintentional.

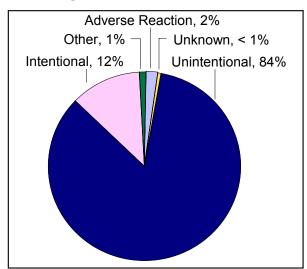


Figure 5. Average Annual Poison Exposure Cases by Reason for Exposure, Calls Originating in Northeast Region (N = 279,448), 2000–2001

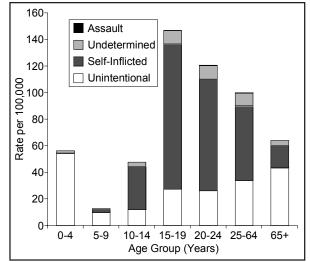
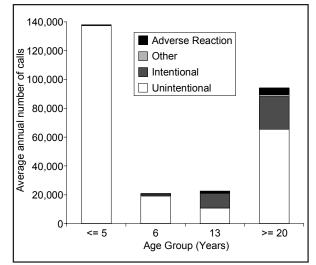


Figure 4. Rates of Poison-Related Hospitalizations by Age Group and Intent, Northeast Region Residents, 1997

- Over 98 percent of poison exposures among children 12 years of age and younger were unintentional. Among persons 13-19 years of age, 56 percent of poison exposure cases were unintentional and 38 percent were intentional.
- Among adults age 20 years and older, 75 percent of exposure cases were unintentional and 18 percent were intentional.





#### **POISON DATA BOOK**

# CAUSES

#### DEATHS

- For all ages, the leading ICD-9 substance categories in poison-related deaths were (1) Other Drugs, (2) Analgesics, Antipyretics, and Antirheumatics, and (3) Toxic Effect of Other Gases, Fumes or Vapors.
- For persons 15 years of age and older, the leading ICD-9 substance category in poison-related deaths was Other Drugs. For persons younger than 15 years of age, Toxic Effect of Other Gases, Fumes or Vapors was the most common substance category.

#### HOSPITAL DISCHARGES

• For all ages, the leading ICD-9/CM substance categories in poison-related hospitalizations were (1) Tranquilizers and Other Psychotropic Agents, (2) Analgesics, Antipyretics, and Antirheumatics, and (3) Other Specified Drugs and Medicinal Substances. • For persons 15-19 years of age, the leading ICD-9/CM substance category in poison-related hospitalizations was Analgesics, Antipyretics, and Antirheumatics.

#### EXPOSURES

- For all ages, the leading agent categories among poison exposure cases were (1) Cosmetics/Personal Care products (9 percent), (2) Analgesics (9 percent), and (3) Cleaning Substances (household) (8 percent).
- Cosmetics and personal care products was the most frequently reported agent category in poison exposure cases in children under 6 years of age. Analgesics was the most frequently reported casual agent in cases 6 years of age and older.

	Deaths				
Age Group	Rank 1	Rank 2	Rank 3	Rank 4	
0-4	987 Toxic Effect of Other Gases, Fumes, or Vapors	E858 Other Drugs	986 Toxic Effect of Carbon Monoxide	E858 Other Drugs	
5–9	987 Toxic Effect of Other Gases, Fumes, or Vapors	986 Toxic Effect of Carbon Monoxide	760.7 Noxious Influences Affecting Fetus Via Placenta or Breast Milk	E869 Other Gases and Vapors	
10–14	987 Toxic Effect of Other Gases, Fumes, or Vapors	986 Toxic Effect of Carbon Monoxide	868 Other Utility Gas and Other Carbon Monoxide	E858 Other Drugs	
15–19	E858 Other Drugs	E850 Analgesics, Antipyretics, and Antirheumatics	987 Toxic Effect of Other Gases, Fumes, or Vapors	E980.0 Analgesics, Antipyretics, and Antirheumatics	
20–24	E858 Other Drugs	E850 Analgesics, Antipyretics, and Antirheumatics	987 Toxic Effect of Other Gases, Fumes, or Vapors	E980.0 Analgesics, Antipyretics, and Antirheumatics	
25–64	E858 Other Drugs	E850 Analgesics, Antipyretics, and Antirheumatics	E855 Other Drugs Acting on Central and Autonomic Nervous System	E980.0 Analgesics, Antipyretics, and Antirheumatics	

## Table 2. Top 4 ICD-9/CM/TESS Substances Categories in Poison-Related Events<sup>4</sup>

<sup>&</sup>lt;sup>4</sup> Substance Categories in Poison-Related Deaths, 1995–1998, (N<sub>avg.</sub> = 3,426), Poison-Related Hospitalizations, 1997, (N = 34,276), and Human Poison Exposure Cases (N\*<sub>avg.</sub> = 312,794), Cases Originating from NE Region (\*Total number of agents implicated is higher than the total number of case because cases can be poisoned by more than one agent.)

		Deaths		
Age Group	Rank 1	Rank 2	Rank 3	Rank 4
65+	E858 Other Drugs	E987 Toxic Effect of Other Gases, Fumes, or Vapors	E952.0 Motor Vehicle Exhaust	986 Toxic Effect of Carbon Monoxide
All Ages	E858 Other Drugs	E850 Analgesics, Antipyretics, and Antirheumatics	987 Toxic Effect of Other Gases, Fumes, or Vapors	E855 Other Drugs Acting on Central and Autonomic Nervous System
		Hospitalizatio	ns	
Age Group	Rank 1	Rank 2	Rank 3	Rank 4
0-4	E858 Other Drugs	E861 Cleansing and Polishing Agents, Disinfectants, Paints and Varnishes	E866 Other/ Unspecified Solid/ Liquid Substances	E855 Other Drugs
5-9	E858 Other Drugs	E855 Other Drugs	E905 Venomous Bites	E866 Other/ Unspecified Solid/ Liquid Substances
10-14	E950.0 Analgesics/ Antipyretics/ Antirheumatics	E950.4 Other Specified Drugs and Medicinal Substance	E950.3 Tranquilizers and Other Psychotropic Agents	E858 Other Drugs
15-19	E950.0 Analgesics/ Antipyretics/ Antirheumatics	E950.4 Other Specified Drugs and Medicinal Substance	E950.3 Tranquilizers and Other Psychotropic Agents	E850 Analgesics/ Antipyretics/ Antirheumatics
20-24	E950.0 Analgesics/ Antipyretics/ Antirheumatics	E950.4 Other Specified Drugs and Medicinal Substance	E950.3 Tranquilizers and Other Psycho-tropic Agents	E850 Analgesics/ Antipyretics/ Antirheumatics
25-64	E950.3 Tranquilizers and Other Psychotropic Agents	E950.4 Other Specified Drugs and Medicinal Substance	E950.0 Analgesics/ Antipyretics/ Antirheumatics	E855 Other Drugs Acting on Central and Autonomic Nervous System
65+	E858 Other Drugs	E950.3 Tranquilizers and Other Psychotropic Agents	E850 Analgesics/ Antipyretics/ Antirheumatics	E855 Other Drugs Acting on Central and Autonomic Nervous System
All Ages	E950.3 Tranquilizers and Other Psychotropic Agents	E950.0 Analgesics/ Antipyretics/ Antirheumatics	E950.4 Other Specified Drugs and Medicinal Substance	E858 Other Drugs
		Exposures		
Age Group	Rank 1	Rank 2	Rank 3	Rank 4
0-5	Cosmetics/ Personal Care Products	Cleaning Substances (Household)	Foreign Bodies/Toys/ Miscellaneous	Topical Preparations
6-19	Analgesics	Foreign Bodies/ Toys/Miscellaneous	Cosmetics/Personal Care Products	Arts/Crafts/Office Supplies
20+	Analgesics	Sedative/Hypnotics/ Antipsychotics	Cleaning Substances (Household)	Antidepressants
All Ages	Cosmetics/ Personal Care Products	Analgesics	Cleaning Substances (Household)	Foreign Bodies/Toys/ Miscellaneous

# **DEMOGRAPHICS**

#### DEATHS

- Persons 25-64 years had the highest poison-related fatality rates (12.5 per 100,000) compared with other age groups.
- Persons 25-64 years had the highest rates of unintentional poison-related deaths (7.2 per 100,000).
- Males had poison-related fatality rates 2.6 times that of females (12.5 vs. 4.8 per 100,000, respectively) (95 percent CI=2.42, 2.80).
- Non-Hispanic Blacks had the highest rates of poison-related deaths (13.0 per 100,000) compared to other racial and ethnic groups.

#### HOSPITAL DISCHARGES

- Overall, persons 15-19 years had the highest poison-related hospitalization rates (144.0 per 100,000) when compared with other age groups.
- Persons fewer than five years had the highest rates of unintentional poison-related hospitalizations (55.4 per 100,000).
- Persons age 15–19 had the highest rates of self-inflicted poison-related hospitalizations (106.6 per 100,000).
- Females had poison-related hospitalization rates 18 percent greater than males (91.3 vs. 77.4 per 100,000, respectively) (95 percent CI=1.15, 1.20).
- Persons racially classified as Non-Hispanic Black had the highest rates of poison-related hospitalization (106.6 per 100,000) compared to other racial groups.

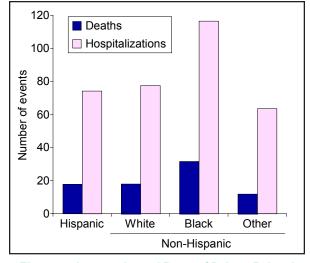


Figure 7. Average Annual Rates of Poison-Related Events by Data source and Race/Ethnicity, Northeast Region Residents<sup>5</sup>

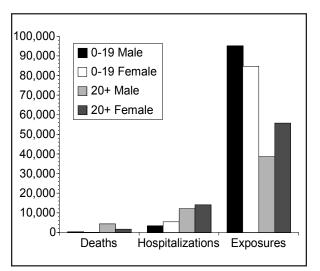


Figure 8. Average Annual Poison-Related Events by Data Source, Gender, and Age Group, Northeast Region Residents<sup>6</sup>

 $<sup>\</sup>frac{1}{5}$  Poison-related events refer to deaths (N = 3,338) and hospitalizations (N = 29,905). These totals exclude cases with unknown race/ethnicity. The Other Deaths category does not include persons of Hispanic ethnicity. Persons of Hispanic ethnicity may be of any race.

<sup>&</sup>lt;sup>6</sup> Posion-related events refer to deaths (N = 3,424), hospitalizations (N = 34,275), and exposures (N = 274,472). These totals exclude cases with unknown age and unknown gender.

#### EXPOSURES

- Persons 5 years and younger had the highest number of poison exposure cases when compared with other age groups (138,088 average annual poison exposure cases).
- Forty-nine percent of poison exposure cases were 0-5 years of age, 8 percent were 6-12 years of age, 8 percent were 13-19 years of age, and 34 percent were 20 years of age and older.
- Overall, a higher number of poison exposure cases from the region were

females (141,654 females vs. 134,640 males).

- Among exposure cases 19 years of age and younger, there were more males than females (95,145 males vs. 84,779 females).
- Among exposure cases 20 years of age and older, there were more females than males (55,814 females vs. 38,734 males).
- TESS does not report exposure cases by race or ethnicity.

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# CONNECTICUT

# MAGNITUDE

• Between 1995 and 1998, an average of 313 poison-related deaths occurred each year among CT residents (crude rate 9.4 per 100,000).

# CAUSE AND INTENT

#### DEATHS

- The leading agent categories in poisonrelated deaths were (1) Other Drugs (2) Analgesics, Antipyretics, and Antirheumatics, and (3) Toxic Effect of Other Gases, Fumes, or Vapers.
- The leading agent categories in poisonrelated deaths for persons 25-64 years were (1) Other Drugs, (2) Analgesics, Antipyretics, and Antirheumatics, and (3) Other Drugs Acting on Central and Automatic Nervous System.
- The leading intent was unintentional (74 percent; 6.6 per 100,000). Suicide and deaths of undetermined intent ranked second and third (1.7 and 0.5 per 100,000), respectively.<sup>1</sup>

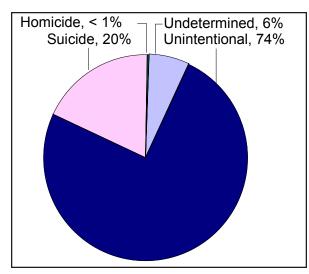


Figure 1. Average Annual Poison-Related Deaths by Intent, CT Residents, 1995–1998 (N=284)<sup>1</sup>

• During 1997, there were 2,669 poisonrelated hospital discharges among CT residents (crude rate 79.7 per 100,000).

#### HOSPITALIZATIONS

- Overall, the leading agent categories in poison-related hospitalizations were

   Tranquilizers/Other Psychotropic Agents, (2) Analgesics/Antipyretics/ Antirheumatics, and (3) Other Specified Drugs/Medicinal Substances.
- The leading agent categories in poisonrelated hospital discharges for persons ages 15–19 were (1) Analgesics/ Antipyretics/Antirheumatics, (2) Tranquilizers/Other Psychotropic Agents, and (3) Other Specified Drugs and Medicinal Substances.
- Self-inflicted (59 percent) was the leading intent in poison-related hospitalizations (46.2 per 100,000). Unintentional and undetermined ranked second and third (27.9 and 3.9 per 100,000), respectively.<sup>2</sup>

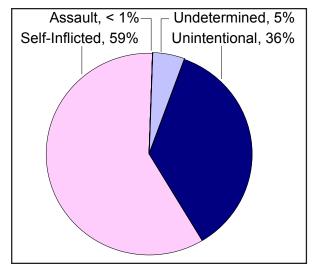
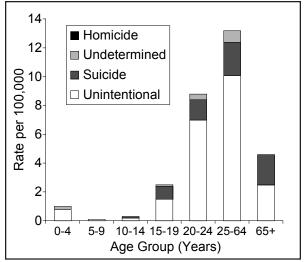


Figure 2. Annual Poison-Related Hospitalizations by Intent, CT Residents, 1997 (N=2,611)<sup>2</sup>

<sup>&</sup>lt;sup>1</sup> Annual average number of E coded cases for 1995–1998. Excludes 29 cases for which no intent was assigned. <sup>2</sup> Annual number of E coded cases for 1997. Excludes 58 cases for which no intent was assigned.

# CONNECTICUT



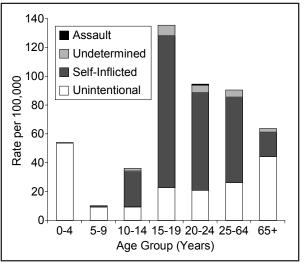


Figure 3. Rates of Poison-Related Deaths by Age Group and Intent, CT Residents, 1995–1998 Figure 4. Rates of Poison-Related Hospitalizations by Age Group and Intent, CT Residents, 1997

Table 1. Top 4 ICD-9/CM Categories in E coded Poison-Related Deaths, 1995–1998 (N <sub>Average</sub> = 313),
and in Poison-Related Hospitalizations, 1997 (N = 2,669), CT Residents

	Deaths					
Age Group	Rank 1	Rank 2	Rank 3	Rank 4		
0-4	987 Toxic Effect of Other Gases, Fumes, or Vapors	760.7 Noxious Influences Affecting Fetus Via Placenta or Breast Milk	E962.2 Other Gases and Vapors	E980.4 Other Specified Drugs and Medicinal Substances		
5–9	987 Toxic Effect of Other Gases, Fumes, or Vapors	760.7 Noxious Influences Affecting Fetus Via Placenta or Breast Milk				
10–14	987 Toxic Effect of Other Gases, Fumes, or Vapors	E868 Accidental Poisoning by Other Utility Gas and Other Carbon Monoxide	E950.0 Analgesics, Antipyretics and Antirheumatics			
15–19	E850 Accidental Poisoning by Analgesics, Antipyretics and Antirheumatics	987 Toxic Effect of Other Gases, Fumes, or Vapors	E950.5 Unspecified Drug or Medicinal Substance	E858 Accidental Poisoning by Other Drugs		
20–24	E850 Accidental Poisoning by Analgesics, Antipyretics and Antirheumatics	E858 Accidental Poisoning by Other Drugs	E855 Accidental Poisoning by Other Drugs Acting on Central and Autonomic Nervous System	E952.0 Motor Vehicle Exhaust Gas		
25–64	E858 Accidental Poisoning by Other Drugs	E850 Accidental Poisoning by Analgesics, Antipyretics and Antirheumatics	E855 Accidental Poisoning by Other Drugs Acting on Central and Autonomic Nervous System	E952.0 Motor Vehicle Exhaust Gas		
65+	E858 Accidental Poisoning by Other Drugs	987 Toxic Effect of Other Gases, Fumes, or Vapors	E952.0 Motor Vehicle Exhaust Gas	E950.5 Unspecified Drug or Medicinal Substance		
		Hospitalizatio	ns			
Age Group	Rank 1	Rank 2	Rank 3	Rank 4		
0-4	E858 Accidental Poisoning by Other Drugs	E861 Accidental Poisoning by Cleansing and Polishing Agents, Disinfectants, Paints and Varnishes	E866 Accidental Poisoning by Other and Unspecified Solid and Liquid Substances	E864 Accidental Poisoning by Corrosives and Caustics, NEC		
5–9	E858 Accidental Poisoning by Other Drugs	E905 Venomous Animals and Plants as the cause of Poisoning and Toxic Reactions	E861 Accidental Poisoning by Cleansing and Polishing Agents, Disinfectants, Paints and Varnishes	E864 Accidental Poisoning by Corrosives and Caustics, NEC		
10–14	E950.0 Analgesics, Antipyretics and Antirheumatics	E950.3 Tranquilizers and Other Psychotropic Agents	E950.4 Other Specified Drugs and Medicinal Substances	E850 Accidental Poisoning by Analgesics, Antipyretics and Antirheumatics		
15–19	E950.0 Analgesics, Antipyretics and Antirheumatics	E950.3 Tranquilizers and Other Psychotropic Agents	E950.4 Other Specified Drugs and Medicinal Substances	E850 Accidental Poisoning by Analgesics, Antipyretics and Antirheumatics		

## **POISON DATA BOOK**

20–24	E950.0 Analgesics, Antipyretics and Antirheumatics	E950.4 Other Specified Drugs and Medicinal Substances	E950.3 Tranquilizers and Other Psychotropic Agents	E850 Accidental Poisoning by Analgesics, Antipyretics and Antirheumatics
25–64	E950.3 Tranquilizers and Other Psychotropic Agents	E950.4 Other Specified Drugs and Medicinal Substances	E950.0 Analgesics, Antipyretics and Antirheumatics	E850 Accidental Poisoning by Analgesics, Antipyretics and Antirheumatics
65+	E858 Accidental Poisoning by Other Drugs	E950.3 Tranquilizers and Other Psychotropic Agents	E950.0 Analgesics, Antipyretics and Antirheumatics	E855 Accidental Poisoning by Other Drugs Acting on Central and Autonomic Nervous System

NOTE: Substance categories sharing a common ranking are entered successively across ranking levels.

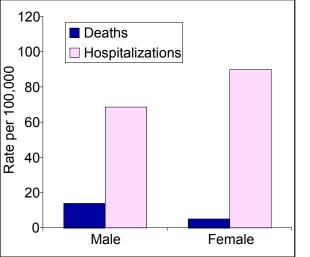
# DEMOGRAPHICS

#### DEATHS, 1995-1998

- Overall, persons 25-64 years had the highest poison-related fatality rates (14.0 per 100,000) when compared with other age groups.
- Persons 25-64 years had the highest rates of unintentional poison-related deaths (10.1 per 100,000).
- Persons 25-64 years had the highest rates of poison-related suicide (2.3 per 100,000).
- Males had poison-related fatality rates 2.7 times that of females (13.9 vs. 5.1 per 100,000, respectively).
- Non-Hispanic Blacks had the highest rates of poison-related deaths (14.1 per 100,000) when compared to other racial and ethnic groups.

#### HOSPITAL DISCHARGES, 1997

- Overall, persons 15-19 years had the highest poison-related hospitalization rates (135.5 per 100,000) when compared with other age groups.
- Persons 0-4 years had the highest rates of unintentional poison-related hospitalizations (53.7 per 100,000).
- Persons age 15-19 had the highest rates of self-inflicted poison-related hospitalizations (105.3 per 100,000).
- Females had poison-related hospitalization rates 1.3 times that of males (90.0 vs. 68.7 per 100,000, respectively).
- Hispanic pesons had the highest rates of poison-related hospitalizations (113.1 per 100,000) when compared to other racial and ethnic groups.





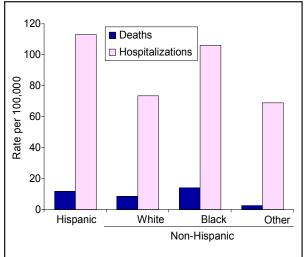


Figure 6. Rates of Poison-Related Events by Data Source and Race/Ethnicity, CT Residents

# **TESS DATA**

#### MAGNITUDE

• Between 2000 and 2001, an average of 28,125 poison exposure cases from CT were reported to TESS each year.

# CAUSAL AGENTS

- For all ages, the leading causal agent categories among poison exposure cases were (1) Cosmetics/Personal Care Products (10 percent), (2) Analgesics (8 percent), and (3) Cleaning Substances (Household) (8 percent).
- Cosmetics/Personal Care Products was the most frequently reported agent category in poison exposure cases for persons 0-5 years of age (9 percent). Analgesics was the most frequently reported agent category in poison exposure cases for persons 6 years of age and older (9 percent).

# LOCATION OF EXPOSURE

• Of the poison exposure cases from CT, 82 percent originated from the patient's home.

## REASON FOR EXPOSURE

**Unintentional:** accidental, dosing errors

**Intentional:** self-inflicted, substance abuse, misuse

**Adverse reaction:** drug reactions, allergies

**Other:** contamination, tampering, assault

- Eighty-eight percent of poison exposure cases originating from CT were unintentional.
- Over 98 percent of poison exposures among children 12 years of age and younger were unintentional. Among adolescents 13–19 years of age, 56 percentof poison exposure cases were unintentional, and 38 percent were intentional. Among adults age 20 years and older, 75 percent of exposure cases were unintentional, and 18 percent were intentional.

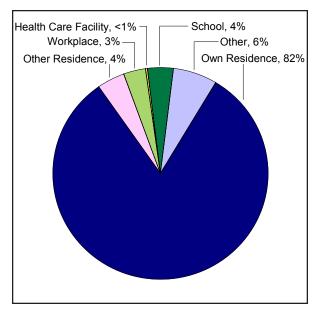
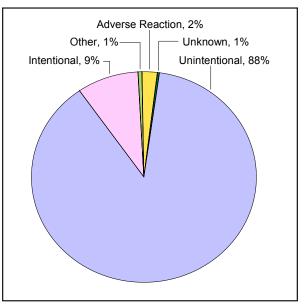


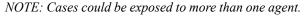
Figure 7. Average Annual Poison Exposure Cases by Site of Exposure (N = 28,125), Cases Originating from CT, 2000–2001

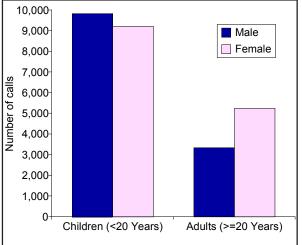




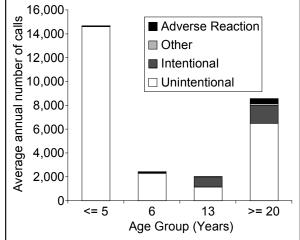
#### Table 2. Top 5 Agent (N<sup>3</sup> = 30,998) Categories for Poison Exposure Cases, Cases Originating from CT, 2000–2001

	Poison Exposure Cases					
	Age Groups					
Rank	0–5 years	6–19 years	20+ years	All Ages		
1	Cosmetics/Personal Care Products	Analgesics	Analgesics	Cosmetics/Personal Care Products		
2	Cleaning Substances (Household)	Arts/Crafts/Office Supplies	Cleaning Substances (Household)	Analgesics		
3	Plants	Foreign Bodies/Toys/ Miscellaneous	Sedative/Hypnotics/ Antipsychotics	Cleaning Substances (Household)		
4	Foreign Bodies/Toys/ Miscellaneous	Cosmetics/Personal Care Products	Food Products/Food Poisoning	Foreign Bodies/Toys/ Miscellaneous		
5	Analgesics	Cold and Cough Preparations	Antidepressants	Plants		





Children (<20 Years) Adults (>=20 Years) Figure 9. Average Annual Poison Exposure Cases by Sex and Age Group, Cases Originating from CT,



#### DEMOGRAPHICS

• Persons 5 years of age and younger had the highest number of poison exposure cases during 2000–2001 when compared with other age groups (a total of 14,696 poison exposure cases).

2000-2001

• Fifty-two percent of poison exposure cases were 0–5 years of age, 9 percent were 6–12 years of age, 7 percent were 13–19 years of age, and 31 percent were 20 years of age and older.

Figure 10. Average Annual Poison Exposure Cases by Reason for Exposure and Age Group, Cases Originating from CT, 2000–2001

- Overall, a higher number of poison exposure cases from CT were females (14,579 females vs. 13,240 males).
- Among exposure cases 19 years of age and younger, there were more males than females (9,830 males vs. 9,221 females).
- Among exposure cases 20 years of age and older, there were more females than males (5,251 females vs. 3,340 males).

<sup>&</sup>lt;sup>3</sup> The total number of agents is greater than the total number of exposure cases because cases can be exposed to more than one agent.

#### CONNECTICUT

#### CLINICAL EFFECTS & MEDICAL OUTCOME

- The leading clinical effect categories in poison exposure cases for all ages during 2000–2001 were (1) Gastrointestinal (26 percent) and (2) Neurological (21 percent).
- Poison exposure cases 5 years of age and younger mainly had gastrointestinal clinical effects. Cases 6–12 years of age mainly had ocular and gastrointestinal effects. Cases 13 years of age and older mainly had gastrointestinal or neurological clinical effects.
- Of the poison exposure cases with gastrointestinal manifestations, 76 percent were unintentional, and 17 percent were intentional. Of the poison exposure cases with neurological effects, 46 percent were unintentional, and 43 percent were intentional.
- Confirmed medical outcomes (followup) were obtained for 77 percent of the poison exposure cases managed in a health care facility, whereas 26 percent of the cases managed in a nonhealth care facility had confirmed medical outcomes.
- Of total cases, those with a known outcome: 15 percent of all poison exposure cases from CT had a medical outcome of no effect, 13 percent had a minor effect, 4 percent had a moderate effect, and less than 1 percent had a major effect.
- Less than 1 percent of poison exposure cases originating from CT during 2000-2001 resulted in death (an average of 14 fatal cases each year).

		• • • •	· // ·		
	Clinical Effects by Age				
	0–5 Years	6–12 Years	13–19 Years	20+ Years	All Ages
Cardiovascular	1%	2%	8%	6%	5%
Dermal	14%	21%	11%	15%	15%
Gastrointestinal	33%	26%	28%	24%	26%
Neurological	12%	13%	27%	24%	21%
Ocular	24%	28%	13%	12%	15%
Respiratory	6%	3%	3%	5%	5%
Other	14%	12%	14%	20%	17%

# Table 3. Average Annual Poison Exposure Cases byClinical Manifestation and Age Group (N = 18,428), Cases Originating from CT, 2000–2001

NOTE: Due to rounding, some columns equal more than 100%.

#### TREATMENT OF EXPOSURE

- Seventy-four percent of poison exposure cases from CT were managed at the site of exposure (usually home) or in a non-health care facility, and 20 percent were managed in a health care facility.
- Seventy-one percent of poison exposure cases required either observation (4 percent) or therapeutic intervention (decontamination and/or other therapy) (67 percent). Three percent

required neither observation nor intervention (no therapy provided), and 26 percent either refused treatment or were lost to follow-up.

• The most common method of decontamination for poison exposure cases was dilution/irrigation/washing (71 percent of the total number of decontaminations performed for poison exposure cases from CT).

# MAINE

# MAGNITUDE

• Between 1995 and 1998, an average of 81 poison-related deaths occurred each year among ME residents (crude rate 6.5 per 100,000).

# **CAUSE AND INTENT**

# DEATHS

- The leading agent categories in poison-related deaths were (1) Other Drugs,
  (2) Motor Vehicle Exhaust Gas, and (3) Toxic Effect of Other Gases, Fumes, or Vapors.
- The leading agent categories in poison-related deaths for persons ages 65+ were (1) Other Drugs, (2) Motor Vehicle Exhaust Gas, and (3) Toxic Effect of Other Gases, Fumes, or Vapors.
- The leading intent of poison-related deaths was unintentional (48 percent; 2.5 per 100,000). Suicide and undetermined deaths ranked second and third (2.5 and 0.2 per 100,000), respectively.<sup>1</sup>

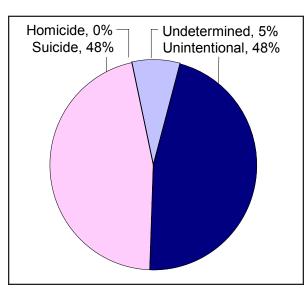


Figure 1. Average Annual Poison-Related Deaths by Intent, ME Residents, 1995–1998 (N=65)<sup>1</sup>

• During 1997, there were 1,123 poisonrelated hospital discharges among ME residents (crude rate 89.5 per 100,000).

# HOSPITALIZATIONS

- Overall, the leading agent categories in poison-related hospitalizations were (1) Tranquilizers and Other Psychotropic Agents, (2) Other Specified Drugs and Medicinal Substances, and (3) Analgesics/Antipyretics and Antirheumatics.
- The leading agent categories in poisonrelated hospital discharges for persons ages 15–19 were (1) Self-inflicted Poisoning, (2) Other Specified Drugs and Medicinal Substances, and (3) Unintentional Poisoning by Analgesic, Antipyretics and Antirheumatics.
- Self-inflicted (65 percent) was the leading intent in poison-related hospitalizations (48.5 per 100,000). Unintentional and undetermined ranked second and third (23.9 and 2.6 per 100,000), respectively.<sup>2</sup>

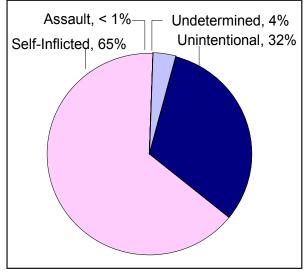
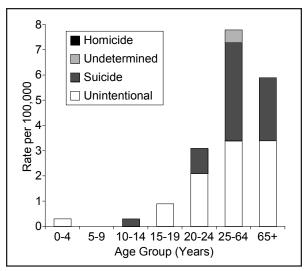


Figure 2. Annual Poison-Related Hospitalizations by Intent, ME Residents, 1997 (N=941)<sup>2</sup>

<sup>&</sup>lt;sup>1</sup> Annual average number of E coded cases for 1995–1998. Excludes 16 cases for which no intent was assigned. <sup>2</sup> Annual average number of E coded cases for 1997. Excludes 182 cases for which no intent was assigned.



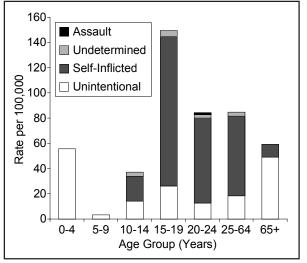


Figure 3. Rates of Poison-Related Deaths by Age Group and Intent, ME Residents, 1995–1998



Table 1. Top 4 ICD-9/CM Categories in Poison-Related Deaths, 1995–1998 (N <sub>Average</sub> = 81),
and in Poison-Related Hospitalizations, 1997 (N = 1,123), ME Residents

Deaths						
Age Group	Rank 1 Rank 2 Rank 3		Rank 3	Rank 4		
0-4	987 Toxic Effect of Other Gases, Fumes, or Vapors	986 Toxic Effect of Carbon Monoxide	E858 Accidental Poisoning by Other Drugs			
5–9	986 Toxic Effect of Carbon Monoxide	987 Toxic Effect of Other Gases, Fumes, or Vapors				
10–14	987 Toxic Effect of Other Gases, Fumes, or Vapors E950.9 Other and Unspecified Solid and Liquid Substances 986 Toxic Effect of Carbon Monoxide					
15–19	987 Toxic Effect of Other Gases, Fumes, or Vapors	E858 Accidental Poisoning by Other Drugs	E850 Accidental Poisoning by Analgesics, Antipyretics and Antirheumatics			
20–24	987 Toxic Effect of Other Gases, Fumes, or Vapors	E850 Accidental Poisoning by Analgesics, Antipyretics and Antirheumatics	E952.0 Motor Vehicle Exhaust Gas	E854 Accidental Poisoning by Other Psychotropic Agents		
25–64	E858 Accidental Poisoning by Other Drugs	E952.0 Motor Vehicle Exhaust Gas	E950.4 Other Specified Drugs and Medicinal Substances	E950.3 Tranquilizers and Other Psychotropic Agents		
65+	E858 Accidental Poisoning by Other Drugs	E952.0 Motor Vehicle Exhaust Gas	987 Toxic Effect of Other Gases, Fumes, or Vapors	986 Toxic Effect of Carbon Monoxide		
		Hospitalizatio	n			
Age Group	Rank 1	Rank 2	Rank 3	Rank 4		
0-4	E858 Accidental Poisoning by Other Drugs	E854 Accidental Poisoning by Other Psychotropic Agents	E850 Accidental Poisoning by Analgesics, Antipyretics and Antirheumatics	E855 Accidental Poisoning by Other Drugs Acting on Central and Autonomic Nervous System		
5–9	5-9   Primarily Attecting the   by ()ther Psychotropic		987 Toxic Effect of Other Gases, Fumes, or Vapors	E858 Accidental Poisoning by Other Drugs		
10–14	E950.0 Analgesics, Antipyretics and Antirheumatics	E950.3 Tranquilizers and Other Psychotropic Agents	E850 Accidental Poisoning by Analgesics, Antipyretics and Antirheumatics	E950.4 Other Specified Drugs and Medicinal Substances		
15–19	15–19E950.0 Analgesics, Antipyretics and AntirheumaticsE950.4 Othe Drugs and M Substances		E950.3 Tranquilizers and Other Psychotropic Agents	969 Poisoning by Psychotropic Agents		

20–24		E950.0 Analgesics, Antipyretics and Antirheumatics	E950.3 Tranquilizers and Other Psychotropic Agents	E950.4 Other Specified Drugs and Medicinal Substances	965 Poisoning by Analgesics, Antipyretics, and Antirheumatics	
<b>25–64</b> E950.3 Tranquilizers and Other Psychotropic Agents			E950.4 Other Specified Drugs and Medicinal Substances	E950.0 Analgesics, Antipyretics and Antirheumatics	969 Poisoning by Psychotropic Agents	
	65+	65+ E858 Accidental Poisoning by Other Drugs E855 Accidental Poisoning by Other Drugs Actili Central and Autonom Nervous System		E850 Accidental Poisoning by Analgesics, Antipyretics and Antirheumatics	E950.3 Tranquilizers and Other Psychotropic Agents	

NOTE: Substance categories sharing a common ranking are entered successively across ranking levels.

# DEMOGRAPHICS

#### DEATHS, 1995-1998

- Overall, persons 65 years and older had the highest poison-related fatality rates (8.8 per 100,000) when compared with other age groups.
- Persons 25-64 and 65 years had the highest rates of unintentional poison-related deaths (3.4 per 100,000).
- Persons 65 years and over had the highest rates of poison-related deaths by suicide (7.2 per 100,000).
- Males had poison-related fatality rates 2.3 times that of females (9.2 vs. 4.0 per 100,000, respectively).
- Non-Hispanic Whites had the highest rates of poison-related deaths (6.3 per 100,000) when compared to other racial and ethnic groups.

#### HOSPITAL DISCHARGES, 1997

- Overall, persons 15–19 years had the highest poison-related hospitalization rates (165.5 per 100,000) when compared with other age groups.
- Persons fewer than 5 years had the highest rates of unintentional poison-related hospitalizations (55.8 per 100,000).
- Persons age 15–19 had the highest rates of self-inflicted poison-related hospitalizations (118.7 per 100,000).
- Females had poison-related hospitalization rates 1.5 times that of males (106.1 vs. 72.0 per 100,000, respectively).
- No race/ethnicity data are available for the rates of poison-related hospitalizations in the state of Maine.

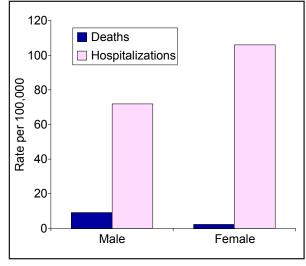


Figure 5. Rates of Poison-Related Events by Data Source and Gender, ME Residents

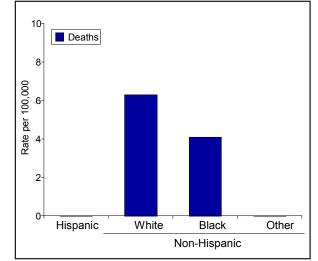


Figure 6. Rates of Poison-Related Death by Race/ Ethnicity, ME Residents<sup>3</sup>

#### MAINE

# **TESS DATA**

#### MAGNITUDE

• During 2001, a total of 12,392 poison exposure cases from ME were reported to TESS.

# CAUSAL AGENTS

- For all ages, the leading causal agent categories among poison exposure cases were (1) Cosmetics/Personal Care products (9 percent), (2) Analgesics (9 percent), and (3) Cleaning Substances (household) (8 percent).
- Cosmetics/Personal care Products was the most frequently reported agent category in poison exposure cases for persons 0–5 years of age (15 percent). Analgesics was the most frequently reported agent category in poison exposure cases for persons 6–19 years of age (13 percent), and Sedatives, Hypnotics/ Antipsychotics was the most frequently reported agent category among cases 20 years and older (10 percent).

#### LOCATION OF EXPOSURE

• Of the poison exposure cases from ME, 83 percent originated from the patient's home.

#### **REASON FOR EXPOSURE**

**Unintentional:** accidental, dosing errors

**Intentional:** self-inflicted, substance abuse, misuse

**Adverse reaction:** drug reactions, allergies

**Other:** contamination, tampering, assault

- Eighty-four percent of poison exposure cases originating from ME were unin-tentional.
- Over 98 percent of poison exposures among children 12 years of age and younger were unintentional. Among adolescents 13–19 years of age, 51 percent of poison exposure cases were unintentional, and 46 percent were intentional. Among adults 20 years of age and older, 70 percent of exposure cases were unintentional, and 24 percent were intentional.

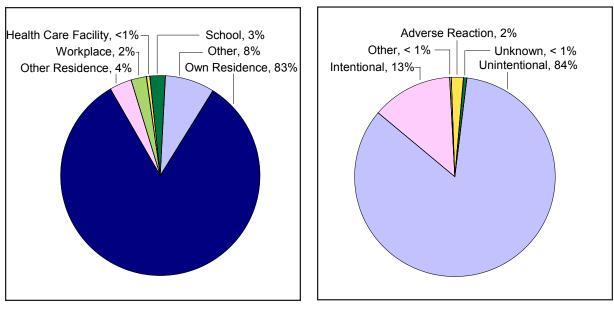
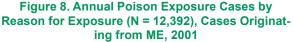


Figure 7. Annual Poison Exposure Cases by Site of Exposure (N = 12,392), Cases Originating from ME, 2001



Rank	Poison Exposure Cases Age Groups				
1	Cosmetics/Personal Care Products	Analgesics	Sedative/Hypnotics/ Antipsychotics	Cosmetics/Personal Care Products	
2	Plants	Antidepressants	Analgesics	Analgesics	
3	Cleaning Substances (Household)	Cosmetics/Personal Care Products	Antidepressants	Cleaning Substances (Household)	
4	Analgesics	Arts/Crafts/Office Supplies	Cleaning Substances (Household)	Plants	
5	Topical Preparations	Foreign Bodies/Toys/ Miscellaneous	Hydrocarbons	Antidepressants	

#### Table 2. Top 5 Agent (N = 14,052) Categories for Poison Exposure Cases,<sup>4</sup> **Cases Originating from ME, 2001**

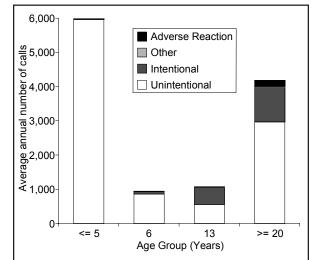
4,500 4,000 Male Female 3,500 <u>\$1,000</u> 3,000 50 2,500 2,000-⊒ Z 1,500 1.000 500-0-Children (<20 Years) Adults (>=20 Years)

NOTE: Cases could be exposed to more than one agent.

Figure 9. Annual Poison Exposure Cases by Sex and Age Group, Cases Originating from ME, 2001

#### **D**EMOGRAPHICS

- Persons 5 years of age and younger had the highest number of poison exposure cases during 2000-2001 when compared with other age groups (a total of 5,994 poison exposure cases).
- Forty-eight percent of poison exposure cases were 0-5 years of age, 8 percent were 6–12 years of age, 9 percent were 13-19 years of age, and 34 percent were 20 years of age and older.



#### Figure 10. Annual Poison Exposure Cases by **Reason for Exposure and Age Group, Cases Originating from ME, 2001**

- Overall, a higher number of poison exposure cases from ME were males (6,169 males vs. 6,083 females).
- Among exposure cases 19 years of age and younger, there were more males than females (4,381 males vs. 3,635 females).
- Among exposure cases 20 years of age and older, there were more females than males (2,426 females vs. 1,766 males).

<sup>&</sup>lt;sup>4</sup> The number of agent categories is greater than the total number of human exposure cases because cases can be exposed to more than one agent.

# MAINE

# CLINICAL EFFECTS & MEDICAL OUTCOME

- The leading clinical effect categories in poison exposure cases for all ages during 2001 were (1) Gastrointestinal (28 percent), and (2) Neurological (28 percent).
- Poison exposure cases 12 years of age and younger mainly had gastrointestinal clinical effects. Exposure cases 13 years of age and older mainly had neurological clinical effects.
- Of the poison exposure cases with gastrointestinal manifestations, 81 percent were unintentional, and 15 percent were intentional. Of the poison exposure cases with neurological effects, 41 percent were unintentional, and 53 percent were intentional. Of the poison exposure case with dermal effects, 88 percent were unintentional.
- Confirmed medical outcomes (followup) were obtained for 80 percent of the poison exposure cases managed in a health care facility, whereas 25 percent of the cases managed in a non-health care facility had confirmed medical outcomes
- Of total cases, those with a known outcome: 16 percent of all poison exposure cases from ME had a medical outcome of no effect, 12 percent had a minor effect, 7 percent had a moderate effect, and less than 1 percent had a major effect.
- Less than 1 percent of poison exposure cases from ME during 2001 resulted in death (a total of 3 fatal cases).

Table 3. Annual Poison Exposure Cases by
Clinical Manifestation and Age Group (N = 7,456), Cases Originating from ME, 2001

	Clinical Effects by Age				
	0–5 Years	6–12 Years	13–19 Years	20+ Years	All Ages
Cardiovascular	1%	3%	7%	6%	5%
Dermal	12%	25%	11%	16%	15%
Gastrointestinal	54%	28%	28%	19%	28%
Neurological	9%	13%	35%	34%	28%
Ocular	14%	24%	9%	10%	12%
Respiratory	4%	1%	3%	5%	4%
Other	7%	8%	9%	13%	11%

NOTE: Due to rounding, some columns equal more than 100%.

# TREATMENT OF EXPOSURE

- Seventy-three percent of poison exposure cases from ME during 2001 were managed at the site of exposure (usually home) or in a non-health care facility, and 22 percent were managed in a health care facility.
- Seventy-six percent of poison exposure cases required either observation (10 percent) or therapeutic intervention (decontamination and/or other therapy) (66 percent). Six percent required nei-

ther observation nor intervention (no therapy provided), and 19 percent either refused treatment or were lost to followup.

• The most common method of decontamination for poison exposure cases was dilution/irrigation/washing (77 percent of the total number of decontaminations performed for poison exposure cases from ME).

# **MASSACHUSETTS**

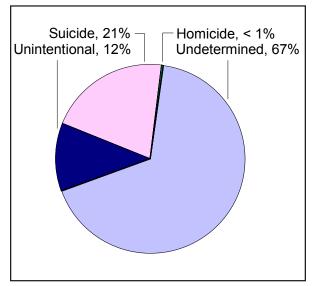
# MAGNITUDE

• Between 1995 and 1998, an average of 582 poison-related deaths occurred each year among MA residents (crude rate 9.4 per 100,000).

# **CAUSE AND INTENT**

## DEATHS

- The leading agent categories in poison-related deaths were (1) Analgesics, Antipyretics, and Antirheumatics,
  (2) Other Specified Drugs and Medicinal Substances, and (3) Toxic Effect of Other Gases, Fumes, or Vapors.
- The leading agent categories in poisonrelated deaths for persons ages 25-64 were (1) Analgesics, Antipyretics, and Antirheumatics, (2) Other Specified Drugs and Medicinal Substances, and (3) Other Specified Drugs and Medicinal Substances.
- The leading intent of poison-related deaths was undetermined (67 percent; 5.7 per 100,000). Suicide and unintentional deaths ranked second and third (1.8 and 1.0 per 100,000), respectively.<sup>1</sup>



• During 1997, there were 5,099 poisonrelated hospital discharges among MA residents (crude rate 81.9 per 100,000).

## HOSPITALIZATIONS

- Overall, the leading agent categories in poison-related hospitalizations were (1) Tranquilizers and Other Psychotropic Agents, (2) Analgesics, Antipyretics, and Antirheumatics, and (3) Other Specified Drugs and Medicinal Substances.
- The leading agent categories in poisonrelated hospital discharges for persons ages 15-19 years were (1) Analgesics, Antipyretics, and Antirheumatics, (2) Tranquilizers and Other Psychotropic Agents, and (3) Other Specified Drugs and Medicinal Substances.
- Self-inflicted (62 percent) was the leading intent in poison-related hospitalizations (49.8 per 100,000). Unintentional and undetermined ranked second and third (24.5 and 5.8 per 100,000), respectively.<sup>2</sup>

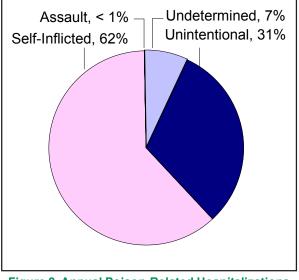


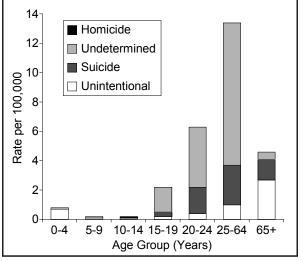
Figure 1. Average Annual Poison-Related Deaths by Intent, MA Residents, 1995–1998 (N=523)<sup>1</sup>

Figure 2. Annual Poison-Related Hospitalizations by Intent, MA Residents, 1997 (N=4,985)<sup>2</sup>

<sup>&</sup>lt;sup>1</sup> Annual average number of E coded cases for 1995–1998. Excludes 59 cases for which no intent was assigned. <sup>2</sup> Annual number of E coded cases for 1997. Excludes 114 cases for which no intent was assigned.

# MASSACHUSETTS

# **POISON DATA BOOK**



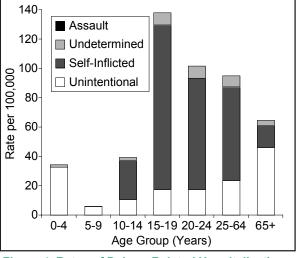


Figure 3. Rates of Poison-Related Deaths by Age Group and Intent, MA Residents, 1995–1998 Figure 4. Rates of Poison-Related Hospitalizations by Age Group and Intent, MA Residents, 1997

Table 1. Top 4 ICD-9/CM Categories in Poison-Related Deaths, 1995–1998 (N <sub>Average</sub> = 582),
and in Poison-Related Hospitalizations, 1997 (N = 5,099), MA Residents

	Deaths						
Age Group	Rank 1	Rank 2	Rank 3	Rank 4			
0–4	987 Toxic Effect of Other Gases, Fumes, or Vapors	760.7 Noxious Influences Affecting Fetus Via Placenta or Breast Milk	986 Toxic Effect of Carbon Monoxide	760.7 Noxious Influences Affecting Fetus Via Placenta or Breast Milk			
5–9	987 Toxic Effect of Other Gases, Fumes, or Vapors	986 Toxic Effect of Carbon Monoxide	E854 Accidental Poisoning by Other Psychotropic Agents	E858 Accidental Poisoning by Other Drugs			
10–14	987 Toxic Effect of Other Gases, Fumes, or Vapors	760.7 Noxious Influences Affecting Fetus Via Placenta or Breast Milk	E856 Accidental Poisoning by Antibiotics	E962.2 Other Gases and Vapors			
15–19	E980.0 Analgesics, Antipyretics and Antirheumatics	E980.4 Other Specified Drugs and Medicinal Substances	E980.3 Tranquilizers and Other Psychotropic Agents	987 Toxic Effect of Other Gases, Fumes, or Vapors			
20–24	E980.0 Analgesics, Antipyretics and Antirheumatics	E980.4 Other Specified Drugs and Medicinal Substances	987 Toxic Effect of Other Gases, Fumes, or Vapors	E950.4 Other Specified Drugs and Medicinal Substances			
25–64	E980.0 Analgesics, Antipyretics and Antirheumatics	E980.4 Other Specified Drugs and Medicinal Substances	E950.4 Other Specified Drugs and Medicinal Substances	E952.0 Motor Vehicle Exhaust Gas			
65+	E858 Accidental Poisoning by Other Drugs	987 Toxic Effect of Other Gases, Fumes, or Vapors	E950.4 Other Specified Drugs and Medicinal Substances	E952.0 Motor Vehicle Exhaust Gas			
		Hospitalizatio	ns				
Age Group	Rank 1	Rank 2	Rank 3	Rank 4			
0-4	E858 Accidental Poisoning by Other Drugs	E861 Accidental Poisoning by Cleansing and Polishing Agents, Disinfectants, Paints and Varnishes	E855 Accidental Poisoning by Other Drugs Acting on Central and Autonomic Nervous System	E853 Accidental Poisoning by Tranquilizers			
5–9	E854 Accidental Poisoning by Other Psychotropic Agents	E858 Accidental Poisoning by Other Drugs	E865 Accidental Poisoning From Poisonous Foodstuffs and Poisonous Plants	E905 Venomous Animals and Plants as the cause of Poisoning and Toxic Reactions			
10–14	E950.0 Analgesics, Antipyretics and Antirheumatics	E950.4 Other Specified Drugs and Medicinal Substances	E950.3 Tranquilizers and Other Psychotropic Agents	E858 Accidental Poisoning by Other Drugs			

### **POISON DATA BOOK**

15–19	E950.0 Analgesics, Antipyretics and Antirheumatics	E950.3 Tranquilizers and Other Psychotropic Agents	E950.4 Other Specified Drugs and Medicinal Substances	E850 Accidental Poisoning by Analgesics, Antipyretics and Antirheumatics
20–24	E950.0 Analgesics, Antipyretics and Antirheumatics	E950.3 Tranquilizers and Other Psychotropic Agents	E950.4 Other Specified Drugs and Medicinal Substances	E850 Accidental Poisoning by Analgesics, Antipyretics and Antirheumatics
25–64	E950.3 Tranquilizers and Other Psychotropic Agents	E950.4 Other Specified Drugs and Medicinal Substances	E950.0 Analgesics, Antipyretics and Antirheumatics	E850 Accidental Poisoning by Analgesics, Antipyretics and Antirheumatics
65+	E858 Accidental Poisoning by Other Drugs	E950.3 Tranquilizers and Other Psychotropic Agents	E850 Accidental Poisoning by Analgesics, Antipyretics and Antirheumatics	E853 Accidental Poisoning by Tranquilizers

NOTE: Substance categories sharing a common ranking are entered succes sively across ranking levels.

# DEMOGRAPHICS

#### DEATHS, 1995-1998

- Overall, persons 25-64 years had the highest poison-related fatality rates (14.3 per 100,000) when compared with other age groups.
- Persons 65 years and over had the highest rates of unintentional poison-related deaths (2.7 per 100,000).
- Persons 25-64 years had the highest rates of poison-related deaths by suicide (2.7 per 100,000).
- Males had poison-related fatality rates 2.4 times that of females (13.5 vs. 5.6 per 100,000, respectively)
- Hispanics had the highest rates of poison-related deaths (12.5 per 100,000) when compared to other racial and ethnic groups.

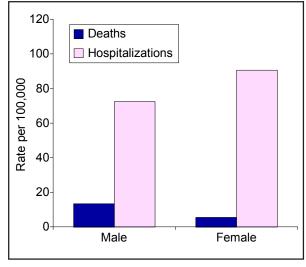


Figure 5. Rates of Poison-Related Events by Data Source and Gender, MA Residents

#### HOSPITAL DISCHARGES, 1997

- Overall, persons 15–19 years had the highest poison-related hospitalization rates (139.1 per 100,000) when compared with other age groups.
- Persons 65 years and over had the highest rates of unintentional poison-related hospitalizations (46.2 per 100,000).
- Persons age 15–19 had the highest rates of self-inflicted poison-related hospitalizations (112.22 per 100,000).
- Females had poison-related hospitalization rates 1.3 times that of males (90.7 vs. 72.5 per 100,000, respectively).
- Non-Hispanic Blacks had the highest rates of poison-related hospitalizations (102.2 per 100,000) when compared to other racial and ethnic groups.

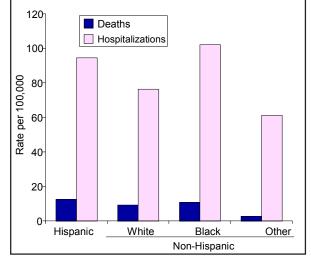


Figure 6. Rates of Poison-Related Events by Data Source and Race/Ethnicity, MA Residents

# **TESS DATA**

#### MAGNITUDE

• Between 2000 and 2001, an average of 39,174 poison exposure cases from MA were reported to TESS each year.

# CAUSAL AGENTS

- For all ages, the leading causal agent categories among poison exposure cases were (1) Cosmetics/Personal Care Products (10 percent), (2) Analgesics (10 percent), and (3) Cleaning Substances (Household) (8 percent).
- Cosmetics/Personal Care Products was the most frequently reported agent category in poison exposure cases for persons 0–5 years of age (15 percent). Analgesics was the most frequently reported agent category in poison exposure cases for persons 6 years of age and older (13 percent).

## LOCATION OF EXPOSURE

• Of the poison exposure cases from MA, 89 percent originated from the patient's home.

### REASON FOR EXPOSURE

**Unintentional:** accidental, dosing errors

**Intentional:** self-inflicted, substance abuse, misuse

**Adverse reaction:** drug reactions, allergies

**Other:** contamination, tampering, assault

- Eighty-five percent of poison exposure cases originating in MA during 2000–2001 were unintentional.
- Over 99 percent of poison exposures among children 12 years of age and younger were unintentional. Among adolescents 13–19 years of age, 42 percent of poison exposure cases were unintentional, and 53 percent were intentional. Among adults 20 years of age and older, 69 percent of exposure cases were unintentional, and 28 percent were intentional.

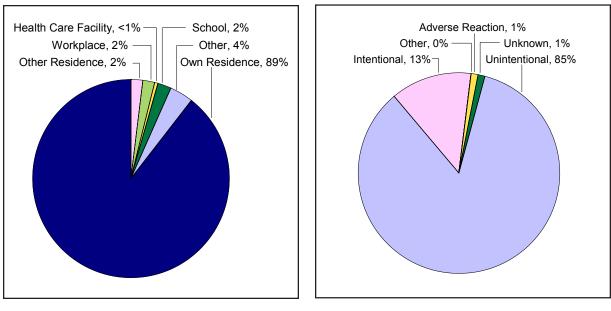


Figure 7. Average Annual Poison Exposure Cases by Site of Exposure (N = 39,174), Cases Originating from MA, 2000–2001



# Table 2. Top 5 Agent (N³ = 43,494) Categories for Poison Exposure Cases,Cases Originating from MA, 2000–2001

		Poison Ex	posure Cases			
	Age Groups					
Rank	0–5 years	6–19 years	20+ years	All Ages		
1	Cosmetic/Personal Care	Analgesics	Analgesics	Cosmetic/Personal Care		
2	Cleaning Substances (Household)	Cosmetic/Personal Care	Sedative/Hypnotics/ Antipsychotics	Analgesics		
3	Plants	Antidepressants	Antidepressants	Cleaning Substances (Household)		
4	Foreign Bodies/Toys/ Miscellaneous	Foreign Bodies/Toys/ Miscellaneous	Cleaning Substances (Household)	Foreign Bodies/Toys/ Miscellaneous		
5	Analgesics	Sedative/Hypnotics/ Antipsychotics	Cosmetic/Personal Care	Plants		

NOTE: Cases could be exposed to more than one agent.

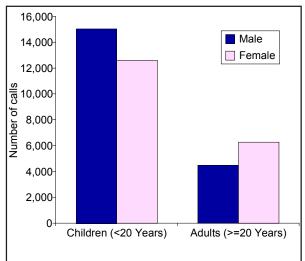


Figure 9. Average Annual Poison Exposure Cases by Sex and Age Group, Cases Originating from MA, 2000–2001

#### DEMOGRAPHICS

- Persons 5 years and younger had the highest number of poison exposure cases during 2000–2001 when compared with other age groups (a total of 21,534 poison exposure cases).
- Fifty-five percent of poison exposure cases were 0–5 years of age, 8 percent were 6–12 years of age, 8 percent were 13–19 years of age, and 28 percent were 20 years of age and older.

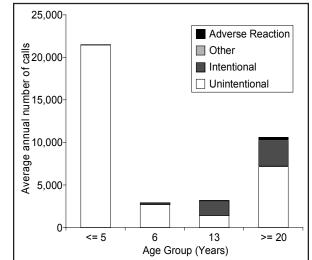


Figure 10. Average Annual Poison Exposure Cases by Reason for Exposure and Age Group, Cases Originating from MA, 2000–2001

- Overall, a higher number of poison exposure cases from MA were males (19,683 males vs. 19,136 females).
- Among exposure cases 19 years of age and younger, there were more males than females (15,047 males vs. 12,610 females).
- Among exposure cases 20 years of age and older, there were more females than males (6,285 females vs. 4,485 males).

 $<sup>^{\</sup>rm 3}$  The total number of agent categories is greater than the total number of human exposure cases because individuals can be exposed to more than one agent.

## MASSACHUSETTS

### CLINICAL EFFECTS & MEDICAL OUTCOME

- The leading clinical effect categories in poison exposure cases for all ages during 2000–2001 were (1) Neurological (29 percent) and (2) Gastrointestinal (24 percent).
- Poison exposure cases 12 years of age and younger mainly had gastrointestinal clinical effects, whereas exposure cases 13 years of age and older mainly had neurological clinical effects.
- Of the poison exposure cases with gastrointestinal manifestations, 70 percent were unintentional, and 25 percent were intentional. Of the poison exposure cases with neurological effects, 36 percent were unintentional, and 56 percent were intentional.
- Confirmed medical outcomes (followup) were obtained for 74 percent of the poison exposure cases managed in a health care facility, whereas 5 percent of the cases that were managed in a non-health care facility had confirmed medical outcomes.
- Of total cases, those with a known outcome: 8 percent of all poison exposure cases from MA had a medical outcome of no effect, 6 percent had a minor effect, 5 percent had a moderate effect, and less than 1 percent had a major effect.
- Less than 1 percent of poison exposure cases originating from MA during 2000–2001 resulted in death (an average of 23 fatal cases each year).

Table 3. Average Annual Poison Exposure Cases by				
Clinical Manifestation and Age Group (N = 15,044), Cases Originating from MA, 2000–2001				

	Clinical Effects by Age				
	0–5 Years	6–12 Years	13–19 Years	20+ Years	All Ages
Cardiovascular	2%	3%	13%	11%	9%
Dermal	11%	20%	6%	12%	11%
Gastrointestinal	38%	27%	25%	20%	24%
Neurological	16%	19%	35%	33%	29%
Ocular	16%	19%	8%	8%	10%
Respiratory	6%	4%	3%	5%	5%
Other	14%	10%	13%	15%	14%

NOTE: Due to rounding, some columns equal more than 100%.

# TREATMENT OF EXPOSURE

- Seventy-six percent of poison exposure cases from MA were managed at the site of exposure (usually home) or in a non-health care facility, and 21 percent were managed in a health care facility.
- Forty-five percent of poison exposure cases required either observation (5 percent) or therapeutic intervention (decontamination and/or other therapy) (40 percent). Ten percent required

neither observation nor intervention (no therapy provided), and 43 percent either refused treatment or were lost to followup.

• The most common method of decontamination for poison exposure cases was dilution/irrigation/washing (75 percent of the total number of decontaminations performed for poison exposure cases from MA).

# **NEW HAMPSHIRE**

# **TESS DATA**

#### MAGNITUDE

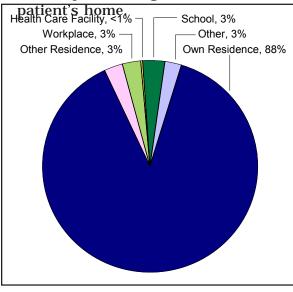
• Between 2000 and 2001, an average of 13,172 poison exposure cases from NH were reported to TESS each year.

#### CAUSAL AGENTS

- For all ages, the leading causal agent categories among poison exposure cases were (1) Cosmetics/Personal Care Products (9 percent), (2) Analgesics (9 percent), and (3) Cleaning Substances (Household) (8 percent).
- Cosmetics/Personal Care Products was the most frequently reported agent category in poison exposure cases for persons 0–5 years of age (10 percent). Analgesics was the most frequently reported agent category in poison exposure cases for persons 6–19 years of age (13 percent). Sedatives/Hypnotics/ Antipsychotics was the most frequetly reported agent category in cases 20 years and older (11 percent).

#### LOCATION OF EXPOSURE

• Of the poison exposure cases from NH, 88 percent originated from the



REASON FOR EXPOSURE

**Unintentional:** accidental, dosing errors

**Intentional:** self-inflicted, substance abuse, misuse

**Adverse reaction:** drug reactions, allergies

**Other:** contamination, tampering, assault

- Eighty-seven percent of poison exposure cases originating from NH were unintentional.
- Over 98 percent of poison exposures among children 12 years of age and younger were unintentional. Among adolescents 13–19 years of age, 50 percent of poison exposure cases were unintentional, and 47 percent were intentional. Among adults age 20 years and older, 72 percent of exposure cases were unintentional, and 25 percent were intentional.

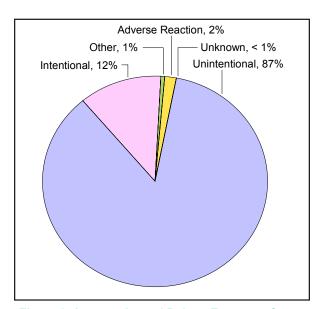


Figure 1. Average Annual Poison Exposure Cases by Site of Exposure (N = 13,172), Cases Originating from NH, 2000–2001

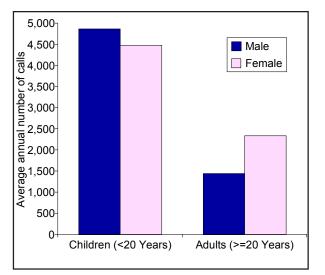
Figure 2. Average Annual Poison Exposure Cases by Reason for Exposure (N = 13,172), Cases Originating from NH, 2000–2001<sup>1</sup>

<sup>1</sup> Individual categories may not sum to total due to rounding.

Table 1. Top 5 Agent (N = 14,907) Categories for Poison Exposure Cases,					
Cases Originating from NH, 2000–2001					

		Poison Exp	oosure Cases			
	Age Groups					
Rank	0–5 years	6–19 years	20+ years	All Ages		
1	Cosmetics/Personal Care Products	Analgesics	Sedatives/Hypnotics/ Antipsychotics	Cosmetics/Personal Care Products		
2	Cleaning Substances (Household)	Arts/Crafts/Office Supplies	Analgesics	Analgesics		
3	Plants	Antidepressants	Antidepressants	Cleaning Substances (Household)		
4	Topical Preparations	Foreign Bodies/Toys/ Miscellaneous	Cleaning Substances (Household)	Plants		
5	Foreign Bodies/Toys/ Miscellaneous	Cold and Cough Preparations	Alcohols	Foreign Bodies/Toys/ Miscellaneous		

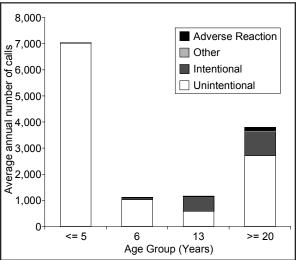
NOTE: Cases could be exposed to more than one agent.



#### Figure 3. Average Annual Poison Exposure Cases by Sex and Age Group, Cases Originating from NH, 2000–2001

#### DEMOGRAPHICS

- Persons 5 years of age and younger had the highest number of poison exposure cases during 2000–2001 when compared with other age groups (7,038 average annual poison exposure cases).
- Fifty-three percent of poison exposure cases were 0–5 years of age, 9 percent were 6–12 years of age, 9 percent were 13–19 years of age, and 29 percent were 20 years of age and older.



#### Figure 4. Average Annual Poison Exposure Cases by Reason for Exposure and Age Group, Cases Originating from NH, 2000–2001

- Overall, a higher number of poison exposure cases from NH were females (6,827 females vs. 6,320 males).
- Among cases 19 years of age and younger, there were more males than females (4,866 males vs. 4,480 females).
- Among cases 20 years of age and older, there were more females than males (2,338 females vs. 1,444 males).

#### **NEW HAMPSHIRE**

#### CLINICAL EFFECTS & MEDICAL OUTCOME

- The leading clinical effect categories in poison exposure cases for all ages during 2000–2001 were (1) Neurological (28 percent) and (2) Gastrointestinal (25 percent).
- Poison exposure cases 5 years of age and younger mainly had gastrointestinal clinical effects. Cases 6–12 years of age mainly had ocular, gastrointestinal, and dermal clinical effects. Cases 13 years of age and older mainly had neurological and gastrointestinal clinical effects.
- Of the poison exposure cases with gastrointestinal manifestations, 76 percent were unintentional, and 21 percent were intentional. Of the poison exposure cases with neurological effects, 44 percent were unintentional, and 53 percent were intentional.

- Confirmed medical outcomes (followup) were obtained for 89 percent of the poison exposure cases managed in a health care facility, whereas 44 percent of the cases managed in a nonhealth care facility had confirmed medical outcomes.
- Of total cases, those with a known outcome: 24 percent of all poison exposure cases from NH had a medical outcome of no effect, 20 percent had a minor effect, 5 percent had a moderate effect, and less than 1 percent had a major effect.
- Less than 1 percent of poison exposure cases originating from NH resulted in death (an average of 22 fatal cases each year).

	Clinical Effects by Age				
	0–5 Years	6–12 Years	13–19 Years	20+ Years	All Ages
Cardiovascular	1%	2%	10%	7%	6%
Dermal	14%	23%	9%	15%	14%
Gastrointestinal	34%	23%	26%	22%	25%
Neurological	14%	19%	34%	31%	28%
Ocular	23%	27%	11%	11%	14%
Respiratory	8%	2%	3%	6%	6%
Other	6%	5%	7%	10%	8%

#### Table 2. Average Annual Poison Exposure Cases by Clinical Manifestation and Age Group (N = 7,725), Cases Originating from NH, 2000–2001

NOTE: Due to rounding, some columns equal more than 100%.

#### TREATMENT OF EXPOSURE

- Seventy-six percent of poison exposure cases from NH were managed at the site of exposure (usually home) or in a non-health care facility, and 19 percent were managed in a health care facility.
- Eighty-nine percent of poison exposure cases required either observation (16 percent) or therapeutic intervention (decontamination and/or other therapy) (73 percent). Eight percent required

neither observation nor intervention (no therapy provided), and 3 percent either refused treatment or were lost to followup.

• The most common method of decontamination for poison exposure cases was dilution/irrigation/washing (73 percent of the total number of decontaminations performed for exposure cases from NH).

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#### NEW JERSEY

# **NEW JERSEY**

## MAGNITUDE

 Between 1995 and 1998, an average of
 During 1997, there were 7,320 poison-792 poison-related deaths occurred each year among NJ residents (crude rate 9.7 per 100,000).

# **CAUSE AND INTENT**

#### DEATHS

- The leading agent categories in poison-related deaths were (1) Other Drugs, (2) Analgesic, Antipyretics, and Antirheumatics, and (3) Toxic Effect of Other Gases, Fumes, or Vapors.
- The leading agent categories in poison-related deaths for persons, ages 25-64 years were (1) Other Drugs, (2) nalgesic, Antipyretics, and Antirheumatics, and (3) Other Drugs Acting on Central and Autonomic Nervous System.
- The leading intent of poison-related deaths was unintentional (73 percent, 6.2 per 100,000). Suicide and undetermined poison-related deaths ranked second and third (1.5 and 0.8 per 100,000), respectively.<sup>1</sup>

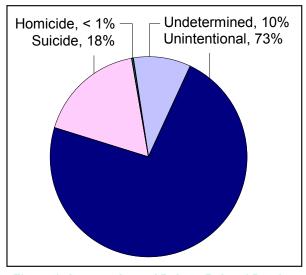


Figure 1. Average Annual Poison-Related Deaths by Intent, NJ Residents, 1995-1998 (N=690)<sup>1</sup>

related hospital discharges among NJ residents (crude rate 89.1 per 100,000).

#### HOSPITALIZATIONS

- Overall, the leading agent categories in poison-related hospitalizations were (1) Tranquilizers/Other Psychotropic Agents, (2) Analgesics, Antipyretics, and Antirheumatics, and (3) Other Specified Drugs/Medicinal Substances.
- The leading agent categories in poison-related hospital discharges for persons 15-19 years were (1) Analgesics, Antipyretics, and Antirheumatics, (2) Other Specified Drugs/ Medicinal Substances, and (3) Tranquilizers/Other Psychotropic Agents.
- Self-inflicted (53 percent) was the leading intent in poison-related hospitalizations (44.7 per 100,000). Unintentional and undetermined ranked second and third (30.2 and 9.9 per 100,000), respectively.<sup>2</sup>

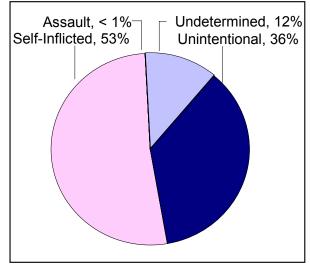
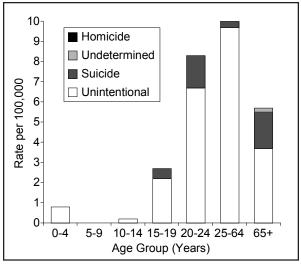


Figure 2. Annual Poison-Related Hospitalizations by Intent, NJ Residents, 1997 (N=6,975)<sup>2</sup>

<sup>1</sup> Annual average number of E coded cases for 1995–1998. Excludes 102 cases for which no intent was assigned. <sup>2</sup> Annual number of E coded cases for 1997. Excludes 345 cases for which no intent was assigned.



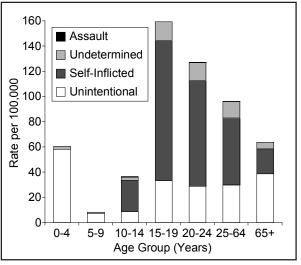


Figure 3. Rates of Poison-Related Deaths by Age Group and Intent, NJ Residents, 1995–1998 Figure 4. Rates of Poison-Related Hospitalizations by Age Group and Intent, NJ Residents, 1997

Table 1. Top 4 ICD-9/CM Categories in Poison-Related Deaths, 1995–1998 (N <sub>Averace</sub> = 792), and in Poison-
Related Hospitalizations, 1997 (N = 7,320), NJ Residents

	Deaths						
Age Group	Rank 1	Rank 2	Rank 3	Rank 4			
0-4	987 Toxic Effect of Other Gases, Fumes, or Vapors	760.7 Noxious Influences Affecting Fetus Via Placenta or Breast Milk	986 Toxic Effect of Carbon Monoxide	E855 Accidental Poisoning by Other Drugs Acting on Central and Autonomic Nervous System			
5–9	987 Toxic Effect of Other Gases, Fumes, or Vapors	986 Toxic Effect of Carbon Monoxide					
10–14	987 Toxic Effect of Other Gases, Fumes, or Vapors	986 Toxic Effect of Carbon Monoxide	E869 Accidental Poisoning by Other Gases and Vapors	E858 Accidental Poisoning by Other Drugs			
15–19	E858 Accidental Poisoning by Other Drugs	E850 Accidental Poisoning by Analgesics, Antipyretics and Antirheumatics	987 Toxic Effect of Other Gases, Fumes, or Vapors	E855 Accidental Poisoning by Other Drugs Acting on Central and Autonomic Nervous System			
20–24	E858 Accidental Poisoning by Other Drugs	E850 Accidental Poisoning by Analgesics, Antipyretics and Antirheumatics	E952.0 Motor Vehicle Exhaust Gas	987 Toxic Effect of Other Gases, Fumes, or Vapors			
25–64	E858 Accidental Poisoning by Other Drugs	E850 Accidental Poisoning by Analgesics, Antipyretics and Antirheumatics	E855 Accidental Poisoning by Other Drugs Acting on Central and Autonomic Nervous System	987 Toxic Effect of Other Gases, Fumes, or Vapors			
65+	E858 Accidental Poisoning by Other Drugs	987 Toxic Effect of Other Gases, Fumes, or Vapors	E952.0 Motor Vehicle Exhaust Gas	E868 Accidental Poisoning by Other Utility Gas and Other Carbon Monoxide			
		Hospitalizatio	ns				
Age Group	Rank 1	Rank 2	Rank 3	Rank 4			
0-4	E858 Accidental Poisoning by Other Drugs	E861 Accidental Poisoning by Cleansing and Polishing Agents, Disinfectants, Paints and Varnishes	E866 Accidental Poisoning by Other and Unspecified Solid and Liquid Substances	E855 Accidental Poisoning by Other Drugs Acting on Central and Autonomic Nervous System			
5–9	E905 Venomous Animals and Plants as the cause of Poisoning and Toxic Reactions	E858 Accidental Poisoning by Other Drugs	987 Toxic Effect of Other Gases, Fumes, or Vapors	E853 Accidental Poisoning by Tranquilizers			
10–14	E950.0 Analgesics, Antipyretics and Antirheumatics	E950.4 Other Specified Drugs and Medicinal Substances	E950.3 Tranquilizers and Other Psychotropic Agents	E850 Accidental Poisoning by Analgesics, Antipyretics and Antirheumatics			

#### **POISON DATA BOOK**

15–19	E950.0 Analgesics, Antipyretics and Antirheumatics	E950.4 Other Specified Drugs and Medicinal Substances	E950.3 Tranquilizers and Other Psychotropic Agents	E850 Accidental Poisoning by Analgesics, Antipyretics and Antirheumatics
20–24	E950.0 Analgesics, Antipyretics and Antirheumatics	E950.4 Other Specified Drugs and Medicinal Substances	E950.3 Tranquilizers and Other Psychotropic Agents	E850 Accidental Poisoning by Analgesics, Antipyretics and Antirheumatics
25–64	E950.3 Tranquilizers and Other Psychotropic Agents	E950.4 Other Specified Drugs and Medicinal Substances	E950.0 Analgesics, Antipyretics and Antirheumatics	E850 Accidental Poisoning by Analgesics, Antipyretics and Antirheumatics
65+	E858 Accidental Poisoning by Other Drugs	E950.3 Tranquilizers and Other Psychotropic Agents	E850 Accidental Poisoning by Analgesics, Antipyretics and Antirheumatics	E950.4 Other Specified Drugs and Medicinal Substances

NOTE: Substance categories sharing a common ranking are entered successively across ranking levels.

# DEMOGRAPHICS

#### DEATHS, 1995-1998

- Overall, persons 25-64 years had the highest poison-related fatality rates (13.8 per 100,000) when compared with other age groups.
- Persons 25–64 years had the highest rates of unintentional poison-related deaths (9.4 per 100,000).
- Persons 25-64 years had the highest rates of poison-related deaths by suicide (2.1 per 100,000).
- Males had poison-related fatality rates 2.8 times that of females (14.4 vs. 5.2 per 100,000, respectively) (95 percent CI=2.31, 2.90).
- Non-Hispanic Blacks had the highest rates of poison-related deaths (16.0 per 100,000) when compared to other racial and ethnic groups.

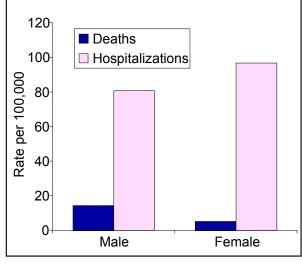


Figure 5. Rates of Poison-Related Events by Data Source and Gender, NJ Residents

#### HOSPITAL DISCHARGES, 1997

- Overall, persons 15–19 years had the highest poison-related hospitalization rates (163.9 per 100,000) when compared with other age groups.
- Persons 0–4 years had the highest rates of unintentional poison-related hospitalizations (58.3 per 100,000).
- Persons age 15–19 had the highest rates of self-inflicted poison-related hospitalizations (111.2 per 100,000).
- Females had poison-related hospitalization rates 1.2 times that of males (96.8 vs. 80.88 per 100,000, respectively).
- Non-Hispanic Blacks had the highest rates of poison-related hospitalizations (101.9 per 100,000) when compared to other racial and ethnic groups.

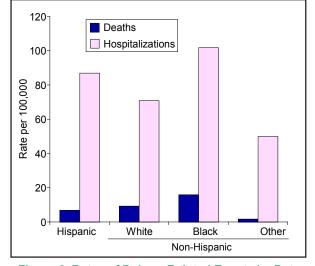


Figure 6. Rates of Poison-Related Events by Data Source and Race/Ethnicity, NJ Residents

# **TESS DATA**

#### MAGNITUDE

• Between 2000 and 2001, an average of 54,854 poison exposure cases from NJ were reported to TESS each year.

## CAUSAL AGENTS

- For all ages, the leading causal agent categories among poison exposure cases were (1) Cosmetics/Personal Care products (10 percent), (2) Analgesics (9 percent), and (3) Cleaning Substances (Household) (8 percent).
- Cosmetics/Personal Care Products was the most frequently reported agent category in poison exposure cases for persons 0–5 years of age (14 percent). Analgesics was the most frequently reported agent category in poison exposure cases for persons 6 years of age and older (12 percent).

## LOCATION OF EXPOSURE

• Of the posion exposure cases from NJ, 91 percent originated from the patient's home.

#### **REASON FOR EXPOSURE**

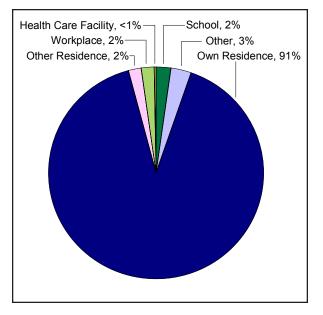
**Unintentional:** accidental, dosing errors

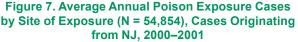
**Intentional:** self-inflicted, substance abuse, misuse

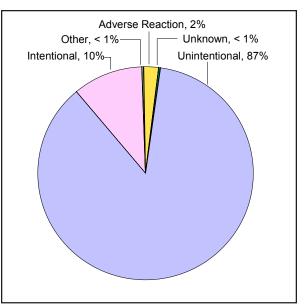
**Adverse reaction:** drug reactions, allergies

**Other:** contamination, tampering, assault

- Eighty-seven percent of poison exposures from NJ were unintentional.
- Over 98 percent of poison exposures among children 12 years of age and younger were unintentional. Among adolescents 13–19 years of age, 54 percent of poison exposure cases were unintentional, and 42 percent were intentional. Among adults age 20 years and older, 71 percent of exposure cases were unintentional, and 22 percent were intentional.









Rank	Poison Exposure Cases						
		Age Groups					
	0–5 years	6–19 years	20+ years	All Ages			
1	Cosmetics/Personal Care Products	Analgesics	Analgesics	Cosmetics/Personal Care Products			
2	Cleaning Substances (Household)	Arts/Crafts/Office Supplies	Sedatives/Hypnotics/ Antipsychotics	Analgesics			
3	Foreign Bodies/Toys/ Miscellaneous	Foreign Bodies/Toys/ Miscellaneous	Cleaning Substances (Household)	Cleaning Substances (Household)			
4	Topical Preparations	Cosmetics/Personal Care Products	Cosmetics/Personal Care Products	Foreign Bodies/Toys/ Miscellaneous			
5	Analgesics	Cold and Cough Preparations	Antidepressants	Topical Preparations			

#### Table 2. Top 5 Agent (N = 60,907) Categories for Poison Exposure Cases, Originating from NJ, 2000–2001

20,000 18,000-16,000-14,000-10,000-0 10,000-6,000-4,000-2,000-0 Children (<20 Years) Adults (>=20 Years)

NOTE: Cases could be exposed to more than one agent.

Figure 9. Average Annual Poison Exposure Cases

Figure 9. Average Annual Poison Exposure Cases by Sex and Age Group, Cases Originating from NJ, 2000–2001

# DEMOGRAPHICS

- Persons 5 years of age and younger had the highest number of poison exposure cases during 2000–2001 when compared with other age groups (28,636 average annual poison exposure cases).
- Fifty-five percent of poison exposure cases were 0–5 years of age, 8 percent were 6–12 years of age, 7 percent were 13–19 years of age, and 32 percent were 20 years of age and older.

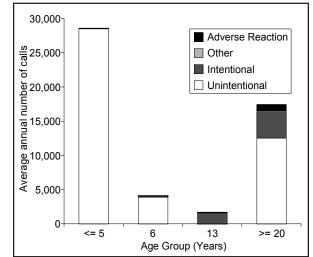


Figure 10. Average Annual Poison Exposure Cases by Reason for Exposure and Age Group, Cases Originating from NJ, 2000–2001

- Overall, a higher number of poison exposure cases from NJ were females (28,365 females vs. 26,044 males).
- Among exposure cases 19 years of age and younger, there were more males than females (18,954 males vs. 17,376 females).
- Among exposure cases 20 years of age and older, there were more females than males (10,663 females vs. 6,882 males).

## CLINICAL EFFECTS & MEDICAL OUTCOME

- The leading clinical effect categories in poison exposure cases for all ages during 2000–2001 were (1) Gastrointestinal (28 percent) and (2) Neurological (22 percent).
- Poison exposure cases 5 years of age and younger mainly had gastrointestinal clinical effects. Cases 6–12 years of age and older mainly had gastrointestinal and dermal clinical effects. Cases 13 years of age and older mainly had gastrointestinal and neurological clinical effects.
- Of the poison exposure cases with gastrointestinal manifestations, 78 percent were unintentional, and 16 percent were intentional. Of the poison exposure cases with neurological effects, 42 percent were unintentional, and 50 percent were intentional.

- Confirmed medical outcomes (followup) were obtained for 85 percent of the poison exposure cases managed in a health care facility, whereas 26 percent of the cases managed in a nonhealth care facility had confirmed medical outcomes.
- Of total cases, those with a known outcome: 15 percent of all poison exposure cases from NJ had a medical outcome of no effect, 14 percent had a minor effect, 6 percent had a moderate effect, and less than 1 percent had a major effect.
- Less than 1 percent of poison exposure cases originating from NJ during 2000–2001 resulted in death (an average of 19 fatal cases each year).

	Clinical Effects by Age				
	0–5 Years	6–12 Years	13–19 Years	20+ Years	All Ages
Cardiovascular	1%	1%	11%	8%	7%
Dermal	13%	27%	11%	15%	15%
Gastrointestinal	40%	27%	28%	24%	28%
Neurological	13%	12%	26%	25%	22%
Ocular	18%	22%	10%	9%	12%
Respiratory	6%	3%	3%	5%	5%
Other	12%	11%	15%	18%	16%

#### Table 3. Average Annual Poison Exposure Cases by Clinical Manifestation and Age Group (N = 25,950), Cases Originating from NJ, 2000–2001

NOTE: Due to rounding, some columns equal more than 100%.

#### TREATMENT OF EXPOSURE

- Seventy-seven percent of poison exposure cases from NJ were managed at the site of exposure (usually home) or in a non-health care facility, and 20 percent were managed in a health care facility.
- Forty-seven percent of poison exposure cases required either observation (10 percent) or therapeutic intervention (decontamination and/or other therapy) (37 percent). Forty-three

percent required neither observation nor intervention (no therapy provided), and 10 percent either refused treatment or were lost to follow-up.

• The most common method of decontamination for poison exposure cases was dilution/irrigation/washing (54 percent of the total number of decontaminations performed for exposure cases from NJ).

# **NEW YORK**

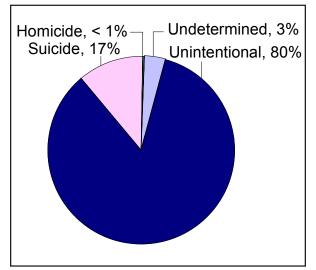
# MAGNITUDE

• Between 1995 and 1998, an average of 1,447 poison-related deaths occurred each year among NY residents (crude rate 7.8 per 100,000).

# **CAUSE AND INTENT**

### DEATHS

- The leading agent categories in poison-related deaths were (1) Other Drugs, (2) Analgesic, Antipyretics, and Antirheumatics, and (3) Other Drugs Acting on Central and Autonomic Nervous System.
- The leading agent categories in poison-related deaths for persons ages 25-64 years were (1) Other Drugs, (2) Analgesic, Antipyretics, and Antirheumatics, and (3) Other Drugs Acting on Central and Autonomic Nervous System.
- The leading intent of poison-related deaths was unintentional (80 percent, 5.3 per 100,000). Suicide and undetermined poison-related deaths ranked second and third (1.1 and 0.2 per 100,000), respectively.<sup>1</sup>





• During 1997, there were 15,747 poisonrelated hospital discharges among NY residents (crude rate 84.4 per 100,000).

## HOSPITALIZATIONS

- Overall, the leading agent categories in poison-related hospitalizations were (1) Tranquilizers/Other Psychotropic Agents, (2) Analgesics, Antipyretics, and Antirheumatics, and (3) Other Specified Drugs/Medicinal Substances.
- The leading agent categories in poisonrelated hospital discharges for persons 15–19 years were (1) Analgesics, Antipyretics, and Antirheumatics, (2) Other Specified Drugs/Medicinal Substances, and (3) Tranquilizers/Other Psychotropic Agents.
- Self-inflicted (49 percent) was the leading intent in poison-related hospitalizations (40.1 per 100,000). Unintentional and undetermined ranked second and third (35.2 and 7.0 per 100,000), respectively.<sup>2</sup>

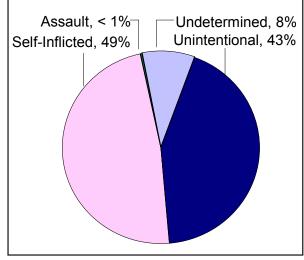
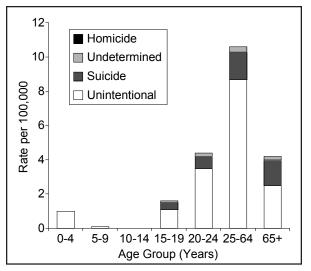


Figure 2. Annual Poison-Related Hospitalizations by Intent, NY Residents, 1997 (N=15,416)<sup>2</sup>

<sup>1</sup> Annual average number of E coded cases for 1995-1998. Excludes 206 cases for which no intent was assigned. <sup>2</sup> Annual number of E coded cases for 1997. Excludes 331 cases for which no intent was assigned.



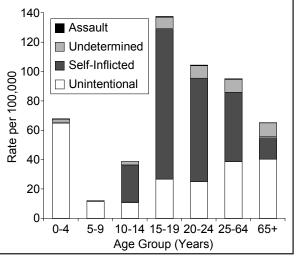


Figure 3. Rates of Poison-Related Deaths by Age Group and Intent, NY Residents, 1995–1998 Figure 4. Rates of Poison-Related Hospitalizations by Age Group and Intent, NY Residents, 1997

Table 1. Top 4 ICD-9/CM Categories in Poison-Related Deaths, 1995–1998 (N <sub>Average</sub> = 1,447),	
and in Poison-Related Hospitalizations, 1997 (N = 15,747), NY Residents	

	_	Deaths		
Age Group	Rank 1	Rank 2	Rank 3	Rank 4
0-4	987 Toxic Effect of Other Gases, Fumes, or Vapors	760.7 Noxious Influences Affecting Fetus Via Placenta or Breast Milk	986 Toxic Effect of Carbon Monoxide	E858 Accidental Poisoning by Other Drugs
5–9	987 Toxic Effect of Other Gases, Fumes, or Vapors	986 Toxic Effect of Carbon Monoxide	E869 Accidental Poisoning by Other Gases and Vapors	760.7 Noxious Influences Affecting Fetus Via Placenta or Breast Milk
10–14	987 Toxic Effect of Other Gases, Fumes, or Vapors	986 Toxic Effect of Carbon Monoxide	E858 Accidental Poisoning by Other Drugs	E868 Accidental Poisoning by Other Utility Gas and Other Carbon Monoxide
15–19	E858 Accidental Poisoning by Other Drugs	E850 Accidental Poisoning by Analgesics, Antipyretics and Antirheumatics	987 Toxic Effect of Other Gases, Fumes, or Vapors	986 Toxic Effect of Carbon Monoxide
20–24	E858 Accidental Poisoning by Other Drugs	E850 Accidental Poisoning by Analgesics, Antipyretics and Antirheumatics	987 Toxic Effect of Other Gases, Fumes, or Vapors	E855 Accidental Poisoning by Other Drugs Acting on Central and Autonomic Nervous System
25–64	E858.8 Other Specified Drugs	E850.0 Heroin	E855 Accidental Poisoning by Other Drugs Acting on Central and Autonomic Nervous System	987 Toxic Effect of Other Gases, Fumes, or Vapors
65+	987 Toxic Effect of Other Gases, Fumes, or Vapors	E858 Accidental Poisoning by Other Drugs	986 Toxic Effect of Carbon Monoxide	E952.0 Motor Vehicle Exhaust Gas
		Hospitalizatio	ns	
Age Group	Rank 1	Rank 2	Rank 3	Rank 4
0-4	E858 Accidental Poisoning by Other Drugs	E861 Accidental Poisoning by Cleansing and Polishing Agents, Disinfectants, Paints and Varnishes	E866 Accidental Poisoning by Other and Unspecified Solid and Liquid Substances	E855 Accidental Poisoning by Other Drugs Acting on Central and Autonomic Nervous System
5–9	E858 Accidental Poisoning by Other Drugs	E855 Accidental Poisoning by Other Drugs Acting on Central and Autonomic Nervous System	E861 Accidental Poisoning by Cleansing and Polishing Agents, Disinfectants, Paints and Varnishes	E905 Venomous Animals and Plants as the cause of Poisoning and Toxic Reactions
10–14	E950.0 Analgesics, Antipyretics and Antirheumatics	E950.4 Other Specified Drugs and Medicinal Substances	E950.3 Tranquilizers and Other Psychotropic Agents	E905 Venomous Animals and Plants as the cause of Poisoning and Toxic Reactions
15–19	E950.0 Analgesics, Antipyretics and Antirheumatics	E950.4 Other Specified Drugs and Medicinal Substances	E950.3 Tranquilizers and Other Psychotropic Agents	E850 Accidental Poisoning by Analgesics, Antipyretics and Antirheumatics

# **POISON DATA BOOK**

	20–24	E950.0 Analgesics, Antipyretics and Antirheumatics	E950.4 Other Specified Drugs and Medicinal Substances	E950.3 Tranquilizers and Other Psychotropic Agents	E850 Accidental Poisoning by Analgesics, Antipyretics and Antirheumatics
ſ	25–64	E950.3 Tranquilizers and Other Psychotropic Agents	E855 Accidental Poisoning by Other Drugs Acting on Central and Autonomic Nervous System	E950.4 Other Specified Drugs and Medicinal Substances	E950.0 Analgesics, Antipyretics and Antirheumatics
	65+	E858 Accidental Poisoning by Other Drugs	E950.3 Tranquilizers and Other Psychotropic Agents	E850 Accidental Poisoning by Analgesics, Antipyretics and Antirheumatics	E950.4 Other Specified Drugs and Medicinal Substances

NOTE: Substance categories sharing a common ranking are entered successively across ranking levels.

# **DEMOGRAPHICS**

#### DEATHS, 1995-1998

- Overall, persons 25-64 years had the highest poison-related fatality rates (11.6 per 100,000) when compared with other age groups.
- Persons 25–64 years and over had the highest rates of unintentional poison-related deaths (8.7 per 100,000).
- Persons 25–64 years had the highest rates of poison-related deaths by suicide (1.6 per 100,000).
- Males had poison-related fatality rates 2.7 times that of females (11.5 vs. 4.3 per 100,000, respectively) (95 percent, CI=2.72, 3.24).
- Non-Hispanic Blacks had the highest rates of poison-related deaths (12.0 per 100,000) when compared to other racial and ethnic groups.

#### HOSPITAL DISCHARGES, 1997

- Overall, persons 15–19 years had the highest poison-related hospitalization rates (140.3 per 100,000) when compared with other age groups.
- Persons fewer than 5 years had the highest rates of unintentional poison-related hospitalizations (65.0 per 100,000).
- Persons age 15–19 had the highest rates of self-inflicted poison-related hospitalizations (102.7 per 100,000).
- Females had higher poison-related hospitalization rates higher than males (87.2 vs. 81.4 per 100,000, respectively).
- Non-Hispanic Blacks had the highest rates of poison-related hospitalizations (108.9 per 100,000) when compared to other racial groups.

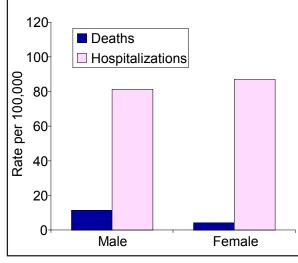
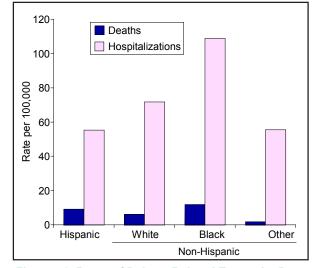


Figure 5. Rates of Poison-Related Events by Data Source and Gender, NY Residents



Figurve 6. Rates of Poison-Related Events by Data Source and Race/Ethnicity, NY Residents

# **TESS DATA**

#### MAGNITUDE

• Between 2000 and 2001, an average of 121,118 poison exposure cases from NY were reported to TESS each year.

# CAUSAL AGENTS

- For all ages, the leading causal agent categories among poison exposure cases were (1) Analgesics (10 percent), (2) Cosmetics/Personal Care products (9 percent), and (3) Cleaning Substances (Household) (8 percent).
- Cosmetics/Personal Care Products was the most frequently reported agent category in poison exposure cases for persons 0-5 years of age (14 percent). Analgesics as the most frequently reported agent category in poison exposure cases for persons 6 years of age and older (12 percent).

## LOCATION OF EXPOSURE

• Of the poison exposure cases from NY, 87 percent originated from the patient's home.

#### REASON FOR EXPOSURE

**Unintentional:** accidental, dosing errors

**Intentional:** self-inflicted, substance abuse, misuse

**Adverse reaction:** drug reactions, allergies

**Other:** contamination, tampering, assault

- Eighty-two percent of poison exposure cases from NY were unintentional.
- Over 98 percent of poison exposures among children 12 years of age and younger were unintentional. Among adolescents 13-19 years of age, 49 percent of poison exposure cases were unintentional, and 45 percent were intentional. Among adults age 20 years and older, 67 percent of exposure cases were unintentional, and 25 percent were intentional.

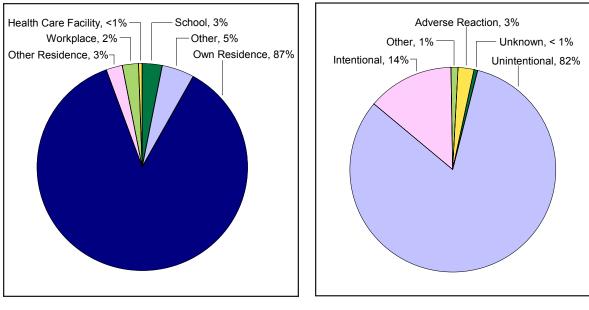
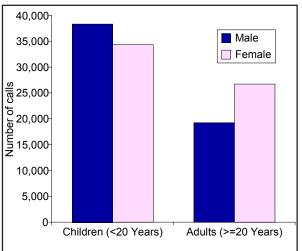


Figure 7. Average Annual Poison Exposure Cases by Site of Exposure (N = 121,118), Cases Originating from NY, 2000–2001



#### Table 2. Top 5 Agent (N = 136,270) Categories for Poison Exposure Cases, Cases Originating from NY, 2000–2001

		Poison Exp	osure Cases	
		Groups		
Rank	0–5 years	6–19 years	20+ years	All Ages
1	Cosmetics/Personal Care Products	Analgesics	Analgesics	Analgesics
2	Cleaning Substances (Household)	Fumes/Gases/ Vapors	Sedative/Hypnotics/ Antipsychotics	Cosmetics/Personal Care Products
3	Foreign Bodies/Toys/ Miscellaneous	Cosmetics/Personal Care Products	Antidepressants	Cleaning Substances (Household)
4	Topical Preparations	Foreign Bodies/Toys/ Miscellaneous	Cleaning Substances (Household)	Foreign Bodies/Toys/ Miscellaneous
5	Analgesics	Arts/Crafts/Office Supplies	Fumes/Gases/ Vapors	Sedative/Hypnotics/ Antipsychotics



NOTE: Cases could be exposed to more than one agent.

Figure 9. Average Annual Poison Exposure Cases by Sex and Age Group, Cases Originating from NY, 2000–2001

#### DEMOGRAPHICS

- Persons 5 years of age and younger had the highest number of poison exposure cases during 2000–2001 when compared with other age groups (54,987 average annual poison exposure cases).
- Forty-five percent of poison exposure cases were 0–5 years of age, 7 percent were 6–12 years of age, 8 percent were 13–19 years of age, and 38 percent were 20 years of age and older.

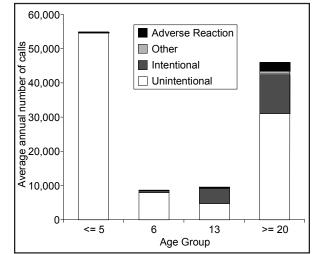


Figure 10. Average Annual Poison Exposure Cases by Reason for Exposure and Age Group, Cases Originating from NY, 2000–2001

- Overall, a higher number of poison exposure cases from NY were females (61,434 females vs. 57,886 males).
- Among exposure cases 19 years of age and younger, there were more males than females (38,367 males vs. 34,359 females).
- Among exposure cases 20 years of age and older, there were more females than males (26,750 females vs. 19,250 males).

# **NEW YORK**

## CLINICAL EFFECTS & MEDICAL OUTCOME

- The leading clinical effect categories in poison exposure cases for all ages during 2000–2001 were (1) Gastrointestinal (25 percent) and (2) Neurological (24 percent).
- Poison exposure cases 5 years of age and younger mainly had gastrointestinal clinical effects. Cases 6–12 years of age mainly had gastrointestinal and dermal clinical effects. Cases 13–19 years of age mainly had neurological and gastrointestinal clinical effects. Cases 20 years of age and older mainly had neurological clinical effects.
- Of the poison exposure cases with gastrointestinal manifestations, 72 percent were unintentional, and 20 percent were intentional. Of the poison exposure cases with neurological effects, 39 percent

were unintentional, and 51 percent were intentional.

- Confirmed medical outcomes (follow-up) were obtained for 85 percent of the poison exposure cases managed in a health care facility, whereas 27 percent of the cases managed in a non-health care facility had confirmed medical outcomes.
- Of total cases, those with a known outcome: 25 percent of all poison exposure cases from NY had a medical outcome of no effect, 16 percent had a minor effect, 6 percent had a moderate effect, and 1 percent had a major effect.
- Less than 1 percent of poison exposure cases from NY during 2000–2001 resulted in death (an average of 71 fatal cases each year).

	Clinical Effects by Age				
	0–5 Years	6–12 Years	13–19 Years	20+ Years	All Ages
Cardiovascular	2%	3%	11%	9%	8%
Dermal	14%	24%	10%	13%	14%
Gastrointestinal	36%	25%	26%	22%	25%
Neurological	12%	16%	28%	27%	24%
Ocular	17%	19%	11%	9%	11%
Respiratory	7%	4%	5%	6%	6%
Other	16%	13%	12%	16%	15%

#### Table 3. Average Annual Poison Exposure Cases by Clinical Manifestation and Age Group (N = 71,974), Cases Originating from NY, 2000–2001

NOTE: Due to rounding, some columns equal more than 100%.

# TREATMENT OF EXPOSURE

- Seventy percent of poison exposure cases from NY were managed at the site of exposure (usually home) or in a non-health care facility, and 26 percent were managed in a health care facility.
- Seventy-five percent of poison exposure cases required either observation (9 percent) or therapeutic intervention (decontamination and/or other therapy)

(66 percent). Thirteen percent required neither observation nor intervention (no therapy provided), and 12 percent either refused treatment or were lost to follow-up.

• The most common method of decontamination for poison exposure cases was dilution/irrigation/washing (63 percent of the total number of decontaminations performed for exposure cases from NY).

# **RHODE ISLAND**

## MAGNITUDE

• Between 1995 and 1998, an average of 89 poison-related deaths occurred each year among RI residents (crude rate 8.7 per 100,000).

# **CAUSE AND INTENT**

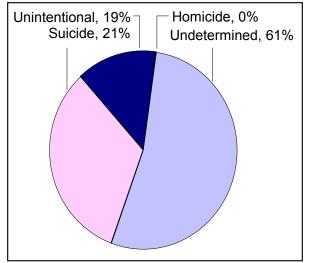
### DEATHS

- The leading agent categories in poison-related deaths were (1) Other Drugs and Medicinal Substances, (2) Analgesics, Antipyretics, and Antirheumatics, and (3) Other Drugs.
- The leading agent categories in poison-related deaths for persons ages 25-64 years were (1) Other Drugs and Medicinal Substances, (2) Analgesics, Antipyretics, and Antirheumatics, and (3) Motor Vehicle Exhaust Gas.
- The leading intent of poison-related deaths was undetermined (61 percent, 4.7 per 100,000). Suicide and undetermined poison-related deaths ranked second and third (1.6 and 1.4 per 100,000), respectively.<sup>1</sup>

• During 1997, there were 848 poisonrelated hospital discharges among RI residents (crude rate 82.7 per 100,000).

#### HOSPITALIZATIONS

- Overall, the leading agent categories in poison-related hospitalizations were (1) Tranquilizers/Other Psychotropic Agents, (2) Other Specified Drugs/ Medicinal Substances, and (3) Analgesics, Antipyretics, and Antirheumatics.
- The leading agent categories in poison-related hospital discharges for persons 15–19 years were (1) Analgesics, Antipyretics, and Antirheumatics, (2) Tranquilizers/Other Psychotropic Agents, and (3) Other Specified Drugs/Medicinal Substances.
- Self-inflicted (65 percent) was the leading intent in poison-related hospitalizations (52.3 per 100,000). Unintentional and undetermined ranked second and third (24.9 and 3.2 per 100,000), respectively.<sup>2</sup>





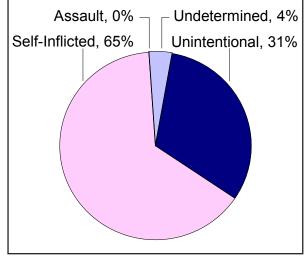
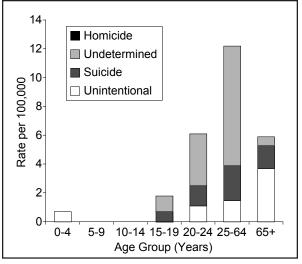


Figure 2. Annual Poison-Related Hospitalizations by Intent, RI Residents, 1997 (N=825)<sup>2</sup>

<sup>1</sup> Annual average number of E coded cases for 1995–1998. Excludes 9 cases for which no intent was assigned. <sup>2</sup> Annual number of E coded cases for 1997. Excludes 23 cases for which no intent was assigned.

# RHODE ISLAND



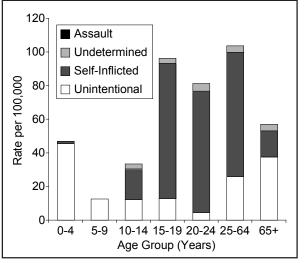


Figure 3. Rates of Poison-Related Deaths by Age Group and Intent, RI Residents, 1995–1998



Table 1. Top 4 ICD-9/CM Categories in Poison-Related Deaths, 1995–1998 (N <sub>Average</sub> = 89),
and in Poison-Related Hospitalizations, 1997 (N = 848), RI Residents

		Deaths		
Age Group	Rank 1	Rank 2	Rank 3	Rank 4
0-4	987 Toxic Effect of Other Gases, Fumes, or Vapors	986 Toxic Effect of Carbon Monoxide	760.7 Noxious Influences Affecting Fetus Via Placenta or Breast Milk	E858 Accidental Poisoning by Other Drugs
5–9	987 Toxic Effect of Other Gases, Fumes, or Vapors			
10–14	986 Toxic Effect of Carbon Monoxide	987 Toxic Effect of Other Gases, Fumes, or Vapors		
15–19	E980.0 Analgesics, Antipyretics and Antirheumatics	E950.0 Analgesics, Antipyretics and Antirheumatics	E952.1 Other Carbon Monoxide	987 Toxic Effect of Other Gases, Fumes, or Vapors
20–24	E980.0 Analgesics, Antipyretics and Antirheumatics	E980.4 Other Specified Drugs and Medicinal Substances	E950 Suicide and Self- Inflicted Poisoning by Solid or Liquid Substances	E855 Accidental Poisoning by Other Drugs Acting on Central and Autonomic Nervous System
25–64	E980.4 Other Specified Drugs and Medicinal Substances	E980.0 Analgesics, Antipyretics and Antirheumatics	E952.0 Motor Vehicle Exhaust Gas	E855 Accidental Poisoning by Other Drugs Acting on Central and Autonomic Nervous System
65+	E858 Accidental Poisoning by Other Drugs	E952.0 Motor Vehicle Exhaust Gas	987 Toxic Effect of Other Gases, Fumes, or Vapors	E869 Accidental Poisoning by Other Gases and Vapors
		Hospitalizatio	ns	
Age Group	Rank 1	Rank 2	Rank 3	Rank 4
0-4	E861 Accidental Poisoning by Cleansing and Polishing Agents, Disinfectants, Paints and Varnishes	E855 Accidental Poisoning by Other Drugs Acting on Central and Autonomic Nervous System	E862 Accidental Poisoning by Petroleum Products, Other Solvents, and Their Vapors, NEC	E854 Accidental Poisoning by Other Psychotropic Agents
5–9	E866 Accidental Poisoning by Other and Unspecified Solid and Liquid Substances	E868 Accidental Poisoning by Other Utility Gas and Other Carbon Monoxide	E856 Accidental Poisoning by Antibiotics	E858 Accidental Poisoning by Other Drugs
10–14	E950.4 Other Specified Drugs and Medicinal Substances	E950.0 Analgesics, Antipyretics and Antirheumatics	E857 Accidental Poisoning by Other Anti-Infectives	E950.3 Tranquilizers and Other Psychotropic Agents
15–19	E950.0 Analgesics, Antipyretics and Antirheumatics	E950.3 Tranquilizers and Other Psychotropic Agents	E950.4 Other Specified Drugs and Medicinal Substances	E850 Accidental Poisoning by Analgesics, Antipyretics and Antirheumatics

# **POISON DATA BOOK**

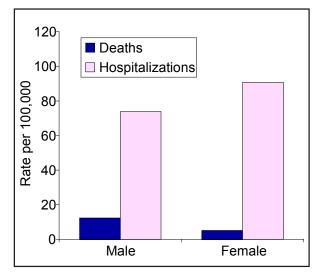
20–24	E950.4 Other Specified Drugs and Medicinal Substances	E950.3 Tranquilizers and Other Psychotropic Agents	E950.0 Analgesics, Antipyretics and Antirheumatics	E850 Accidental Poisoning by Analgesics, Antipyretics and Antirheumatics
25–64	E950.3 Tranquilizers and Other Psychotropic Agents	E950.4 Other Specified Drugs and Medicinal Substances	E950.0 Analgesics, Antipyretics and Antirheumatics	E850 Accidental Poisoning by Analgesics, Antipyretics and Antirheumatics
65+	E858 Accidental Poisoning by Other Drugs	E950.3 Tranquilizers and Other Psychotropic Agents	E855 Accidental Poisoning by Other Drugs Acting on Central and Autonomic Nervous System	E850 Accidental Poisoning by Analgesics, Antipyretics and Antirheumatics

NOTE: Substance categories sharing a common ranking are entered successively across ranking levels.

# DEMOGRAPHICS

## DEATHS, 1995-1998

- Overall, persons 25-64 years had the highest poison-related fatality rates (13.0 per 100,000) when compared with other age groups.
- Persons 65 years and over had the highest rates of unintentional poison-related deaths (3.7 per 100,000).
- Persons 25-64 years had the highest rates of poison-related deaths by suicide (2.4 per 100,000).
- Males had poison-related fatality rates 2.4 times that of females (12.5 vs. 5.2 per 100,000, respectively)
- Non-Hispanic Blacks had the highest rates of poison-related deaths (11.9 per 100,000) when compared to other racial and ethnic groups.





#### HOSPITAL DISCHARGES, 1997

- Overall, persons 25-64 years had the highest poison-related hospitalization rates (106.9 per 100,000) when compared with other age groups.
- Persons 0–4 years had the highest rates of unintentional poison-related hospitalizations (45.5 per 100,000).
- Persons age 15–19 had the highest rates of self-inflicted poison-related hospitalizations (80.5 per 100,000).
- Females had poison-related hospitalization rates 1.2 times that of males (90.8 vs. 73.9 per 100,000, respectively).
- Persons classified as Other had the highest rates of poison-related hospitalizations (141.2 per 100,000) when compared to other racial and ethnic groups.

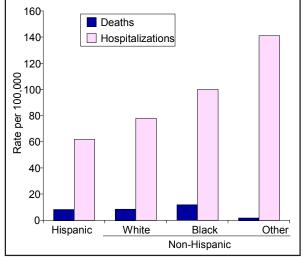


Figure 6. Rates of Poison-Related Events by Data Source and Race/Ethnicity, RI Residents

# **TESS DATA**

#### MAGNITUDE

• Between 2000 and 2001, an average of 6,205 poison exposure cases from RI were reported to TESS each year

## CAUSAL AGENTS

- For all ages, the leading causal agent categories among poison exposure cases were (1) Analgesics (12 percent), (2) Cosmetics/ Personal Care products (9 percent), and (3) Cleaning Substances (household) (7 percent).
- Cosmetics/Personal Care Products was the most frequently reported agent category in poison exposure cases for persons 0–5 years of age (16 percent). Analgesics as the most frequently reported agent category in poison exposure cases for persons 6 years of age and older (15 percent).

## LOCATION OF EXPOSURE

• Of the poison exposure cases from RI, 89 percent originated from the patient's home.

#### REASON FOR EXPOSURE

**Unintentional:** accidental, dosing errors

**Intentional:** self-inflicted, substance abuse, misuse

**Adverse reaction:** drug reactions, allergies

**Other:** contamination, tampering, assault

- Eighty percent of poison exposure cases from RI were unintentional.
- Over 98 percent of poison exposures among children 12 years of age and younger were unintentional. Among adolescents 13–19 years of age, 44 percent of poison exposure cases were unintentional, and 53 percent were intentional. Among adults age 20 years and older, 62 percent of exposure cases were unintentional, and 32 percent were intentional.

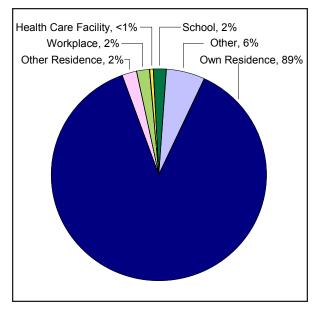


Figure 7. Average Annual Poison Exposure Cases by Site of Exposure (N = 6,205), Cases Originating from RI, 2000–2001

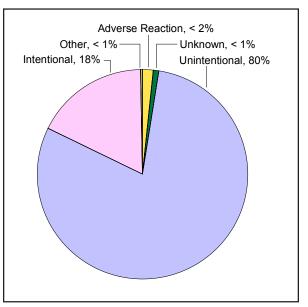
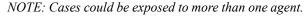


Figure 8. Average Annual Poison Exposure Cases by Reason for Exposure (N = 6,205), Cases Originating from RI, 2000–2001

#### Table 2. Top 5 Agent (N = 7,266) Categories for Poison Exposure Cases, Cases Originating from RI, 2000–2001

	Poison Exposure Cases						
	Age Groups						
Rank	0–5 years	6–19 years	20+ years	All Ages			
1	Cosmetics/Personal Care Products	Analgesics	Analgesics	Analgesics			
2	Cleaning Substances (Household)	Antidepressants	Sedative/Hypnotics/ Antipsychotics	Cosmetics/Personal Care Products			
3	Foreign Bodies/Toys/ Miscellaneous	Cold and Cough Preparations	Antidepressants	Cleaning Substances (Household)			
4	Analgesics	Sedative/Hypnotics/ Antipsychotics	Cleaning Substances (Household)	Sedative/Hypnotics/ Antipsychotics			
5	Plants	Cosmetics/Personal Care Products	Alcohols	Antidepressants			



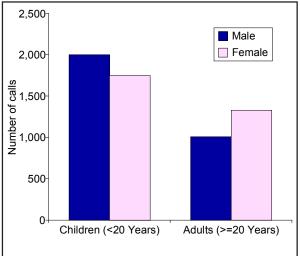


Figure 9. Average Annual Poison Exposure Cases by Sex and Age Group, Cases Originating from RI, 2000–2001

#### DEMOGRAPHICS

- Persons 5 years of age and younger had the highest number of poison exposure cases during 2000–2001 when compared with other age groups (a total of 2,823 poison exposure cases).
- Forty-five percent of poison exposure cases were 0–5 years of age, 6 percent were 6–12 years of age, 9 percent were 13–19 years of age, and 38 percent were 20 years of age and older.

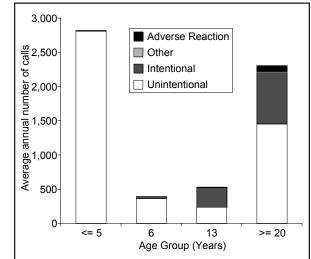


Figure 10. Average Annual Poison Exposure Cases by Reason for Exposure and Age Group, Cases Originating from RI, 2000–2001

- Overall, a higher number of poison exposure cases from RI were females (3,111 females vs. 3,038 males).
- Among exposure cases 19 years of age and younger, there were more males than females (2,002 males vs. 1,750 females).
- Among exposure cases 20 years of age and older, there were more females than males (1,331 females vs. 1,010 males).

### RHODE ISLAND

### CLINICAL EFFECTS & MEDICAL OUTCOME

- The leading clinical effect categories in poison exposure cases for all ages during 2000–2001 were (1) Neurological (31 percent) and (2) Gastrointestinal (22 percent).
- Poison exposure cases 12 years of age and younger mainly had gastrointestinal and neurological clinical effects. Exposure cases 13 years of age and older mainly had neurological clinical effects.
- Of the poison exposure cases with gastrointestinal manifestations, 64 percent were unintentional, and 29 percent were intentional. Of the poison exposure cases with neurological effects, 30 percent were unintentional, and 62 percent were intentional.
- Confirmed medical outcomes (follow-up) were obtained for 77 percent of the poison exposure cases managed in a health care facility, whereas 6 percent of the cases managed in a non-health care facility had confirmed medical outcomes.
- Of total cases, those with a known outcome: 10 percent of all poison exposure cases from RI had a medical outcome of no effect, 8 percent had a minor effect, 7 percent had a moderate effect, and 1 percent had a major effect.
- Less than 1 percent of poison exposure cases from RI resulted in death (an average of 4 fatal cases each year).

	Clinical Effects by Age				
-	0–5 Years	6–12 Years	13–19 Years	20+ Years	All Ages
Cardiovascular	2%	5%	12%	12%	10%
Dermal	13%	19%	6%	11%	11%
Gastrointestinal	38%	27%	29%	18%	22%
Neurological	15%	23%	32%	34%	31%
Ocular	12%	16%	8%	7%	8%
Respiratory	8%	6%	3%	5%	5%
Other	14%	10%	11%	16%	14%

 Table 3. Average Annual Poison Exposure Cases by Clinical Manifestation and Age Group (N = 3,155), Cases Originating from RI, 2000–2001

NOTE: Due to rounding, some columns equal more than 100%.

#### TREATMENT OF EXPOSURE

- Sixty-seven percent of poison exposure cases from RI were managed at the site of exposure (usually home) or in a non-health care facility, and 28 percent were managed in a health care facility.
- Forty-six percent of poison exposure cases required either observation (6 percent) or therapeutic intervention (decontamination and/or other therapy)

(40 percent). Thirteen percent required neither observation nor intervention (no therapy provided), and 42 percent either refused treatment or were lost to follow-up.

• The most common method of decontamination for poison exposure cases was dilution/irrigation/washing (67 percent of the total number of decontaminations performed for exposure cases from RI).

# VERMONT

# MAGNITUDE

• Between 1995 and 1998, an average of 43 poison-related deaths occurred each year among VT residents (crude rate 7.2 per 100,000).

# **CAUSE AND INTENT**

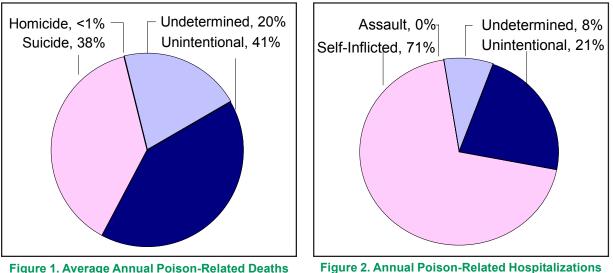
# DEATHS

- The leading agent categories in poison-related deaths were (1) Other Drugs, (2) Toxic Effect of Other Gases, Fumes, or Vapors, and (3) Other Drugs and Medicinal Substancs.
- The leading agent categories in poison-related deaths for persons ages 65+ years were (1) Other Drugs, (2) Toxic Effect of Other Gases, Fumes, or Vapors, and (3) Analgesics, Antipyretics, and Antirheumatics.
- The leading intent of poison-related deaths was unintentional (41 percent, 2.4 per 100,000). Suicide and undetermined poison-related deaths ranked second and third (1.6 and 1.1 per 100,000), respectively.<sup>1</sup>

• During 1997, there were 426 poisonrelated hospital discharges among VT residents (crude rate 71.3 per 100,000).

# HOSPITALIZATIONS

- Overall, the leading agent categories in poison-related hospitalizations were (1) Tranquilizers/Other Psychotropic Agents, (2) Analgesics, Antipyretics, and Antirheumatics, and (3) Other Specified Drugs/Medicinal Substances.
- The leading agent categories in poisonrelated hospital discharges for persons 15–19 years were (1) Analgesics, Antipyretics, and Antirheumatics, (2) Other Specified Drugs/Medicinal Substances, and (3) Tranquilizers/Other Psychotropic Agents.
- Self-inflicted (71 percent) was the leading intent in poison-related hospitalizations (49.2 per 100,000). Unintentional and undetermined ranked second and third (14.4 and 5.9 per 100,000), respectively.<sup>2</sup>



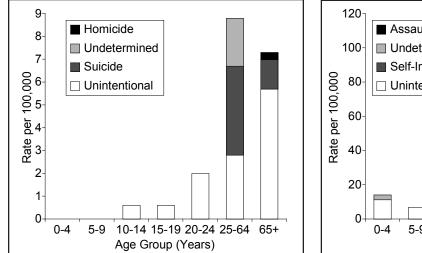
by Intent, VT Residents, 1995–1998 (N=34)<sup>1</sup>

Figure 2. Annual Poison-Related Hospitalizations by Intent, VT Residents, 1997 (N=415)<sup>2</sup>

<sup>1</sup> Annual average number of E coded cases for 1995–1998. Excludes 9 cases for which no intent was assigned. <sup>2</sup> Annual number of E coded cases for 1997. Excludes 11 cases for which no intent was assigned.

# VERMONT

### POISON DATA BOOK



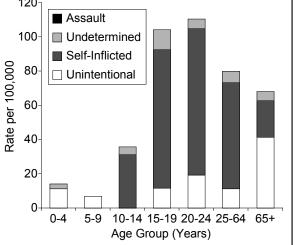


Figure 3. Rates of Poison-Related Deaths by Age Group and Intent, VT Residents, 1995–1998 Figure 4. Rates of Poison-Related Hospitalizations by Age Group and Intent, VT Residents, 1997

Table 1. Top 4 ICD-9/CM Categories in Poison-Related Deaths, 1995–1998 (N<sub>Average</sub> = 43), and in Poison-Related Hospitalizations, 1997 (N = 426), VT Residents

Deaths					
Age Group	Rank 1	Rank 2	Rank 3	Rank 4	
0-4	987 Toxic Effect of Other Gases, Fumes, or Vapors				
5–9	987 Toxic Effect of Other Gases, Fumes, or Vapors				
10–14	E868 Accidental Poisoning by Other Utility Gas and Other Carbon Monoxide	986 Toxic Effect of Carbon Monoxide			
15–19	987 Toxic Effect of Other Gases, Fumes, or Vapors	E850 Accidental Poisoning by Analgesics, Antipyretics and Antirheumatics	963 Poisoning by Primarily Systemic Agents		
20–24	E858 Accidental Poisoning by Other Drugs	E855 Accidental Poisoning by Other Drugs Acting on Central and Autonomic Nervous System	987 Toxic Effect of Other Gases, Fumes, or Vapors		
25–64	E950.4 Other Specified Drugs and Medicinal Substances	E952.0 Motor Vehicle Exhaust Gas	E858 Accidental Poisoning by Other Drugs	E980.0 Analgesics, Antipyretics and Antirheumatics	
65+	E858 Accidental Poisoning by Other Drugs	987 Toxic Effect of Other Gases, Fumes, or Vapors	E850 Accidental Poisoning by Analgesics, Antipyretics and Antirheumatics	E854 Accidental Poisoning by Other Psychotropic Agents	
		Hospitalizatio	ns		
Age Group	Rank 1	Rank 2	Rank 3	Rank 4	
0–4	E858 Accidental Poisoning by Other Drugs	E855 Accidental Poisoning by Other Drugs Acting on Central and Autonomic Nervous System	E980.3 Tranquilizers and Other Psychotropic Agents		
5–9	E850 Accidental Poisoning by Analgesics, Antipyretics and Antirheumatics	E858 Accidental Poisoning by Other Drugs	E864 Accidental Poisoning by Corrosives and Caustics, NEC		
10–14	E950.0 Analgesics, Antipyretics and Antirheumatics	E950.3 Tranquilizers and Other Psychotropic Agents	E950.4 Other Specified Drugs and Medicinal Substances	E950.9 Other and Unspecified Solid and Liquid Substances	
15–19	E950.0 Analgesics, Antipyretics and Antirheumatics	E950.4 Other Specified Drugs and Medicinal Substances E950.3 Tranquilizers and Other Psychotropic Agents		980 Toxic Effect of Alcohol	

20–24	E950.3 Tranquilizers and Other Psychotropic Agents	E950.0 Analgesics, Antipyretics and Antirheumatics	E950.4 Other Specified Drugs and Medicinal Substances	E850 Accidental Poisoning by Analgesics, Antipyretics and Antirheumatics	
25–64	E950.3 Tranquilizers and Other Psychotropic Agents	E950.4 Other Specified Drugs and Medicinal Substances	E950.0 Analgesics, Antipyretics and Antirheumatics	E950.2 Other Sedatives and Hypnotics	
65+	E858 Accidental Poisoning by Other Drugs	E950.3 Tranquilizers and Other Psychotropic Agents	E950.4 Other Specified Drugs and Medicinal Substances	E850 Accidental Poisoning by Analgesics, Antipyretics and Antirheumatics	

NOTE: Substance categories sharing a common ranking are entered successively across ranking levels.

# DEMOGRAPHICS

## DEATHS, 1995-1998

- Overall, persons 65 years and older had the highest poison-related fatality rates (10.8 per 100,000) when compared with other age groups.
- Persons 65 years and over had the highest rates of unintentional poison-related deaths (5.7 per 100,000).
- Persons 25-64 years had the highest rates of poison-related deaths by suicide (3.9 per 100,000).
- Males had poison-related fatality rates 2.2 times that of females (10.0 vs. 4.5 per 100,000, respectively).
- Non-Hispanic Blacks had the highest rates of poison-related deaths (16.0 per 100,000) when compared to other racial and ethnic groups.

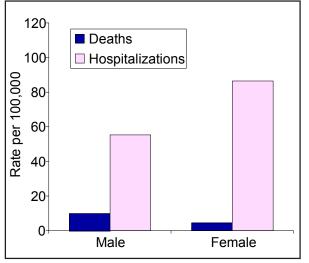


Figure 5. Rates of Poison-Related Events by Data Source and Gender, VT Residents

## HOSPITAL DISCHARGES, 1997

- Overall, persons 20–24 years had the highest poison-related hospitalization rates (110.4 per 100,000) when compared with other age groups.
- Persons 65 years and over had the highest rates of unintentional poison-related hospitalizations (41.4 per 100,000).
- Persons age 20–24 had the highest rates of self-inflicted poison-related hospitalizations (85.6 per 100,000).
- Females had poison-related hospitalization rates 1.6 times that of males (86.6 vs. 55.4 per 100,000, respectively).
- Non-Hispanic Blacks had the highest rates of poison-related hospitalizations (95.6 per 100,000) when compared to other racial and ethnic groups.

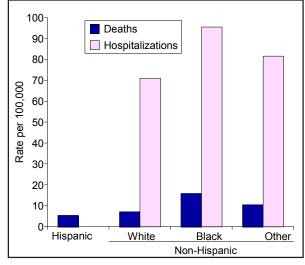


Figure 6. Rates of Poison-Related Events by Data Source and Race/Ethnicity, VT Residents

# **TESS DATA**

#### MAGNITUDE

• In 2002, 4,408 poison exposure cases from VT were reported to TESS. Vermont TESS data for 2000–2001 were unavailable.

# CAUSAL AGENTS

- For all ages, the leading causal agent categories among poison exposure cases were (1) Cleaning Substances (Household) (9 percent), (2) Cosmetics/Personal Care products (8 percent), and (3) Analgesics (8 percent).
- Cosmetics/Personal Care Products was the most frequently reported agent category in poison exposure cases for persons 0–5 years of age. Analgesics was the most frequently reported agent category in poison exposure cases 6–19 years of age. Sedatives, Hypnotics/ Antipsychotics was the most frequently reported substance category among cases for persons 20 years and older.

#### LOCATION OF EXPOSURE

• Of the human exposure cases from VT, 84 percent occurred in the patient's home.

#### REASON FOR EXPOSURE

**Unintentional:** accidental, dosing errors

**Intentional:** self-inflicted, substance abuse, misuse

**Adverse reaction:** drug reactions, allergies

**Other:** contamination, tampering, assault

- Eighty-seven percent of poison exposure cases originating in VT during 2002 were unintentional.
- Over 98 percent of poison exposures among children 12 years of age and younger were unintentional. Among adolescents 13–19 years of age, 55 percent of poison exposure cases were unintentional, and 42 percent were intentional. Among adults age 20 years and older, 73 percent of exposure cases were unintentional, and 22 percent were intentional.
- Unintentional exposures in children 0–5 years of age represent 54 percent of all poison exposures originating in VT.

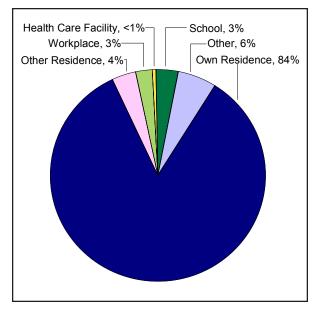


Figure 7. Annual Poison Exposure Cases by Site of Exposure (N = 4,408), Cases Originating from VT, 2002

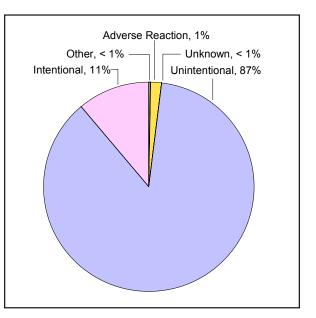
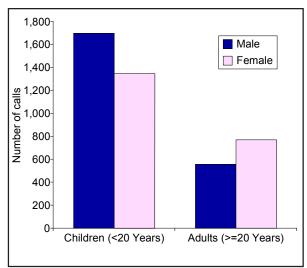


Figure 8. Annual Poison Exposure Cases by Reason for Exposure (N = 4,408), Cases Originating from VT, 2002

Rank	Poison Exposure Cases Age Groups				
	0–5 years	6–19 years	20+ years	All Ages	
1	Cosmetics/Personal Care Products	Analgesics	Sedatives/Hypnotics/ Antipsychotics	Cleaning Substances (Household)	
2	Cleaning Substances (Household)	Cleaning Substances (Household)	Analgesics	Cosmetics/Personal Care Products	
3	Analgesics	Art/Craft/Office Supplies	Cleaning Substances (Household)	Analgesics	
4	Plants	Cosmetics/Personal Care Products	Antidepressants	Plants	
5	Sedatives/Hypnotics/ Antipsychotics	Stimulants and Street Drugs	Chemicals	Sedatives/Hypnotics/ Antipsychotics	

#### Table 2. Top 5 Agent (N = 4,900) Categories for Poison Exposure Cases, Cases Originating from VT, 2002

NOTE: Cases could be exposed to more than one agent.



2,500 Adverse Reaction of Calls Other Intentional Unintentional Average annual number 1,500-1.000 500 0 <= 5 6 13 >= 20 Age Group (Years)

# Figure 9. Annual Poison Exposure Cases by Sex and Age Group, Cases Originating from VT, 2002

#### DEMOGRAPHICS

- Persons 5 years of age and younger had the highest number of poison exposure cases during 2002 when compared with other age groups (a total of 2,380 poison exposure cases).
- Fifty-four percent of poison exposure cases were 0–5 years of age, 8 percent were 6–12 years of age, 8 percent were 13–19 years of age, and 30 percent were 20 years of age and older.

Figure 10. Annual Poison Exposure Cases by Reason for Exposure and Age Group, Cases Originating from VT, 2002

- Overall, a higher number of poison exposure cases from VT were males (2,260 males vs. 2,119 females).
- Among exposure cases 19 years of age and younger, there were more males than females (1,698 males vs. 1,348 females).
- Among exposure cases 20 years of age and older, there were more females than males (770 females vs. 557 males).

# **CLINICAL EFFECTS & MEDICAL OUTCOME**

- The leading clinical effect categories in poison exposure cases for all ages during 2002 were (1) Gastrointestinal (31 percent) and (2) Neurological (24 percent).
- Poison exposure cases 12 years of age and younger mainly had gastrointestinal clinical effects. Cases 13 years of age and older mainly had neurological clinical effects.
- Of the poison exposure cases with gastrointestinal manifestations, 79 percent were unintentional, and 15 percent were intentional. Of the poison exposure cases with neurological effects, 42 percent were unintentional,

and 50 percent were intentional.

- Confirmed medical outcomes (followup) were obtained for 84 percent of the poison exposure cases managed in a health care facility, whereas 16 percent of the cases managed in a nonhealth care facilty had confirmed medical outcomes.
- Of total cases, those with a known outcome: 11 percent of all exposure cases from VT had a medical outcome of no effect, 12 percent had a minor effect, 5 percent had a moderate effect, and 1 percent had a major effect.
- Less than 1 percent of poison exposure cases originating from VT during 2002 resulted in death (2 fatal cases in a year).

	and Age Group (N=2,534), Cases Originating from VT, 2002					
	Clinical Effects by Age					
	0–5 Years	6–12 Years	13–19 Years	20+ Years	All Ages	
Cardiovascular	2%	3%	8%	5%	5%	
Dermal	9%	21%	6%	14%	12%	
Gastrointestinal	52%	27%	25%	23%	31%	
Neurological	8%	14%	34%	29%	24%	
Ocular	17%	24%	15%	12%	14%	
Respiratory	6%	5%	3%	6%	6%	
Other	7%	8%	10%	13%	11%	

**Table 3. Annual Poison Exposure Cases by Clinical Manifestation** 

NOTE: Due to rounding, some columns equal more than 100%.

# TREATMENT OF EXPOSURE

- Seventy-seven percent of poison exposure cases from VT during 2002 were managed at the site of exposure (usually home) or in a non-health care facility, and 19 percent were managed in a health care facility.
- Eighty-six percent of poison exposure cases required either observation (7 percent) or therapeutic intervention (decontamination and/or other therapy)

(79 percent). Four percent required neither observation nor intervention (no therapy provided), and 10% either refused treatment or were lost to followup.

 The most common method of decontamination for poison exposure cases was dilution/irrigation/washing (76 percent of the total number of decontaminations performed for exposure cases from VT).

# **APPENDIX A**

# INTERNATIONAL CLASSIFICATION OF DISEASE, 9TH REVISION, CLINICAL MODIFICATION EXTERNAL CAUSE OF INJURY CODES AND DIAGNOSTIC CODES FOR POISONING

# UNINTENTIONAL POISONINGS BY DRUGS

**E850** Accidental Poisoning by Analgesics, Antipyretics and Antirheumatics

E850.0 Heroin

E850.1 Methadone

E850.2 Other Opiates and Related Narcotics

E850.3 Salicylates

E850.4 Aromatic Analgesics, NEC

E850.5 Pyrazole Derivatives

E850.6 Antirheumatics (Antiphlogistics)

E850.7 Other Non-Narcotic Analgesics

E850.8 Other Specified Analgesics and Antipyretics

E850.9 Unspecified Analgesic or Antipyretic

**E851** Accidental Poisoning by Barbiturates

**E852** Accidental Poisoning By Other Sedatives and Hypnotics

E852.0 Chloral Hydrate Group

E852.1 Paraldehyde

E852.2 Bromine Compounds

E852.3 Methaqualone Compounds

E852.4 Glutethimide Group

E852.5 Mixed Sedatives, NEC

E852.8 Other Specified Sedatives and Hypnotics

E852.9 Unspecified Sedative or Hypnotic **E853** Accidental Poisoning by Tranquilizers

> E853.0 Phenothiazine-Based Tranquilizers

E853.1 Butyrophenone-Based Tranquilizers

E853.2 Benzodiazepine-Based Tranquilizers

E853.8 Other Specified Tranquilizers

E853.9 Unspecified Tranquilizer

**E854** Accidental Poisoning by Other Psychotropic Agents

E854.0 Antidepressants

E854.1 Psychodysleptics (Hallucinogens)

E854.2 Psychostimulants

E854.3 Central Nervous System Stimulants

E854.8 Other Psychotropic Agents

**E855** Accidental Poisoning by Other Drugs Acting on Central and Autonomic Nervous System

> E855.0 Anticonvulsant and Anti-Parkinsonism Drugs

E855.1 Other Central Nervous System Depressants

E855.2 Local Anesthetics

E855.3 Parasympathomimetics (Cholinergics)

E855.4 Parasympatholytics and Spasmolytics

E855.5 Sympathomimetics (Adrenergics) E855.6 Sympatholytics (Antiadrenergics)

E855.8 Other Specified Drugs Acting on Central and Autonomic Nervous Systems

E855.9 Unspecified Drug Acting on Central and Autonomic Nervous Systems

**E856** Accidental Poisoning by Antibiotics

**E857** Accidental Poisoning by Other Anti-Infectives

**E858** Accidental Poisoning by Other Drugs

- E858.0 Hormones and Synthetic Substitutes
- E858.1 Primarily Systemic Agents
- E858.2 Agents Primarily Affecting Blood Constituents
- E858.3 Agents Primarily Affecting Cardiovascular System
- E858.4 Agents Primarily Affecting Gastrointestinal System
- E858.5 Water, Mineral and Uric Acid Metabolism Drugs
- E858.6 Agents Primarily Acting on the Smooth and Skeletal Muscles and Respiratory System
- E858.7 Agents Primarily Affecting Skin and Mucous Membrane, Opthalmological, Otorhinolaryngological, and Dental Drugs

E858.8 Other Specified Drugs

E858.9 Unspecified Drug

# UNINTENTIONAL POISONINGS BY NONDRUGS

**E860** Accidental Poisoning by Alcohol, NEC

E860.0 Alcoholic Beverages

E860.1 Other and Unspecified Ethyl Alcohol and Its Products

E860.2 Methyl Alcohol

E860.3 Isopropyl Alcohol

- E860.4 Fusel Oil
- E860.8 Other Specified Alcohols

E860.9 Unspecified Alcohol

**E861** Accidental Poisoning by Cleansing and Polishing Agents, Disinfectants, Paints and Varnishes

- E861.0 Synthetic Detergents and Shampoos
- E861.1 Soap Products
- E861.2 Polishes
- E861.3 Other Cleansing and Polishing Agents
- E861.4 Disinfectants
- E861.5 Lead Paints

E861.6 Other Paints and Varnishes

E861.9 Unspecified

**E862** Accidental Poisoning by Petroleum Products, Other Solvents, and Their Vapors, NEC

E862.0 Petroleum Solvents

E862.1 Petroleum Fuels and Cleaners

E862.2 Lubricating Oils

- E862.3 Petroleum Solids
- E862.4 Other Specified Solvents

E862.9 Unspecified Solvent

**E863** Accidental Poisoning by Agricultural and Horticultural Chemical and Pharmaceutical Preparations Other Than Plant Foods and Fertilizers

- E863.0 Insecticides of Organochlorine Compounds
- E863.1 Insecticides of Organophosphorus Compounds
- E863.2 Carbamates
- E863.3 Mixtures of Insecticides
- E863.4 Other and Unspecified Insecticides
- E863.5 Herbicides
- E863.6 Fungicides
- E863.7 Rodenticides
- E863.8 Fumigants

E863.9 Other and Unspecified

**E864** Accidental Poisoning by Corrosives and Caustics, NEC

- E864.0 Corrosive Aromatics
- E864.1 Acids
- E864.2 Caustic Alkalis
- E864.3 Other Specified Corrosives and Caustics
- E864.4 Unspecified Corrosives and Caustics

**E865** Accidental Poisoning From Poisonous Foodstuffs and Poisonous Plants

> E865.0 Meat E865.1 Shellfish E865.2 Other fish E865.3 Berries and seeds E865.4 Other Specified Plant

- E865.5 Mushrooms and Other Fungi
- E865.8 Other Specified Food
- E865.9 Unspecified Foodstuff Or Poisonous Plant

**E866** Accidental Poisoning by Other and Unspecified Solid and Liquid Substances

- E866.0 Lead and Its Compounds and Fumes
- E866.1 Mercury and Its Compounds and Fumes
- E866.2 Antimony and Its Compounds and Fumes
- E866.3 Arsenic and Its Compounds and Fumes
- E866.4 Other Metals and Their Compounds and Fumes
- E866.5 Plant Foods and Fertilizers
- E866.6 Glues and Adhesives
- E866.7 Cosmetics
- E866.8 Other Specified Solid or Liquid Substances
- E866.9 Unspecified Solid or Liquid Substance

**E867** Accidental Poisoning by Gas Distributed by Pipeline

**E868** Accidental Poisoning by Other Utility Gas and Other Carbon Monoxide

- E868.0 Liquefied Petroleum Gas Distributed in Mobile Containers
- E868.1 Other and Unspecified Utility Gas
- E868.2 Motor Vehicle Exhaust Gas

- E868.3 Carbon Monoxide From Incomplete Combustion of Other Domestic Fuels
- E868.8 Carbon Monoxide From Other Sources
- E868.9 Unspecified Carbon Monoxide

**E869** Accidental Poisoning by Other Gases and Vapors

- E869.0 Nitrogen Oxides
- E869.1 Sulfur Dioxide
- E869.2 Freon
- E869.3 Carcinogenic Gas (Tear Gas)
- E869.4 Second-Hand Tobacco Smoke
- E869.8 Other Specified Gases and Vapors
- E869.9 Unspecified Gases and Vapors

**E905** Venomous Animals and Plants as the cause of Poisoning and Toxic Reactions

- E905.0 Venomous snakes and lizards
- E905.1 Venomous spiders
- E905.2 Scorpion
- E905.3 Hornets, wasps, and bees
- E905.4 Centipede and venomous millipede (tropical)
- E905.5 Other Venomous Arthropods
- E905.6 Venomous marine animals and plants
- E905.7 Poisoning and toxic reactions caused by other plants
- E905.8 Other specified
- E905.9 Unspecified

- Maternal & Fetal Poisonings
  - 648.3 Maternal Drug Dependence
  - 655.5 Suspected Damage to Fetus From Drugs
  - 760.7 Noxious Influences Affecting Fetus Via Placenta or Breast Milk
  - 779.4 Drug Reactions and Intoxications Specific to Newborn
  - 779.5 Drug Withdrawal Syndrome in Newborn

#### SUICIDE/SELF-INFLICTED POISONINGS

**E950** Suicide and Self-Inflicted Poisoning by Solid or Liquid Substances

- E950.0 Analgesics, Antipyretics and Antirheumatics
- E950.1 Barbiturates
- E950.2 Other Sedatives and Hypnotics
- E950.3 Tranquilizers and Other Psychotropic Agents
- E950.4 Other Specified Drugs and Medicinal Substances
- E950.5 Unspecified Drug or Medicinal Substance
- E950.6 Agricultural and Horticultural Chemical and Drug Preparations Other Than Plant Foods and Fertilizers
- E950.7 Corrosive and Caustic Substances
- E950.8 Arsenic and Its Compounds
- E950.9 Other and Unspecified Solid and Liquid Substances

#### APPENDIX A

#### **POISON DATA BOOK**

**E951** Suicide and Self-Inflicted Poisoning by Gases in Domestic Use

E951.0 Gas Distributed by Pipeline

E951.1 Liquefied Petroleum Gas Distributed in Mobile Containers

E951.8 Other Utility Gas

**E952** Suicide and Self-Inflicted Poisoning by Other Gases and Vapors

E952.0 Motor Vehicle Exhaust Gas

E952.1 Other Carbon Monoxide

E952.8 Other Specified Gases and Vapors

E952.9 Unspecified Gases and Vapors

#### HOMICIDE/ASSAULT POISONINGS

**E962** Assault by Poisoning

E962.0 Drugs and Medicinal Substances

E962.1 Other Solid and Liquid Substances

E962.2 Other Gases and Vapors

E962.9 Unspecified Poisoning

#### **UNDETERMINED INTENT POISONINGS**

**E980** Poisoning by Solid or Liquid Substances, Undetermined Whether Accidental or Purposely Inflicted

- E980.0 Analgesics, Antipyretics and Antirheumatics
- E980.1 Barbiturates

E980.2 Other Sedatives and Hypnotics

- E980.3 Tranquilizers and Other Psychotropic Agents
- E980.4 Other Specified Drugs and Medicinal Substances

E980.5 Unspecified Drug or Medicinal Substance

E890.6 Corrosive and Caustic Substances

E980.7 Agricultural and Horticultural Chemical and Drug Preparations Other than Plant Foods and Fertilizers

E980.8 Arsenic and Its Compounds

E980.9 Other and Unspecified Solid and Liquid Substances

**E981** Poisoning by Gases in Domestic Use, Undetermined Whether Accidentally or Purposely Inflicted

E981.0 Gas Distributed by Pipeline

- E981.1 Liquefied Petroleum Gas Distributed in Mobile Containers
- E981.8 Other Utility Gas

**E982** Poisoning by Other Gases, Undetermined Whether Accidentally or Purposely Inflicted

E982.0 Motor Vehicle Exhaust Gas

- E982.1 Other Carbon Monoxide
- E982.8 Other Specified Gases and Vapors

E982.9 Unspecified Gases and Vapors

# **POISON-RELATED DIAGNOSIS**

- 960 Poisoning by Antibiotics
- 961 Poisoning by Other Anti-Infectives
- 962 Poisoning by Hormones and Synthetic Substitutes
- 963 Poisoning by Primarily Systemic Agents

964	Poisoning by Agents Primarily Affecting Blood Constituents
965	Poisoning by Analgesics, Antipyretics, and Antirheumatics
966	Poisoning by Anticonvulsants and Anti- Parkinsonism Drugs
967	Poisoning by Sedatives and Hypnotics
968	Poisoning by Other Central Nervous System Depressants and Anesthetics
969	Poisoning by Psychotropic Agents
970	Poisoning by Central Nervous Systems Stimulants
971	Poisoning by Drugs Primarily Affecting the Autonomic Nervous System
972	Poisoning by Agents Primarily Affecting the Cardiovascular System
973	Poisoning by Agents Primarily Affecting the Gastrointestinal System
974	Poisoning by Water, Mineral, and Uric Acid Metabolism Drugs
975	Poisoning by Agents Primarily Acting on the Smooth and Skeletal Muscles and Respiratory System
976	Poisoning by Agents Primarily Affecting Skin and Mucous Membrane, Ophthalmological, Otorhinolaryngological,

and Dental Drugs

- 977 Poisoning by Other and Unspecified Drugs and Medicinal Substances
- 978 Poisoning by Bacterial Vaccines
- 979 Poisoning by Other Vaccines and Biological Substances
- 980 Toxic Effect of Alcohol
- 981 Toxic Effect of Petroleum Products
- 982 Toxic Effect of Solvents Other Than Petroleum-Based
- 983 Toxic Effect of Corrosive Aromatics, Acids, and Caustic Alkalis
- 984 Toxic Effect of Lead and Its Compounds (Including Fumes)
- 985 Toxic Effects of Other Metals
- 986 Toxic Effect of Carbon Monoxide
- 987 Toxic Effect of Other Gases, Fumes, or Vapors
- 988 Toxic Effect of Noxious Substance Eaten as Food
- 989 Toxic Effect of Other Substances, Chiefly Nonmedicinal as to Source

# **DEATH AND HOSPITALIZATION TABLES**

#### TABLE I: DEATH RATES

				Average	e Annua	l Poison	-Related	l Death I	Rates Pe	r 100,000	: 1995-98				
				Age G	iroup Sp	pecific			Sex S	pecific	Ra	ice/Ethnic	ity Specif	ic	Crude
	Avg Annual Population	0-4	5-9	10-14	15-19	20-24	25-64	65+	Male	Female	Hispanic	White <sup>†</sup>	Black <sup>†</sup>	Other <sup>†</sup>	TOTAL
Region	40,416,888	2.5	0.9	0.7	2.6	6.8	12.6	7.0	12.5	4.8	9.2	7.8	13.0	2.1	8.5
СТ	3,343,882	2.2	*	*	2.9	9.3	14.0	6.4	13.9	5.1	11.9	8.7	14.1	*	9.4
ME	1,251,610	*	*	*	*	*	8.5	8.8	9.2	4.0	0.0	6.3	*	0.0	6.5
MA	6,204,774	1.9	*	*	2.7	7.1	14.3	6.4	13.5	5.6	12.5	9.3	10.8	2.8	9.4
NH	1,181,911	*	*	*	*	7.5	9.7	5.9	9.6	3.8	*	6.6	*	*	6.7
NJ	8,184,766	2.8	1.1	1.1	3.2	10.1	13.8	8.2	14.4	5.2	7.0	9.4	16.0	1.8	9.7
NY	18,631,254	2.7	0.9	0.5	2.3	5.2	11.6	6.5	11.5	4.3	9.3	6.3	12.0	1.9	7.8
RI	1,023,601	*	*	*	*	6.8	13.0	7.0	12.5	5.2	8.3	8.5	11.9	*	8.7
VT	595,090	*	0.6	*	*	*	10.0	10.8	10.0	4.5	*	7.2	*	*	7.2

Rates based on 20 or fewer deaths may be unstable. Use with caution.

Individual columns represent specifically identified cases in their respective categories.

Totals contain everyone, including cases with unknown age, unknown sex, and/or unknown race/ethnicity.

\* Rates based on fewer than 5 cases.

† Non-Hispanic

### TABLE II: HOSPITALIZATION RATES

				Р	oison-R	elated Ho	ospitaliza	tion Rate	es Per 10	0,000: 19	97				
				Age	Group S	pecific			Sex S	pecific	Ra	ce/Ethnic	ity Specif	ic	Crude
	Annual Population	0-4	5-9	10-14	15-19	20-24	25-64	65+	Male	Female	Hispanic	White <sup>†</sup>	Black <sup>†</sup>	Other <sup>†</sup>	TOTAL
Region	40,517,551	60.1	10.8	39.0	144.0	109.4	98.2	65.3	77.4	91.3	69.5 <sup>‡</sup>	73.5 <sup>‡</sup>	106.6 <sup>‡</sup>	56.9 <sup>‡</sup>	84.6
СТ	3,349,348	55.1	10.6	36.2	135.5	95.1	92.6	67.9	68.7	90.0	113.1	73.6	106.1	69.0	79.7
ME	1,254,774	68.4	8.0	42.6	165.5	104.0	101.7	73.7	72.0	106.1	Data Not Available				89.5
MA	6,226,058	35.2	6.4	39.4	139.1	103.5	97.0	68.3	72.5	90.7	94.6	76.4	102.2	61.2	81.9
NH	1,189,425	27.5	*	51.8	158.2	127.3	106.2	53.6	61.3	113.3	*	88.0	146.6	55.3	87.8
NJ	8,218,808	66.9	9.9	37.4	163.9	131.4	100.6	69.4	80.8	96.8	87.0	70.9	101.9	50.0	89.1
NY	18,656,546	69.2	13.3	39.3	140.3	105.6	97.8	62.1	81.4	87.2	55.4	71.8	108.9	55.6	84.4
RI	1,025,353	47.0	14.0	33.5	96.3	81.3	106.9	61.0	73.9	90.8	61.9	78.0	100.4	141.2	82.7
VT	597239	14.2	*	35.8	104.1	110.4	82.7	70.8	55.4	86.6	0.0	71.1	*	81.6	71.3

Rates based on 20 or fewer hospitalizations may be unstable. Use with caution.

Race and ethnicity data were not available for Maine.

Individual columns represent specifically identified cases in their respective categories.

Totals contain everyone, including cases with unknown age, unknown sex, and/or unknown race/ethnicity.

\* Rates based on fewer than 5 cases.

† Non-Hispanic.

‡ Based on cases and population estimates from 7 of the 8 states in the NE Region (excludes Maine).

#### TABLE III: DEATH COUNTS

				Avera	ige Anni	ual Num	ber of P	oison-R	elated D	eaths: 19	95-98				
					Age				S	Sex		Race/Et	hnicity		Crude
	Avg Annual Population	0-4	5-9	10-14	15-19	20-24	25-64	65+	Male	Female	Hispanic	White <sup>†</sup>	Black <sup>†</sup>	Other <sup>†</sup>	TOTAL
Region	40,416,888	70	26	20	69	172	2,701	375	2,430	997	403	2,299	602	38	3,426
СТ	3,343,882	5	*	*	6	18	251	30	225	88	33	235	42	*	313
ME	1,251,610	*	*	*	*	*	57	16	56	26	0	78	*	0	81
MA	6,204,774	8	*	*	10	28	476	55	403	179	47	494	36	6	582
NH	1,181,911	*	*	*	*	5	62	9	56	23	*	76	*	*	79
NJ	8,184,766	16	7	6	17	49	608	90	572	220	69	535	176	8	792
NY	18,631,254	36	12	6	28	63	1,146	156	1,028	419	247	764	342	20	1,447
RI	1,023,601	*	*	*	*	5	69	11	61	28	6	75	5	*	89
VT	595,090	*	*	*	*	*	32	8	29	14	*	42	*	*	43

Counts based on 20 or fewer deaths may be unstable. Use with caution.

Individual columns represent specifically identified cases in their respective categories.

Totals contain everyone, including cases with unknown age, unknown sex, and/or unknown race/ethnicity.

\* Rates based on fewer than 5 cases.

† Non-Hispanic

# TABLE IV: HOSPITALIZATION COUNTS

				An	nual Nu	mber of	Poison-F	Related H	lospitaliz	zations: 1	997				
				Age 0	Group S	pecific			Sex S	pecific	Ra	ce/Ethnici	ty Specifi	с	
	Annual Population	0-4	5-9	10-14	15-19	20-24	25-64	65+	Male	Female	Hispanic	White <sup>†</sup>	Black <sup>†</sup>	Other <sup>†</sup>	TOTAL
Region	40,517,551	1,653	318	1,057	3,787	2,710	21,226	3,524	15,142	19,134	3,091 <sup>‡</sup>	20,801 <sup>‡</sup>	4,950 <sup>‡</sup>	1,063 <sup>‡</sup>	34,276
СТ	3,349,348	123	26	80	278	177	1,666	319	1,114	1,555	321	1,975	315	58	2,669
ME	1,254,774	49	7	39	145	74	677	132	439	684	Data Not Available			1,123	
MA	6,226,058	143							2,171	2,928	359	4,036	341	141	5,099
NH	1,189,425	21	*	45	127	83	687	77	358	686	*	1,010	12	9	1,044
NJ	8,218,808	381	59	203	840	625	4,446	766	3,218	4,102	878	4,015	1,125	221	7,320
NY	18,656,546	900	181	494	1,746	1,260	9,670	1,496	7,316	8,431	1,485	8,666	3,109	589	15,747
RI	1,025,353	31	10	22	67	54	569	94	364	484	46	685	45	39	848
VT	597,239	5	*	16	45	40	264	53	162	264	0	414	*	6	426

Counts based on 20 or fewer hospitalizations may be unstable. Use with caution.

Race and ethnicity data were not available for Maine.

Individual columns represent specifically identified cases in their respective categories.

Totals contain everyone, including cases with unknown age, unknown sex, and/or unknown race/ethnicity.

\* Rates based on fewer than 5 cases.

† Non-Hispanic.

‡ Based on cases from 7 of the 8 states in the NE Region (excludes Maine).

#### TABLE V: AVERAGE ANNUAL POPULATION

						Average Ani	nual Populati	on Estimate	es: 1995-98					
				Age	e Group Spe	cific			Sex S	pecific		Race/Ethn	icity Specific	
	Total Population	0-4	5-9	10-14	15-19	20-24	25-64	65+	Male	Female	Hispanic	White <sup>†</sup>	Black <sup>†</sup>	Other <sup>†</sup>
Region	40,416,888	2,785,777	2,905,410	2,698,039	2,607,947	2,524,614	21,506,996	5,388,112	19,516,417	20,900,475	4,388,192	29,570,400	4,622,271	1,836,026
СТ	3,343,882	226,512	243,488	220,256	203,740	189,905	1,790,983	468,999	1,618,277	1,725,606	277,744	2,689,031	295,115	81,993
ME	1,251,610	73,105	88,384	91,509	86,887	72,702	660,926	178,098	608,429	643,182	7,893	1,222,392	6,079	15,246
MA	6,204,774	410,944	436,488	398,621	382,173	396,533	3,322,110	857,907	2,985,566	3,219,209	372,787	5,278,833	329,123	224,032
NH	1,181,911	77,123	90,219	86,326	78,676	66,884	639,800	142,884	580,086	601,825	16,152	1,141,966	7,939	15,855
NJ	8,184,766	575,584	588,688	539,786	509,710	479,485	4,390,027	1,101,486	3,966,296	4,218,471	989,197	5,669,123	1,097,465	428,981
NY	18,631,254	1,319,777	1,343,739	1,251,563	1,235,977	1,212,215	9,857,978	2,410,006	8,974,933	9,656,321	2,647,845	12,108,444	2,839,346	1,035,619
RI	1,023,601	66,745	70,532	65,371	68,250	69,371	528,896	154,437	491,295	532,306	72,065	880,235	44,085	27,217
VT	595,090	35,987	43,872	44,607	42,534	37,519	316,276	74,295	291,535	303,555	4,509	580,378	3,119	7,084

Mid-year population estimates were derived from United States Census data from 1995–1998.

Population data for 1995–1998 were averaged over four years to produce annual counts and rounded to the nearest whole number. Population estimates less than 10,000 may be unstable. Use with caution.

† Non-Hispanic

#### TABLE VI: ANNUAL POPULATION ESTIMATES

						Annual F	Population Est	imates: 1997						
				Age	e Group Speci	fic			Sex S	pecific		Race/Ethnic	ity Specific	
	Total Population	0-4	5-9	10-14	15-19	20-24	25-64	65+	Male	Female	Hispanic	White <sup>†</sup>	Black <sup>†</sup>	Other <sup>†</sup>
Region	40,517,551	2,749,705	2,936,871	2,709,997	2,630,294	2,478,030	21,619,370	5,393,284	19,566,101	20,951,450	4,457,854	29,526,278	4,650,692	1,882,727
СТ	3,349,348	223,409	244,519	220,872	205,219	186,129	1,799,535	469,665	1,621,129	1,728,219	283,793	2,684,585	296,914	84,056
ME	1,254,774	71,643	87,976	91,461	87,595	71,139	665,951	179,009	609,904	644,870	7,930	1,225,063	6,338	15,443
MA	6,226,058	406,659	440,142	401,281	387,620	383,491	3,347,772	859,093	2,996,144	3,229,914	379,688	5,282,414	333,667	230,289
NH	1,189,425	76,253	90,321	86,852	80,262	65,212	646,826	143,699	583,972	605,453	16,681	1,148,284	8,186	16,274
NJ	8,218,808	569,659	596,501	542,534	512,626	475,733	4,417,774	1,103,981	3,983,140	4,235,668	1,009,758	5,663,243	1,103,653	442,154
NY	18,656,546	1,300,877	1,362,332	1,256,707	1,244,182	1,193,691	9,889,991	2,408,766	8,987,039	9,669,507	2,680,834	12,062,182	2,853,996	1,059,534
RI	1,025,353	65,928	71,394	65,610	69,555	66,405	532,271	154,190	492,271	533,082	74,368	878,566	44,799	27,620
VT	597,239	35,277	43,686	44,680	43,235	36,230	319,250	74,881	292,502	304,737	4,802	581,941	3,139	7,357

Mid-year population estimates were derived from United States Census data from 1995–1998.

Population data for 1995–1998 were averaged over four years to produce annual counts and rounded to the nearest whole number.

Population estimates less than 10,000 may be unstable. Use with caution.

† Non-Hispanic

# **APPENDIX C**

# TESS I

Loc	ation of Exp	osure, Hun	an Poison	Exposure C	ases Origin	ating from I	Northeast R	egion	
	СТ 00-01	ME 01	MA 00-01	NH 00-01	NJ 00-01	NY 00-01	RI 00-01	VT 02	NE Region
Own Residence	23,004	10,284	34,887	11,630	49,702	104,765	5,433	3,709	243,414
Other Residence	1,217	449	798	387	1,013	3,016	142	164	7,186
Workplace	886	299	588	353	1,089	2,891	113	109	6,328
Health Care Facility	99	69	144	29	186	918	39	20	1,504
School	1,124	329	870	433	1,187	3,634	112	142	7,831
Other	1,797	962	1,888	340	1,678	5,895	367	264	13,191
Total	28,125	12,392	39,174	13,172	54,854	121,118	6,205	4408	279,448

#### TESS II

Ex	posure Met	hod, Humar	n Poison Ex	posure Cas	es Originati	ng from the	Northeast	Region *	
	CT 00-01	ME 01	MA 00-01	NH 00-01	NJ 00-01	NY 00-01	RI 00-01	VT 02	NE Region
Ingestion	22,151	9,554	33,798	10,672	45,885	95,929	5,297	3,476	226,762
Inhalation/Nasal	2,585	822	1,831	878	3,141	11,433	321	336	21,347
Ocular	1,638	765	1,786	929	2,548	6,229	270	285	14,450
Dermal	2,829	1,699	1,982	1,033	3,076	9,243	329	612	20,803
Bite/Sting	461	195	339	150	1,085	2,307	70	51	4,658
Other	276	330	556	81	660	1,764	95	68	3,830
Total	29,938	13,365	40,291	13,741	56,394	126,904	6,381	4,828	291,842

#### **TESS III**

Mana	gement Site	e, Human Po	oison Expos	ure Cases (	Originating	from the No	rtheast Reg	jion	
	CT 00-01	ME 01	MA 00-01	NH 00-01	NJ 00-01	NY 00-01	RI 00-01	VT 02	NE Region
Managed on Site/ Non-Health Care Facility	20,894	9,086	29,687	10,030	42,292	85,081	4,187	3,372	204,629
Managed in Health Care Facility	5,754	2,686	8,179	2,488	10,730	31,923	1,765	846	64,371
Other <sup>†</sup>	1,478	620	1,308	654	1,833	4,115	254	45	10,307
Total	28,125	12,392	39,174	13,172	54,854	121,118	6,205	4,408	279,448

Actual totals are listed. Individual categories may not sum to total due to rounding.

\* The total number of exposure methods is higher than the total case count because cases may be exposed by more than one method.

† Other category includes poison exposure cases categorized as other, refused referral, or unknown management site.

# **TESS IV**

Age G	roup by Sex, Originating	Human Poise from Northe	on Exposure ast Region	Cases
		Male	Female	Total
Children	СТ	9,830	9,221	19,254
	ME	4,381	3,635	8,089
	MA	15,047	12,610	27,898
	NH	4,866	4,480	9,356
	NJ	18,954	17,376	36,662
	NY	38,367	34,359	73,781
	RI	2,002	1,750	3,784
	VT	1,698	1,348	3,065
	NE Region	95,145	84,779	181,889
Adults	СТ	3,340	5,251	8,661
	ME	1,766	2,426	4,226
	MA	4,485	6,285	25,051
	NH	1,444	2,338	3,789
	NJ	6,882	10,663	17,584
	NY	19,250	26,750	46,336
	RI	1,010	1,331	2,348
	VT	557	770	1,330
	NE Region	38,734	55,814	109,325
Totals	СТ	13,240	14,579	28,125
	ME	6,169	6,083	12,392
	MA	19,683	19,136	39,174
	NH	6,320	6,827	13,172
	NJ	26,044	28,365	54,854
	NY	57,886	61,434	121,118
	RI	3,038	3,111	6,205
	VT	2,260	2,119	4,408
	NE Region	134,640	141,654	279,448

Poison exposure cases with unknown age and unknown gender are included in the totals. Actual totals are listed. Individual categories may not sum to total due to rounding.

#### **TESS V**

	Call Origin	ating from I	Northeast F	Region		
		0 to 5	6 to 12	13 to 19	20+	TOTAL
Unintentional	CT	14,612	2,265	1,170	6,497	24,730
	ME	5,966	866	555	2,979	10,444
	MA	21,470	2,738	1,406	7,231	33,305
	NH	7,026	1,036	586	2,715	11,395
	NJ	28,513	3,907	2,006	12,558	47,553
	NY	54,657	7,972	4,761	31,128	99,639
	RI	2,809	367	239	1,456	4,94
	VT	2,361	303	188	966	3828
	NE Region	137,414	19,454	10,911	65,530	235,835
Intentional	СТ	11	97	794	1,523	2,478
	ME	10	70	503	1,014	1,625
	МА	20	152	1,752	3,077	5,073
	NH	0	66	553	954	1,587
	NJ	17	170	1,576	3,869	5,732
	NY	59	442	4,388	11,544	16,56
	RI	5	17	288	761	1,087
	VT	10	31	145	295	486
	NE Region	132	1,045	9,999	23,037	34,629
Other	CT	17	26	37	132	216
	ME	*	*	*	22	32
	MA	7	26	20	60	114
	NH	*	9	21	33	68
	NJ	25	33	43	167	273
	NY	67	110	212	776	1,290
	RI	*	*	*	13	20
	VT	*	*	*	10	19
	NE Region	128	212	341	1,214	2,032
Adverse Reaction	CT	45	62	44	427	552
	ME	13	13	17	174	220
	MA	24	10	26	264	335
	NH	9	9	1,004	106	218
	NJ	71	59	91	881	1,126
	NY	174	169	239	2,558	3,17
	RI	5	8	6	2,556	
	VT	*	*	7	53	66
		344	341	1,434	4,539	
Unknown	NE Region	-	-	,	,	5,783
UIKIIUWII	CT ME	12	16	28 13	84 37	150 7 <sup>.</sup>
		14	20			348
	MA	14	20	103	180 *	340
	NH	0	1	0		
	NJ	10	11	31	109	17
	NY	32	22 5	56 10	331 42	459
	RI VT	*	0	*	42	63
		-				
Tatal	NE Region	14 606	79 2.425	242	7 <b>90</b>	1,274
Total	CT	14,696	2,435	2,072	8,661	28,12
	ME	5,994	956	1,092	4,226	12,392
	MA	21,534	2,954	3,307	10,810	39,174
	NH	7,038	1,120	1,175	3,789	13,172
	NJ	28,636	4,179	3,746	17,584	54,854
	NY	54,987	8,713	9,655	46,336	121,118
	RI	2,823	399	543	2,348	6,205
	VT	2,380	337	344	1,330	4,408
	NE Region	138,088	21,093	21,934	95,084	279,44

Actual totals are listed. Individual categories may not sum to total due to rounding. Row totals include cases with unknown age.

\* Case count is less tha 5, but greater than zero.

# **TESS VI**

Medical Outcome by Mangement Site, Human Exposure Cases Originating from Northeast Region <sup>†</sup>					
		Non-HCF	HCF	Total	
No Effect	СТ	2,765	1,195	4,107	
	ME	1,466	522	2,043	
	MA	924	2,086	3,125	
	NH	2,470	612	3,148	
	NJ	5,265	2,898	8,314	
	NY	20,811	8,736	29,944	
	RI	123	463	607	
	VT	270	222	500	
	NE Region	34,094	16,734	51,788	
Minor Effect	СТ	1,996	1,460	3,685	
	ME	633	765	1,479	
	MA	428	1,772	2,284	
	NH	1,587	945	2,699	
	NJ	4,299	2,881	7,513	
	NY	8,832	9,957	19,364	
	RI	82	412	510	
	VT	231	279	526	
	NE Region	18,088	18,471	38,060	
Moderate Effect	СТ	95	1,014	1,151	
	ME	101	700	877	
	MA	54	1,745	1,831	
	NH	76	500	605	
	NJ	535	2,489	3,213	
	NY	896	6,148	7,356	
	RI	10	397	422	
	VT	19	173	203	
	NE Region	1786	13166	15658	
Major Effect	СТ	*	240	243	
	ME	*	103	114	
	МА	*	286	287	
	NH	+	73		
				75	
	NJ	10	455	473	
	NY	20	1,355	1,395	
	RI	0	62	62	
	VT	0	24	24	
<b>D</b>	NE Region	38	2598	2673	
Death	СТ	0	13	14	
	ME	0	*	*	
	MA	*	22	23	
	NH	0	8	22	
	NJ	0	19	19	
	NY	*	68	71	
		0	*	*	
	RI	۱ v			
	RI VT	0	*	*	

		Nen LIOT	ног	Tetal
		Non-HCF	HCF	Total
No follow-up	СТ	15,358	1,333	17,717
	ME	6,830	545	7,755
	MA	28,099	2,165	31,324
	NH	5,621	263	6,242
	NJ	31,396	1,584	34,01
	NY	53,257	4,641	60,58
	RI	3,936	404	4,538
	VT	2828	135	311
	NE Region	147,325	11,070	165,279
Unrelated Effect	СТ	677	451	1,209
	ME	53	49	12
	MA	181	104	300
	NH	277	88	383
	NJ	789	406	1,313
	NY	1,266	1,020	2,408
	RI	36	25	64
	VT	24	11	42
	NE Region	3303	2154	5840
Confirmed Nonexposure	СТ	0	0	(
	ME	0	0	(
	MA	0	0	(
	NH	0	0	(
	NJ	0	0	(
	NY	0	0	(
	RI	0	0	(
	VT	0	0	(
	NE Region	0	0	(
Total	СТ	20,894	5,754	28,125
	ME	9086	2686	12392
	MA	29,687	8,179	39,174
	NH	10,030	2,488	13,172
	NJ	42,292	10,730	54,854
	NY	85,081	31,923	121,118
	RI	4,187	1,765	6,205
	VT	3372	846	4408
	NE Region	204,629	64,371	279,448

Actual totals are listed. Individual categories may not sum to total due to rounding.

\* Case count is less tha 5, but greater than zero.

† Cases that refused referral or have an unknown management site are included in row totals.

# NORTHEAST REGION POISON CONTROL CENTERS - DIRECTORY

#### CONNECTICUT

# **Connecticut Poison Control Center**

University of Connecticut Health Center 263 Farmington Avenue Farmington, CT 06030-5365

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Population Served: State of Connecticut

#### MAINE

#### Northern New England Poison Center

Maine Medical Center 22 Bramhall Street Portland, ME 04102

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Population Served: States of Maine and Vermont

#### MASSACHUSETTS

Regional Center for Poison Control & Prevention Serving MA & RI Children's Hospital Corporation 300 Longwood Avenue Boston, MA 02115

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Population Served: States of Massachusetts and Rhode Island

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Population Served: State of New Jersey

## **New York**

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Population Served: Albany, Broome, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Essex, Franklin, Fulton, Greene, Hamilton, Herkimer, Jefferson, Lewis, Madison, Montgomery, Oneida, Onondaga, Orange, Oswego, Otsego, Putnam, Rensselaer, Rockland, Saratoga, Schenectady, Schoharie, St. Lawrence, Sullivan, Ulster, Warren, & Washington counties in New York.

### **New York (Continued)**

# **Finger Lakes Regional Poison and Drug Information Center** University of Rochester Medical Center 601 Elmwood Avenue, PO Box 321 Rochester, NY 14642

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Population Served: Cayuga, Chemung, Livingston, Monroe, Ontario, Schuyler, Seneca, Steuben, Tioga, Tompkins, Wayne, & Yates counties in New York.

# Long Island Regional Poison and Drug Information Center

Winthrop University Hospital 259 First Street Mineola, NY 11501

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Population Served: Nassau, Suffolk, & Westchester counties in New York.

New York City Poison Control Center Bellevue Hospital Center 462 First Avenue, Rm. Admin. 345 New York, NY 10016

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Population Served: New York City and Bronx, Kings, Queens, & Richmond counties in New York.

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Population Served: Allegany, Cattaraugus, Chautauqua, Erie, Genesee, Niagara, Orleans, & Wyoming counties in New York.

#### RHODE ISLAND

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Population Served: States of Massachusetts & Rhode Island.

#### VERMONT

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# **APPENDIX E**

## **GLOSSARY OF TERMS**

The definitions of terms used in reporting TESS data throughout this book are the same, although modified slightly for clarity, as those used for the AAPCC annual reports (Litovitz et al., 2001). Terms used in reporting mortality and hospital discharge data were adopted from definitions used by the Centers for Disease Control and Prevention (CDC) (see www.cdc.gov for more information).

# **Age Adjustment**

A procedure for adjusting rates to minimize the effects of differences in age composition when comparing rates from different populations. An age-adjusted rate had been standardized so that it is independent of the age structure of the population. Rates that were age adjusted in this book were standardized using the United States Census population estimates from the year 2000.

# Analgesics, Antipyretics, and Antirheumatics

A category of substances that relieve pain, fever and inflammation.

**Analgesics** - substances capable of relieving pain without the loss of consciousness or without producing anesthesia, including drugs such as aspirin, acetaminophen, and ibuprofen

**Antipyretics** - substances that reduce fever such as acetaminophen, aspirin, and other salicylates

**Antirheumatics** - substances

used to counteract the inflammatory process or alleviate or prevent rheumatic (joint-related) diseases

#### **Clinical Effects**

The following categories were used to code clinical effects recorded by TESS data for human poison exposure cases with confirmed medical outcomes. Cases with confirmed medical outcomes may have had more than one clinical effect.

**Cardiovascular** - effects related to the heart and the blood vessels (e.g., cardiac arrest, hypotension, hypertension, chest pain, and slow heart rate)

**Dermal** - effects related to the skin areas of the human body, including burns, rashes, punctures, wounds, stings, hives, welts, blisters, skin infections, necrosis, and swelling

**Gastrointestinal** - effects related to the stomach and intestines, including abdominal pain, dehydration, diarrhea, nausea, vomiting, throat irritation, oral burns, anorexia, and melena

**Neurological** - effects related to the brain and nervous system

**Ocular** - effects related to the eyes or vision, including blurred vision, burns, irritation/pain, visual defects, and secretion of tears

**Other** - includes effects related to the kidneys, liver, genital and urinary systems, and other miscellaneous effects (e.g., cytopenia, hemolysis, polyuria, renal failure, urinary incontinence, acidosis, bleeding deafness, hypothermia, and pain)

**Respiratory** - effects related to the breathing, including coughing, choking, respiratory arrest, and hyperventilation

# **Confirmed Medical Outcome**

Patients who were followed beginning upon exposure and for whom there is reliable and objective evidence that the patient developed at least some signs or symptoms as a result of the exposure. This includes cases coded as having minor, moderate, or major effects and those that resulted in death. It excludes cases that were not followed, those with an unrelated effect, and confirmed nonexposure cases.

# Death Rate (mortality rate, crude death rate)

An estimate of the proportion of a population that dies during a specified time period. The death rate is calculated by dividing the number of deaths during a specific time period (numerator) by the number of persons at risk of dying during the same time period (denominator). The resulting proportion is multiplied by 100,000 to produce the rate per 100,000 population during that time period. In this book, mortality rates were averaged over 4 years (1995-1998) to yield average annual mortality rates.

# E code (external cause of injury code)

An alphanumeric 3 or 4 digit code used in the International Classification of Disease, 9<sup>th</sup> Revision (ICD-9), classification system that describes the circumstances surrounding the injury, the mechanism of injury, and for unintentional injury only, the location of the occurrence.

# **Intent of Injury**

The circumstances surrounding the injury (i.e., whether an injury was caused by an act carried out on purpose by oneself or by another person(s), with the goal of injuring or killing). The following categories are used to code the intent of injury: **Assault** - injuries or poisonings resulting from a deliberate violent act inflicted by another person with the intent to harm, injure, or kill

**Homicide** - death due to injuries or poisonings inflicted by another person with the intent to harm, injure, or kill

**Self-Inflicted** - injuries or poisonings resulting from a deliberate violent act inflicted by oneself with the intent to harm, injure, or kill

**Suicide** - deaths due to injuries or poisonings inflicted by oneself with the intent to harm, injure, or kill

**Undetermined** - injuries or poisonings with an unknown intent (may be fatal or nonfatal)

**Unintentional** - injuries or poisonings that are not inflicted by deliberate means. Includes poisonings and injuries described as unintended or accidental, regardless of whether they were inflicted by oneself or by another person

# Hospitalization Rate (hospital discharge rate, crude hospitalization rate)

An estimate of the proportion of a population that is hospitalized (discharged from the hospital) during a specified time period. The hospitalization rate is calculated by dividing the number of persons discharged from the hospital during a specific time period (numerator) by the number of persons at risk of being hospitalized during that time period (denominator). The resulting proportion is multiplied by 100,000 to produce the hospitalization rate per 100,000 population per year.

# **Medical Outcome**

The following categories were used to code the medical outcome of human poison exposure cases:

**Confirmed non-exposures** cases that were followed and had reliable and objective evi-

dence to suggest that the exposure never occurred. These cases were not included in this report as poison exposure cases

**Death** - cases that were followed and died as a direct result of the poison exposure

**Major effect** - cases that were followed and developed lifethreatening signs and symptoms as a result of the exposure, or cases that resulted in disability or disfigurement (e.g., repeated seizures, respiratory compromise requiring intubation, and cardiac or repiratory arrest)

**Minor effect** - cases that were followed and developed some signs or symptoms as a result of the poison exposure, but they were resolved rapidly, were mild, and did not cause any disability or disfigurement; usually limited to skin and mucous membranes (e.g., selflimited gastrointestinal symptoms, drowsiness, skin irritation, first degree dermal burn, and transient cough)

**Moderate effect** - cases that were followed and exhibited signs and symptoms as a result of the poison exposure that were more prolonged and pronounced than minor effects. These cases usually require some form of therapeutic intervention, but they are not life threatening and do not cause disability or disfigurement (e.g., high fevers and isolated brief seizures that respond to treatment)

**No effect** - cases that were followed, and no signs or symptoms developed as a result of the poison exposure

**Not followed** - cases without a confirmed medical outcome, including cases not followed, cases judged as nontoxic exposures, or cases not followed with minimal clinical effects possible, or cases unable to be followed and judged as potentially toxic

**Unrelated effect** - cases that were followed, and the poison exposure was not likely to be related to the effect

# **Poison-Related Deaths**

Deaths with an underlying cause attributed to an external cause of injury poison code, or a contributory cause of death due to an external cause of injury poison code, a nature of injury poison code, a fetal or maternal poison code, or a venomous bite code. This definition is different from the definition used by the CDC to describe traditional poisonings. For more information on the poison E codes included in this definition, and how this definition differs from the CDC definition of a poisoning death, please see the Introduction of this book.

# **Poison-Related Hospitalizations**

Hospital discharges with an external cause of injury poison code, or a primary or secondary diagnostic code due an external cause of injury poison code, a nature of injury poison code, a fetal or maternal poison code, or a venomous bite code. For more information on the poison E codes included in this definition, and how this definition differs from the CDC definition of a poisoning hospitalization, please see the Introduction of this book.

# **Race/Ethnicity**

The following mutually exclusive categories were used to code poison-related deaths and hospitalizations by race and ethinicity: **Hispanic** - Persons born in Puerto Rico, Cuba, Mexico, or other Spanish-speaking countries; persons whose ancestors came from a Spanish-speaking country; and, persons who identify themselves as Spanishspeaking or Spanish-surnamed. Hispanic persons can be of any race.

White (Non-Hispanic) - includes cases racially classified as White and are not of Hispanic ethnicity

**Black (Non-Hispanic)** - includes cases racially classified as Black and are not of Hispanic ethnicity

**Other (Non-Hispanic)** - includes Asian and Pacific Islander categories and non-Black and non-White races; excludes persons of Hispanic ethnicity

# **Reason for Exposure**

The reasons for human poison exposures were coded using the following categories:

**Adverse Reactions** - includes human poison exposure cases that resulted from normal, prescribed, and recommended use of the product (e.g., cases with an unwanted effect die from an allergic response to product ingredients, and adverse reactions associated with taking medications as prescribed **Intentional** - human poison exposure cases that were selfinflicted (e.g., suicide attempts, abuse, and misuse)

**Other** - human poison exposure cases that were the result of a malicious attack or an assault, or resulted from contamination or tampering

**Unintentional** - human poison exposure cases that occurred by general accidents, therapeutic errors, bites, stings, accidental misuse, environmental sources, food poisoning, and occupational sources

#### **Therapeutic Intervention**

The form of therapeutic intervention administered or performed for poison exposure patients was coded as one of the following mutually exclusive categories:

- 1. No therapy
- 2. Refused help
- 3. Unknown

**4. Observation** - requires neither immediate decontamination nor treatment, but patient is watched closely at home or in a health care facility for the development of symptoms charcoal, and others), or (b) other therapy (antihistamine, intravenous fluid, naloxone, oxygen, intubation, antivenin, and others)

**5.** Therapy (therapeutic intervention) - (a) decontamination (dilution, irrigation, lavage, fresh air, activated

# **Tranquilizers and Other Psychotropic**

# Drugs

Substances that can influence human consciousness (psychotropic) and are used to reduce stress, anxiety, or tension without reducing mental clarity (tranquilizer)

# **APPENDIX F**

#### ACKNOWLEDGEMENTS

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#### Poison Data Book

Northeast Regional Injury Prevention Network

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