Poison Control Center Data Snapshot – 2017

Overview of the 35th Annual Report of the American Association of Poison Control Centers’ (AAPCC) National Poison Data System (NPDS)

Poisoning is the leading cause of injury death in the U.S. AAPCC’s NPDS contains more than 60 million poison exposures managed over the telephone by U.S. poison control centers (PCCs) over the past three decades, and is the only comprehensive, near real-time poisoning surveillance database in the U.S. In 2017, there were 55 PCCs serving 330 million people, nationwide. PCCs managed 2.6 million cases via telephone, about 2.1 million of which were about people coming into contact with potentially dangerous substances. These types of cases are called exposures. Someone called a PCC about every 12 seconds in 2017.

Who calls poison control centers?
Anyone can experience a poison emergency, and any substance can be harmful if used in the wrong way, wrong amount, or by the wrong person. PCCs take calls about people of all ages, and provide live help to callers in 150 languages. In 2017, children under 6 years old accounted for almost half of all human exposures managed by PCCs (45%). However, as in previous years, many of the more clinically serious cases occurred among teens and adults.

Who answers poison control center calls?
PCC cases are managed by doctors, nurses, and pharmacists who have extensive, specialized training in poisoning prevention and treatment. Even emergency department physicians and pediatricians rely on the experts at PCCs. In 2017 over 24% of human exposure calls came to PCCs from health care facilities.

Why do people call poison control centers?
People call a PCC when they think someone may have been in contact with something that could hurt them, but they also call PCCs for information. In 2017, just over half of human exposure cases managed by PCCs involved drugs and medications (53%). Other exposures were to household products, plants, mushrooms, pesticides, animal bites and stings, carbon monoxide, and many other non-pharmaceutical substances. The majority of exposure cases managed by PCCs involve only one substance, but cases that involve more than one substance tend to be more dangerous. In 2017, while only 12% of all exposure cases involved multiple substances, multiple substance exposures represented over 52% of all fatal exposure cases. In 2017, 79% of exposures involved someone who swallowed a substance. However, people also call when there is an exposure through the lungs, skin, eyes, and in other ways. Most exposures managed by PCCs were unintentional (77%), but PCCs also helped manage medication side effects, substance abuse, malicious poisonings, and suicide attempts.

When do people call poison control centers?
Experts answer PCC calls 24 hours a day, 7 days a week, every day of the year. Similar to previous years, in 2017 higher call volumes were observed in the warmer months.
Where do poison exposures occur?

In 2017, 93% of human exposures reported to PCCs occurred at a residence, but they can also occur in the workplace, schools, outdoors, and anywhere else. About 66% of the 2.1 million exposures reported to PCCs were treated at the exposure site, saving millions of dollars in medical expenses. In fact, poison centers save Americans more than $1.8 billion every year in medical costs and lost productivity.4

AAPCC maintains the National Poison Data System (NPDS), the national database of information logged by the country’s regional Poison Control Centers (PCCs) serving all 50 United States, Puerto Rico, the District of Columbia, and territories. Case records in this database are from self-reported calls: they reflect only information provided when the public or healthcare professionals report an actual or potential exposure to a substance, or request information or educational materials. AAPCC is not able to completely verify the accuracy of every report made to member centers. Additional exposures may go unreported to PCs and data referenced from the AAPCC should not be construed to represent the complete incidence of national exposures to any substance(s). The term “exposure” means someone has had contact with the substance in some way; for example, ingested, inhaled, or absorbed a substance by the skin or eyes, etc. Exposures do not necessarily represent poisonings or overdoses. Poison control call volume about any given substance is influenced by the public’s awareness of the hazard or even the Poison Help line itself, which are heavily influenced by both social and traditional media coverage. In addition, AAPCC is continuously working to update the NPDS substance coding taxonomy to better serve the needs of AAPCC members and surveillance partners. As a result, substances may be reclassified within NPDS’ coding hierarchy, and case counts may change. This is particularly true for novel or emerging substances. Finally, poison control data are considered preliminary and are subject to change until the dataset for a given year has been locked.

References

2) National Center for Health Statistics, National Vital Statistics System
3) The Centers for Disease Control and Prevention